

AM/FM STEREO RECEIVER

SX-750

SERVICE MANUAL



 PIONEER

This Service Manual is applicable only to the KC, KU model.

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1. SPECIFICATIONS FACILITIES

Semiconductors

| | |
|-------------------|----|
| FET | 1 |
| ICs | 7 |
| Transistors | 42 |
| Diodes | 40 |

Amplifier Section

Continuous Power Output from 20 Hertz to 20,000 Hertz
(Both channels driven) . . . 50 watts per channel (8 ohms)
60 watts per channel (4 ohms)

Total Harmonic Distortion

(20 Hertz to 20,000 Hertz, from AUX)

Continuous Rated Power Output . . . No more than 0.1%

25 watts per channel power

output, 8 ohms No more than 0.05%

1 watt per channel power

output, 8 ohms No more than 0.05%

Intermodulation Distortion

(50 Hertz: 7,000 Hertz=4:1, from AUX)

Continuous Rated Power Output . . . No more than 0.1%

25 watts per channel power

output, 8 ohms No more than 0.05%

1 watt per channel power

output, 8 ohms No more than 0.05%

Damping Factor

(20 Hertz to 20,000 Hertz) 30

Input (Sensitivity/Impedance)

PHONO 2.5mV/50k ohms

MIC 5mV/50k ohms

AUX 150mV/50k ohms

TAPE PLAY 1 150mV/50k ohms

TAPE PLAY 2 150mV/50k ohms

TAPE PLAY 2 (DIN connector) . . . 150mV/50k ohms

PHONO Overload Level (T.H.D. 0.1%)
. 200mV (1kHz)

Output (Level/Impedance)

TAPE REC 1 150mV

TAPE REC 2 150mV

TAPE REC 2 (DIN connector) 30mV/80k ohms

SPEAKER A, B, A+B

HEADPHONES Low Impedance

Frequency Response

PHONO (RIAA equalization)

. 30 Hertz to 15,000 Hertz ± 0.2 dB

AUX, TAPE PLAY

. 10 Hertz to 50,000 Hertz $\begin{matrix} +0 \\ -1 \end{matrix}$ dB

Tone Control

BASS +8dB, -7dB (100 Hz)

TREBLE +9dB, -7dB (10 kHz)

Filter

HIGH 6 kHz (6dB/oct.)

Loudness Contour (Volume control set

at -40dB position) +6dB (100 Hz), +3dB (10 kHz)

Hum and Noise

(IHF, short-circuited, A Network, rated power)

PHONO 70dB

AUX, TAPE PLAY 90dB

FM Section

Usable Sensitivity MONO 10.7dBf (1.9 μ V)

STEREO 19.0dBf (9.8 μ V)

50dB Quieting Sensitivity

MONO 17.2dBf (4.0 μ V)

STEREO 39.2dBf (50 μ V)

Signal to Noise Ratio at 65dBf

MONO 72dB

STEREO 67dB

Distortion at 65dBf 100Hz . . . MONO 0.15%

STEREO 0.3%

1kHz MONO 0.15%

STEREO 0.3%

6kHz MONO 0.4%

STEREO 0.4%

Frequency Response 30Hz to 15,000Hz $\begin{matrix} +0.2 \\ -2.0 \end{matrix}$ dB

Capture Ratio 1.0dB

Alternate Channel Selectivity 80dB

Spurious Response Ratio 90dB

Image Response Ratio 80dB

IF Response Ratio 100dB

AM Suppression Ratio 55dB

Muting Threshold 14dBf (2.8 μ V)

Stereo Separation 40dB (1kHz), 30dB (30Hz
~15kHz)

Subcarrier Product Ratio 62dB

SCA Rejection Ratio 62dB

Antenna Input 300 ohms balanced
75 ohms unbalanced

3 FRONT PANEL FACILITIES

AM Section

| | |
|--|------------------------------------|
| Sensitivity (IHF, Ferrite antenna) | 300 μ V/m |
| (IHF, Ext. antenna) | 15 μ V |
| Selectivity | 35dB |
| Signal to Noise Ratio | 50dB |
| Image Rejection | 40dB |
| IF Rejection | 65dB |
| Antenna | Built-in Ferrite Loopstick Antenna |

Miscellaneous

| | |
|----------------------------------|--------------------------------------|
| Power Requirements | 120V, 60Hz |
| Power Consumption | 160W (UL), 350W (max.) |
| Dimensions | 480(W) x 149(H) x 371(D)mm |
| | 18-7/8 (W) x 5-7/8(H) x 14-5/8(D)in. |
| Weight without package | 13.7kg(30 lb 2 oz) |
| with package | 15.3kg (33 lb 11 oz) |

Furnished Parts

| | |
|----------------------------------|---|
| FM T-type Antenna | 1 |
| Operating Instructions | 1 |

NOTE:

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

2. FRONT PANEL FACILITIES

POWER INDICATOR LAMP

Lights when **SPEAKERS** switch is moved to any position from **POWER OFF**, and AC power is supplied to the receiver.

SPEAKERS SWITCH

Functions both as power switch and speaker selection switch.

POWER OFF: AC power is off.

A: Sound will be heard from speakers connected to A speaker terminals.

OFF: No sound will be heard from speaker systems. This position should be used when listening with headphones.

B: Sound will be heard from speakers connected to B speaker terminals.

A + B: Sound will be heard from speakers connected to A terminals and from speakers connected to B terminals.

PHONES OUTPUT

Insert headphone plug into this jack when headphone listening is desired. In this case, **SPEAKERS** switch should be in **OFF** position.

BASS, TREBLE CONTROLS

For tone adjustment when **TONE** switch is in **ON** position. When knobs are turned clockwise from "0" position, response in bass or treble range, respectively, is boosted. Turning counterclockwise attenuates response.

TONE SWITCH

Controls ON-OFF operation of tone control circuit. In the **ON** position, tone control by means of **BASS** and **TREBLE** knobs may be accomplished. In the **OFF** position, the tone control circuit is bypassed and frequency response in high and low ranges is flat.

HIGH FILTER SWITCH

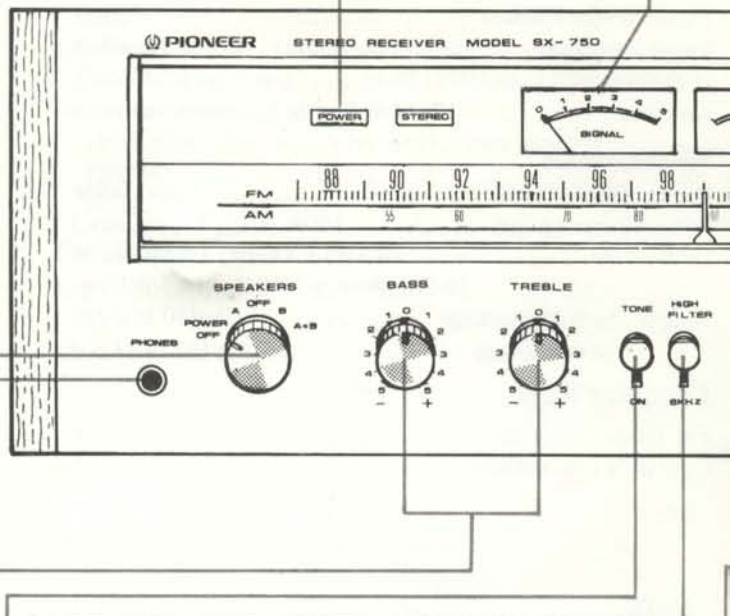
For high frequency noise due to scratches on the record, place switch in 6kHz position. This will provide 6dB/octave attenuation at frequencies above 6kHz. For normal operation switch should be in **OFF** (upper) position.

SIGNAL METER

For FM and AM reception, turn **TUNING** knob until needle of the **SIGNAL** meter is deflected a maximum to the right.

STEREO INDICATOR LAMP

Lights when FM stereo broadcast is being received.



BALANCE CONTROL

For adjustment of relative output levels of L and R channels of speaker systems or headphones. Clockwise rotation from center position increases volume of R over L channel. Counterclockwise rotation increases volume of L channel over R.

VOLUME CONTROL

For adjustment of speaker or headphone output level. Level increases with clockwise rotation of knob.

LOUDNESS SWITCH

For listening at low volume level, placing this switch in the **ON** position will boost response in low and high frequency ranges.

The response of the human ear to low and high sound volumes is different. At low volume levels, the ear is relatively insensitive to sounds at either extreme of the frequency scale. By means of the **LOUDNESS** switch, these sounds are given additional amplification.

FM TUNING METER

With the needle of the SIGNAL meter deflected to the right, fine-tune FM broadcast by centering needle of TUNING meter.

PROGRAM SOURCE INDICATORS

Indicate program source selected by means of FUNCTION switch.

TUNING KNOB

For selection of FM or AM stations.

FM MUTING BUTTON

For selection of FM broadcasts, button should be in ON (released) position.

When button is in ON position, unpleasant interstation noise is suppressed. When signal strength is poor, it may not be possible to bring in the desired station if MUTING is ON. In this case, press button to place it in the OFF position.

FUNCTION SELECTOR

For selection of program source.

AM: AM broadcasts

FM: FM broadcasts

PHONO: Playing records

AUX/MIC: For use of component connected at AUX terminals of receiver, or microphones which may be plugged into MIC jack.

NOTE:

AUX and MIC program sources cannot be used simultaneously. When using AUX hi-fi component, microphone should be disconnected.

MODE SWITCH

For selection of stereophonic or monophonic mode of playback. In normal operation, switch should be in STEREO position. In the MONO position, R and L channel signals will be mixed, and sounds coming from speakers of both channels will be the same.

NOTE:

Recording stereophonically with the MODE switch in the MONO position may cause channel separation to deteriorate.

DUPLICATE SWITCH

With switch in ON position, signals recorded on one of two tape decks connected to the receiver may be recorded onto the other, with or without editing. For normal operation, this switch must be in OFF (upper) position.

MIC JACK

Accepts standard 6mm ϕ plug. Microphone input signal enters both R and L channels.

TAPE MONITOR SWITCH

1: For program sources other than tape deck (playback). (REC or PLAY).

SOURCE: For program sources other than tape deck (playback).

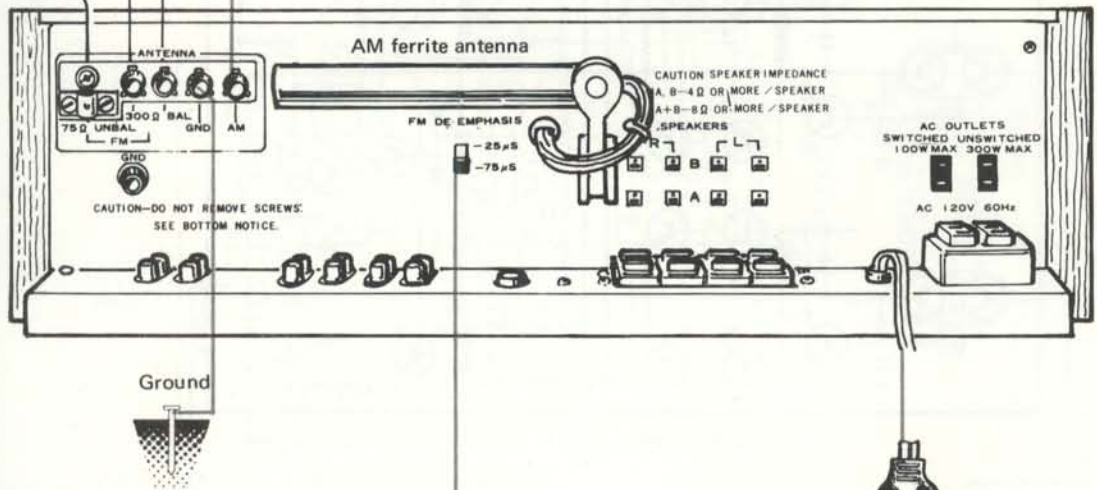
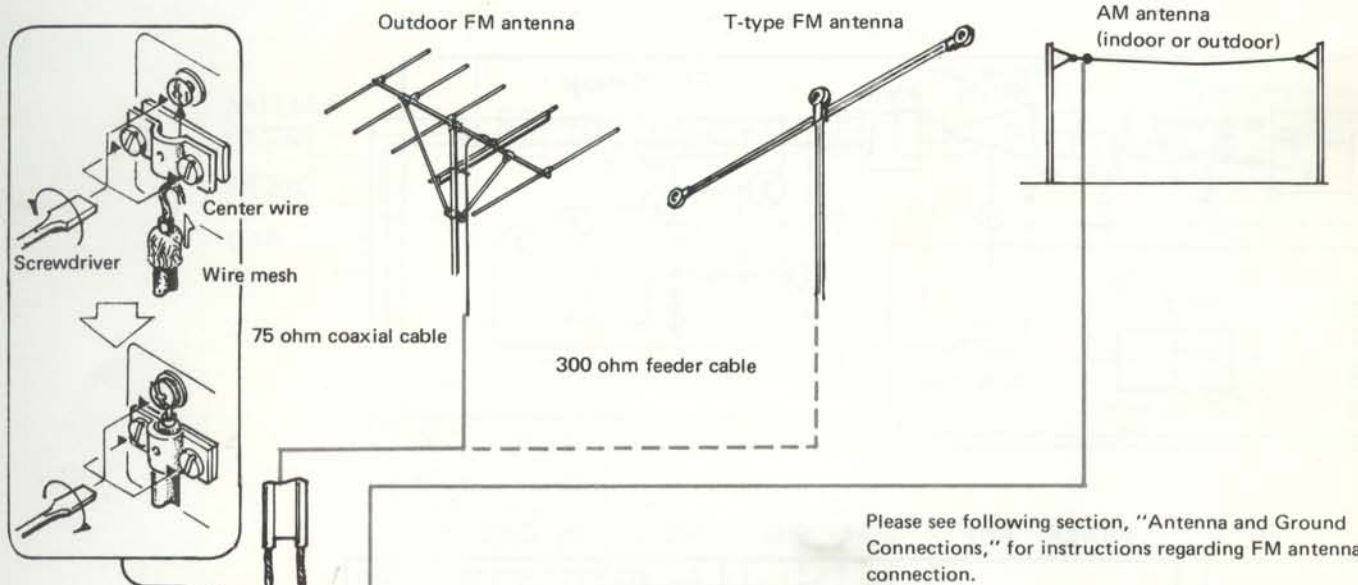
2: For monitoring of playback or record mode of tape deck connected to TAPE 2 terminals (REC or PLAY).

NOTE:

When not monitoring record or playback mode of a tape deck, switch should be in SOURCE position. In position 1 or 2, the program source indicated by the FUNCTION selector will not be heard through speaker systems or headphones.

3. CONNECTION DIAGRAM

REAR VIEW



FM de-emphasis switch: For normal FM reception this switch should be set on "75μS" (unit is set to this when leaving factory). The "25μS" setting is used only when listening to FM Dolby® transmissions. When listening to FM Dolby transmissions, it will be necessary to use an NR adaptor which can be purchased separately. More detailed instructions will be found in the section, "FM Dolby Reception."

ANTENNA PLACEMENT

Make note of the following points when choosing a location for the FM antenna.



Direction of signals →

1.5 meter (5 ft.) above

More than 4 meters (15 ft.) above ground

- Feeder wire and cable should be insulated at mounting points.
- Length should be as short as possible.
- Feeder wire should not be coiled.

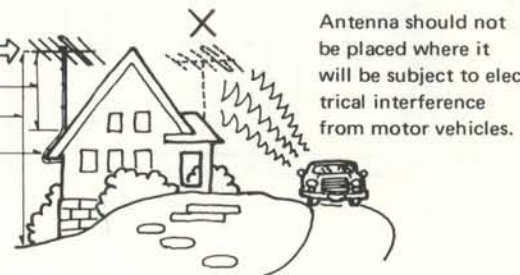


Fig. 1

TOP VIEW

Accessory AC outlets:

Switched Power to this outlet is controlled by the SX-750 power switch. When power to the receiver is "On," this outlet will provide AC current (100 watts maximum).

Unswitched Power to this outlet is not controlled by the SX-750 power switch. As long as the power cord is plugged into a live outlet, this outlet will supply AC current (maximum 300 watts).

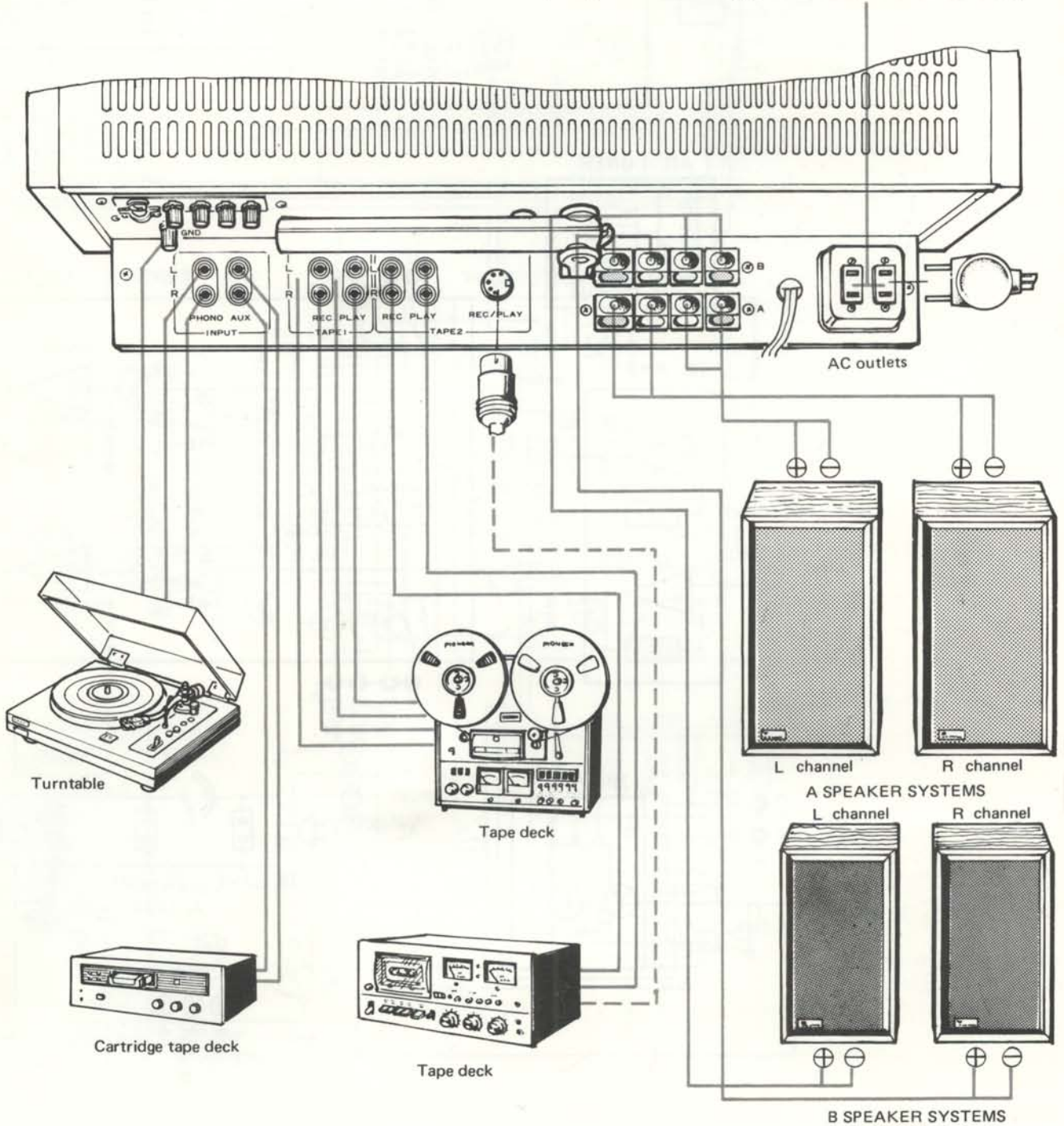
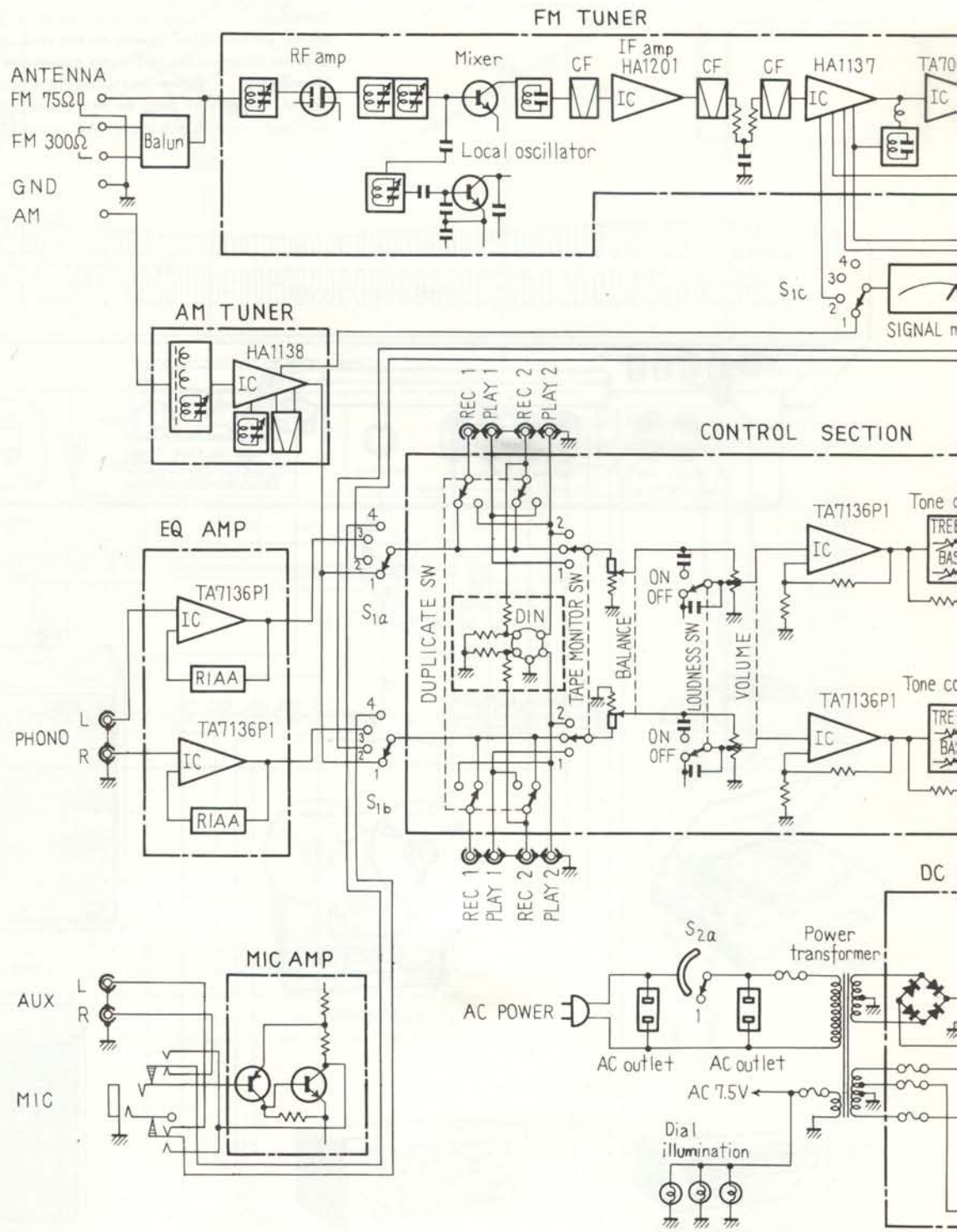
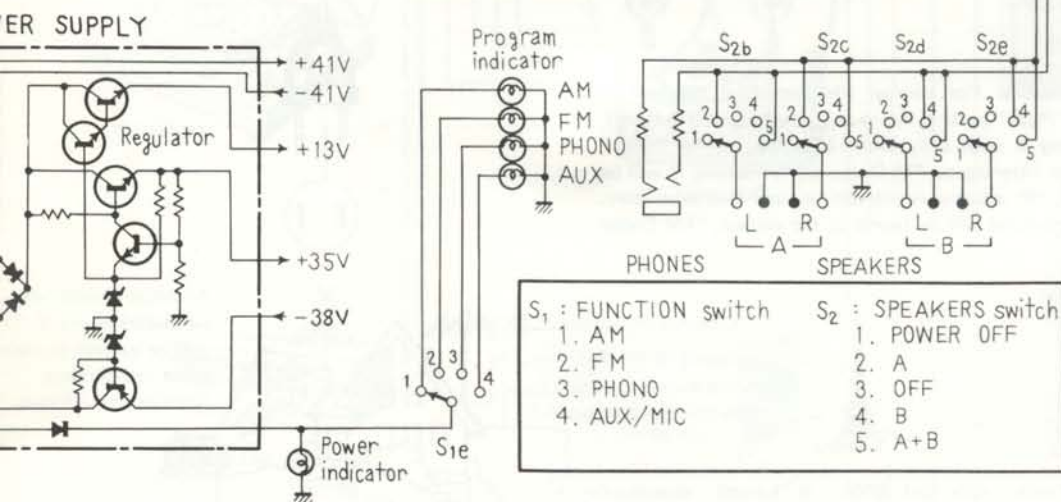
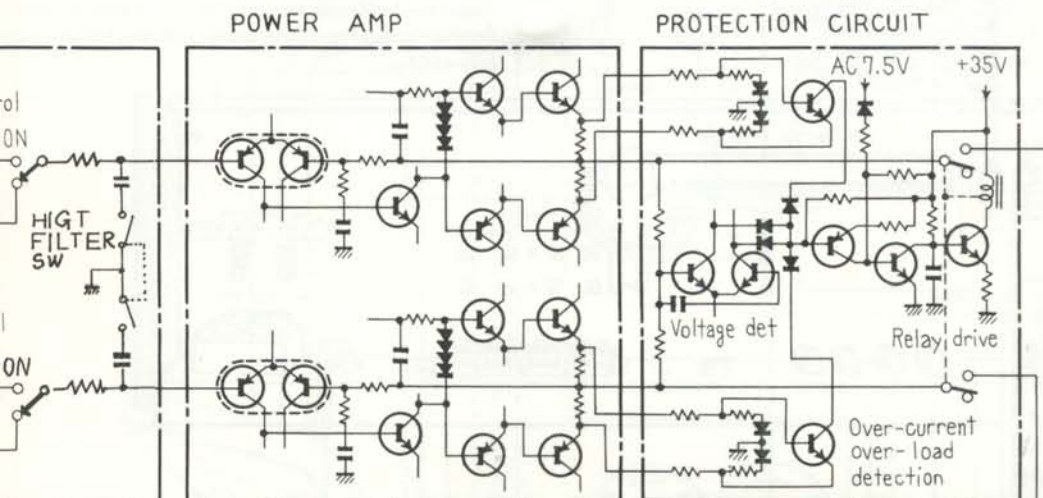
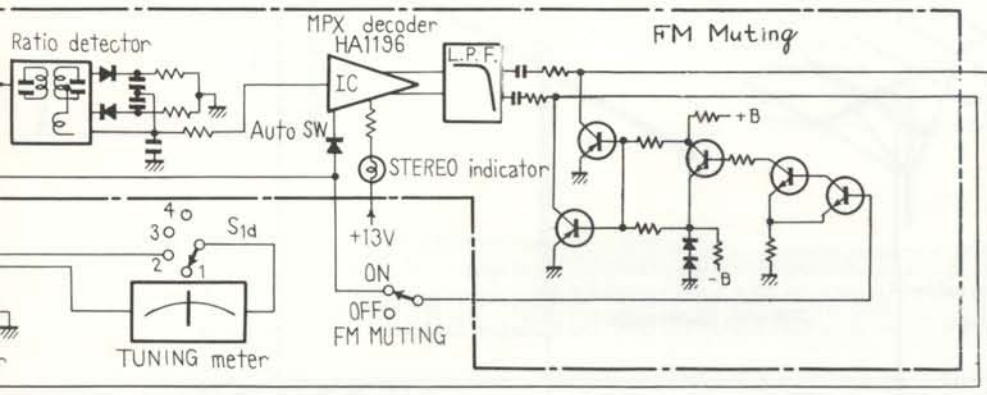


Fig. 2

4. BLOCK DIAGRAM





5. CIRCUIT DESCRIPTIONS

5.1 AM TUNER

Composed of single IC (HA1138) combining a 1 stage RF amplifier and a 2 stage IF amplifier (Fig. 1).

5.2 FM TUNER

Front End

The outstanding performance, exemplified by the remarkable 80dB imaging and 90dB spurious rejection, originates in the dual-gate MOS FET RF amplifier and 4-gang variable capacitor tuning circuit. A modified Clapp circuit is employed in the local oscillator, leading to high frequency stability. Since the output is taken from the oscillator tuning circuit, higher harmonics in the oscillator signal and spurious response become reduced.

IF Amplifier and Detector

Comprise 2 dual element ceramic filters, 1 transistor, and 1 IC (integrated circuit). The IC (HA1137) circuit is illustrated in Fig. 2.

FM IF Amplifier and Detector Circuit

Three dual element ceramic filters, an IC (HA1201) containing a differential amplifier, and an IC (HA1137) containing a 3-stage limiter amplifier compose the FM IF amplifier. Fig. 2 shows the HA1137 block diagram (see circuit diagram on page 65).

In addition to limiter amplifier, the HA1137 IC includes detector, meter drive circuits. The detector circuit in the HA1137 is not employed in this set however a separate ratio detector circuit is employed instead, resulting in improved S.N ratio.

