

ADDITIONAL

 PIONEER®

Service Manual

STEREO AMPLIFIER

SA-7800 HG

NOTE:

- For detailed instructions on adjustments, circuit descriptions, exploded view, etc., please refer to KU type service manual (ART-344).

1. SPECIFICATIONS

The specifications for HG type is the same as the KU type except for following sections;

Amplifier Section

Continuous Power Output at 1kHz (both channel driven)
T.H.D. 0.005%, 8 ohms 65 watts per channel
Input (Sensitivity/Impedance)
TAPE PLAY 2 (DIN connector) . . . 150mV/50 kilohms
Output
TAPE REC 2 (DIN connector) 30mV/80 kilohms
Hum and Noise (DIN, Continuous Power/50mW)
PHONO 72dB/64dB
TUNER, AUX, TAPE PLAY 1, 2 87dB/64dB

Hum and Noise (IHF A-202, '78)

PHONO 75dB
TUNER, AUX, TAPE PLAY 1, 2 83dB

Miscellaneous

Power Requirements 220/240V, 50/60Hz
Power Consumption 650W (max.)
Dimensions 420(W)x150(H)x376(D)mm
16-9/16(W)x5-7/8(H)x14-13/16(D)in
Weight Without Package 12.4kg (27lb 6oz)

2. CONTRAST OF MISCELLANEOUS PARTS

- The *A* 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.

P.C. BOARD ASSEMBLIES

Symbol	Description	Part No.		Remarks
		KU type	HG type	
	Power amplifier assembly	GWH-118	GWH-122	
	Power supply assembly	GWR-112	GWR-114	
	Volume assembly	GWX-258	GWX-268	
	Switch assembly 1	GWS-169	GWS-174	
	Terminal assembly	GWX-259	GWX-269	

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<ART-345-0>

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P.C. BOARD ASSEMBLIES

Symbol	Description	Part No.		Remarks
		KU type	HG type	
	Phone jack assembly	GWX-260	GWX-270	
	Equalizer assembly	GWF-115	GWF-115	
	Tone amplifier assembly	GWG-123	GWG-123	
	Switch assembly 2	GWS-170	GWS-170	
	Indicator assembly	AWV-001	AWV-003	
	Connector assembly	.....	AWX-062	

OTHERS

Symbol	Description	Part No.		Remarks
		KU type	HG type	
⚠ S11	Lever switch (POWER)	ASK-124	ASK-127	
⚠ S12	Voltage selector	.....	AKX-057	
⚠ C6	Ceramic capacitor 0.01/250V	ACG-001	.....
	Mylar capacitor 0.01/400V	.....	CQMA 103K 400	
⚠ FU1	Fuse 6A	AEK-109	.....
	Fuse T3.15A	.....	AEK-042	
⚠ FU2	Fuse 0.8A	AEK-111	.....
	Fuse T800mA	.....	AEK-031	
⚠ FU3	Fuse 0.8A	AEK-111	.....
	Fuse T800mA	.....	AEK-031	
⚠ T1	Power transformer	ATT-567	ATT-570	
⚠	AC socket (AC OUTLETS)	AKP-004	.....
⚠	Recessed plug (AC INLET)	.....	AKP-008	
	AC power cord	ADG-023	.....
	Strain relief	AEC-327	.....
	Wooden case	AMM-078	.....
	Metal case	.....	ANE-223	
	Screw 4x25	ABA-206	.....
	Screw 4x8	.....	ABA-079	
	Screw 3x10	.....	ABA-181	
	Screw 3x8	.....	ABA-057	
				for wooden case for metal case for voltage selector for recessed plug

PACKING AND FURNISHED PARTS

Symbol	Description	Part No.		Remarks
		KU type	HG type	
	Packing case	AHD-623	AHD-627	
	Top pad L	AHA-219	.....
	Top pad R	AHA-220	.....
	Bottom pad L	AHA-221	.....
	Bottom pad R	AHA-222	.....
	Side pad	.....	AHA-130	
	Operating instructions (ENGLISH)	ARB-301	ARB-302	
	Operating instructions (GERMAN/FRENCH)	ARD-131	

