

AM/FM STEREO RECEIVER

SX - 626

KCU

<ART-155-0>



 **PIONEER®**

SERVICE MANUAL

AM / FM STEREO RECEIVER **SX-626** KCW, KUW, FVZW, NBW, FW

NOTE:

MODEL SX-626 COMES IN FIVE VERSIONS DISTINGUISHED AS FOLLOWS:

Round label on rear panel	Voltage	Type
KCW KUW FVZW NBW	120V only 120V only 5-position selector 220V only	CSA approved (Canada) UL approved (U.S.A.) FTZ approved (West Germany) SEMCO (Sweden), NEMCO (Norway) and DEMCO (Denmark) approved
FW	5-position selector	General export model with de-emphasis selector switch

 **PIONEER®**

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FM MUTING SWITCH

This switch is used to suppress much noise between FM stations while tuning. When a large signal, however, this switch should be kept off in order not to suppress the desired station signal at the same time.

BALANCE CONTROL

This control balances the volume of the left and right speaker systems. When the volume from the right-hand speaker is needed, turn it to the right (clockwise). When the volume from the left-hand speaker is needed, turn it to the left (counterclockwise).

TAPE MONITOR SWITCH

These switches are set to OFF for the purpose of recording tapes with 1. This switch is set to ON for 1 MON. parts and TAPE 2 MON. parts.

2. This switch is set to ON for 2 MON. parts and TAPE 2 MON. parts.

NOTE: When making tapes, always set the switch to ON for 1 MON. parts and TAPE 2 MON. parts.

NOTE:

This SX-626 Service Manual applies to:

- 1) All the models with IC-indicated round label each attached above the power cords on the rear panels (see page 8); and
- 2) The following five models at which the respective sequence numbers begin:

KUW model	No. 3744801
KCW model	No. 3504201
FVZW model	No. 1612501
NBW model	No. 4301401
FW model	No. 1212001



1. SPECIFICATIONS FACILITIES

SEMICONDUCTORS

FETs	3
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Transistors	27
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POWER AMPLIFIER SECTION

Music Power Output (IHF)	110Watts (4 Ω) 76Watts (8 Ω)
Continuous Power Output	40W/40W (4 Ω) (each channel driven) 32W/32W (8 Ω)
Continuous Power Output	30W + 30W (4 Ω) (both channels driven) 27W + 27W (8 Ω)
Power Output in the range of	
20Hz to 20kHz	20W + 20W (8 Ω , Harmonic distortion less than (both channels driven) 1%)
Harmonic Distortion	Less than 1% (Continuous power output) Less than 0.09% (16W/16W, 8 Ω output)
Intermodulation Distortion	Less than 1% (Continuous power output) Less than 0.4% (16W/16W, 8 Ω output)
Power Bandwidth (IHF)	10Hz to 70kHz (8 Ω , Harmonic distortion less than 1%)
Frequency Response	5Hz to 80kHz, $\pm$ 1dB
Input Sensitivity/Impedance	500mV/60k Ω (MAIN IN) (1kHz, Continuous power output)
Speakers	4 to 16 Ω
Damping Factor	40 (8 Ω , 1kHz)

PREAMPLIFIER SECTION

Output Voltage	500mV (Rated output), 3V (Max.)
Harmonic Distortion	Less than 0.5%
Frequency Response	15Hz to 20kHz, $\pm$ 1 dB
Input Sensitivity/Impedance	PHONO 1 2.5mV/45k Ω (1kHz, for rated output) PHONO 2 2.5mV/45k Ω MIC 2.2mV/22k Ω AUX 200mV/100k Ω TAPE MONITOR 1, 2 200mV/70k Ω
Recording Output	TAPE REC 1, 2 (Pin jack) 200mV TAPE REC (DIN connector) 35mV
BASS Control	-11 dB, +11 dB/100Hz
TREBLE Control	-11 dB, +10.5 dB/10kHz
LOW Filter	-8dB/50Hz (6dB/oct.)
HIGH Filter	-9dB/10kHz (6dB/oct.)
Equalization Curve	PHONO: RIAA S.T.D.
Loudness Contour	+10dB/100Hz, +6dB/10kHz with Volume Control set at -40dB position.
Hum and Noise (IHF)	PHONO More than 85dB AUX More than 95dB

2. FRONT PANEL FACILITIES

M TUNER SECTION

Frequency Range	88MHz to 108MHz 87.5MHz to 108MHz (FTZ approved)
Usable Sensitivity (IHF)	2.0 μ V
Capture Ratio (IHF)	2.5dB
Selectivity (IHF)	More than 70dB
Image Rejection	More than 80dB (98MHz)
IF Rejection	More than 100dB (90MHz)
Spurious Rejection	More than 90dB (98MHz)
AM Suppression	50dB
Signal-to-Noise Ratio	70dB
Harmonic Distortion	Mono: Less than 0.4% (100% Mod.) Stereo: Less than 0.5% (100% Mod.)
Tuning Indicator	Signal strength type
Muting	Switchable to ON-OFF
Stereo Separation	More than 40dB (1kHz)
Sub Carrier Suppression	More than 50dB
De-emphasis Switch	50 μ sec., 75 μ sec. (FW model only)
Antenna Input	Impedance 300 Ω balanced and 75 Ω unbalanced.

AM TUNER SECTION

Frequency Range	525kHz to 1,605kHz
Usable Sensitivity (IHF)	10 μ V
Selectivity (IHF)	More than 30dB
Image Rejection	More than 80dB (1,000kHz)
IF Rejection	More than 70dB
Signal-to-Noise Ratio	More than 50dB
Antenna	Built-in, Ferrite Loopstick Antenna

MISCELLANEOUS

Power Requirements	120V 60Hz or 110V, 120V, 130V, 220V and 240V. (Switchable) 50 – 60Hz
Power Consumption	170W (Max.)
Dimensions (overall)	17-11/16in./450mm (width) 5-11/16in./145mm (height) 14-3/16in./360mm (depth)
Weight	Without package: 21lb. 13oz/9.9kg With package: 26lb. 7oz/12kg
Furnished Accessories	FM T-type Antenna 1 Pin Plugs 2 Speaker Plugs 6 Polishing cloth 1 Operating Instructions 1

NOTE: Specifications and the design subject to possible modification without notice due to improvements.

2. FRONT PANEL FACILITIES

SPEAKERS SWITCH

A combination of the power on/off switch and the speaker system selector switch.

POWER OFF The equipment is dead.

A Sound comes through the speaker system plugged into the A speaker sockets.

SPKR OFF ... No sound comes from any speaker system. Useful for listening through headphones.

B Sound comes through the speaker system plugged into the B speaker sockets.

C Sound comes through the speaker system plugged into the C speaker sockets.

A + B Both A and B speaker systems are energized.

A + C Both A and C speaker systems are energized.

PHONES JACK

Use this to plug in stereo headphones.

A full selection of high-performance headphones is available from Pioneer.

BASS & TREBLE CONTROLS

Control bass and treble. Turning each control clockwise from the FLAT position will boost the tone, and turning it counterclockwise will diminish the tone.

FILTER SWITCHES

LOW: Setting this switch to ON will eliminate low frequency noises, such as record rumble, hum, or other interference. The switch is normally set to OFF unless the filter is required.

HIGH: Setting this switch to ON will eliminate high frequency noises, such as record scratch, hiss static noise from fluorescent lamps, or other interference. The switch is normally set to OFF unless the filter is required.

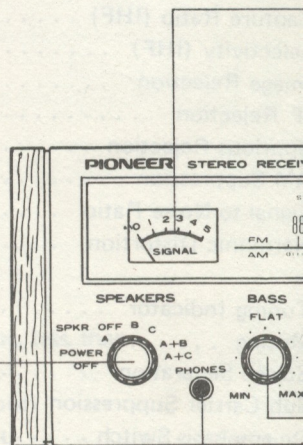
FM MUTING SWITCH

This switch is used to suppress much noise between FM stations while tuning.

In a fringe area, however, this switch should be kept off in order not to suppress the desired station signal at the same time.

BALANCE CONTROL

This control balances the volume of the left and right speaker systems. Where the volume from the right-hand speakers is too low, turn it to the right (clockwise). Where the volume from the left-hand speakers is too low, turn it to the left (counterclockwise).



VOLUME CONTROL

To increase the volume, turn it to

LOUDNESS SWITCH

To listen to quieter sound, set this switch to the low and high notes. For normal listening, set it to the flat position.

TAPE MONITOR SWITCHES

These switches are set to ON for normal listening or playback of recorded tapes with the monitor switch.

- 1 - This switch is set to ON for MON jacks and TAPE 1 connector.
- 2 - This switch is set to ON for MON jacks and TAPE 2 R.

NOTE: For a normal record playback, the monitor switches set to the OFF position will not be produced from the monitor switch.

SIGNAL METER

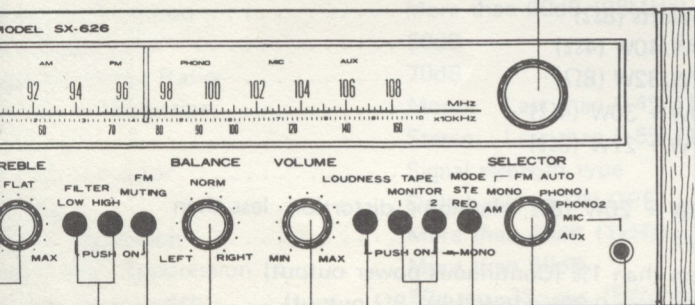
Meter for indicating receiving signal strength.

STEREO INDICATOR

This indicator will light up when the broadcast is in stereo.

TUNING KNOB

Used to select desired stations.



MIC JACK

Accepts the plug of the microphone. Use a high-impedance, dynamic microphone with a standard plug.

SELECTOR SWITCH

This switch is used for choosing the program source.

AM AM reception.

FM MONO . . FM monophonic reception only.

FM AUTO . . FM reception by automatic switching for either stereo or monophonic program.

PHONO 1 . . . For playing records on a turntable plugged into the PHONO 1 jacks.

PHONO 2 . . . Same as above, for PHONO 2 jacks.

MIC Microphone sound can be reproduced.

AUX For playing signals fed to the AUX jacks.

MODE SWITCH

STEREO: When set to STEREO, stereo sound is present.

MONO: When set to MONO, the left and right channel signals blend into monophonic sound.

right (clockwise).

the ON position. This emphasizes tuning, set it to the OFF position.

and 2) _____

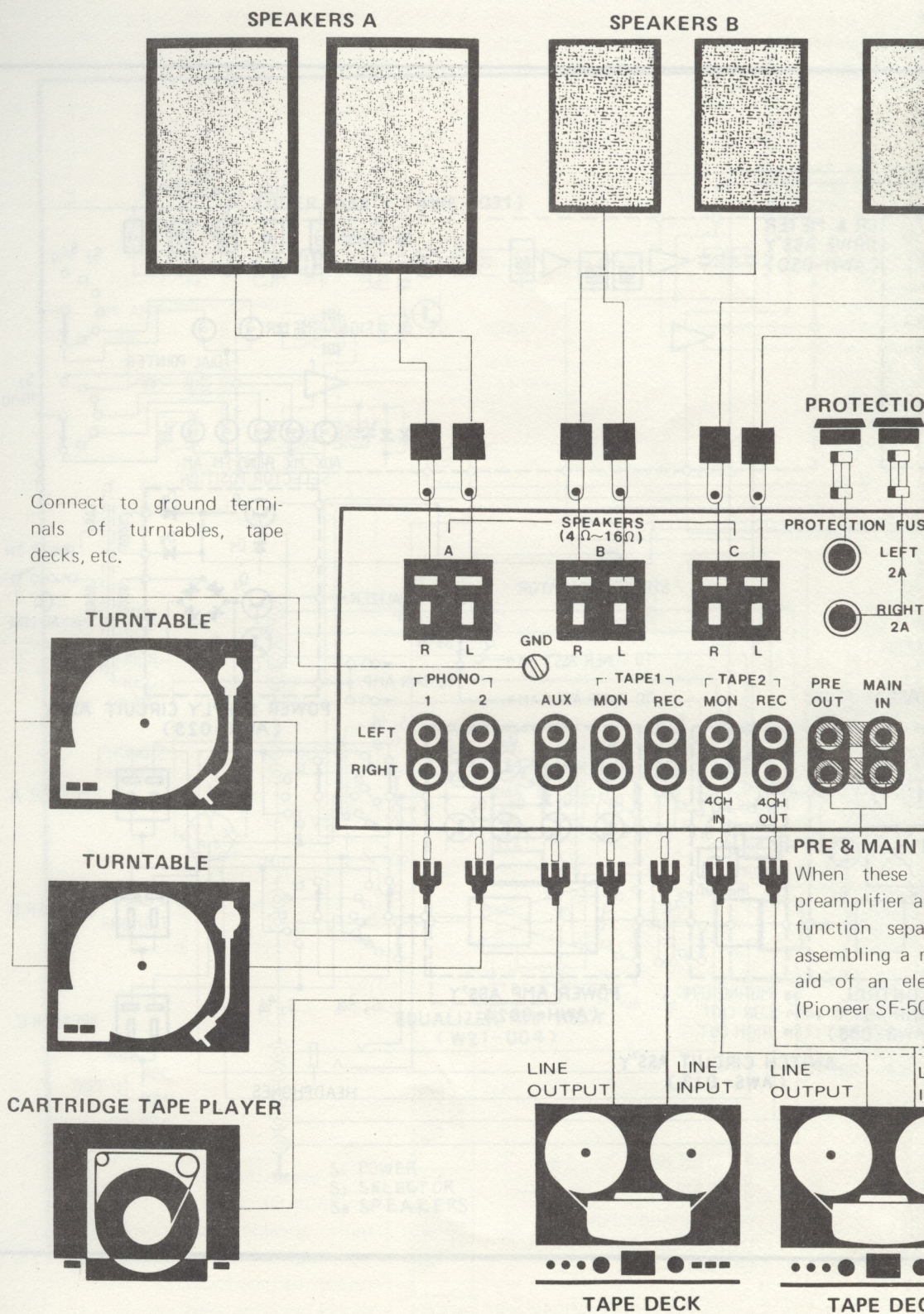
stening of recording in progress decks.

a tape deck plugged into TAPE REC jacks or TAPE REC/P.B.

a tape deck plugged into TAPE decks.

r listening to broadcasts, leave these If the switches are set to ON, sound ers.

3. CONNECTION DIAGRAM



AKERS C

FM OUTDOOR ANTENNA

USE 2A

300Ω FEEDER

75Ω
COAXIAL
CABLE

FM T-TYPE ANTENNA

AM ANTENNA

M FERRITE ANTENNA

75Ω UNBAL 300Ω BAL GND

AC OUTLETS -
SWITCHED UNSWITCHED

GROUND

REC/PB

GS

s are unplugged, the
main (power) amplifier
y. This is useful for
i-amp system with the
nic crossover network
F-700, for example).