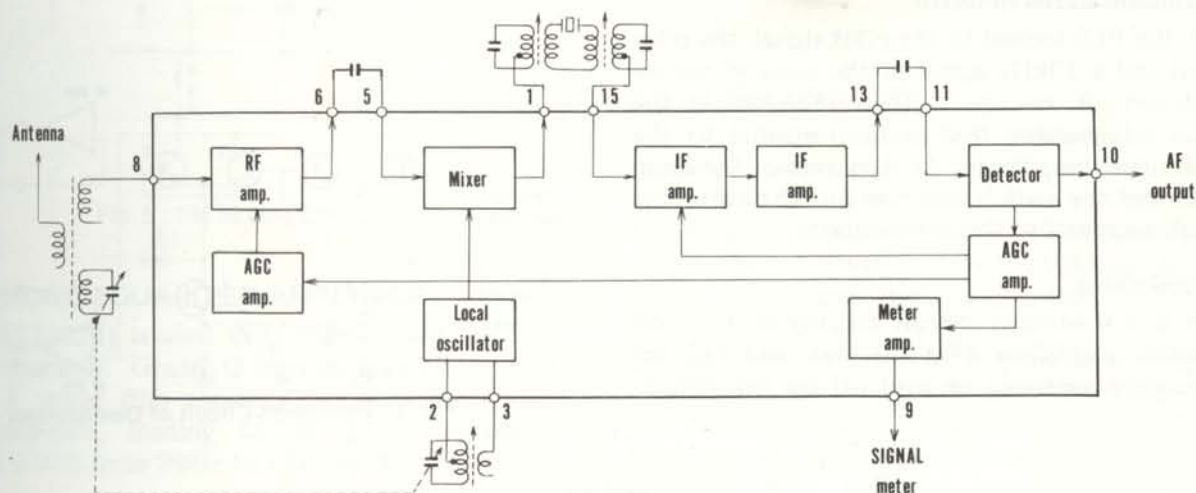


Fig. 1 Block Diagram of HA1138

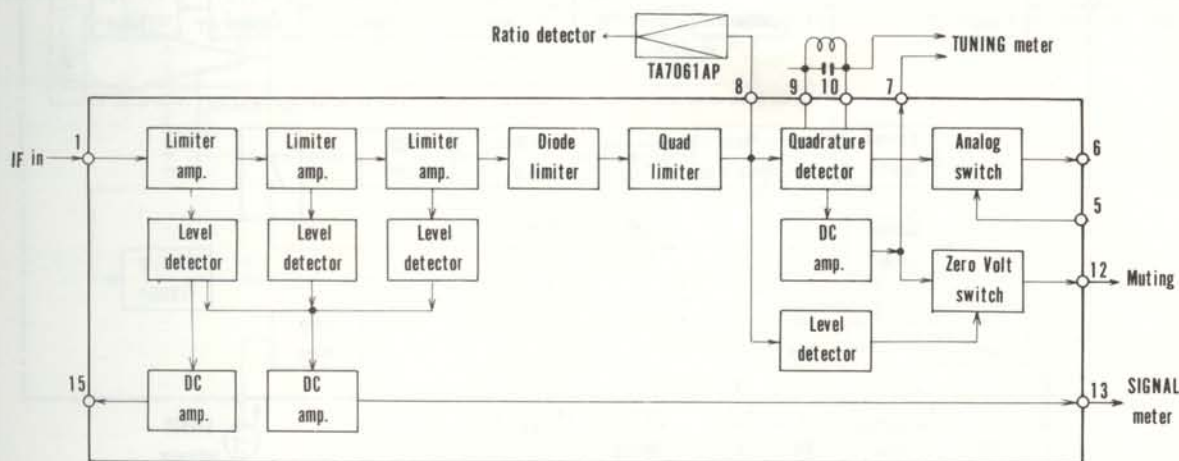


Fig. 2 Block Diagram of HA1137

Multiplex Decoder

Demodulation is performed by switching detection. A single IC (HA1196) composes the circuit, which is divided into 3 sections. Fig. 3 shows the HA1196 block diagram (see circuit diagram on page 65).

1. Switching signal generator

A PPL (phase locked loop) system is employed. 76kHz is generated by a VCO (voltage controlled oscillator: oscillator in which the frequency is varied by a control voltage) and converted into 19kHz by a frequency divider. This signal and the pilot (19kHz) of the received signal are applied to a phase comparator, which converts the phase differences of the two signals into a voltage. The voltage is then fed back to the VCO. The oscillator signal phase becomes locked to the pilot signal by this loop (PLL) and a 38kHz signal synchronised to the pilot signal is obtained and employed as the switching signal.

2. Automatic stereo detector

With the PLL locked to the pilot signal, the pilot signal and a 19kHz signal of the same phase are produced. A voltage is then obtained at the phase comparator that is proportional to the pilot signal amplitude. As it increases, the lamp lights and the switch becomes on. The switching signal is applied to the demodulator.

3. Demodulator

This is a switching circuit employing two differential amplifiers (Fig. 4). Q1 and Q2 are alternately switched on and off by the switch-

ing signal. The composite signal is amplified at Q3, switched and demodulated. Q6 and Q3 are loosely coupled at their emitters by R1 - R3. Q6 is driven in reverse phase to Q3. This is switched at Q4 and Q5, and by composing with Q1 and Q2 at the collector, crosstalk becomes cancelled.

Adequate current flow is required to Q3 and Q6 to improve distortion figures at this point. However, if the base bias voltage is raised, the voltage component at the collector becomes reduced and clipping occurs (power supply voltage is limited by IC voltage endurance). For this reason, current from an external source is inserted at Q3 and Q6 collectors to become I_1 and I_2 . The same current amounts are obtained as I_3 and I_4 from the emitters. Q3 and Q6 therefore operate with adequate current, and distortion at this stage becomes remarkably improved. A feedback amplifier amplifies the demodulated output.

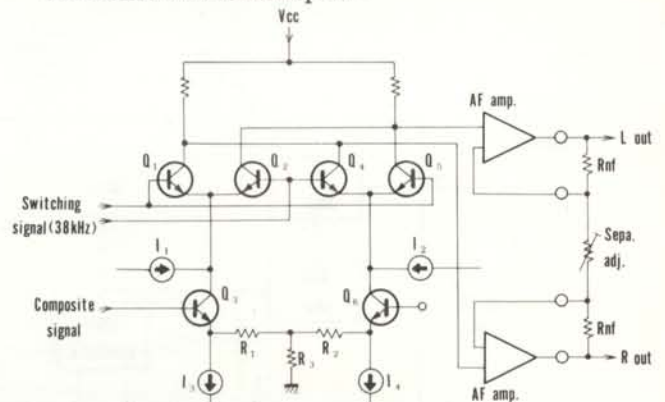


Fig. 4 Equivalent Circuit of Demodulator

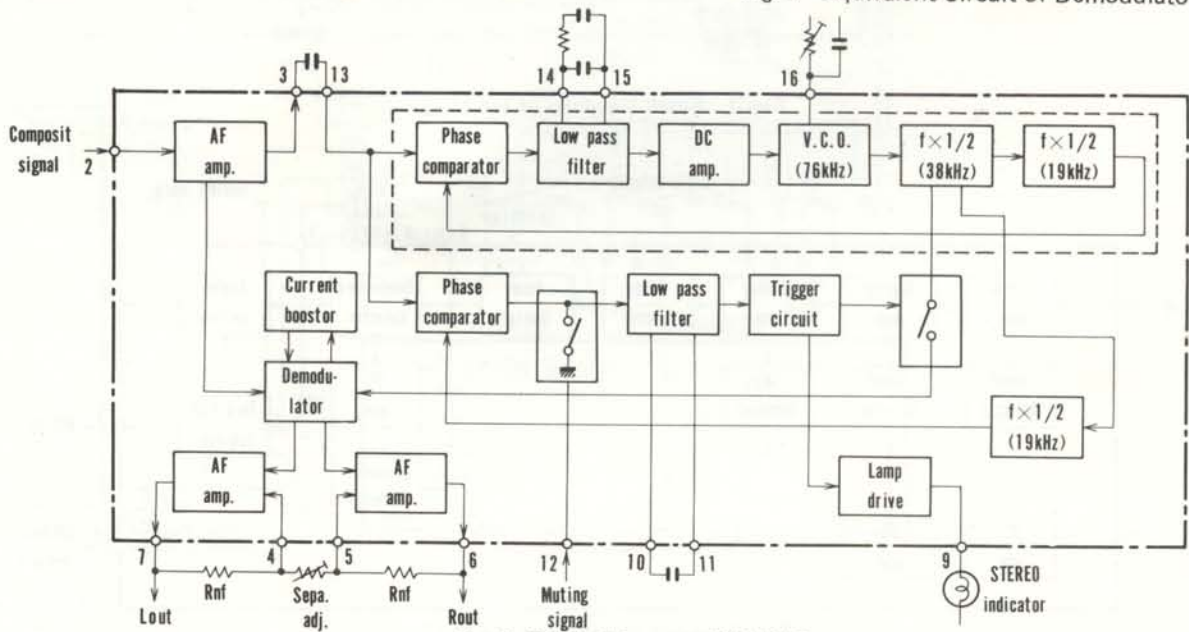


Fig. 3 Block Diagram of HA1196

5.3 FM MUTING CIRCUIT

At time of detuning (more than $\pm 70\text{kHz}$) and with an antenna input of less than 10dB ($0\text{dB} = 1\mu\text{V}$), a DC voltage is produced at pin 12 of IC₁ (HA1137). This voltage is employed as the muting trigger. With the MUTING switch ON, Q1 becomes ON and Q2 OFF in the Q1-Q2 Schmitt circuit as the muting trigger is produced. Q3 becomes ON when Q2 is OFF, and Q4, Q5 and Q6 also become ON. With Q4 & Q5 ON, the FM output becomes grounded, while IC₁ output is grounded by Q6 to apply muting.

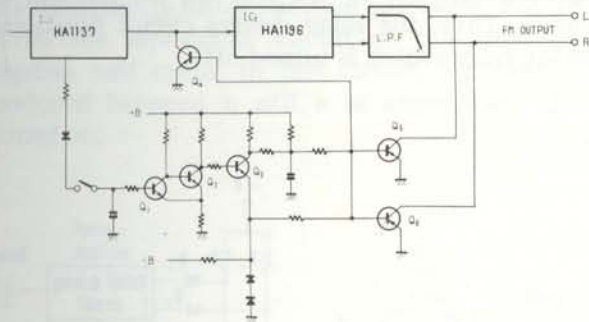


Fig. 5 FM Muting Circuit

5.4 PHONO EQUALIZER AMPLIFIER

IC (TA7136P1) is used with independent left and right channels. Grade G styrole capacitors and grade F metal film resistors comprise the equalizer elements, leading to an RIAA deviation within 0.2dB from 30Hz to 15kHz .

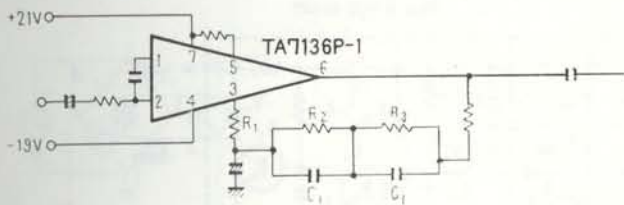


Fig. 6

5.5 MICROPHONE CIRCUIT

A 2 stage transistor amplifier (monophonic) is provided in addition to the phono equalizer amplifier. A selector switch cuts the AUX jack input when a plug is inserted into the MIC jack. The amplified microphone signal is then supplied to both the left and right channels. The FUNCTION switch is set to the AUX position when using a microphone.

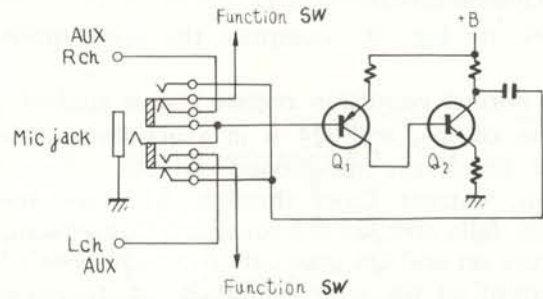


Fig. 7

5.6 TONE CONTROL

CR type tone controls are connected to an extremely low output impedance flat amplifier (IC = TA7136, 31dB gain). Bass can be varied in the range of $+8\text{dB} \sim -7\text{dB}$ (100Hz) and treble in the range of $+9\text{dB} \sim -7\text{dB}$ (10kHz). A TONE switch also allows the tone controls to be switch ON/OFF.

R1 and R2 are designed to provide the same loss when the TONE switch is OFF as obtained with the TONE switch ON and the BASS and TREBLE controls at center positions (flat). Frequency response thus becomes flat when the TONE switch is set to OFF.

R3, and C1 form a 6kHz 6dB/octave HIGH CUT filter which is connected following the TONE switch.

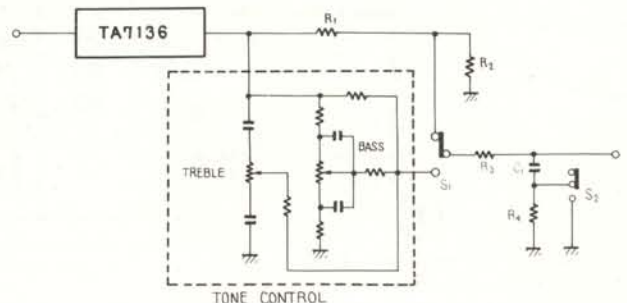


Fig. 8

5.7 PROTECTION CIRCUIT

This protection circuit functions to protect the speakers and the power amplifiers from damage due to short-circuit of the load, etc., and performs a muting operation to cut noise and distortion which occur when switching the power on and off. The circuit is shown in Fig. 15, and consists of a bridge type over-current and overload detector, a differential amplifier DC voltage detector, and a power switch ON/OFF detector section.

Relay Driving Circuit

Q4—Q6, in Fig. 9, comprise the relay driving circuit.

In the normal condition reverse bias is applied to the base of Q4, and Q4 is in a off state. When one of the above mentioned detection circuits goes on, current flows through R11, the base potential falls and Q4 is turned on. Consequently Q5 comes on and Q6 goes off. When Q6 goes off, the current of the relay circuit is cut, to release the switch of the output circuit.

When the power switch is turned on, a delay operation occurs in this circuit. R17 and C3, in the base circuit of Q6, are the time constant elements which determine the delay time. When the power switch is turned on, C3 charges to a potential of +60 volts through R17 and R18, and Q6 is kept in the off state during this time. When the power source is switched off, the muting operation of Q5 prevents shock noise. In the normal condition, the potentials of +33 volts and -5.1 volts are applied to Q5 through R14 and R15. The resultant potential at the base of Q5 is -1 volt in the cutout condition. When the power supply is turned off,

of -5.1 volts disappears immediately due to the small time constant of the power circuit. Thus a positive base potential remains, switching Q5 on, which in turn switches off Q6 and hence the relay.

Detection of DC Voltage

This is a differential amplifier consisting of Q2 and Q3, as shown in Fig. 10. The bases of Q2 and Q3 are connected to the center points of the right and the left power amplifiers. When the DC balance of the power stage is lost for some reason, a potential difference is produced in the input signal to the differential amplifier, and the collector currents of Q2 and Q3 are put out of balance. Thus, the relay driving circuit functions, and the relay switch is turned off.

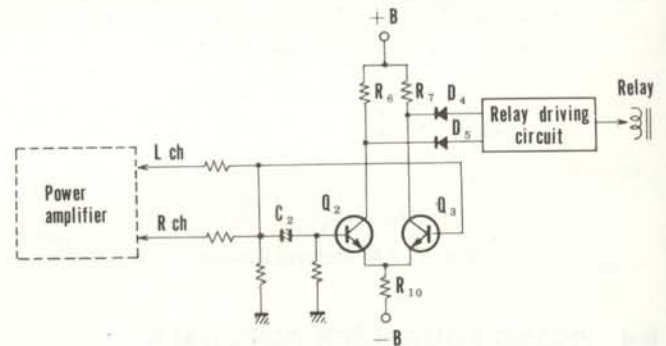


Fig. 10 DC Voltage Detection Circuit

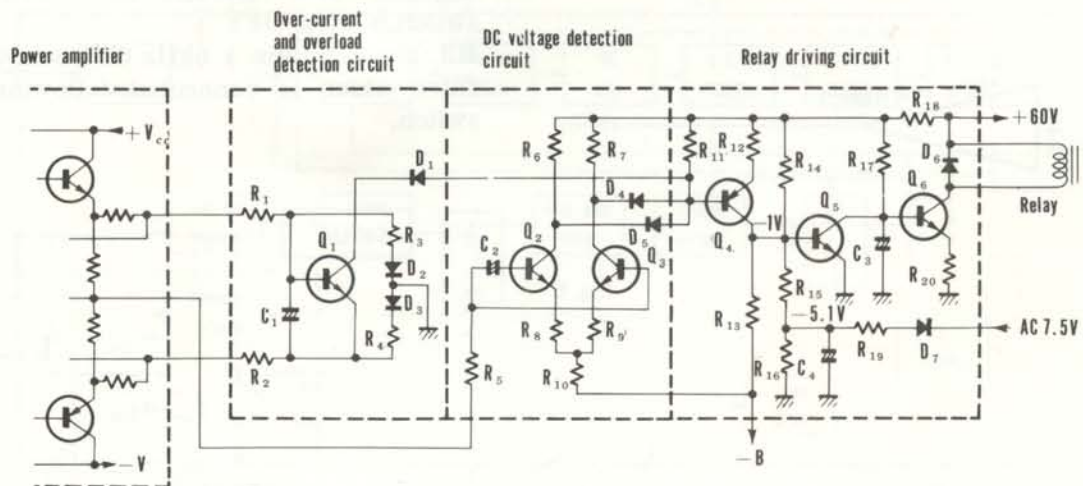


Fig. 9 Protection Circuit

Over-current and Overload Detection

The equivalent circuit of this detector section is shown in Fig. 11, and Fig. 12-a shows the equivalent circuit at the time of a positive half cycle. When this equivalent circuit is overloaded, the balance of the bridge, formed by RE1, R1, R3 and RL, is disturbed, and a potential is produced between b and a in such a direction that Q1 is turned on. When Q1 is turned on, the collector current increases, the relay driving circuit functions and the relay switch of the output circuit is turned off.

After the cause of the overload is removed, the bias of Q1 is reduced and the relay switch turns on to automatically restore normal operation, Fig. 18-b shows the equivalent circuit at the time of a negative half cycle. In this circuit, a potential is produced between b and e as above, and Q1 is turned on.

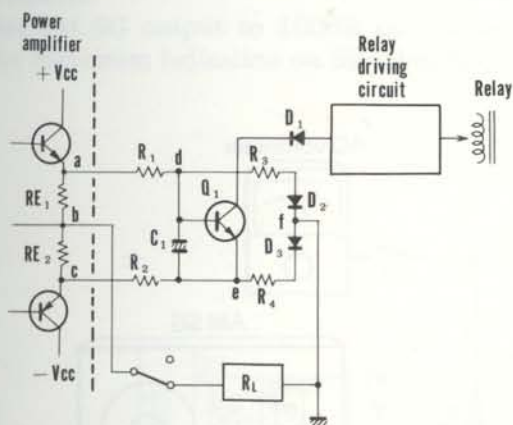


Fig. 11 Over-current and Overload Detection Circuit

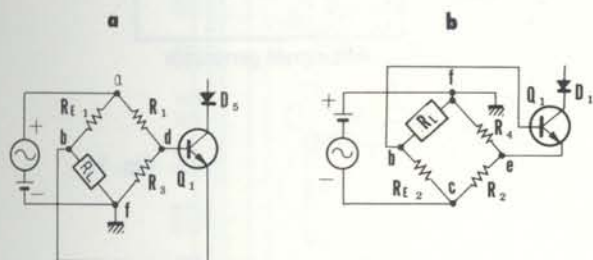


Fig. 12 Equivalent Circuit of

5.8 POWER AMPLIFIER CIRCUIT

Composed of differential first stage, all stages direct coupled pure complementary OCL circuit. Open gain at 1kHz is approximately 80dB and NFB amount is approximately 50dB. R3 and R4 are provided with this circuit in order to obtain adequate stability even with the NFB disconnected. Q1 form a differential amplifier: 100% d.c. feedback is applied from the junction point of the power stage to the base of Q1 so the potential of the junction point is always maintained at the same level.

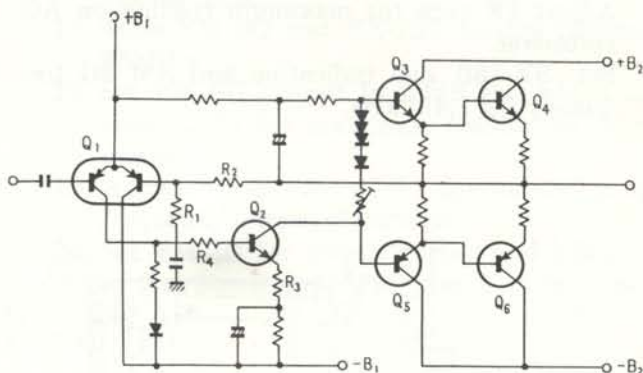


Fig. 13

5.9 POWER SUPPLY

Two windings are provided in the power transformer secondary and each is separately bridge rectified. One of these is sent as ± 48 VDC to the voltage stabilizer circuit to become 13V, 33V and -37V regulated voltages for supply to each assembly.

The other secondary voltage is bridge rectified and becomes ± 4 IV or supply to the power amplifier predriver stage. Extremely low power supply impedance is maintained by a 15,000 μ F electrolytic capacitor.

6. ADJUSTMENTS

6.1. AM SECTION

1. Set function switch to AM.
2. Connect AM signal generator through 1k-ohm resistor to AM antenna terminal.
3. Set DUPLICATE switch to OFF and connect an AC voltmeter to TAPE 1 REC jacks.
4. Set AM SG for 400Hz 30% modulation 74dB output.
5. Set SX-750 dial indication and AM SG frequency for 600kHz.
6. Adjust T8 core for maximum reading on AC voltmeter.
7. Set SX-750 dial indication and AM SG frequency for 1,400kHz.
8. Adjust TC2 for maximum reading on AC voltmeter.
9. Set AM SG for 30dB output.
10. Set SX-750 dial indication and AM SG frequency for 600kHz.
11. Adjust T8 and bar antenna core for maximum reading on AC voltmeter.
12. Set SX-750 dial indication and AM SG frequency for 1,400kHz.
13. Adjust TC2, TC4 for maximum reading on AC voltmeter.
14. Repeat steps 10~13 to eliminate variations in AC voltmeter readings.

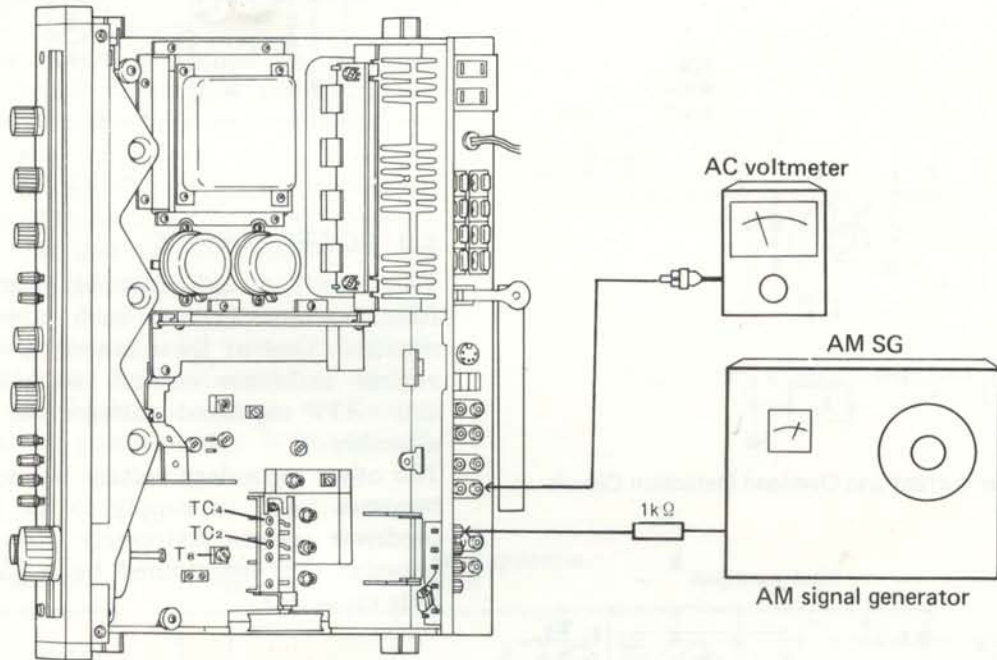


Fig. 14

6.2 FM SECTION

FM Tracking

1. Connect measuring equipment as shown in Fig. 15.
2. Set FM SG to 100% modulation ($\pm 75\text{kHz}$ deviation) at 400Hz and 100dB output.
3. On SX-750 front panel, set FM switch to ON, FM muting to OFF and VOLUME control to minimum position.
4. Set TC6 to center of turning range.
5. Tune FM SG and SX-750 to dial readings of 90MHz.
6. Adjust T4 core for maximum indication on Signal meter.
7. Adjust T6 core for center of scale indication on Tuning meter.
8. Set FM SG output to 8~10dB and adjust cores of T1, T2, and T3 for maximum indication on Signal meter.
9. Tune FM SG and SX-750 to dial readings of 106MHz.
10. Set FM SG output to 100dB and adjust TC6 for maximum indication on Signal meter.
11. Set FM SG output to 8~10dB and adjust TC1, TC3, TC5 and TC6 for maximum indication on Signal meter.
12. Repeat above adjustment steps 5~11 and adjust for optimum conditions.
13. Tune FM SG and SX-750 to dial readings of 90MHz.
14. Adjust T5 core for maximum indication on Signal meter.
15. Detune SX-750 (to noise only).
16. Adjust T6 for center of scale indication on Tuning meter.
17. Tune FM SG and SX-750 to dial readings of 98MHz.
18. Set FM SG output to 60dB and adjust upper core of T7 for maximum reading on AC voltmeter.
19. Adjust lower core of T7 for minimum audio frequency output distortion.
20. Set FM SG for 100dB output and adjust VR1 so that Signal meter indicates 5 of the scale.

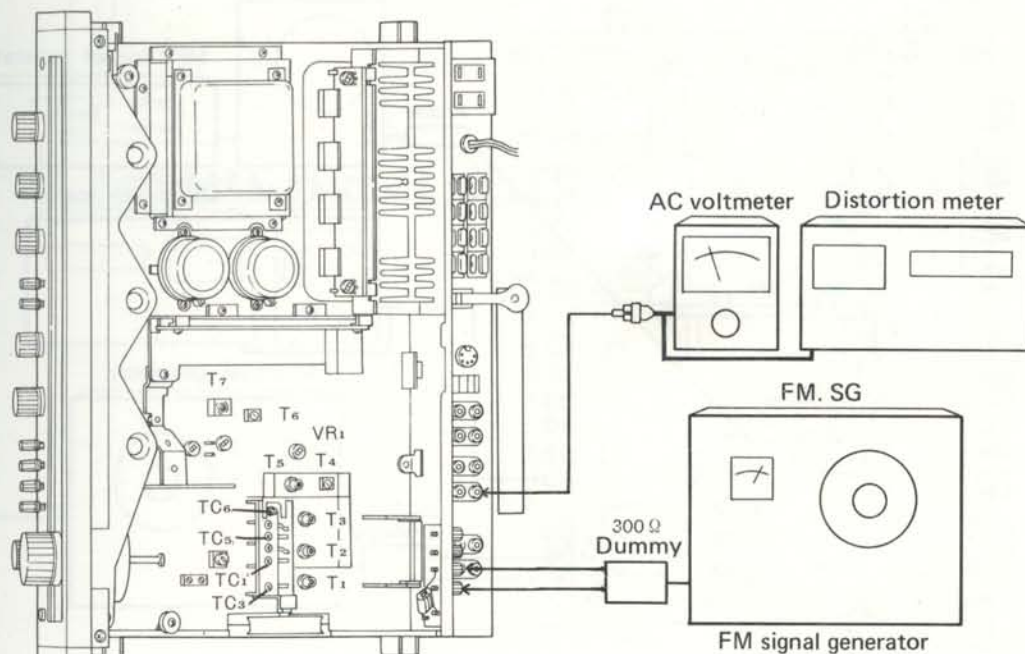


Fig. 15

6.3 MPX Adjustment

1. Connect measuring equipment as shown in Fig. 16.
2. Tune FM SG and SX-750 to dial readings of 98MHz.
3. Set FM SG for 60dB unmodulated output.
4. Connect the output signal (19kHz) of MPX SG PILOT OUT terminal to the horizontal input of an oscilloscope, and pin 20 of the tuner assembly (AWE-073) via a probe to the oscilloscope vertical input.
5. Adjust VR2 so that lissajous pattern displayed on oscilloscope becomes stationary (Fig. 16).
6. Set MPX SG to 67.5kHz deviation at 1kHz for left and right channels, and to 7.5kHz deviation for 19kHz pilot signal.
7. Adjust T5 core for minimum audio frequency distortion. Take care to turn core only within $\pm 180^\circ$.
8. Adjust VR3 for minimum signal leakage from R channel to L channel, and from L channel to R channel.

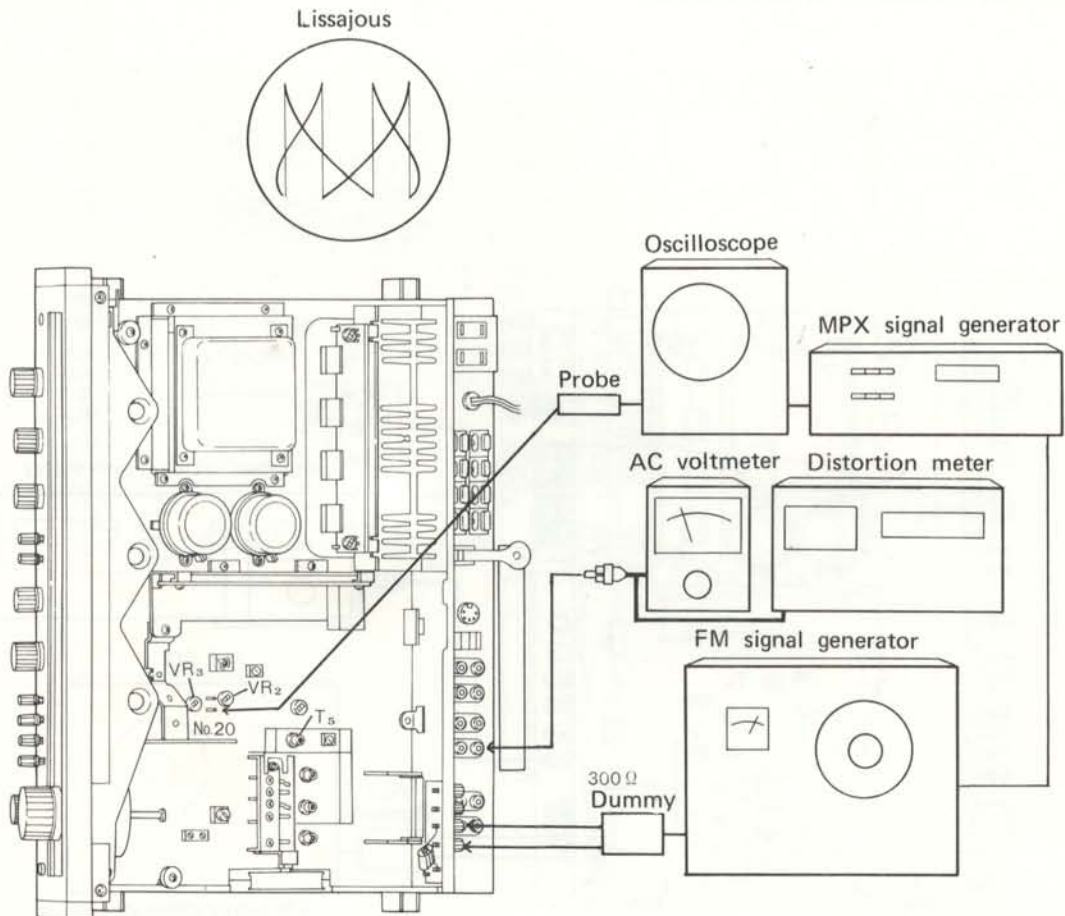


Fig. 16

6.4 POWER AMPLIFIER SECTION

Idle Current Adjustment

1. Connect DC voltmeter as shown in Fig. 17.
2. Do not connect load to speaker terminals. Set VOLUME control to minimum (fully counter-clockwise).
3. Turn VR1 and VR2 (shown in Fig. 17) fully counter-clockwise, then set POWER switch to ON.
4. 1~2 minutes after turning on the power, adjust VR3 (L channel) and VR4 (R channel) for 50mV indication on DC voltmeter.
5. 20 minutes after turning on the power, again adjust VR1 and VR2 for 30mV indication on DC voltmeter.

