

# SERVICE MANUAL

AM/FM STEREO RECEIVER

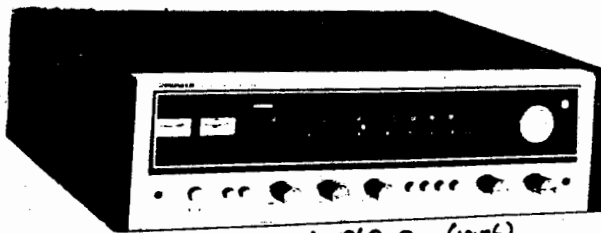
# SX-535

KCU, FV, GN

NOTE:

MODEL SX-535 COMES IN THREE VERSIONS DISTINGUISHED AS FOLLOWS:

Round label on rear panel	Voltage	Type
KCU	120V only	CSA (Canada) and UL (U.S.A.) approved
FV	110V, 120V, 130V, 220V and 240V (Switchable)	General export model with de-emphasis selector switch
GN	220V only	SEMCO (Sweden), NEMCO (Norway) and DEMCO (Denmark) approved



*price plm fl 898,- (1976)*

 **PIONEER®**

# 1. SPECIFICATIONS

## SEMICONDUCTORS

FET .....	1
ICs .....	3
Transistors .....	29
Diodes .....	15

## AMPLIFIER SECTION

### Continuous Power Output

20Hz~20kHz (Both channels driven) .....	20W + 20W (8 $\Omega$ , Rated power) 22W + 22W (4 $\Omega$ )
1kHz (Both channels driven) ...	22W + 22W (8 $\Omega$ ), 25W + 25W (4 $\Omega$ )

### Harmonic Distortion

(40Hz~20kHz Continuous Power Output) .....	Less than 0.8%
(1W + 1W, Power Output) .....	Less than 0.08%

### Intermodulation Distortion

(Continuous Power Output) .....	Less than 0.8%
(1W + 1W, Power Output) .....	Less than 0.08%

### Power Bandwidth

(IHF, Both channels driven) .....	10Hz~70kHz (T.H.D. 0.8%)
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### Output Speaker

Headphone .....	A, B, A + B, (4 $\Omega$ ~16 $\Omega$ ) 4 $\Omega$ ~16 $\Omega$
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### Damping Factor (1kHz, 8 $\Omega$ )

More than 30

### Residual Hum & Noise

(8 $\Omega$ , Pre & Power amplifier) .....	Less than 0.5mV
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### Input Sensitivity/Impedance

PHONO .....	2.5mV/50k $\Omega$
PHONO Overload Level (rms/p-p)	110mV/310mV
MIC .....	7mV/85k $\Omega$
AUX .....	150mV/75k $\Omega$
TAPE PB 1, 2 .....	150mV/75k $\Omega$
TAPE PB 2 (DIN connector) .....	150mV/75k $\Omega$

### Output Level/Impedance

TAPE REC 1, 2 .....	150mV
TAPE REC 2 (DIN connector) ..	30mV/80k $\Omega$

### Frequency Response

PHONO (RIAA equalization) ...	30Hz~15kHz $\pm$ 0.5dB
AUX, TAPE PB .....	20Hz~30kHz $\pm$ 1dB

### Tone Control

BASS .....	+9dB, -8dB (100Hz)
TREBLE .....	$\pm$ 6dB (10kHz)

### Loudness Contour (Volume control

set at -40dB position) .....	+10dB (100Hz), +5dB (10kHz)
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### Hum & Noise (IHF, short-circuited, A Network)

PHONO .....	More than 70dB
MIC .....	More than 65dB
AUX, TAPE PB .....	More than 90dB

**FM SECTION**

Usable Sensitivity (IHF) . . . . .	1.9 $\mu$ V
Capture Ratio (IHF) . . . . .	1.0dB
Selectivity (IHF) . . . . .	60dB
Signal-to-Noise Ratio . . . . .	70dB
Image Rejection (98MHz) . . . . .	60dB
IF Rejection (98MHz) . . . . .	90dB
Spurious Rejection . . . . .	75dB
AM Suppression . . . . .	50dB
Harmonic Distortion: MONO . . .	Less than 0.2%
STEREO . . . . .	Less than 0.4%
Frequency Response . . . . .	20Hz~15kHz $\begin{smallmatrix} +0.2 \\ -2.0 \end{smallmatrix}$ dB
	50Hz~10kHz $\begin{smallmatrix} +0.2 \\ -0.5 \end{smallmatrix}$ dB
Stereo Separation 1kHz . . . . .	More than 40dB
50Hz~10kHz . . . . .	More than 30dB
Sub Carrier Suppression . . . . .	40dB
Antenna Input . . . . .	300 $\Omega$ Balanced
	75 $\Omega$ Unbalanced
Muting . . . . .	ON-OFF

**AM SECTION**

Sensitivity (IHF, Ferrite Antenna) .	300 $\mu$ V/m
(IHF, Ext. antenna) . . . . .	15 $\mu$ V
Selectivity . . . . .	35dB
Signal-to-Noise Ratio . . . . .	50dB
Image Rejection . . . . .	40dB
IF Rejection . . . . .	70dB

**MISCELLANEOUS**

Power Requirements . . . . .	AC 120V 60Hz, 220V 50/60Hz or 110, 120, 130, 220 and 240V (switchable) 50/60Hz
Power Consumption . . . . .	130W (UL approved model only), 180W (Others model)
Dimensions . . . . .	480 (W) x 147 (H) x 405 (D) mm
	18-7/8 x 5-13/16 x 15-15/16 in.
Weight: Without Package . . . . .	10.3kg (22 lb 8 oz)
With Package . . . . .	12.1kg (26 lb 7 oz)

**FURNISHED PARTS**

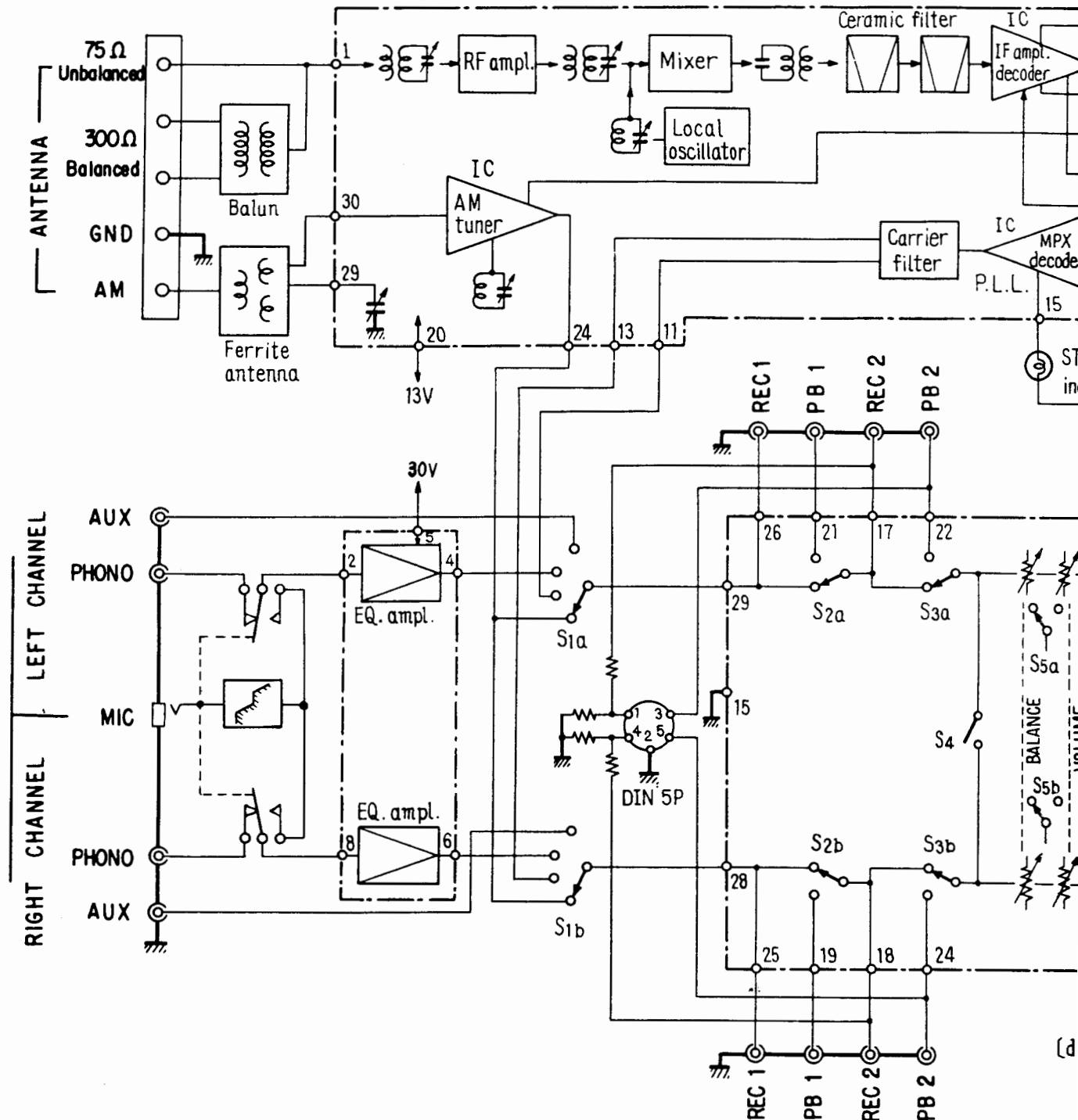
FM T-type Antenna . . . . .	1
Operating Instructions . . . . .	1
Fuse 3A . . . . .	1
Fuse 1.5A . . . . .	1

(5 line voltage model only)

**NOTE:**

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

# 5. BLOCK DIAGRAM AND LEVEL DIAGRAM



## SWITCHES

S1 FUNCTION

1. AM
2. FM
3. PHONO/MIC
4. AUX

S2 TAPE MONITOR 1

S3 TAPE MONITOR 2

S4 MODE

STEREO ↔ MONO

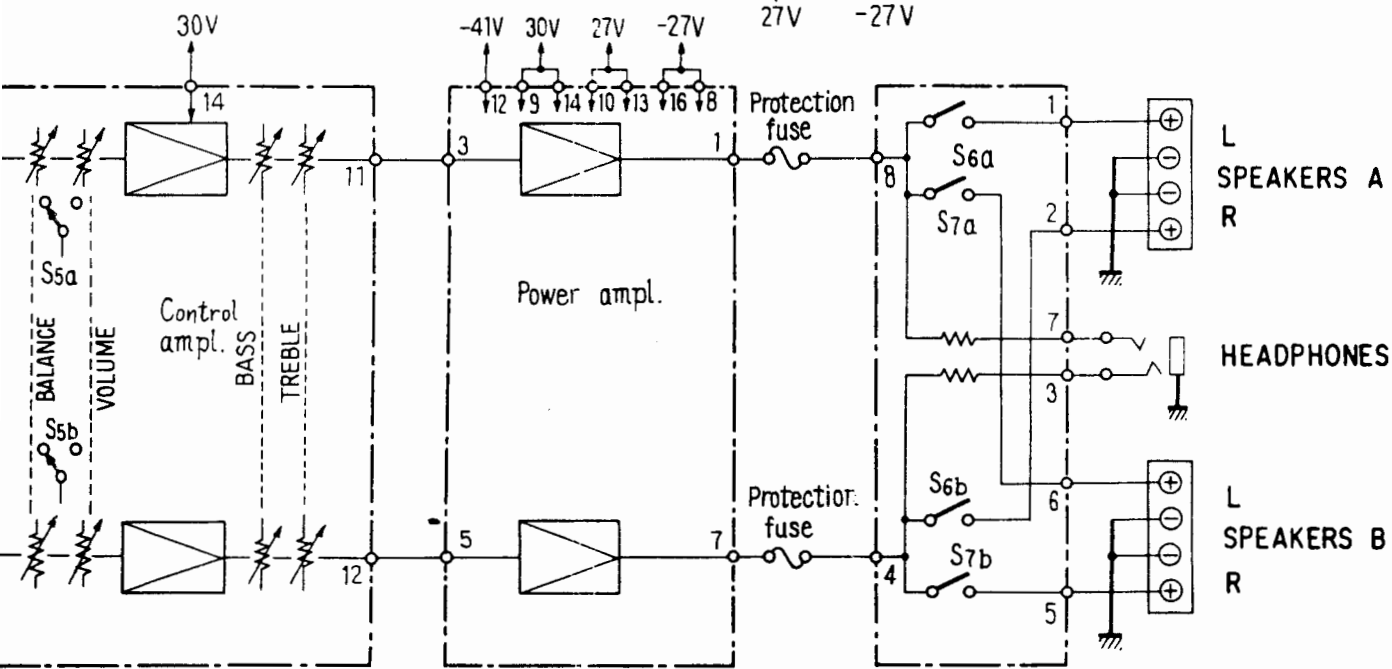
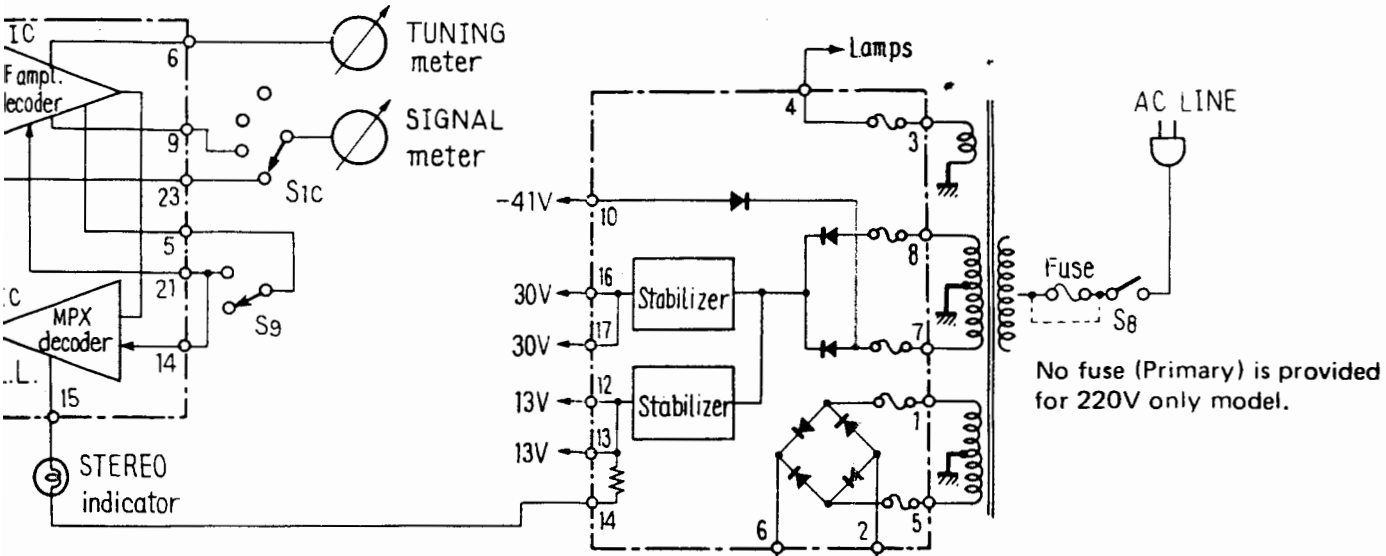
S5 LOUDNESS

