

Service Manual

**CIRCUIT DESCRIPTIONS
REPAIR & ADJUSTMENTS**



**ORDER NO.
ARP-840-0**

STEREO AMPLIFIER

A-66X (BK)

A-66X

- A-66X [BK] is Black Version of A-66X.
- MODEL A-66X [BK] COMES IN THREE VERSIONS DISTINGUISHED AS FOLLOWS:

Type	Applicable model		Power requirement	Destination
	Black	Silver		
HEZ	○	○	AC220V, 240V (switchable)	European continent
HE	○	○	AC220V, 240V (switchable)	European continent
HB	○	—	AC220V, 240V (switchable)	United Kingdom

- This service manual is applicable to the HEZ, HE and HB types.
- As to the HE and HB types, please refer to pages 26.

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1. SPECIFICATIONS

Amplifier Section

Continuous average power output is 80 watts* per channel, min., at 8 ohms from 20 Hertz to 20,000 Hertz with no more than 0.007% total harmonic distortion.

Continuous Power Output (both channels driven)
 20 Hz to 20 kHz, 0.007%, 6 Ω 90 W + 90 W
 20 Hz to 20 kHz, 0.007%, 8 Ω 80 W + 80 W
 DIN Continuous Power Output (both channels driven)
 1 kHz, 1%, 8 Ω 95 W + 95 W

Dynamic Power
 8Ω/4Ω/2Ω 115W/180W/220W

Total Harmonic Distortion
 20 Hz to 20 kHz, 80 W, 8 Ω 0.007%

Cross-harmonic Distortion (50 Hz : 7 kHz = 4 : 1)
 Continuous power output 0.007%

Output Bandwidth (IHF - both channels driven)
 0.05% 5 Hz to 45 kHz

Damping Factor
 1 kHz 60

Input (sensitivity/impedance)
 PHONO MM 2.5 mV/50 kΩ
 PHONO MC 0.2 mV/100 Ω
 TUNER, CD, TAPE PLAY, VIDEO/AUX
 150 mV/50 kΩ

Overload Level
 PHONO MM 1 kHz, 0.007% 160 mV
 PHONO MC 1 kHz, 0.007% 12 mV

Cartridge load capacity/load impedance
 PHONO MM 220 pF/50 kΩ

Output (level/impedance)
 TAPE REC 150 mV/2.2 kΩ

Frequency Response
 PHONO MM 20 Hz to 20 kHz +0.3 dB
 -0.3 dB
 PHONO MC 20 Hz to 20 kHz +0.5 dB
 -0.5 dB
 TUNER, CD, VIDEO/AUX 5Hz to 100kHz. . . . +0 dB
 -3 dB

Tone Control
 BASS +8 dB 100 Hz
 -8 dB
 TREBLE + 8 dB 10 kHz
 -8 dB

Filter
 LOW (SUBSONIC) 15 Hz 6 dB/oct

Loudness contour (volume control set
 at -30 dB position) +6 dB 100 Hz/+3 dB 10 kHz

Hum and Noise (Short circuited, A network)
 PHONO MM 86 dB
 PHONO MC 70 dB
 TUNER, CD, TAPE PLAY, VIDEO/AUX 105 dB

Hum and Noise (DIN, continuous power/50 mW)
 PHONO MM 74 dB/64 dB
 TUNER, CD, TAPE PLAY, VIDEO/AUX. . . 84 dB/65 dB

Miscellaneous

Power requirements
 HE model a.c. 220 V ~, 50/60 Hz
 HB, YP models a.c. 240 V ~, 50/60 Hz
 Power Consumption:
 HE, HB, YP models 600 W
 Dimensions 420 (W) x 416 (D) x 134 (H) mm
 16-9/16(W) x 16-3/8(D) x 5-1/4(H) in
 Weight (without package) 10.9 kg/23 lb 15 oz

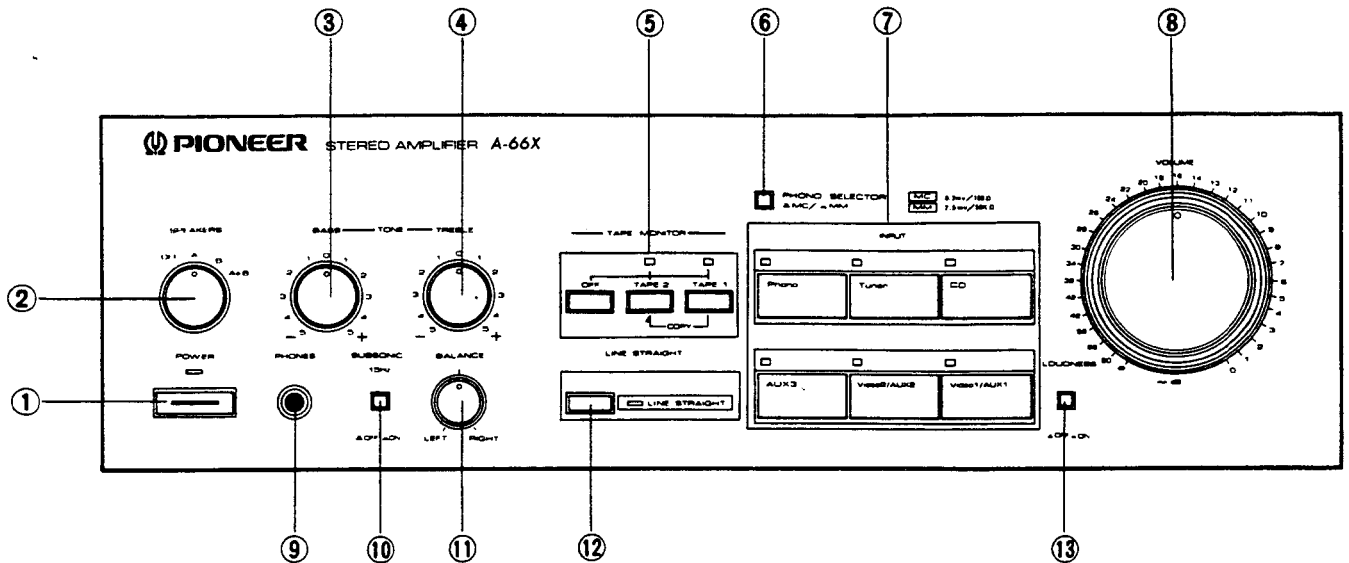
Furnished Parts

Operating Instructions 1

NOTES:

- Specifications and design subject to possible modification without notice due to improvement.
- *Measured pursuant to Federal Trade Commission's Trade Regulation rule on Power Claims for Amplifiers.

2. FRONT PANEL FACILITIES



① POWER switch/indicator

Press to turn power to the unit ON and OFF.
 Depressed position (ON): Power is supplied to the unit.
 Released position (OFF): Power to the unit is disconnected.

② SPEAKERS selector switch

Use to select the speaker systems used for playback.
 [OFF]
 — No sound is produced from the speaker systems.
 Set to this position when using headphones.
 [A]
 — Sound is produced from the speaker systems connected to the SPEAKERS A terminals.
 [B]
 — Sound is produced from the speaker systems connected to the SPEAKERS B terminals.
 [A + B]
 — Sound is produced from both the speaker systems connected to the SPEAKERS A and SPEAKERS B terminals.

③ BASS tone control

Use to adjust the low-frequency tones. The central "0" position is the flat (normal) position. When turned to the right, low-frequency tones are emphasized; when turned to the left, low-frequency tones are de-emphasized. This function does not operate when the LINE STRAIGHT switch is in the ON position.

④ TREBLE tone control

Use for adjusting the high-frequency tones. The central "0" position is the flat (normal) position. When turned to the right, high-frequency tones are emphasized; when turned to the left, high-frequency tones are de-emphasized. This function does not operate when the LINE STRAIGHT switch is in the ON position.

⑤ TAPE MONITOR switches/indicators

Use this switch to listen to tape playback, or to listen to the sounds being recorded during tape recording.
 [TAPE 1]
 — Set to this position to listen to the playback sound of the tape deck connected to the TAPE 1 PLAY terminals, or to monitor the sound being recorded on the tape deck connected to the TAPE 1 REC terminals.
 [OFF]
 — Leave set in this position when not listening to tape playback.
 [TAPE 2]
 — Set to this position to listen to the playback sound of the tape deck connected to the TAPE 2 PLAY terminals, or to monitor the sound being recorded on the tape deck connected to the TAPE 2 REC terminals.

⑥ PHONO SELECTOR switch

Set in accordance with the type of cartridge used in your record turntable.

[MC]

– Released position; set to this position when using an MC (moving coil) cartridge

[MM]

– Depressed position; set to this position when using an MM (moving magnet) cartridge, or an MC (moving coil) cartridge with high output of 1 mV or more.

⑦ INPUT switches/indicators

[CD]

– Press when listening to a compact disc playback with a CD player.

[Tuner]

– Press when listening to AM or FM broadcasts with a tuner.

[Phono]

– Press when listening to record playback on a turntable.

[Video 1/AUX 1]

– Press when listening to programs from a component connected to the VIDEO 1/AUX 1 terminals.

[Video 2/AUX 2]

– Press when listening to programs from a component connected to the VIDEO 2/AUX 2 terminals.

[AUX 3]

– Press when listening to programs from a component connected to the AUX 3 terminals.

⑧ VOLUME control

This control is used for controlling the sound volume.

When set to the [∞] position, sound volume is turned off; when set to the [0] position, sound volume is at a maximum.

⑨ PHONES jack

When using headphones, insert their plug into this jack.

⑩ SUBSONIC filter switch

Use this switch when playing records with coarse grooves. [OFF]

– Released position; leave in this position for normal playback.

[15Hz]

– Depressed position; in this position, frequencies of 15Hz and below are cut, thus eliminating super-low-frequency noise caused by coarse record grooves, and thus helping prevent sound distortion.

⑪ BALANCE control

Should normally be left in the center position. Adjust balance if the sound is louder from one of the speakers. If the right side is louder, turn toward the LEFT position and if the left side is louder, turn toward the RIGHT position.

⑫ LINE STRAIGHT switch /indicator

By using this switch, the input signals from the various connected peripheral components can be played back through the amplifier's modifying (tone) circuit, or bypassing those circuits.

When the indicator is lighted, the function is ON. Input signals will bypass the modifying circuits and be played back with pure, flat-balanced tone.

When set to OFF, input signals will pass through the modifying circuits before being played back, thus allowing you to adjust bass and treble tone.

⑬ LOUDNESS switch

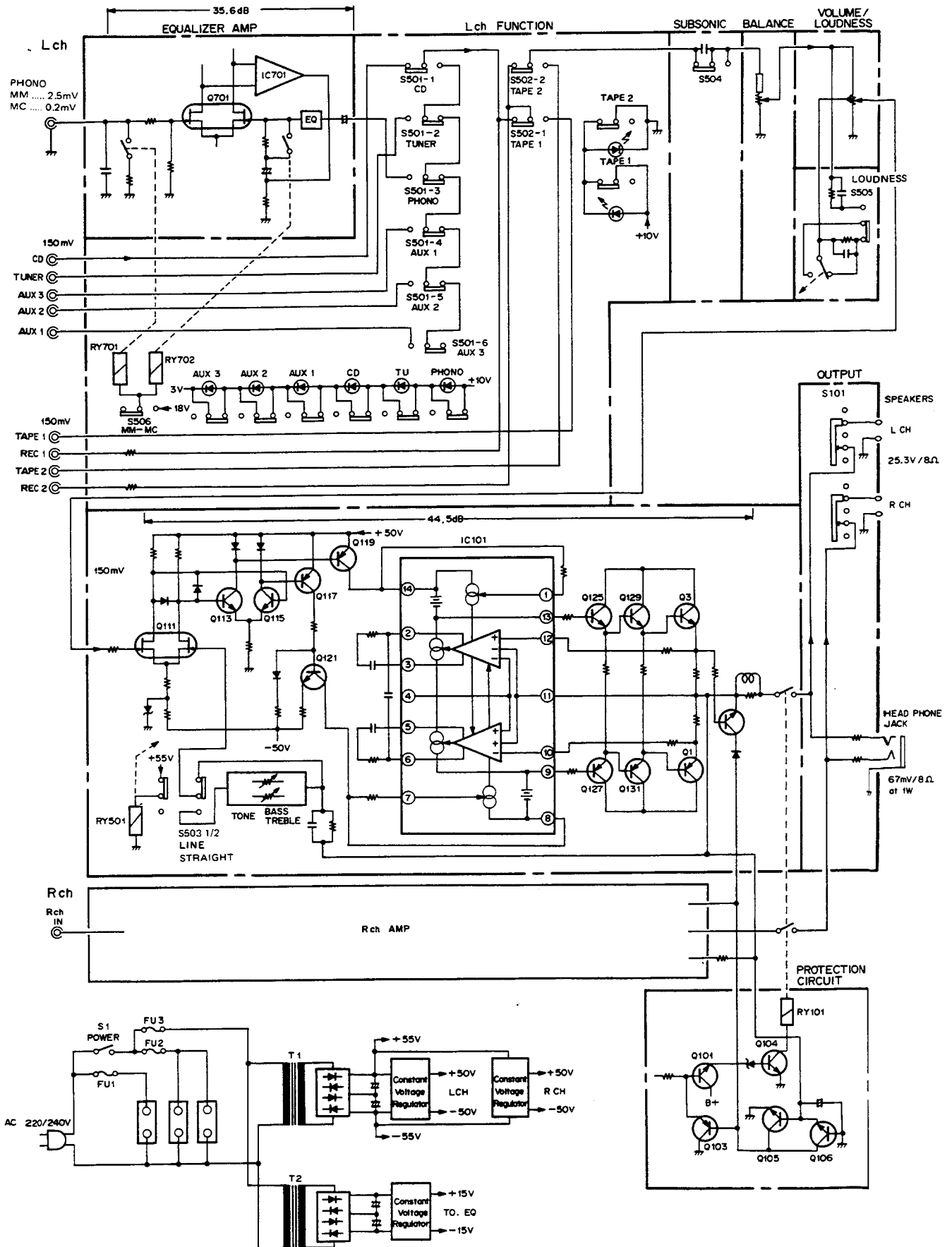
Use when listening at low volume levels.