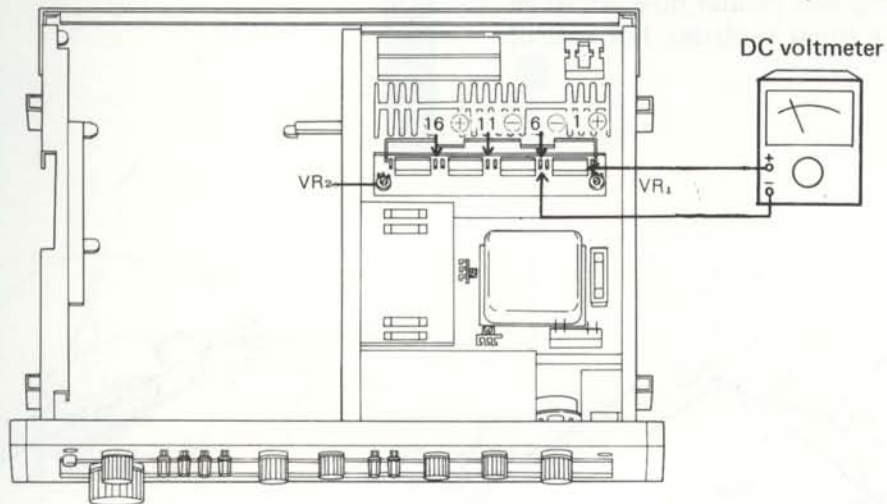


Fig. 17

7. DIAL CORD STRINGING

1. Remove the wooden cover and the front panel.
2. Turn tuning drum fully clockwise (as viewed from X direction in Fig. 18).
3. Tie one end of cord to stud on inner section of tuning drum (more easily performed by loosening setscrew and temporarily removing tuning drum from shaft).
4. Route cord through tuning drum cutout, make a half turn around the drum, then route in sequence to pulley A—dial pointer—pulley B—pulley C.
5. Wind cord 3 turns clockwise (as viewed from rear panel) around tuning shaft, then route to pulley D.
6. Wind cord two turns around tuning drum and tie to spring hook so that tension is applied to the cord.
7. Turn TUNING knob and confirm normal cord motion, then trim off excess cord.
8. With tuning drum at step 1 setting, restrain cord from moving and slip dial pointer on cord. Align it with the starting point (extreme left end of frequency scale).

Dial Pointer Installation Caution

Metal portion of dial pointer is plated. If this section is touched directly by hand or fingerprints and other impurities, it is difficult to remove dirt from aventurine finish. As this is not desirable in terms of both appearance and anticorrosion, take extreme care not to touch the metal section when handling the dial pointer.

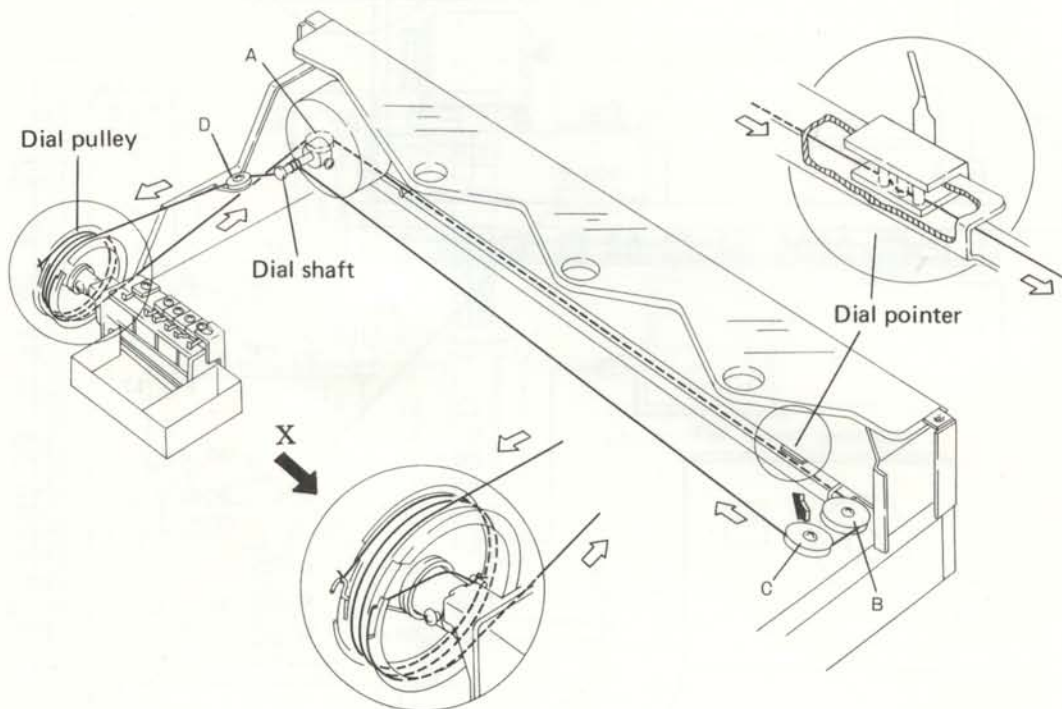
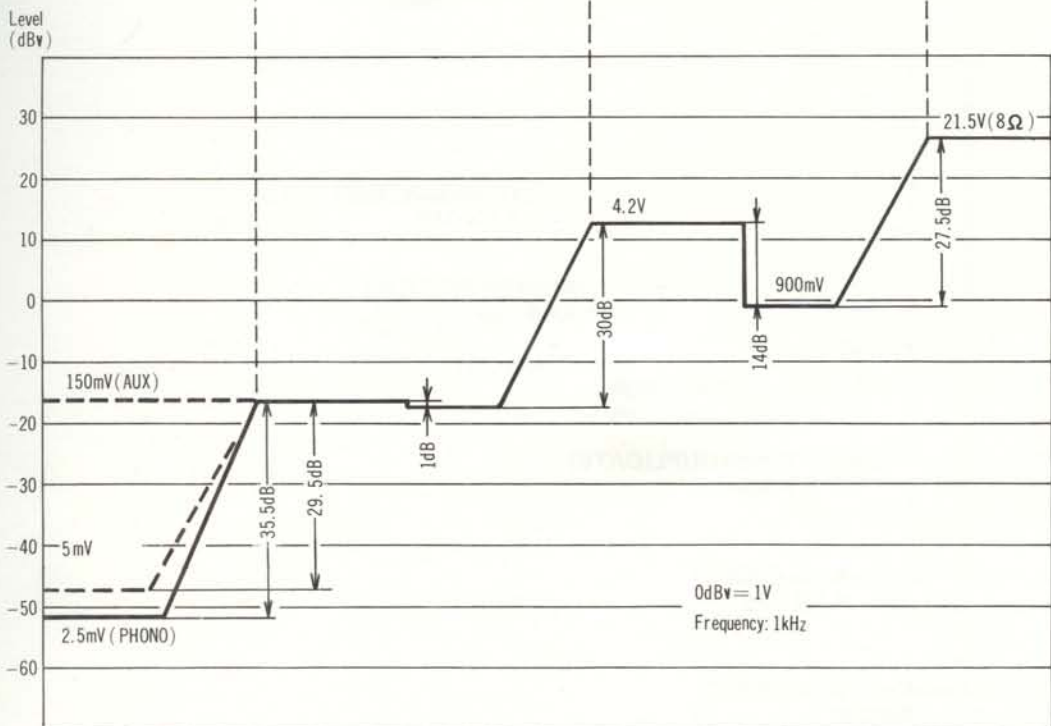
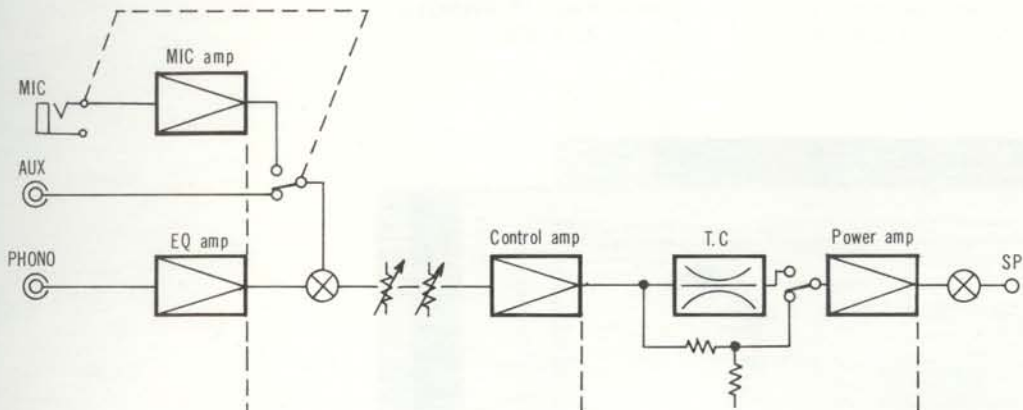


Fig. 18

8. LEVEL DIAGRAM



9. DISASSEMBLY

Top Cover (Fig. 19)

Take out 2 screws each at left and right (total 4 screws) to remove.

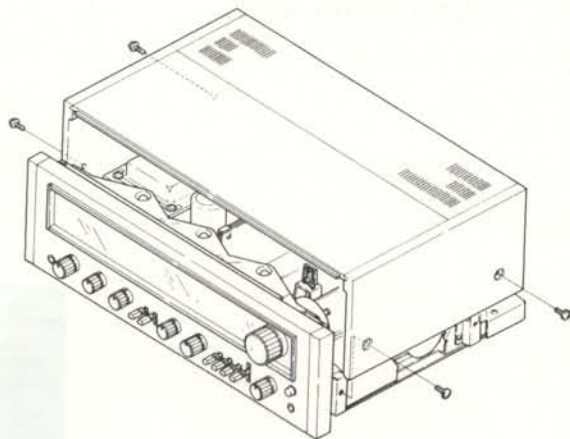


Fig. 19

Bottom Plate (Fig. 20)

Take out screws ①-⑪ to remove.

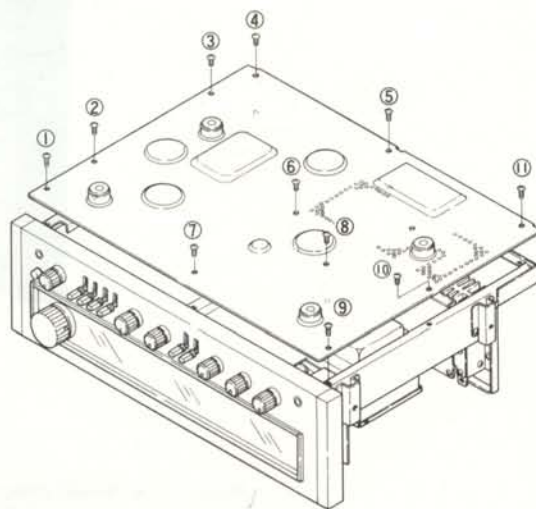


Fig. 20

Front Panel (Fig. 21)

Pull off all knobs and remove shaft nuts of SPEAKERS and FUNCTION switches. Front panel can then be removed by taking out screws ⑫ & ⑬.

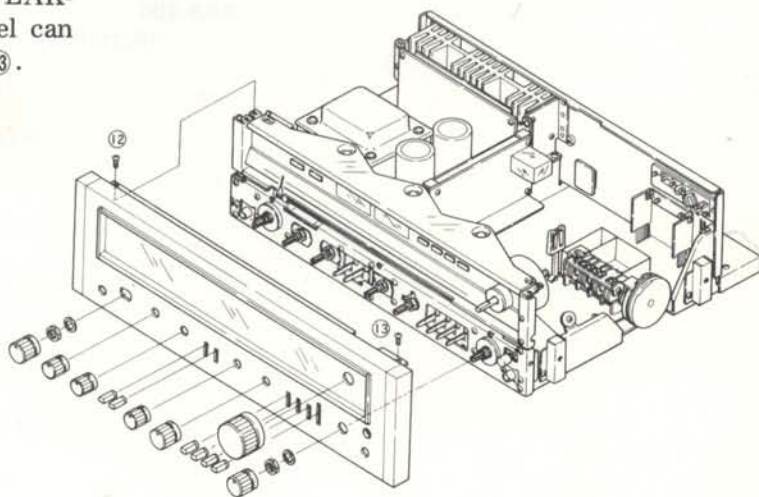
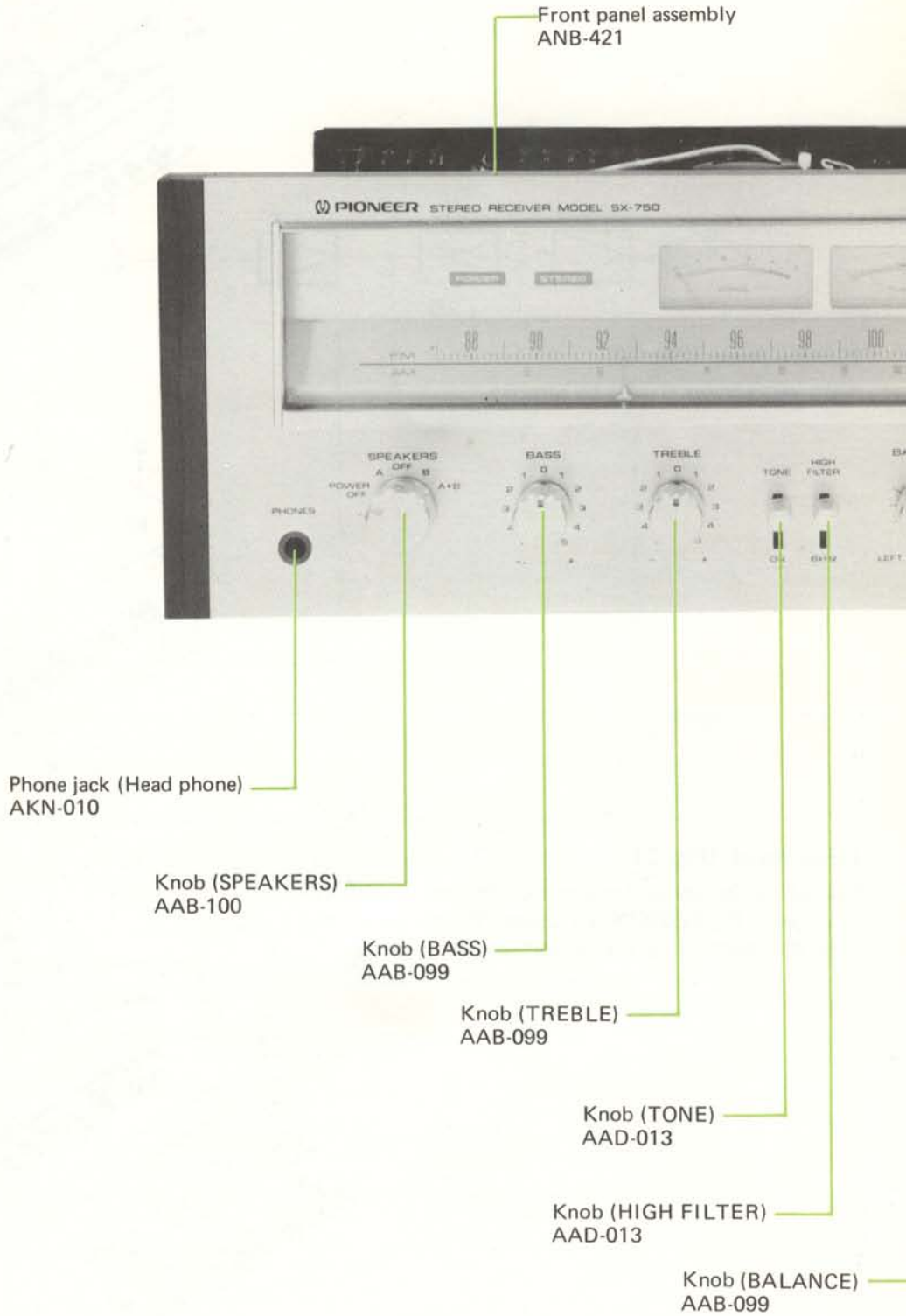
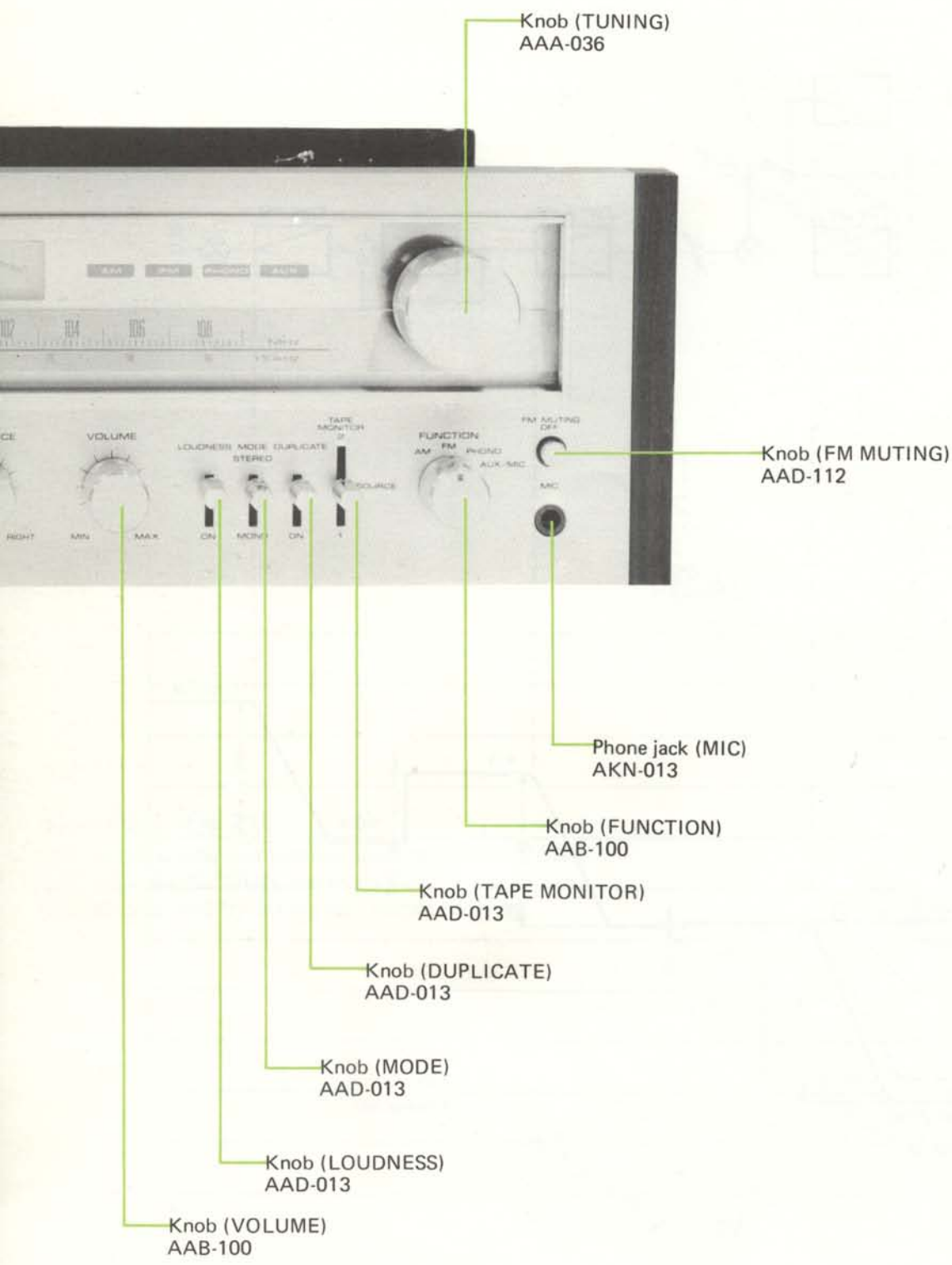