FUSE 2A
120V model
2A

AC OUTLETS

5V model
2A 110V
120V
130V

1A 220V
240V

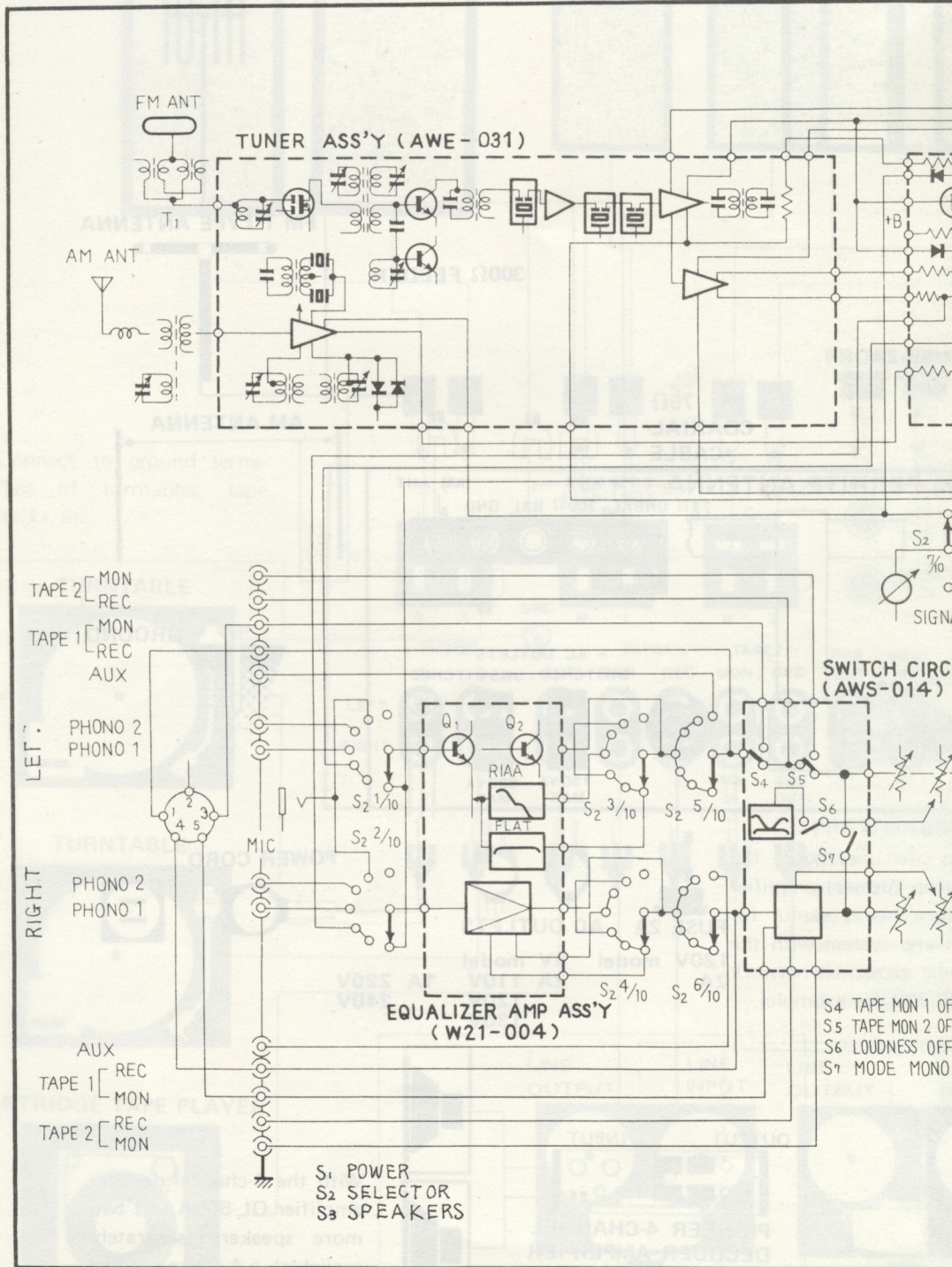
POWER CORD

OUTPUT INPUT
PIONEER 4-CHANNEL
DECODER AMPLIFIER
QL-600A

REAR SPEAKERS

With the 4-channel decoder
amplifier QL-600A and two
more speakers (separately
available), a 4-channel stereo
system can be assembled as
shown in this illustration.

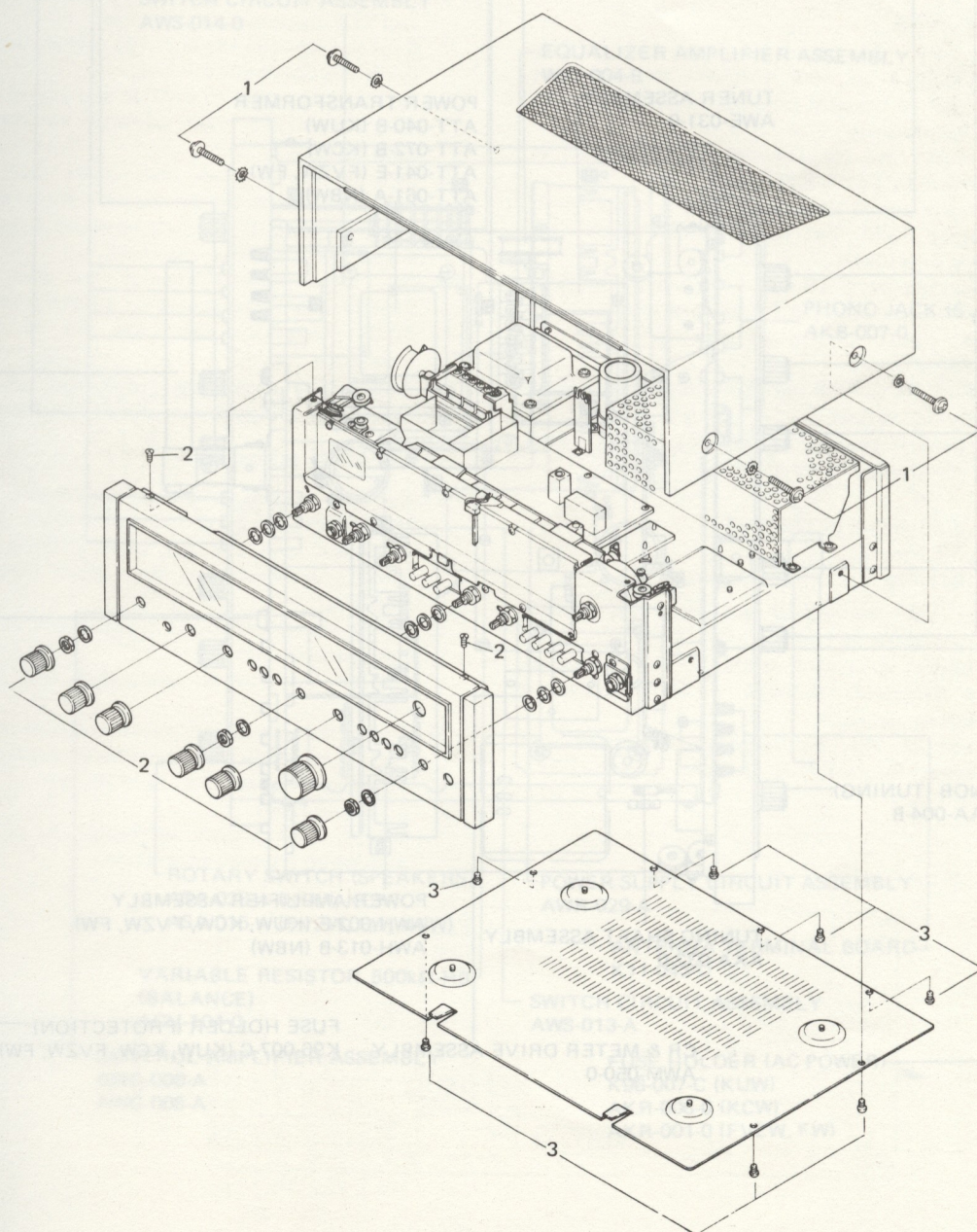
4. BLOCK DIAGRAM





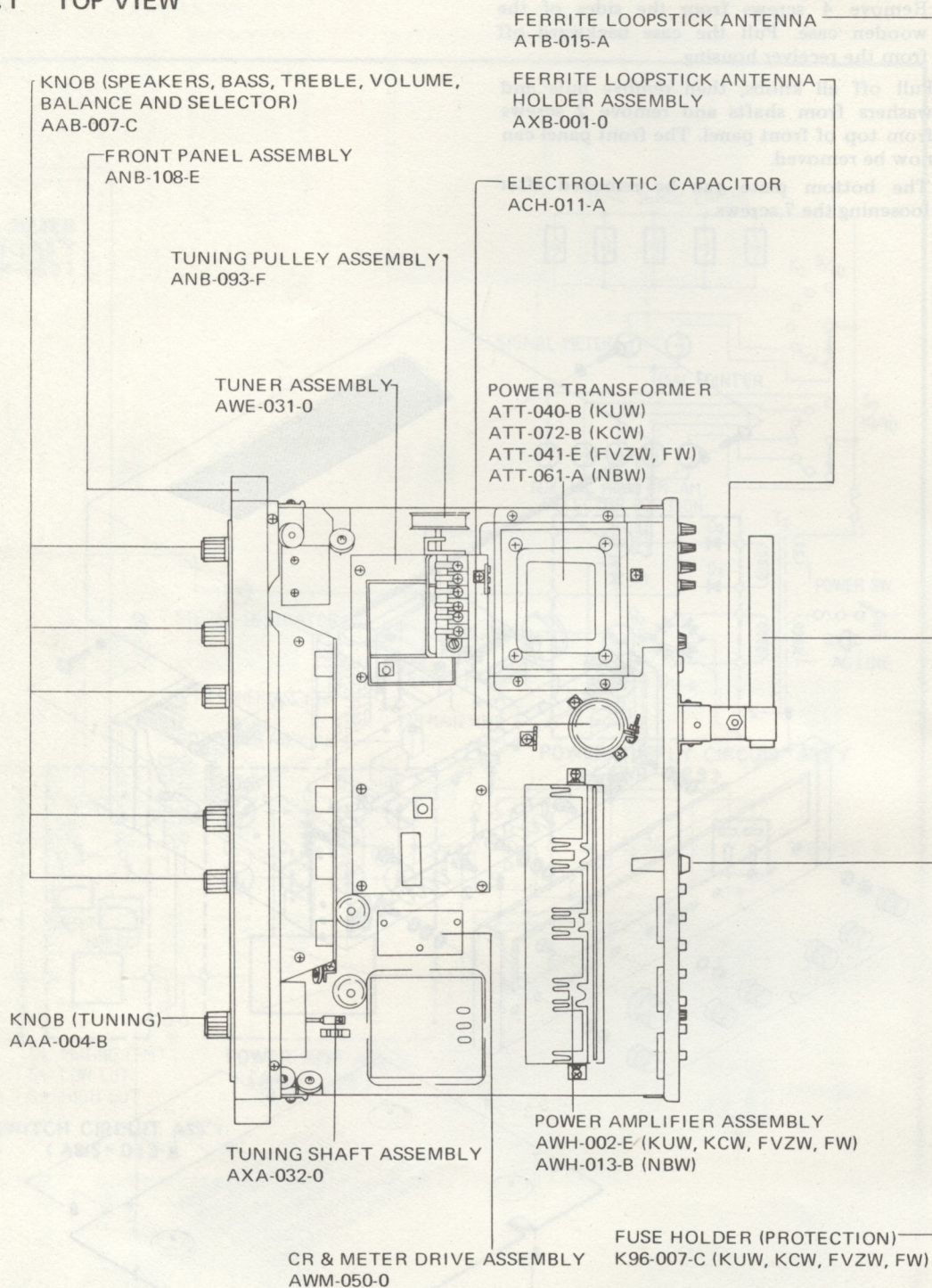
5. DISASSEMBLY

1. Remove 4 screws from the sides of the wooden case. Pull the case backward off from the receiver housing.
2. Pull off all knobs, then remove nuts and washers from shafts and remove 2 screws from top of front panel. The front panel can now be removed.
3. The bottom plate can be removed after loosening the 7 screws.

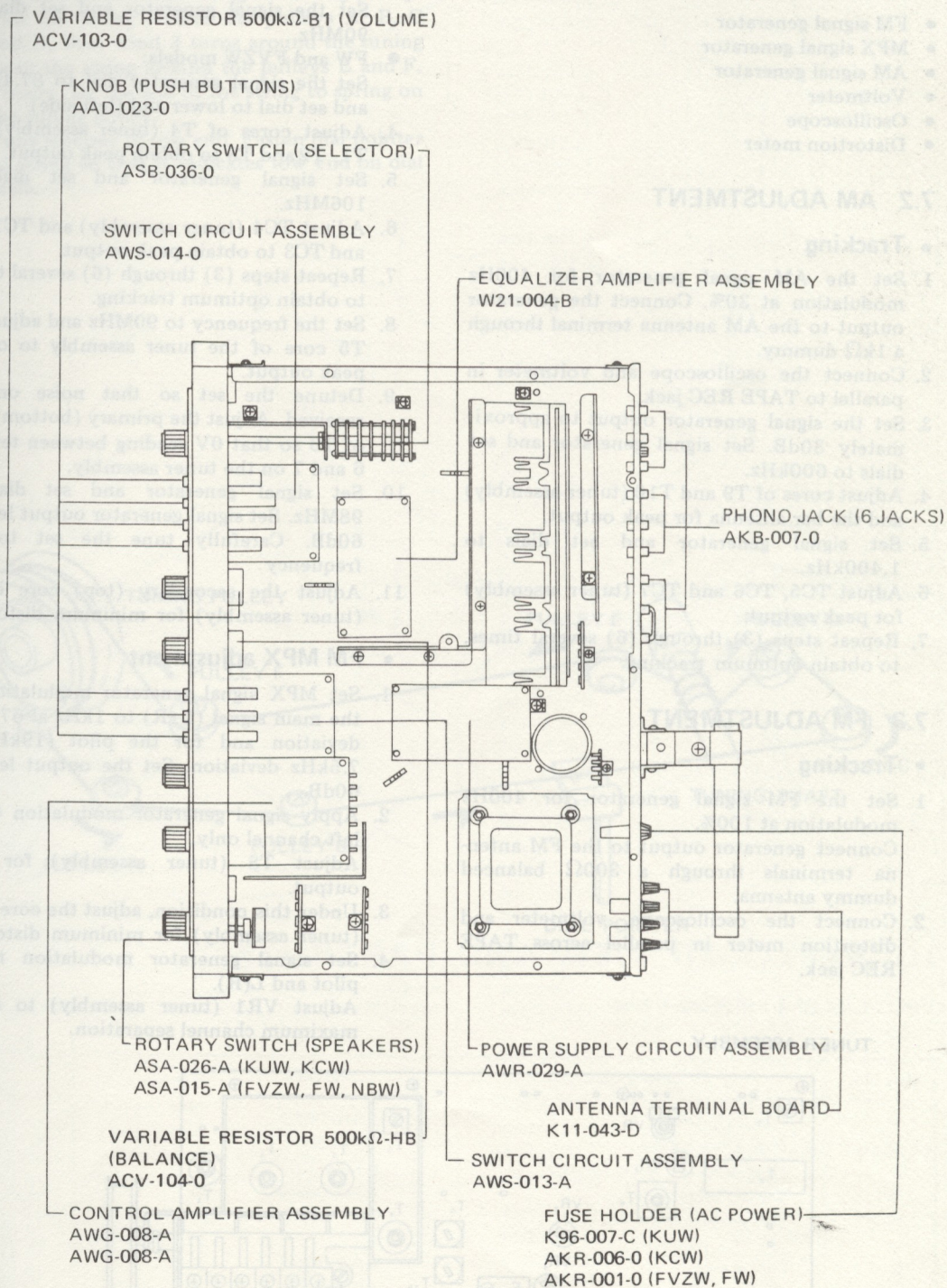


6. PARTS AND P.C. BOARD LOCATION

6.1 TOP VIEW



6.2 BOTTOM VIEW



7. ALIGNMENT PROCEDURE

7.1 REQUIRED MEASURING INSTRUMENTS

- FM signal generator
- MPX signal generator
- AM signal generator
- Voltmeter
- Oscilloscope
- Distortion meter

7.2 AM ADJUSTMENT

• Tracking

1. Set the AM signal generator for 400Hz modulation at 30%. Connect the generator output to the AM antenna terminal through a $1k\Omega$ dummy.
2. Connect the oscilloscope and voltmeter in parallel to TAPE REC jack.
3. Set the signal generator output to approximately 30dB. Set signal generator and set dials to 600kHz.
4. Adjust cores of T9 and T10 (tuner assembly) and the bar antenna for peak output.
5. Set signal generator and set dials to 1,400kHz.
6. Adjust TC5, TC6 and TC7 (tuner assembly) for peak output.
7. Repeat steps (3) through (6) several times, to obtain optimum tracking.

7.3 FM ADJUSTMENT

• Tracking

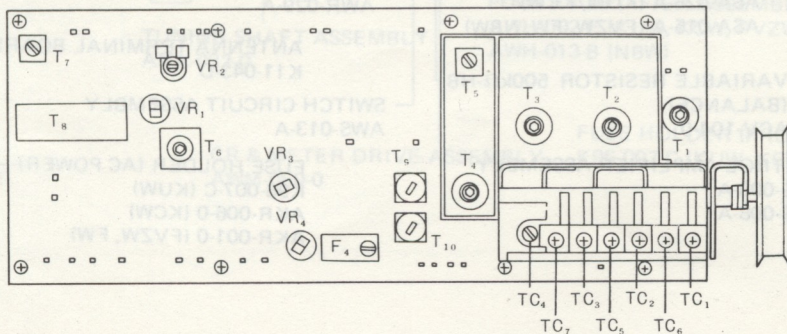
1. Set the FM signal generator for 400Hz modulation at 100%. Connect generator output to the FM antenna terminals through a 300Ω balanced dummy antenna.
2. Connect the oscilloscope, voltmeter and distortion meter in parallel across TAPE REC jack.