S6 SPEAKERS A

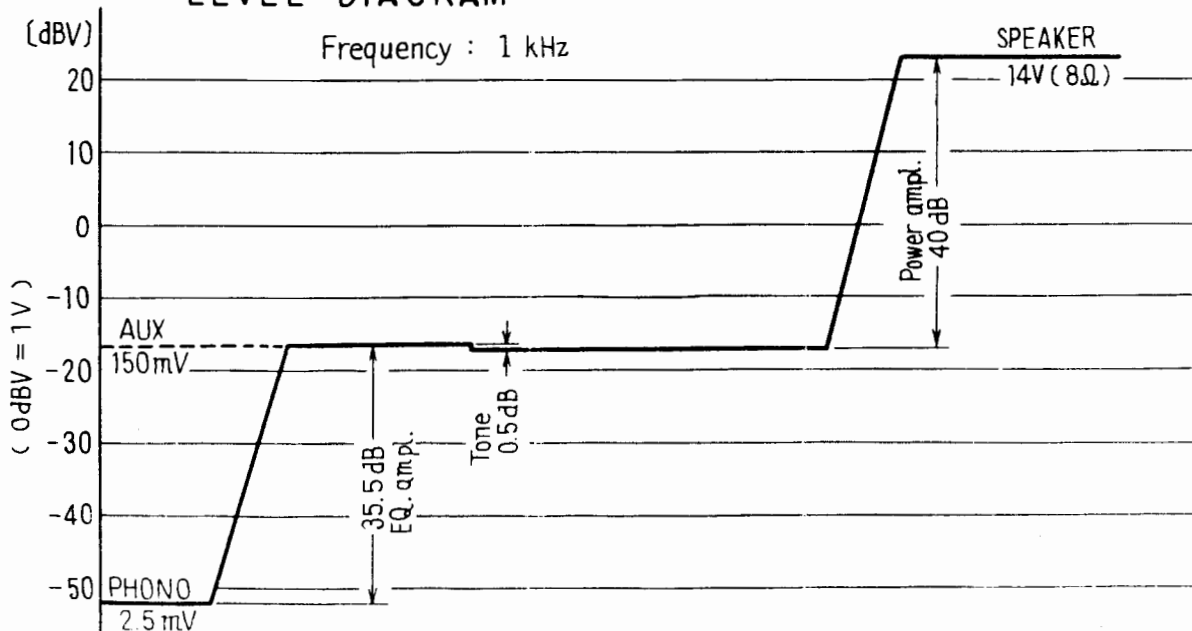
S7 SPEAKERS B

S8 POWER SW

S9 FM MUTING

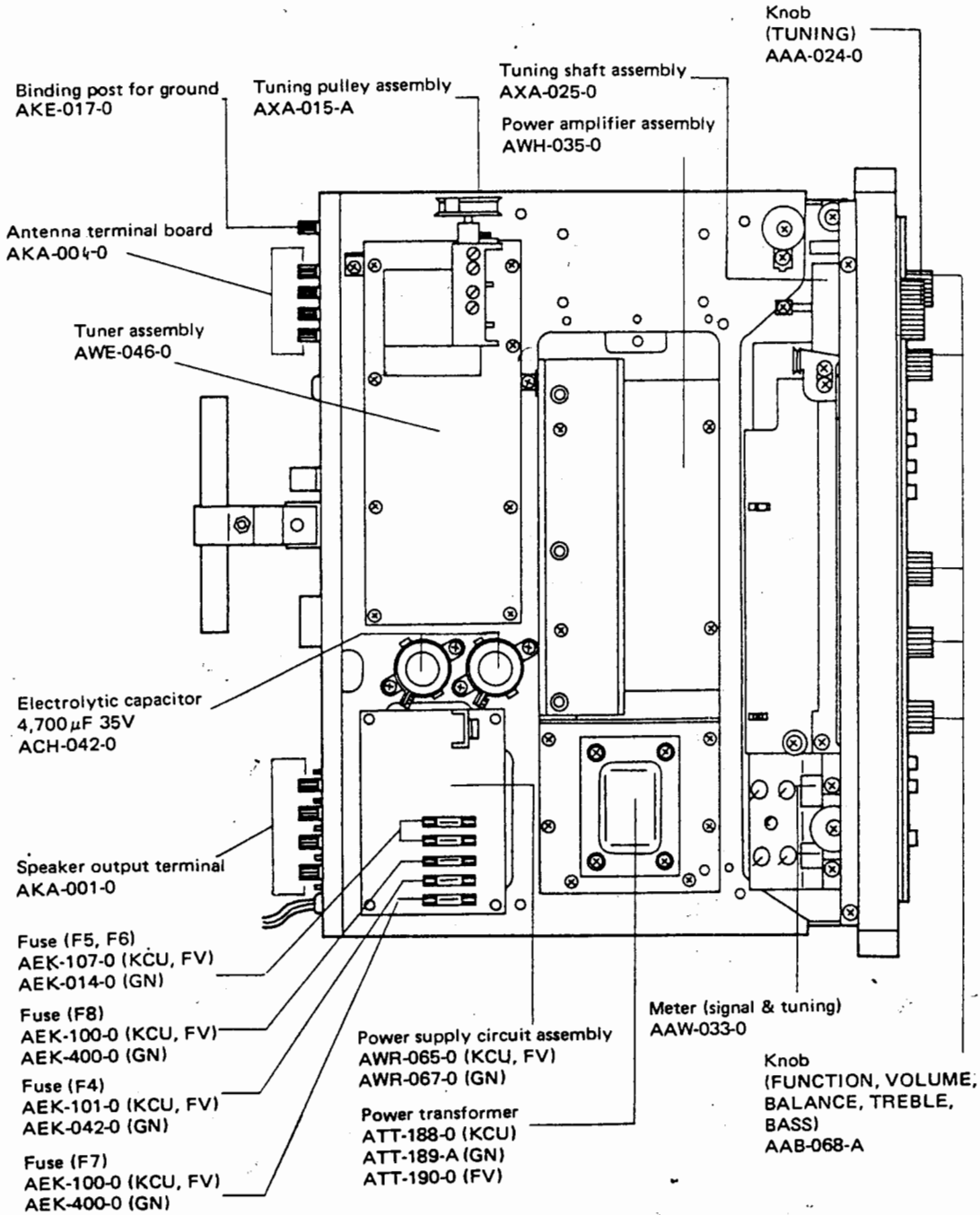


LEVEL DIAGRAM

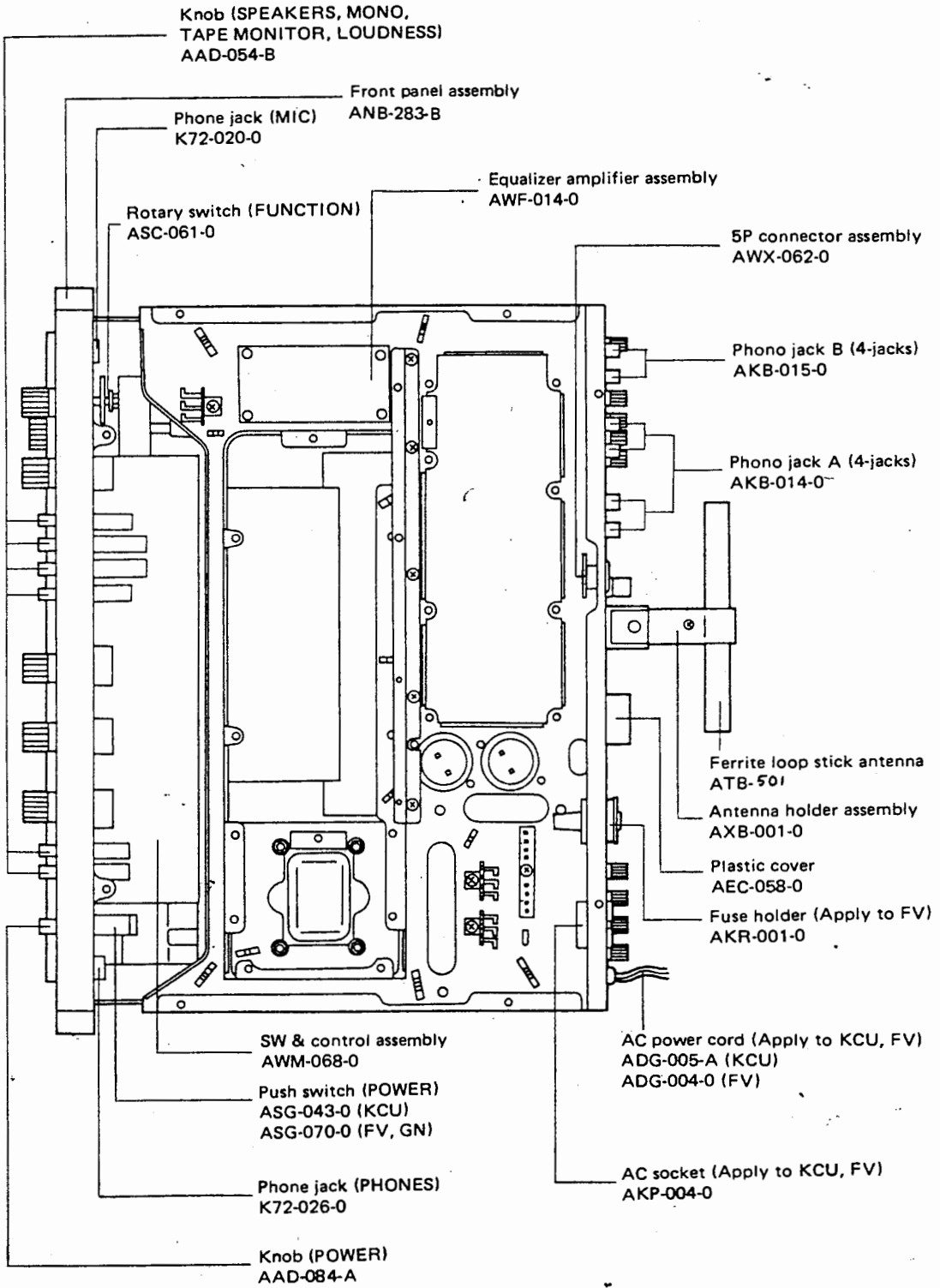


# PARTS LOCATION

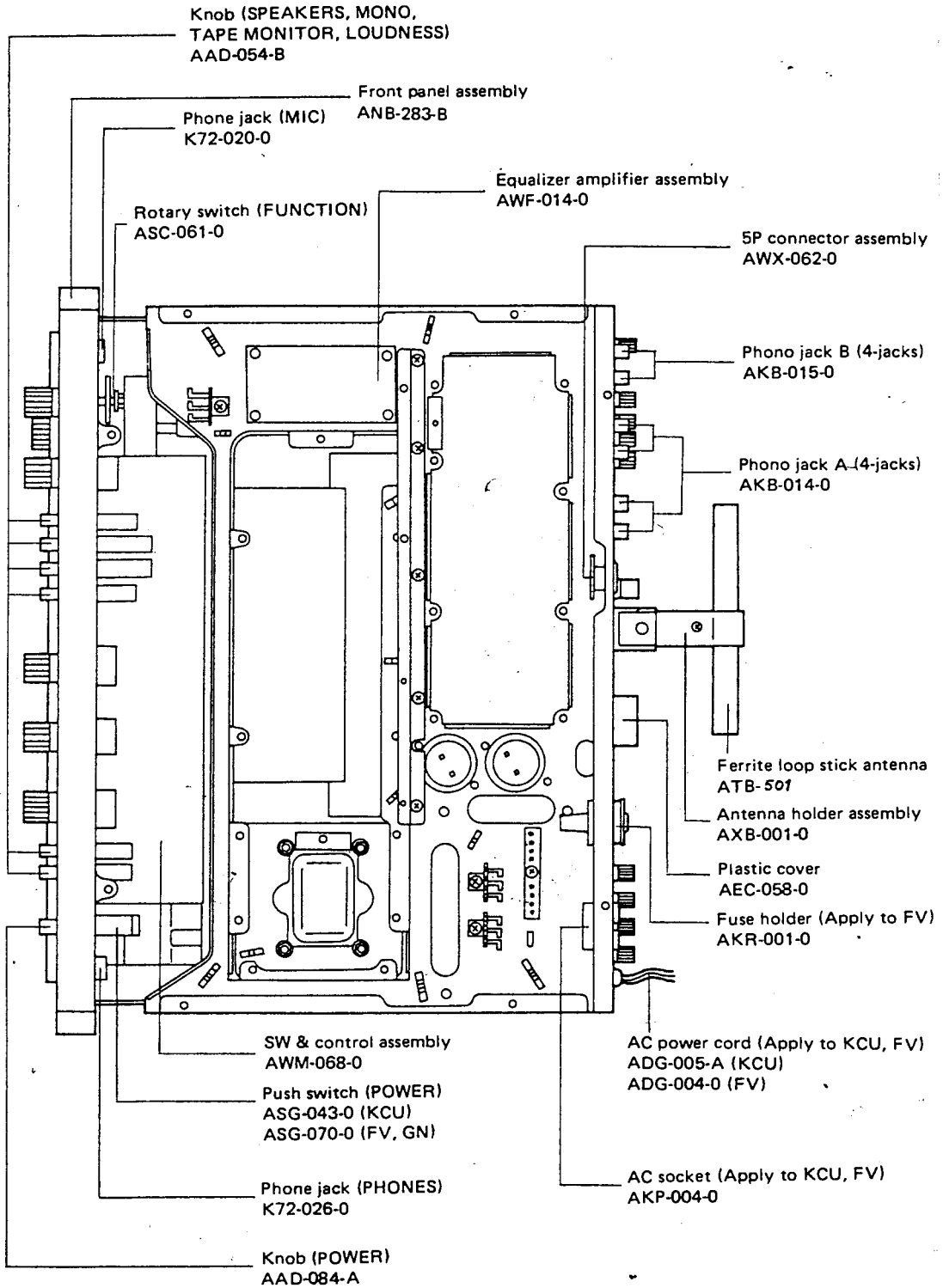
## Top View



**Bottom View**



**Bottom View**





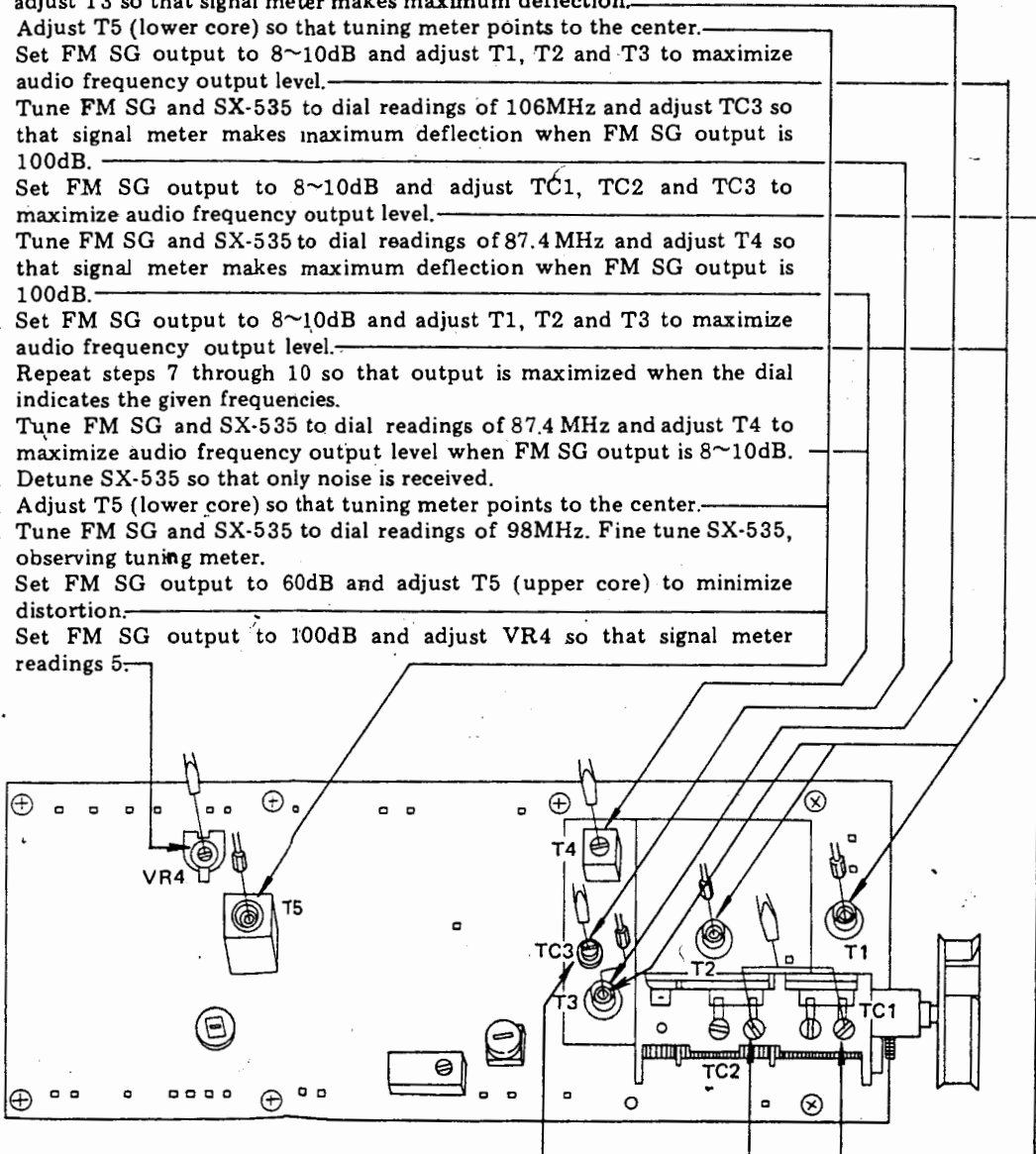
## 7. ADJUSTMENTS

### FM Section

1. Switch positions on the SX-535:  
 FUNCTION ..... FM  
 FM MUTING ..... OFF (pressed in)  
 POWER ..... ON
2. Connection of instruments:  
 FM Signal Generator (FM SG) ..... Connect to FM ANTENNA terminals through 300Ω dummy antenna.

AC Voltmeter }  
 Distortion meter } ..... Connect in parallel to TAPE REC  
 Oscilloscope } jack.

3. Set FM SG to 100% modulation ( $\pm 75\text{kHz}$  deviation) at 400Hz and 100dB output.
4. Tune FM SG and SX-535 to dial readings of 87.4MHz (left scale end) and adjust T3 so that signal meter makes maximum deflection.
5. Adjust T5 (lower core) so that tuning meter points to the center.
6. Set FM SG output to 8~10dB and adjust T1, T2 and T3 to maximize audio frequency output level.
7. Tune FM SG and SX-535 to dial readings of 106MHz and adjust TC3 so that signal meter makes maximum deflection when FM SG output is 100dB.
8. Set FM SG output to 8~10dB and adjust TC1, TC2 and TC3 to maximize audio frequency output level.
9. Tune FM SG and SX-535 to dial readings of 87.4 MHz and adjust T4 so that signal meter makes maximum deflection when FM SG output is 100dB.
10. Set FM SG output to 8~10dB and adjust T1, T2 and T3 to maximize audio frequency output level.
- Repeat steps 7 through 10 so that output is maximized when the dial indicates the given frequencies.
11. Tune FM SG and SX-535 to dial readings of 87.4 MHz and adjust T4 to maximize audio frequency output level when FM SG output is 8~10dB.
12. Detune SX-535 so that only noise is received.
13. Adjust T5 (lower core) so that tuning meter points to the center.
14. Tune FM SG and SX-535 to dial readings of 98MHz. Fine tune SX-535, observing tuning meter.
15. Set FM SG output to 60dB and adjust T5 (upper core) to minimize distortion.
16. Set FM SG output to 100dB and adjust VR4 so that signal meter readings 5.