[OFF] – Released position: Should normally be left in this position.

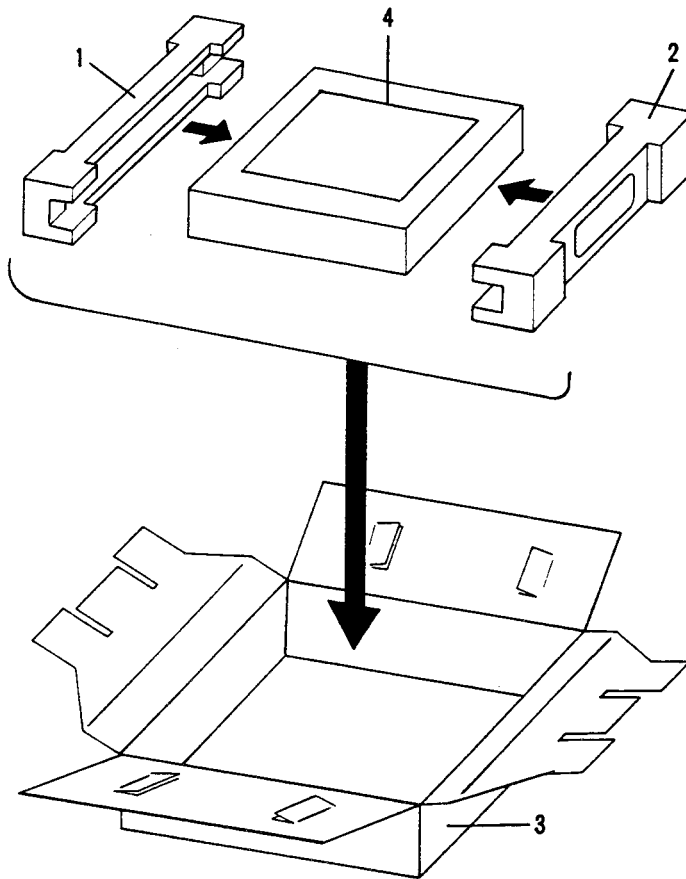
[ON] – Depressed position: Boosts low and high frequencies to give added punch to playback even at low volume.

This function does not operate when the LINE STRAIGHT switch is in the ON position.

3. BLOCK DIAGRAM



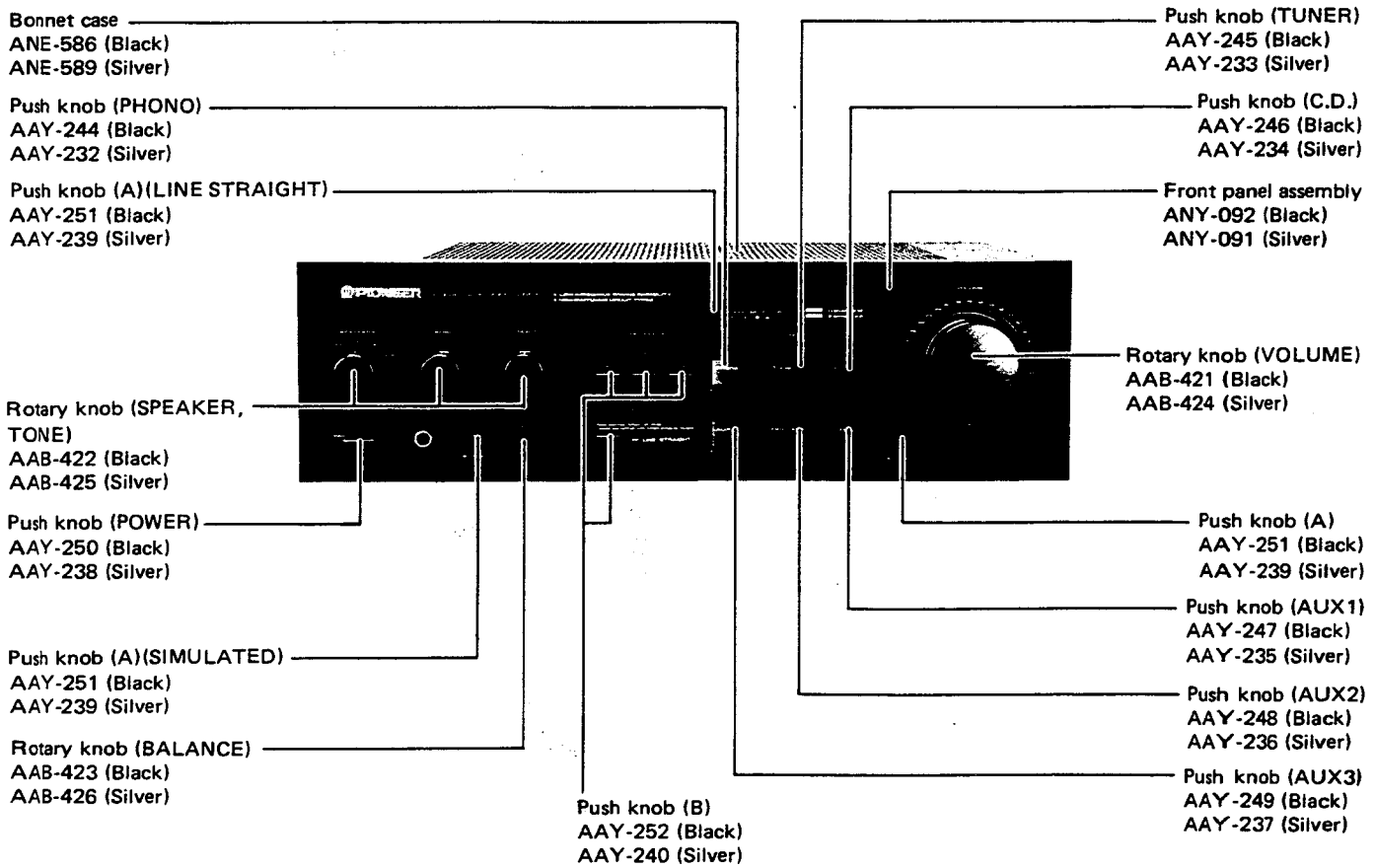
4. PACKING



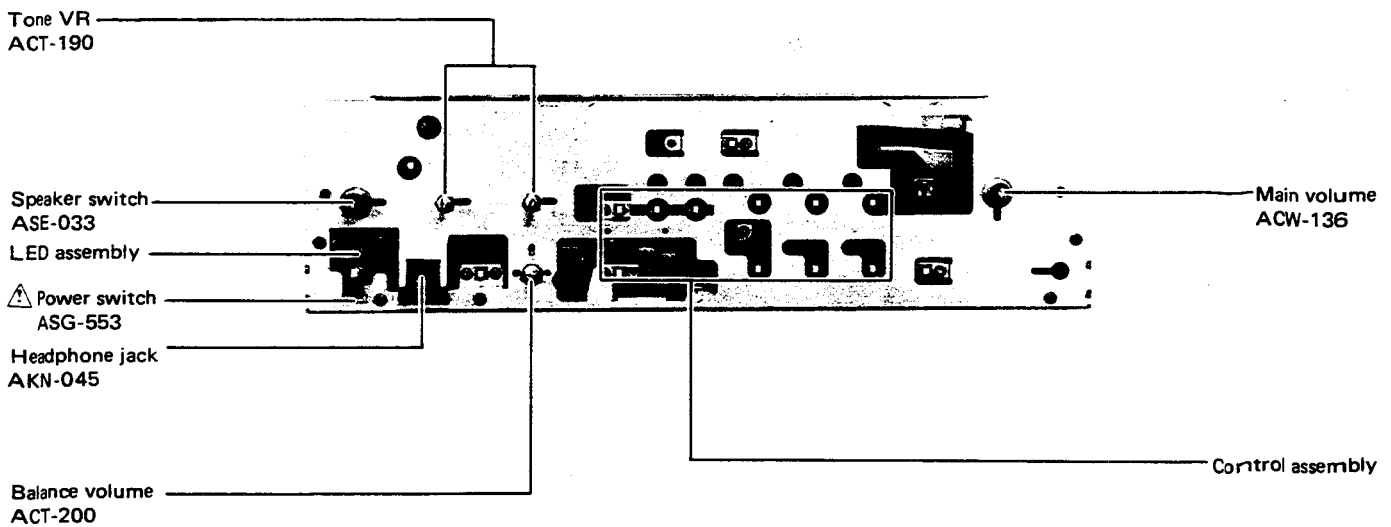
Mark	No.	Part No.	Symbol & Description
	1	AHA-402	Side pad (L)
	2	AHA-403	Side pad (R)
	3	AHE-621	Packing case (Black)
		AHE-620	Packing case (Silver)
	4	ARC-116	Operating instructions

5. PARTS LOCATION

Front Panel View

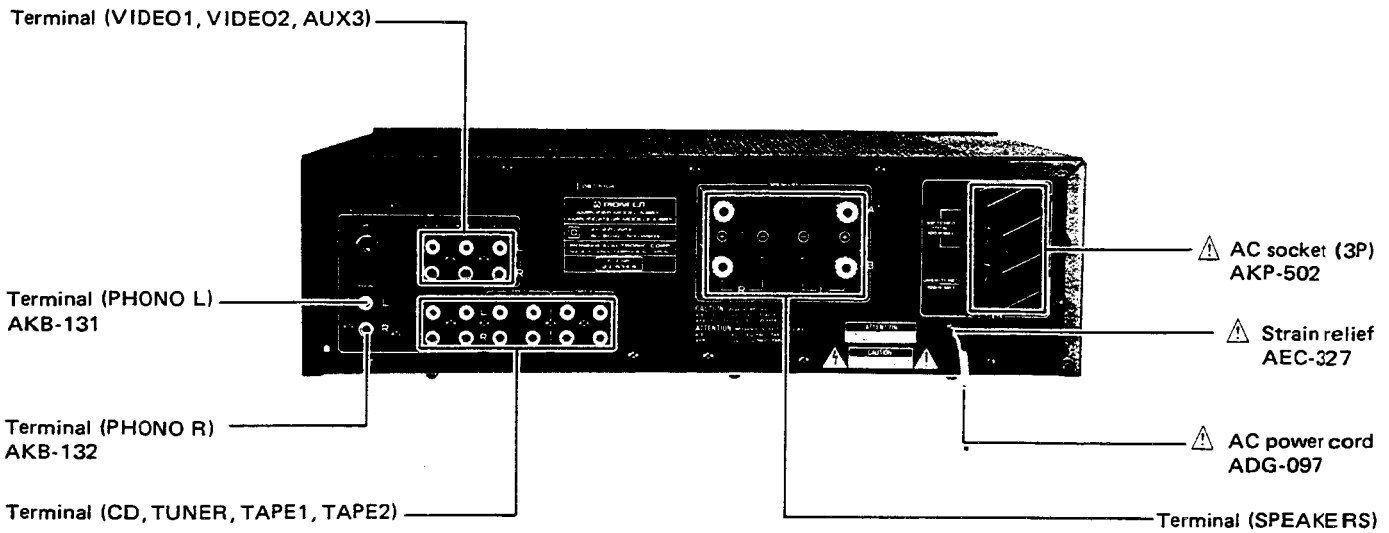


Front View with Panel Removed

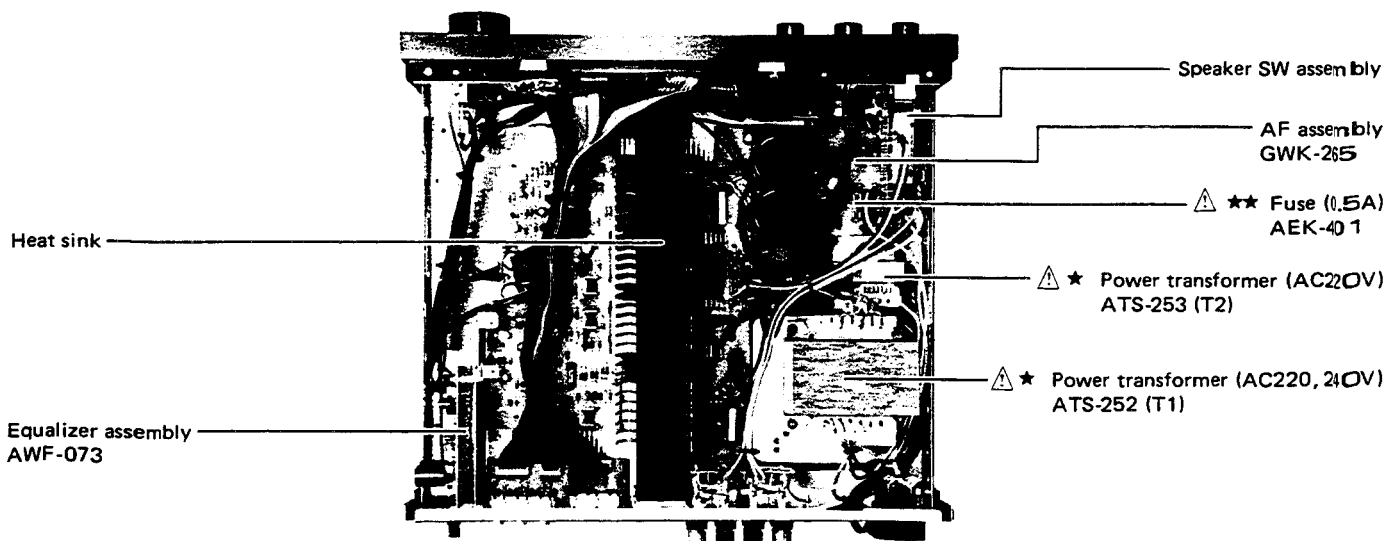


- Parts without part number cannot be supplied.
- The \triangle mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.
- For your Parts Stock Control, the fast moving items are indicated with the marks **★★** and **★**.
★★ GENERALLY MOVES FASTER THAN ★.
This classification shall be adjusted by each distributor because it depends on model number, temperature, humidity, etc.