3. SCHEMATIC DIAGRAM, P.C. BOARD PATTERN AND PARTS

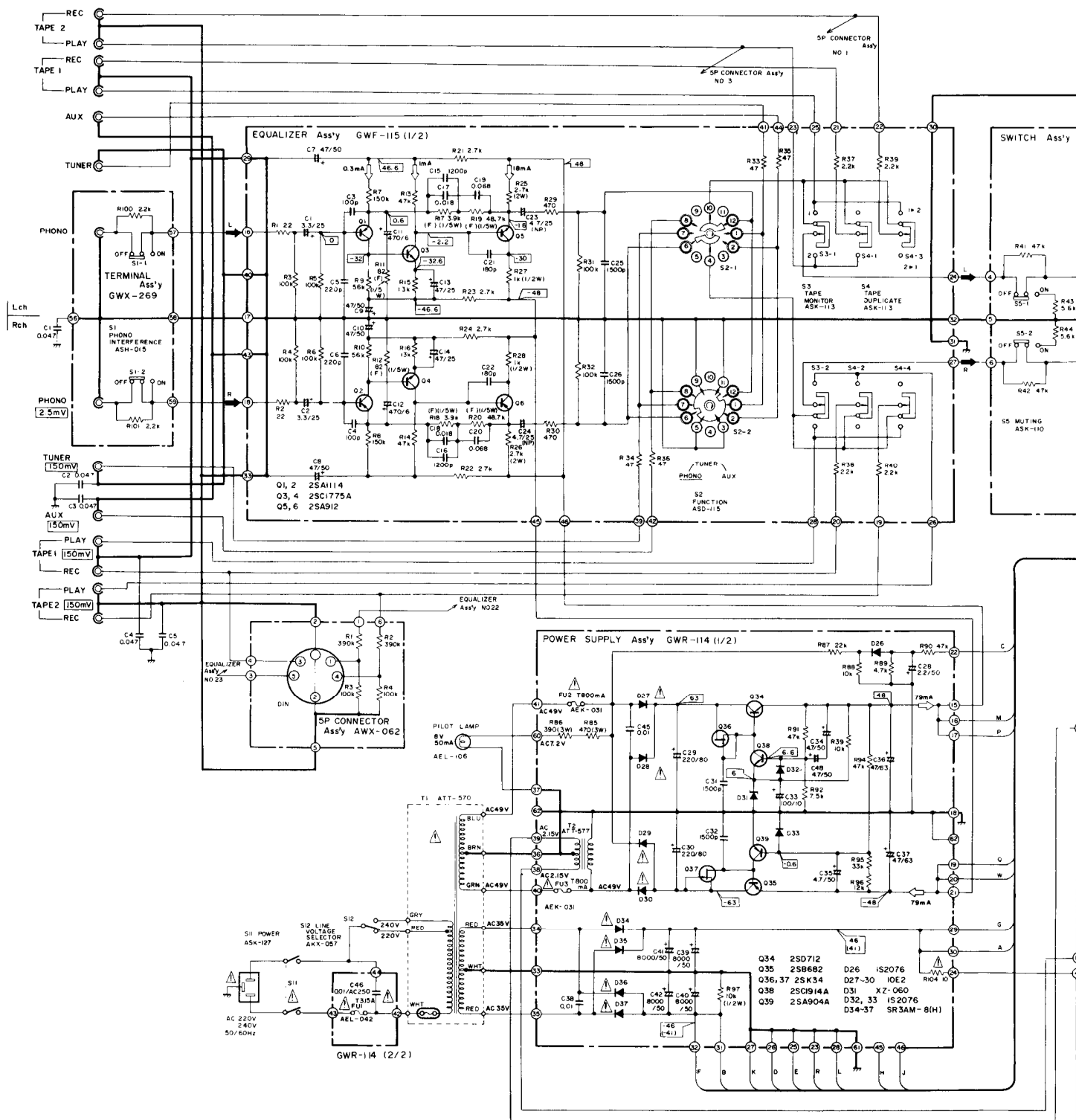
Schematic Diagram

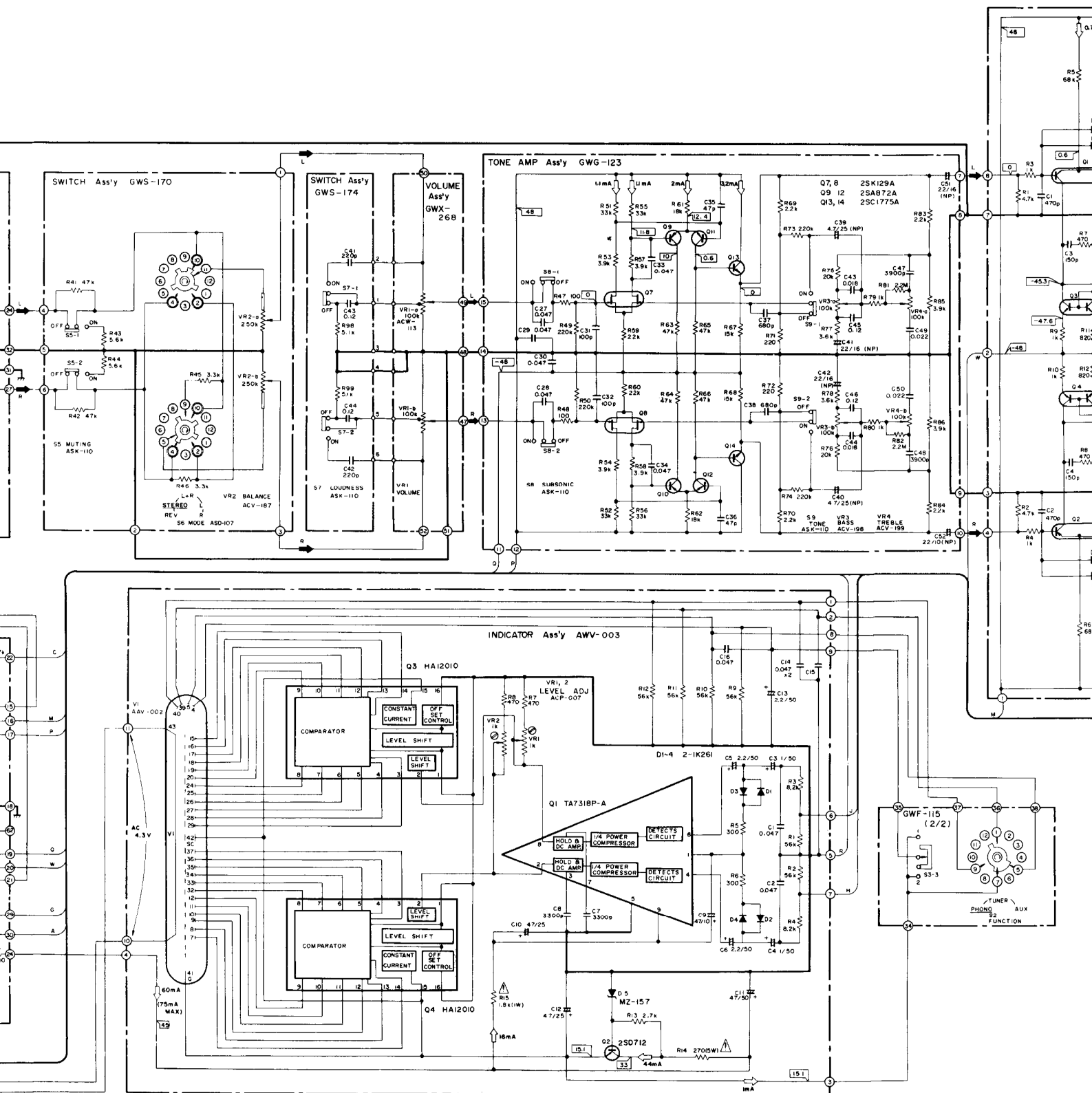
A

B

C

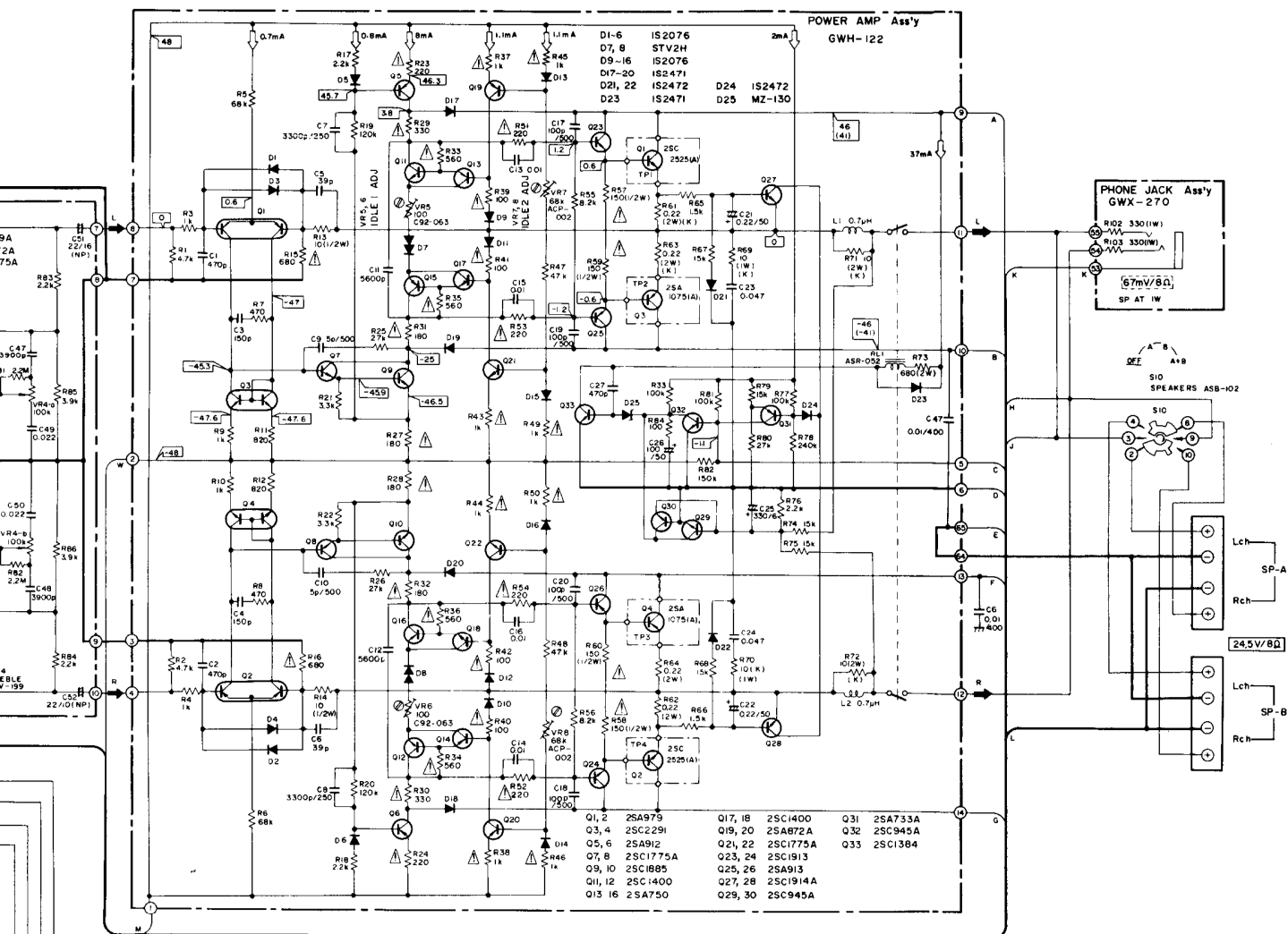
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NOTE:

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



1. RESISTOR.

Indicated in Ω , 1/4W, $\pm 5\%$ tolerance unless otherwise noted; k, Ω , M, M Ω , (F), $\pm 1\%$, (G), $\pm 2\%$, (K), $\pm 10\%$ tolerance.

2. CAPACITORS.

Indicated in capacity (μ F)/voltage (V) unless otherwise noted; p, pF. Indication without voltage is 50V except electrolytic capacitor.

3. VOLTAGE, CURRENT.

Signal voltage at 65W + 65W 8 Ω output.
DC voltage (V) at no input signal.
Value in () is DC voltage at rated power.

mA, DC current at no input signal.

4. OTHERS.

Signal route.

Adjusting point.

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.

SWITCHES.