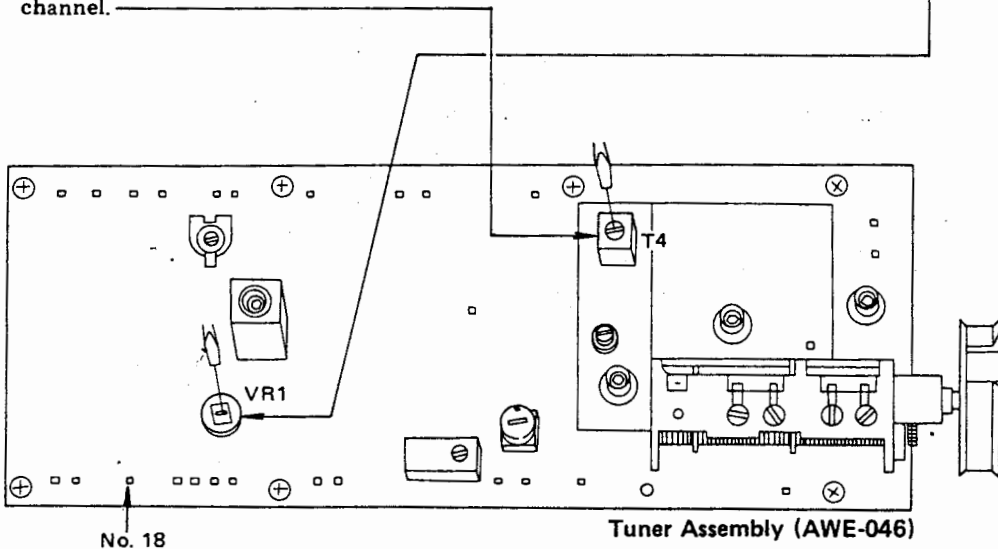


## FM MPX Section

- The SX-535 incorporates a PLL demodulator circuit. This adjustment should only be made when MPX IC has been replaced.
  - This adjustment should be made after completion of FM section adjustment.
1. Switch positions on the SX-535:
 

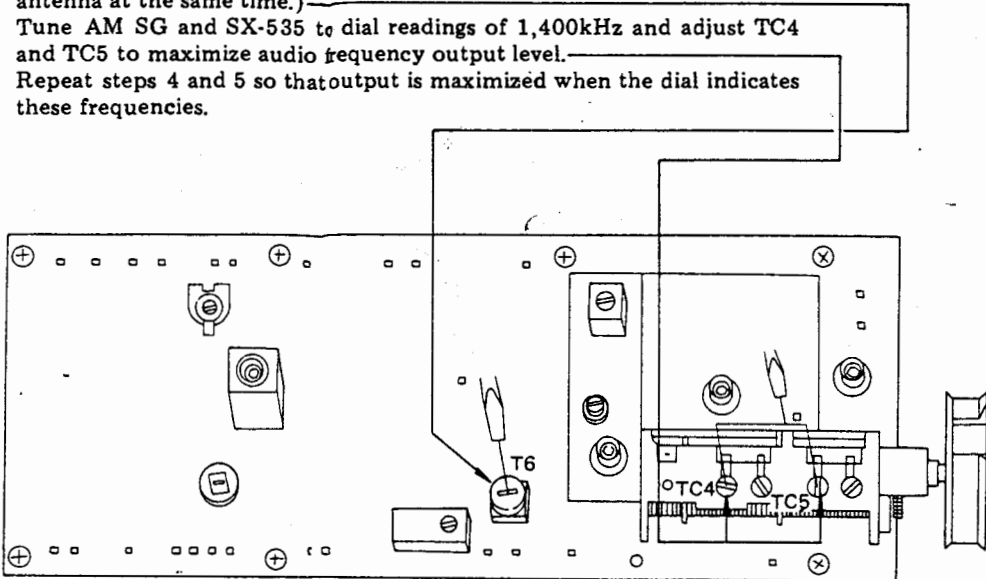
FUNCTION	.....	FM
FM MUTING	.....	OFF (pressed in)
POWER	.....	ON
  2. Connection of instruments:
 

FM Signal Generator (FM SG)	....	Connect to FM ANTENNA terminals through 300Ω dummy antenna.
MPX Signal Generator (MPX SG)	..	Connect to FM SG's external modulator terminals.
Oscilloscope	.....	Connect horizontal input to MPX SG's PILOT OUT terminals and vertical input to No. 18 terminal of tuner assembly.
Distortion meter	.....	Connect to TAPE REC jack.
  3. Tune FM SG and SX-535 to dial readings of 98MHz.
  4. Set MPX SG to ±67.5kHz deviation at 1kHz for left and right channels and FM SG output to 60dB.
  5. Produce a Lissajous pattern on oscilloscope and adjust VR1 to make the pattern still.
  6. Set MPX SG to ±67.5kHz deviation at 1kHz for left and right channels and to ±7.5kHz deviation for 19kHz pilot signal. Set FM SG output to 60dB.
  7. Adjust T4 to minimize distortion of audio frequencies for left or right channel.



**AM Section**

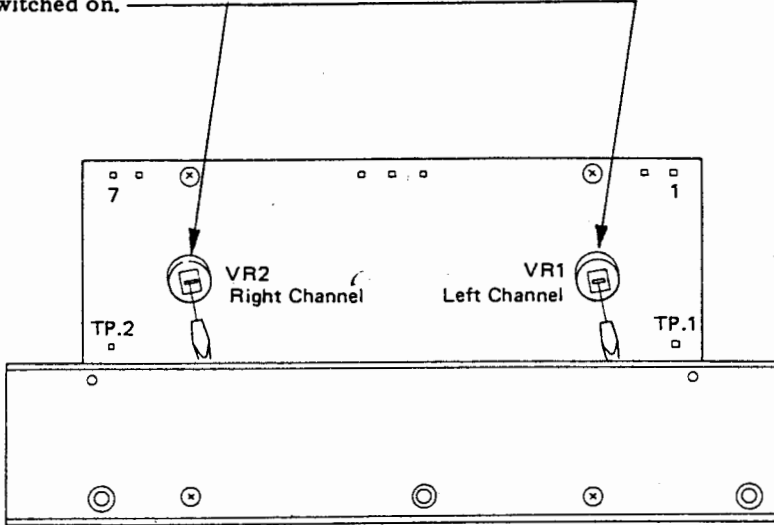
1. Switch positions on the SX-535:  
 FUNCTION ..... AM  
 POWER ..... ON
2. Connection of instruments:  
 AM Signal Generator (AM SG) . . . . . Connect to AM ANTENNA terminals in series with dummy antenna (1kΩ resistor).  
 AC Voltmeter . . . . . Connect to TAPE REC jack.
3. Set AM SG to 30% modulation at 400Hz and 30dB output.
4. Tune AM SG and SX-535 to dial readings of 600kHz and adjust T6 to maximize audio frequency output level. (Adjust core of ferrite loopstick antenna at the same time.)
5. Tune AM SG and SX-535 to dial readings of 1,400kHz and adjust TC4 and TC5 to maximize audio frequency output level.
- Repeat steps 4 and 5 so that output is maximized when the dial indicates these frequencies.



**Tuner Assembly (AWE-046)**

## Power Amplifier

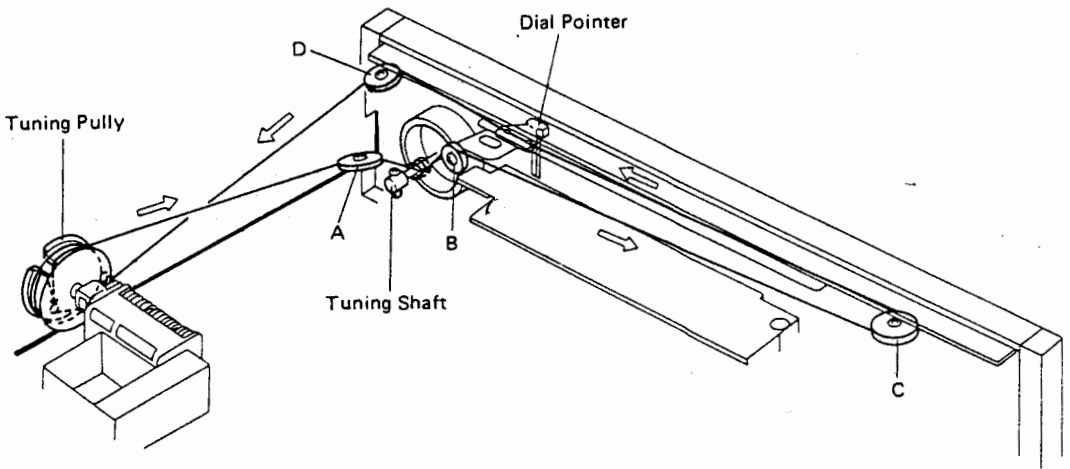
- Do this adjustment when any of the transistors in the power amplifier has been replaced.
  - Terminal and VR numbers given first are for the left channel and those in brackets are for the right channel.
1. Switch positions on the SX-535:  
FUNCTION ..... AUX (keep jacks free.)  
POWER ..... ON  
SPEAKER ..... OFF
  2. Connect DC voltmeter between TP.1(2)⊖ and No. 1(7)⊕ terminals.
  3. Adjust VR1(VR2) so that voltmeter reads 15mV at 10 minutes after power is switched on.



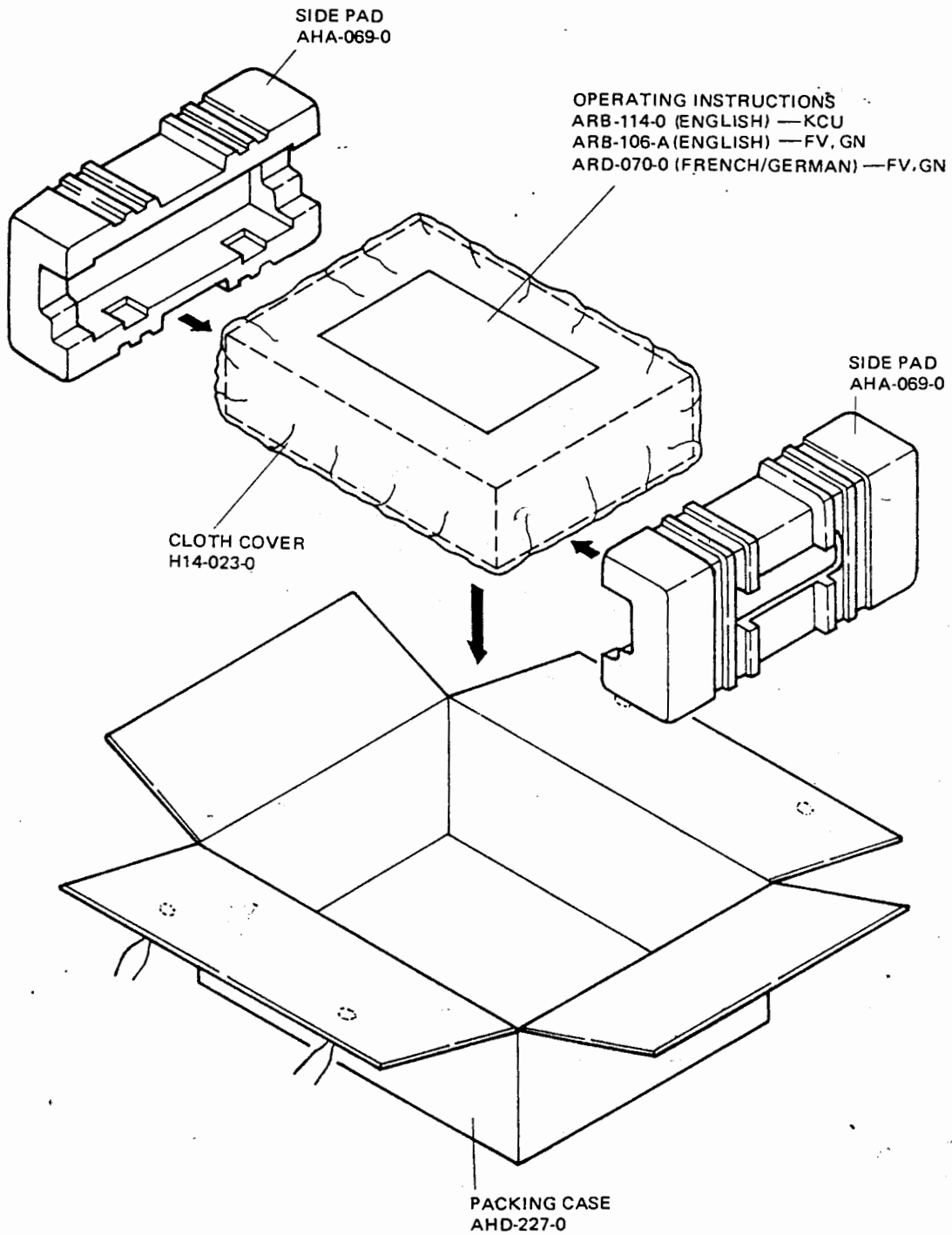
Power Amplifier Assembly (AWH-035)

## 8. DIAL CORD STRINGING

1. Turn the tuning knob until the plates of the tuning capacitor are as far out as possible.
2. Fasten one end of the cord to the spring on the tuning pulley and lead it round pulley A.
3. Wind the cord 3 turns round the tuning shaft and run it round pulleys B, C and D.
4. Wind the cord 1-1/2 turns round the dial pulley and tie the end to the spring while tensioning the spring slightly. Trim off excess cord.
5. Turn the tuning knob fully clockwise and fix the dial pointer to the cord at the point where it indicates "10" on the dial scale.



# 9. PACKING METHOD AND PARTS NUMBERS



# 10. EXPLODED VIEW AND PARTS LIST

**NOTE:**

Parts number is subject to change for the purpose of improvement with notice of a service bulletin.

Service bulletin will be furnished whenever necessary and you are requested to amend parts number in this manual according to the instructions.

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

## Parts List of Exploded View

Key No.	Description	Part No.	
1*	Mask	AED-036-A	
2*	Lamp holder	ANF-262-B	
3	Pilot lamp socket	AKK-002-0	
4	Pilot lamp 8V, 0.3A (meter)	AEL-015	
5*	Lamp box	ANH-219-B	
6	Meter (Signal & Tuning)	AAW-033-0	
7*	Wire clip	AEC-007-0	
8*	P.C. board cover	ANK-072-0	
9	Lamp board assembly	AWX-072-0	
10	Pilot lamp 8V, 0.3A (dial scale)	AEL-015	
11*	Lamp box	ANH-221-0	
12	Pilot lamp 8V, 50mA (Stereo indicator)	AEL-059	
13*	Rubber bracket	AEB-062-0	
14	Spacer	AEF-004-0	
15*	Dial scale-held metal	ANG-105-0	
16	Dial pointer assembly	AAF-036	
17	Nylon sheet	AEC-031-0	
18	Dial scale	AAG-083-A	
19*	Sponge gum	AEC-119-0	
20	Power amplifier assembly	AWH-035-0	
21	Power transformer	ATT-188-0 ATT-190-0 ATT-189-A	Apply to KCU Apply to FV Apply to GN
22*	Sub-chassis	ANF-266-A	
23	Fuse 4A (F7, F8)	AEK-100-0 AEK-400-0	Apply to KCU and FV Apply to GN
24	Fuse 3A (F2, F3, F4) 3.15A (F2, F3, F4)	AEK-101-0 AEK-042-0	Apply to KCU and FV Apply to GN
25	Fuse 0.5A (F5, F6)	AEK-107-0 AEK-014-0	Apply to KCU and FV Apply to GN
26	Power supply circuit assembly	AWR-065-0 AWR-067-0	Apply to KCU and FV Apply to GN
27*	P.C. board holder	AEB-019-0	
28	Electrolytic capacitor 4,700 $\mu$ F 35V	ACH-042-0	
29	Tuner assembly	AWE-046-0	

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

No.	Description	Part No.	
30	Tuning pulley assembly	AXA-015-A	
31	Screw M4 x 15	ABA-010-A	
32	Claw washer	B21-011-0	
33	Wooden cabinet	AMM-041-A	
34	AC power cord	ADG-005-A ADG-004-0	Apply to KCU Apply to FV
35	Cord grommet	AEC-079-0	Apply to KCU and FV
36*	Model name plate	AAL-218-0 AAL-219-0 AAL-220-0	Apply to KCU Apply to FV Apply to GN
37	Plastic cover	AEC-058-0	
38	Fuse holder (F2, F3 — protection)	AKR-011-0 AKR-017-0	Apply to KCU and FV Apply to GN
39	Antenna clamper	AEC-154-A	
40	Ferrite loopstick antenna	ATB-501	
41	Antenna holder assembly	AXB-001-0	
42	5P connector assembly	AWX-062-0	
43	Binging post for ground	AKE-017-0	
44	Washer	ABE-005-0	
45*	Rear panel	ANC-126-A ANC-127-A ANC-124-A	Apply to KCU Apply to FV Apply to GN
46	Speaker output terminal	AKA-001-0	
47	AC socket	AKP-004-0	Apply to KCU and FV
48	Antenna terminal board	AKA-004	
49	Phono jack A (4-jacks)	AKB-014-0	
50	Phono jack B (4-jacks)	AKB-015-0	
51	Ground terminal strip (2P)	K13-048-0	
52*	Chassis	ANA-070-C	
53*	Wire supporter	M45-105-C	
54	Terminal strip (4P)	AKC-024-A	Apply to KCU and GN
55	Ground terminal strip (4P)	K13-047-0	
56*	Pulley shaft	M49-025-E	
57*	Pulley	AEC-153-0	
58*	Pulley	AEC-101-0	
59	Phone jack (Headphone)	K72-026-0	
60*	Pulley-held metal	ANG-107-A	
61*	Pulley-held metal	ANG-106-A	
62	Line voltage selector (fuse holder)	AKR-001-0	Apply to FV
	Connector socket (AC power)	AKP-008-0	Apply to GN
63	Push switch (FM MUTING)	ASG-087	
64	Tuning shaft assembly	AXA-025-0	
65*	Sub-panel	AND-076-B	
66*	Reinforcement plate	ANF-267-A	
67*	Switch mount plate	ANF-264-A	