Fig. 21

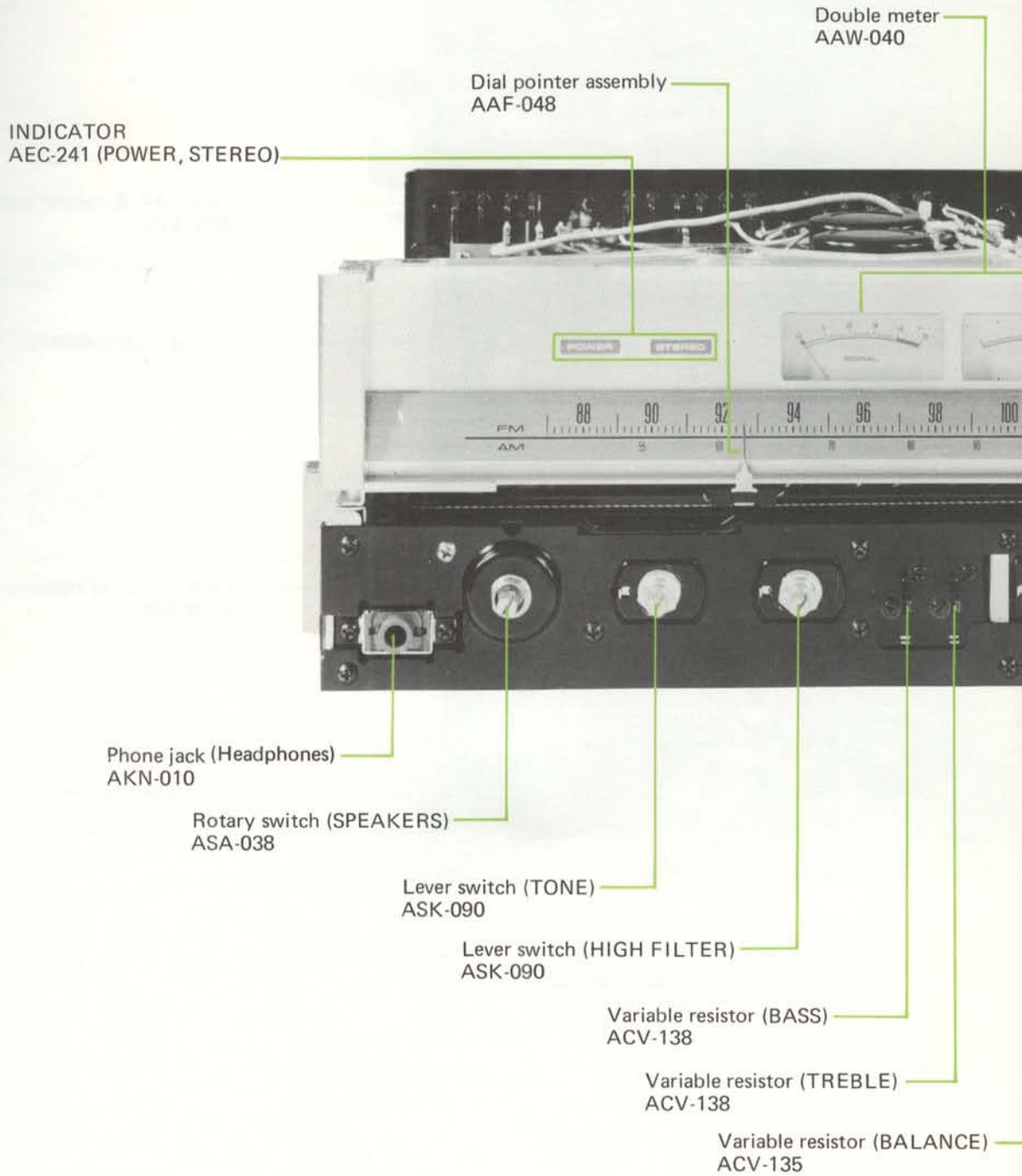
10.PARTS LOCATION

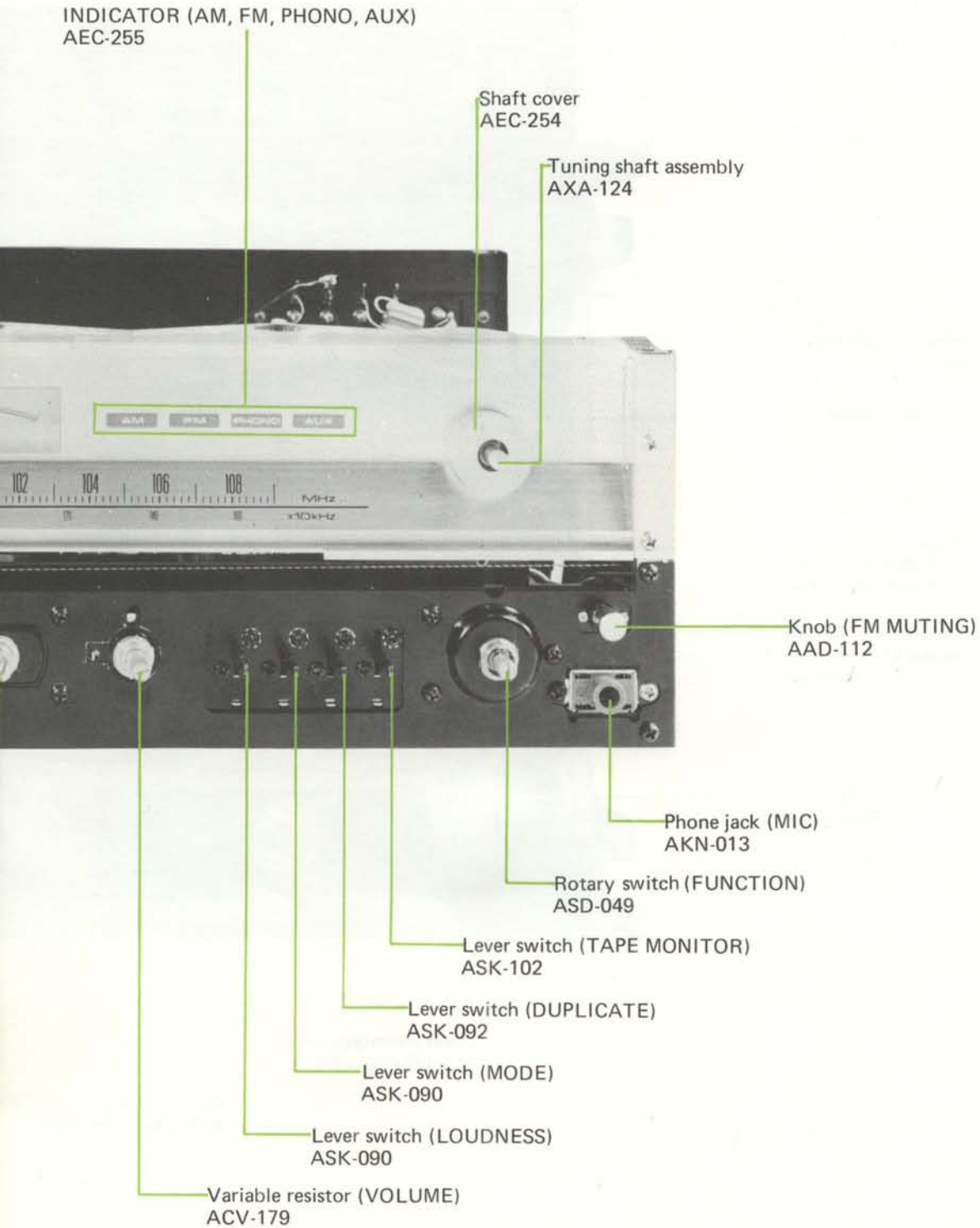
10.1 FRONT PANEL VIEW



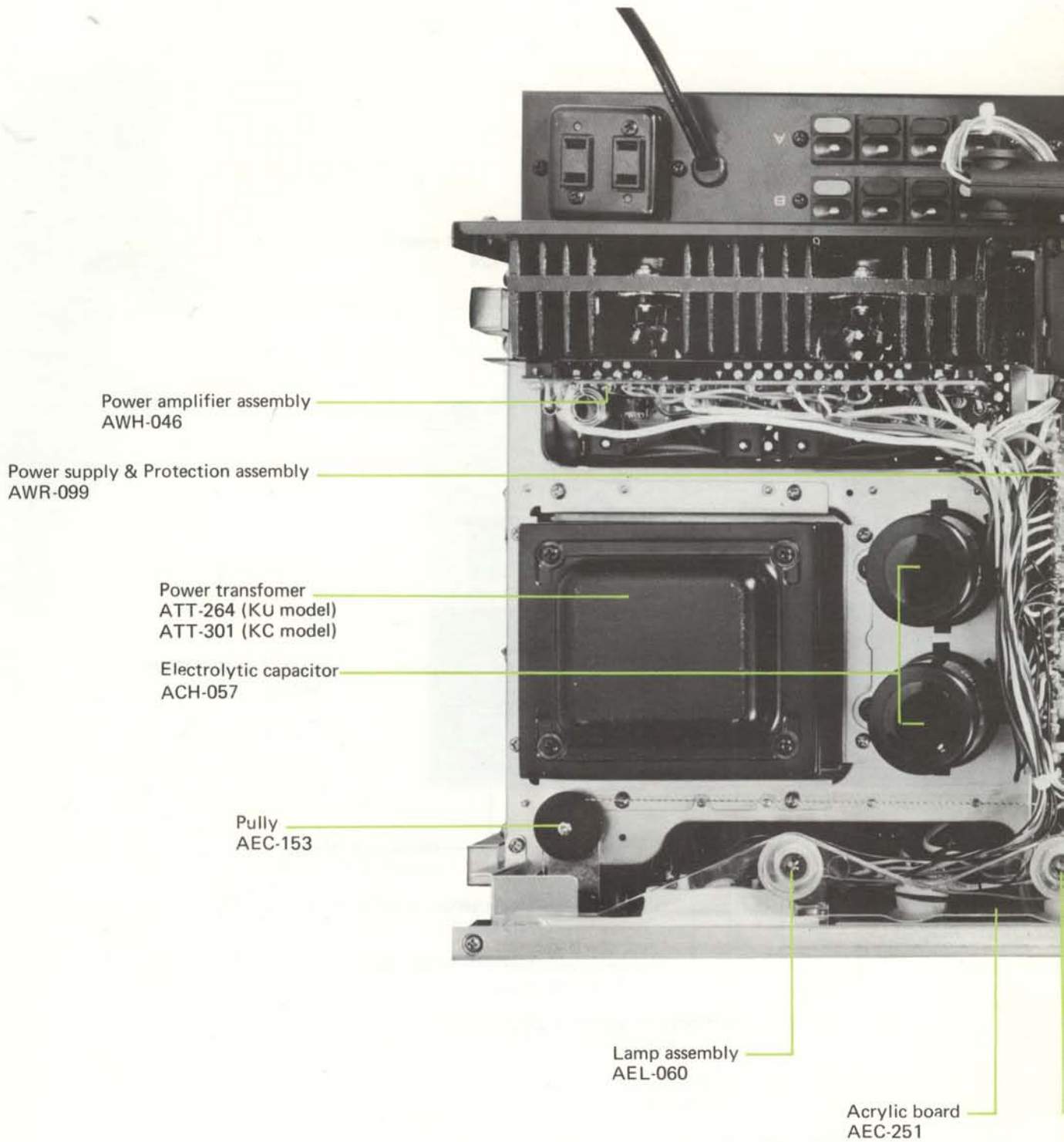


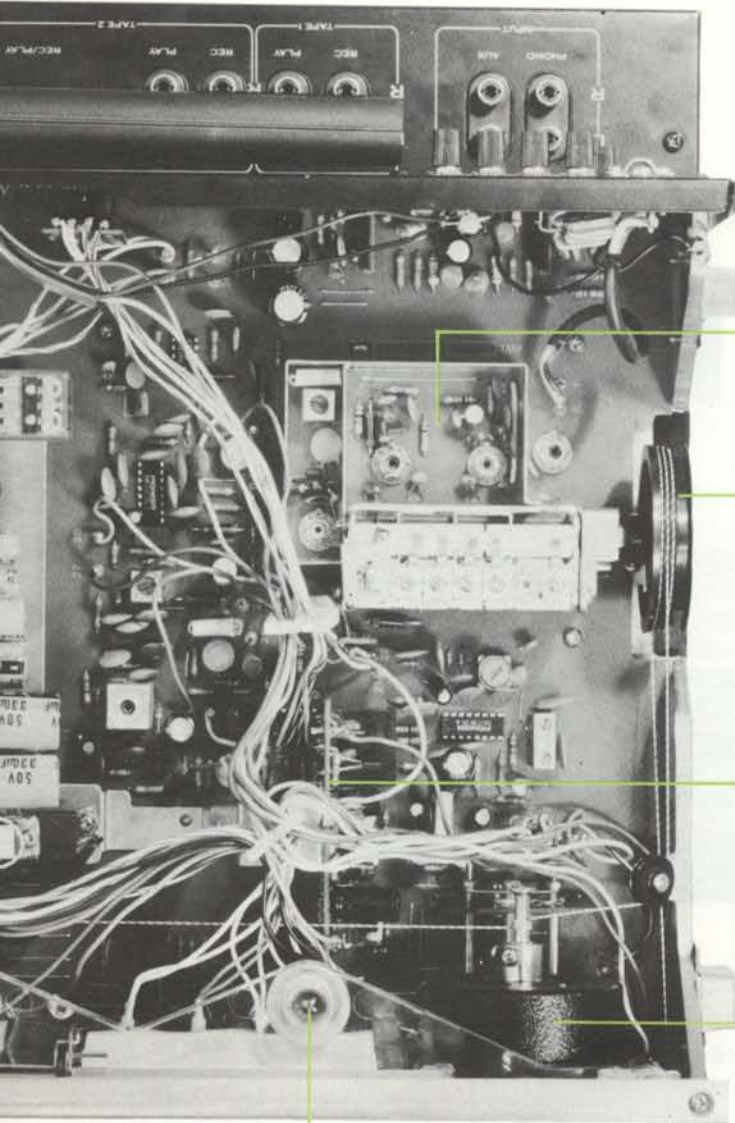
10.2 FRONT PANEL VIEW (with removed Front panel)





10.3 TOP VIEW





Tuner, AF, & control assembly
AWE-073

Tuning drum assembly
AXA-070

Filter & muting assembly
AWM-094

Tuning shaft assembly
AXA-124

Lamp assembly
AEL-060

Lamp assembly
AEL-060

10.4 BOTTOM

Tone contr
AWG-046

Rotary switch (SPEAKER)
ASA-038

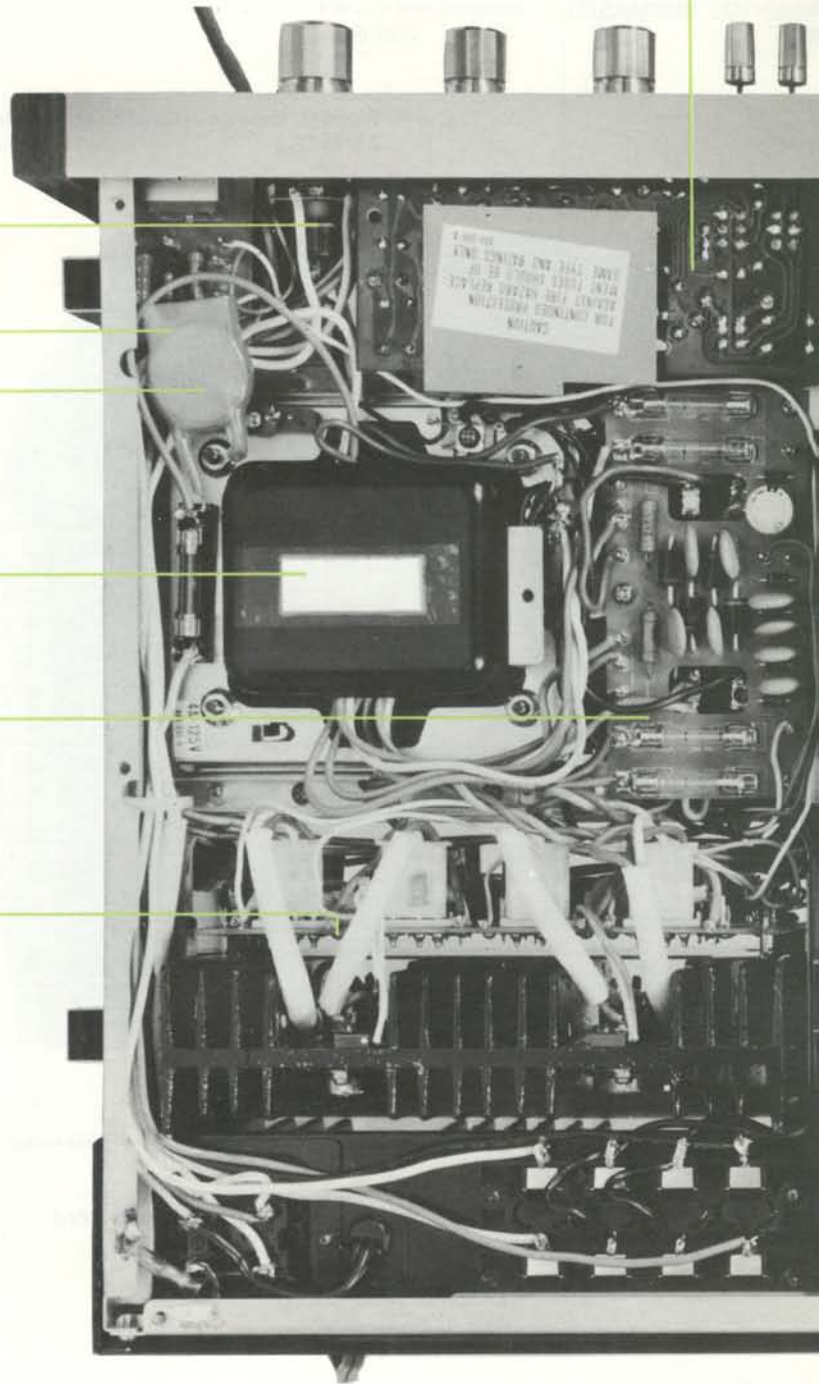
Cover

Capaciter

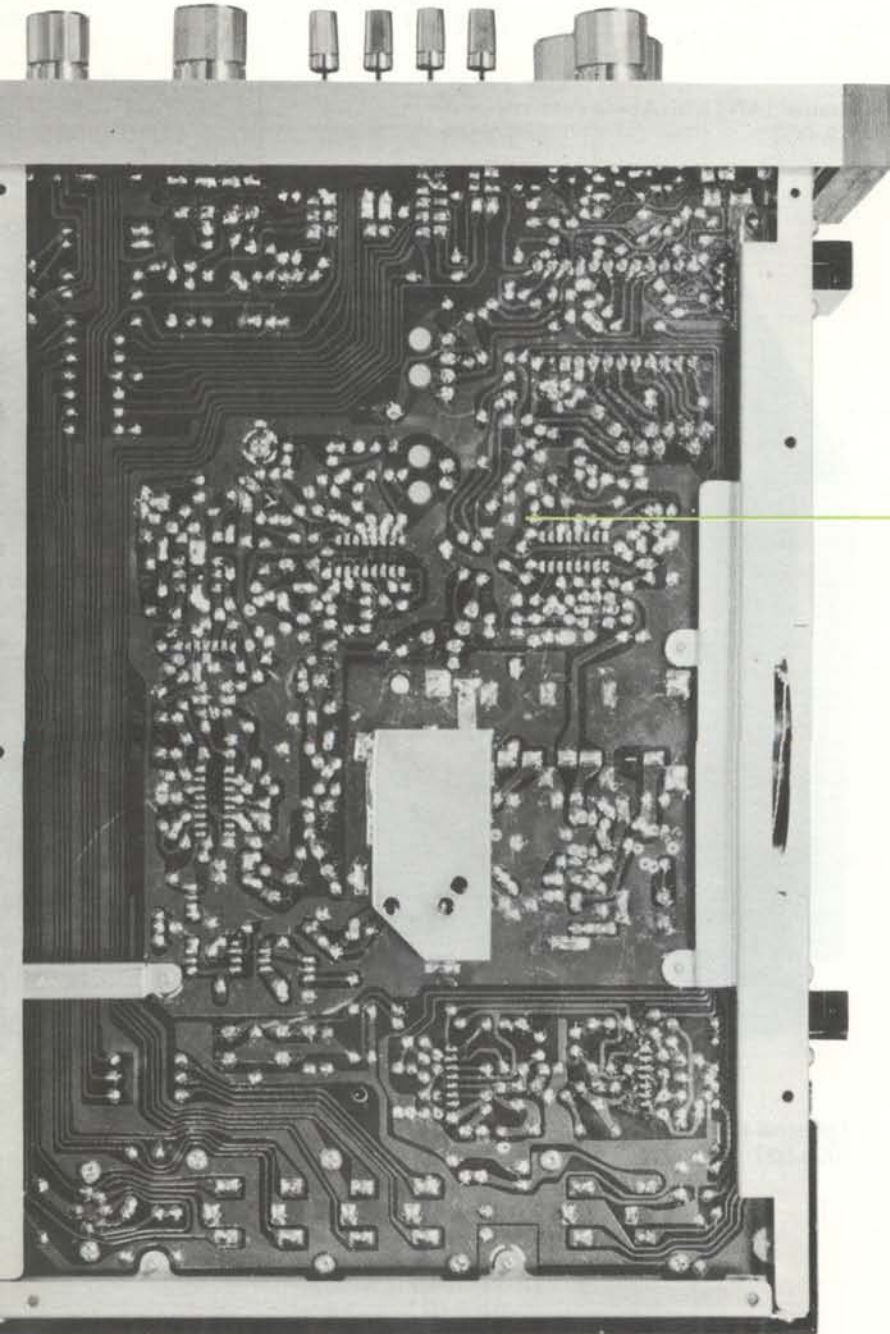
Power transfomer
ATT-264

Power supply assembly
AWR-100

Power amplifier assembly
AWH-046

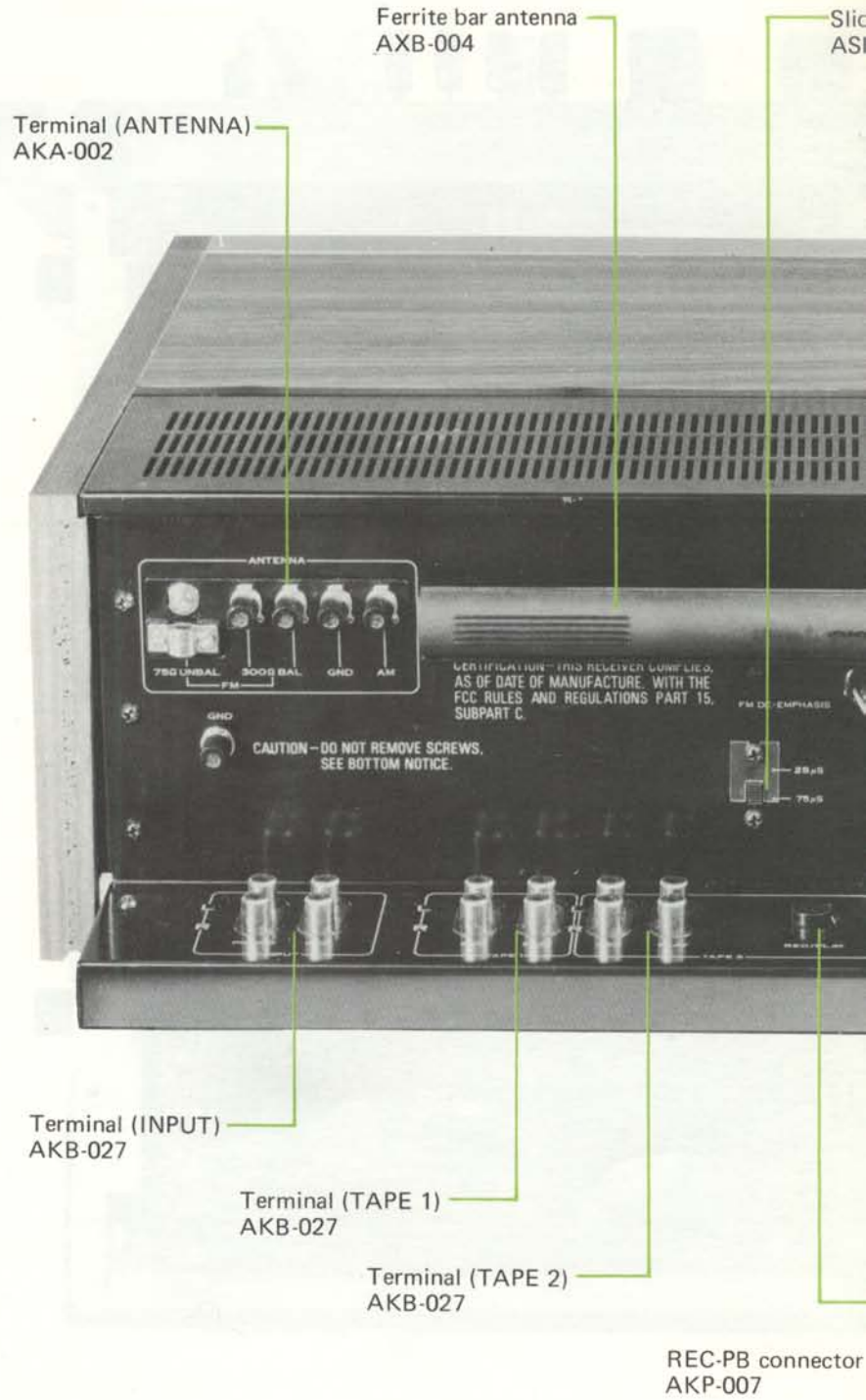


assembly



Tuner, AF & control assembly
AWE-073

10.5 REAR VIEW



Terminal (ANTENNA)
AKA-002

Ferrite bar antenna
AXB-004

Slic
AS

Terminal (INPUT)
AKB-027

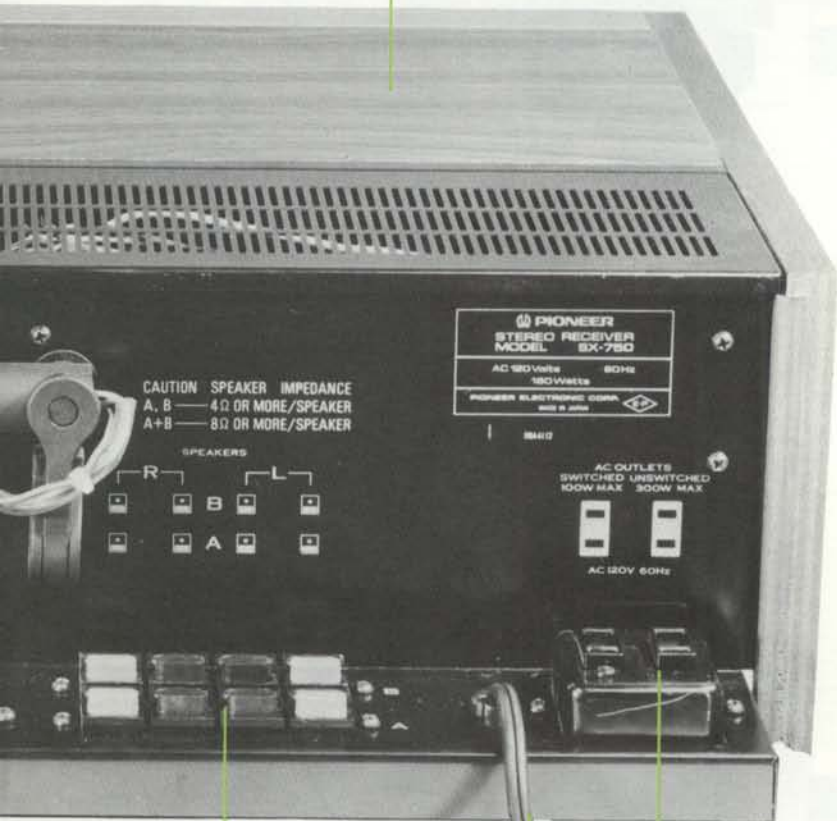
Terminal (TAPE 1)
AKB-027

Terminal (TAPE 2)
AKB-027

REC-PB connector
AKP-007

switch (DE.EMPHASIS)
015

Wooden cabinet
AMM-053



AC socket cover

AC power cord
ADG-005

Terminal (SPEAKER)
AKE-029

socket (5P)

11. EXPLODED VIEW

1

2

3

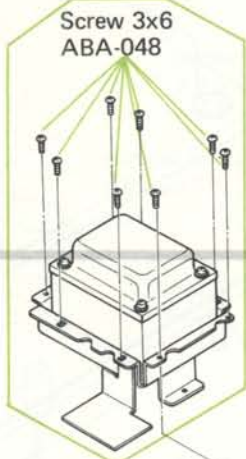
A

B

C

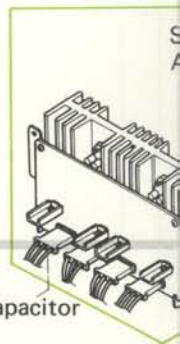
D

PART II
on page 38



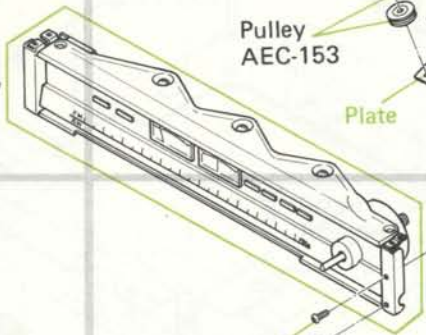
Screw 3x6
ABA-048

PART III
on page 39



Electrolytic capacitor
ACH-057

PART I
on page 37



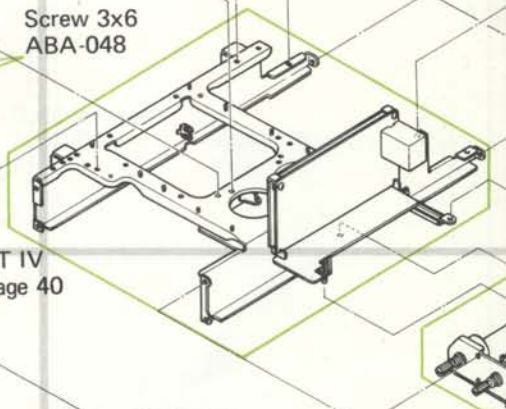
Shaft
M49-025

Pulley
AEC-153

Plate

Screw 3x6
ABA-048

PART IV
on page 40



Screw
ABA-002

PART VI
on page 42

Screw
ABA-002

Screw 3x8
ABA-049

Washer
ANF-453

Washer M11
B22-009

Nut M11
B71-005

Knob (SPEAKERS, FUNCTION)
AAB-100

Knob (BASS, TREBLE, BLANCE)
AAB-099

Knob (BASS, TREBLE, BLANCE)
AAB-099

Knob (VOLUME)
AAB-100

Knob (TUNING)
AAA-036

Knob (SPEAKERS, FUNCTI
AAB-100

Knob (TONE, HIGH FILTER)
AAD-113

Front pan
ANB-421

1

2

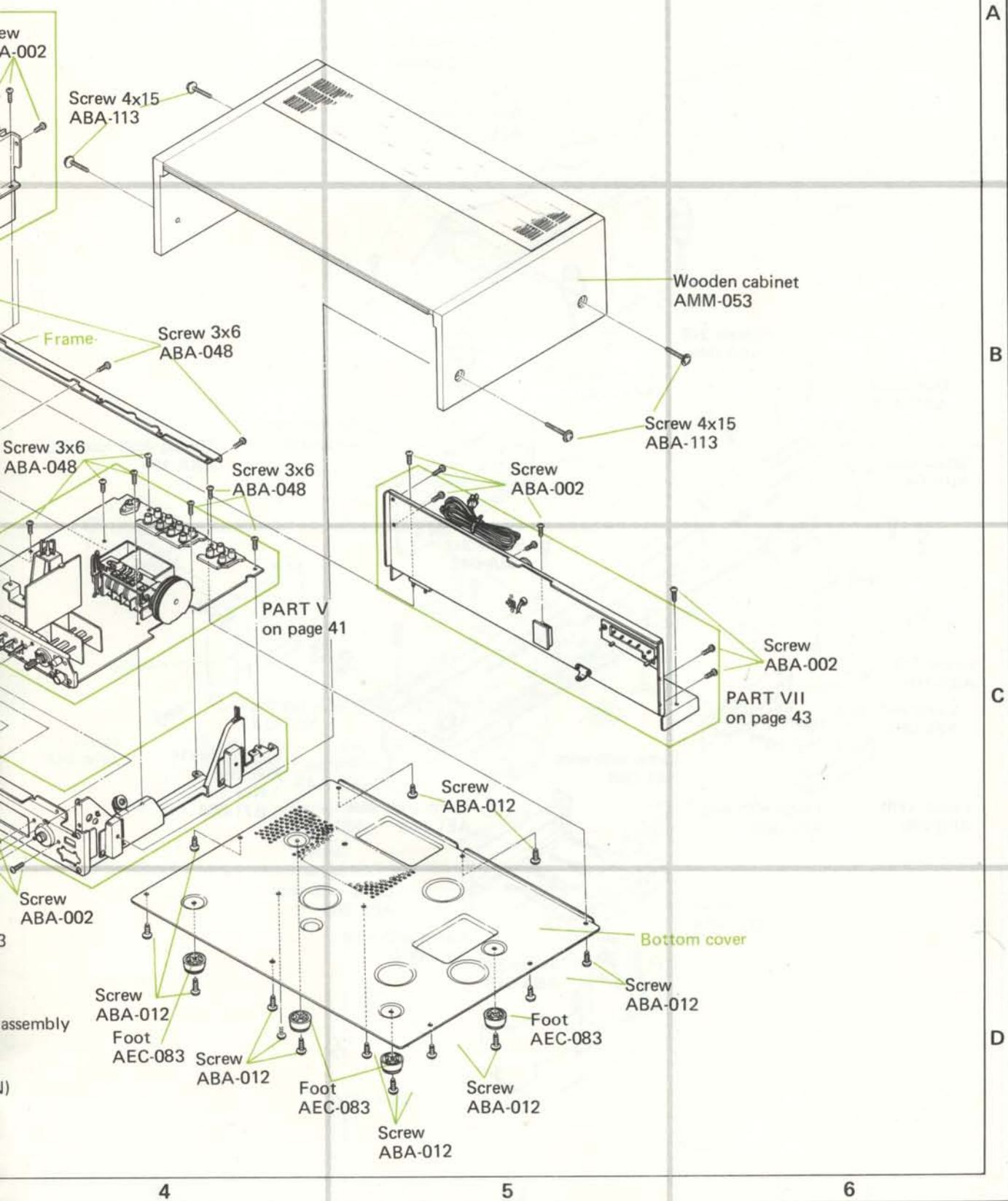
3

4

5

6

NOTE:
Parts indicated in green type cannot be supplied.



4

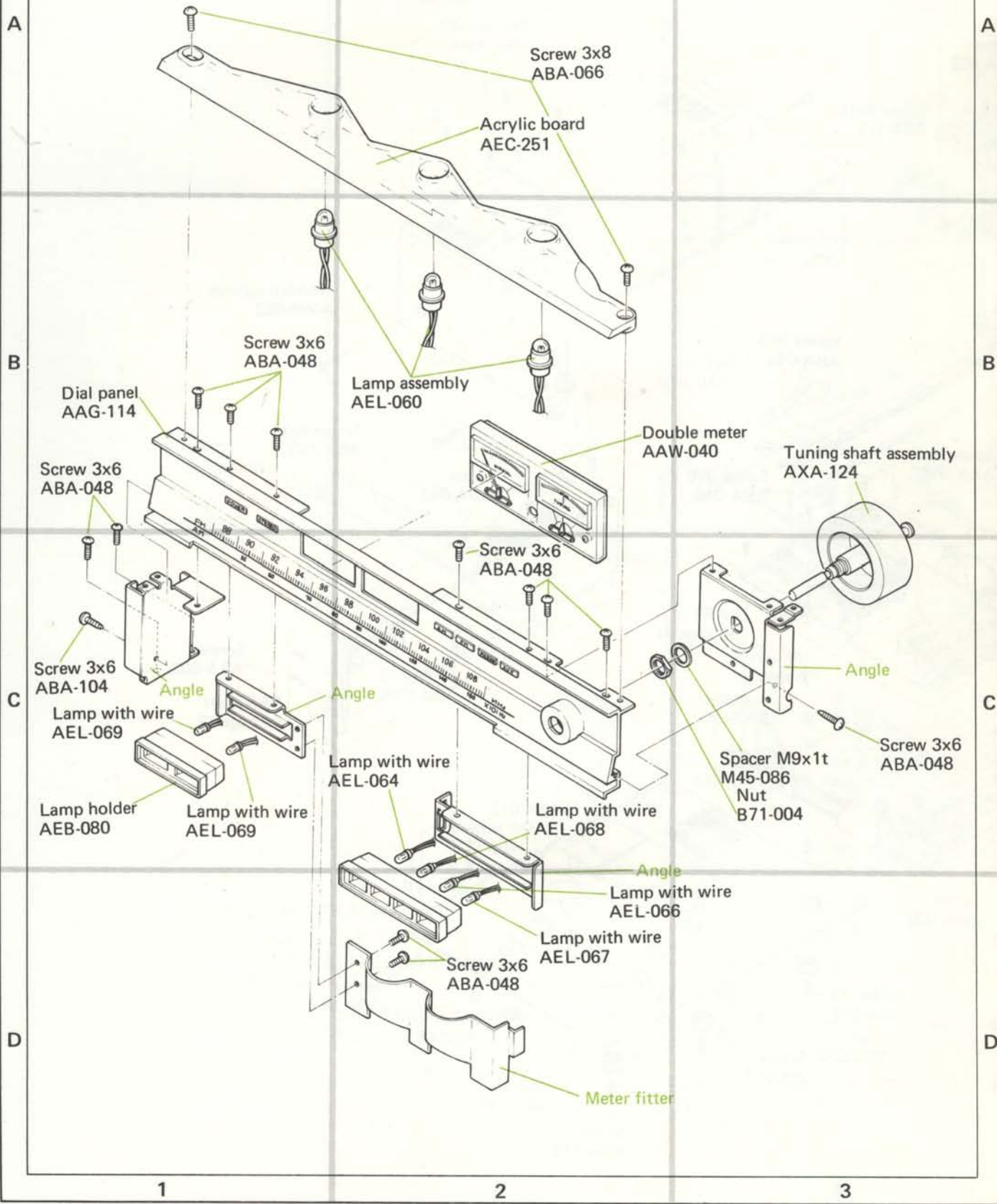
5

6

11.1 PART I

NOTE:

Parts indicated in green type cannot be supplied.



11.2 PART II

NOTE:

Parts indicated in green type cannot be supplied.