3. Set the signal generator output level to 8~10dB.
- KCW, KUW and NBW models:
Set the signal generator and set dials to 90MHz.
- FW and FVZW models:
Set the signal generator dial to 87.4MHz, and set dial to lower and (left side)
4. Adjust cores of T4 (tuner assembly) and T1, T2 and T3 to obtain peak output.
5. Set signal generator and set dials to 106MHz.
6. Adjust TC4 (tuner assembly) and TC1, TC2, and TC3 to obtain peak output.
7. Repeat steps (3) through (6) several times, to obtain optimum tracking.
8. Set the frequency to 90MHz and adjust the T5 core of the tuner assembly to obtain peak output.
9. Detune the set so that noise only is received. Adjust the primary (bottom) core of T6 so that 0V reading between terminals 6 and 7 on the tuner assembly.
10. Set signal generator and set dials to 98MHz. Set signal generator output level to 60dB. Carefully tune the set to this frequency.
11. Adjust the secondary (top) core of T6 (tuner assembly) for minimum distortion.

• FM MPX adjustment

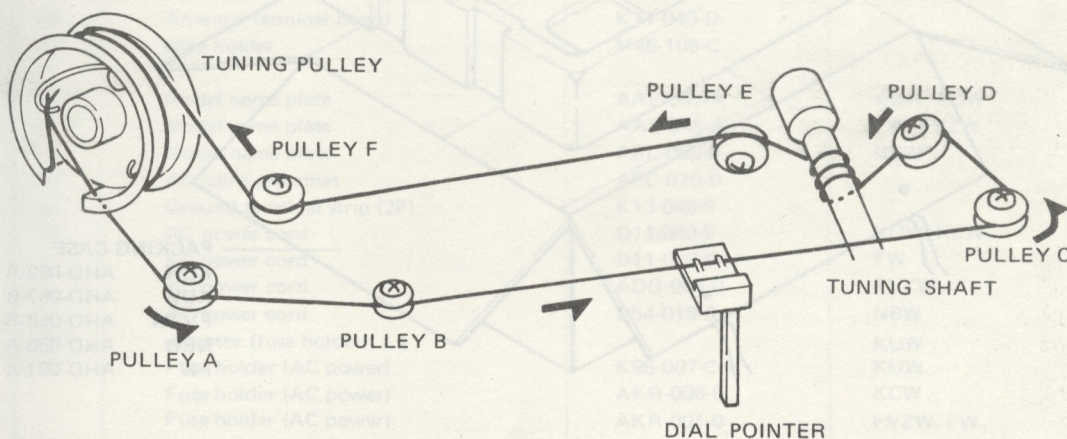
1. Set MPX signal generator modulation for the main signal (L+R) to 1kHz at 67.5kHz deviation and for the pilot (19kHz) at 7.5kHz deviation. Set the output level to 60dB.
2. Apply signal generator modulation to the left channel only.
Adjust T8 (tuner assembly) for peak output.
3. Under this condition, adjust the core of T5 (tuner assembly) for minimum distortion.
4. Set signal generator modulation to the pilot and L(R).
Adjust VR1 (tuner assembly) to obtain maximum channel separation.

TUNER ASSEMBLY



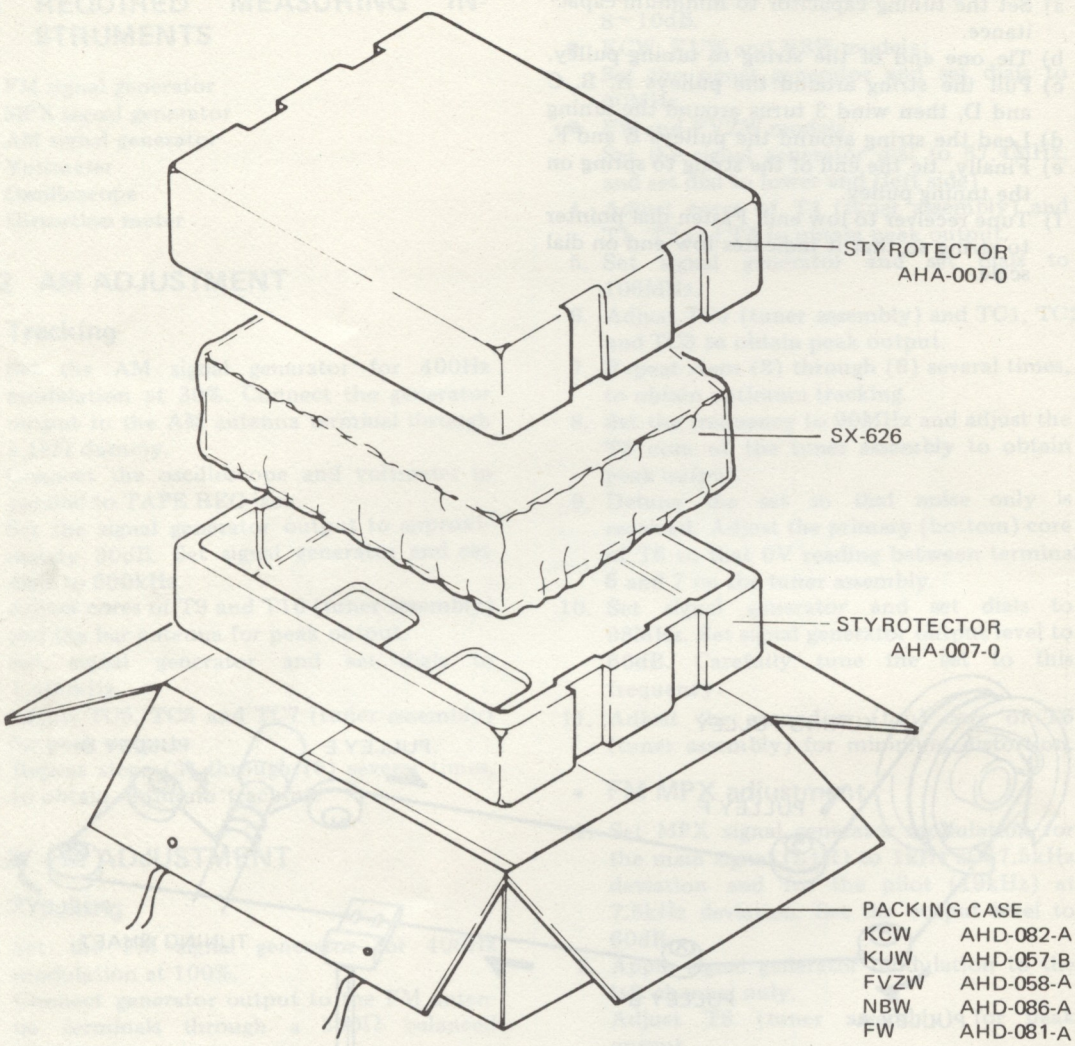
8. DIAL CORD STRINGING

- Set the tuning capacitor to minimum capacitance.
- Tie one end of the string to tuning pulley.
- Pull the string around the pulleys A, B, C and D, then wind 3 turns around the tuning
- Lead the string around the pulleys E and F.
- Finally, tie the end of the string to spring on the tuning pulley.
- Tune receiver to low end. Fasten dial pointer to string so that it indicates low end on dial scale.



Key No.	Description	Part No.	Part No.
1*	Lamp cover	ANH-140-0	2
2	Pin lamp socket	K91-006-A	3
3	Pin lamp 8V, 0.3A (max)	E32-017-0	4
4	Signal meter	AAW-005-0	5
5	Dial pointer assembly	AAF-003-0	6
6	Dial scale	AAG-087-0	7*
7*	Dial scale-hold metal	ANF-008-0	8
8	Lamp board assembly	AWX-010-A	9
9	Pin lamp 8V, 0.3A (max)	E32-017-0	10
10	Pin lamp 8V, 0.3A (max)	AEI-008-0	

9. PACKING METHOD AND PART NUMBERS



10. EXPLODED VIEW AND PARTS LIST

Parts List of Exploded View

NOTICE: Any parts asterisked (*) are subject to being not supplied.

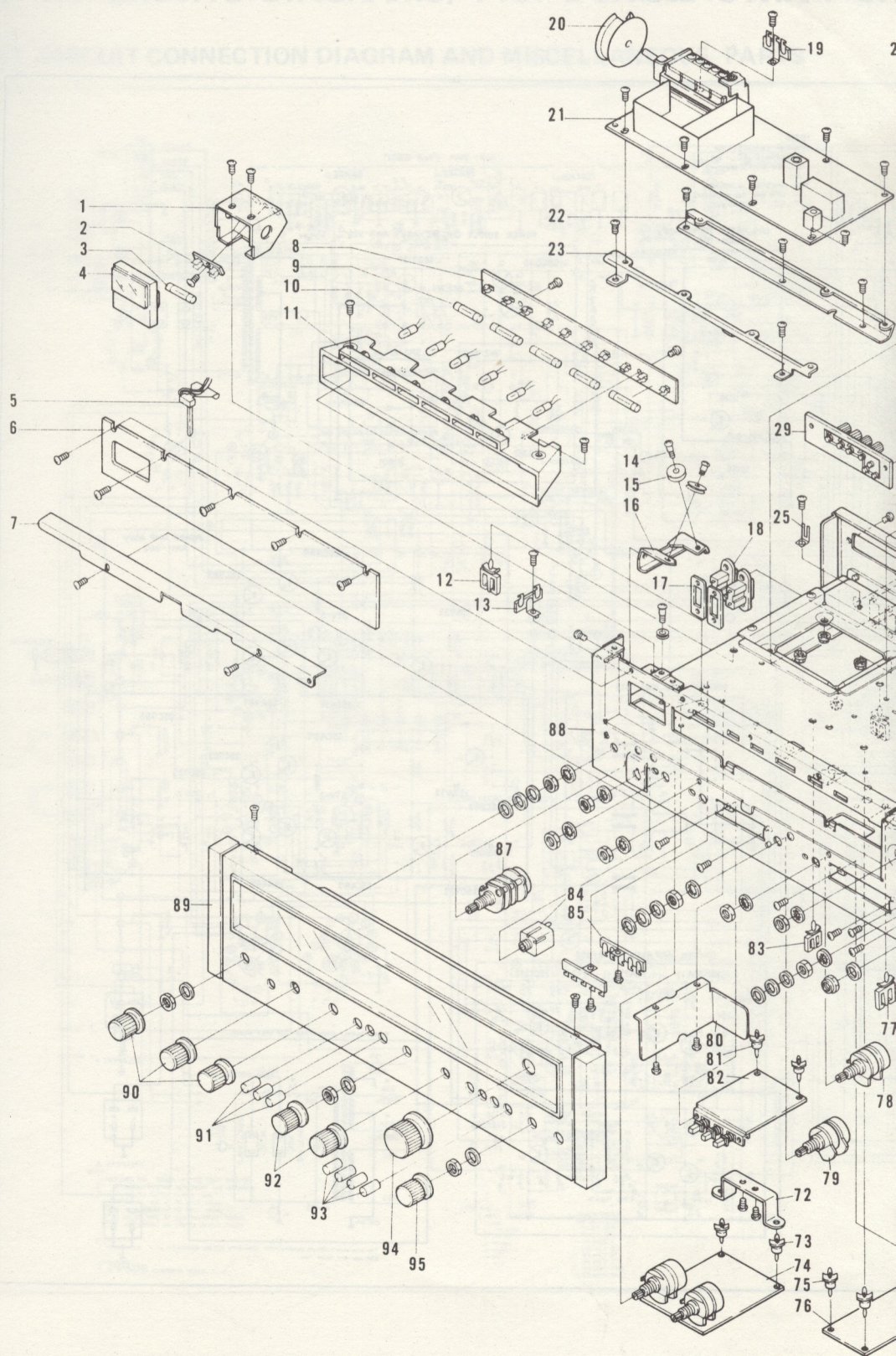
Key No.	Description	Part No.	
1*	Lamp cover	ANH-140-0	
2	Pilot lamp socket	K91-005-A	
3	Pilot lamp 8V, 0.3A (meter)	E22-017-0	
4	Signal meter	AAW-005-0	
5	Dial pointer assembly	AAF-007-C	
6	Dial scale	AAG-057-0	
7*	Dial scale-held metal	ANF-020-B	
8	Lamp board assembly	AWX-010-A	
9	Pilot lamp 8V, 0.3A (dial scale)	E22-017-0	
10	Pilot lamp 6V, 30mA (stereo indicator)	AEL-006-0	