Rear Panel View



Top View

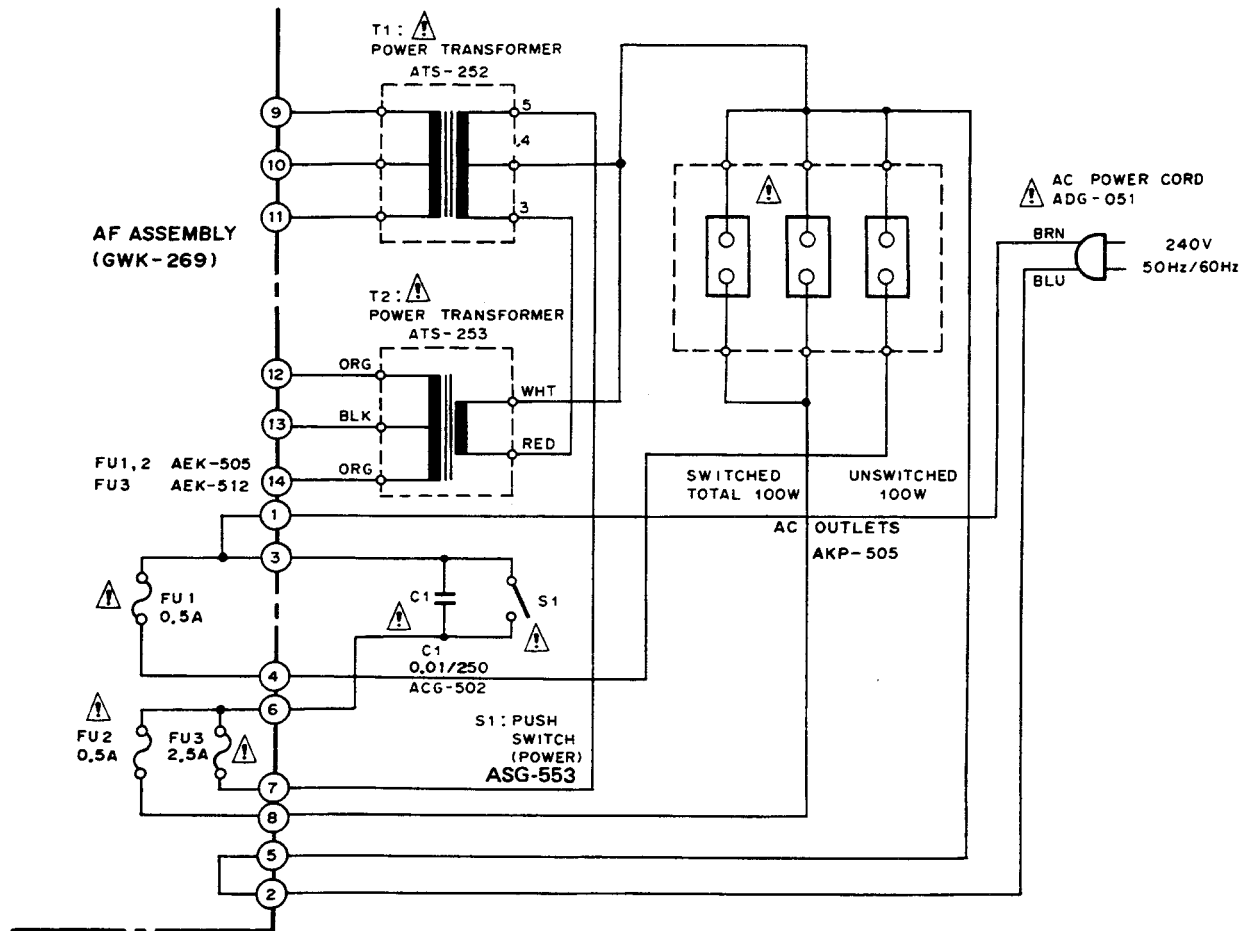


NOTES:

- Parts without part number cannot be supplied.
- The Δ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.
- For your Parts Stock Control, the fast moving items are indicated with the marks **** and ***.
**** GENERALLY MOVES FASTER THAN ***
 This classification shall be adjusted by each distributor because it depends on model number, temperature, humidity, etc.

Mark	No.	Part No.	Description	Mark	No.	Part No.	Description
	1	AWF-073	Equalizer assembly		37	AAY-247	Push knob (AUX11)(Black)
	2	GWS-576	Control assembly			AAY-235	Push knob (AUX11)(Silver)
	3	GWK-265	AF assembly		38	ABH-159	Coil spring
Δ **	4	2SB1163P-Q (2SB1163P-S)	Q1, Q2 Power transistor*		39	AAY-244	Push knob (PHONO)(Black)
Δ **	5	2SD1718-Q (2SD1718P-S)	Q3, Q4 Power transistor*		40	AAY-232	Push knob (PHONO)(Silver)
						AAY-245	Push knob (TUNER)(Black)
						AAY-233	Push knob (TUNER)(Silver)
*hfe of Q1 - Q4 should have the same value.							
Δ *	6	ATS-252	Power transformer (T1) (AC220, 240V)		41	AAY-246	Push knob (CD)(Black)
Δ *	7	ATS-253	Power transformer (T2) (AC220V)			AAY-234	Push knob (CD)(Silver)
					42	AAY-250	Power knob (Black)
Δ	8	AKP-502	AC socket (3P)	Δ	43	AAY-238	Power knob (Silver)
Δ **	9	ASG-553	Push (POWER)	Δ	44	ABH-099	Coil spring
Δ **	10	AEK-401	Fuse (0.5A)	Δ	45	ACE-506	C9 Ceramic capacitor 0.01/AC250V
						ACG-001	C6-C8 Ceramic capacitor 0.01/250V
Δ **	11	AEK-403	Fuse (2.5A)	Δ	46	ACG-502	C1 Ceramic capacitor 0.01/AC250V
	12	AEP-251	Leg		47	ABA-283	PWB Screw
	13	AAB-421	Rotary knob (VOLUME)(Black)		48	BBZ30P060FMC	Screw
		AAB-424	Rotary knob (VOLUME)(Silver)				
	14	AAB-422	Rotary knob (SPEAKERS)(Black)		101		Terminal (GND)
		AAB-425	Rotary knob (SPEAKERS)(Silver)		102		Panel stay
	15	AAB-423	Rotary knob (BALANCE)(Black)		103		Bottom plate
		AAB-426	Rotary knob (BALANCE)(Silver)		104		Heat sink holder
					105		Heat sink
	16	AAY-251	Push knob (A)(Black)				
		AAY-239	Push knob (A)(Silver)		106		Rear panel
	17	AAY-252	Push knob (B)(Black)		107		Light frame
		AAY-240	Push knob (B)(Silver)		108		Reft frame
	18	ANE-586	Bonnet case (Black)		109		Power switch holder
		ANE-589	Bonnet case (Silver)		110		EQ P.C.B. holder
	19	ANY-092	Front panel assembly (Black)				
		ANY-091	Front panel assembly (Silver)		111		Cushion spacer A
	20	ABH-169	Coil spring		112		Cushion spacer B
Δ	21	AEC-327	Strain relief		113		P.C.B. support
Δ	22	AEP-313	Mica sheet		114		Mount plate
	23	ABA-176	Screw		115		Pin jack assembly (A)
	24	ABA-258	Screw				
	25	ABN-028	Nut		116		Headphone jack assembly
					117		Switch assembly
	26	ADG-097	AC power cord		118		Tone volume assembly
	27	BBZ30P060FZK	Screw (3 x 6)		119		Pin jack assembly (B)
	28	BBZ30P080FZK	Screw (3 x 8)		120		Speaker terminal assembly
	29	FBT40P080FZK	Screw (4 x 8)				
	30	NK70FUC	Nut		121		Balance volume assembly
					122		Speaker SW assembly
	31	NK90FUC	Nut		123		LED assembly
	32	VMZ30P060FMC	Screw (3 x 6)		124		Main volume assembly
	33	VTZ40P080FMC	Screw (4 x 8)		125		Push knob assembly (B)(Black)
	34	WA35F100N080	Washer				Push knob assembly (B)(Silver)
	35	AAY-249	Push knob (AUX3)(Black)		126		Push knob assembly (A)(Black)
		AAY-237	Push knob (AUX3)(Silver)				Push knob assembly (A)(Silver)
	36	AAY-248	Push knob (AUX2)(Black)		127		Power knob assembly (Black)
		AAY-236	Push knob (AUX2)(Silver)				Power knob assembly (Silver)

Schematic Diagram for HB Type



Line Voltage Selection

Line voltage can be changed with following steps.

1. Disconnect the AC power cord.
2. Remove the bonnet case.
3. Change the connection of the lead from AF assembly terminal No. 7 to T1 as follows:

Voltage	AF assembly Terminal No.	Power Transformer (T1) Terminal No.
240V	7	5
220V	7	3

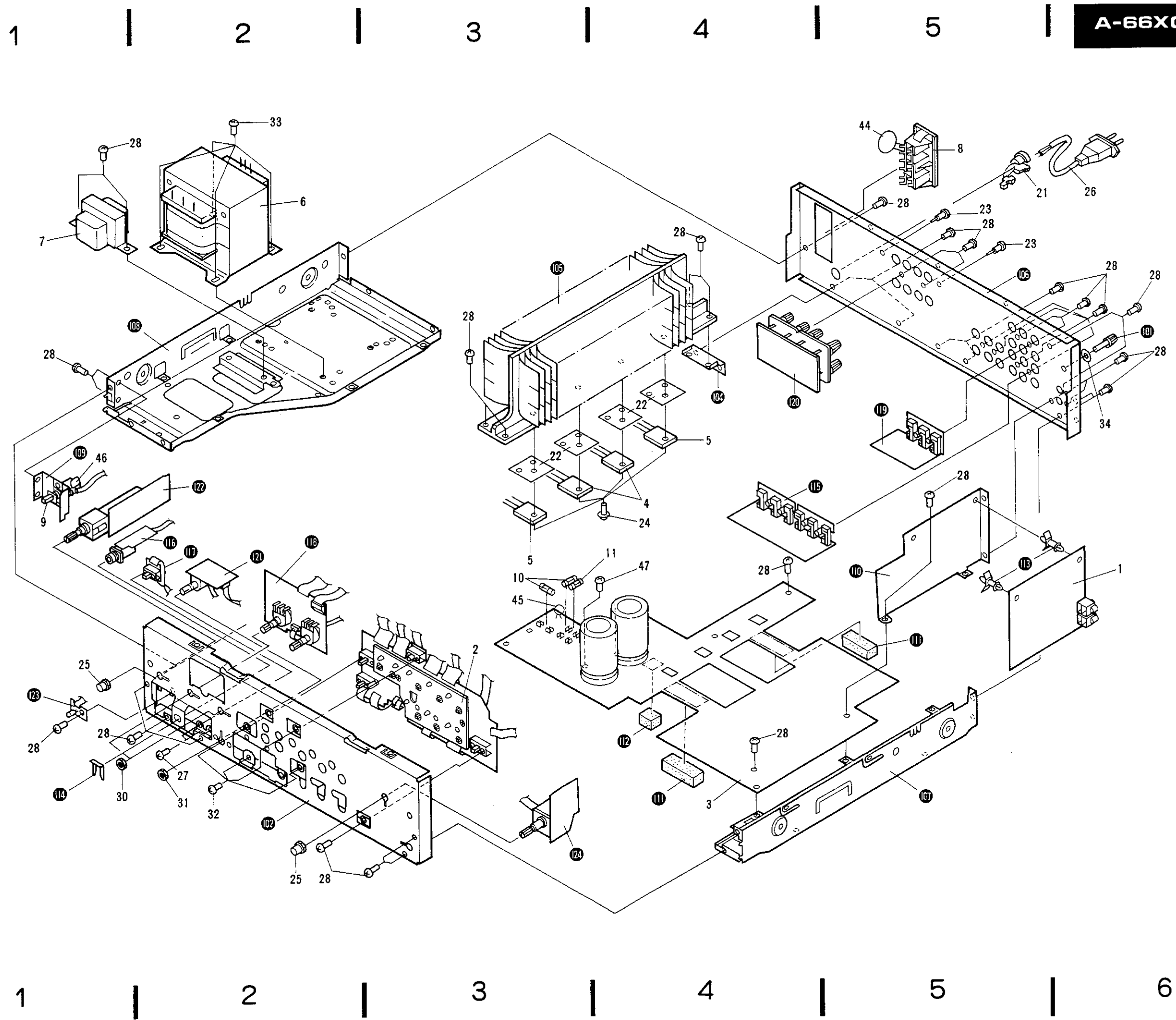
4. Stick the line voltage level on the rear panel.