S1 PHONO INTERFERENCE OFF ON
S2 FUNCTION PHONO TUNER-AUX
S3 TAPE MONITOR 1 OFF 2
S4 TAPE DUPLICATE 1 2 OFF 2 1
S5 MUTING OFF ON
S6 MODE REV STEREO L+R L-R
S7 LOUDNESS OFF ON
S8 SUBSONIC FILTER OFF ON
S9 TONE OFF ON
S10 SPEAKERS OFF: A-B A+B
S11 POWER OFF ON

The underlined indicates the switch position.

This is the basic schematic diagram, but the actual circuit may vary due to improvements in design.

CAPACITORS

Part No.	Symbol & Description
CKDYB 471K 50	C1, C2
CCDSL 151K 50	C3, C4
CCDSL 390K 50	C5, C6
CQMA 332K 250	C7, C8
CCDSL 050D 500	C9, C10
CKDYB 562K 50	C11, C12
CQMA 103K 50	C13—C16
CCDSL101K 500	C17—C20
CEANL R22M 50	C21, C22
CQMA 473K 50	C23, C24
CEA 331P 6	C25
CEA 101P 50	C26
CKDYB 471K 50	C27
CQMA 103K 400	C46

RESISTORS

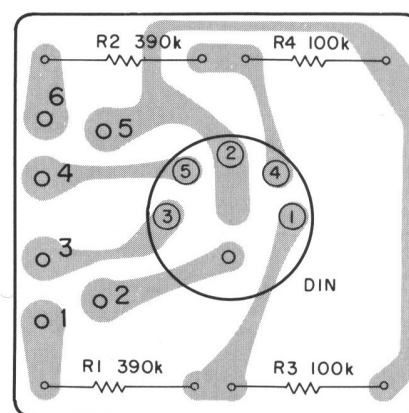
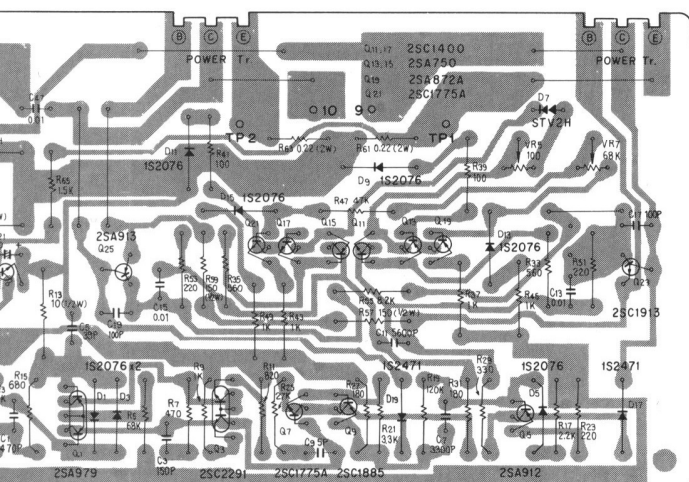
SEMICONDUCTORS

OTHERS

Part No.	Symbol & Description	
ASR-052	RL1	Relay
ABA-139		Screw 3x6

SA-7800/HG

Connector Assembly (AWX-062)



Part No.	Symbol & Description
RD4PS □□□ J AKP-011	R1—R4 Connector socket (REC/PLAY)

Indicator Assembly (AWV-003)

The circuitry of the AWP-003 is the same as the AWP-001 (for KU type), with the exception of R14.

Symbol	Part No. (for AWW-003)	Part No. (for AWW-001)
R14	ACN-045	RS2P 271J

Volume Assembly (GWX-268)

The circuitry of the GWX-268 is the same as the GWX-258 (for KU type), with exception of the P.C. board material.

Switch Assembly 1 (GWS-174)

The circuitry of the GWS-174 is the same as the GWS-169 (for KU type), with the exception of the P.C. board material.