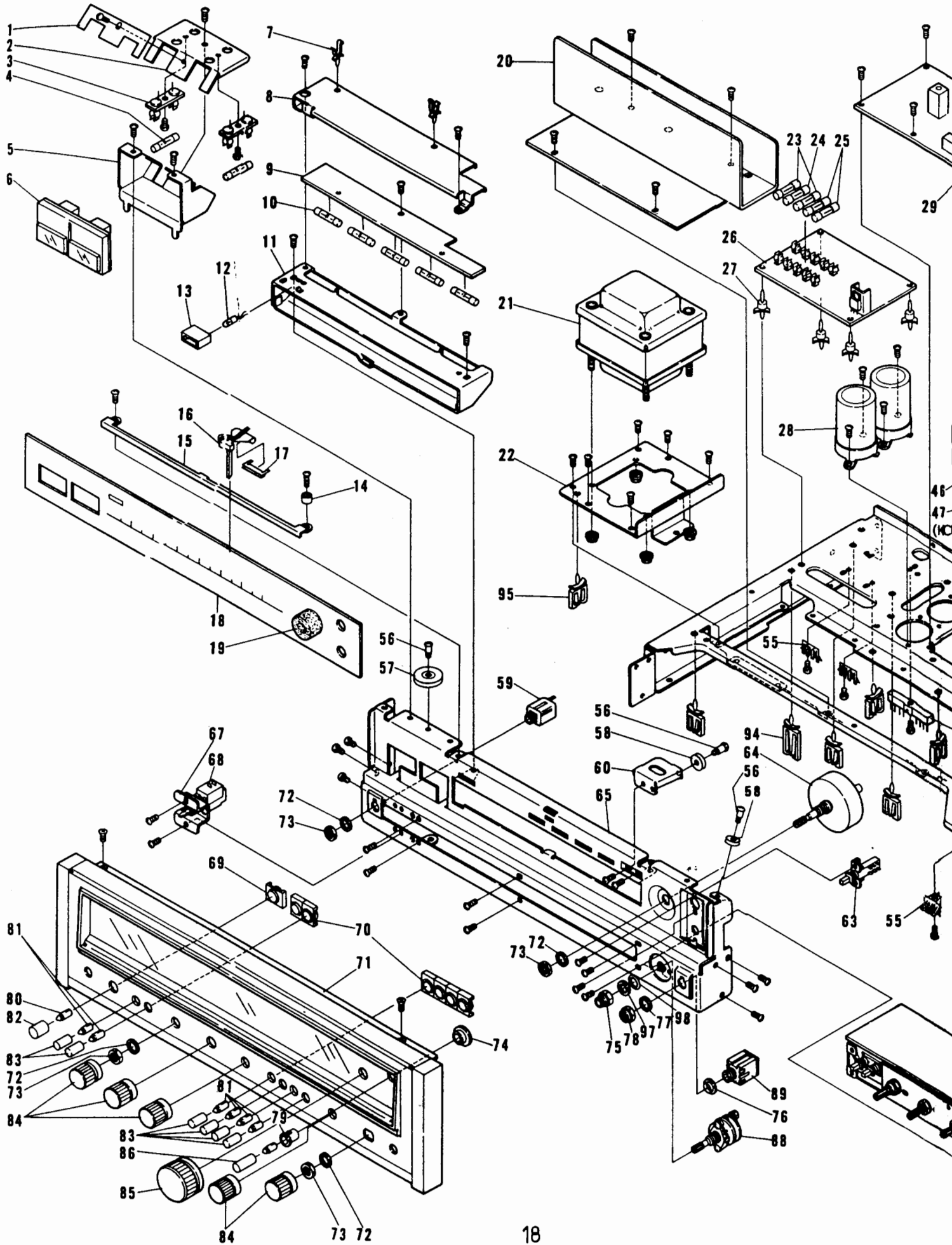
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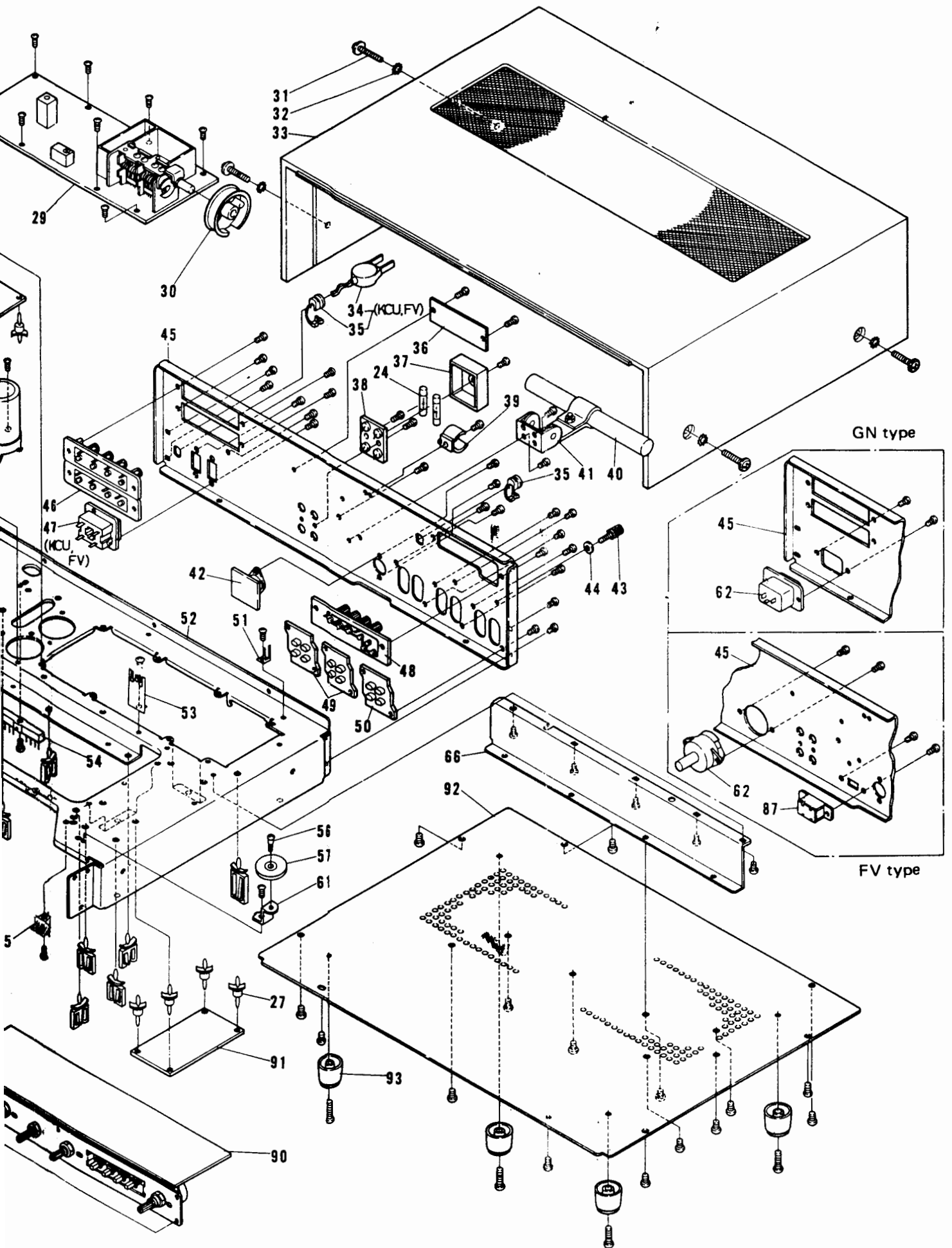


NOTICE: Any parts asterisked (\*) are subject to being not supplied

Key No.	Description	Part No.	
68	Push switch (POWER)	ASG-043-0	Apply to KCU Apply to FV and SN
		ASG-070-0	
69	Spacer	AEC-164-0	Including 69, 70
70	Spacer	AEC-116-0	
71	Front panel assembly	ANB-283-A	
72	Washer	M45-086-0	
73	Nut (9φ)	B71-004-0	
74	Bush	AEC-160-0	
75	Stud nut	ALA-008-0	
76	Insulator bush	E32-045-A	
77	Insulator washer	E34-004-0	
78	Insulator nut	AEC-085-0	
79	Spacer	AEC-152-A	Apply to FV
80	Sub-knob	AAE-007-0	
81	Sub-knob	AAE-008-0	
82	Knob (POWER)	AAD-084-A	
83	Knob (SPEAKERS, MONO, TAPE MONITOR, LOUDNESS)	AAD-054-B	
84	Knob (BASS, TREBLE, BALANCE, VOLUME, FUNCTION)	AAB-068-A	
85	Knob (TUNING)	AAA-024-0	
86	Knob (FM MUTING)	AAD-082-B	
87	Slide switch (De-emphasis)	ASH-008-0	
88	Rotary switch (FUNCTION)	ASC-061-0	
89	Phone jack (MIC)	K72-020-0	
90	SW & control assembly	AWM-068-0	
91	Equalizer amplifier assembly	AWF-014-0	
92*	Bottom plate	ANE-059-B	
93	Foot assembly	AEC-061-A	
94*	Wire clip	AEC-004-0	
95*	Wire clip	AEC-005-0	
96			
97	Washer (0.5t)	B22-016-0	
98	Claw washer	ABE-001-0	

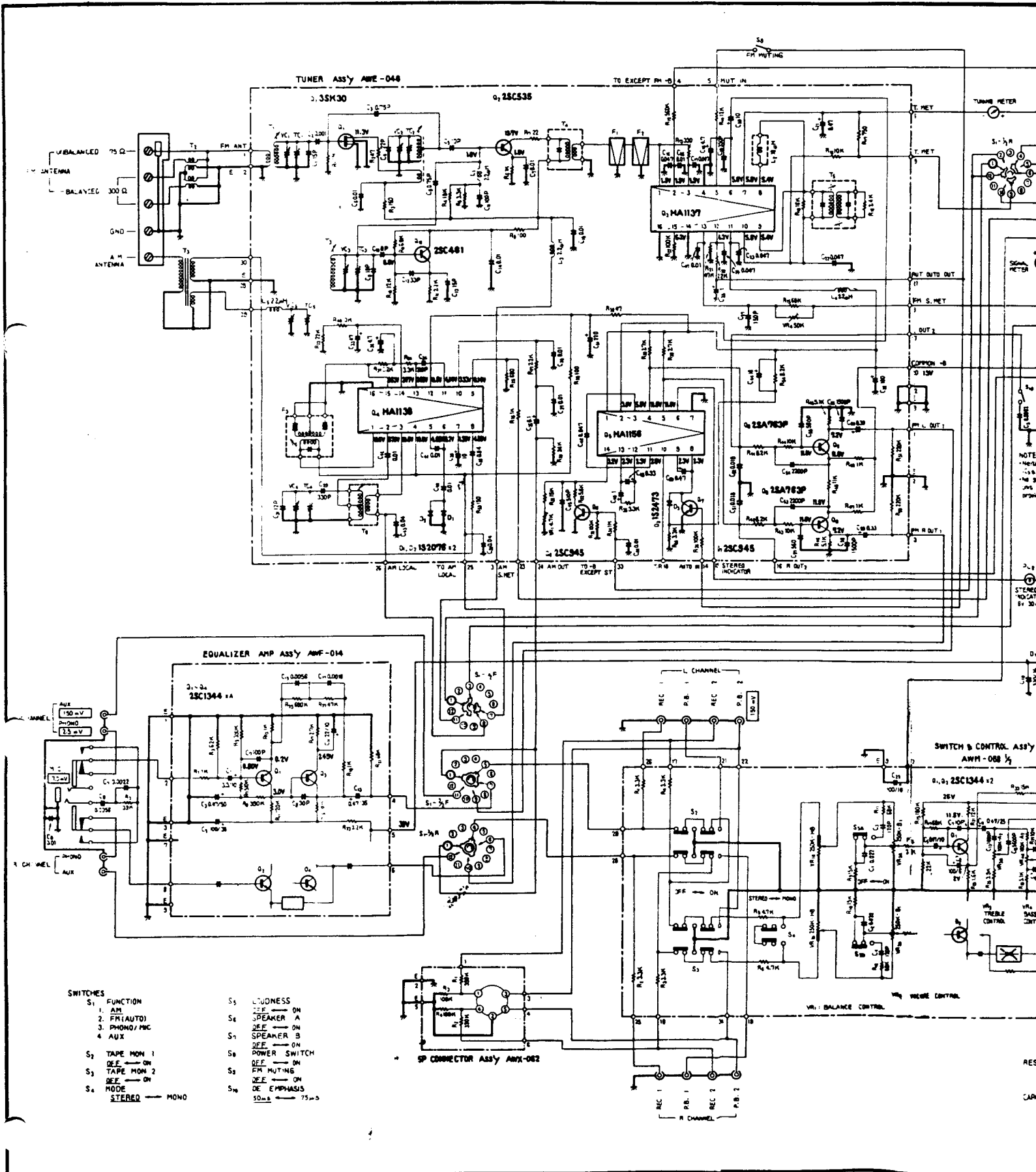
# Exploded View





# 11. SCHEMATIC DIAGRAMS, P.C. BOARD PATTERNS AND PARTS LIST

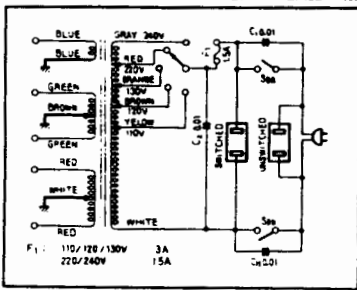
## 11.1 SCHEMATIC DIAGRAM



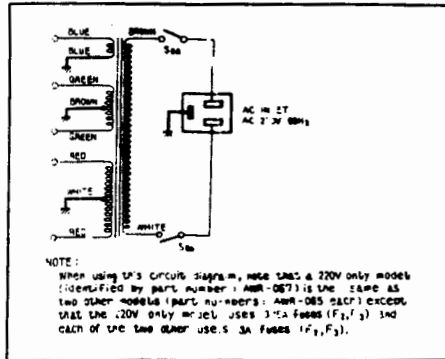
- SWITCHES**
- |                           |                             |
|---------------------------|-----------------------------|
| S <sub>1</sub> AM         | S <sub>5</sub> LUDNESS      |
| S <sub>2</sub> FM(AUTO)   | S <sub>6</sub> SPEAKER A    |
| S <sub>3</sub> PHONO/MBC  | S <sub>7</sub> SPEAKER B    |
| S <sub>4</sub> AUX        | S <sub>8</sub> DE — ON      |
|                           | S <sub>9</sub> POWER SWITCH |
| S <sub>2</sub> TAPE MON 1 | S <sub>3</sub> DE — ON      |
| S <sub>3</sub> TAPE MON 2 | S <sub>4</sub> FM MUTING    |
| S <sub>4</sub> MODE       | S <sub>5</sub> DE — ON      |
| STEREO — MONO             | S <sub>6</sub> DE EMPHASIS  |
|                           | 50 — 75 — 5                 |

# PARTS LIST

POWER SUPPLY CIRCUIT FOR 5-LINE VOLTAGE MODEL



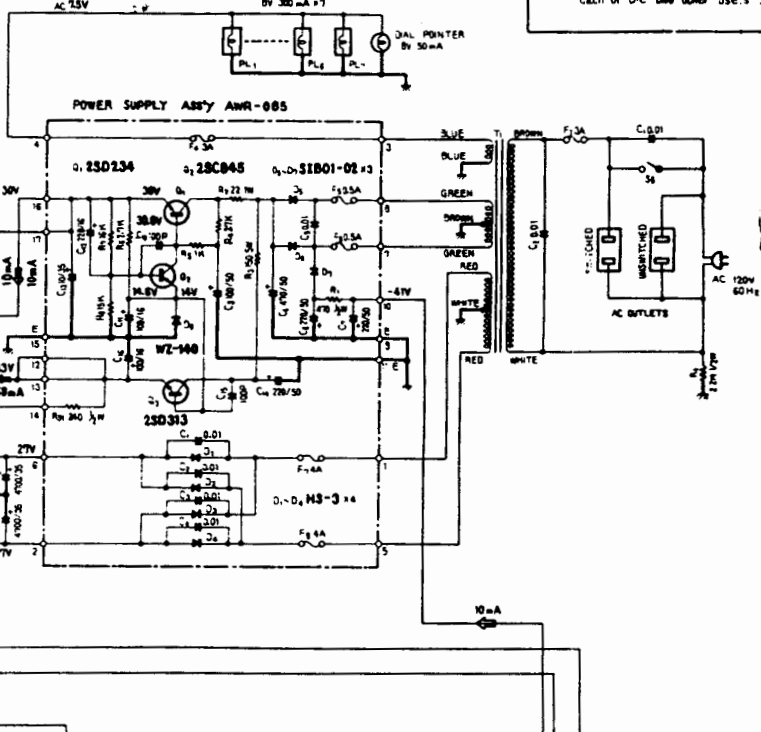
POWER SUPPLY CIRCUIT FOR 220V ONLY MODEL



NOTE:  
When using this circuit diagram, note that a 220V only model (identified by part number AWR-057) is the same as two other models (part numbers: AWR-085 and AWR-086) except that the 220V only model uses 3mA fuses (F<sub>1</sub>, F<sub>2</sub>) and each of the two other models use 5mA fuses (F<sub>1</sub>, F<sub>2</sub>).

LAMP ASSY  
AWX-072  
By 300 mA ± 7

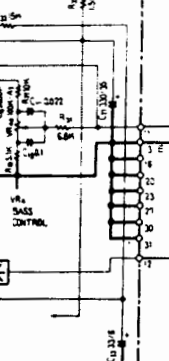
POWER SUPPLY ASSY AWR-085



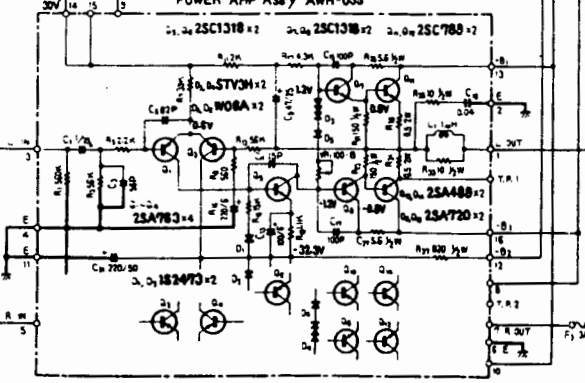
NOTES:  
1. No lamp switch is shown. Capacitors C<sub>1</sub> and C<sub>2</sub> are provided for 220V only. No switch is provided for 100V and 150V. Capacitors C<sub>3</sub> and C<sub>4</sub> are provided.

STEREO INDICATOR LAMP  
By 30 mA

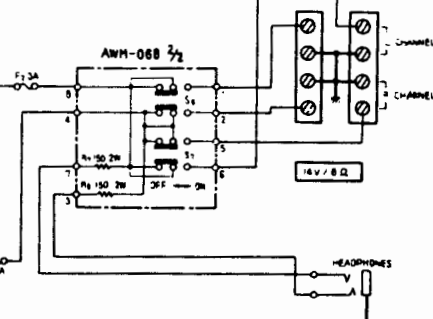
CONTROL ASSY  
-088  
1/2



POWER AMP ASSY AWH-035



SPEAKER A SPEAKER B



RESISTOR  
IN OHM, V<sub>0</sub>W, ±5% TOLERANCE UNLESS OTHERWISE NOTED. K: KΩ, M: MΩ

CAPACITORS  
IN μF UNLESS OTHERWISE NOTED.  
P: pF

NOTES:  
1. SIGNAL VOLTAGE NECESSARY FOR OBTAINING 1W/8Ω OUTPUT POWER (1KHz).  
V: DC VOLTAGE AT NO INPUT SIGNAL.  
A: DC CURRENT AT NO INPUT SIGNAL.

150 mV/1W AT  
SPEAKER OUTPUT

## 11.2 ELECTRO-PARTS LIST

- CAPACITORS: IN  $\mu$ F UNLESS OTHERWISE NOTED p: pF
- RESISTORS: IN  $\Omega$ ,  $\frac{1}{4}$ W UNLESS OTHERWISE NOTED k: k $\Omega$ , M: M $\Omega$

### NOTE:

Model SX-535 comes in three versions distinguished as follows:

KCU type . . . . 120V only, CSA and UL approved

FV type . . . . 110V, 120V, 130V, 220V and 240V (5-position selector),  
General export model with de-emphasis selector switch.

GN type . . . . 220V only, SEMCO, NEMCO and DEMCO approved.