Part No.	Description
AAX-193	220V level
AAX-192	240V level

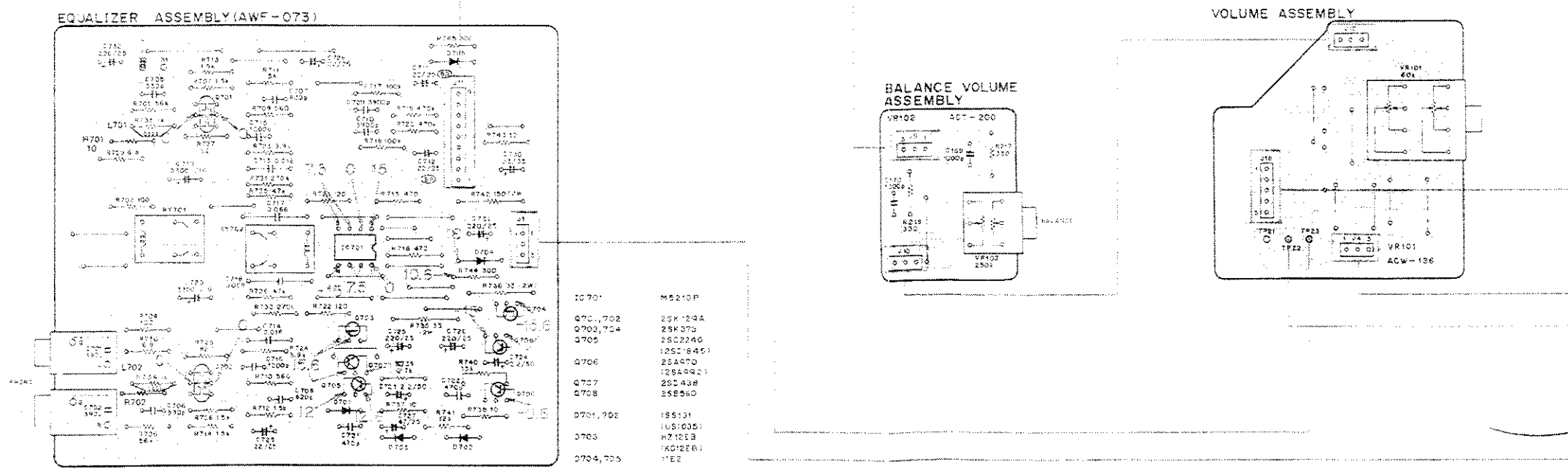
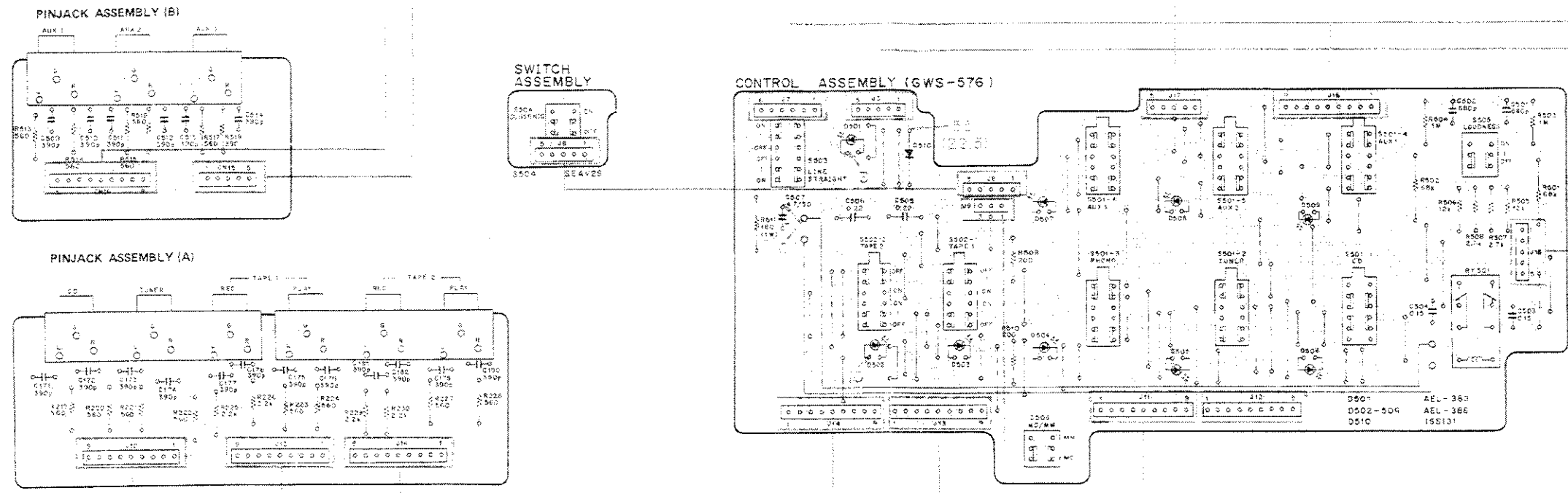
NOTE:

Do not disconnect the lead (RED) from T2 to the T1 power transformer terminal No. 3.