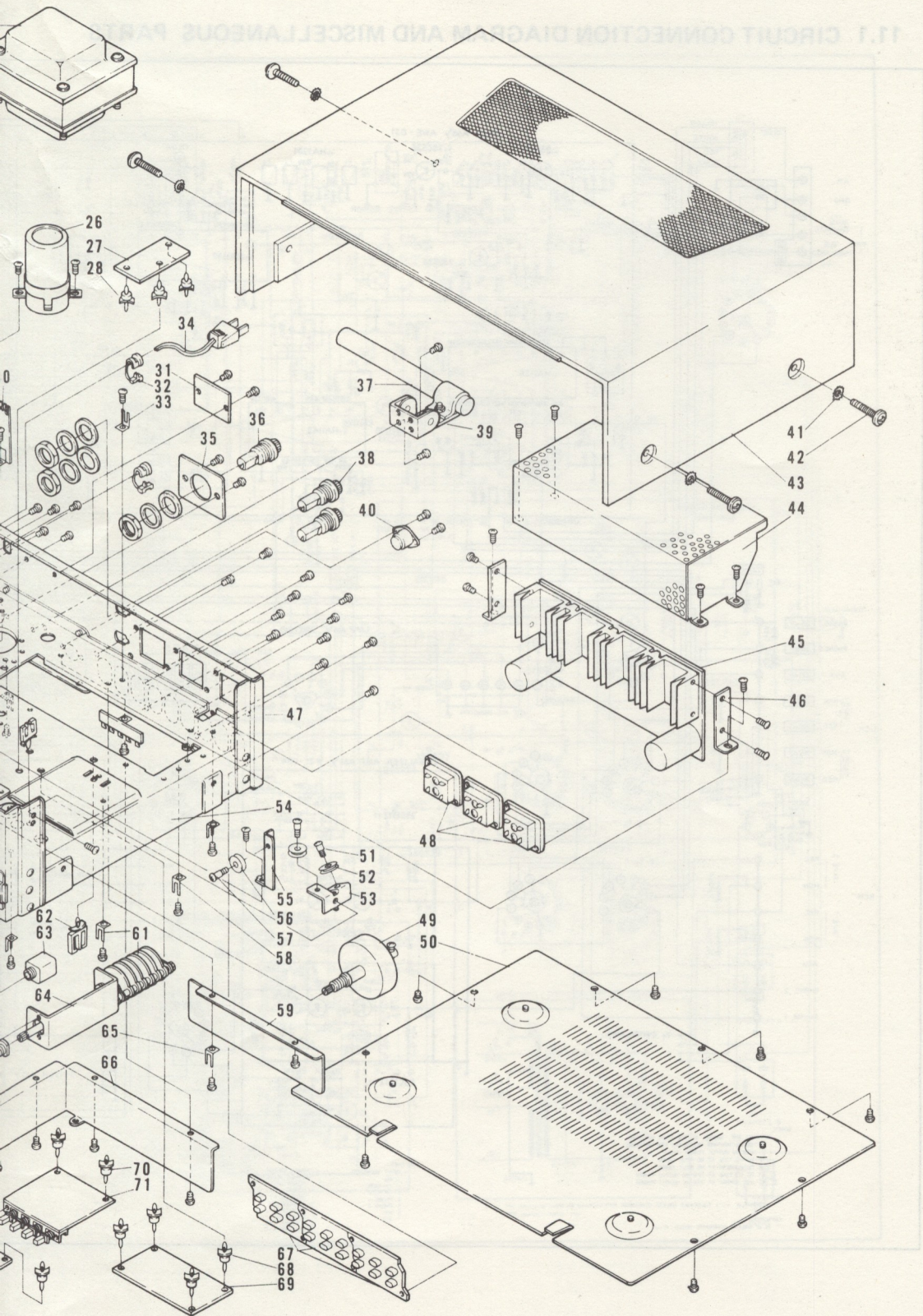
Key No.	Description	Part No.	
11*	Lamp box	AEC-014-A	
12*	Wire clip	AEC-004-0	
13	Terminal strip (2P)	AKC-015-0	KUW
	Terminal strip (2P)	K13-043-A	KCW, FVZW, FW, NBW
14*	Pulley shaft	M49-025-E	
15*	Pulley	AEC-006-0	
16*	Pulley-held metal	ANG-091-0	
17	AC socket-held metal	M49-127-A	KUW, KCW, FVZW, FW
18	AC socket	AKP-002-0	KUW, KCW, FW
	AC socket	K82-012-A	FVZW
19	Terminal strip (1L2P)	AKC-018-0	
20	Tuning pulley assembly	AXA-015-A	
21	Tuner assembly	AWE-031-0	
22*	Sub-chassis-B	ANA-054-0	
23*	Sub-chassis-A	ANA-053-0	
24	Power transformer	ATT-040-B	KUW
	Power transformer	ATT-072-B	KCW
	Power transformer	ATT-041-E	FVZW, FW
	Power transformer	ATT-061-A	NBW
25	Ground terminal strip (2P)	K13-048-0	
26	Electrolytic capacitor 3,300 μ F, 63V	ACH-011-A	
27	CR & meter drive assembly	AWM-050-0	
28*	P.C. board holder	AEB-019-0	KUW
	P.C. board holder	B21-008-A	KCW, FW, FVZW, NNW
29	Antenna terminal board	K11-043-D	
30*	Wire holder	M45-105-C	
31*	Model name plate	AAL-047-A	KUW, KCW
	Model name plate	AAL-048-A	FW, FVZW
	Model name plate	ABL-069-0	NBW
32	AC cord grommet	AEC-079-0	
33	Ground terminal strip (2P)	K13-048-0	
34	AC power cord	D11-003-E	KUW, KCW
	AC power cord	D11-002-B	FW
	AC power cord	ADG-004-0	FVZW
	AC power cord	D54-019-0	NBW
35*	Adaptor (fuse holder)		KUW
36	Fuse holder (AC power)	K96-007-C	KUW
	Fuse holder (AC power)	AKR-006-0	KCW
	Fuse holder (AC power)	AKR-001-0	FVZW, FW
37	Ferrite loopstick antenna		
38	Fuse holder (Protection)	K96-007-C	KUW, KCW, FVZW, FW
39	Ferrite loopstick antenna holder assembly	AXB-001-0	
40	Connector (DIN type 5p)	K93-003-B	
41	Washer	B21-011-0	
42	Screw M4x15	ABA-010-A	
43	Wooden case	AMM-006-C	
44*	Cover (power amplifier)	ANH-131-0	
45	Power amplifier assembly	AWH-002-E	KUW, KCW, FVZW, FW
	Power amplifier-assembly	AWH-013-B	NBW
46	Power amplifier-held metal	ANF-017-0	
47*	Rear panel	ANC-032-E	KUW, KCW
	Rear panel	ANC-027-H	FVZW, FW
	Rear panel	ANC-042-D	NBW
48	Speaker output terminal	K72-028-0	
49	Tuning shaft assembly	AXA-032-0	
50*	Bottom plate	ANE-008-D	

NOTICE: Any parts asterisked (*) are subject to being not supplied.

Key No.	Description	Part No.	
51*	Pulley shaft	M49-025-E	
52*	Pulley	AEC-006-0	
53*	Pulley-held metal	ANG-091-0	
54*	Chassis	ANA-012-J	
55*	Pulley-held metal	ANG-091-0	
56*	Pulley	AEC-006-0	
57*	Pulley shaft	M49-025-E	
58	Ground terminal strip (2P)	K13-048-0	
59*	Shield plate (1)	ANH-044-A	
60			
61	Rotary switch	ASB-036-0	
62*	Wire clip	AEC-004-0	
63	Phone jack (Microphone)	K72-024-0	
64*	Switch-held metal	ANF-019-A	
65	Ground terminal strip (2P)	K13-048-0	
66*	Shield plate (2)	ANH-045-A	
67	Phone jack-A (6 jacks)	AKB-007-0	
68*	P.C. board holder	AEB-019-0	KUW
	P.C. board holder	B21-008-A	KCW, FW, FVZW, NBW
69	Equalizer amplifier assembly	W21-004-B	
70*	P.C. board holder	AEB-019-0	KUW
	P.C. board holder	B21-008-A	KCW, FW, FVZW, NBW
71	Switch assembly	AWS-014-0	
72*	Control amplifier-held metal	ANF-018-0	
73*	P.C. board holder	AEB-019-0	KUW
	P.C. board holder	B21-008-A	KCW, FW, FVZW, NBW
74	Control amplifier assembly	AWG-008-A	
75*	P.C. board holder	AEB-019-0	KUW
	P.C. board holder	B21-008-A	KCW, FW, FVZW, NBW
76	Power supply circuit assembly	AWR-029-A	
77*	Wire clip (B)	AEC-005-0	
78	Variable resistor 500k-B1 (Volume)	ACV-103-0	
79	Variable resistor 500k-HB (Balance)	ACV-104-0	
80*	Shield plate	ANH-139-A	
81*	P.C. board holder	AEB-019-0	KUW
	P.C. board holder	B21-008-A	KCW, FW, FVZW, NBW
82	Switch assembly	AWS-013-A	
83*	Wire clip (B)	AEC-005-0	
84	Phone jack (Headphones)	K72-026-0	
85	Terminal strip (1L4P)	K13-026-A	KUW, KCW, FVZW
86			
87	Rotary switch (Speakers)	ASA-026-A	KUW, KCW
	Rotary switch (Speakers)	ASA-015-A	FW, FVZW, NBW
88*	Sub-panel assembly	AND-016-H	
89	Front panel assembly	ANB-108-E	
90	Knob (Speakers, Bass, Treble)	AAB-007-C	
91	Knob (push switch)	AAD-023-0	
92	Knob (Balance, Volume)	AAB-007-C	
93	Knob (push switch)	AAD-023-0	
94	Knob (Tuning)	AAA-004-B	
95	Knob (Selector)	AAB-007-C	

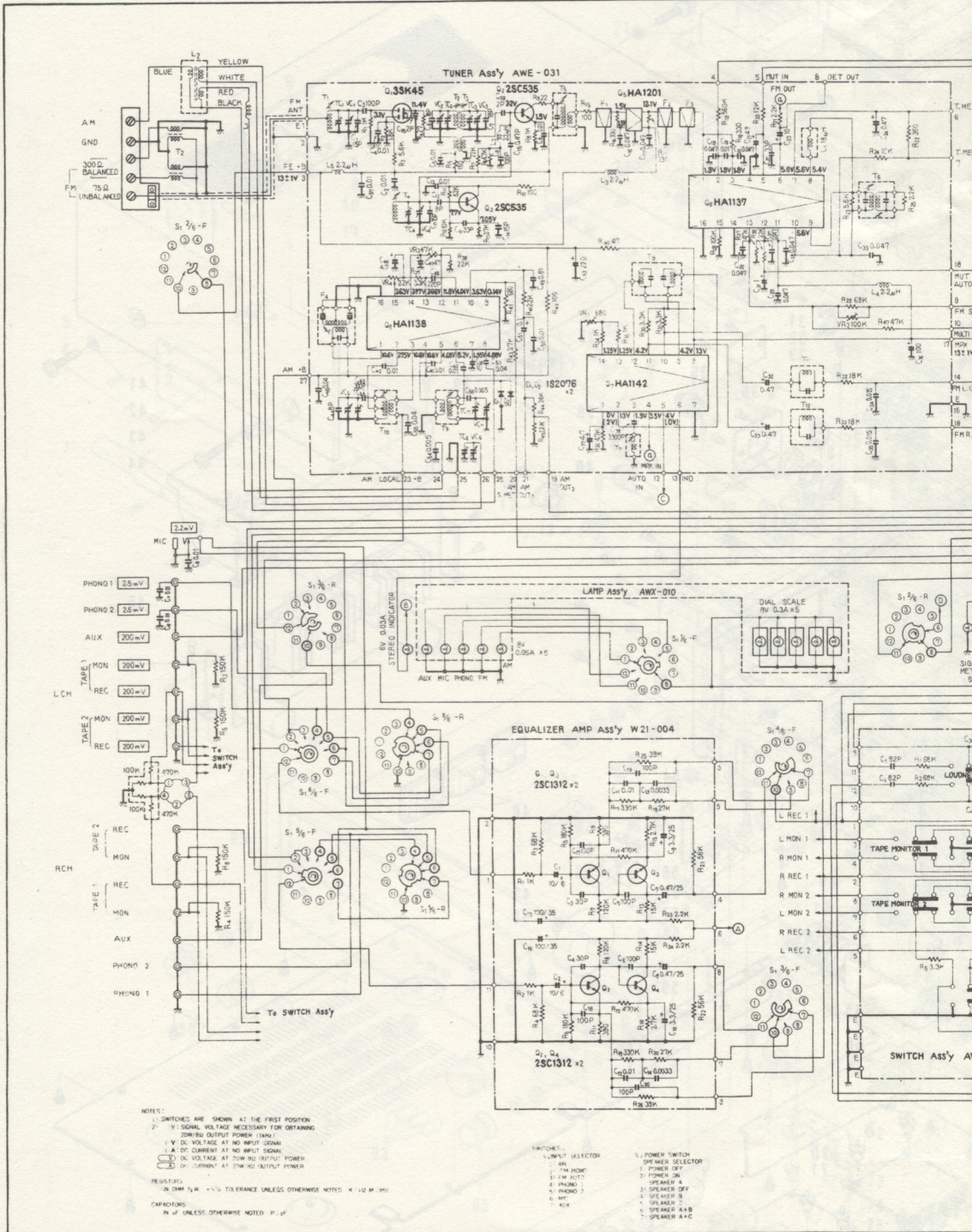
Exploded View





11. SCHEMATIC DIAGRAMS, P.C. BOARD PATTERNS

11.1 CIRCUIT CONNECTION DIAGRAM AND MISCELLANEOUS PARTS

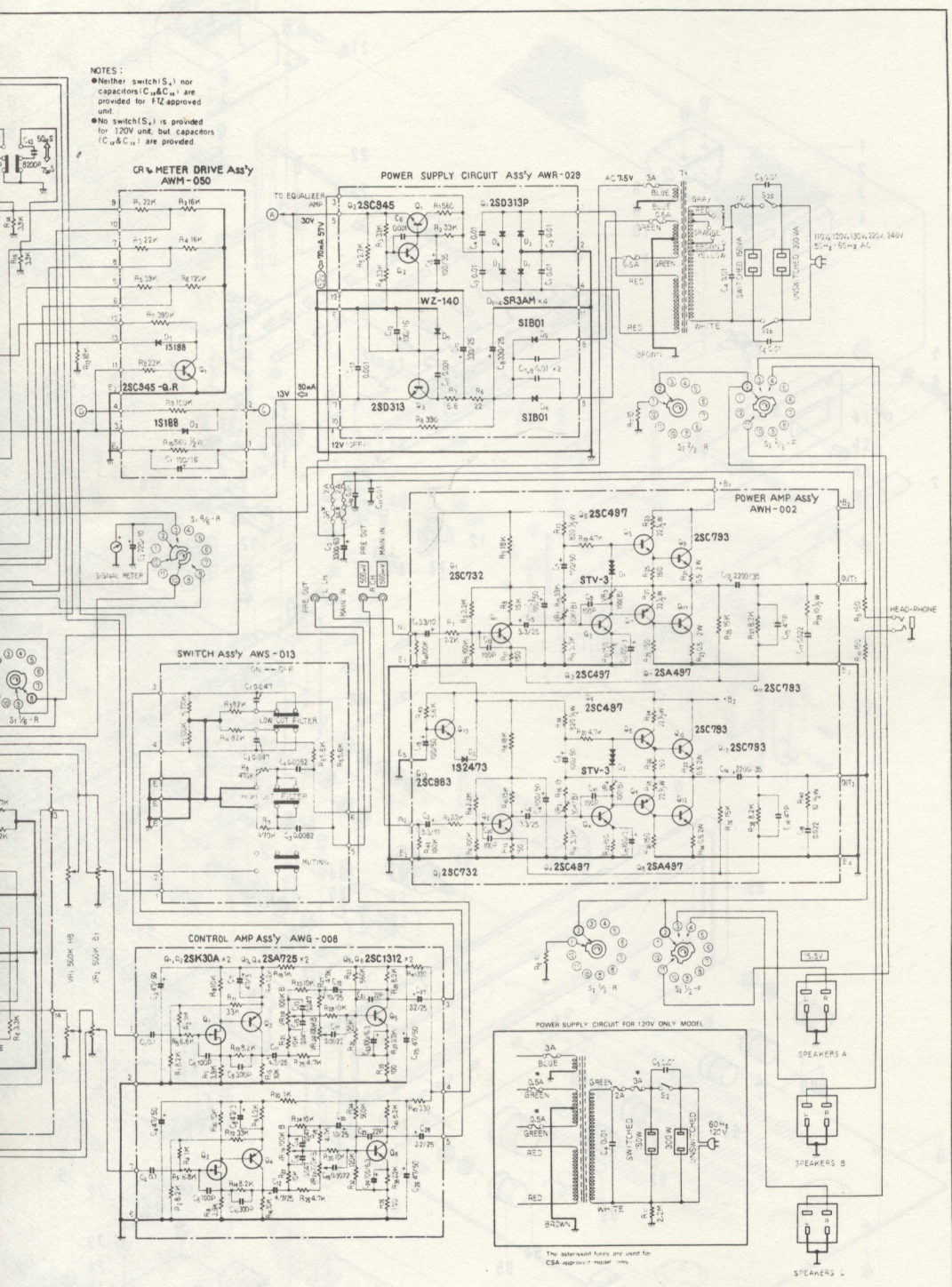


ND PARTS LIST

9X-028
w01V b001q3

NOTES:

- Neither switch (S₁) nor capacitors (C₁₀ & C₁₁) are provided for F12 approved unit.
- No switch (S₁) is provided for 120V unit, but capacitors (C₁₀ & C₁₁) are provided.