### CAPACITORS

Symbol	Description			Part No.	
C1	Ceramic	0.01	250V	ACG-001-0	Apply to KCU and FV
C2	Ceramic	0.01	250V	ACG-003-0	
C3	Electrolytic	4,700	35V	ACH-042-0	Apply to KCU
C4	Electrolytic	4,700	35V	ACH-042-0	
C5	Mylar	0.0082	50V	CQMA 822K 50	Apply to KCU and FV
C6	Mylar	0.0082	50V	CQMA 822K 50	
C7	Mylar	0.0022	50V	CQMA 222K 50	Apply to KCU and FV
C8	Mylar	0.0056	50V	CQMA 562K 50	
C9	Ceramic	0.01	50V	CKDYF 103Z 50	
C10	Electrolytic	330	35V	CEA 331P 35	Apply to FV
C11	Ceramic	0.01	250V	ACG-001-0	

### RESISTORS

Symbol	Description			Part No.	
R1	Metal oxide	560	2W	RS2P 561K	Apply to KCU
R2	Metal oxide	560	2W	RS2P 561K	
R3	Carbon film	39k		RD $\frac{1}{4}$ PS 393J	
R4	Carbon film	2.2M		RD $\frac{1}{4}$ PS 225J	

### P.C. BOARD ASSEMBLIES

Symbol	Description	Part No.	
	Tuner assembly	AWE-046-0	Apply to KCU and FV Apply to GN
	Power amplifier assembly	AWH-035-0	
	SW & control assembly	AWM-068-0	
	Equalizer amplifier assembly	AWF-014-0	
	Lamp board assembly	AWX-072-0	
	5P connector assembly	AWX-062-0	
	Power supply circuit assembly	AWR-065-0	
		AWR-067-0	

### SWITCHES

Symbol	Description	Part No.	
S1	Rotary switch (function)	ASC-061-0	Apply to KCU
S8	Push switch (power)	ASG-043-0	
		ASG-070-0	
S9	Push switch (FM muting)	ASG-040-0	Apply to FV and GN
S10	Slide switch (de-emphasis)	ASH-008-0	Apply to FV

## TRANSFORMERS

Symbol	Description	Part No.	
T1	Power transformer	ATT-188-0 ATT-189-A ATT-190-0	Apply to KCU Apply to GN Apply to FV
T2	Balun	T22-025-A	
T3	Ferrite loopstick antenna	ATB-026-0	

## FUSES, LAMPS

Symbol	Description	Part No.	
F1	Fuse (primary) 3A	AEK-200-0	Apply to KCU
	1.5A	AEK-104-0	Apply to FV
F2~F4	Fuse (protection) 3A	AEK-101-0	Apply to KCU and FV
	3.15A	AEK-042-0	Apply to GN
F5, F6	Fuse (protection) 0.5A	AEK-107-0	Apply to KCU and FV
	500mA	AEK-014-0	Apply to GN
F7, F8	Fuse (protection) 4A	AEK-100-0	Apply to KCU and FV
		AEK-400-0	Apply to GN
PL1~PL5	Lamp — dial scale	E22-032-0	8V 300mA
PL6, PL7	Lamp — signal & tuning meter	E22-032-0	8V 300mA
PL8	Lamp — dial pointer	AEL-025-0	8V 50mA

## OTHERS

Symbol	Description	Part No.	
D1	Antenna terminal board	AKA-002-0	
	Phono jack-A (4-jacks)	AKB-014-0	
	Phono jack-B (4-jacks)	AKB-015-0	
	Speaker output terminal	AKA-001-0	
	Binding post for ground	AKE-017-0	
	Meter (signal & tuning)	AAW-033-0	
	Phone jack (microphone)	K72-020-0	
	Phone jack (headphone)	K72-026-0	
	Lamp socket (PL6, PL7)	AKK-002-0	
	AC socket	AKP-004-0	Apply to KCU and FV
	Terminal strip (4P)	AKC-024-A	
	Diode 1S2473		
	Fuse holder (protection)	AKR-011-0	Apply to KCU and FV
		AKR-017-0	Apply to GN
	Connector socket (AC power inlet)	AKP-008-0	Apply to GN
	Line voltage selector (fuse holder)	AKR-001-0	Apply to FV
	AC power cord	ADG-005-A	Apply to KCU
		ADG-004-0	Apply to FV
	FM T-type antenna	ADH-002-0	

## TRANSFORMERS

Symbol	Description	Part No.	
T1	Power transformer	ATT-188-0 ATT-189-A ATT-190-0	Apply to KCU Apply to GN Apply to FV
T2	Balun	T22-025-A	
T3	Ferrite loopstick antenna	ATB-026-0	

## FUSES, LAMPS

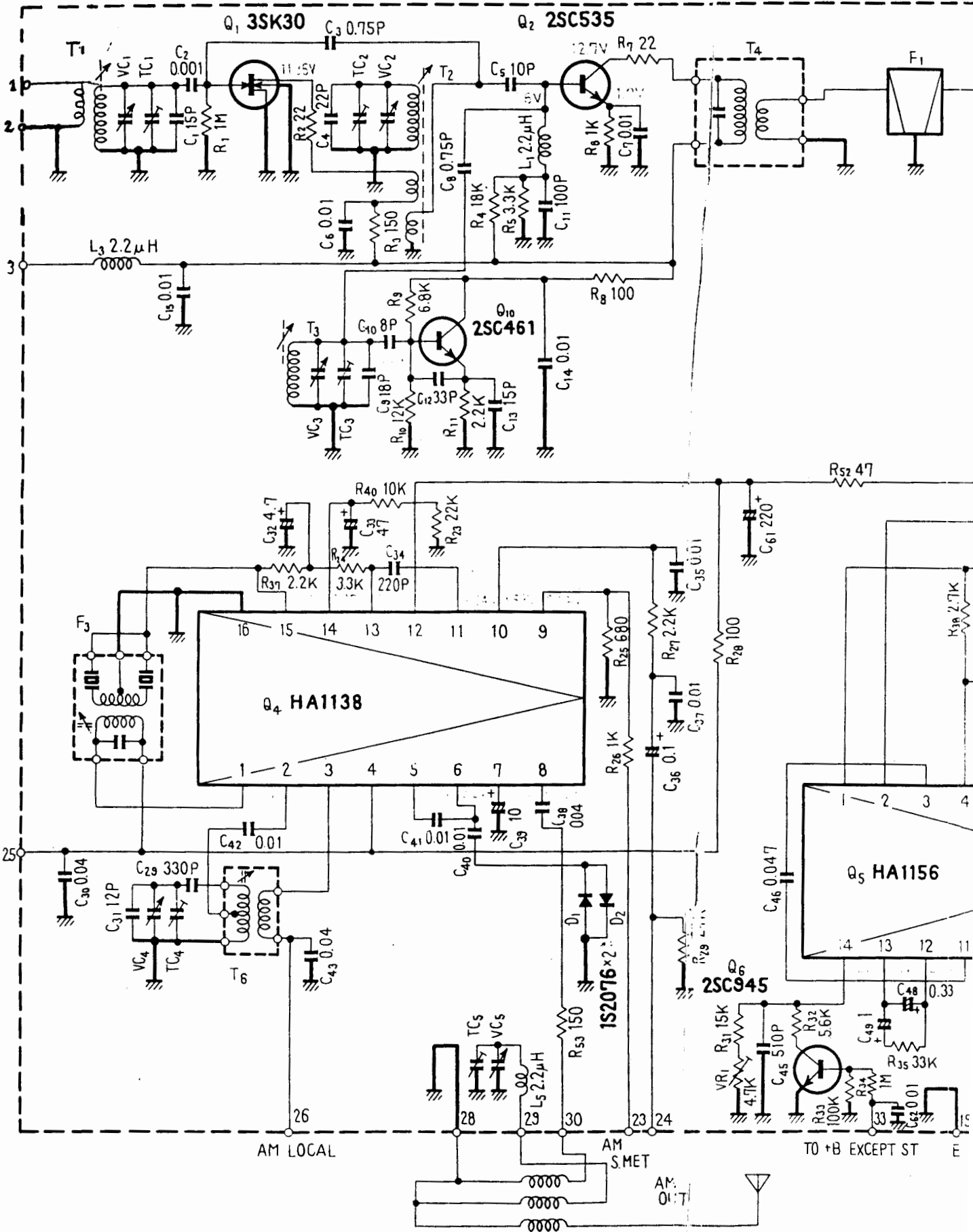
Symbol	Description	Part No.	
F1	Fuse (primary) 3A	AEK-200-0	Apply to KCU
	1.5A	AEK-104-0	Apply to FV
F2~F4	Fuse (protection) 3A	AEK-101-0	Apply to KCU and FV
	3.15A	AEK-042-0	Apply to GN
F5, F6	Fuse (protection) 0.5A	AEK-107-0	Apply to KCU and FV
	500mA	AEK-014-0	Apply to GN
F7, F8	Fuse (protection) 4A	AEK-100-0	Apply to KCU and FV
		AEK-400-0	Apply to GN
PL1~PL5	Lamp - dial scale	E22-032-0	8V 300mA
PL6, PL7	Lamp - signal & tuning meter	E22-032-0	8V 300mA
PL8	Lamp - dial pointer	AEL-025-0	8V 50mA

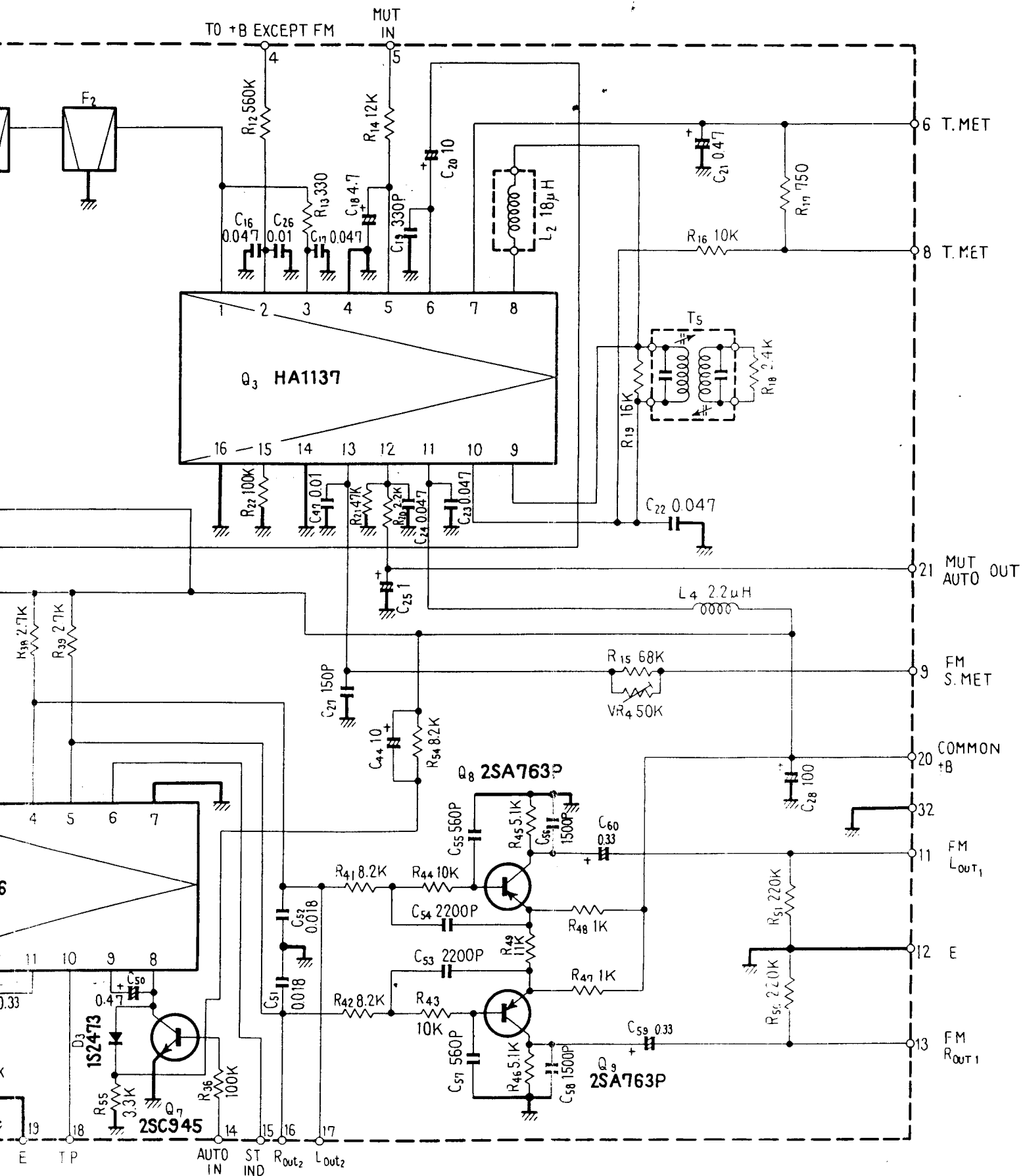
## OTHERS

Symbol	Description	Part No.	
	Antenna terminal board	AKA-002-0	
	Phono jack-A (4-jacks)	AKB-014-0	
	Phono jack-B (4-jacks)	AKB-015-0	
	Speaker output terminal	AKA-001-0	
	Binding post for ground	AKE-017-0	
	Meter (signal & tuning)	AAW-033-0	
	Phone jack (microphone)	K72-020-0	
	Phone jack (headphone)	K72-026-0	
	Lamp socket (PL6, PL7)	AKK-002-0	
	AC socket	AKP-004-0	Apply to KCU and FV
	Terminal strip (4P)	AKC-024-A	
D1	Diode 1S2473	AKR-011-0	Apply to KCU and FV
	Fuse holder (protection)	AKR-017-0	Apply to GN
	Connector socket (AC power inlet)	AKP-008-0	Apply to GN
	Line voltage selector (fuse holder)	AKR-001-0	Apply to FV
	AC power cord	ADG-005-A	Apply to KCU
		ADG-004-0	Apply to FV
	FM T-type antenna	ADH-002-0	

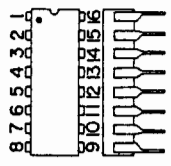


IBLY (AWE-046-0)

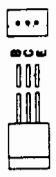




HA1137  
HA1138



2SC535  
2SC461



2SA763P  
2SC945



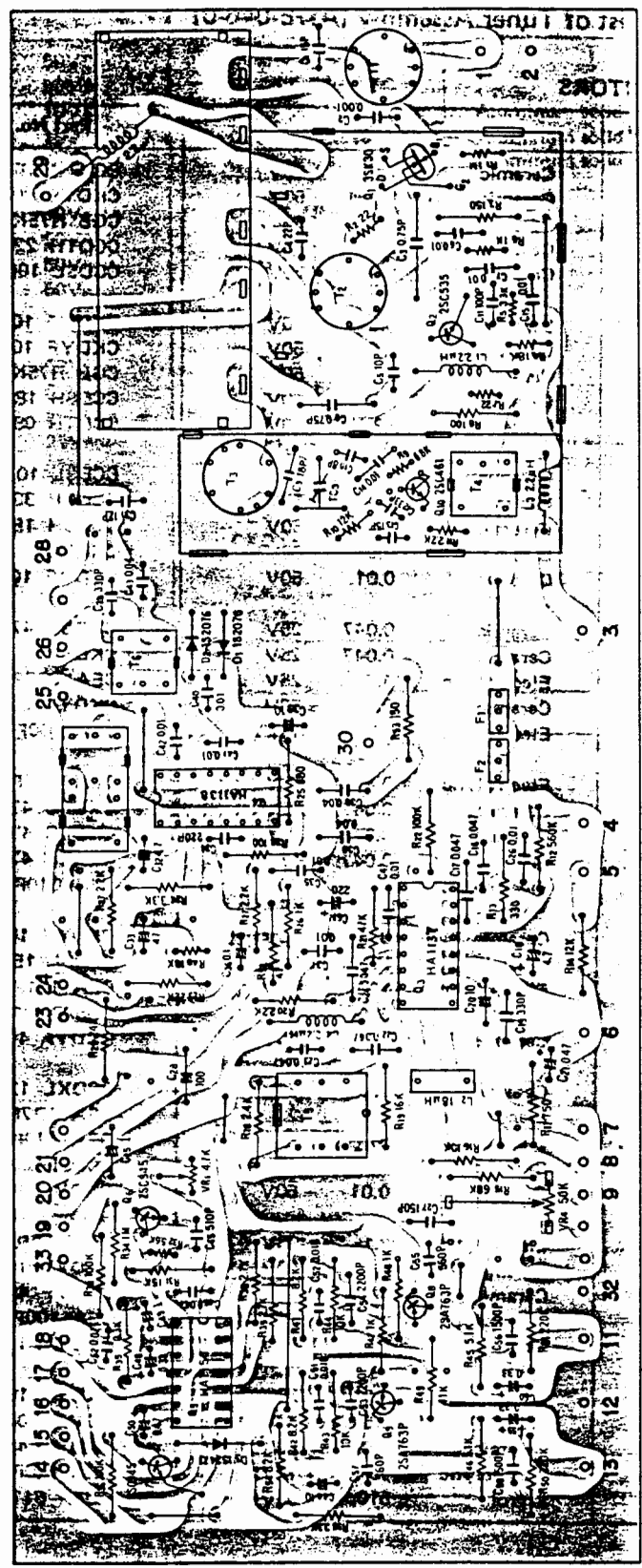
3SK30



(2SA725)



Foil Side (AWE-046-0)



# Parts List of Tuner Assembly (AWE-046-0)

## CAPACITORS

Symbol	Description			Part No.	
C1	Ceramic	15p	50V	CCDTH 150K 50	
C2	Ceramic	0.001	50V	CKDYB 102K 50	
C3	Ceramic	0.75p	500V	CGB R75K 500	
C4	Ceramic	22P	50V	CCDTH 220K 50	
C5	Ceramic	10P	50V	CCDSL 100F 50	
C6	Ceramic	0.01	50V	CKDYF 103Z 50	
C7	Ceramic	0.01	50V	CKDYF 103Z 50	
C8	Ceramic	0.75p	500V	CGB R75K 500	
C9	Ceramic	18P	50V	CCDSH 180K 50	
C10	Ceramic	8P	50V	CCDTH 080F 50	
C11	Ceramic	100p	50V	CCDSL 101K 50	
C12	Ceramic	33P	50V	CCDCH 330K 50	
C13	Ceramic	15P	50V	CCDCH 150K 50	
C14	Ceramic	0.01	50V	CKDYB 103K 50	
C15	Ceramic	0.01	50V	CKDYF 103Z 50	
C16	Ceramic	0.047	25V	CKDBC 473Z 25	
C17	Ceramic	0.047	25V	CKDBC 473Z 25	
C18	Electrolytic	4.7	25V	CEA 4R7P 25	
C19	Ceramic	330p	50V	CKDYB 331K 50	
C20	Electrolytic	10	16V	CEA 100P 16	
C21	Electrolytic	0.47	50V	CEA R47P 50	
C22	Ceramic	0.047	25V	CKDBC 473Z 25	
C23	Ceramic	0.047	25V	CKDBC 473Z 25	
C24	Ceramic	0.047	25V	CKDBC 473Z 25	
C25	Electrolytic	1	50V	CEA 010P 50	
C26	Ceramic	0.01	50V	CKDYF 103Z 50	
C27	Ceramic	150p	50V	CCDSL 151K 50	
C28	Electrolytic	100	16V	CEA 101P 16	
C29	Styrol	330p	50V	CQSA 331J 50	
C30	Ceramic	0.04	50V	CKDYF 403Z 50	
C31	Ceramic	12p	50V	CCDXL 120K 50	
C32	Electrolytic	4.7	25V	CEA 4R7P 25	
C33	Electrolytic	47	6V	CEA 470P 6	
C34	Ceramic	220p	50V	CCDSL 221K 50	
C35	Ceramic	0.01	50V	CKDYB 103K 50	
C36	Electrolytic	0.1	25V	CSSA 0R1M 25	Aluminum solid
C37	Ceramic	0.01	50V	CKDYB 103K 50	
C38	Ceramic	0.04	50V	CKDYF 403Z 50	
C39	Electrolytic	10	16V	CEA 100P 16	
C40	Ceramic	0.01	50V	CKDYF 103Z 50	
C41	Ceramic	0.01	50V	CKDYF 103Z 50	
C42	Mylar	0.01	50V	CQMA 103K 50	
C43	Ceramic	0.04	50V	CKDYF 403Z 50	
C44	Electrolytic	10	16V	CEA 100P 16	
C45	Styrol	510p	50V	CQSH 511J 50	