Interior

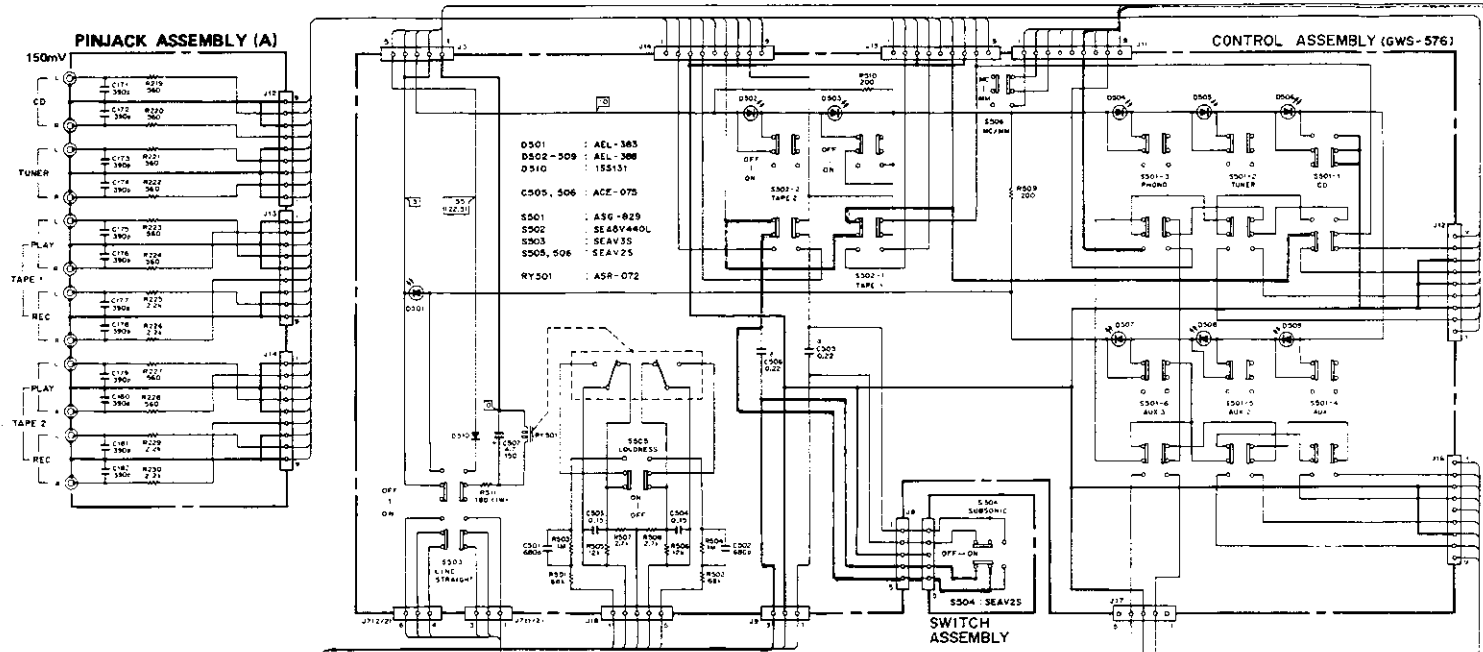


7. P.C. BOARDS CONNECTION DIAGRAM

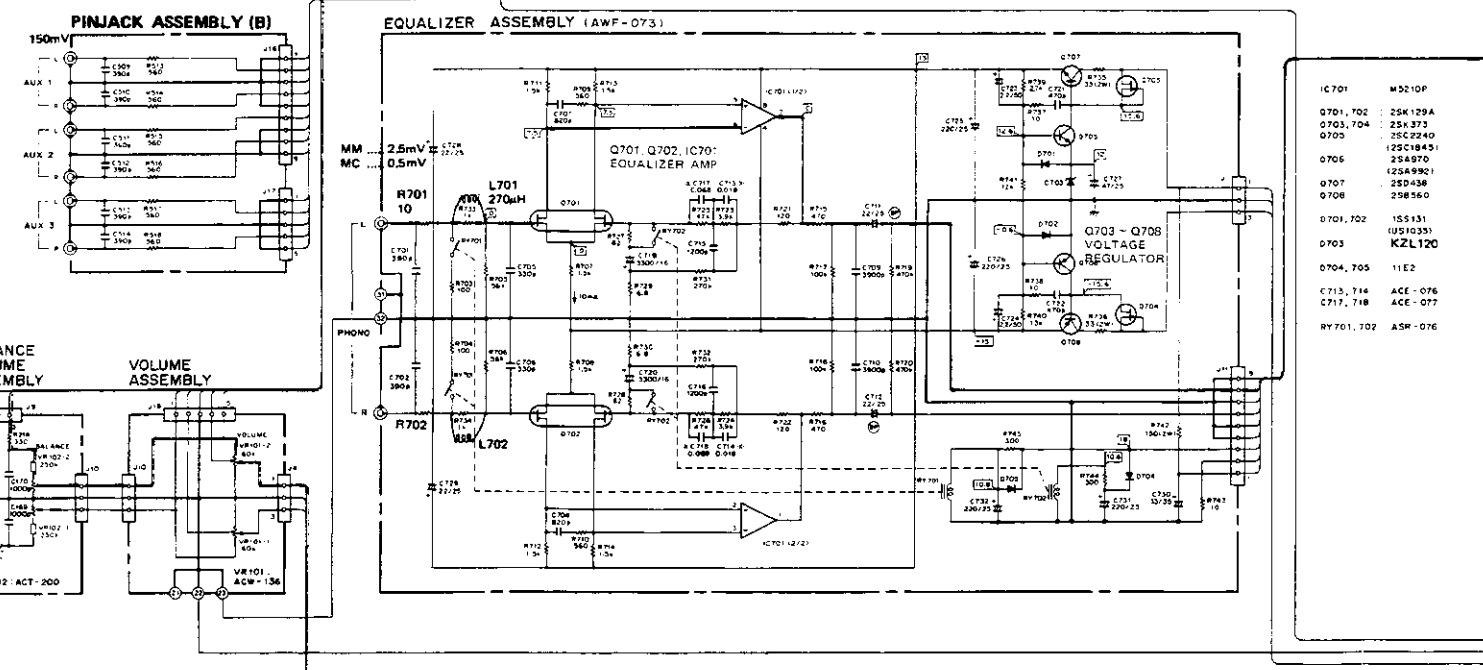


8. SCHEMATIC DIAGRAM

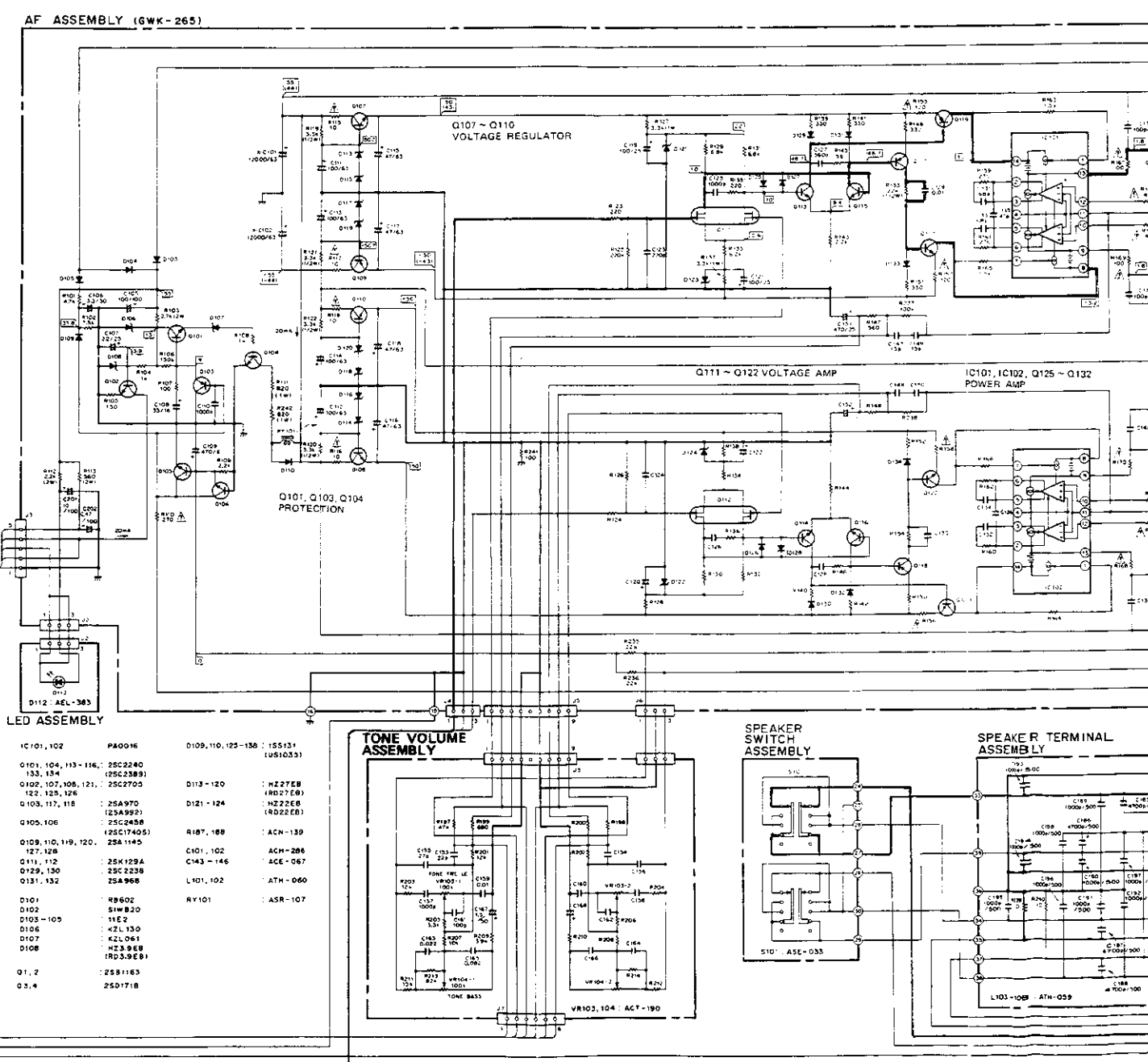
A



B



C



D

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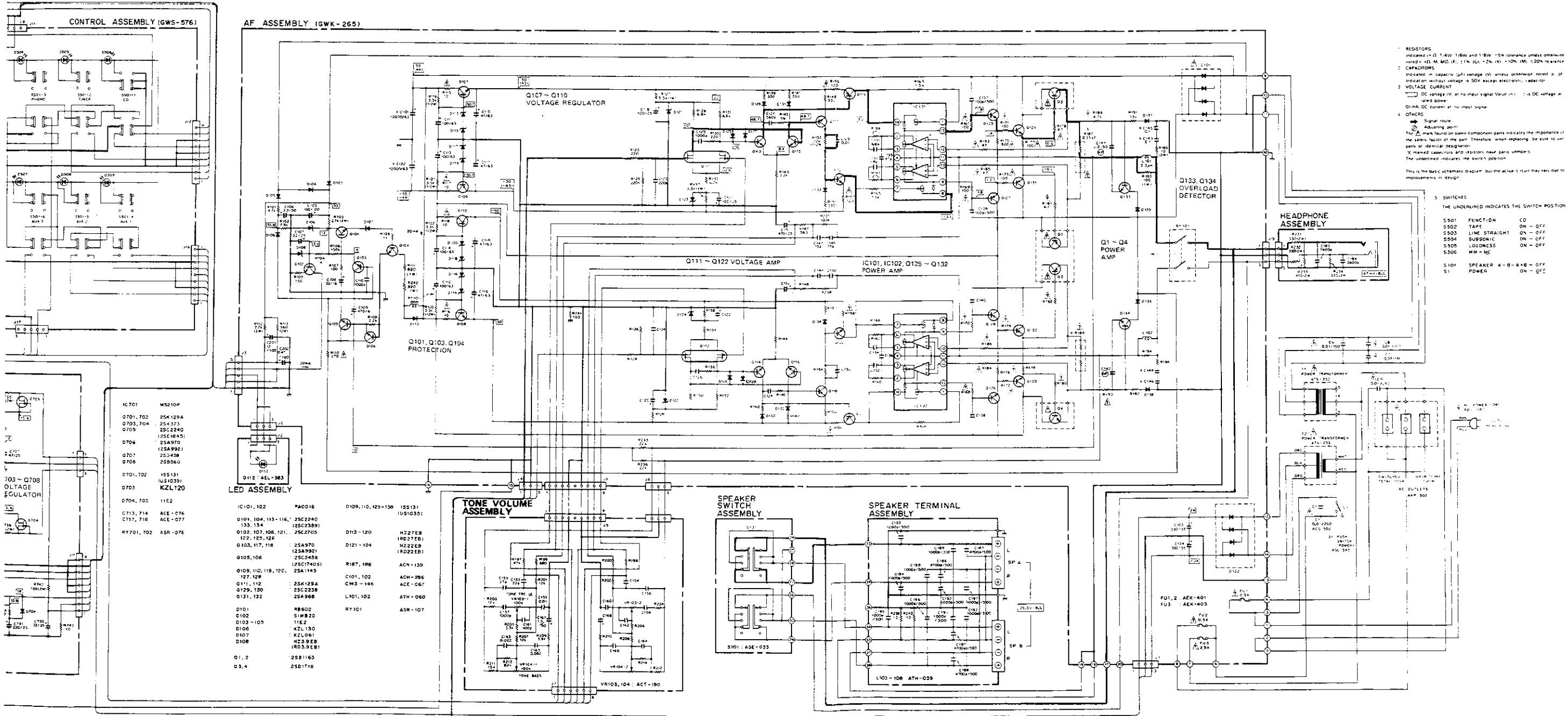
NOTE:
The indicated semiconductors are representative ones only. Other alternative semiconductors may be used and are listed in the parts list.

A

B

C

D



4

5

6

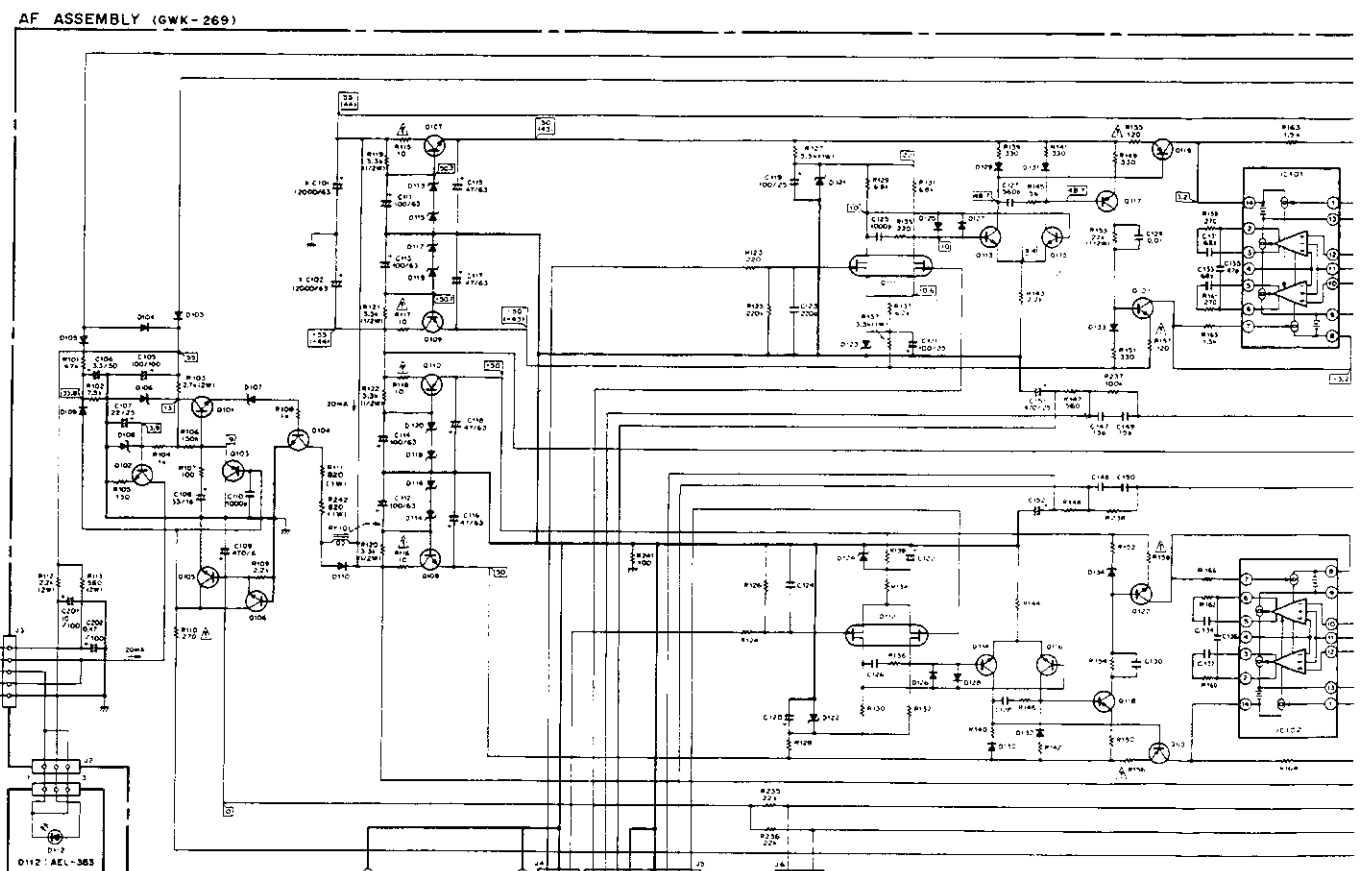
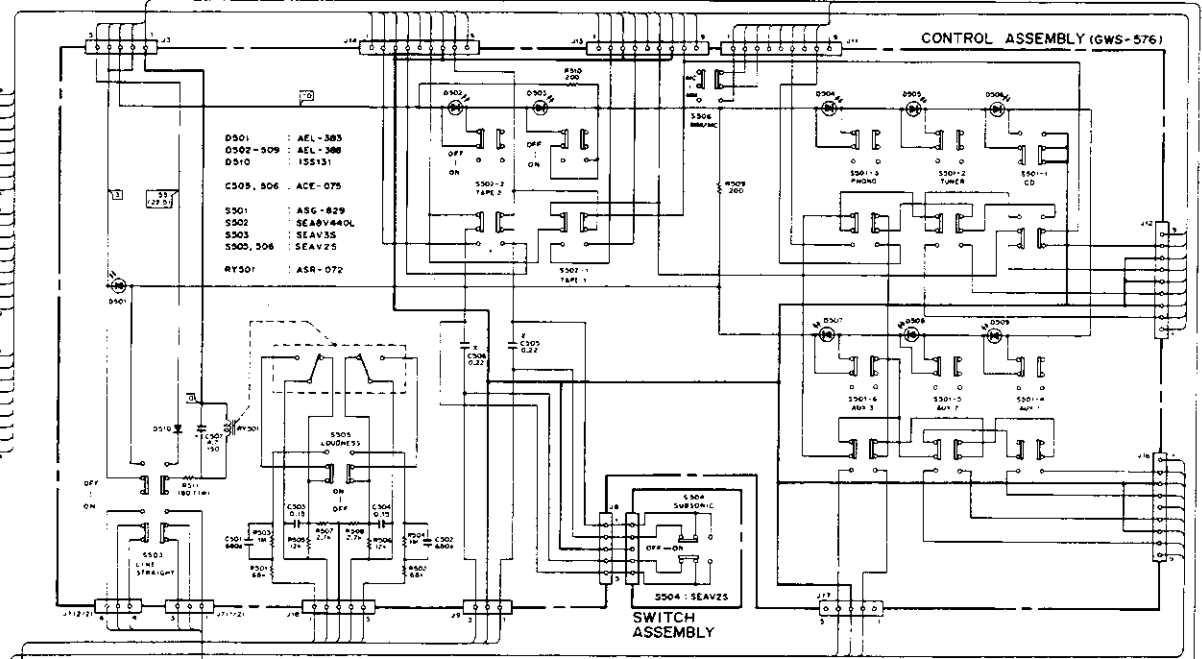
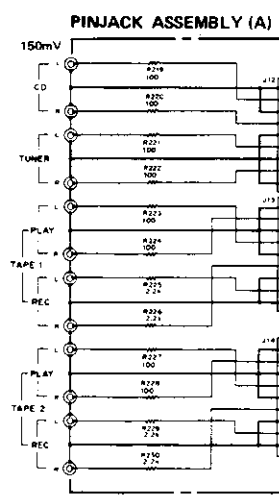
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8