Miscellaneous Parts

- CAPACITORS: IN μ F UNLESS OTHERWISE NOTED p: pF
- RESISTORS: IN Ω , $\frac{1}{2}$ W UNLESS OTHERWISE NOTED k: k Ω , M: M Ω

CAPACITORS

Symbol	Description			Part No.	
C2	Electrolytic	220	10V	CEB 221P 10	
C3	Electrolytic	3,300	63V	ACH-011-A	
C4	Metallized mylar	0.01	800V	ACE-002-0	KUW
	Ceramic	0.01	250V	ACG-003-0	KCW
	Ceramic	0.01	250V	ACG-001-0	FVZW, FW
C5	Ceramic	0.01	250V	ACG-001-0	KUW, FVZW, FW
	Ceramic	0.01	150V	ACG-002-0	KCW
C6	Ceramic	0.01	250V	ACG-001-0	FVZW, FW
C7	Ceramic	0.01	50V	CKDYF 103Z 50	
C8	Ceramic	0.01	50V	CKDYF 103Z 50	
C9	Ceramic	0.01	50V	CKDYF 103Z 50	
C10	Ceramic	0.01	150V	ACG-002-0	KCW, KUW
	Ceramic	0.01	250V	ACG-001-0	FVZW, FW, NBW
C11	Ceramic	0.01	150V	ACG-002-0	KCW, KUW
	Ceramic	0.01	250V	ACG-001-0	FVZW, FW, NBW
C12	Mylar	0.0082	50V	CQMA 822J 50	KUW, KCW, FW
C13	Mylar	0.0082	50V	CQMA 822J 50	KUW, KCW, FW

RESISTORS

Symbol	Description			Part No.	
R3	Carbon film	150k		RD $\frac{1}{2}$ PS 154J	
R4	Carbon film	150k		RD $\frac{1}{2}$ PS 154J	
R5	Carbon film	150k		RD $\frac{1}{2}$ PS 154J	
R6	Carbon film	150k		RD $\frac{1}{2}$ PS 154J	
R7	Wire wound	10	5W	RT5B 100K	
R8	Wire wound	10	5W	RT5B 100K	
R9	Wire wound	150	3W	RT3B 151K	
R10	Wire wound	150	3W	RT3B 151K	
R11	Carbon film	2.2M	$\frac{1}{2}$ W	RD $\frac{1}{2}$ PW 225J	KUW, KCW
R12	Carbon film	22	$\frac{1}{2}$ W	RD $\frac{1}{2}$ PS 220J	
R13	Carbon film	18k		RD $\frac{1}{2}$ PS 183J	
R14	Carbon film	3.9k		RD $\frac{1}{2}$ PS 392J	
R15	Carbon film	3.9k		RD $\frac{1}{2}$ PS 392J	
R16	Carbon film	1M		RD $\frac{1}{2}$ PS 105J	KUW, KCW
VR1	Variable resistor 500k-HB (Balance)			ACV-104-0	
VR2	Variable resistor 500k-B1 (Volume)			ACV-103-0	

COIL AND TRANSFORMERS

Symbol	Description		Part No.	
L1	RF choke coil		T24-028-A	
L2	Ferrite loopstick antenna		ATB-015-A	
T1	Power transformer		ATT-040-B	KUW
	Power transformer		ATT-072-B	KCW
	Power transformer		ATT-041-E	FVZW, FW
	Power transformer		ATT-061-A	NBW
T2	Balun		T22-025-A	

Continued on the next page

SWITCHES

Symbol	Description	Part No.	
S1	Rotary switch (Selector)	ASB-036-0	
S2	Rotary switch (Speakers)	ASA-026-A	KUW, KCW
	Rotary switch (Speakers)	ASA-015-A	FVZW, FW, NBW
S3	Slide switch (De-emphasis)	S41-022-A	FW

OTHERS

Symbol	Description	Part No.	
	Tuner assembly	AWE-031-0	
	Equalizer amplifier assembly	W21-004-B	
	Control amplifier assembly	AWG-008-A	
	Power amplifier assembly	AWH-002-E	KUW, KCW, FVZW, FW
	Power amplifier assembly	AWH-013-B	NBW
	Switch circuit assembly	AWS-013-A	
	Switch circuit assembly	AWS-014-0	
	CR & meter drive assembly	AWM-050-0	
	Power supply circuit assembly	AWR-029-A	
	Lamp board assembly	AWX-010-A	
	Front panel assembly	ANB-108-E	
	Wooden case	AMM-006-C	
	Dial pointer assembly	AAF-007-C	
	Signal meter	AAW-005-0	
	Knob (push buttons)	AAD-023-0	
	Knob (Speakers, Bass, Treble, Volume, Balance and Selector)	AAB-007-C	
	Knob (Tuning)	AAA-004-B	
	Dial scale	AAG-057-0	
	Phono jack-A (6 jacks)	AKB-007-0	
	Antenna terminal board	K11-043-D	
	Jumper plug (for phono jack)	AKM-005-0	
	Pilot lamp 8V, 50mA (program indicator)	AEL-007-0	
	Pilot lamp 8V, 0.3A (dial scale)	E22-017-0	
	Pilot lamp 6V, 30mA (Stereo indicator)	AEL-006-0	
	Fuse 2A (AC power)	E21-027-0	KUW, KCW
	Fuse 1A (AC power)	E21-004-0	FVZW, FW
	Fuse 3A (protection)	AEK-008-0	KUW, KCW
	Fuse 2A (protection)	E21-035-A	KUW, KCW
	Fuse 3A (protection)	E21-022-0	KCW, FVZW, FW
	Fuse A (protection)	E21-019-A	KCW, FVZW, FW
	Fuse 2A (protection)	E21-029-A	NBW
	Fuse 0.5A(protection)	AEK-014-0	NBW
	Fuse 1A (protection)	E21-031-0	NBW
	Fuse 5A (protection)	AEK-015-0	NBW
	Compound part for REC jack	W52-004-0	
	AC socket	AKP-002-0	KUW, KCW, FW
	AC socket	K82-012-A	FVZW
	Speaker output terminal	K72-028-0	
	Phone jack (Headphones)	K72-026-0	
	Phone jack (Microphone)	K72-024-0	
	Fuse holder	K92-005-A	

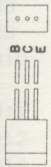
Symbol	Description	Part No.	
	Connector (DIN type 5P)	K93-003-B	
	Fuse holder (AC power and Protection)	K96-007-C	KUW, KCW, FVZW, FW
	Fuse holder (AC power)	AKR-006-0	KCW
	Fuse holder (AC power)	AKR-001-0	FVZW, FW
	Fuse holder (Protection)	K91-008-0	NBW
	FM T-type antenna	D52-013-0	
	Fuse 2A (AC power)	E21-005-0	FVZW, FW
	Speaker plug	K72-007-B	KUW, FVZW, FW, NBW
	Polishing cloth	E33-009-B	
	Packing case	AHD-057-B	KUW
	Packing case	AHD-082-A	KCW
	Packing case	AHD-058-A	FVZW
	Packing case	AHD-081-A	FW
	Packing case	AHD-086-A	NBW
	AC power cord	D11-003-E	KUW, KCW
	AC power cord	ADG-004-0	FVZW
	AC power cord	D11-002-B	FW
	AC power cord	D54-019-0	NBW
	Operating instructions	ARB-044-E	KUW, KCW, FVZW, FW
	Operating instructions	ARB-053-A	NBW
	Binding post (for ground)	B11-012-A	

Foil Side

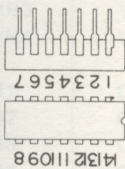
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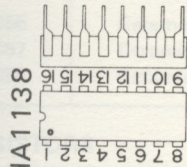
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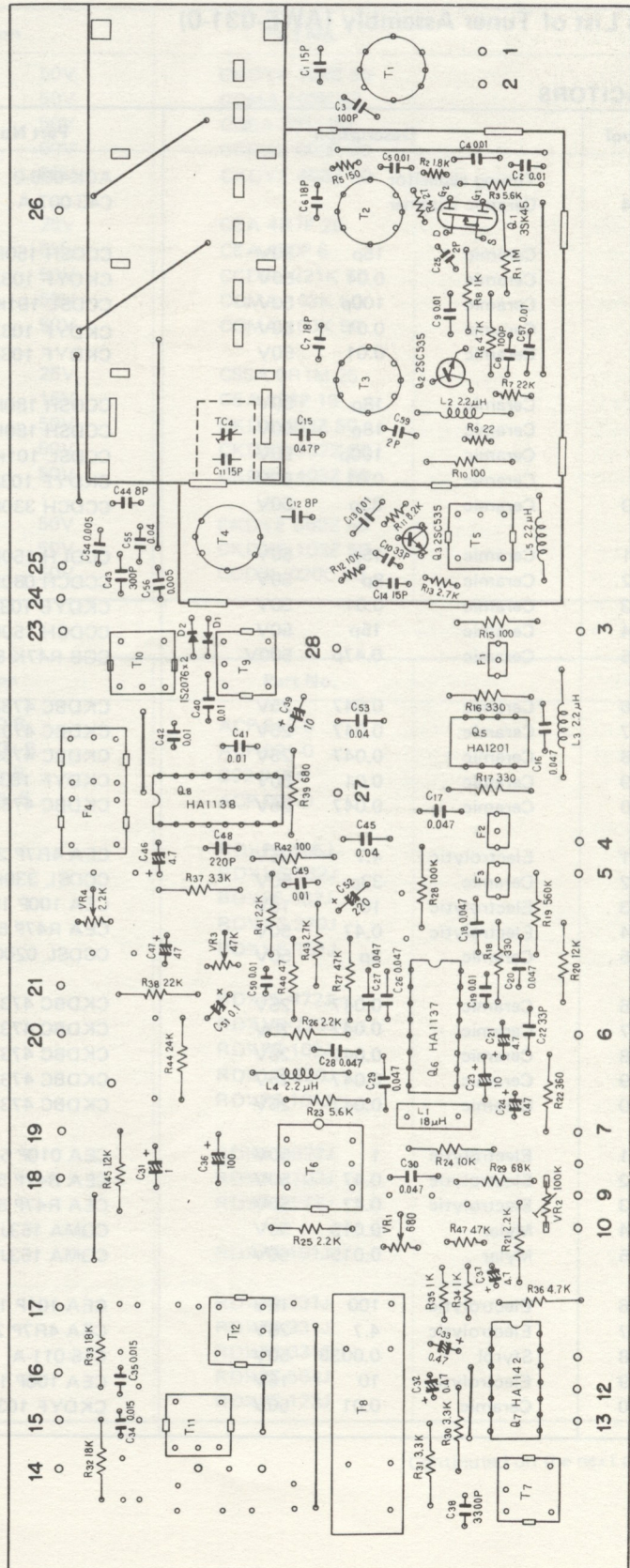
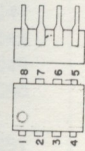
HA1142



HA1137



HA1201



Parts List of Tuner Assembly (AWE-031-0)

CAPACITORS

Symbol	Description			Part No.
VC	Tuning capacitor			ACK-006-0
TC4	Ceramic trimmer			C43-007-A
C1	Ceramic	15p	50V	CCDSH 150K 50
C2	Ceramic	0.01	50V	CKDYF 103Z 50
C3	Ceramic	100p	50V	CCDSL 101K 50
C4	Ceramic	0.01	50V	CKDYF 103Z 50
C5	Ceramic	0.01	50V	CKDYF 103Z 50
C6	Ceramic	18p	50V	CCDSH 180K 50
C7	Ceramic	18p	50V	CCDSH 180K 50
C8	Ceramic	100p	50V	CCDSL 101K 50
C9	Ceramic	0.01	50V	CKDYF 103Z 50
C10	Ceramic	33p	50V	CCDCH 330K 50
C11	Ceramic	15p	50V	CCDLH 150K 50
C12	Ceramic	8p	50V	CCDCH 080F 50
C13	Ceramic	0.01	50V	CKDYB 103K 50
C14	Ceramic	15p	50V	CCDCH 150K 50
C15	Ceramic	0.47p	500V	CGB R47K 500
C16	Ceramic	0.047	25V	CKDBC 473Z 25
C17	Ceramic	0.047	25V	CKDBC 473Z 25
C18	Ceramic	0.047	25V	CKDBC 473Z 25
C19	Ceramic	0.01	50V	CKDYF 103Z 50
C20	Ceramic	0.047	25V	CKDBC 473Z 25
C21	Electrolytic	4.7	25V	CEA 4R7P 25
C22	Ceramic	33p	50V	CCDSL 330K 50
C23	Electrolytic	10	16V	CEA 100P 16
C24	Electrolytic	0.47	50V	CEA R47P 50
C25	Ceramic	2p	50V	CCDSL 020C 50
C26	Ceramic	0.047	25V	CKDBC 473Z 25
C27	Ceramic	0.047	25V	CKDBC 473Z 25
C28	Ceramic	0.047	25V	CKDBC 473Z 25
C29	Ceramic	0.047	25V	CKDBC 473Z 25
C30	Ceramic	0.047	25V	CKDBC 473Z 25
C31	Electrolytic	1	50V	CEA 010P 50
C32	Electrolytic	0.47	50V	CEA R47P 50
C33	Electrolytic	0.47	50V	CEA R47P 50
C34	Mylar	0.015	50V	CQMA 153J 50
C35	Mylar	0.015	50V	CQMA 153J 50
C36	Electrolytic	100	16V	CEA 101P 16
C37	Electrolytic	4.7	25V	CEA 4R7P 25
C38	Styrol	0.0033	50V	C15-011-A
C39	Electrolytic	10	16V	CEA 100P 16
C40	Ceramic	0.01	50V	CKDYF 103Z 50

Symbol	Description			Part No.
C41	Ceramic	0.01	50V	CKDYF 103Z 50
C42	Mylar	0.01	50V	CQMA 103K 50
C43	Styrol	300p	50V	CQSA 301J 50
C44	Ceramic	8p	50V	CCDXL 080F 50
C45	Ceramic	0.04	50V	CKDYF 403Z 50
C46	Electrolytic	4.7	25V	CEA 4R7P 25
C47	Electrolytic	47	6V	CEA 470P 6
C48	Ceramic	220p	50V	CCDSL 221K 50
C49	Mylar	0.01	50V	CQMA 103K 50
C50	Mylar	0.01	50V	CQMA 103K 50
C51	Electrolytic	0.1	25V	CSSA 0R1M 25
C52	Electrolytic	220	16V	CEA 221P 16
C53	Ceramic	0.04	50V	CKDY 403Z 50
C54	Ceramic	0.005	50V	CKDYF 502Z 50
C55	Ceramic	0.04	50V	CKDYF 403Z 50
C56	Ceramic	0.005	50V	CKDYF 502Z 50
C57	Ceramic	0.01	50V	CKDYF 103Z 50
C58	Ceramic	2p	50V	CCDSL 020C 50

RESISTORS

Symbol	Description			Part No.
VR1	Variable resistor	680-B		ACP-013-0
VR2	Variable resistor	100k-B		ACP-021-0
VR3	Variable resistor	47k-B		C92-048-0
VR4	Variable resistor	2.2k-B		ACP-001-0
R1	Carbon film	1M		RD%PS 105J
R2	Carbon film	1.8k		RD%VS 182J
R3	Carbon film	5.6k		RD%PS 562J
R4	Carbon film	27		RD%VS 270J
R5	Carbon film	150		RD%VS 151J
R6	Carbon film	4.7k		RD%PS 472J
R7	Carbon film	22k		RD%VS 223J
R8	Carbon film	1k		RD%PS 102J
R9	Carbon film	22		RD%VS 220J
R10	Carbon film	100		RD%PS 101J
R11	Carbon film	8.2k		RD%VS 822J
R12	Carbon film	10k		RD%VS 103J
R13	Carbon film	2.7k		RD%VS 272J
R14				
R15	Carbon film	100		RD%PS 101J
R16	Carbon film	330		RD%PS 331J
R17	Carbon film	330		RD%PS 331J
R18	Carbon film	330		RD%PS 331J
R19	Carbon film	560k		RD%PS 564J
R20	Carbon film	12k		RD%PS 123J

Continued on the next page

Symbol	Description		Part No.
R21	Carbon film	2.2k	RD4PS 222J
R22	Carbon film	360	RD4PS 361J
R23	Carbon film	5.6k	RD4PS 562J
R24	Carbon film	10k	RD4PS 103J
R25	Carbon film	2.2k	RD4PS 222J
R26	Carbon film	2.2k	RD4PS 222J
R27	Carbon film	47k	RD4PS 473J
R28	Carbon film	100k	RD4PS 104J
R29	Carbon film	68k	RD4PS 683J
R30	Carbon film	3.3k	RD4PS 332J
R31	Carbon film	3.3k	RD4PS 332J
R32	Carbon film	18k	RD4PS 183J
R33	Carbon film	18k	RD4PS 183J
R34	Carbon film	1k	RD4VS 102J
R35	Carbon film	1k	RD4VS 102J
R36	Carbon film	4.7k	RD4PS 472J
R37	Carbon film	3.3k	RD4PS 332J
R38	Carbon film	22k	RD4PS 223J
R39	Carbon film	680	RD4PS 681J
R40	Carbon film	47	RD4PS 470J
R41	Carbon film	2.2k	RD4PS 222J
R42	Carbon film	100	RD4PS 101J
R43	Carbon film	2.7k	RD4PS 272J
R44	Carbon film	24k	RD4PS 243J
R45	Carbon film	1.2k	RD4PS 122J
R46			
R47	Carbon film	47k	RD4VS 473J

SEMICONDUCTORS

Symbol	Description		Part No.
Q1	FET	3SK45-B	
Q2	Transistor	2SC535-B or A	
Q3	Transistor	2SC535-B	
Q5	IC	HA1201	
Q6	IC	HA1137	
Q7	IC	HA1142	
Q8	IC	HA1138	
D1	Diode	1S2076	
D2	Diode	1S2076	