DT200  
Nichicon

Symbol	Description			Part No.	
C46	Mylar	0.047	50V	CQMA 473J 50	
C47	Ceramic	0.01	50V	CKDYF 103Z 50	
C48	Electrolytic	0.33	10V	CSSA R33M 10	Aluminum solid
C49	Electrolytic	1	10V	CSSA 010M 10	Aluminum solid
C50	Electrolytic	0.47	10V	CSSA R47M 10	Aluminum solid
C51	Mylar	0.018	50V	CQMA 183J 50	
C52	Mylar	0.018	50V	CQMA 183J 50	
C53	Ceramic	0.0022	50V	CKDYB 222K 50	
C54	Ceramic	0.0022	50V	CKDYB 222K 50	
C55	Ceramic	560p	50V	CKDYB 561K 50	
C56	Ceramic	0.0015	50V	CKDYB 152K 50	
C57	Ceramic	560p	50V	CKDYB 561K 50	
C58	Ceramic	0.0015	50V	CKDYB 152K 50	
C59	Electrolytic	0.33	25V	CSSA R33M 25	Aluminum solid
C60	Electrolytic	0.33	25V	CSSA R33M 25	Aluminum solid
C61	Electrolytic	220	16V	CEA 221P 16	
C62	Ceramic	0.01	50V	CKDYF 103Z 50	
VC	Tuning capacitor			ACK-012-0	
TC3	Ceramic trimmer			C43-007-A	

RESISTORS

Symbol	Description			Part No.	
R1	Carbon film	1M		RD%VS 105J	
R2	Carbon film	22		RD%VS 220J	
R3	Carbon film	150		RD%PS 151J	
R4	Carbon film	18k		RD%VS 183J	
R5	Carbon film	3.3k		RD%VS 332J	
R6	Carbon film	1k		RD%VS 102J	
R7	Carbon film	22		RD%VS 220J	
R8	Carbon film	100		RD%PS 101J	
R9	Carbon film	6.8k		RD%VS 682J	
R10	Carbon film	12k		RD%VS 123J	
R11	Carbon film	2.2k		RD%VS 222J	
R12	Carbon film	560k		RD%PS 564J	
R13	Carbon film	330		RD%PS 331J	
R14	Carbon film	12k		RD%PS 123J	
R15	Carbon film	68k		RD%PS 683J	
R16	Carbon film	10k		RD%PS 103J	
R17	Carbon film	750		RD%PS 751J	
R18	Carbon film	2.4k		RD%PS 242J	
R19	Carbon film	16k		RD%PS 163J	
R20	Carbon film	2.2k		RD%PS 222J	
R21	Carbon film	47k		RD%PS 473J	
R22	Carbon film	100k		RD%PS 104J	
R23	Carbon film	22k		RD%PS 223J	
R24	Carbon film	3.3k		RD%PS 332J	
R25	Carbon film	680		RD%PS 681J	

Continued on the Next Page

Symbol	Description	Part No.
R26	Carbon film 1k	RD%PS 102J
R27	Carbon film 2.2k	RD%PS 222J
R28	Carbon film 100	RD%PS 101J
R29	Carbon film 24k	RD%PS 243J
R30		
R31	Carbon film 15k	RD%PS 153J
R32	Carbon film 5.6k	RD%VS 562J
R33	Carbon film 100k	RD%PS 104J
R34	Carbon film 1M	RD%PS 105J
R35	Carbon film 3.3k	RD%PS 332J
R36	Carbon film 100k	RD%PS 104J
R37	Carbon film 2.2k	RD%PS 222J
R38	Carbon film 2.7k	RD%PS 272J
R39	Carbon film 2.7k	RD%PS 272J
R40	Carbon film 10k	RD%VS 103J
R41	Carbon film 8.2k	RD%PS 822J
R42	Carbon film 8.2k	RD%PS 822J
R43	Carbon film 10k	RD%PS 103J
R44	Carbon film 10k	RD%PS 103J
R45	Carbon film 5.1k	RD%PS 512J
R46	Carbon film 5.1k	RD%PS 512J
R47	Carbon film 1k	RD%PS 102J
R48	Carbon film 1k	RD%PS 102J
R49	Carbon film 11k	RD%PS 113J
R50	Carbon film 220k	RD%PS 224J
R51	Carbon film 220k	RD%PS 224J
R52	Carbon film 47	RD%PS 470J
R53	Carbon film 150	RD%PS 151J
R54	Carbon film 8.2k	RD%PS 822J
R55	Carbon film 3.3k	RD%PS 332J

#### POTENTIOMETERS

Symbol	Description	Part No.
VR1	Semi-fixed 4.7k-B	C92-051-0
VR4	Semi-fixed 50k-B	ACP-043-0

#### SEMICONDUCTORS

Symbol	Description	Part No.
D1	Diode 1S2076	
D2	Diode 1S2076	
D3	Diode 1S2473 or 1S2076	
Q1	FET 3SK30-B	
Q2	Transistor 2SC535-A or B	
Q3	IC HA 1137	
Q4	IC HA 1138	
Q5	IC HA 1156	

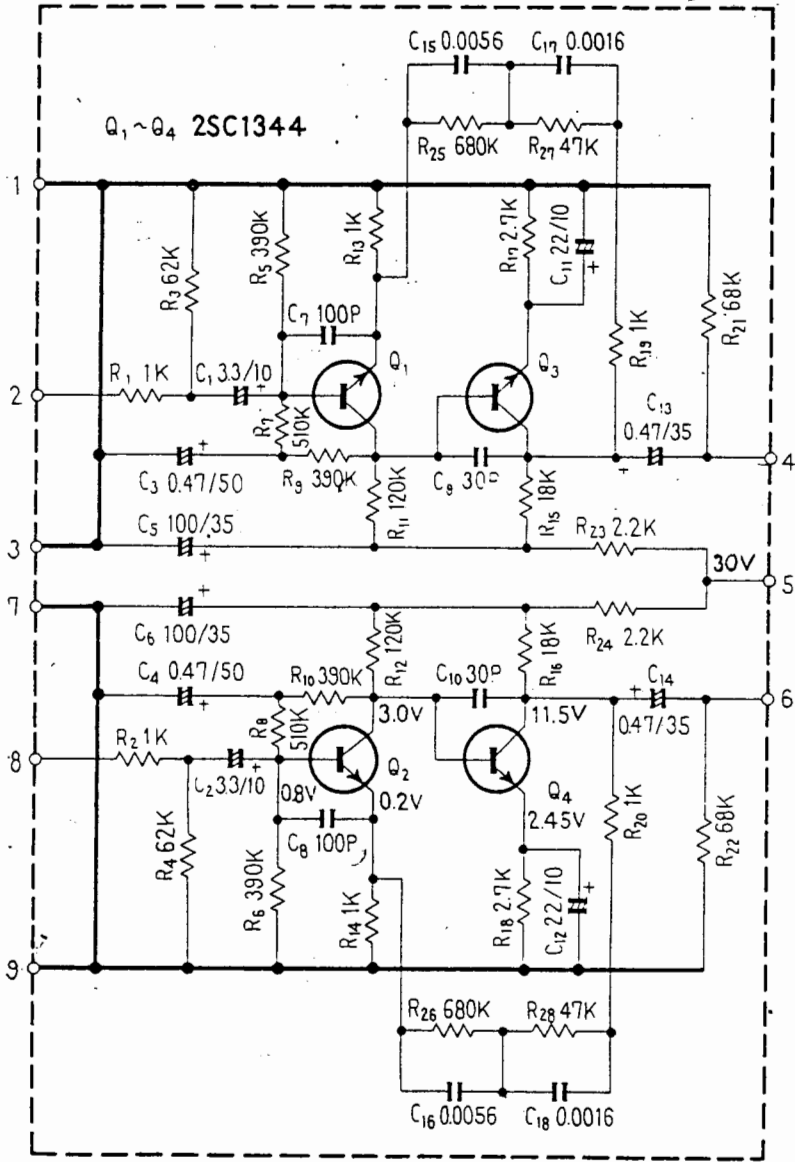
Symbol	Description	Part No.
Q6	Transistor 2SC945-Q or R	
Q7	Transistor 2SC945-Q or R	
Q8	Transistor 2SA763P-5 or 6 (2SA725-F or G)	
Q9	Transistor 2SA763P-5 or 6 (2SA725-F or G)	
Q10	Transistor 2SC461-B	

**TRANSFORMERS AND COILS**

Symbol	Description	Part No.
T1	FM antenna coil	ATC-023-0
T2	FM RF coil	ATC-024-0
T3	FM oscillator coil	ATC-025-0
T4	FM matching coil	ATE-008-0
T5	FM IFT	T73-035-A
T6	AM oscillator coil	ATB-013-0
F1	FM ceramic filter	ATF-013-B
F2	FM ceramic filter	ATF-013-B
F3	AM ceramic filter	ATF-009-0
L1	RF choke coil 2.2μH	T24-028-A
L2	Choke coil 18μH	ATH-007-0
L3	RF choke coil 2.2μH	T24-028-A
L4	RF choke coil 2.2μH	T24-028-A
L5	RF choke coil 2.2μH	T24-028-A

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# 11.4 EQUALIZER AMPLIFIER ASSEMBLY (AWF-014-0)



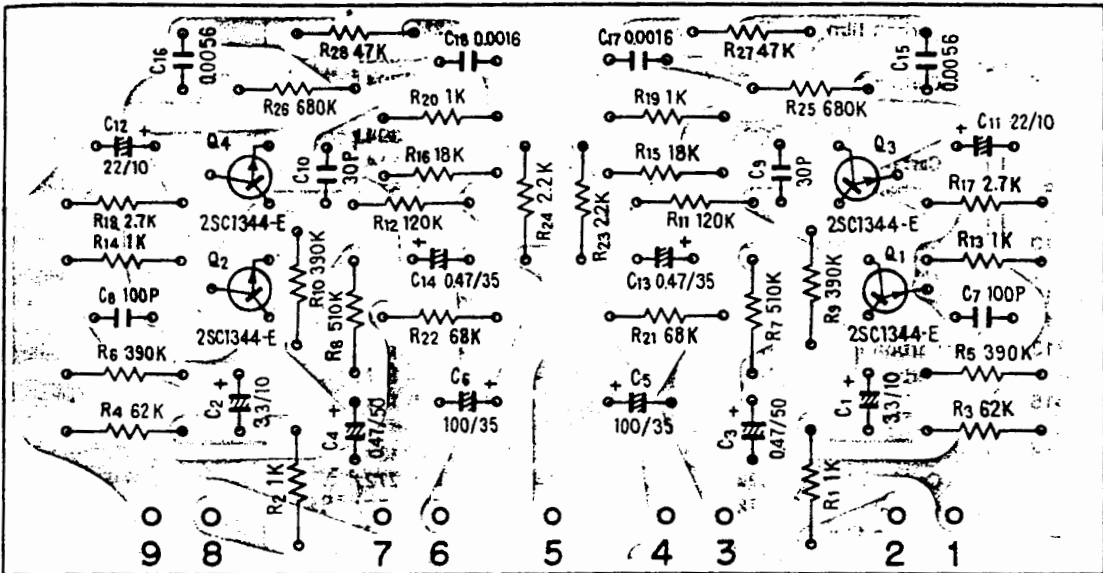
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(2SC1312)





Foil side (AWF-014-0)



Parts List of Equalizer Amplifier Assembly (AWF-014-0)

CAPACITORS

Symbol	Description		Part No.	
C1	Electrolytic	3.3 10V	CSZA 3R3M 10	Tantalum
C2	Electrolytic	3.3 10V	CSZA 3R3M 10	Tantalum
C3	Electrolytic	0.47 50V	CEA R47P 50	
C4	Electrolytic	0.47 50V	CEA R47P 50	
C5	Electrolytic	100 35V	CEA 101P 35	
C6	Electrolytic	100 35V	CEA 101P 35	
C7	Ceramic	100p 50V	CCDSL 101K 50	
C8	Ceramic	100p 50V	CCDSL 101K 50	
C9	Ceramic	30p 50V	CCDSL 300K 50	
C10	Ceramic	30p 50V	CCDSL 300K 50	
C11	Electrolytic	22 10V	CEA 220P 10	
C12	Electrolytic	22 10V	CEA 220P 10	
C13	Electrolytic	0.47 35V	CSZA R47M 35	Tantalum
C14	Electrolytic	0.47 35V	CSZA R47M 35	Tantalum
C15	Styrol	5600p 50V	CQSA 562J 50	
C16	Styrol	5600p 50V	CQSA 562J 50	
C17	Styrol	1600p 50V	CQSA 162J 50	
C18	Styrol	1600p 50V	CQSA 162J 50	

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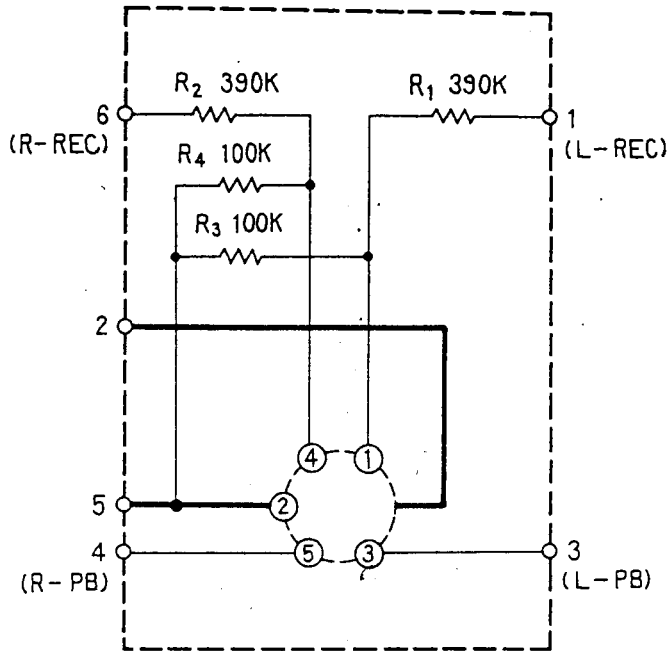
## RESISTORS

Symbol	Description	Part No.
R1	Carbon film 1k	RD4PM 102J
R2	Carbon film 1k	RD4PM 102J
R3	Carbon film 62k	RD4PM 623J
R4	Carbon film 62k	RD4PM 623J
R5	Carbon film 390k	RD4PM 394J
R6	Carbon film 390k	RD4PM 394J
R7	Carbon film 510k	RD4PM 514J
R8	Carbon film 510k	RD4PM 514J
R9	Carbon film 390k	RD4PM 394J
R10	Carbon film 390k	RD4PM 394J
R11	Carbon film 120k	RD4PM 124J
R12	Carbon film 120k	RD4PM 124J
R13	Carbon film 1k	RD4PM 102J
R14	Carbon film 1k	RD4PM 102J
R15	Carbon film 18k	RD4PM 183J
R16	Carbon film 18k	RD4PM 183J
R17	Carbon film 2.7k	RD4PM 272J
R18	Carbon film 2.7k	RD4PM 272J
R19	Carbon film 1k	RD4PM 102J
R20	Carbon film 1k	RD4PM 102J
R21	Carbon film 68k	RD4PM 683J
R22	Carbon film 68k	RD4PM 683J
R23	Carbon film 2.2k	RD4PM 222J
R24	Carbon film 2.2k	RD4PM 222J
R25	Carbon film 680k	RD4PM 684J
R26	Carbon film 680k	RD4PM 684J
R27	Carbon film 47k	RD4PM 473J
R28	Carbon film 47k	RD4PM 473J

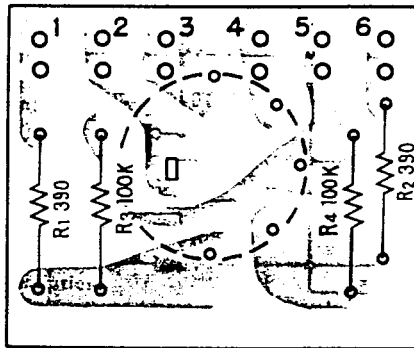
## SEMICONDUCTORS

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

11.5 5P CONNECTOR ASSEMBLY (AWX-062-0)



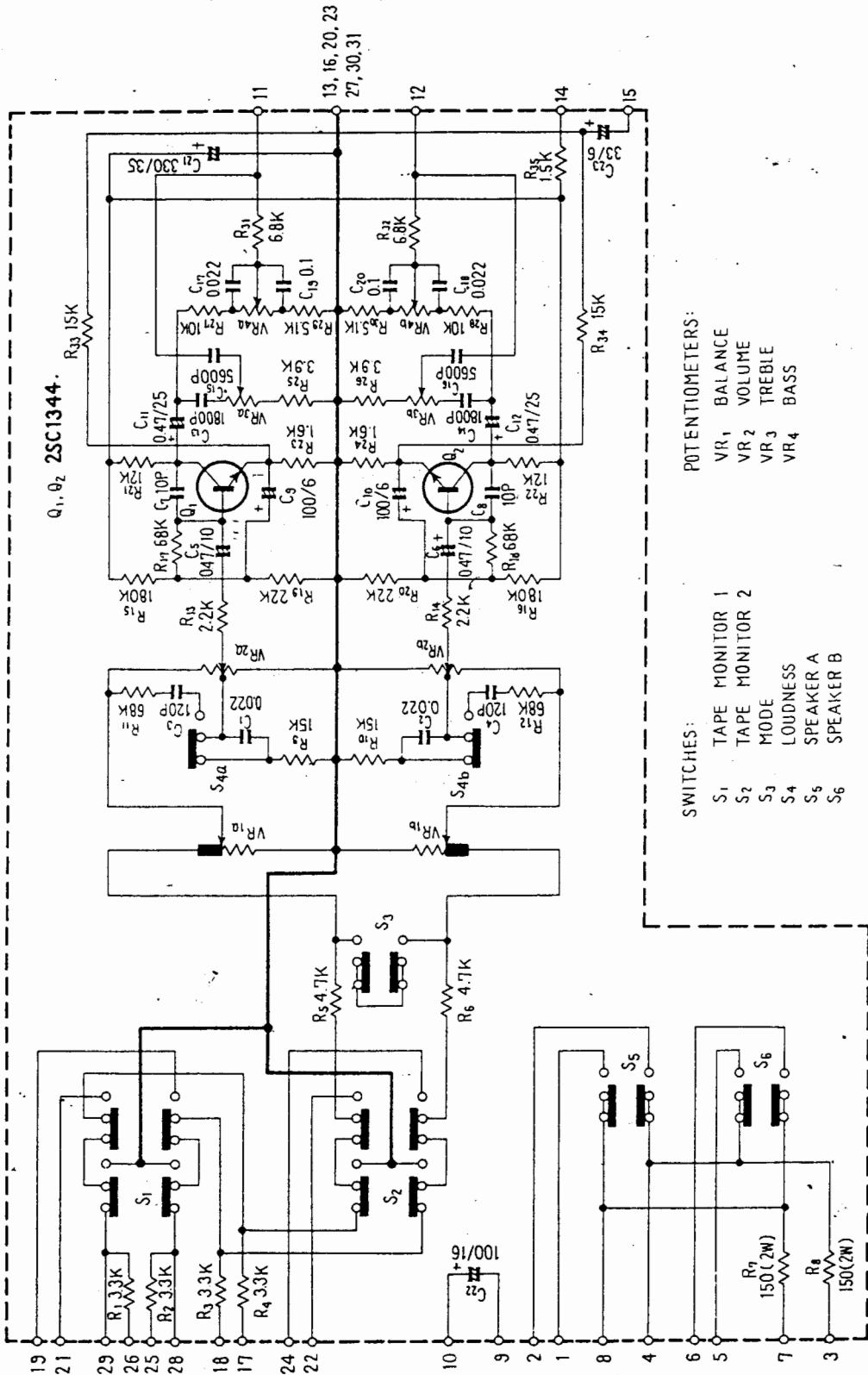
Foil side (AWX-062-0)