A

A

B

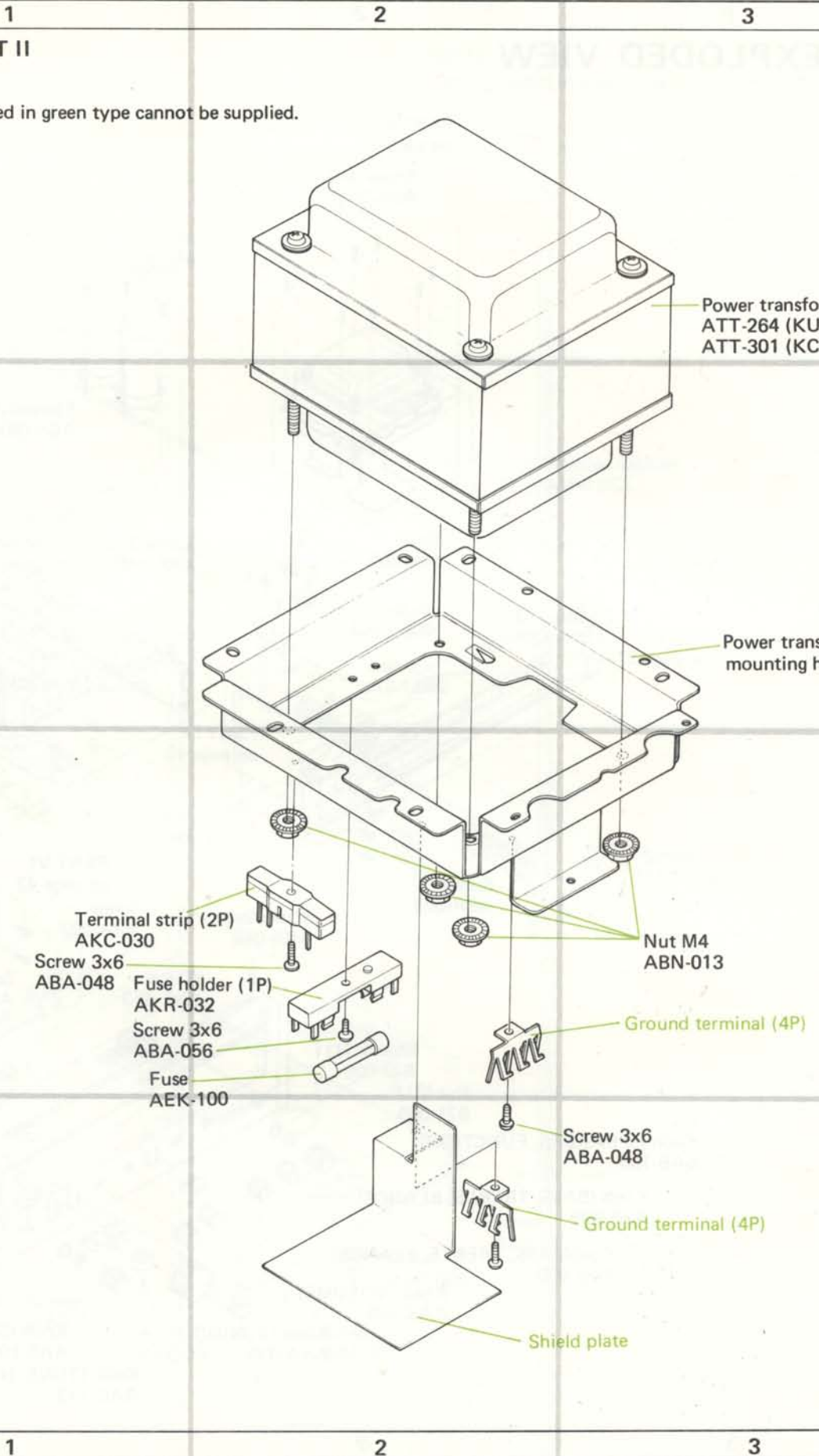
B

C

C

D

D



Power transformer
ATT-264 (KU model)
ATT-301 (KC model)

Power transformer
mounting holder

Terminal strip (2P)
AKC-030
Screw 3x6
ABA-048
Fuse holder (1P)
AKR-032
Screw 3x6
ABA-056
Fuse
AEK-100

Nut M4
ABN-013

Ground terminal (4P)

Screw 3x6
ABA-048

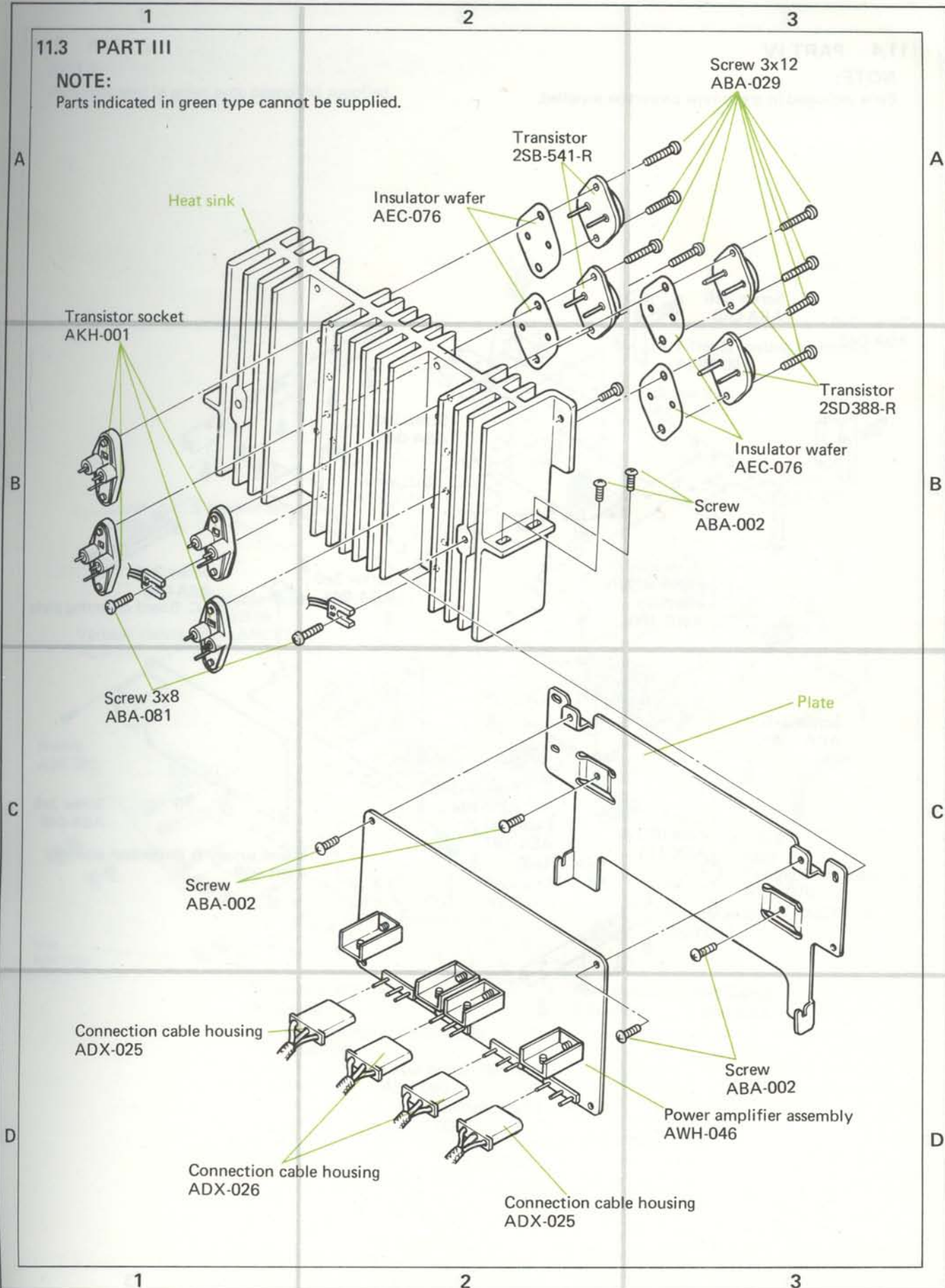
Ground terminal (4P)

Shield plate

11.3 PART III

NOTE:

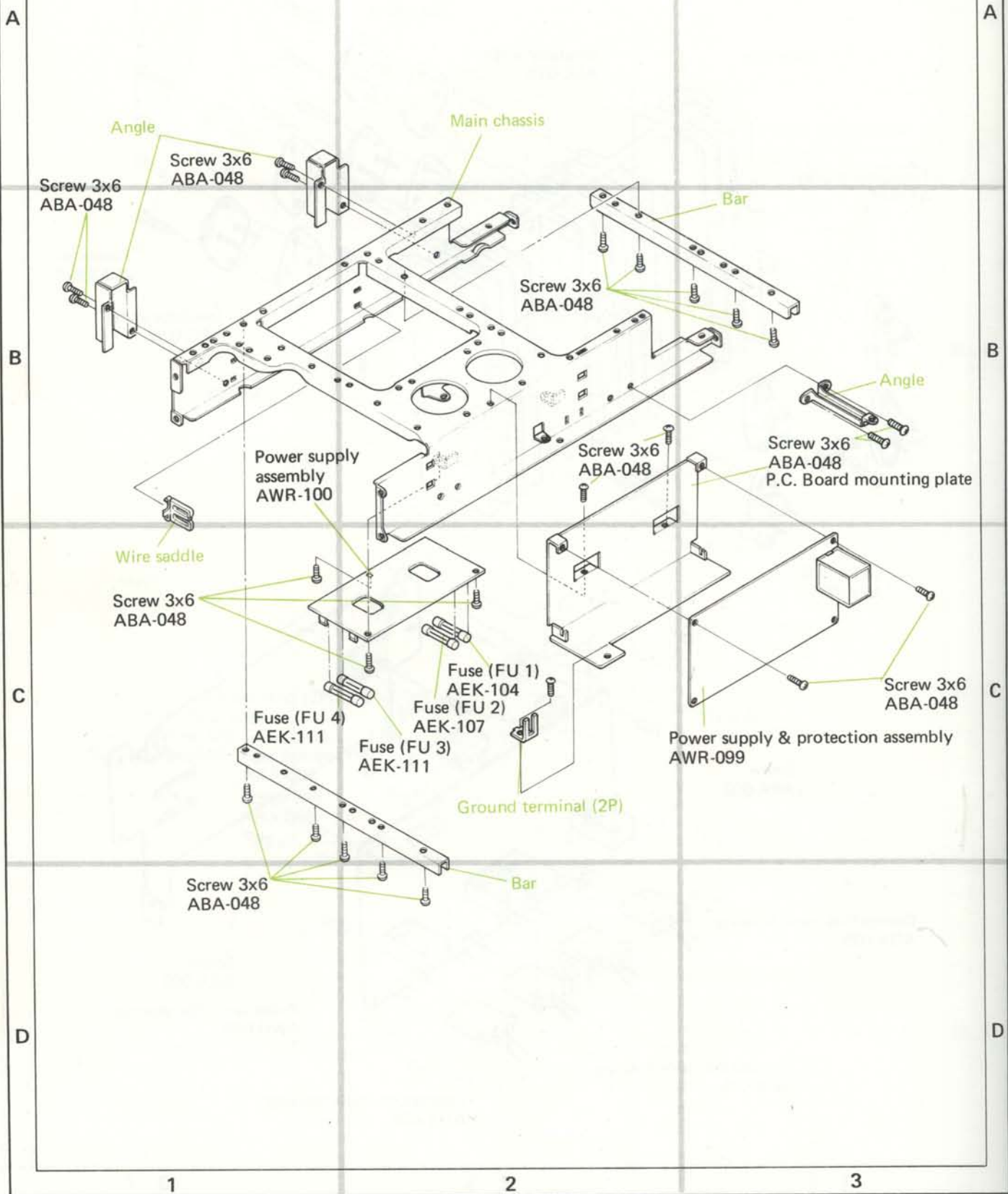
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11.4 PART IV

NOTE:

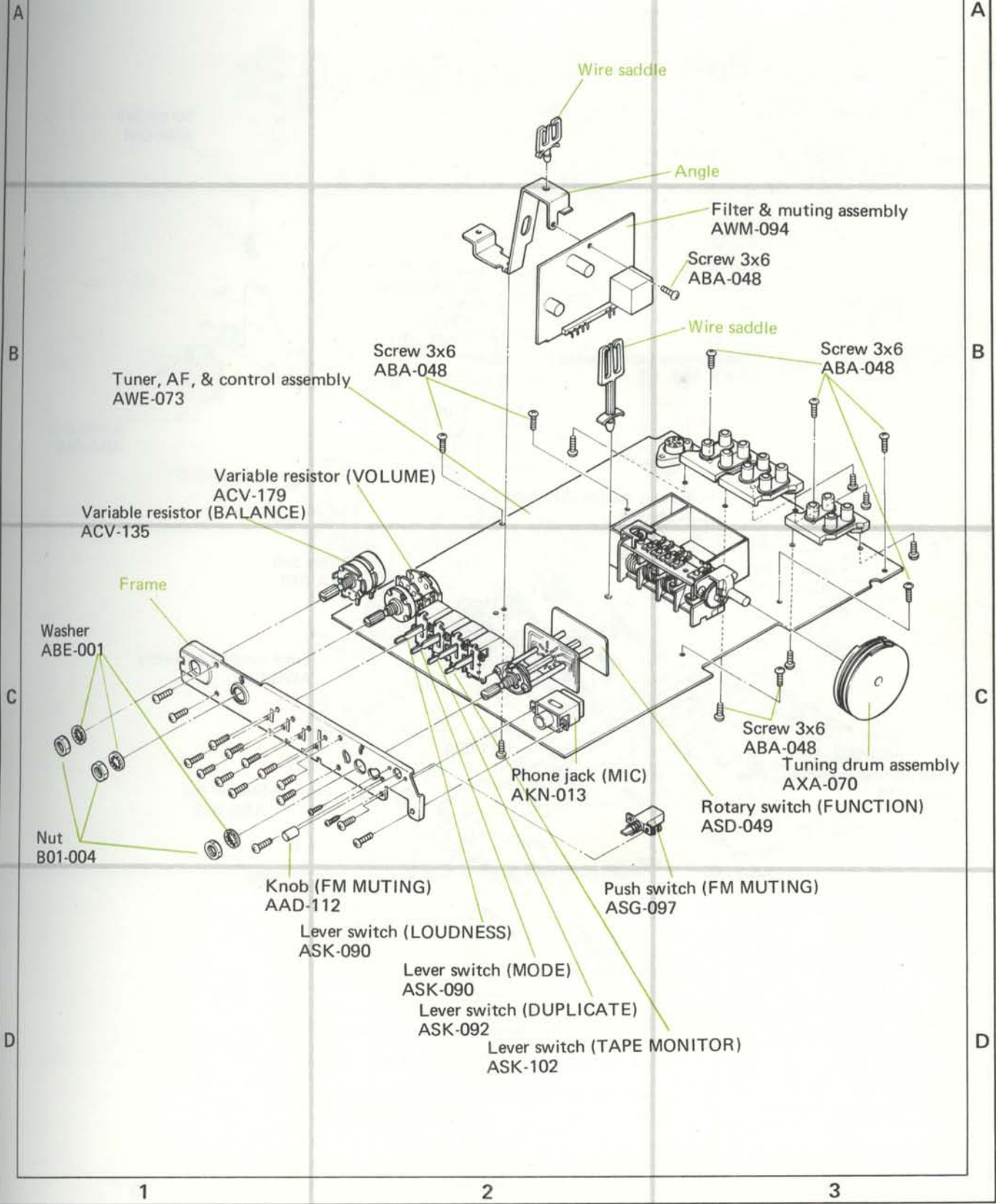
Parts indicated in green type cannot be supplied.



11.5 PART V

NOTE:

Parts indicated in green type cannot be supplied.



11.6 PART VI

NOTE:

Parts indicated in green type cannot be supplied.

A

B

C

D

1

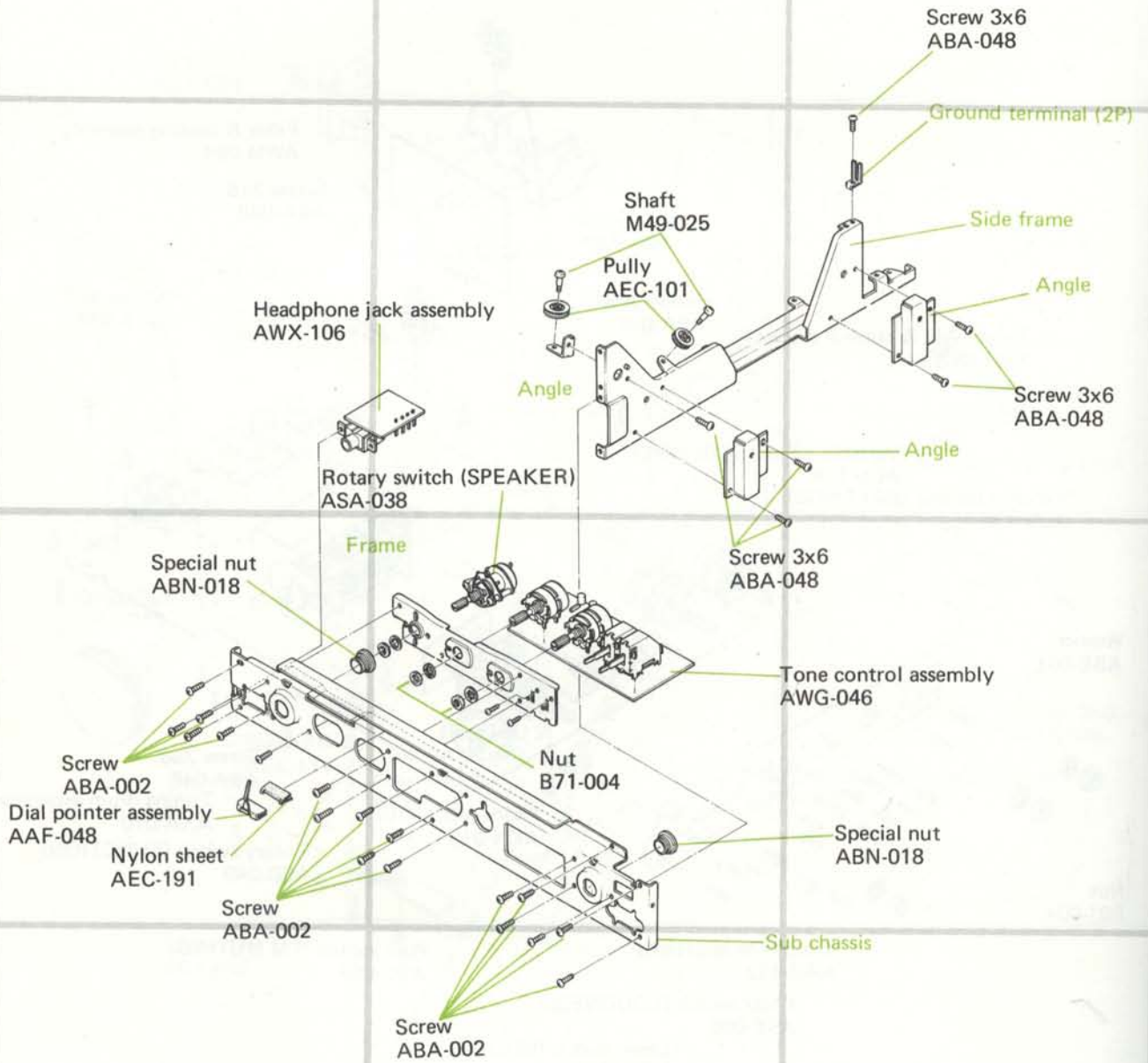
2

3

1

2

3

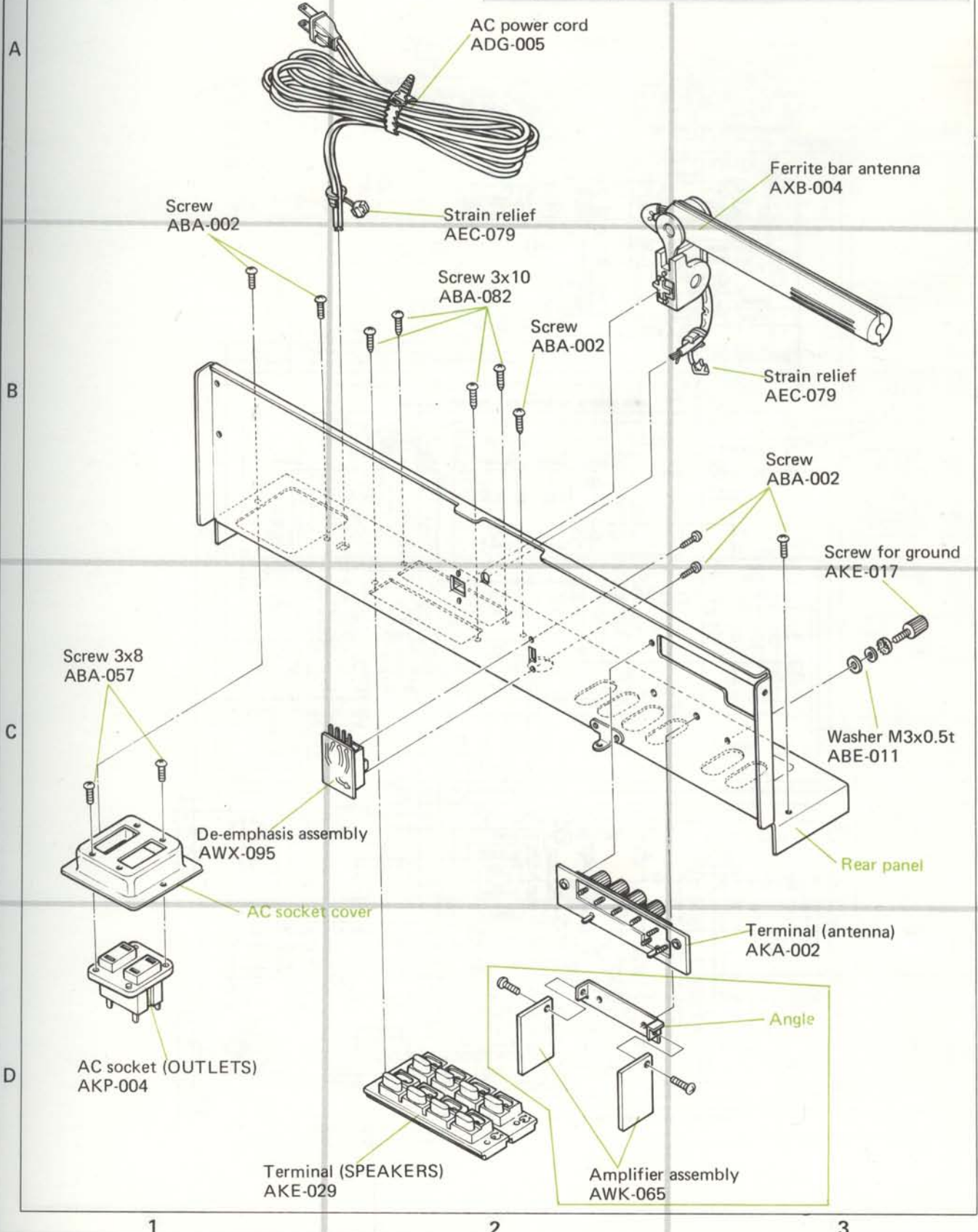


11.7 PART VII

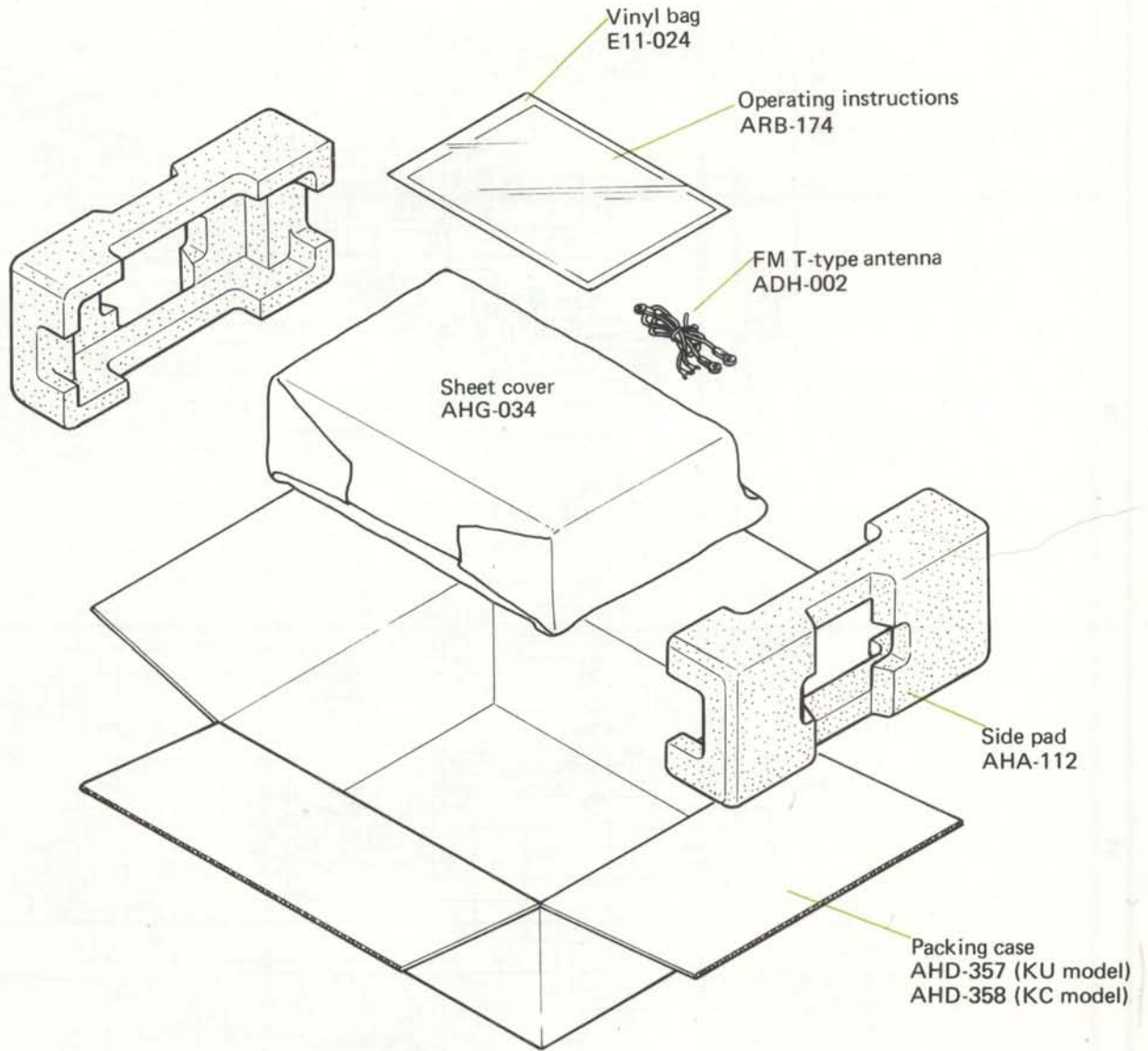
NOTE:

Parts indicated in green type cannot be supplied.

Although there are some units in the SX-750 series which do not contain green line encircled components, this is not an error.