COILS, TRANSFORMERS AND FILTERS

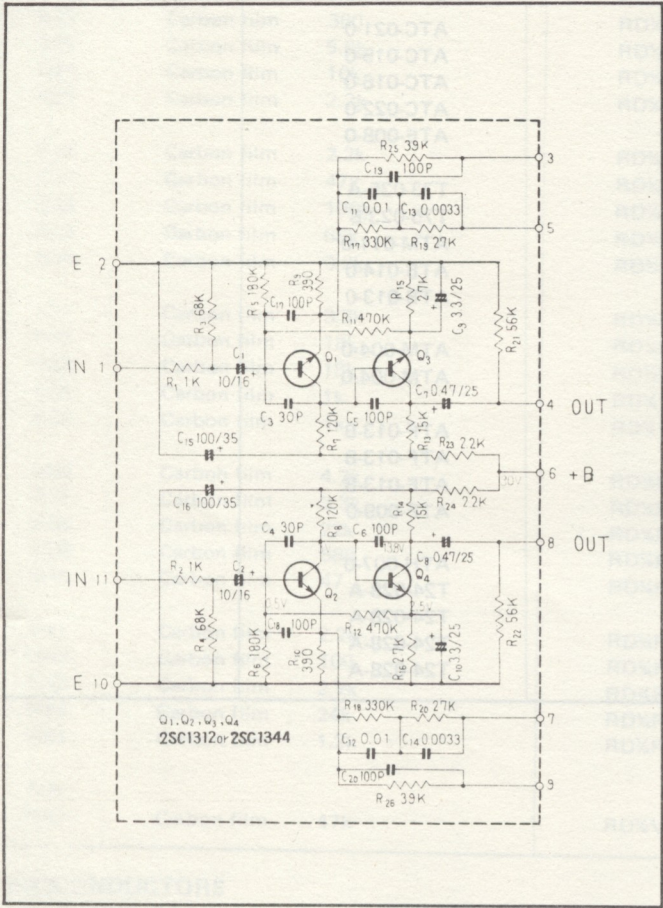
Symbol	Description	Part No.
T1	FM antenna coil	ATC-021-0
T2	FM RF coil	ATC-015-0
T3	FM RF coil	ATC-016-0
T4	FM oscillator coil	ATC-022-0
T5	FM matching transformer	ATE-008-0
T6	FM IF transformer	T73-035-A
T7	19kHz transformer	T75-023-B
T8	MPX transformer	ATM-011-0
T9	AM RF coil	ATB-014-0
T10	AM oscillator coil	ATB-013-0
T11	38kHz filter	ATM-004-0
T12	38kHz filter	ATM-004-0
F1	FM ceramic filter	ATF-013-B
F2	FM ceramic filter	ATF-013-B
F3	FM ceramic filter	ATF-013-B
F4	AM ceramic filter	ATF-009-0
L1	Choke coil	ATH-007-0
L2	RF choke coil	T24-028-A
L3	RF choke coil	T24-028-A
L4	RF choke coil	T24-028-A
L5	RF choke coil	T24-028-A

RESISTORS

Symbol	Description	Part No.
R1	Carbon film 1k	RD4PS 1021
R2	Carbon film 1k	RD4PS 1021
R3	Carbon film 68k	RD4PS 6831
R4	Carbon film 68k	RD4PS 6831
R5	Carbon film 100k	RD4PS 1031
R6	Carbon film 100k	RD4PS 1031
R7	Carbon film 100k	RD4PS 1031
R8	Carbon film 100k	RD4PS 1031
R9	Carbon film 100k	RD4PS 1031
R10	Carbon film 100k	RD4PS 1031
R11	Carbon film 100k	RD4PS 1031
R12	Carbon film 100k	RD4PS 1031
R13	Carbon film 100k	RD4PS 1031
R14	Carbon film 100k	RD4PS 1031
R15	Carbon film 100k	RD4PS 1031
R16	Carbon film 100k	RD4PS 1031
R17	Carbon film 100k	RD4PS 1031
R18	Carbon film 100k	RD4PS 1031
R19	Carbon film 100k	RD4PS 1031
R20	Carbon film 100k	RD4PS 1031

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11.3 EQUALIZER AMPLIFIER ASSEMBLY (W21-004-B)



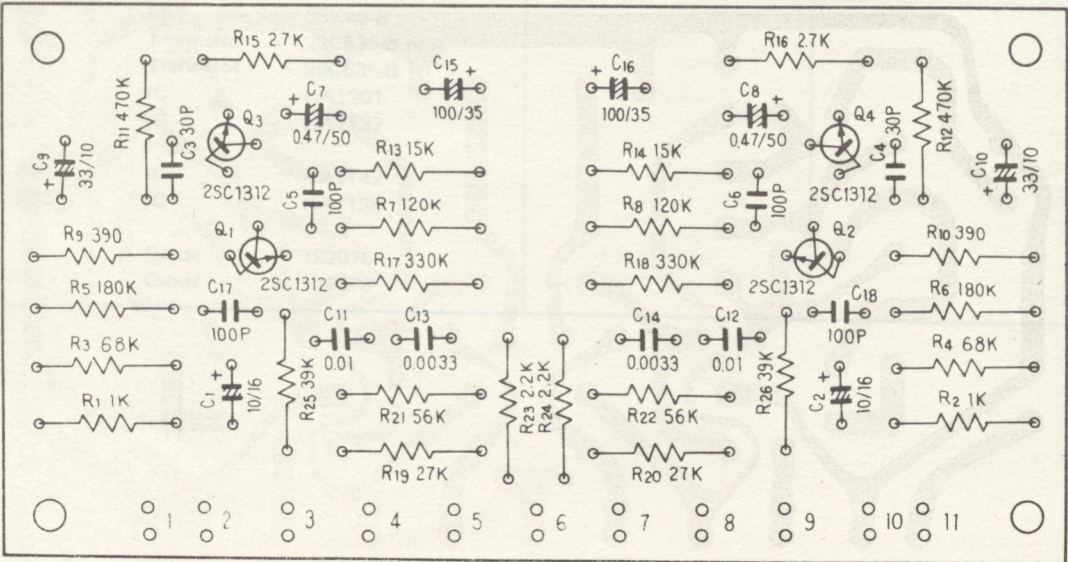
2SC1312



2SC1344



Foil Side



Parts List of Equalizer Amplifier Assembly (W21-004-B)
CAPACITORS

Symbol	Description			Part No.	
C1	Electrolytic	10	16V	CEA	100P 16
C2	Electrolytic	10	16V	CEA	100P 16
C3	Ceramic	30p	50V	CCDSL	300K 50
C4	Ceramic	30p	50V	CCDSL	300K 50
C5	Ceramic	100p	50V	CCDSL	101K 50
C6	Ceramic	100p	50V	CCDSL	101K 50
C7	Electrolytic	0.47	25V	CSSA	R47M 25
C8	Electrolytic	0.47	25V	CSSA	R47M 25
C9	Electrolytic	3.3	25V	CEA	3R3P 25
C10	Electrolytic	3.3	25V	CEA	3R3P 25
C11	Mylar	0.01	50V	CQMA	103M 50
C12	Mylar	0.01	50V	CQMA	103M 50
C13	Mylar	0.0033	50V	CQMA	332M 50
C14	Mylar	0.0033	50V	CQMA	332M 50
C15	Electrolytic	100	35V	CEA	101P 35
C16	Electrolytic	100	35V	CEA	101P 35
C17	Ceramic	100p	50V	CCDSL	101K 50
C18	Ceramic	100p	50V	CCDSL	101K 50
C19	Ceramic	100p	50V	CCDSL	101K 50
C20	Ceramic	100p	50V	CCDSL	101K 50

RESISTORS

Symbol	Description			Part No.	
R1	Carbon film	1k		RD%PS	102J
R2	Carbon film	1k		RD%PS	102J
R3	Carbon film	68k		RD%PS	683J
R4	Carbon film	68k		RD%PS	683J
R5	Carbon film	180k		RD%PS	184J
R6	Carbon film	180k		RD%PS	184J
R7	Carbon film	120k		RD%PS	124J
R8	Carbon film	120k		RD%PS	124J
R9	Carbon film	390		RD%PS	391J
R10	Carbon film	390		RD%PS	391J
R11	Carbon film	470k		RD%PS	474J
R12	Carbon film	470k		RD%PS	474J
R13	Carbon film	15k		RD%PS	153J
R14	Carbon film	15k		RD%PS	153J
R15	Carbon film	2.7k		RD%PS	272J
R16	Carbon film	2.7k		RD%PS	272J
R17	Carbon film	330k		RD%PS	334J
R18	Carbon film	330k		RD%PS	334J
R19	Carbon film	27k		RD%PS	273J
R20	Carbon film	27k		RD%PS	273J

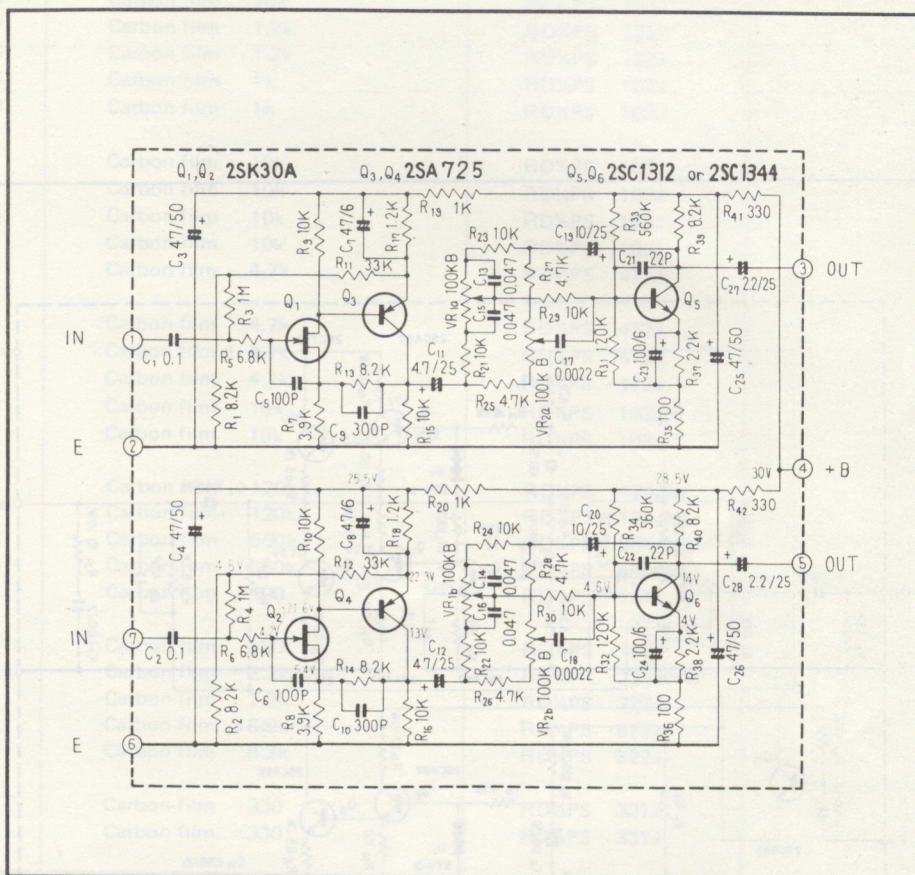
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Symbol	Description	Part No.
R21	Carbon film 56k	RD%PS 563J
R22	Carbon film 56k	RD%PS 563J
R23	Carbon film 2.2k	RD%PS 222J
R24	Carbon film 2.2k	RD%PS 222J
R25	Carbon film 39k	RD%PS 393J
R26	Carbon film 39k	RD%PS 393J

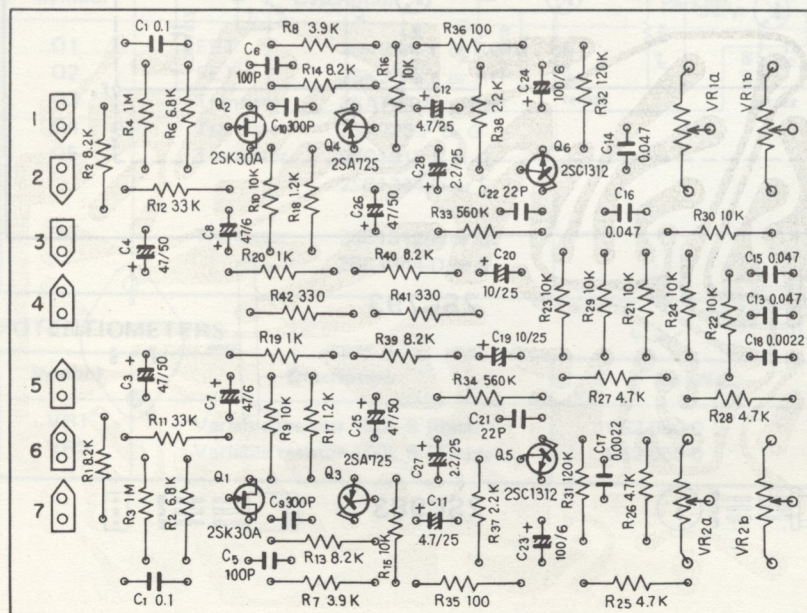
SEMICONDUCTORS

Symbol	Description	Part No.
Q1	Transistor 2SC1312-G or F 2SC1344-E or D	
Q2	Transistor 2SC1312-G or F 2SC1344-E or D	
Q3	Transistor 2SC1312-G or F 2SC1344-E or D	
Q4	Transistor 2SC1312-G or F 2SC1344-E or D	

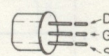
11.4 CONTROL AMPLIFIER ASSEMBLY (AWG-008-A)



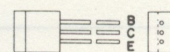
Foil Side



2SK30A

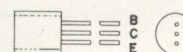


2SC1344



2SA725

2SC1312



Parts List of Control Amplifier Assembly (AWG-008-A)

CAPACITORS

Symbol	Description			Part No.	
C1	Mylar	0.1	50V	CQMA	104K 50
C2	Mylar	0.1	50V	CQMA	104K 50
C3	Electrolytic	47	50V	CEA	470P 50
C4	Electrolytic	47	50V	CEA	470P 50
C5	Ceramic	100p	50V	CCDSL	101K 50
C6	Ceramic	100p	50V	CCDSL	101K 50
C7	Electrolytic	47	6V	CEA	470P 6
C8	Electrolytic	47	6V	CEA	470P 6
C9	Ceramic	300p	50V	CKDYB	301K 50
C10	Ceramic	300p	50V	CKDYB	301K 50
C11	Electrolytic	4.7	25V	CEA	4R7P 25
C12	Electrolytic	4.7	25V	CEA	4R7P 25
C13	Mylar	0.047	50V	CQMA	473J 50
C14	Mylar	0.047	50V	CQMA	473J 50
C15	Mylar	0.047	50V	CQMA	473J 50
C16	Mylar	0.047	50V	CQMA	473J 50
C17	Mylar	0.0022	50V	CQMA	222K 50
C18	Mylar	0.0022	50V	CQMA	222K 50
C19	Electrolytic	10	25V	CEA	100P 25
C20	Electrolytic	10	25V	CEA	100P 25
C21	Ceramic	22p	50V	CCDSL	220K 50
C22	Ceramic	22p	50V	CCDSL	220K 50
C23	Electrolytic	100	6V	CEA	101P 6
C24	Electrolytic	100	6V	CEA	101P 6
C25	Electrolytic	47	50V	CEA	470P 50
C26	Electrolytic	47	50V	CEA	470P 50
C27	Electrolytic	2.2	25V	CSSA	2R2X 25
C28	Electrolytic	2.2	25V	CSSA	2R2X 25

RESISTORS

Symbol	Description			Part No.	
R1	Carbon film	8.2k		RD¼PS	822J
R2	Carbon film	8.2k		RD¼PS	822J
R3	Carbon film	1M		RD¼PS	105JNL
R4	Carbon film	1M		RD¼PS	105JNL
R5	Carbon film	6.8k		RD¼PS	682J
R6	Carbon film	6.8k		RD¼PS	682J
R7	Carbon film	3.9k		RD¼PS	392J
R8	Carbon film	3.9k		RD¼PS	392J
R9	Carbon film	10k		RD¼PS	103J
R10	Carbon film	10k		RD¼PS	103J
R11	Carbon film	33k		RD¼PS	333J
R12	Carbon film	33k		RD¼PS	333J
R13	Carbon film	8.2k		RD¼PS	822J
R14	Carbon film	8.2k		RD¼PS	822J
R15	Carbon film	10k		RD¼PS	103J