Parts List of 5P Connector Assembly (AWX-062-0)

Symbol	Description	Part No.	
R1	Carbon film resistor 390k	RD¼PS 394J	
R2	Carbon film resistor 390k	RD¼PS 394J	
R3	Carbon film resistor 100k	RD¼PS 104J	
R4	Carbon film resistor 100k	RD¼PS 104J	
	Connector socket (DIN type 5P)	AKP-007-0	

# 11.6 SW & CONTROL ASSEMBLY (AWM-068-0)



POTENTIOMETERS:

- VR 1 BALANCE
- VR 2 VOLUME
- VR 3 TREBLE
- VR 4 BASS

SWITCHES:

- S1 TAPE MONITOR 1
- S2 TAPE MONITOR 2
- S3 MODE
- S4 LOUDNESS
- S5 SPEAKER A
- S6 SPEAKER B

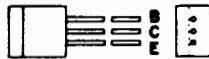
# Parts List of SW & Control Assembly

## CAPACITORS

Symbol	Description			Part No.	
C1	Mylar	0.022	50V	CQMA 223K 50	
C2	Mylar	0.022	50V	CQMA 223K 50	
C3	Ceramic	120p	50V	CCDSL 121K 50	
C4	Ceramic	120p	50V	CCDSL 121K 50	
C5	Electrolytic	0.47	10V	CSSA R47M 10	Aluminum solid
C6	Electrolytic	0.47	10V	CSSA R47M 10	Aluminum Solid
C7	Ceramic	10p	50V	CCDSL 100K 50	
C8	Ceramic	10p	50V	CCDSL 100K 50	
C9	Electrolytic	100	6V	CEA 101P 6	
C10	Electrolytic	100	6V	CEA 101P 6	
C11	Electrolytic	0.47	25V	CSSA R47M 25	Aluminum solid
C12	Electrolytic	0.47	25V	CSSA R47M 25	Aluminum solid
C13	Mylar	0.0018	50V	CQMA 182K 50	
C14	Mylar	0.0018	50V	CQMA 182K 50	
C15	Mylar	0.0056	50V	CQMA 562K 50	
C16	Mylar	0.0056	50V	CQMA 562K 50	
C17	Mylar	0.022	50V	CQMA 223K 50	
C18	Mylar	0.022	50V	CQMA 223K 50	
C19	Mylar	0.1	50V	CQMA 104K 50	
C20	Mylar	0.1	50V	CQMA 104K 50	
C21	Electrolytic	330	35V	CEA 331P 35	
C22	Electrolytic	100	6V	CEA 101P 6	
C23	Electrolytic	33	6V	CEA 330P 6	

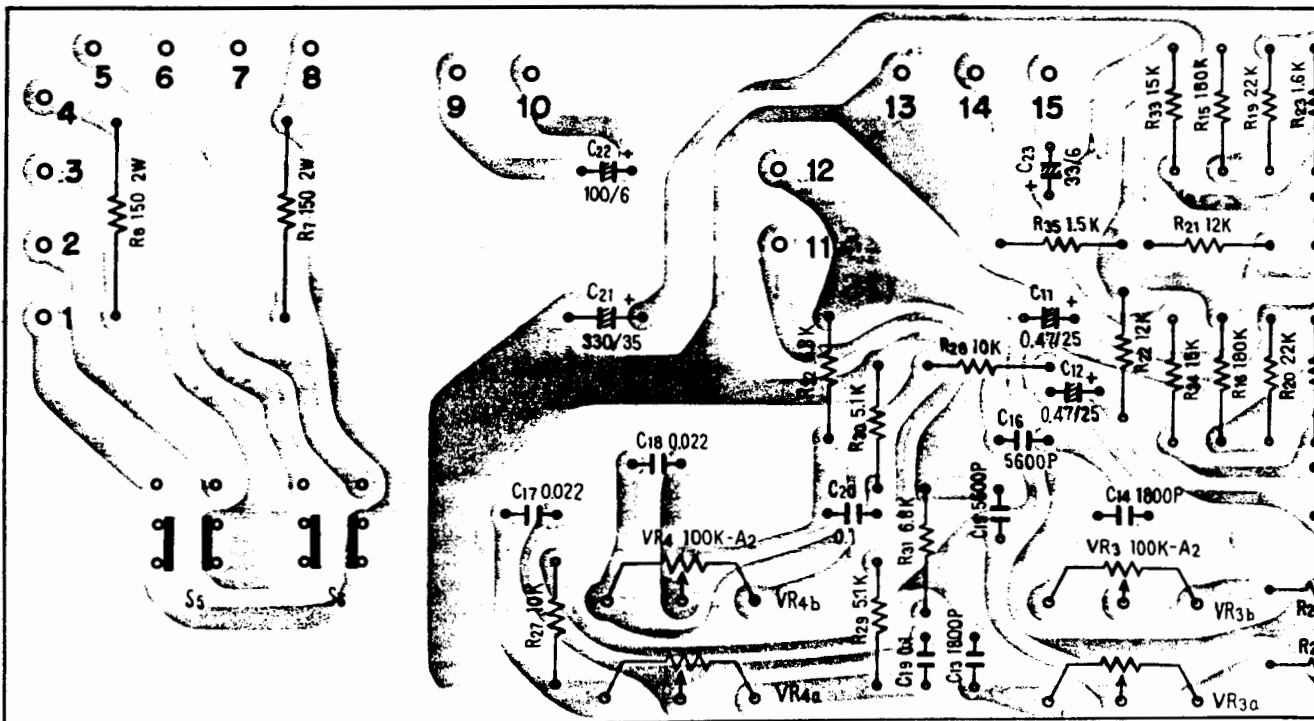
2SC1344

(2SC1312)



Foil side

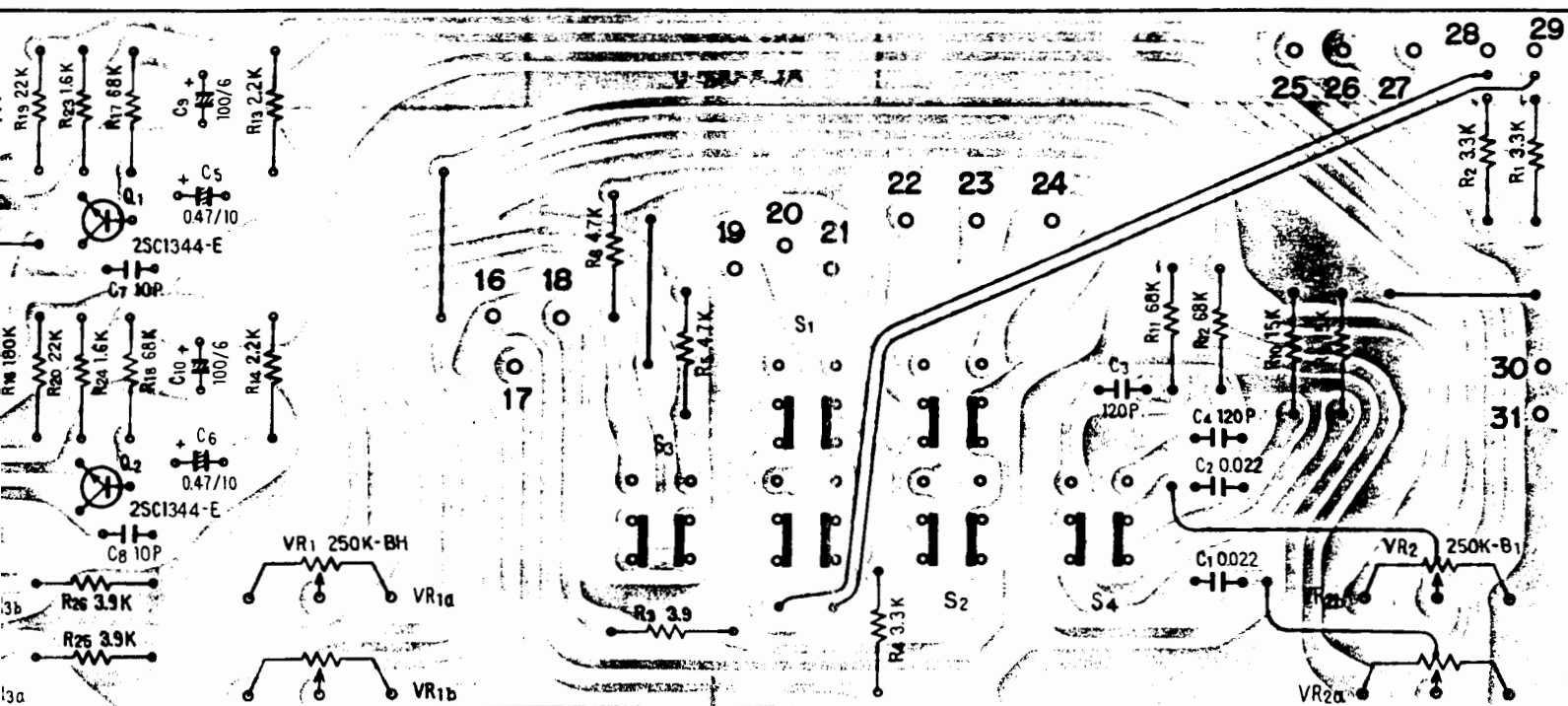
(AWM-068-0)



RESISTORS

Symbol	Description	Part No.
R1	Carbon film 3.3k	RD¼PS 332J
R2	Carbon film 3.3k	RD¼PS 332J
R3	Carbon film 3.3k	RD¼PS 332J
R4	Carbon film 3.3k	RD¼PS 332J
R5	Carbon film 4.7k	RD¼PS 472J
R6	Carbon film 4.7k	RD¼PS 472J
R7	Metal oxide 150 2W	RS 2P 151K
R8	Metal oxide 150 2W	RS 2P 151K
R9	Carbon film 15k	RD¼PS 153J
R10	Carbon film 15k	RD¼PS 153J
R11	Carbon film 68k	RD¼PS 683J
R12	Carbon film 68k	RD¼PS 683J
R13	Carbon film 2.2k	RD¼PS 222J
R14	Carbon film 2.2k	RD¼PS 222J
R15	Carbon film 180k	RD¼PS 184J
R16	Carbon film 180k	RD¼PS 184J
R17	Carbon film 68k	RD¼PS 683J
R18	Carbon film 68k	RD¼PS 683J
R19	Carbon film 22k	RD¼PS 223J
R20	Carbon film 22k	RD¼PS 223J
R21	Carbon film 12k	RD¼PS 123J
R22	Carbon film 12k	RD¼PS 123J
R23	Carbon film 1.6k	RD¼PS 162J
R24	Carbon film 1.6k	RD¼PS 162J
R25	Carbon film 3.9k	RD¼PS 392J

Continued on the Next Page



Symbol	Description	Part No.
R26	Carbon film 3.9k	RD4PS 392J
R27	Carbon film 10k	RD4PS 103J
R28	Carbon film 10k	RD4PS 103J
R29	Carbon film 5.1k	RD4PS 512J
R30	Carbon film 5.1k	RD4PS 512J
R31	Carbon film 6.8k	RD4PS 682J
R32	Carbon film 6.8k	RD4PS 682J
R33	Carbon film 15k	RD4PS 153J
R34	Carbon film 15k	RD4PS 153J
R35	Carbon film 1.5k	RD4PS 152J
VR1	Variable resistor 250k-HB (BALANCE)	ACV-135-0
VR2	Variable resistor 250k-B1 (VOLUME)	ACV-139-0
VR3	Variable resistor 100k-A2 (TREBLE)	ACV-138-0
VR4	Variable resistor 100k-A2 (BASS)	ACV-138-0

### SEMICONDUCTORS

Symbol	Description	Part No.
Q1	Transistor 2SC1344-E or F (2SC1312-F or G)	
Q2	Transistor 2SC1344-E or F (2SC1312-F or G)	

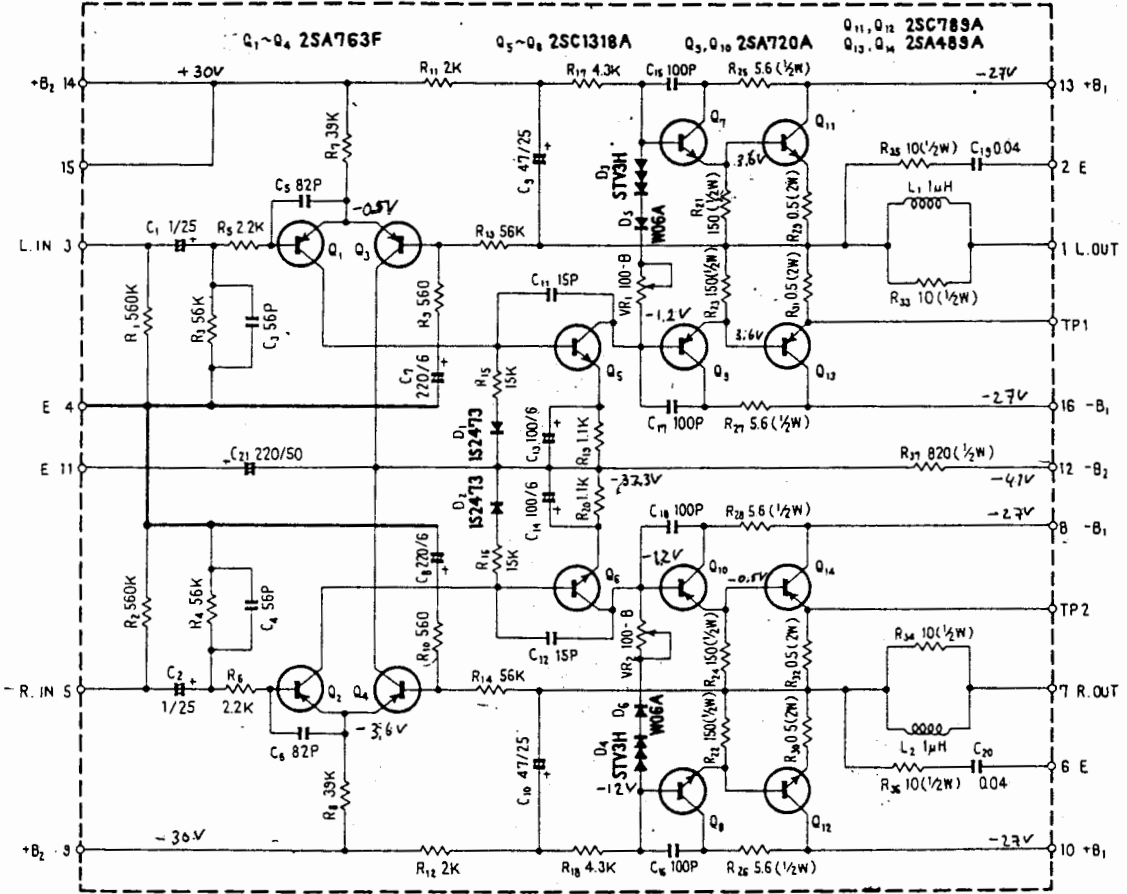
### SWITCHES

Symbol	Description	Part No.
S1~S4	Push switch (TAPE MONITOR 1, 2, MODE, LOUDNESS)	ASG-075-A 070
S5~S6	Push switch (SPEAKER A, B)	ASG-073-A 080

### OTHERS

Symbol	Description	Part No.
	Nut Boss 9φ	B71-004-0 ALA-006-0

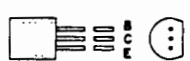
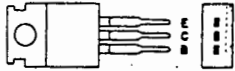
# 11.7 POWER AMPLIFIER ASSEMBLY (AWH-035-0)



2SA720A  
 2SA763F  
 2SC1318A

2SA489A  
 (2SB507R)  
 2SC789A  
 (2SD313R)