11.8 PACKING



12. SCHEMATIC DIAGRAMS. P.C. BOARD PATTERNS AND

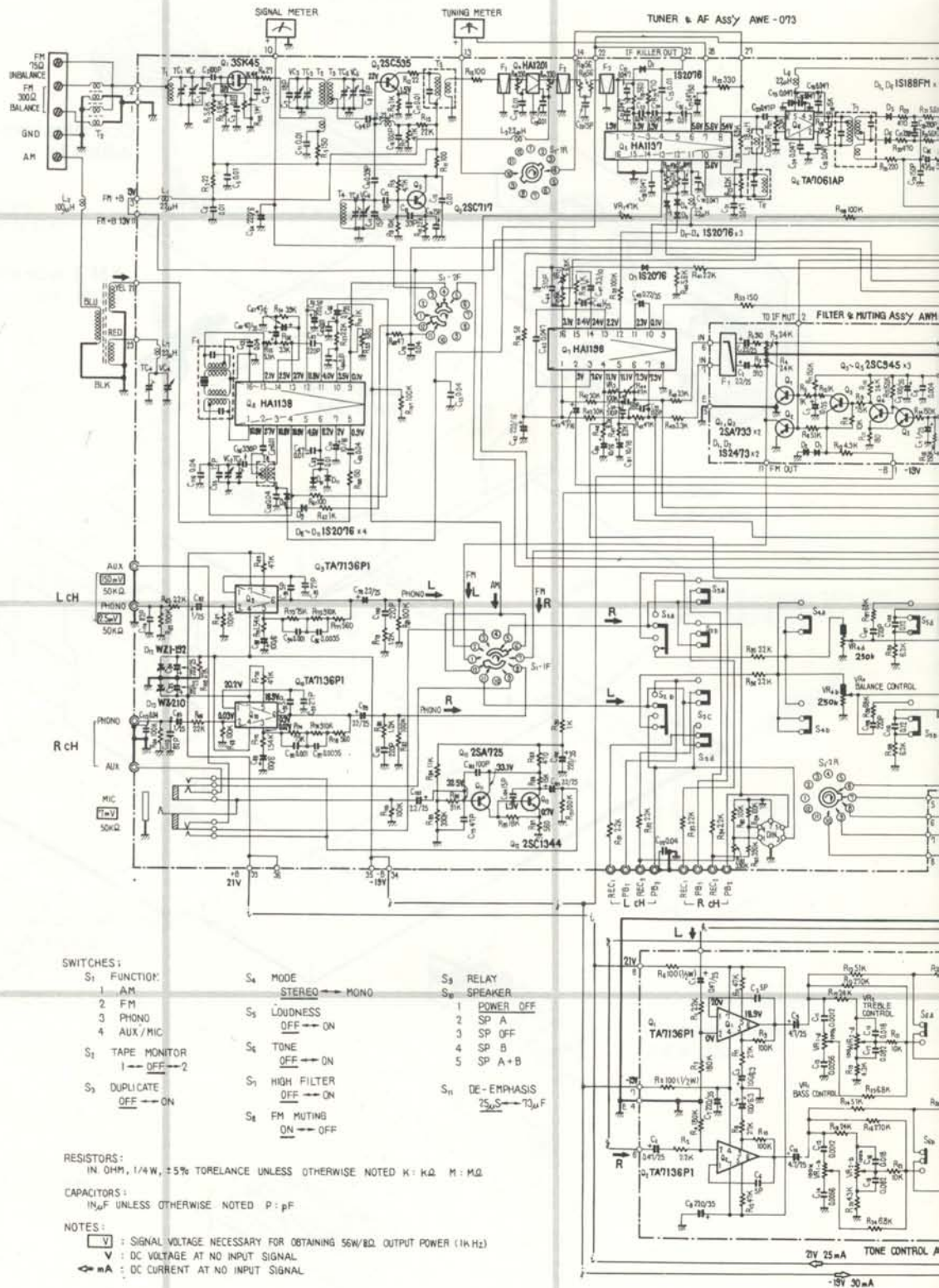
12.1 SCHEMATIC DIAGRAMS

A

B

C

D



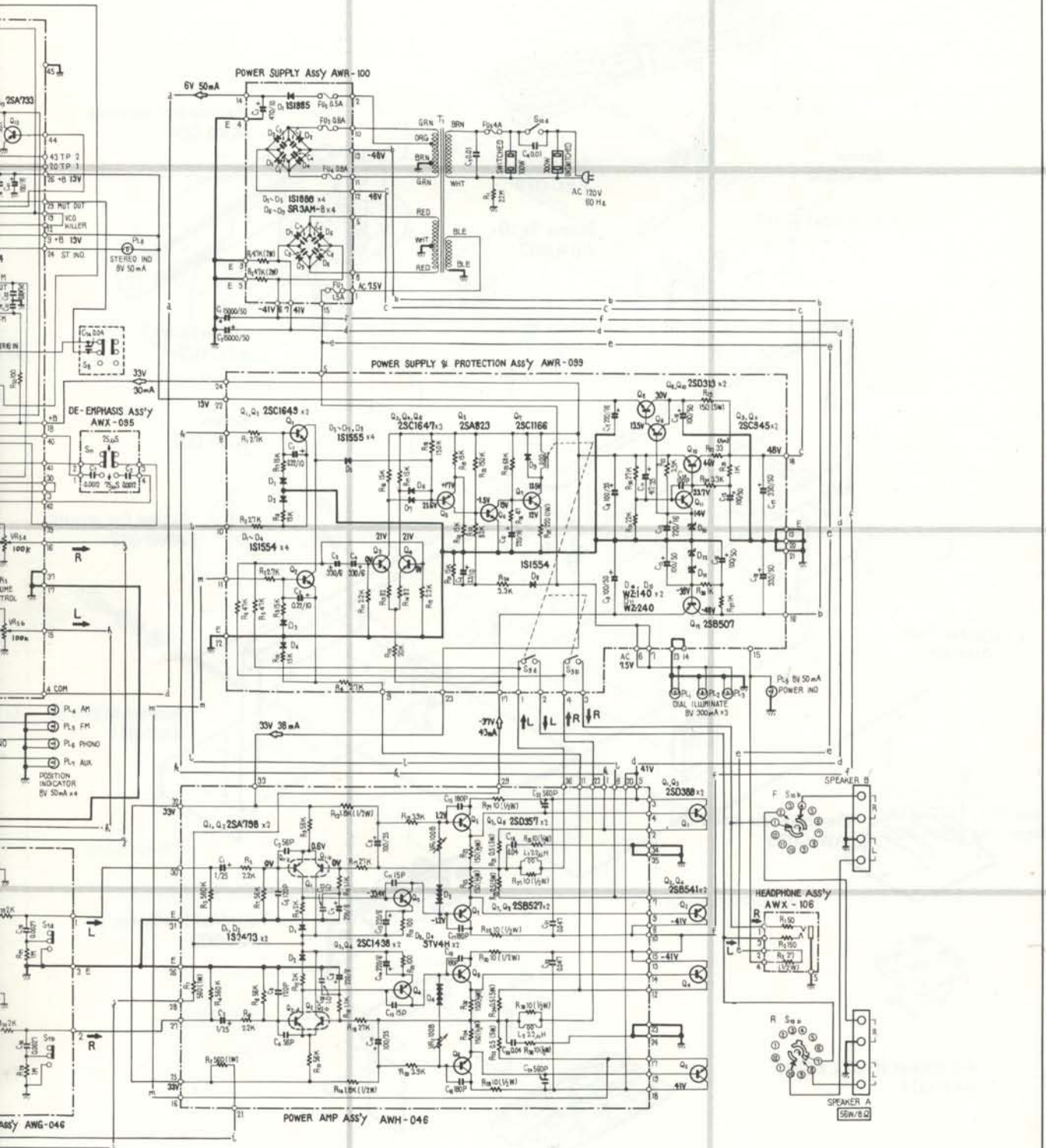
D PARTS LIST

A

B

C

D



12.2 MISCELLANEOUS PARTS

SEMICONDUCTORS

| Symbol | Description | Part No. |
|--------|-------------|-----------|
| Q1 | Transistor | 2SD 388-R |
| Q2 | Transistor | 2SB 541-R |
| Q3 | Transistor | 2SD 388-R |
| Q4 | Transistor | 2SB 541-R |

CAPACITORS

| Symbol | Description | Part No. |
|--------|-----------------------------|----------|
| C1 | Electrolytic 15,000 50V | ACH-057 |
| C2 | Electrolytic 15,000 50V | ACH-057 |
| C3 | Ceramic 0.01 150V (DC1.4kV) | ACG-003 |
| C4 | Ceramic 0.01 150V (DC1.4kV) | ACG-001 |

SWITCHES

| Symbol | Description | Part No. |
|--------|---------------|----------|
| S1 | Rotary switch | ASA-039 |

LAMPS

| Symbol | Description | Part No. |
|--------|----------------------------|----------|
| PL1 | Lamp assembly (8V, 0.3A) | AEL-060 |
| PL2 | Lamp assembly (8V, 0.3A) | AEL-060 |
| PL3 | Lamp assembly (8V, 0.3A) | AEL-060 |
| PL4 | Lamp with leads (8V, 50mA) | AEL-064 |
| PL5 | Lamp with leads (8V, 50mA) | AEL-068 |
| PL6 | Lamp with leads (8V, 50mA) | AEL-066 |
| PL7 | Lamp with leads (8V, 50mA) | AEL-067 |
| PL8 | Lamp with leads (8V, 50mA) | AEL-069 |
| PL9 | Lamp with leads (8V, 50mA) | AEL-069 |

FUSES

| Symbol | Description | Part No. |
|--------|-------------|----------|
| FU1 | Fuse 1.5A | AEK-104 |
| FU2 | Fuse 0.5A | AEK-107 |
| FU3 | Fuse 0.8A | AEK-111 |
| FU4 | Fuse 0.8A | AEK-111 |
| FU5 | Fuse 4A | AEK-100 |

COILS, TRANSFORMER

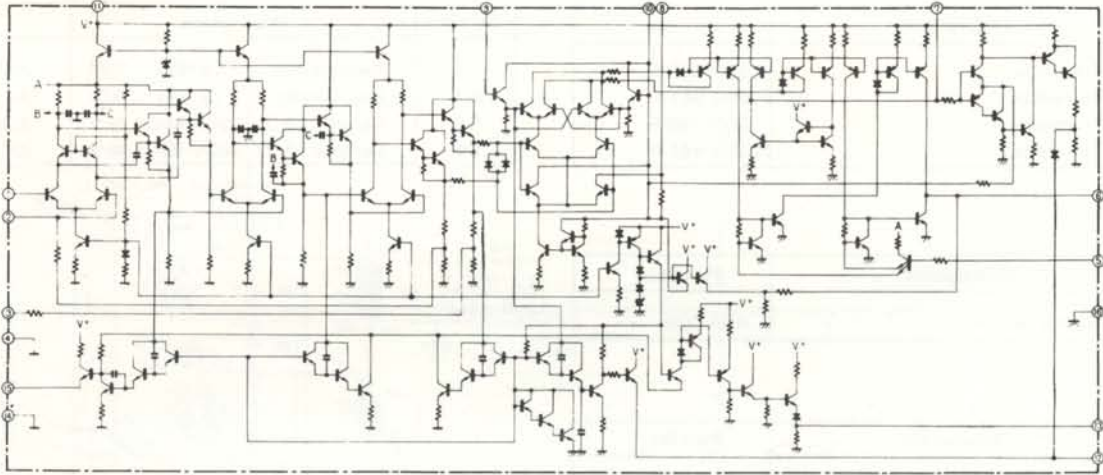
| Symbol | Description | Part No. |
|--------|--|--------------------|
| T1 | Power transformer (KU model) Power transformer (KC model) | ATT-264 ATT-301 |
| T2 | Ferrite balun | T22-025 |
| L1 | Ferrite bar antenna | AXB-004 |
| L2 | Chock coil | T24-030 |

RESISTOR

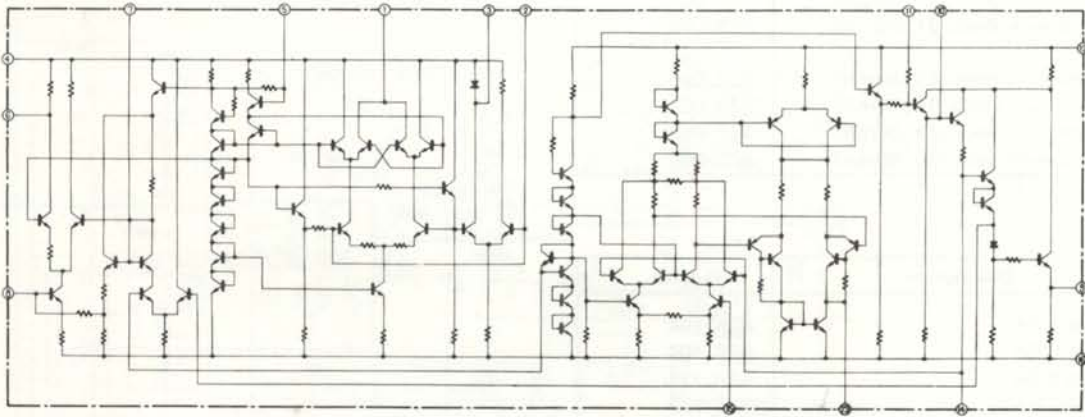
| Symbol | Description | Part No. |
|--------|-----------------------|--------------|
| R1 | Carbon film 2.2M 1/2W | RD1/2PS 225J |

12.3 INTERNAL CIRCUITRY OF INTEGRATED CIRCUITS

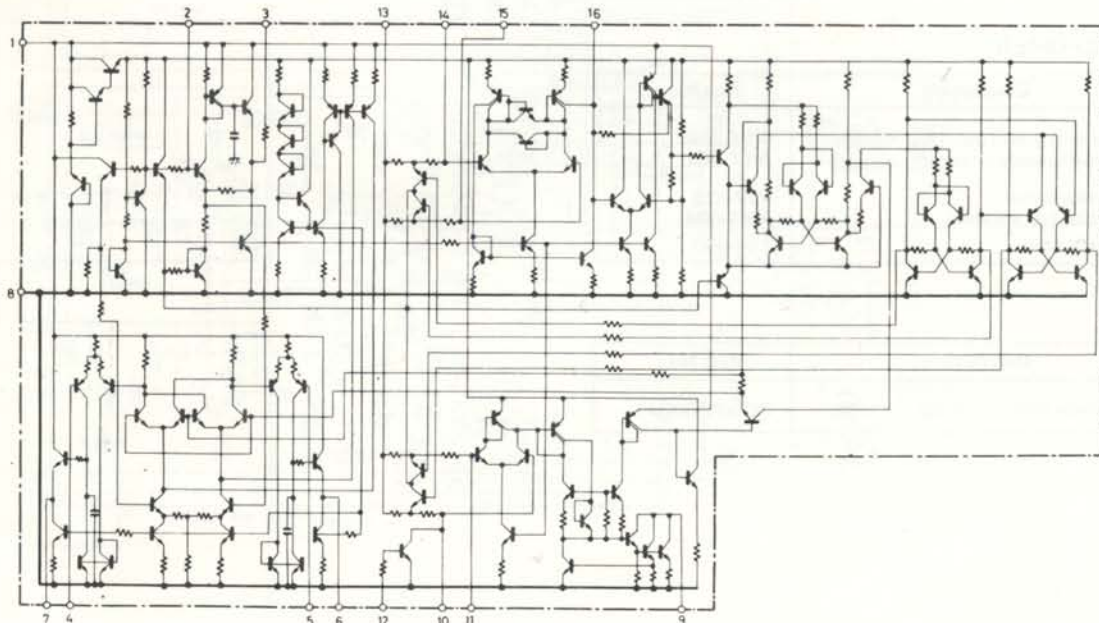
HA1137 (FM IF IC)



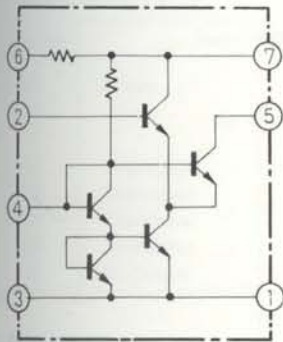
HA1138 (AM IC)



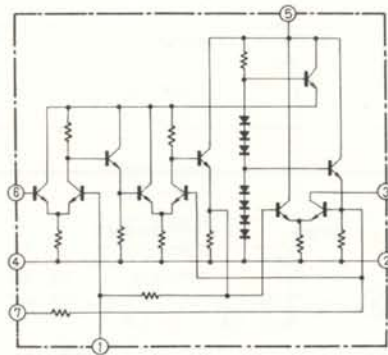
HA1196



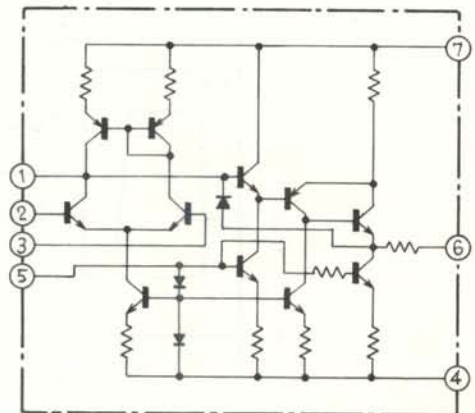
HA1201



TA 7061AP

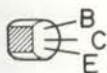


TA7136P1



External Appearance of Transistors and ICs

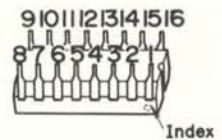
- 2SA823
- 2SC945A
- 2SC1438
- 2SC1647
- 2SC1649



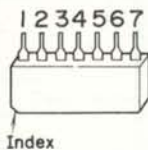
- 2SB507
- 2SD313



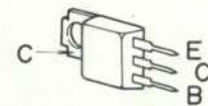
- HA1137
- HA1138
- HA1196



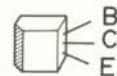
- TA7061AP
- TA7136P1



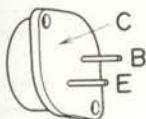
- 2SB527
- 2SD357



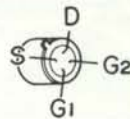
- 2SC461
- 2SC535
- 2SC1344



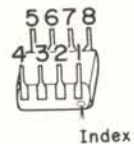
- 2SB541
- 2SD388



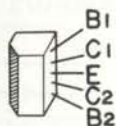
- 3SK45



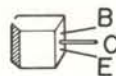
- HA1201



- 2SA798



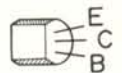
- 2SC1166



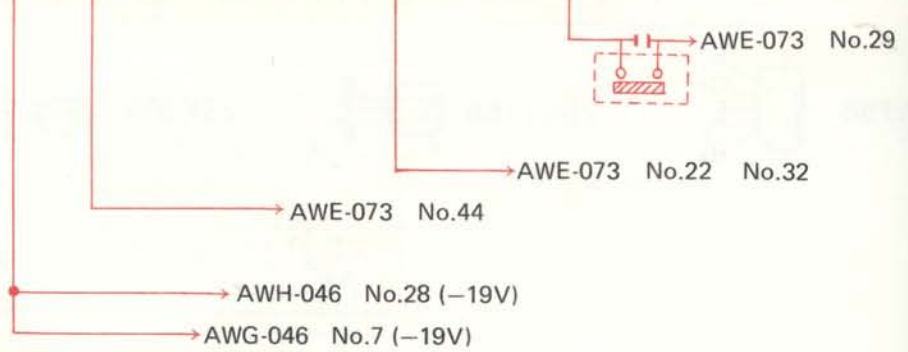
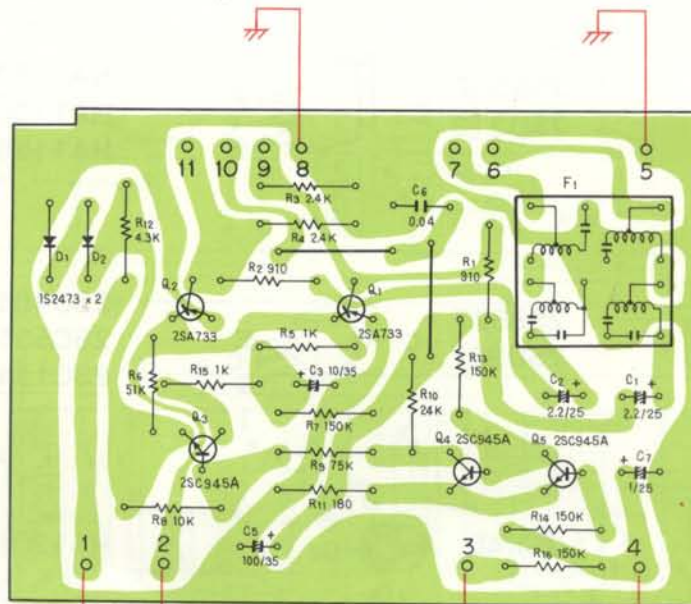
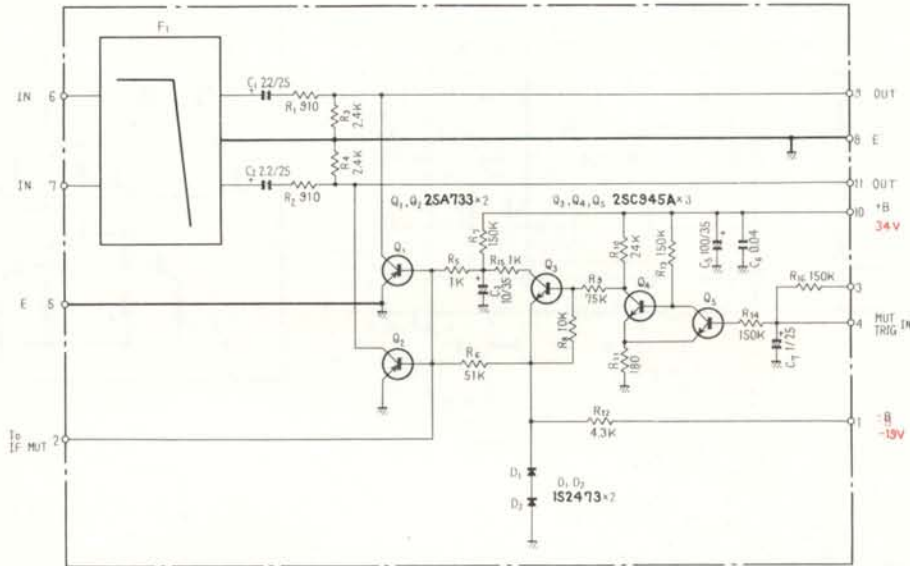
- 2SK30A



- 2SA725



12.4 FILTER & MUTING ASSEMBLY (AWM-094)



Parts List of Filters & Muting Assembly (AWM-094)

SEMICONDUCTORS

| Symbol | Description | Part No. |
|--------|-------------|----------|
| D1 | Diode | 1S2473 |
| D2 | Diode | 1S2473 |
| Q1 | Transistor | 2SA733-Q |
| Q2 | Transistor | 2SA733-Q |
| Q3 | Transistor | 2SC945-R |
| Q4 | Transistor | 2SC945-R |
| Q5 | Transistor | 2SC945-R |

RESISTORS

| Symbol | Description | Part No. |
|--------|------------------|------------|
| R1 | Carbon film 910 | RD¼PS 911J |
| R2 | Carbon film 910 | RD¼PS 911J |
| R3 | Carbon film 2.4k | RD¼PS 242J |
| R4 | Carbon film 2.4k | RD¼PS 242J |
| R5 | Carbon film 1k | RD¼PS 102J |
| R6 | Carbon film 51k | RD¼PS 513J |
| R7 | Carbon film 150k | RD¼PS 154J |
| R8 | Carbon film 10k | RD¼PS 103J |
| R9 | Carbon film 75k | RD¼PS 753J |
| R10 | Carbon film 24k | RD¼PS 243J |
| R11 | Carbon film 180 | RD¼PS 181J |
| R12 | Carbon film 4.3k | RD¼PS 432J |
| R13 | Carbon film 150k | RD¼PS 154J |
| R14 | Carbon film 150k | RD¼PS 154J |
| R15 | Carbon film 1k | RD¼PS 102J |
| R16 | Carbon film 150k | RD¼PS 154J |

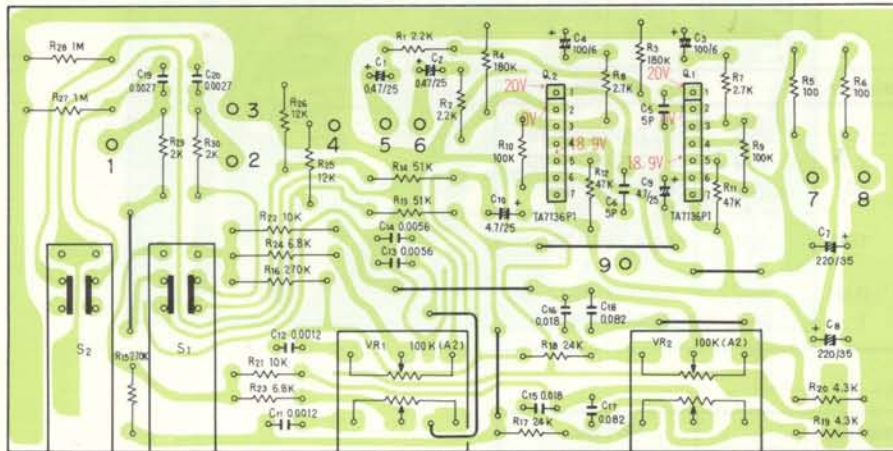
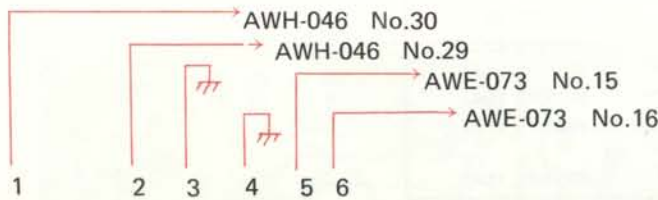
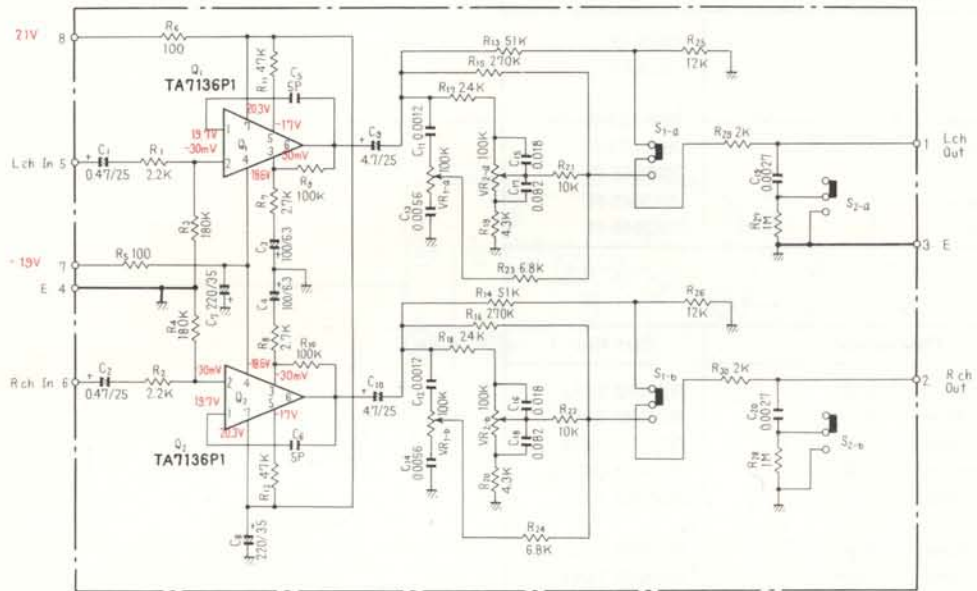
CAPACITORS

| Symbol | Description | Part No. |
|--------|----------------------|---------------|
| C1 | Electrolytic 2.2 25V | CSZA 2R2M 25 |
| C2 | Electrolytic 2.2 25V | CSZA 2R2M 25 |
| C3 | Electrolytic 10 35V | CEA 100P 35 |
| C4 | | |
| C5 | Electrolytic 100 35V | CEA 101P 35 |
| C6 | Ceramic 0.04 50V | CKDYF 403Z 50 |
| C7 | Electrolytic 1 25V | CSZA 010M 25 |

OTHERS

| Symbol | Description | Part No. |
|--------|-----------------|----------|
| | Low pass filter | ATF-033 |
| | L-type terminal | AKC-035 |

12.5 TONE CONTROL ASSEMBLY (AWG-046)



- AWE-073 No.34 (-19V)
- AWM-094 No.1 (-19V)
- AWH-046 No.28 (-19V)
- AWE-073 No.33 (+21V)
- AWH-046 No.21 (+21V)

Parts List of Tone Control Assembly (AWG-046)

SEMICONDUCTORS

| Symbol | Description | Part No. |
|--------|---|----------|
| Q1 | IC | TA7136P1 |
| Q2 | IC | TA7136P1 |
| VR1 | Volume switch Variable resistor (BASS) 100k-A2 | ACV-138 |
| VR2 | Variable resistor (TREBLE)100k-A2 | ACV-138 |
| SW1 | Lever switch (S1-TONE) | ASK-090 |
| SW2 | Lever switch (S2-HIGH FILTER) | ASK-090 |

RESISTORS

| Symbol | Description | Part No. |
|--------|------------------|------------|
| R1 | Carbon film 2.2k | RD¼PM 222J |
| R2 | Carbon film 2.2k | RD¼PM 222J |
| R3 | Carbon film 180k | RD¼PM 184J |
| R4 | Carbon film 180k | RD¼PS 184J |
| R5 | Carbon film 100 | RD¼PS 101J |
| R6 | Carbon film 100 | RD¼PS 101J |
| R7 | Carbon film 2.7k | RD¼PM 272J |
| R8 | Carbon film 2.7k | RD¼PM 272J |
| R9 | Carbon film 100k | RD¼PM 104J |
| R10 | Carbon film 100k | RD¼PM 104J |
| R11 | Carbon film 47k | RD¼PM 473J |
| R12 | Carbon film 47k | RD¼PM 473J |
| R13 | Carbon film 51k | RD¼PS 513J |
| R14 | Carbon film 51k | RD¼PS 513J |
| R15 | Carbon film 270k | RD¼PM 274J |
| R16 | Carbon film 270k | RD¼PS 274J |
| R17 | Carbon film 24k | RD¼PM 243J |
| R18 | Carbon film 24k | RD¼PM 243J |
| R19 | Carbon film 4.3k | RD¼PM 432J |
| R20 | Carbon film 4.3k | RD¼PM 432J |
| R21 | Carbon film 10k | RD¼PM 103J |
| R22 | Carbon film 10k | RD¼PS 103J |
| R23 | Carbon film 6.8k | RD¼PM 682J |
| R24 | Carbon film 6.8k | RD¼PS 682J |
| R25 | Carbon film 12k | RD¼PS 123J |
| R26 | Carbon film 12k | RD¼PS 123J |
| R27 | Carbon film 1M | RD¼PS 105J |
| R28 | Carbon film 1M | RD¼PS 105J |
| R29 | Carbon film 2k | RD¼PS 202J |
| R30 | Carbon film 2k | RD¼PS 202J |

CAPACITORS

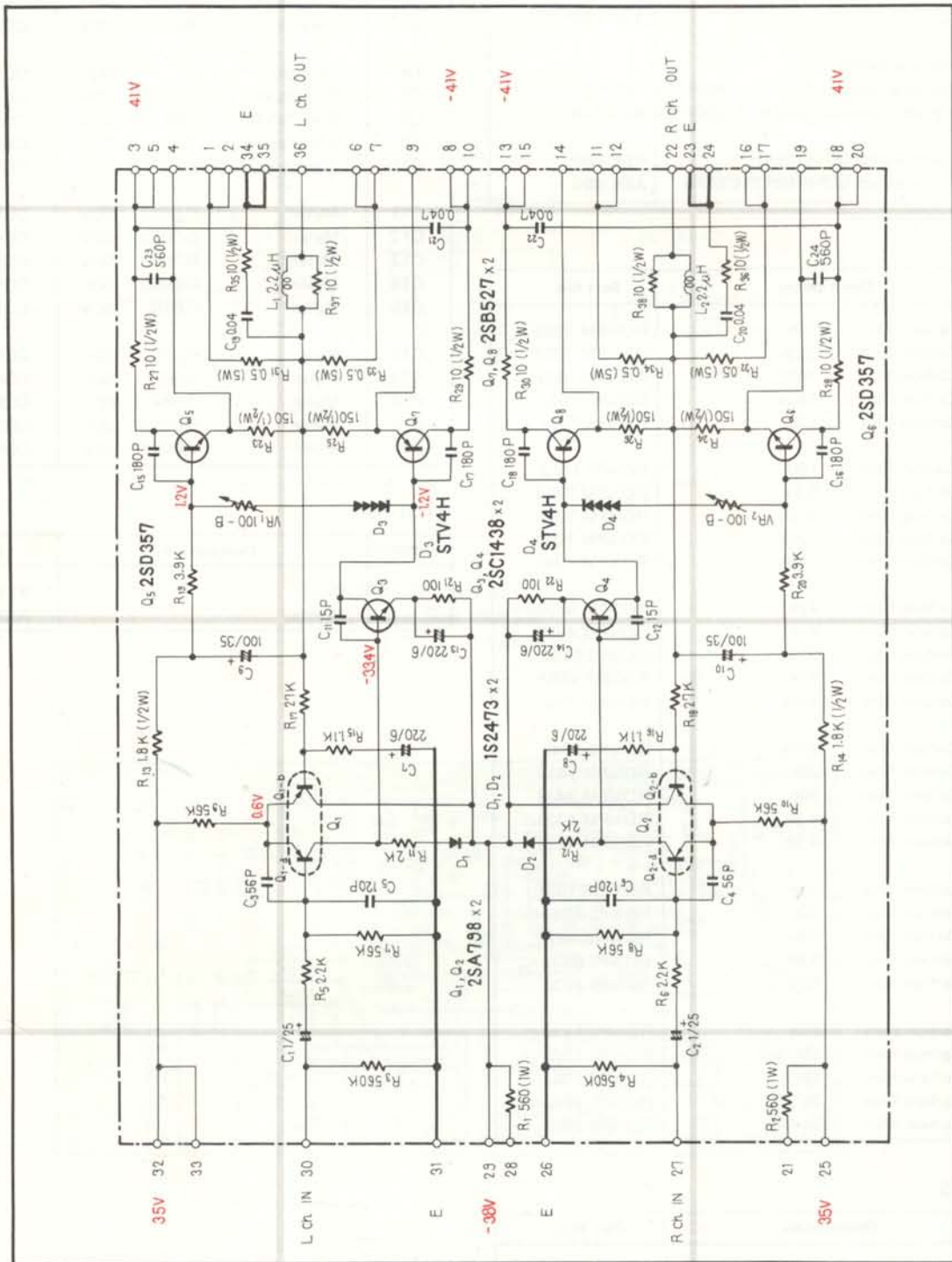
| Symbol | Description | Part No. |
|--------|-----------------------|--------------|
| C1 | Electrolytic 0.47 25V | CSSA R47M 25 |
| C2 | Electrolytic 0.47 25V | CSSA R47M 25 |
| C3 | Electrolytic 100 6V | CEA 101P 6 |