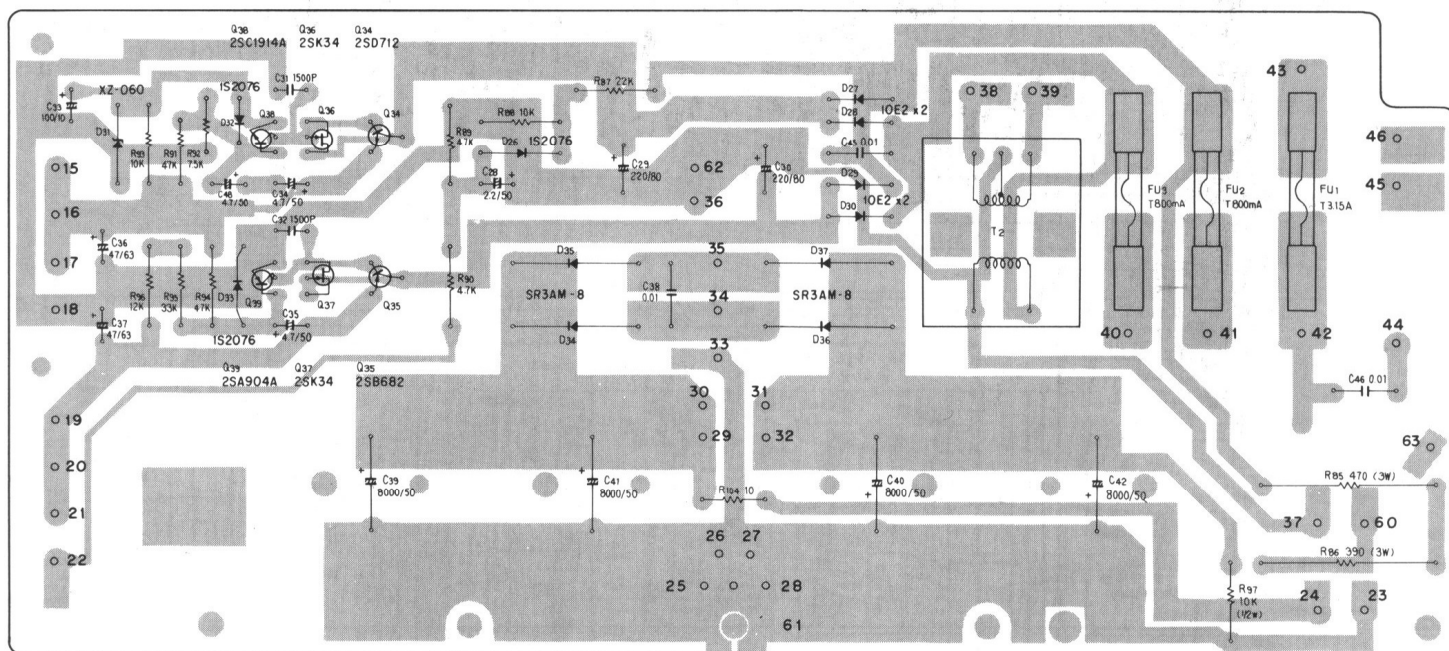
Terminal Assembly (GWX-269)

The circuitry of the GWX-269 is the same as the GWX-259 (for KU type), with exception of the P.C. board material.

Phone jack Assembly (GWX-270)


The circuitry of the GWX-270 is the same as the GWX-260 (for KU type), with the exception of the P.C. board material.

Power Supply Assembly (GWR-114)




Parts List

CAPACITORS



Part No.	Symbol & Description
CEA 2R2P 50	C28
CEA 221P 80	C29, C30
CKDYB 152K 50	C31, C32
CEA 101P 10	C33
CEANL 4R7M 50	C34, C35, C48
CEA 470P 63	C36, C37
ACG-004	C38, C45 Ceramic 0.01/150V
ACH-082	C39—C42 Electrolytic 8000/50V
 ACG-001	C46 Ceramic 0.01/250V

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

RESISTORS

Part No.	Symbol & Description
RS3P □□□ J	R85, R86
RD½PM □□□ J	R87—R96
RD½PS □□□ J	R97
 RF½PS □□□ J	R104

SEMICONDUCTORS

Part No.	Symbol & Description
2SD712	Q34
2SB682	Q35
2SK34	Q36, Q37
2SC1914A (2SC1890A)	Q38
2SA904A (2SA893A)	Q39
1S2076 (1S1555)	D26, D32, D33
 10E2 (SIB01-02)	D27—D30
XZ-060	D31
 SR3AM-8	D34—D37

OTHER

Part No.	Symbol & Description	
ATT-577	T2	Heater transformer