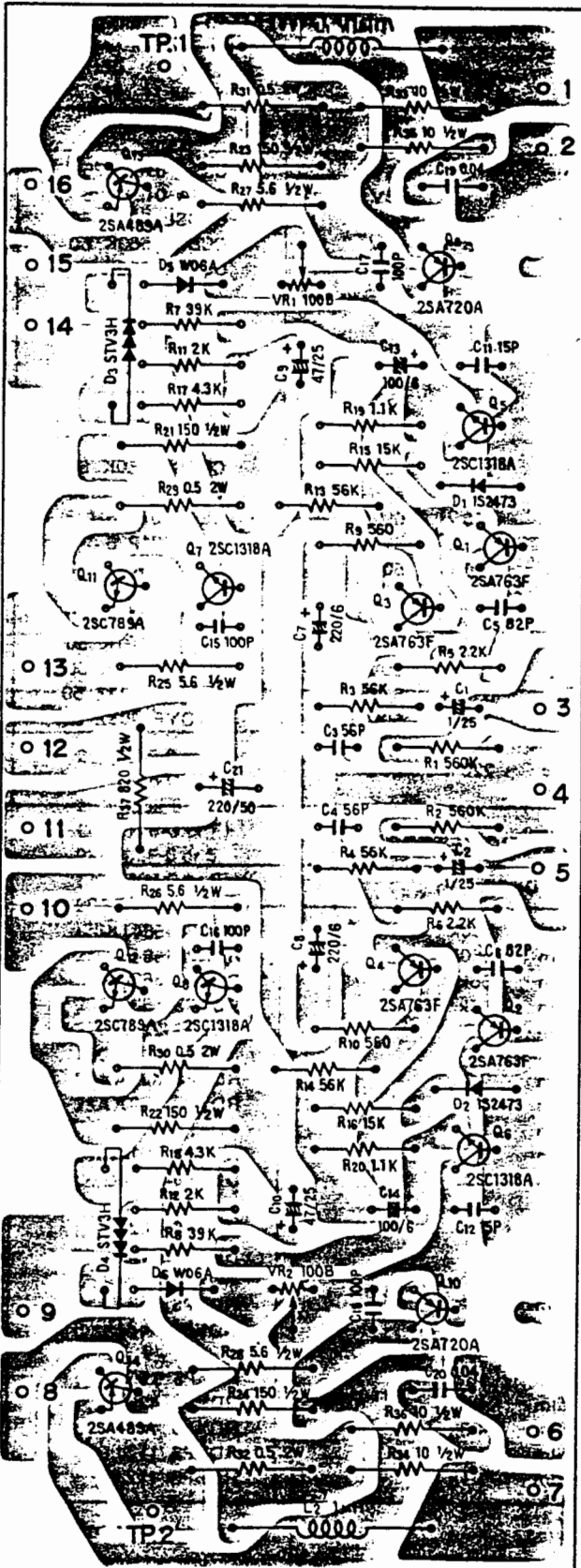
(2SA726)





Foil side

(AWH-035-0)



## Parts List of Power Amplifier Assembly (AWH-035-0)

### CAPACITORS


Symbol	Description			Part No.	
C1	Electrolytic	1	25V	CSSA 010M 25	Aluminum solid
C2	Electrolytic	1	25V	CSSA 010M 25	Aluminum solid
C3	Ceramic	56p	50V	CCDSL 560K 50	
C4	Ceramic	56p	50V	CCDSL 560K 50	
C5	Ceramic	82p	50V	CCDSL 820K 50	
C6	Ceramic	82p	50V	CCDSL 820K 50	
C7	Electrolytic	220	6V	CEA 221P 6	
C8	Electrolytic	220	6V	CEA 221P 6	
C9	Electrolytic	47	25V	CEA 470P 25	
C10	Electrolytic	47	25V	CEA 470P 25	
C11	Ceramic	15p	50V	CCDSL 150K 50	
C12	Ceramic	15p	50V	CCDSL 150K 50	
C13	Electrolytic	100	6V	CEA 101P 6	
C14	Electrolytic	100	6V	CEA 101P 6	
C15	Ceramic	100p	50V	CCDSL 101K 50	
C16	Ceramic	100p	50V	CCDSL 101K 50	
C17	Ceramic	100p	50V	CCDSL 101K 50	
C18	Ceramic	100p	50V	CCDSL 101K 50	
C19	Ceramic	0.04	50V	CKDYF 403Z 50	
C20	Ceramic	0.04	50V	CKDYF 403Z 50	
C21	Electrolytic	220	50V	CEA 221P 50	

### RESISTORS AND POTENTIOMETERS

Symbol	Description			Part No.	
R1	Carbon film	560k		RD½PS 564J	
R2	Carbon film	560k		RD½PS 564J	
R3	Carbon film	56k		RD½PS 563J	
R4	Carbon film	56k		RD½PS 563J	
R5	Carbon film	2.2k		RD½PS 222J	
R6	Carbon film	2.2k		RD½PS 222J	
R7	Carbon film	39k		RD½PS 393J	
R8	Carbon film	39k		RD½PS 393J	
R9	Carbon film	560		RD½PS 561J	
R10	Carbon film	560		RD½PS 561J	
R11	Carbon film	2k		RD½PS 202J	
R12	Carbon film	2k		RD½PS 202J	
R13	Carbon film	56k		RD½PS 563J	
R14	Carbon film	56k		RD½PS 563J	
R15	Carbon film	15k		RD½PS 153J	
R16	Carbon film	15k		RD½PS 153J	
R17	Carbon film	4.3k		RD½PS 432J	
R18	Carbon film	4.3k		RD½PS 432J	
R19	Carbon film	1.1k		RD½PS 112J	
R20	Carbon film	1.1k		RD½PS 112J	

Symbol	Description	Part No.
R21	Carbon film 150 1/2W	RD1/2PS 151J
R22	Carbon film 150 1/2W	RD1/2PS 151J
R23	Carbon film 150 1/2W	RD1/2PS 151J
R24	Carbon film 150 1/2W	RD1/2PS 151J
R25	Carbon film 5.6 1/2W	RD1/2PS 5R6J
R26	Carbon film 5.6 1/2W	RD1/2PS 5R6J
R27	Carbon film 5.6 1/2W	RD1/2PS 5R6J
R28	Carbon film 5.6 1/2W	RD1/2PS 5R6J
R29	Metal film 0.5 2W	RN2H 0R5K
R30	Metal film 0.5 2W	RN2H 0R5K
R31	Metal film 0.5 2W	RN2H 0R5K
R32	Metal film 0.5 2W	RN2H 0R5K
R33	Carbon film 10 1/2W	RD1/2PS 100J
R34	Carbon film 10 1/2W	RD1/2PS 100J
R35	Carbon film 10 1/2W	RD1/2PS 100J
R36	Carbon film 10 1/2W	RD1/2PS 100J
R37	Carbon film 820 1/2W	RD1/2PS 821J
VR1	Semi-fixed 100-B	C92-063-0
VR2	Semi-fixed 100-B	C92-063-0

SEMICONDUCTORS

Symbol	Description	Part No.
Q1	Transistor 2SA763F-6 or 5	BC 640 OR 2N5401
Q2	Transistor 2SA763F-6 or 5	
Q3	Transistor 2SA763F-6 or 5	
Q4	Transistor 2SA763F-6 or 5	
Q5	Transistor 2C1318A-R or Q	BC 639 OR 2N3704
Q6	Transistor 2C1318A-R or Q	
Q7	Transistor 2C1318A-R or Q	
Q8	Transistor 2C1318A-R or Q	
Q9	Transistor 2A720A-R or Q	BC 640 OR 2N2905A
Q10	Transistor 2A720A-R or Q	
Q11	Transistor 2C789A-O or R	BD509 OR 2N6123
Q12	Transistor 2C789A-O or R	
Q13	Transistor 2A489A-O or R	BD590 OR 2N6126
Q14	Transistor 2A489A-O or R	
D1	Diode 1S2473	
D2	Diode 1S2473	
D3	Varistor STV3H 7.65 EX 87	
D4	Varistor STV3H	
D5	Diode W06A	
D6	Diode W06A	

Continued on the Next Page

OTHERS

Symbol	Description	Part No.
L1	Choke coil 1 $\mu$ H	ATH-003-A
L2	Choke coil 1 $\mu$ H	ATH-003-A
	Socket	AKH-002-0
	Spacer (Mica)	AEC-078-0
	Spacer *	ANG-108-0

Parts List of Power Amplifier Assembly

11.8 POWER SUPPLY CIRCUIT ASSEMBLY (AWR-065-0, AWR-067-0)

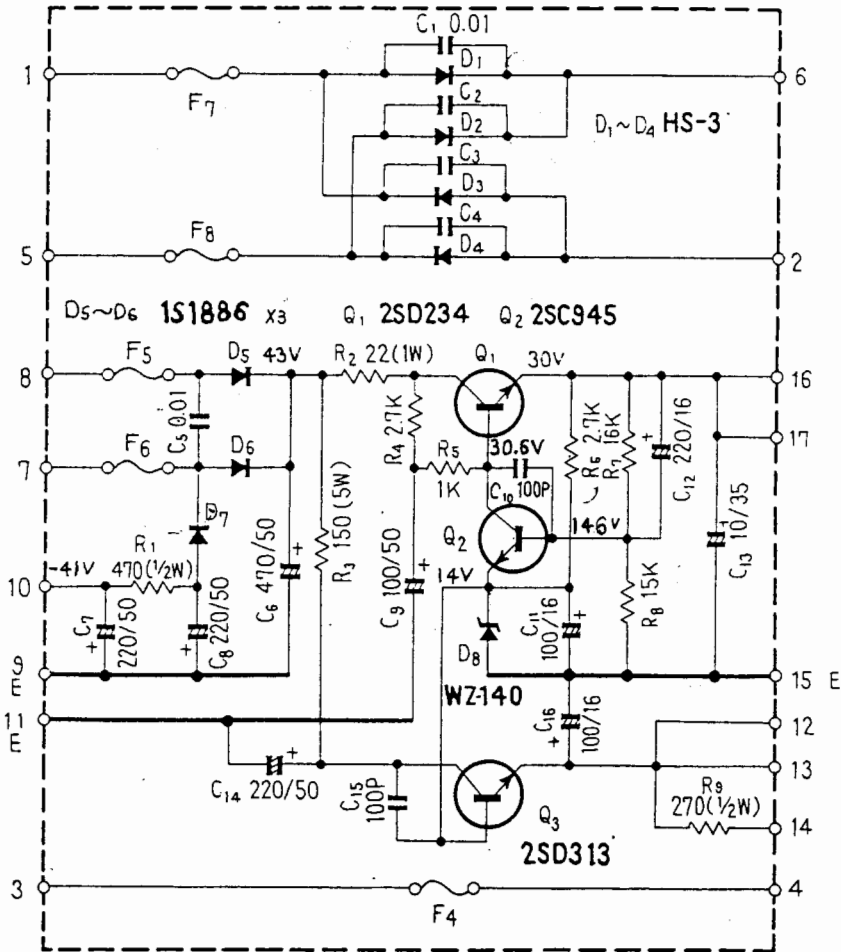
NOTE:

Power supply circuit assembly comes in two versions distinguished as follows:

AWR-065-0 . . . . . For KCU type (CSA and UL approved) and FV type

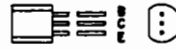
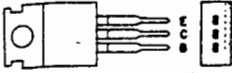
AWR-067-0 . . . . . For GN type (SEMCO, DEMCO and NEMCO approved)

The fuses (F4~F8) are excluded from parts of these assemblies. If you want to see the part Nos. of these fuses, you are requested to refer to Electro-parts list (pp. 31-32).



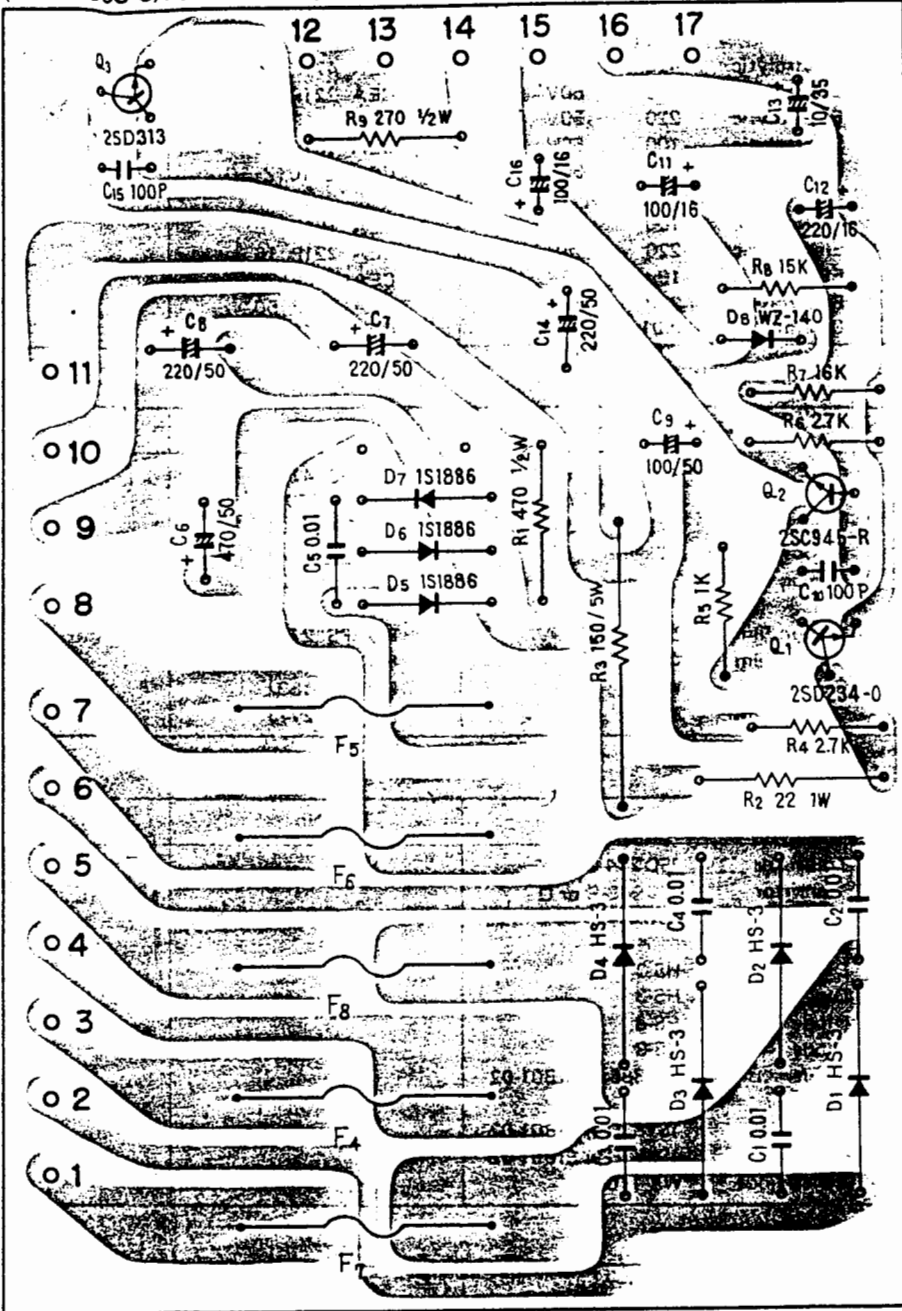
2SD234  
2SD313

2SC945



Foil side

(AWR-065-0/AWR-067-0)



## Parts List of Power Supply Circuit Assembly (AWR-065-0) for KCU and FV type

### CAPACITORS

Symbol	Description			Part No.
C1	Ceramic	0.01	150V	ACG-004-0
C2	Ceramic	0.01	150V	ACG-004-0
C3	Ceramic	0.01	150V	ACG-004-0
C4	Ceramic	0.01	150V	ACG-004-0
C5	Ceramic	0.01	150V	ACG-004-0
C6	Electrolytic	470	50V	CEA 471P 50
C7	Electrolytic	220	50V	CEA 221P 50
C8	Electrolytic	220	50V	CEA 221P 50
C9	Electrolytic	100	50V	CEA 101P 50
C10	Ceramic	0.01	50V	CCDSL 101Z 50
C11	Electrolytic	100	16V	CEA 101P 16
C12	Electrolytic	220	16V	CEA 221P 16
C13	Electrolytic	10	35V	CEA 100P 35
C14	Electrolytic	220	50V	CEA 221P 50
C15	Ceramic	0.01	50V	CCDSL 101Z 50

### RESISTORS

Symbol	Description			Part No.
R1	Carbon film	470	1/4W	RD1/4PS 471J
R2	Metal oxide	22	1W	RS 1P 220K
R3	Wire wound	150	5W	RT 5B 151K
R4	Carbon film	2.7k		RD1/4PS 272J
R5	Carbon film	1k		RD1/4PS 102J
R6	Carbon film	2.7k		RD1/4PS 272J
R7	Carbon film	16k		RD1/4PS 163J
R8	Carbon film	15k		RD1/4PS 153J
R9	Carbon film	270	1/4W	RD1/4PS 271J

### SEMICONDUCTORS

Symbol	Description			Part No.
Q1	Transistor	2SD234-O or Y		
Q2	Transistor	2SC945-R or Q		
Q3	Transistor	2SD313-D or E		
D1	Diode	HS-3		
D2	Diode	HS-3		
D3	Diode	HS-3		
D4	Diode	HS-3		
D5	Diode	1S1886 or S1B01-02		
D6	Diode	1S1886 or S1B01-02		
D7	Diode	1S1886 or S1B01-02		
D8	Zener diode	WZ-140		

### OTHERS

Symbol	Description	Part No.
	Fuse holder	AKR-013-0
	Heat sink	ANH-117-0

Parts List of Power Supply Circuit Assembly (AWR-067-0) for GN type

CAPACITORS

Symbol	Description			Part No.
C1	Ceramic	0.01	150V	ACG-004-0
C2	Ceramic	0.01	150V	ACG-004-0
C3	Ceramic	0.01	150V	ACG-004-0
C4	Ceramic	0.01	150V	ACG-004-0
C5	Ceramic	0.01	150V	ACG-004-0
C6	Electrolytic	470	50V	CEA 471P 50
C7	Electrolytic	220	50V	CEA 221P 50
C8	Electrolytic	220	50V	CEA 221P 50
C9	Electrolytic	100	50V	CEA 101P 50
C10	Ceramic	0.01	50V	CCDSL 101Z 50
C11	Electrolytic	100	16V	CEA 101P 16
C12	Electrolytic	220	16V	CEA 221P 16
C13	Electrolytic	10	35V	CEA 100P 35
C14	Electrolytic	220	50V	CEA 221P 50
C15	Ceramic	0.01	50V	CCDSL 101Z 50

RESISTORS

Symbol	Description			Part No.
R1	Carbon film	470	1/2W	RD1/2PS 471J
R2	Metal oxide	22	1W	RS 1P 220K
R3	Wire wound	150	5W	RT 5B 151K
R4	Carbon film	2.7k		RD1/2PS 272J
R5	Carbon film	1k		RD1/2PS 102J
R6	Carbon film	2.7k		RD1/2PS 272J
R7	Carbon film	16k		RD1/2PS 163J
R8	Carbon film	15k		RD1/2PS 153J
R9	Carbon film	270	1/2W	RD1/2PS 271J

SEMICONDUCTORS

Symbol	Description		Part No.
Q1	Transistor	2SD234-OorY	
Q2	Transistor	2SC945-ForQ	
Q3	Transistor	2SD313-DorE	
D1	Diode	HS-3	
D2	Diode	HS-3	
D3	Diode	HS-3	
D4	Diode	HS-3	
D5	Diode	1S1886 or SIB01-02	
D6	Diode	1S1886 or SIB01-02	
D7	Diode	1S1886 or SIB01-02	
D8	Zener diode	WZ-140	

OTHERS

Symbol	Description	Part No.
	Fuse holder	AKR-010-0
	Heat sink	ANH-117-0

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