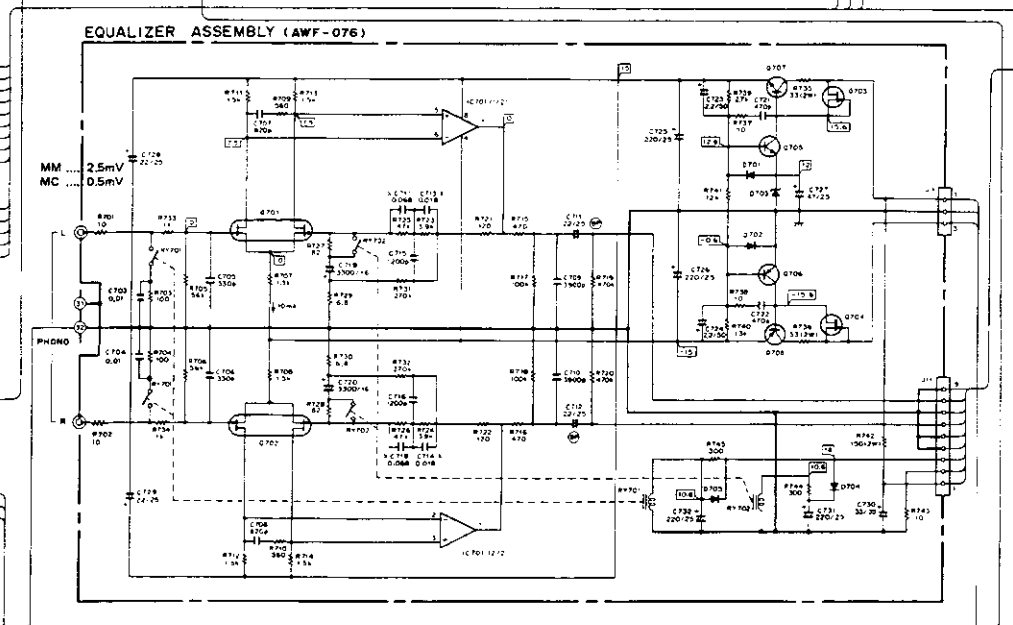
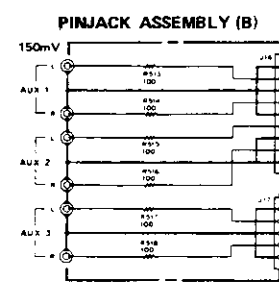
9

Schematic Diagram for HE Type

A



B



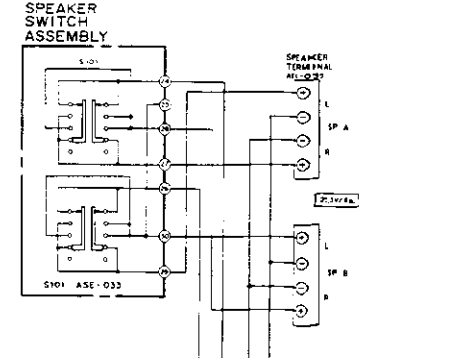
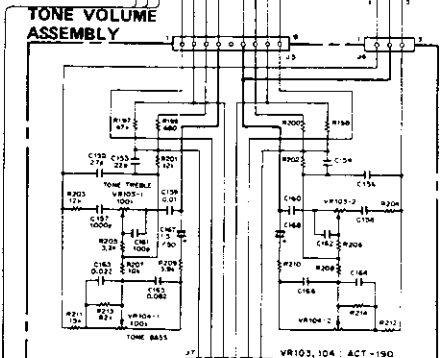
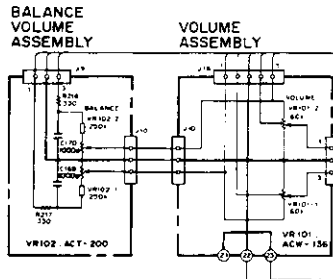
- IC 701 M3210P
- C 701, 702 25K129A
- C 703, 704 25K373
- C 705 25C2240 (25C1845)
- O 706 25A970
- O 707 25A992
- C 708 25D438
- 25B960
- O 701, 702 155131
- O 703 1U510351
- O 704 1H212EB (1H212EB)
- D 704, 705 11E2
- C 713, 714 ACE-076
- C 715, 718 ACE-077
- RY 701, 702 ASR-076

LED ASSEMBLY

- IC 101, 102 P40016
- O 101, 104, 113-116, 25C2240
- 133, 134 25C23891
- O 102, 107, 108, 121, 25C3705
- 122, 123, 126
- O 103, 117, 118 25A970
- O 105, 106 25A992
- O 109, 110, 119, 120, 25A1143
- 127, 128
- O 111, 112 25K129A
- O 129, 130 25C2458
- O 131, 132 25A988
- D 101 RB602
- D 102 SIWR20
- D 103-105 11E2
- D 106 K2L150
- D 107 K2L061
- D 108 HZ3.9EB (HDS.9EB)
- D 1, 2 25B1163
- O 3, 4 25D1718

TONE VOLUME ASSEMBLY

- O 109, 110, 129-138 155131 (1U510351)
- D 113-120 HZ227EB (HDS.227EB)
- D 121-124 HZ227EB (HDS.227EB)
- R 187, 188 ACN-139
- C 101, 102 ACN-286
- C 143-146 ACE-067
- L 101, 102 ATH-060
- RY 101 ASR-107



D

1

2

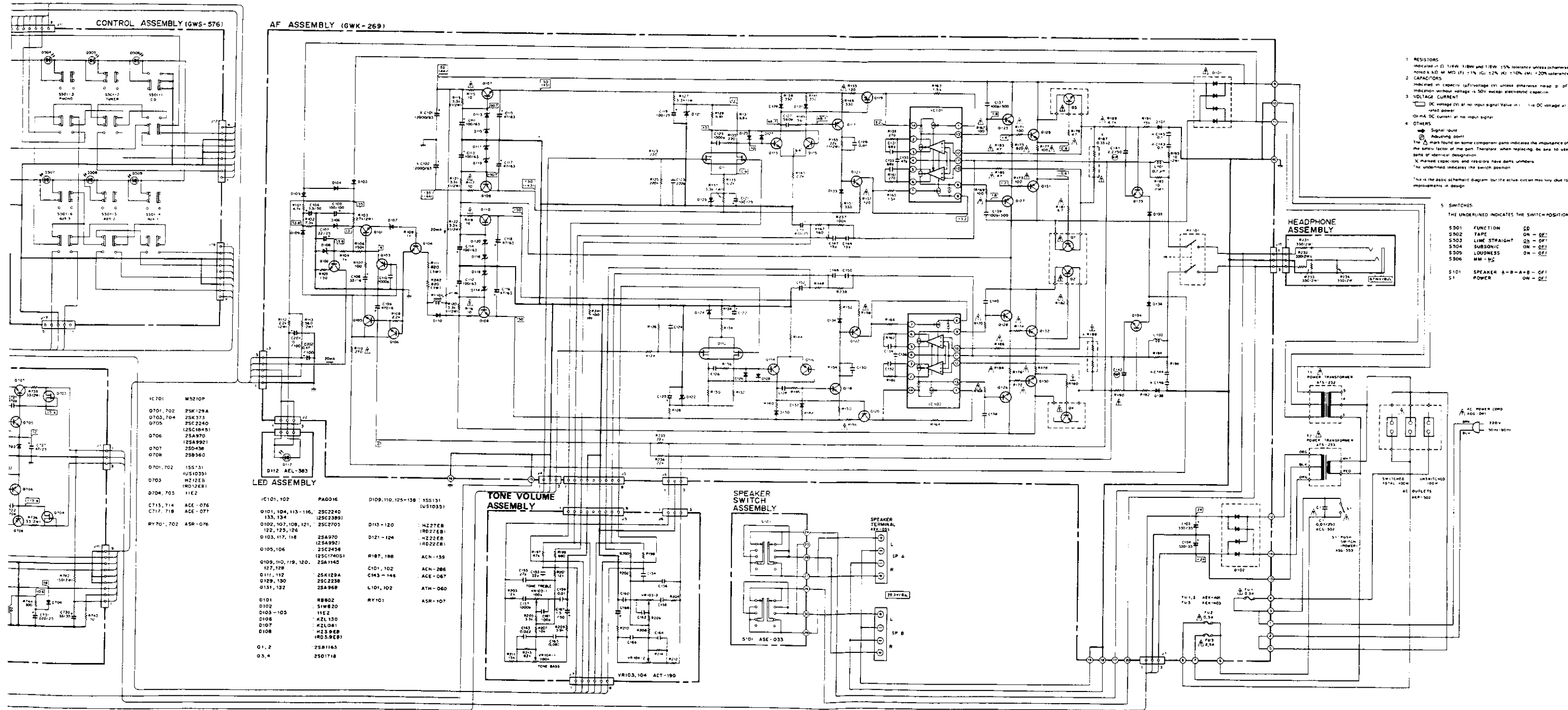
3

4

5

6

NOTE:
 The indicated semiconductors are representative ones only.
 Other alternative semiconductors may be used and are listed in the parts list.



A

B

C

D

A-66X(BK)/HE, HB, A-66X/HE

P.C. Board Patterns for HE, HB Types

3

4

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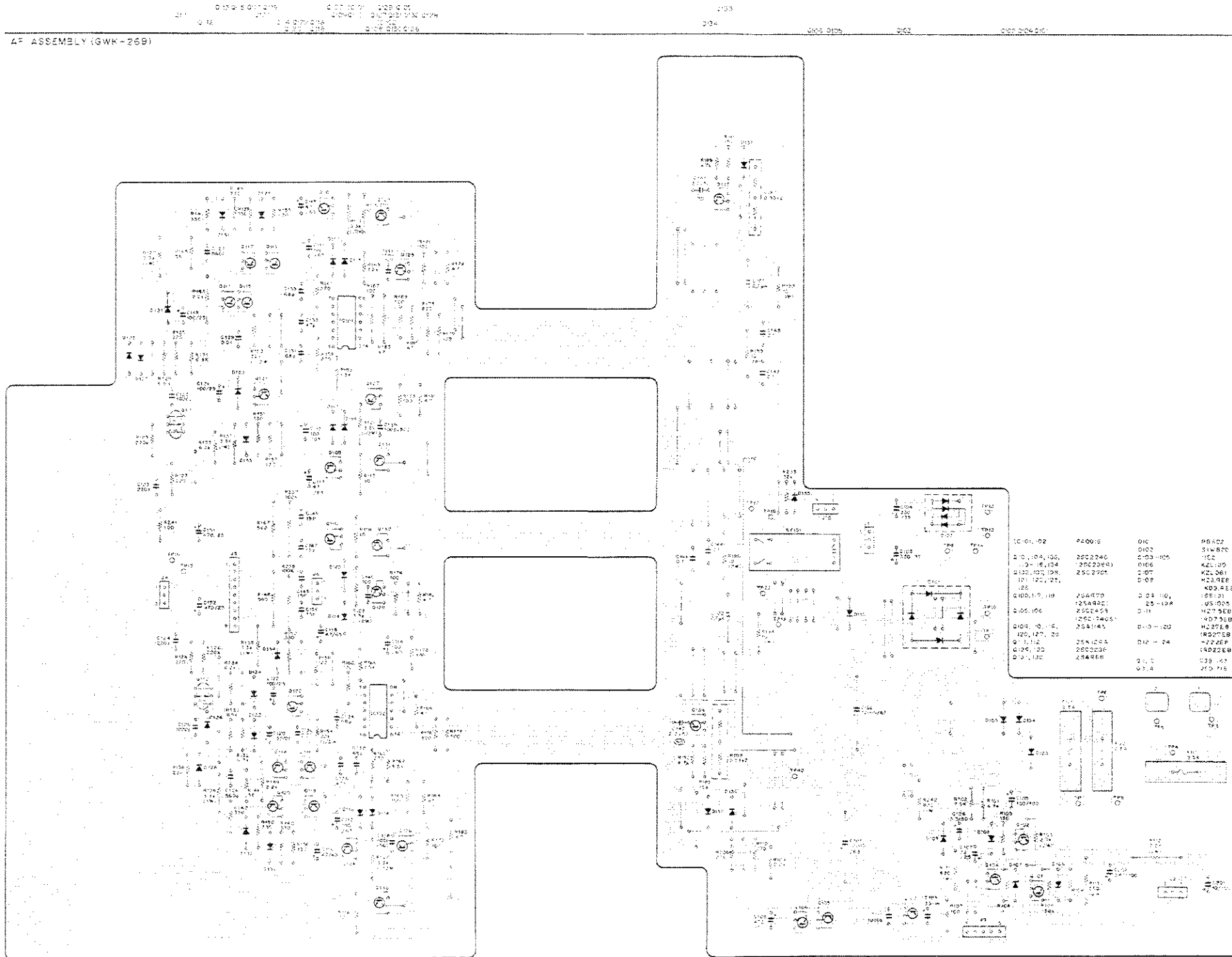
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A