Continued on the next page

Symbol	Description	Part No.
R16	Carbon film 10k	RD%PS 103J
R17	Carbon film 1.2k	RD%PS 122J
R18	Carbon film 1.2k	RD%PS 122J
R19	Carbon film 1k	RD%PS 102J
R20	Carbon film 1k	RD%PS 102J
R21	Carbon film 10k	RD%PS 103J
R22	Carbon film 10k	RD%PS 103J
R23	Carbon film 10k	RD%PS 103J
R24	Carbon film 10k	RD%PS 103J
R25	Carbon film 4.7k	RD%PS 472J
R26	Carbon film 4.7k	RD%PS 472J
R27	Carbon film 4.7k	RD%PS 472J
R28	Carbon film 4.7k	RD%PS 472J
R29	Carbon film 10k	RD%PS 103J
R30	Carbon film 10k	RD%PS 103J
R31	Carbon film 120k	RD%PS 124JNL
R32	Carbon film 120k	RD%PS 124JNL
R33	Carbon film 560k	RD%PS 564JNL
R34	Carbon film 560k	RD%PS 564JNL
R35	Carbon film 100	RD%PS 101J
R36	Carbon film 100	RD%PS 101J
R37	Carbon film 2.2k	RD%PS 222J
R38	Carbon film 2.2k	RD%PS 222J
R39	Carbon film 8.2k	RD%PS 822J
R40	Carbon film 8.2k	RD%PS 822J
R41	Carbon film 330	RD%PS 331J
R42	Carbon film 330	RD%PS 331J

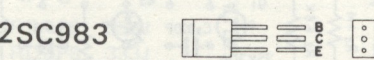
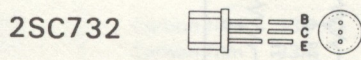
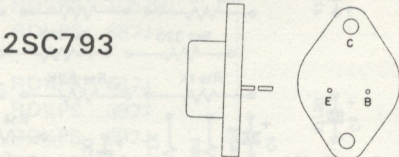
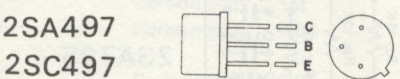
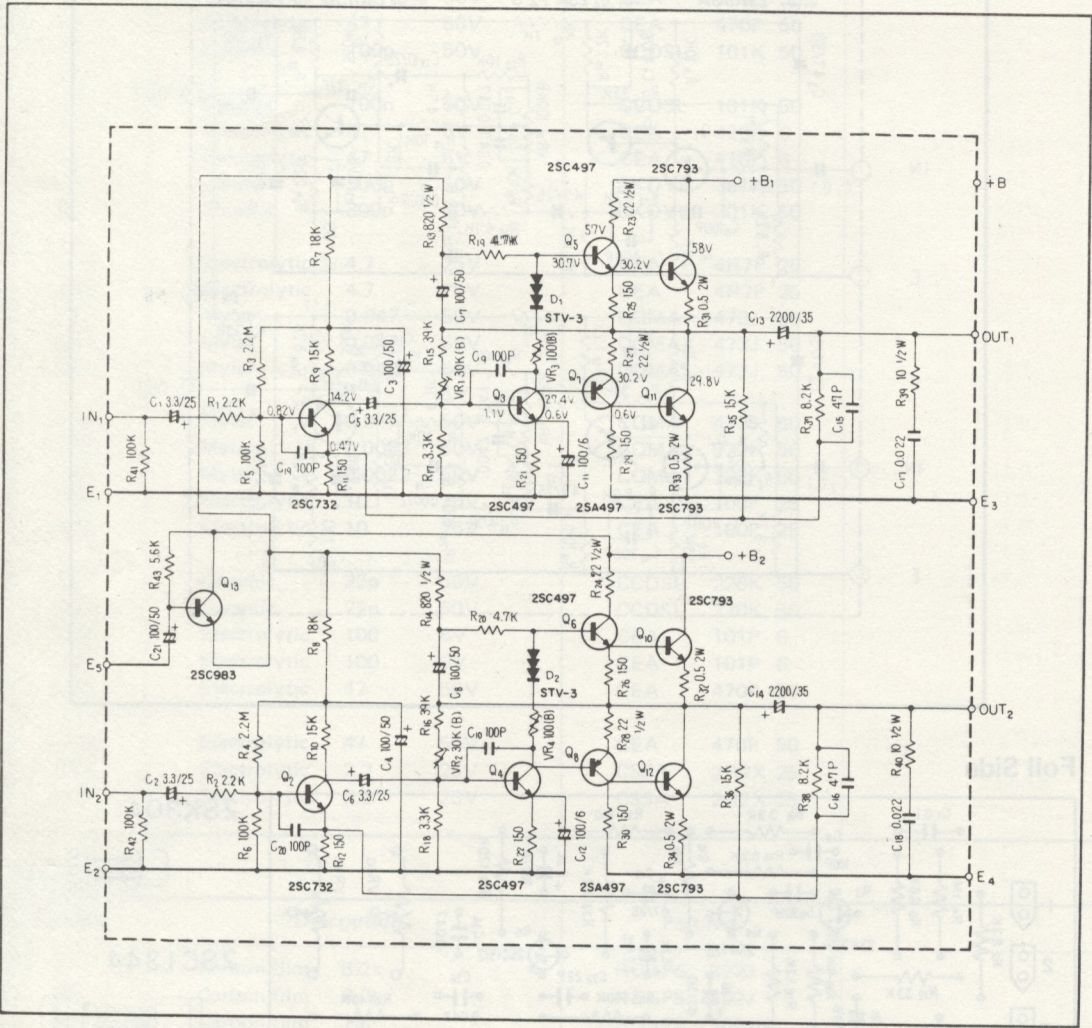
SEMICONDUCTORS

Symbol	Description	Part No.
Q1	FET 2SK30A-Y or RG	
Q2	FET 2SK30A-Y or RG	
Q3	Transistor 2SA725-F or G	
Q4	Transistor 2SA725-F or G	
Q5	Transistor 2SC1312-F or G 2SC1344-D or E	
Q6	Transistor 2SC1312-F or G 2SC1344-D or E	

POTENTIOMETERS

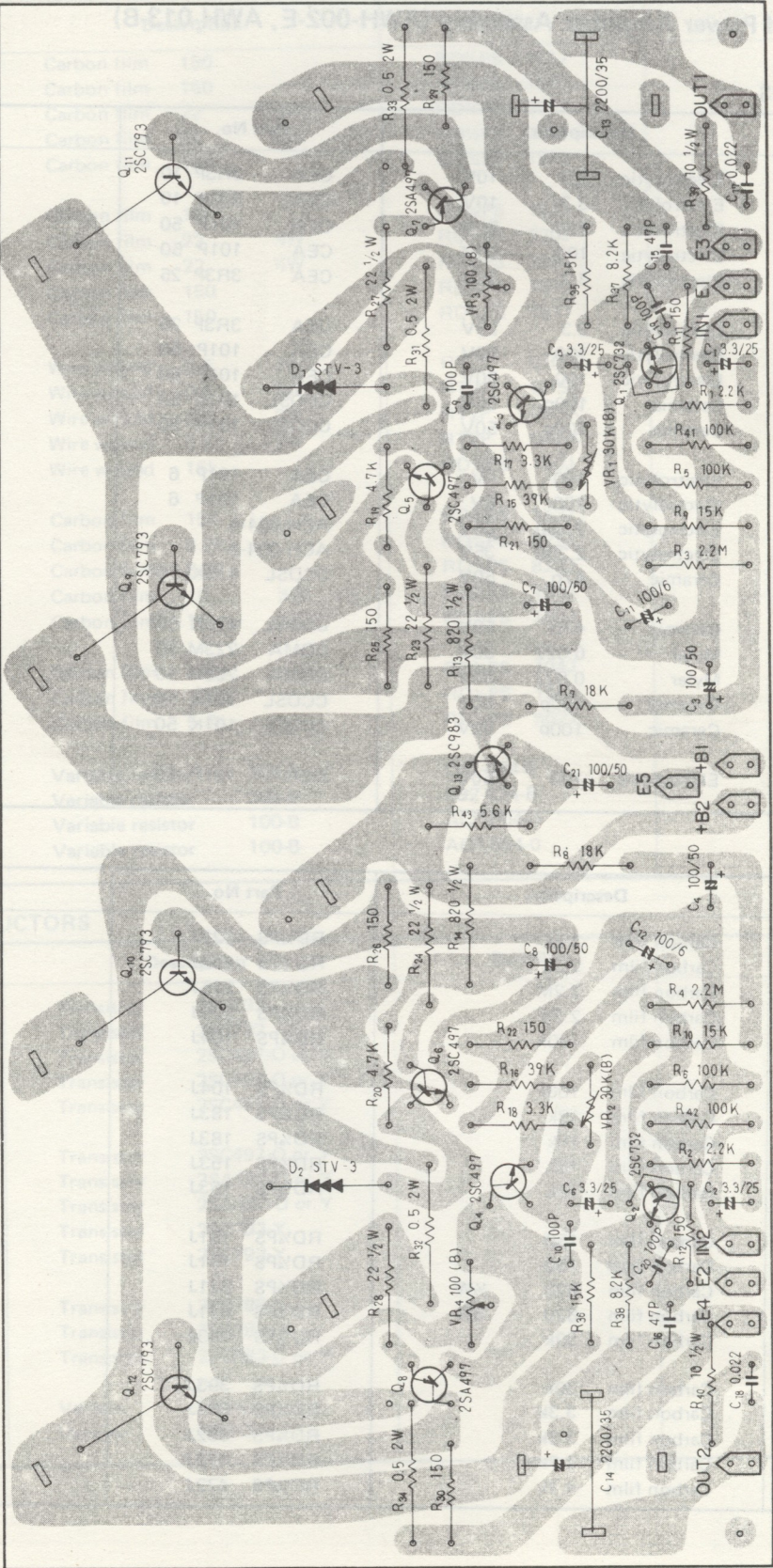
Symbol	Description	Part No.
VR1	Variable resistor 100k-B (Bass)	C82-050-0
VR2	Variable resistor 100k-B (Treble)	C82-050-0

11.5 POWER AMPLIFIER ASSEMBLY (AWH-002-E), (AWH-013-B for NBW model)



Continued on the next page

Foil Side



Parts List of Power Amplifier Assembly (AWH-002-E, AWH-013-B)

CAPACITORS

Symbol	Description			Part No.	
C1	Electrolytic	3.3	10V	CEA	3R3P 10
C2	Electrolytic	3.3	10V	CEA	3R3P 10
C3	Electrolytic	100	50V	CEA	101P 50
C4	Electrolytic	100	50V	CEA	101P 50
C5	Electrolytic	3.3	25V	CEA	3R3P 25
C6	Electrolytic	3.3	25V	CEA	3R3P 25
C7	Electrolytic	100	50V	CEA	101P 50
C8	Electrolytic	100	50V	CEA	101P 50
C9	Ceramic	100p	50V	CCDSL	101K 50
C10	Ceramic	100p	50V	CCDSL	101K 50
C11	Electrolytic	100	6V	CEA	101P 6
C12	Electrolytic	100	6V	CEA	101P 6
C13	Electrolytic	2,200	35V	ACH-004-A	
C14	Electrolytic	2,200	35V	ACH-004-A	
C15	Ceramic	47p	50V	CCDSL	470K 50
C16	Ceramic	47p	50V	CCDSL	470K 50
C17	Mylar	0.022	50V	CQMA	223M 50
C18	Mylar	0.022	50V	CQMA	223M 50
C19	Ceramic	100p	50V	CCDSL	101K 50
C20	Ceramic	100p	50V	CCDSL	101K 50
C21	Electrolytic	100	50V	CEA	101P 50

RESISTORS

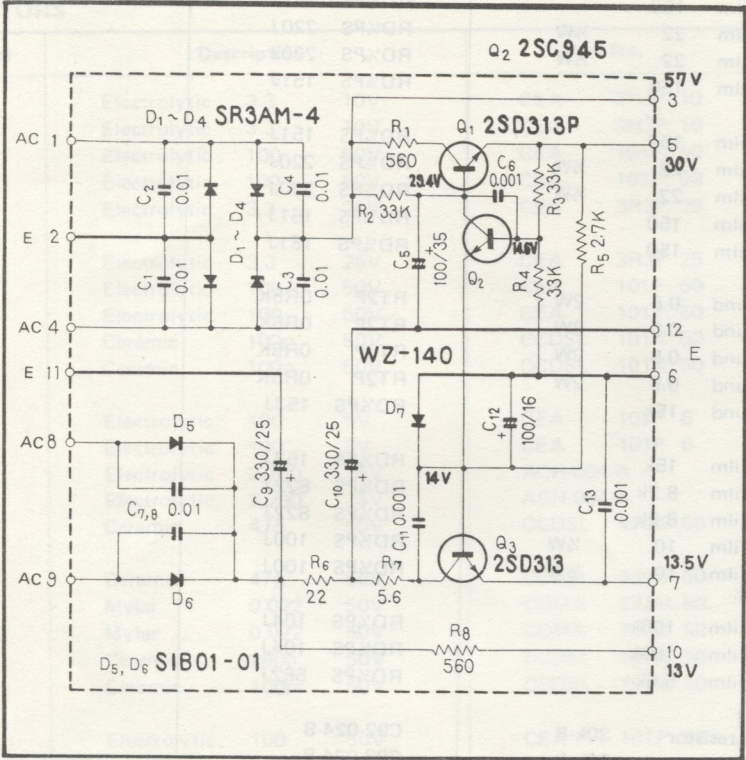
Symbol	Description			Part No.	
R1	Carbon film	2.2k		RD½PS	222J
R2	Carbon film	2.2k		RD½PS	222J
R3	Carbon film	2.2M		RD½PS	225J
R4	Carbon film	2.2M		RD½PS	225J
R5	Carbon film	100k		RD½PS	104J
R6	Carbon film	100k		RD½PS	104J
R7	Carbon film	18k		RD½PS	183J
R8	Carbon film	18k		RD½PS	183J
R9	Carbon film	15k		RD½PS	153J
R10	Carbon film	15k		RD½PS	153J
R11	Carbon film	150		RD½PS	151J
R12	Carbon film	150		RD½PS	151J
R13	Carbon film	820	½W	RD½PS	821J
R14	Carbon film	820	½W	RD½PS	821J
R15	Carbon film	39k		RD½PS	393J
R16	Carbon film	39k		RD½PS	393J
R17	Carbon film	3.3k		RD½PS	332J
R18	Carbon film	3.3k		RD½PS	332J
R19	Carbon film	4.7k		RD½PS	472J
R20	Carbon film	4.7k		RD½PS	472J

Symbol	Description		Part No.
R21	Carbon film	150	RD¼PS 151J
R22	Carbon film	150	RD¼PS 151J
R23	Carbon film	22 ½W	RD¼PS 220J
R24	Carbon film	22 ½W	RD¼PS 220J
R25	Carbon film	150	RD¼PS 151J
R26	Carbon film	150	RD¼PS 151J
R27	Carbon film	22 ½W	RD¼PS 220J
R28	Carbon film	22 ½W	RD¼PS 220J
R29	Carbon film	150	RD¼PS 151J
R30	Carbon film	150	RD¼PS 151J
R31	Wire wound	0.5 2W	RT2P 0R5K
R32	Wire wound	0.5 2W	RT2P 0R5K
R33	Wire wound	0.5 2W	RT2P 0R5K
R34	Wire wound	0.5 2W	RT2P 0R5K
R35	Wire wound	15k	RD¼PS 153J
R36	Carbon film	15k	RD¼PS 153J
R37	Carbon film	8.2k	RD¼PS 822J
R38	Carbon film	8.2k	RD¼PS 822J
R39	Carbon film	10 ½W	RD¼PS 100J
R40	Carbon film	10 ½W	RD¼PS 100J
R41	Carbon film	100k	RD¼PS 104J
R42	Carbon film	100k	RD¼PS 104J
R43	Carbon film	5.6k	RD¼PS 562J
VR1	Variable resistor	30k-B	C92-024-B
VR2	Variable resistor	30k-B	C92-024-B
VR3	Variable resistor	100-B	ACP-004-0
VR4	Variable resistor	100-B	ACP-004-0