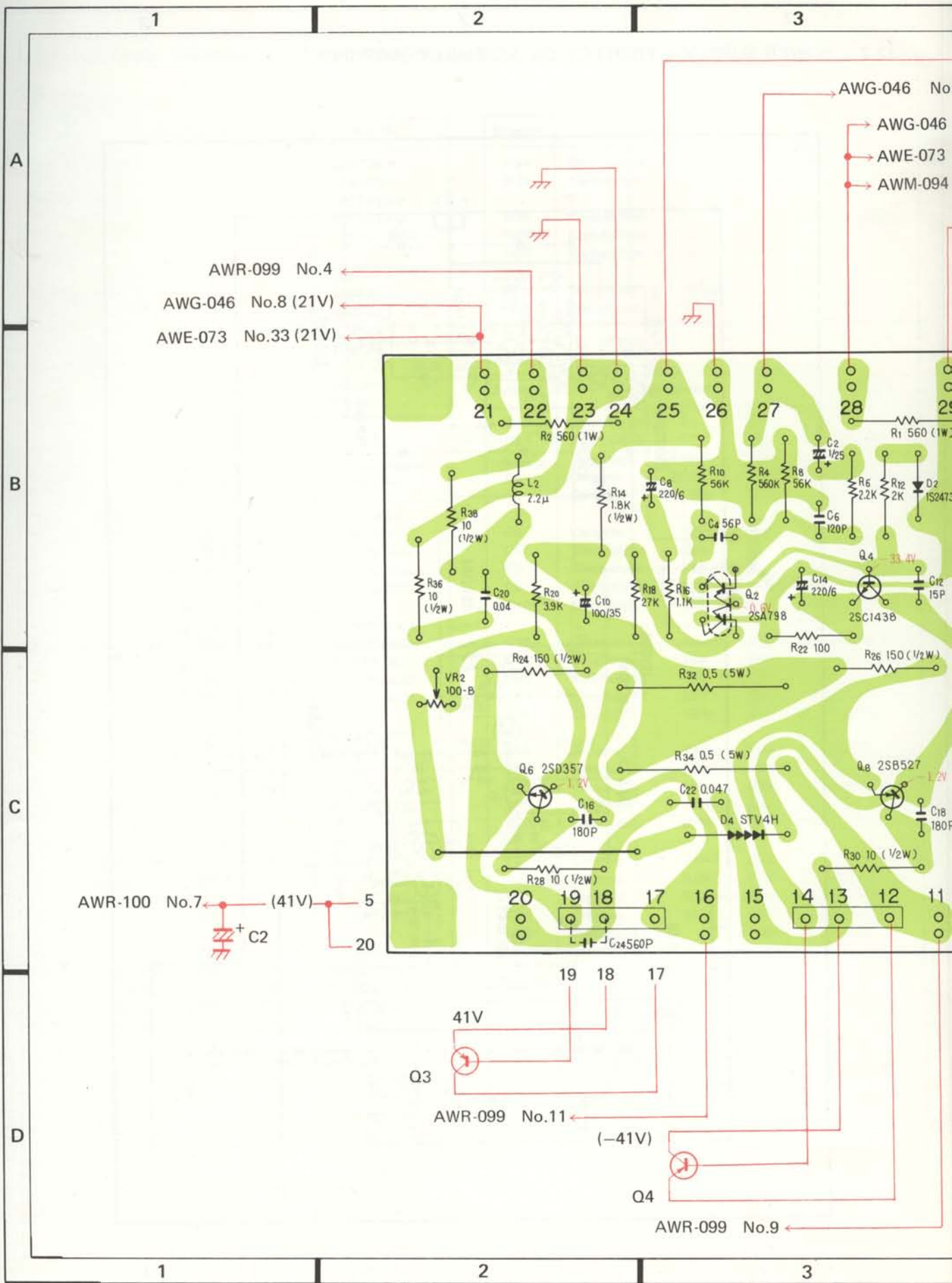
| Symbol | Description | Part No. |
|--------|----------------------|---------------|
| C4 | Electrolytic 100 6V | CEA 101P 6 |
| C5 | Ceramic 5p 50V | CCDSL 050D 50 |
| C6 | Ceramic 5p 50V | CCDSL 050D 50 |
| C7 | Electrolytic 220 35V | CEA 221P 35 |
| C8 | Electrolytic 220 35V | CEA 221P 35 |
| C9 | Electrolytic 4.7 25V | CEANL 4R7P 25 |
| C10 | Electrolytic 4.7 25V | CEANL 4R7P 25 |
| C11 | Mylar 0.0012 50V | CQMA 122J 50 |
| C12 | Mylar 0.0012 50V | CQMA 122J 50 |
| C13 | Mylar 0.0056 50V | CQMA 562J 50 |
| C14 | Mylar 0.0056 50V | CQMA 562J 50 |
| C15 | Mylar 0.018 50V | CQMA 183J 50 |
| C16 | Mylar 0.018 50V | CQMA 183J 50 |
| C17 | Mylar 0.082 50V | CQMA 823J 50 |
| C18 | Mylar 0.082 50V | CQMA 823J 50 |
| C19 | Mylar 0.0027 50V | CQMA 272J 50 |
| C20 | Mylar 0.0027 50V | CQMA 272J 50 |

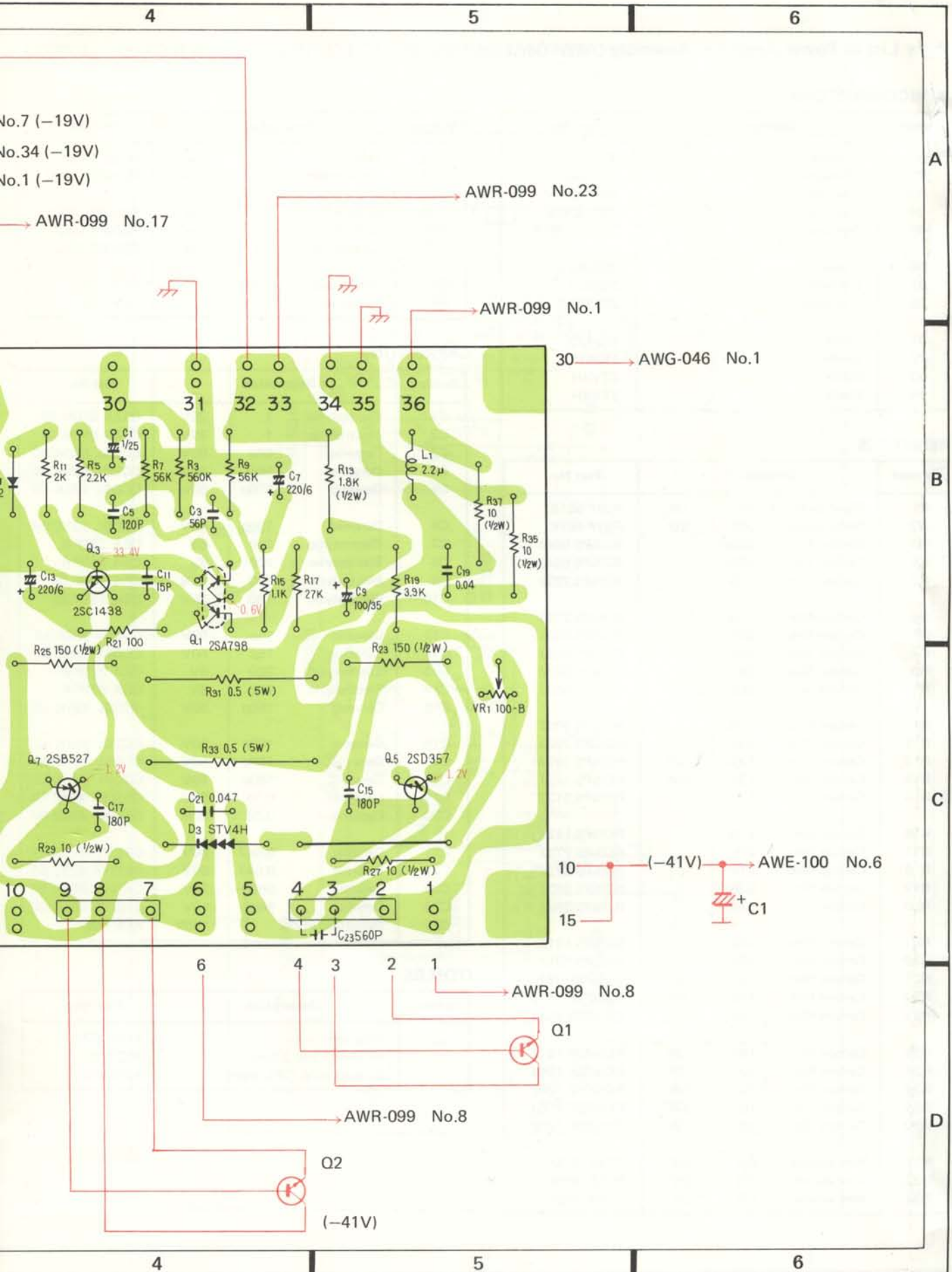
OTHERS

| Symbol | Description | Part No. |
|--------|-------------|----------|
| | Nut | B71-004 |
| | Washer | ABE-001 |

12.6 POWER AMPLIFIER ASSEMBLY (AWH-046)







Parts List of Power Amplifier Assembly (AWH-046)

SEMICONDUCTORS

| Symbol | Description | Part No. |
|--------|-------------|-----------|
| Q1 | Transistor | 2SA798-F |
| Q2 | Transistor | 2SA798-F |
| Q3 | Transistor | 2SC1438-V |
| Q4 | Transistor | 2SC1438-V |
| Q5 | Transistor | 2SD357-C |
| Q6 | Transistor | 2SD357-C |
| Q7 | Transistor | 2SB527-C |
| Q8 | Transistor | 2SB527-C |
| D1 | Diode | 1S2473 |
| D2 | Diode | 1S2473 |
| D3 | Diode | STV4H |
| D4 | Diode | STV4H |

RESISTORS

| Symbol | Description | Part No. |
|--------|----------------------------------|---------------------------|
| R1 | Metal oxide 560 1W | RS1P 561K |
| R2 | Metal oxide 560 1W | RS1P 561K |
| R3 | Carbon film 560k | RD $\frac{1}{4}$ PS 564J |
| R4 | Carbon film 560k | RD $\frac{1}{4}$ PS 564J |
| R5 | Carbon film 2.2k | RD $\frac{1}{4}$ PS 222J |
| R6 | Carbon film 2.2k | RD $\frac{1}{4}$ PS 222J |
| R7 | Carbon film 56k | RD $\frac{1}{4}$ PS 563J |
| R8 | Carbon film 56k | RD $\frac{1}{4}$ PS 563J |
| R9 | Carbon film 56k | RD $\frac{1}{4}$ PS 563J |
| R10 | Carbon film 56k | RD $\frac{1}{4}$ PS 563J |
| R11 | Carbon film 2.0k | RD $\frac{1}{4}$ PS 202J |
| R12 | Carbon film 2.0k | RD $\frac{1}{4}$ PS 202J |
| R13 | Carbon film 1.8k $\frac{1}{2}$ W | RD $\frac{1}{4}$ PS 182J |
| R14 | Carbon film 1.8k $\frac{1}{2}$ W | RD $\frac{1}{4}$ PS 182J |
| R15 | Carbon film 1.1k | RD $\frac{1}{4}$ PS 112J |
| R16 | Carbon film 1.1k | RD $\frac{1}{4}$ PS 112J |
| R17 | Carbon film 27k | RD $\frac{1}{4}$ PS 273J |
| R18 | Carbon film 27k | RD $\frac{1}{4}$ PS 273J |
| R19 | Carbon film 3.9k | RD $\frac{1}{4}$ PS 392J |
| R20 | Carbon film 3.9k | RD $\frac{1}{4}$ PS 392J |
| R21 | Carbon film 100 | RD $\frac{1}{4}$ PS 101J |
| R22 | Carbon film 100 | RD $\frac{1}{4}$ PS 101J |
| R23 | Carbon film 150 $\frac{1}{2}$ W | RD $\frac{1}{4}$ PSF 151J |
| R24 | Carbon film 150 $\frac{1}{2}$ W | RD $\frac{1}{4}$ PSF 151J |
| R25 | Carbon film 150 $\frac{1}{2}$ W | RD $\frac{1}{4}$ PSF 151J |
| R26 | Carbon film 150 $\frac{1}{2}$ W | RD $\frac{1}{4}$ PSF 151J |
| R27 | Carbon film 10 $\frac{1}{2}$ W | RD $\frac{1}{4}$ PSF 100J |
| R28 | Carbon film 10 $\frac{1}{2}$ W | RD $\frac{1}{4}$ PSF 100J |
| R29 | Carbon film 10 $\frac{1}{2}$ W | RD $\frac{1}{4}$ PSF 100J |
| R30 | Carbon film 10 $\frac{1}{2}$ W | RD $\frac{1}{4}$ PSF 100J |
| R31 | Wire wound 0.5 5W | RT5B 0R5K |
| R32 | Wire wound 0.5 5W | RT5B 0R5K |
| R33 | Wire wound 0.5 5W | RT5B 0R5K |

| Symbol | Description | Part No. |
|--------|--------------------------------|---------------------------|
| R34 | Wire wound 0.5 5W | RT5B 0R5K |
| R35 | Carbon film 10 $\frac{1}{2}$ W | RD $\frac{1}{4}$ PSF 100J |
| R36 | Carbon film 10 $\frac{1}{2}$ W | RD $\frac{1}{4}$ PSF 100J |
| R37 | Carbon film 10 $\frac{1}{2}$ W | RD $\frac{1}{4}$ PS 100J |
| R38 | Carbon film 10 $\frac{1}{2}$ W | RD $\frac{1}{4}$ PS 100J |
| VR1 | Semi-fixed 100-B | ACP-019 |
| VR2 | Semi-fixed 100-B | ACP-019 |

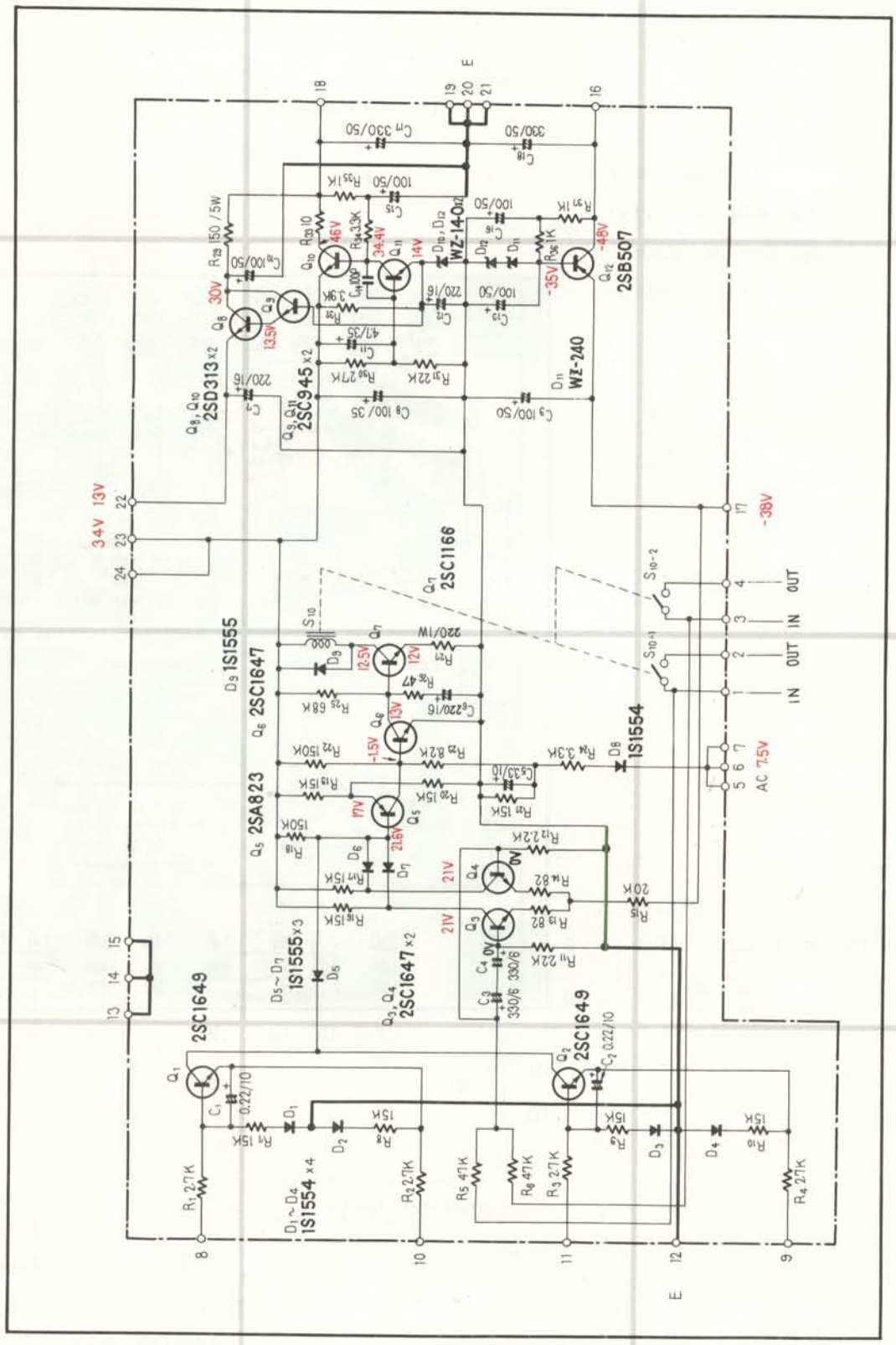
CAPACITORS

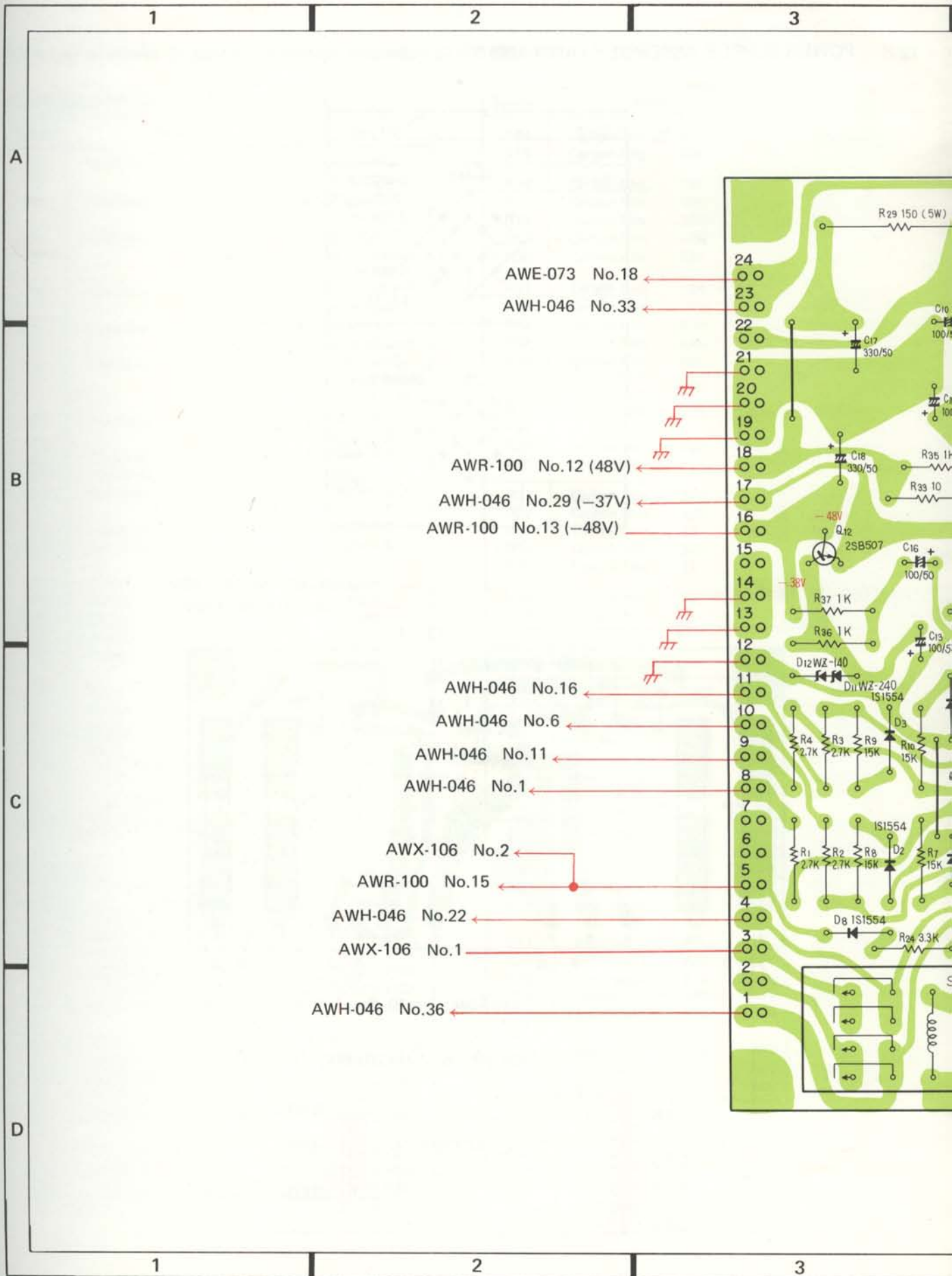
| Symbol | Description | Part No. |
|--------|-------------------------|---------------|
| C1 | Electrolytic 1 25V | CSZA 010M 25 |
| C2 | Electrolytic 1 25V | CSZA 010M 25 |
| C3 | Ceramic 56p 50V | CCDSL 560K 50 |
| C4 | Ceramic 56p 50V | CCDSL 560K 50 |
| C5 | Ceramic 120p 50V | CCDSL 121K 50 |
| C6 | Ceramic 120p 50V | CCDSL 121K 50 |
| C7 | Electrolytic 220 6V | CEA 221P 6 |
| C8 | Electrolytic 220 6V | CEA 221P 6 |
| C9 | Electrolytic 100 35V | CEA 101P 35 |
| C10 | Electrolytic 100 35V | CEA 101P 35 |
| C11 | Ceramic 15p 50V | CCDSL 150K 50 |
| C12 | Ceramic 15p 50V | CCDSL 150K 50 |
| C13 | Electrolytic 220 6V | CEA 221P 6 |
| C14 | Electrolytic 220 6V | CEA 221P 6 |
| C15 | Ceramic 180p 50V | CCDSL 181K 50 |
| C16 | Ceramic 180p 50V | CCDSL 181K 50 |
| C17 | Ceramic 180p 50V | CCDSL 181K 50 |
| C18 | Ceramic 180p 50V | CCDSL 181K 50 |
| C19 | Ceramic 0.04 50V | CKDYF 403Z 50 |
| C20 | Ceramic 0.04 50V | CKDYF 403Z 50 |
| C21 | Ceramic 0.047 50V | CKDYF 473Z 50 |
| C22 | Ceramic 0.047 50V | CKDYF 473Z 50 |
| C23 | Ceramic 560p 50V | CKDYB 561K 50 |
| C24 | Ceramic 560p 50V | CKDYB 561K 50 |
| C25 | Metallized mylar 1 100V | ACE-008 |

OTHERS

| Symbol | Description | Part No. |
|--------|---------------------------|----------|
| | Heat sink | ANH-117 |
| | AF chock coil 2.2 μ H | T63-009 |
| | Contact strip (3PL-type) | AKM-018 |

12.7 POWER SUPPLY & PROTECTION ASSEMBLY (AWR-099)





4

5

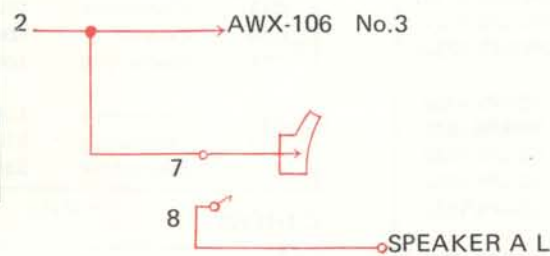
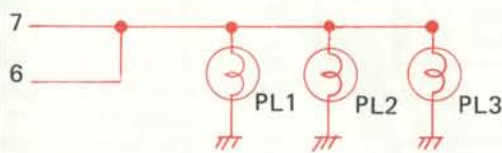
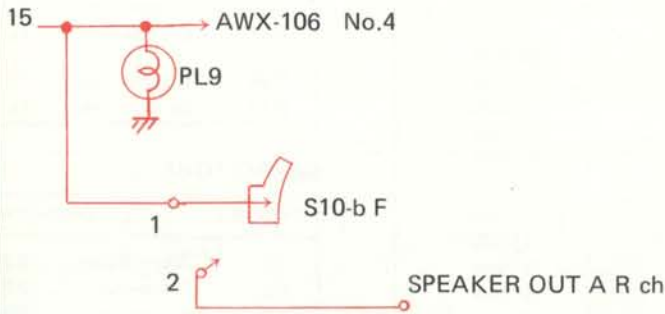
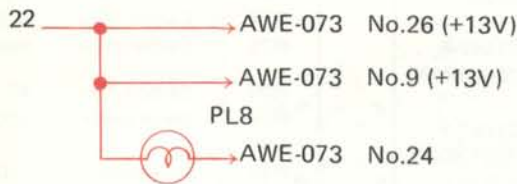
6

A

B

C

D



4

5

6

Parts List of Power Supply & Protection Assembly (AWR-099)

SEMICONDUCTORS

| Symbol | Description | Part No. |
|--------|-------------|---------------------------|
| Q1 | Transistor | 2SC1649-N or 2SC869-C |
| Q2 | Transistor | 2SC1649-N or 2SC869-C |
| Q3 | Transistor | 2SC1647-P or 2SC945-A |
| Q4 | Transistor | 2SC1647-P or 2SC945-A |
| Q5 | Transistor | 2SA823-P or 2SA733-Q |
| Q6 | Transistor | 2SC1647-P or 2SC945-A |
| Q7 | Transistor | 2SC1167-Y or 2SC1384-R |
| Q8 | Transistor | 2SD313-D |
| Q9 | Transistor | 2SC945-Q |
| Q10 | Transistor | 2SD313-D |
| Q11 | Transistor | 2SC945-Q |
| Q12 | Transistor | 2SB507-D |
| D1 | Diode | 1S1554 |
| D2 | Diode | 1S1554 |
| D3 | Diode | 1S1554 |
| D4 | Diode | 1S1554 |
| D5 | Diode | 1S1555 |
| D6 | Diode | 1S1555 |
| D7 | Diode | 1S1555 |
| D8 | Diode | 1S1554 |
| D9 | Diode | 1S1555 |
| D10 | Zener diode | WZ-140 |
| D11 | Zener diode | WZ-240 |
| D12 | Zener diode | WZ-140 |

RESISTORS

| Symbol | Description | Part No. |
|--------|------------------|------------|
| R1 | Carbon film 2.7k | RD½PS 272J |
| R2 | Carbon film 2.7k | RD½PS 272J |
| R3 | Carbon film 2.7k | RD½PS 272J |
| R4 | Carbon film 2.7k | RD½PS 272J |
| R5 | Carbon film 47k | RD½PS 473J |
| R6 | Carbon film 47k | RD½PS 473J |
| R7 | Carbon film 15k | RD½PS 153J |
| R8 | Carbon film 15k | RD½PS 153J |
| R9 | Carbon film 15k | RD½PS 153J |
| R10 | Carbon film 15k | RD½PS 153J |
| R11 | Carbon film 2.2k | RD½PS 222J |
| R12 | Carbon film 2.2k | RD½PS 222J |
| R13 | Carbon film 82 | RD½PS 820J |

| Symbol | Description | Part No. |
|--------|------------------|----------------|
| R14 | Carbon film 82 | RD½PS 820J |
| R15 | Carbon film 20k | RD½PS 203J |
| R16 | Carbon film 15k | RD½PS 153J |
| R17 | Carbon film 15k | RD½PS 153J |
| R18 | Carbon film 150k | RD½PS 154J |
| R19 | Carbon film 15k | RD½PS 153J |
| R20 | Carbon film 15k | RD½PS 153J |
| R21 | Carbon film 15k | RD½PS 153J |
| R22 | Carbon film 150k | RD½PS 154J |
| R23 | Carbon film 8.2k | RD½PS 822J |
| R24 | Carbon film 3.3k | RD½PS 332J |
| R25 | Carbon film 68k | RD½PS 683J |
| R26 | Carbon film 47 | RD½PS 470J |
| R27 | Metal oxide 220 | RS1P 221K |
| R28 | | |
| R29 | Wire wound 150 | 5W RT5B 151K |
| R30 | Carbon film 27k | RD½PS 273J |
| R31 | Carbon film 22k | RD½PS 223J |
| R32 | Carbon film 3.9k | RD½PS 392J |
| R33 | Carbon film 33 | ½W RD½PSF 330J |
| R34 | Carbon film 3.3k | RD½PS 332J |
| R35 | Carbon film 1k | RD½PS 102J |
| R36 | Carbon film 1k | RD½PS 102J |
| R37 | Carbon film 1k | RD½PS 102J |