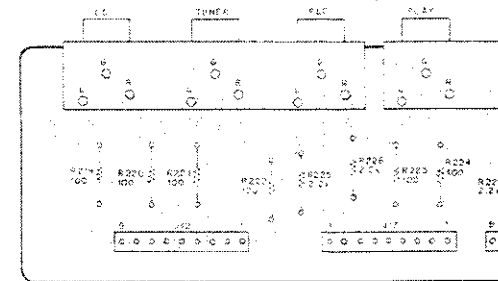
B

C

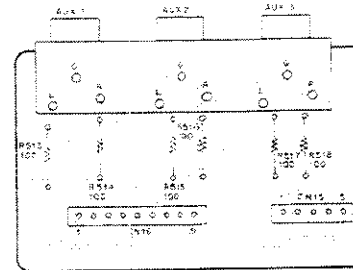
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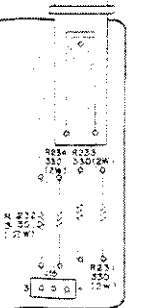
PINJACK ASSEMBLY (A)



PINJACK ASSEMBLY (B)



HEADPHONE ASSEMBLY



1

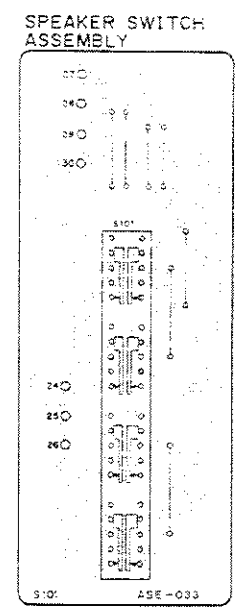
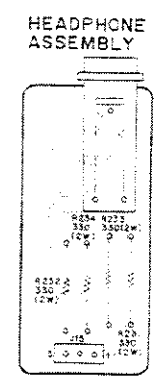
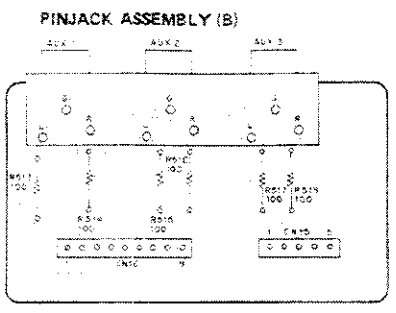
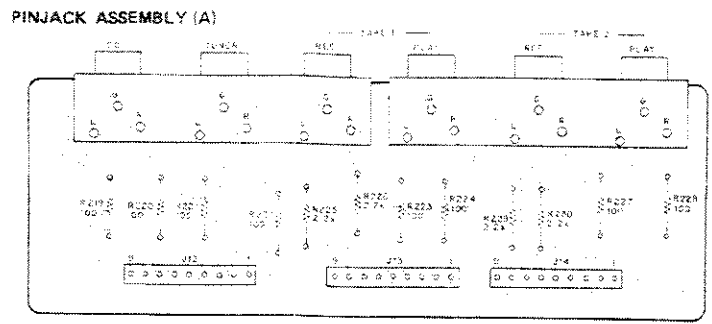
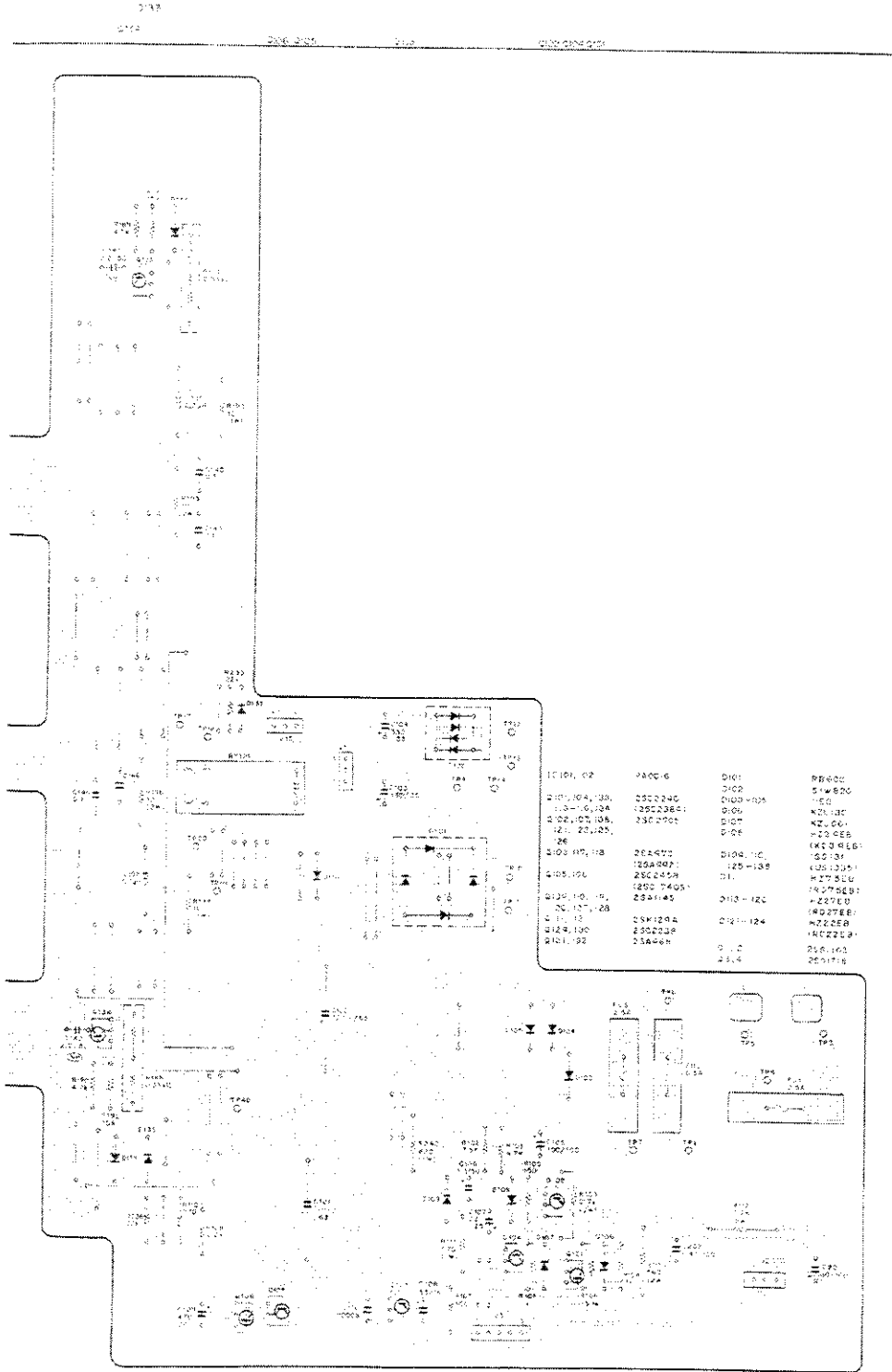
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3

4

5

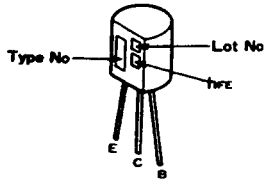
6



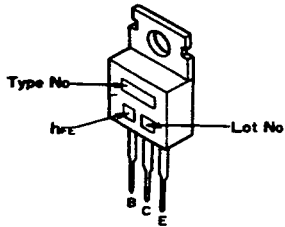
A
B
C
D

External Appearance of Transistors and ICs

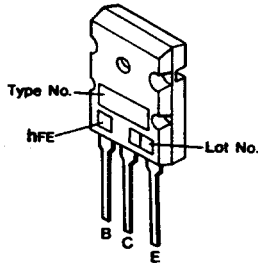
2SA970
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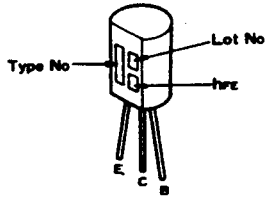
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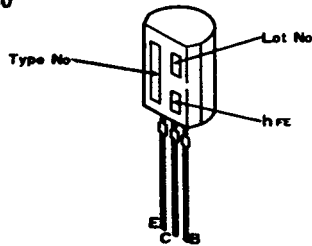
2SB1163P
2SD1718P



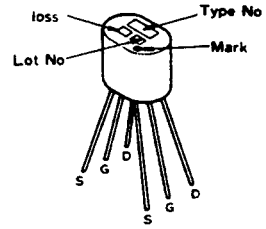
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2SC2705



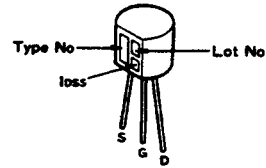
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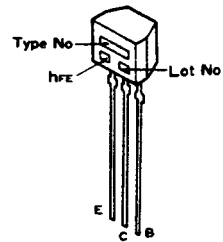
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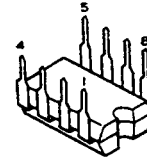
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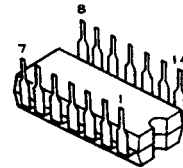
2SC2458



M5210P



PA0016



Line Voltage Selection

Line voltage can be changed with following steps.

1. Disconnect the AC power cord.
2. Remove the bonnet case.
3. Change the connection of the lead from AF assembly terminal No. 7 to T1 as follows:

Voltage	AF assembly Terminal No.	Power transformer (T1) Terminal No.
220V	7	3
240V	7	5

4. Stick the line voltage level on the rear panel.

Part No.	Description
AAX-193	220V level
AAX-192	240V level

NOTE:

Do not disconnect the lead (RED) from T2 to the T1 power transformer terminal No. 3.

9. ELECTRICAL PARTS LIST

NOTES:

- When ordering resistors, first convert resistance values into code form as shown in the following examples.
 - Ex. 1 When there are 2 effective digits (any digit apart from 0), such as 560 ohm and 47k ohm (tolerance is shown by J = 5%, and K = 10%).
 - 560Ω 56 × 10¹ 561 RD¼PS 561J
 - 47kΩ 47 × 10³ 473 RD¼PS 473J
 - 0.5Ω 0R5 RN2H 055K
 - 1Ω 010 RS1P 010K
 - Ex. 2 When there are 3 effective digits (such as in high precision metal film resistors).
 - 5.62kΩ 562 × 10¹ 5621 RN¼SR 5621F
- The Δ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.
- For your Parts Stock Control, the fast moving items are indicated with the marks **★★** and **★**.
 - ★★ GENERALLY MOVES FASTER THAN ★.**
 - This classification shall be adjusted by each distributor because it depends on model number, temperature, humidity, etc.

Miscellaneous Parts

P.C. BOARD ASSEMBLIES

Mark	Symbol & Description	Part No.
	Equalizer assembly	AWF-073
	Control assembly	GWS-576
	Switch assembly	non supply
	Pin jack assembly (A)	non supply
	AF Assembly	GWK-265
	Tone volume assembly	non supply
	Speaker switch assembly	non supply
	Pin jack assembly (B)	non supply
	Headphone assembly	non supply
	Volume assembly	non supply
	LED Assembly	non supply
	Balance volume assembly	non supply
	Speaker terminal assembly	non supply

SEMICONDUCTORS

Mark	Symbol & Description	Part No.
Δ ★★	Q1, Q2	2SB1163P-Q* (2SB1163P-S)
Δ ★★	Q3, Q4	2SD1718P-Q* (2SD1718P-S)

* hfe of Q1 - Q4 should have the same value.