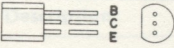
SEMICONDUCTORS

Symbol	Description		Part No.
Q1	Transistor	2SC732	
Q2	Transistor	2SC732	
Q3	Transistor	2SC497-O or Y	
Q4	Transistor	2SC497-O or Y	
Q5	Transistor	2SC497-O or Y	
Q6	Transistor	2SC497-O or Y	
Q7	Transistor	2SA497-O or Y	
Q8	Transistor	2SA497-O or Y	
Q9	Transistor	2SC793-Y	
Q10	Transistor	2SC793-Y	
Q11	Transistor	2SC793-Y	
Q12	Transistor	2SC793-Y	
Q13	Transistor	2SC983-O or Y	
D1	Varistor	STV-3	
D2	Varistor	STV-3	

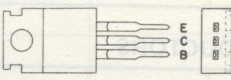
11.6 POWER SUPPLY CIRCUIT ASSEMBLY (AWR-029-A)



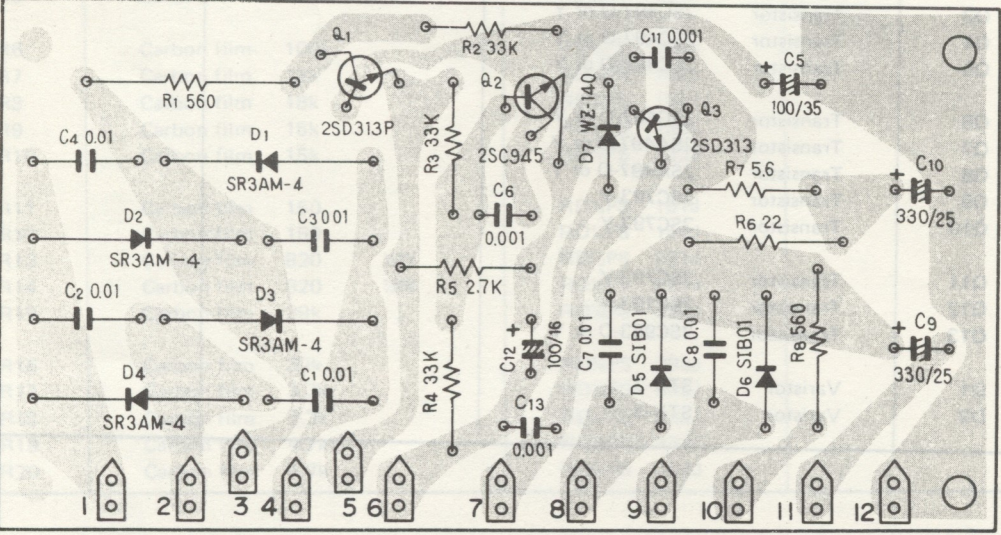
2SC945



2SD313
2SD313P



Foil Side



Parts List of Power Supply Circuit Assembly (AWR-029-A)

CAPACITORS

Symbol	Description			Part No.	
C1	Ceramic	0.01	DC 1.4kV	C43-003-0	
C2	Ceramic	0.01	DC 1.4kV	C43-003-0	
C3	Ceramic	0.01	DC 1.4kV	C43-003-0	
C4	Ceramic	0.01	DC 1.4kV	C43-003-0	
C5	Electrolytic	100	35V	CEA 101P 35	
C6	Mylar	0.001	50V	CQMA 102K 50	
C7	Ceramic	0.01	DC 1.4kV	C43-003-0	
C8	Ceramic	0.01	DC 1.4kV	C43-003-0	
C9	Electrolytic	330	25V	CEA 331P 25	
C10	Electrolytic	330	25V	CEA 331P 25	
C11	Mylar	0.001	50V	CQMA 102K 50	
C12	Electrolytic	100	16V	CEA 101P 16	
C13	Mylar	0.001	50V	CQMA 102K 50	

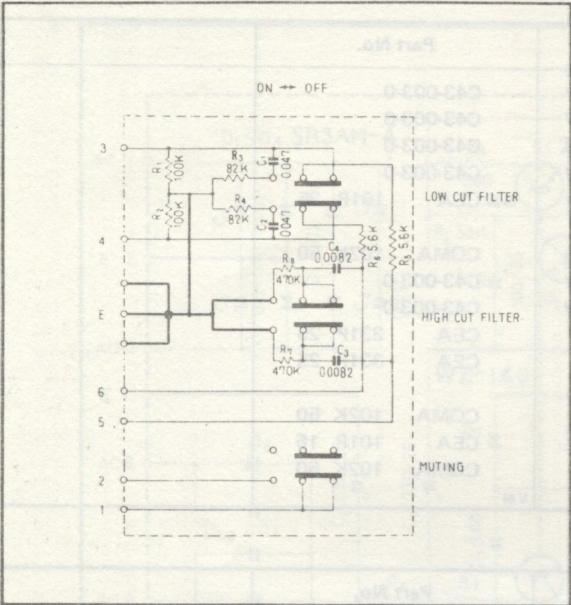
RESISTORS

Symbol	Description			Part No.	
R1	Metal oxide	560	1W	RS1P 561K	
R2	Carbon film	33k		RD¼PS 333J	
R3	Carbon film	33k		RD¼PS 333J	
R4	Carbon film	33k		RD¼PS 333J	
R5	Carbon film	2.7k		RD¼PS 272J	
R6	Carbon film	22	½W	RD¼PS 220J	
R7	Carbon film	5.6		RD¼PS 5R6J	
R8	Metal oxide	560	1W	RS1P 561K	

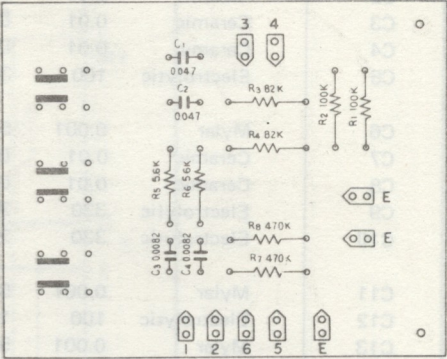
SEMICONDUCTORS

Symbol	Description			Part No.	
Q1	Transistor	2SD313P-E or D			
Q2	Transistor	2SC945-Q or R			
Q3	Transistor	2SD313-E or D			
D1	Diode	SR3AM-4			
D2	Diode	SR3AM-4			
D3	Diode	SR3AM-4			
D4	Diode	SR3AM-4			
D5	Diode	SIB01-01			
D6	Diode	SIB01-01			
D7	Zener diode	WZ-140			

11.7 SWITCH CIRCUIT ASSEMBLY (AWS-013-A)



Foil Side



CAPACITORS

Symbol	Description			Part No.
C1	Mylar	0.047	50V	CQMA 473K 50
C2	Mylar	0.047	50V	CQMA 473K 50
C3	Mylar	0.0082	50V	CQMA 822K 50
C4	Mylar	0.0082	50V	CQMA 822K 50

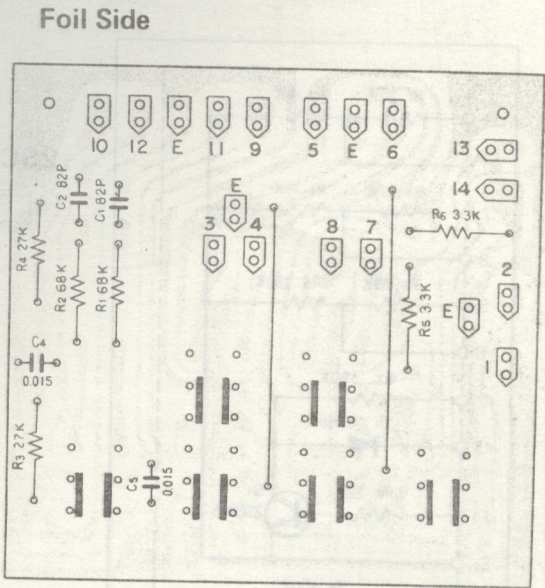
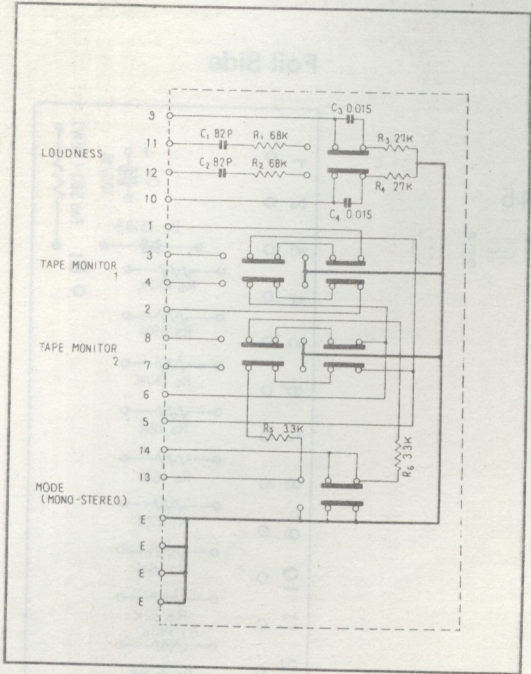
RESISTORS

Symbol	Description			Part No.
R1	Carbon film	100k		PD%PS 104J
R2	Carbon film	100k		RD%PS 104J
R3	Carbon film	82k		RD%PS 823J
R4	Carbon film	82k		RD%PS 823J
R5	Carbon film	5.6k		RD%PS 562J
R6	Carbon film	5.6k		RD%PS 562J
R7	Carbon film	470k		RD%PS 474J
R8	Carbon film	470k		RD%PS 474J

SWITCH

Symbol	Description	Part No.
	Push switch	S31-035-0

11.8 SWITCH CIRCUIT ASSEMBLY (AWS-014-O)



CAPACITORS

Symbol	Description			Part No.	
C1	Ceramic	82p	50V	CCDSL	820K 50
C2	Ceramic	82p	50V	CCDSL	820K 50
C3	Mylar	0.015	50V	CQMA	153K 50
C4	Mylar	0.015	50V	CQMA	153K 50

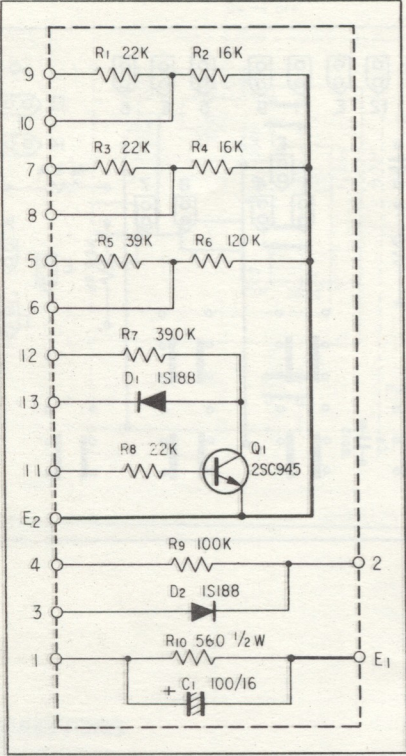
RESISTORS

Symbol	Description			Part No.	
R1	Carbon film	68k		RD4PS	683J
R2	Carbon film	68k		RD4PS	683J
R3	Carbon film	27k		RD4PS	273J
R4	Carbon film	27k		RD4PS	273J
R5	Carbon film	3.3k		RD4PS	332J
R6	Carbon film	3.3k		RD4PS	332J

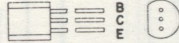
SWITCH

Symbol	Description	Part No.	
	Push switch	ASG-012-0	

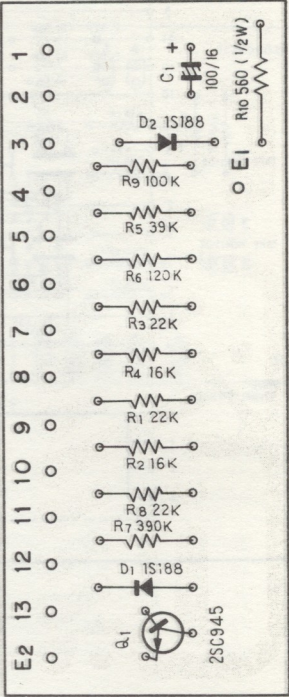
11.9 CR & METER DRIVE ASSEMBLY (AWM-050-0)



2SC945



Foil Side



CAPACITORS, RESISTORS AND SEMICONDUCTORS

Symbol	Description			Part No.
C1	Electrolytic	100	16V	CEA 101P 16
R1	Carbon film	22k		RD¼PM 223J
R2	Carbon film	16k		RD¼PM 163J
R3	Carbon film	22k		RD¼PM 223J
R4	Carbon film	16k		RD¼PM 163J
R5	Carbon film	39k		RD¼PM 393J
R6	Carbon film	120k		RD¼PM 124J
R7	Carbon film	390k		RD¼PM 394J
R8	Carbon film	22k		RD¼PM 223J
R9	Carbon film	100k		RD¼PM 104J
R10	Carbon film	560	½W	RD½PS 561J
Q1	Transistor 2SC945-Q or R			
D1	Diode	1S188 FM-1		
D2	Diode	1S188 FM-1		

17. P.C. BOARD PATTERN AND PARTS LIST

17-1 POWER SUPPLY ASSEMBLY PARTS LIST

PIONEER ELECTRONIC CORPORATION

4-1, Meguro 1-Chome, Meguro-ku, Tokyo 153, Japan

U.S. PIONEER ELECTRONICS CORPORATION

75 Oxford Drive, Moonachie, New Jersey 07074, U.S.A.

PIONEER ELECTRONIC (EUROPE) N.V.

Luithagen-Haven 9, 2030 Antwerp, Belgium

PIONEER ELECTRONICS AUSTRALIA PTY. LTD.

178-184 Boundary Road, Braeside, Victoria 3195, Australia

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Printed in Japan

Part List of Power Supply Assembly (Type 17-1)

Part No.	Part Name	Quantity
17-101	Power Transformer	1
17-102	Rectifier Diode	4
17-103	Filter Capacitor	1
17-104	Resistor	1
17-105	Resistor	1
17-106	Resistor	1
17-107	Resistor	1
17-108	Resistor	1
17-109	Resistor	1
17-110	Resistor	1
17-111	Resistor	1
17-112	Resistor	1
17-113	Resistor	1
17-114	Resistor	1
17-115	Resistor	1
17-116	Resistor	1
17-117	Resistor	1
17-118	Resistor	1
17-119	Resistor	1
17-120	Resistor	1
17-121	Resistor	1
17-122	Resistor	1
17-123	Resistor	1
17-124	Resistor	1
17-125	Resistor	1
17-126	Resistor	1
17-127	Resistor	1
17-128	Resistor	1
17-129	Resistor	1
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17-133	Resistor	1
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17-136	Resistor	1
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17-141	Resistor	1
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17-144	Resistor	1
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17-190	Resistor	1
17-191	Resistor	1
17-192	Resistor	1
17-193	Resistor	1
17-194	Resistor	1
17-195	Resistor	1
17-196	Resistor	1
17-197	Resistor	1
17-198	Resistor	1
17-199	Resistor	1
17-200	Resistor	1

Part List of Power Supply Assembly (Type 17-2)

Part No.	Part Name	Quantity
17-201	Power Transformer	1
17-202	Rectifier Diode	4
17-203	Filter Capacitor	1
17-204	Resistor	1
17-205	Resistor	1
17-206	Resistor	1
17-207	Resistor	1
17-208	Resistor	1
17-209	Resistor	1
17-210	Resistor	1
17-211	Resistor	1
17-212	Resistor	1
17-213	Resistor	1
17-214	Resistor	1
17-215	Resistor	1
17-216	Resistor	1
17-217	Resistor	1
17-218	Resistor	1
17-219	Resistor	1
17-220	Resistor	1
17-221	Resistor	1
17-222	Resistor	1
17-223	Resistor	1
17-224	Resistor	1
17-225	Resistor	1
17-226	Resistor	1
17-227	Resistor	1
17-228	Resistor	1
17-229	Resistor	1
17-230	Resistor	1
17-231	Resistor	1
17-232	Resistor	1
17-233	Resistor	1
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17-238	Resistor	1
17-239	Resistor	1
17-240	Resistor	1
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17-257	Resistor	1
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17-289	Resistor	1
17-290	Resistor	1
17-291	Resistor	1
17-292	Resistor	1
17-293	Resistor	1
17-294	Resistor	1
17-295	Resistor	1
17-296	Resistor	1
17-297	Resistor	1
17-298	Resistor	1
17-299	Resistor	1
17-300	Resistor	1