CAPACITORS

Mark	Symbol & Description	Part No.
Δ	C9 (0.01/AC250V)	ACE-506
Δ	C6, C7, C8 (0.01/AC250V)	ACG-001
Δ	C1 (0.01/AC250V)	ACG-502

OTHERS

Mark	Symbol & Description	Part No.
Δ ★★	T1 Power transformer (AC220V, 240V)	ATS-252
Δ ★★	T2 Power transformer (AC220V)	ATS-253

Mark	Symbol & Description	Part No.
Δ ★★	AC Socket 3P (AC OUTLETS)	AKP-502
Δ	S1 Push switch (POWER)	ASG-553
Δ ★★	FU1, FU2 Fuse (0.5A)	AEK-401
Δ ★★	FU3 Fuse (2.5A)	AEK-403
Δ	AC Power cord	ADG-097

Equalizer Assembly (AWF-073-A)

SEMICONDUCTORS

Mark	Symbol & Description	Part No.
★	D703	KZL120
★★	IC701	M5210P
★	D701, D702	1SS131
★	D704, D705	11E2
★★	Q706	2SA970
★★	Q708	2SB560
★★	Q705	2SC2240
★★	Q707	2SD438
★★	Q701, Q702	2SK129A
★★	Q703, Q704	2SK373

RELAY

Mark	Symbol & Description	Part No.
★★	RY701, RY702	ASR-076

COIL

Mark	Symbol & Description	Part No.
	L701, L702	ATH-132

CAPACITORS

Mark	Symbol & Description	Part No.
	C713, C714 (0.018μF)	ACE-076

Mark	Symbol & Description	Part No.
	C717, C718 (0.068μF)	ACE-077
	C723, C724	CEAS2R2M50
	C728, C729	CEAS220M25
	C725, C726, C731, C732	CEAS221M25
	C730	CEAS330M35
	C727	CEAS470M25
	C711, C712	CEXANP220M25
	C719, C720	CEYA332M16
	C705, C706	CKCYB331K50
	C721, C722	CKCYB471K50
	C707, C708	CKCYB821K50
	C701, C702	CKDYB391K50
	C715, C716	CQMA122J50
	C709, C710	CQMA392J50

RESISTORS

Note: When ordering resistors, convert the resistance value into code form, and then rewrite the part no. as before.

Mark	Symbol & Description	Part No.
	R723 - R726	RDR1/4PM□□□□F
	R727 - R730	RDR1/4PM□□□J
	R701 - R722, R731 - R734,	RD1/4PM□□□J
	R737 - R741, R743 - R745	
	R742	RS2LMF151J
	R735, R736	RS2LMF330J

OTHERS

Mark	Symbol & Description	Part No.
	Terminal (PHONO L)	AKB-131
	Terminal (PHONO R)	AKB-132

Control Assembly (GWS-576)

SEMICONDUCTORS

Mark	Symbol & Description	Part No.
★	D501 (LINE STRAIGHT)	AEL-383
★	D502 - D509 (TAPE2, TAPE1, PHONO TUNER, CD, AUX3, AUX2, AUX1)	AEL-388
★	D510	1SS131

SWITCHES, RELAY

Mark	Symbol & Description	Part No.
★★	S501 (FUNCTION)	ASG-829
★★	RY501	ASR-072
★★	S505, S506 (LOUDNESS, MM-MC)	SEAV2S
★★	S503 (LINE STRAIGHT)	SEAV3S
★★	S502 (TAPE)	SEA8V440L

CAPACITORS

Mark	Symbol & Description	Part No.
	C505, C506 (0.22μ)	ACE-075
	C507	CEAS4R7M50
	C501, C502	CKDYB681K50
	C503, C504	CQMA154K50

RESISTORS

Note: When ordering resistors, convert the resistance value into code form, and then rewrite the part no. as before.

Mark	Symbol & Description	Part No.
	R501 - R510	RD1/4PM□□□J
	R511	RSILMF181J

OTHERS

Mark	Symbol & Description	Part No.
	Screw	PMZ30P060FZK

Switch Assembly

SWITCH

Mark	Symbol & Description	Part No.
	S504 (SUBSONIC)	SEAV2S

Pin Jack Assembly

CAPACITORS

Mark	Symbol & Description	Part No.
	C509 - C514	CKDYB391K50

RESISTORS

Mark	Symbol & Description	Part No.
	R513 - R518	RD1/4PM561J

OTHERS

Mark	Symbol & Description	Part No.
	Terminal (VIDEO1, VIDEO2, AUX3)	AKB-117

Tone Volume Assembly

CAPACITORS

Mark	Symbol & Description	Part No.
	C161, C162	CCCSL101J50
	C153, C154	CCCSL220J50
	C155, C156	CCCSL270J50
	C167, C168	CEAS1R5M50
	C157, C158	CQMA102J50
	C159, C160	CQMA103J50
	C163, C164	CQMA223J50
	C165, C166	CQMA823J50

RESISTORS

Note: When ordering resistors, convert the resistance value into code form, and then rewrite the part no. as before.

Mark	Symbol & Description	Part No.
★	VR103, VR104 (TONE BASS, TREBLE)	ACT-190
	R197 - R214	RD1/4PM □□□J

AF Assembly (GWK-265)

SEMICONDUCTORS

Mark	Symbol & Description	Part No.
★	D121 - D124	HZ22EB
★	D113 - D120	HZ27EB
★	D108	HZ3.9EB
★	D107	KZL061
★	D106	KZL130
★★	IC101, IC102	PA0016
△ ★	D101	RB602
★	D102	SIWB20
★	D109, D110, D125 - D138	1SS131
★	D103 - D105	11E2
★★	Q109, Q110, Q119, Q120, Q127, Q128	2SA1145
★★	Q131A, Q132A	2SA968
★★	Q103, Q117, Q118	2SA970
★★	Q129A, Q130A	2SC2238
★★	Q101, Q104, Q113 - Q116, Q133, Q134	2SC2240
★★	Q105, Q106	2SC2458
★★	Q102, Q107, Q108, Q121, Q122, Q125, Q126, Q111, Q112	2SC2705 2SK129A

RELAY

Mark	Symbol & Description	Part No.
★★	RY101	ASR-107

COIL

Mark	Symbol & Description	Part No.
	L101, L102 (5.3μH)	ATH-060

CAPACITORS

Mark	Symbol & Description	Part No.
	C143 - C146 (0.1μ/150V)	ACE-067
	C101, C102 (12000/63V)	ACH-286
	C137 - C140	CCCSL101K500
	C135, C136	CCCSL470J50
	C131 - C134	CCCSL680J50
	C141, C142	CEANP2R2M50
	C202	CEASR47M100
	C201	CEAS100M100
	C105	CEAS101M100
	C119 - C122	CEAS101M25

Mark	Symbol & Description	Part No.
	C111 - C114	CEAS101M63
	C107	CEAS220M25
	C106	CEAS3R3M50
	C108	CEAS330M16
	C103, C104	CEAS331M35
	C115 - C118	CEAS470M63
	C109	CEAS471M6
	C151, C152	CEYA471M25
	C110, C125, C126	CKCYB102K50
	C127, C128	CKCYB561K50
	C147 - C150	CMA150J500
	C129, C130	COMA103K50
	C123, C124	CQSXA221J160

RESISTORS

Note: When ordering resistors, convert the resistance value into code form, and then rewrite the part no. as before.

Mark	Symbol & Description	Part No.
	R187, R188	ACN-139
	R147, R148, R237, R238	RDH1/4P □□□J
	R119 - R122, R153, R154	RD1/2PM □□□J
△	R175, R176	RD1/4PMFL821J
△	R189, R190	RD1/4PMF472J
	R101, R102, R104 - R109, R123 - R126, R129 - R136, R139 - R146, R149 - R152, R159 - R166, R191, R192, R235, R236, R241	RD1/4PM □□□J
△	R110, R115 - R118, R155 - R158, R167 - R174, R177 - R186, R127, R128, R137, R138, R193, R194, R242, R111	RFA1/4PS □□□J
	R103, R112, R113, R195, R196	RSILMF □□□J RS2LMF □□□J

OTHERS

Mark	Symbol & Description	Part No.
	Screw	PBZ30P0GOFMC

Speaker Switch Assembly

SWITCH

Mark	Symbol & Description	Part No.
★★	S101 (SPEAKERS)	ASE-033

Pin Jack Assembly

CAPACITORS

Mark	Symbol & Description	Part No.
	C171 - C182	CKCYB391K50

RESISTORS

Note: When ordering resistors, convert the resistance value into code form, and then rewrite the part no. as before.

Mark	Symbol & Description	Part No.
	R219 - R230	RD1/4PM □□□J

OTHERS

Mark	Symbol & Description	Part No.
	Terminal (CD, TUNER, TAPE1, TAPE2)	AKB-117

Balance Volume Assembly

CAPACITORS

Mark	Symbol & Description	Part No.
	C169, C170	CQMA102J50

RESISTORS

Note: When ordering resistors, convert the resistance value into code form, and then rewrite the part no. as before.

Mark	Symbol & Description	Part No.
★	VR102 (MAIN VOLUME) R217, R218	ACT-200 RD1/4PM331J

Volume Assembly

RESISTORS

Note: When ordering resistors, convert the resistance value into code form, and then rewrite the part no. as before.

Mark	Symbol & Description	Part No.
★	VR101 (BALANCE)	ACW-136

LED Assembly

SEMICONDUCTOR

Mark	Symbol & Description	Part No.
★	D112 (POWER)	AEL-383

Headphone Assembly

CAPACITORS

Mark	Symbol & Description	Part No.
	C184, C193	CKDYB392K50

RESISTORS

Note: When ordering resistors, convert the resistance value into code form, and then rewrite the part no. as before.

Mark	Symbol & Description	Part No.
	R231 - R234	RS2LMF331J

OTHERS

Mark	Symbol & Description	Part No.
	Jack (PHONES)	AKN-045

Speaker Assembly

CAPACITORS

Mark	Symbol & Description	Part No.
	C189 - C198 C185 - C188	CKCYB102K500 CKDYB472K500

RESISTORS

Mark	Symbol & Description	Part No.
	R239, R240	RD1/4PM100J

OTHERS

Mark	Symbol & Description	Part No.
	Terminal (SPEAKERS)	AKE-052

10. FOR HE AND HB TYPES

- Parts without part number cannot be supplied.
- The Δ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.
- For your Parts Stock Control, the fast moving items are indicated with the marks **★★** and **★**.
★★ GENERALLY MOVES FASTER THAN ★.
This classification shall be adjusted by each distributor because it depends on model number, temperature, humidity, etc.

A-66X/HE and HB types are the same as the A-66X [BK]/HEZ type except for following sections.

Contrast of Miscellaneous Parts

Mark	Symbol & Description	Part No.			Remarks
		HEZ type	HE type	HB type	
	AF assembly	GWK-265	GWK-269	GWK-269	
	Pin jack assembly (A)	Non supply	Non supply	Non supply	
	Headphone assembly	Non supply	Non supply	Non supply	
	Speaker terminal assembly	Non supply	.....	.....
	Equalizer assembly	AWF-073	AWF-076	AWF-076	
	Pin jack assembly (B)	Non supply	Non supply	Non supply	
	8P speaker terminal	.....	AKE-055	AKE-055	
Δ	AC outlets	AKP-502	AKP-502	AKP-505	
Δ ★★	FU1, F2 Fuse (0.5A)	AEK-401	AEK-401	.....
Δ ★★	FU1, F2 Fuse (0.5A)	.....	.....	AEK-505	
Δ ★★	FU3 Fuse (2.5A)	AEK-403	AEK-403	.....
Δ ★★	FU3 Fuse (2.5A)	.....	.....	AEK-512	
	Operating instructions (German)	ARC-116	.....	.....
	Operating instructions (English/French/German/Italian)	.....	ARE-159	.....
	Operating instructions (English)	.....	.....	ARB-713	
Δ	Strain relief	AEC-327	AEC-882	AEC-882	
Δ	AC power cord	ADG-097	ADG-041	ADG-051	
Δ	C6 - C8 Ceramic capacitor (0.1/250V)	ACG-001	.....	.....
Δ	C9 Ceramic capacitor (0.1/250V)	ACE-504	.....	.....

AF Assembly (GWK-269)

The AF Assembly (GWK-269) is the same as the (GWK-265) with the exception of the following sections.

Mark	Symbol & Description	Part No.		Remarks
		GWK-265	GWK-269	
	L101, L102 Coil R193, R194	ATH-060 RS1LMF101J	ATH-110 RS1LMF100J	

Pin Jack Assembly (A)

The Pin Jack Assembly (HE and HB types) are the same as the (HEZ type) with the exception of the following sections.

Mark	Symbol & Description	Part No.		Remarks
		HEZ type	HE and HBtypes	
	C171 – C182 R219 – R228	CKCYB391K50 RD1/4PM561J	..... RD1/4PM101J	

Headphone Assembly

The Headphone Assembly (HE and HB types) are the same as the (HEZ type) with the exception of the following sections.

Mark	Symbol & Description	Part No.		Remarks
		HEZ type	HE and HB types	
	C183, C184	CKDYB392K50	.....

Pin Jack Assembly (B)

The Pin Jack Assembly (HE and HB types) are the same as the (HEZ type) with the exception of the following sections.

Mark	Symbol & Description	Part No.		Remarks
		HEZ type	HE and HBtypes	
	C509 – C514 R513 – R518	CKDYB391K50 RD1/4PM561J	..... RD1/4PM101J	

Equalizer Assembly (AWF-076)

The Equalizer Assembly (AWF-076) is the same as the (AWF-073) with the exception of the following sections.

Mark	Symbol & Description	Part No.		Remarks
		AWF-073	AWF-076	
	C701, C702 C703, C704 L701, L702 R733, R734	CKDYB391K50 ATH-132 RD1/4P102J	..... CQMA103J50	