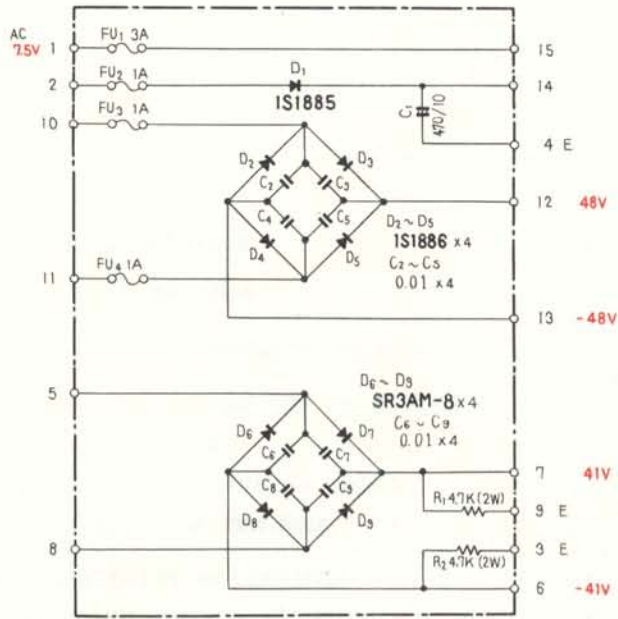
CAPACITORS

| Symbol | Description | Part No. |
|--------|-----------------------|---------------|
| C1 | Electrolytic 0.22 10V | CSSA R22M 10 |
| C2 | Electrolytic 0.22 10V | CSSA R22M 10 |
| C3 | Electrolytic 330 6V | CEA 331P 6 |
| C4 | Electrolytic 330 6V | CEA 331P 6 |
| C5 | Electrolytic 3.3 10V | CEA 3R3P 10 |
| C6 | Electrolytic 220 16V | CEA 221P 16 |
| C7 | Electrolytic 220 16V | CEA 221P 16 |
| C8 | Electrolytic 100 35V | CEA 101P 35 |
| C9 | Electrolytic 100 50V | CEA 101P 50 |
| C10 | Electrolytic 100 50V | CEA 101P 50 |
| C11 | Electrolytic 4.7 35V | CEA 4R7P 35 |
| C12 | Electrolytic 220 16V | CEA 221P 16 |
| C13 | Electrolytic 110 35V | CEA 101P 35 |
| C14 | Ceramic 100p 50V | CCDSL 101K 50 |
| C15 | Electrolytic 100 50V | CEA 101P 50 |
| C16 | Electrolytic 100 50V | CEA 101P 50 |
| C17 | Electrolytic 330 50V | CEA 331P 50 |
| C18 | Electrolytic 330 50V | CEA 331P 50 |

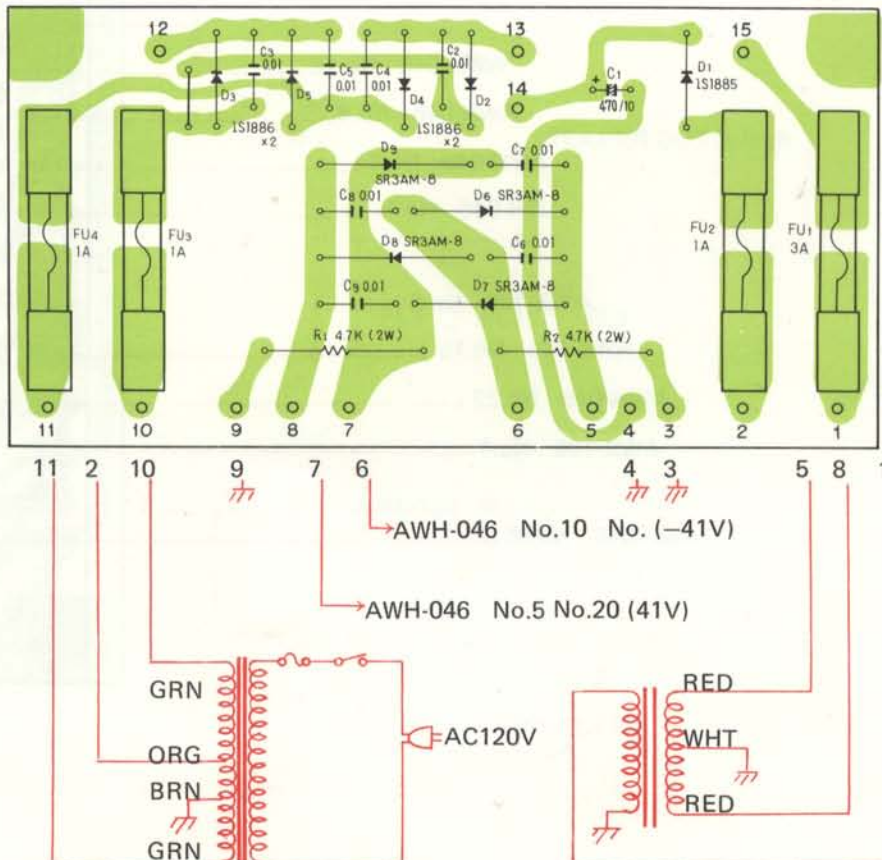
OTHERS

| Symbol | Description | Part No. |
|--------|-------------|-----------|
| | Heat sink | ANH-117-0 |
| | Heat sink | ANH-259-0 |
| | Relay | ASR-018 |

12.8 POWER SUPPLY ASSEMBLY (AWR-100)



AWR-099 No.18 (48V) ← 12 → AWR-099 No.16 (-48V)
 → AWE-073 No.4 (6V)



Parts List of Power Supply Assembly (AWR-100)

SEMICONDUCTORS

| Symbol | Description | Part No. |
|--------|-------------|----------|
| D1 | Diode | 1S1885 |
| D2 | Diode | 1S1886 |
| D3 | Diode | 1S1886 |
| D4 | Diode | 1S1886 |
| D5 | Diode | 1S1886 |
| D6 | Diode | SR3AM-8 |
| D7 | Diode | SR3AM-8 |
| D8 | Diode | SR3AM-8 |
| D9 | Diode | SR3AM-8 |

RESISTORS

| Symbol | Description | Part No. |
|--------|---------------------|-----------|
| R1 | Metal oxide 4.7k 2W | RS2P 472K |
| R2 | Metal oxide 4.7k 2W | RS2P 472K |

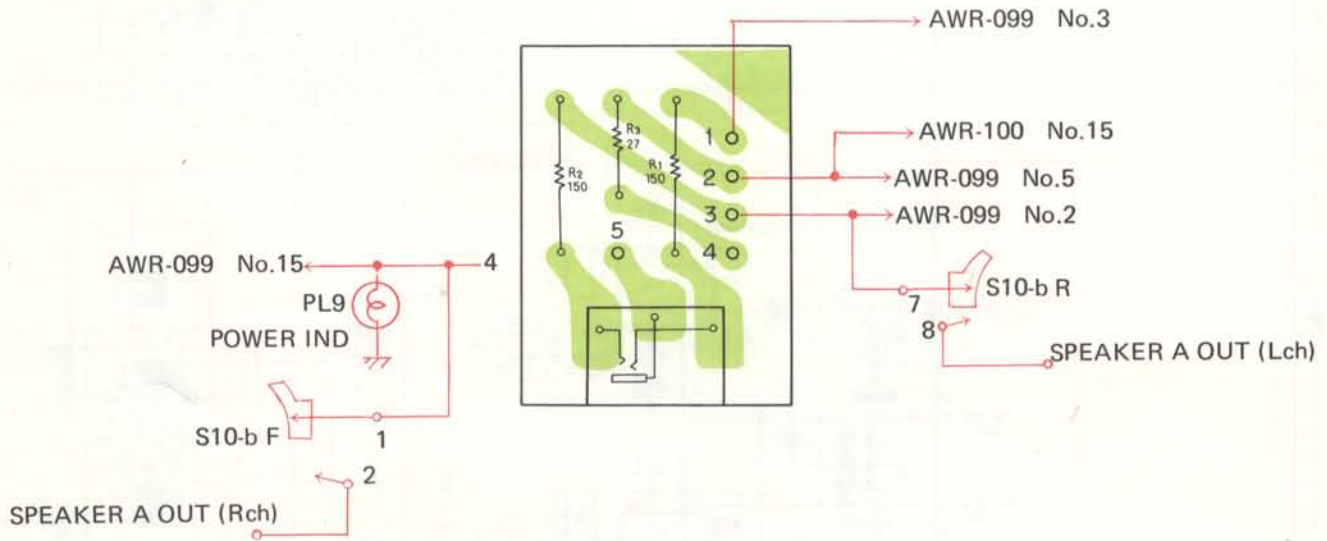
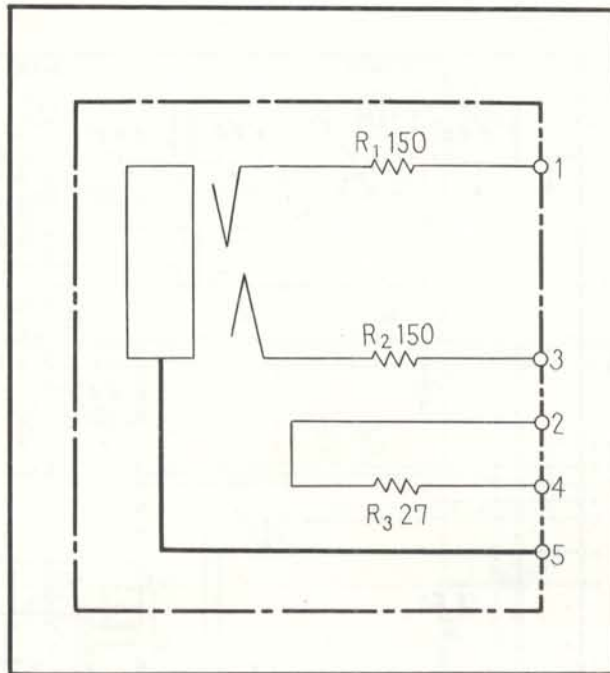
CAPACITORS

| Symbol | Description | Part No. |
|--------|------------------------|-------------|
| C1 | Electrolytic 470 10V | CEA 471P 10 |
| C2 | Electrolytic 0.01 250V | ACG-001 |
| C3 | Electrolytic 0.01 250V | ACG-001 |
| C4 | Electrolytic 0.01 250V | ACG-001 |
| C5 | Electrolytic 0.01 250V | ACG-001 |
| C6 | Electrolytic 0.01 250V | ACG-001 |
| C7 | Electrolytic 0.01 250V | ACG-001 |

OTHERS

| Symbol | Description | Part No. |
|--------|-------------|----------|
| | Fuse clip | AKR-013 |
| | Fuse clip | AKR-030 |

12.9 HEADPHONE JACK ASSEMBLY (AWX-106)



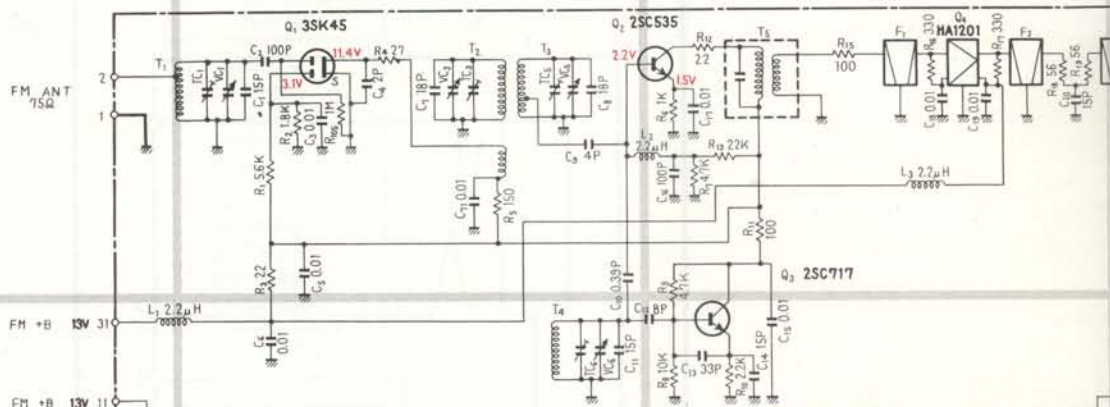
Parts List of Headphones Jack Assembly (AWX-106)

RESISTORS

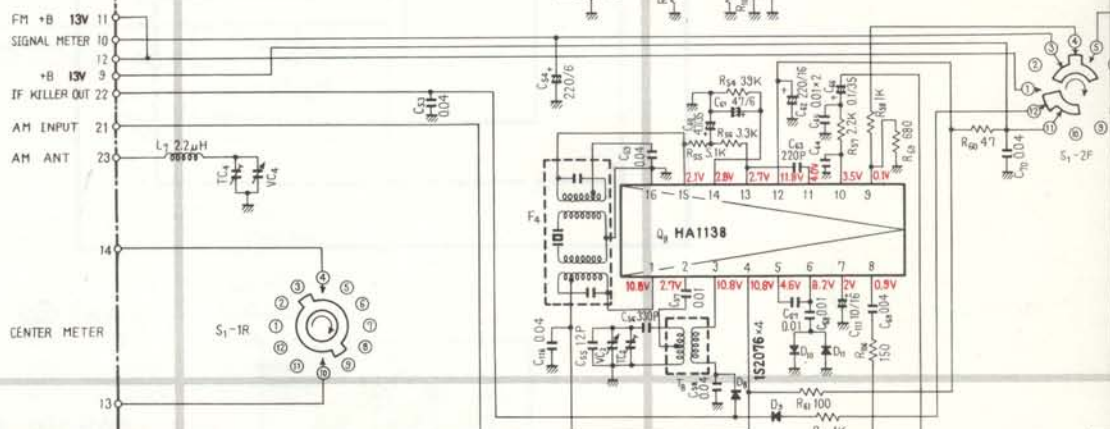
| Symbol | Description | Part No. |
|--------|--------------------|------------|
| R1 | Metal oxide 150 2W | RS 2P 151J |
| R2 | Metal oxide 150 2W | RS 2P 151J |
| R3 | Carbon film 27 | RD½PS 270J |

12.10 TUNER, AF, & CONTROL ASSEMBLY (AWE-073)

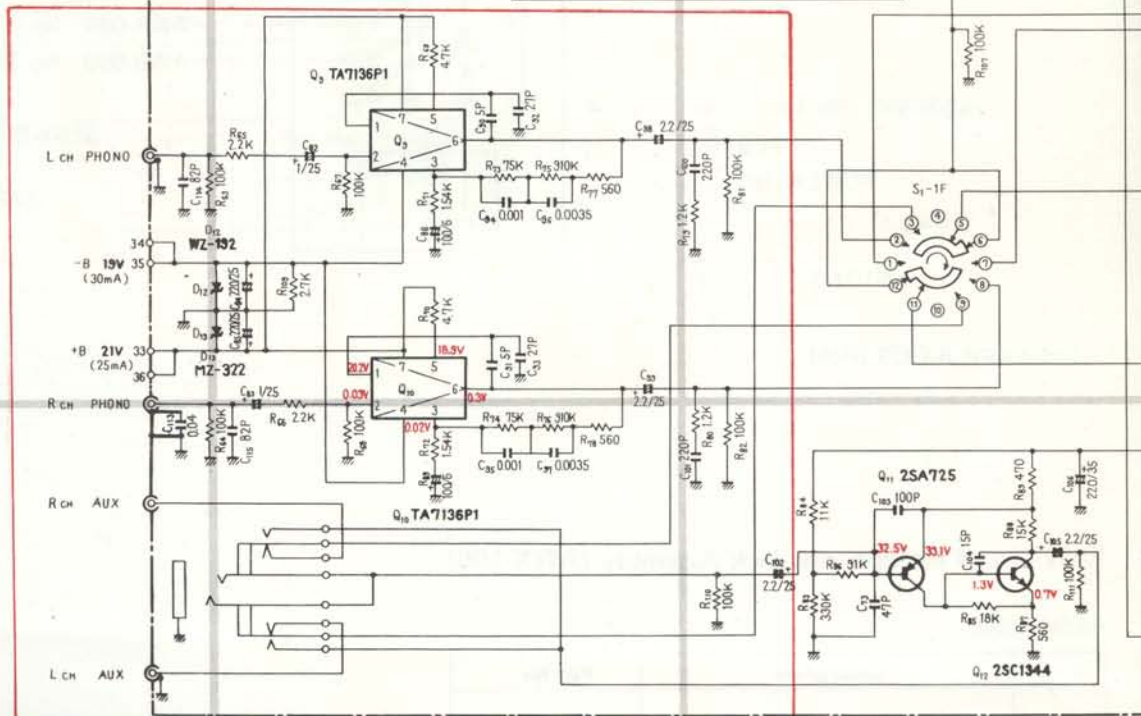
A



B



C



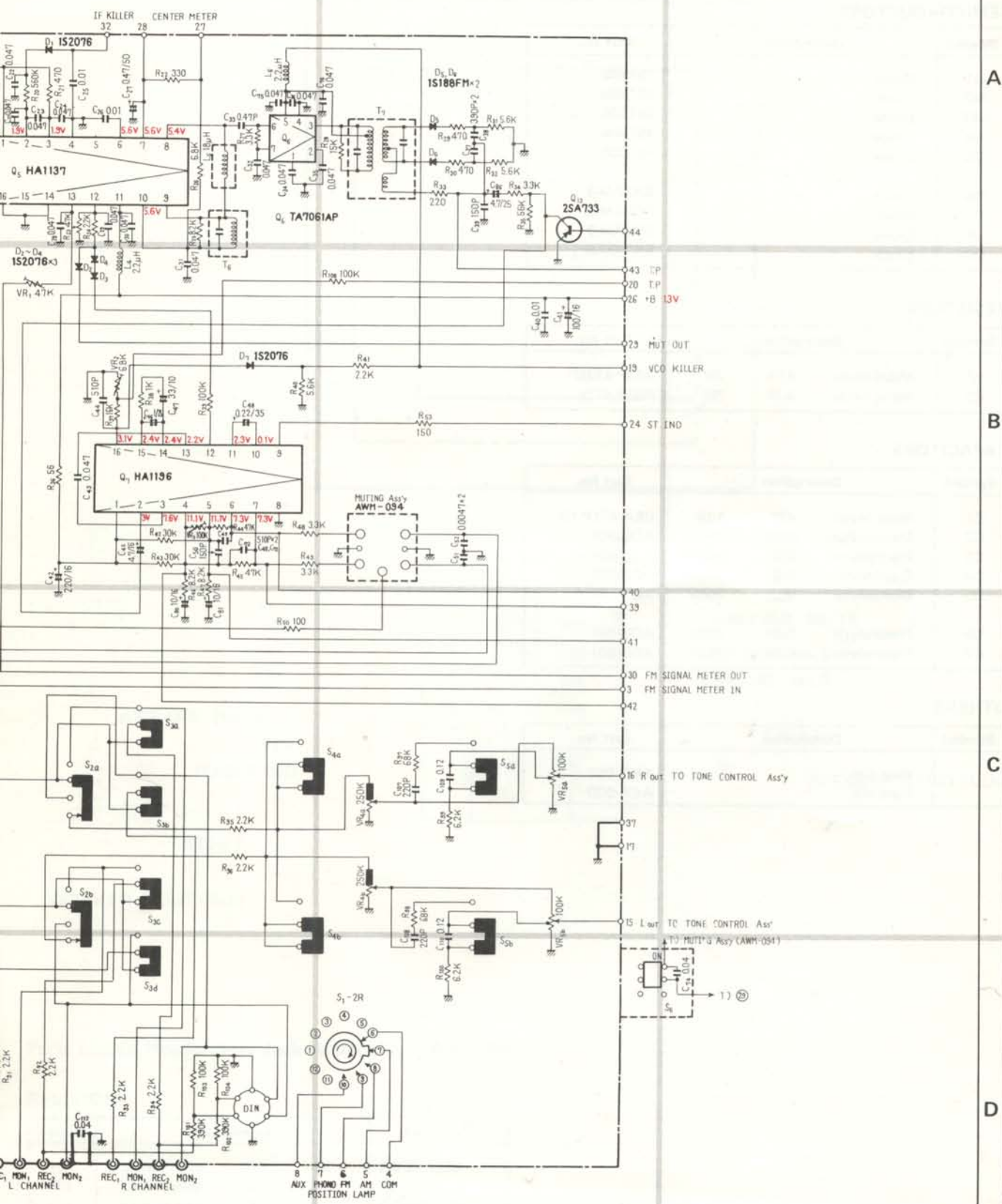
D

For units in which amplifier assembly (AWK-065) is used in place of IC (Q9, Q10 = TA7136P) indicated by red line, see Page 73.

4

5

6



A

B

C

D

4

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1

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A

AWG-046 No.8

AWH-046 No.21

AWM-094 No.1 (-19V)

AWG-046 No.7 (-19V)

AWH-046 No.28 (-19V)

34 33

30 31 29

B

AWX-095 No.3 ← 39

AWX-095 No.1 ← 40

AWX-095 No.2 ← 41

AWX-095 No.4 ← 42

TP2 ← 43

AWM-094 No.2 ← 44

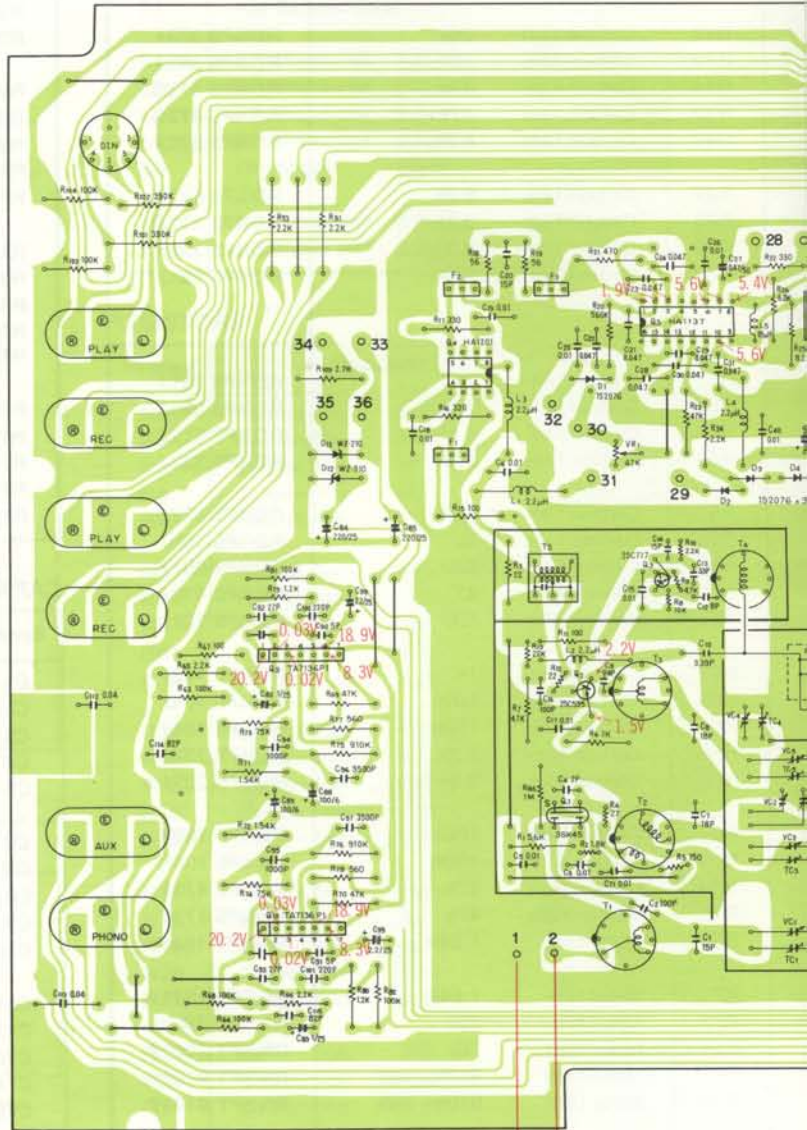
C

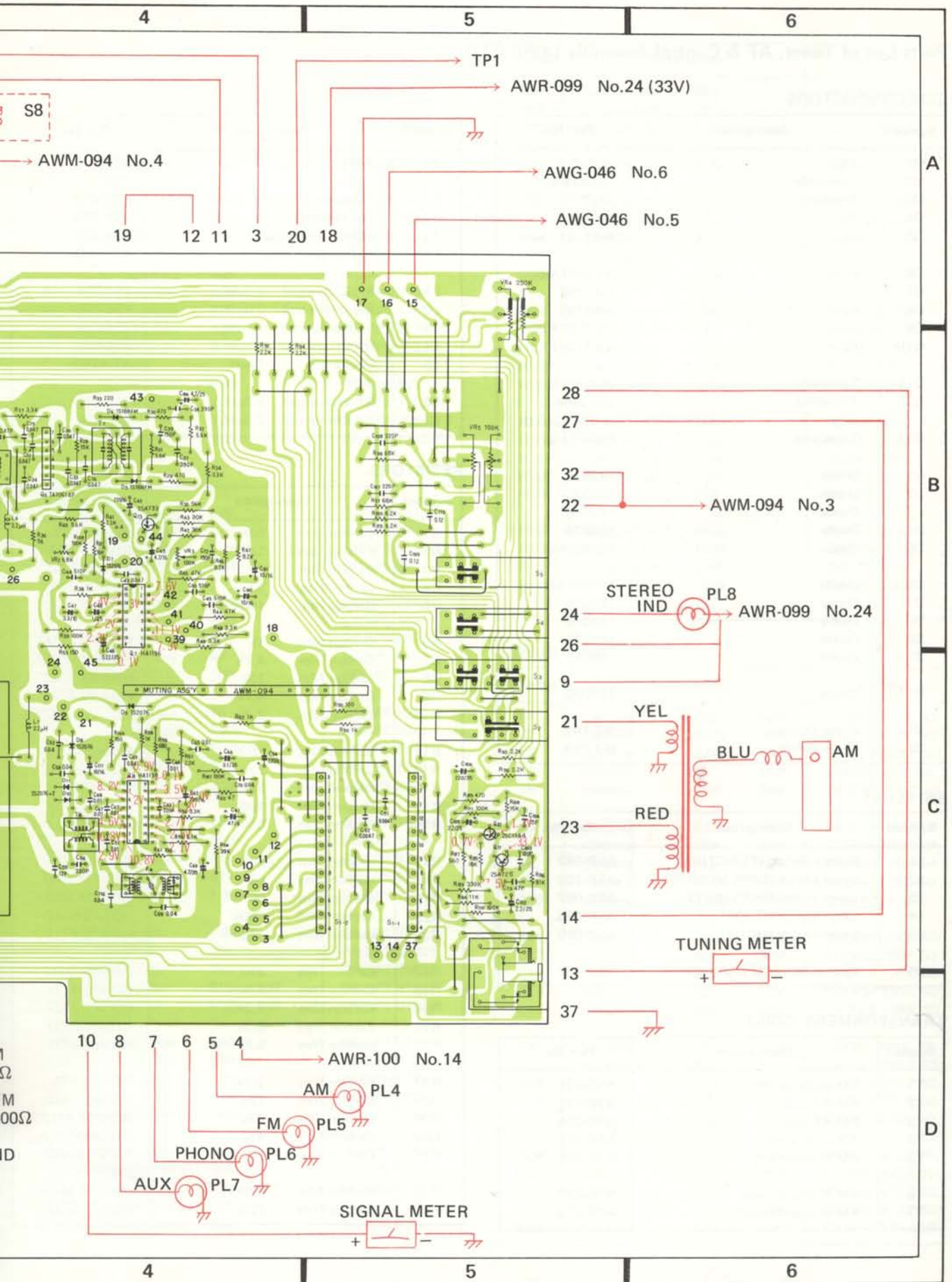
D

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A

B

C

D

Parts List of Tuner, AF & Control Assembly (AWE-073)

SEMICONDUCTORS

| Symbol | Description | Part No. |
|--------|-------------|---------------------------|
| Q1 | FET | 3SK45-B |
| Q2 | Transistor | 2SC535-B |
| Q3 | Transistor | 2SC717 |
| Q4 | IC | HA1201 |
| Q5 | IC | HA1137 |
| Q6 | IC | TA7061AP |
| Q7 | IC | HA1196 |
| Q8 | IC | HA1138 |
| Q9 | IC | TA7136 P1 |
| Q10 | IC | TA7136 P1 |
| Q11 | Transistor | 2SA725-G |
| Q12 | Transistor | 2SC1344-D or 2SC1345-D |
| Q13 | Transistor | 2SA733-Q |
| D1 | Diode | 1S2076 |
| D2 | Diode | 1S2076 |
| D3 | Diode | 1S2076 |
| D4 | Diode | 1S2076 |
| D5 | Diode | 1S188FM-1 |
| D6 | Diode | 1S188FM-1 |
| D7 | Diode | 1S2076 |
| D8 | Diode | 1S2076 |
| D9 | Diode | 1S2076 |
| D10 | Diode | 1S2076 |
| D11 | Diode | 1S2076 |
| D12 | Zener Diode | WZ-192 |
| D13 | Zener Diode | WZ-210 |

SWITCHES

| Symbol | Description | Part No. |
|--------|-----------------------------|----------|
| S1 | Rotary switch (FUNCTION) | ASD-049 |
| S2 | Lever switch (TAPE MONITOR) | ASK-102 |
| S3 | Lever switch (DUPLICATE) | ASK-092 |
| S4 | Lever switch (MODE) | ASK-090 |
| S5 | Lever switch (MODE) | ASK-090 |
| S6 | Push switch (FM MUTING) | ASG-097 |

TRANSFORMERS, COILS

| Symbol | Description | Part No. |
|--------|-------------------|----------|
| T1 | FM antenna coil | ATC-021 |
| T2 | FM RF coil | ATC-015 |
| T3 | FM RF coil | ATC-016 |
| T4 | FM O, S, C coil | ATC-022 |
| T5 | FM IF transformer | ATE-026 |
| T6 | FM IF transformer | ATE-027 |
| T7 | FM IF transformer | ATE-013 |

| Symbol | Description | Part No. |
|--------|---------------------------|----------|
| T8 | AM O, S, C coil | ATB-013 |
| F1 | FM ceramic filter | ATF-013 |
| F2 | FM Ceramic filter | ATF-013 |
| F3 | FM Ceramic filter | ATF-013 |
| F4 | AM Ceramic filter | ATF-027 |
| L1 | RF Choke coil 2.2 μ H | T24-028 |
| L2 | RF Choke coil 2.2 μ H | T24-028 |
| L3 | RF Choke coil 2.2 μ H | T24-028 |
| L4 | RF Choke coil 2.2 μ H | T24-028 |
| L5 | Choke coil 18 μ H | ATH-007 |
| L6 | RF Choke coil 2.2 μ H | T24-028 |
| L7 | RF Choke coil 2.2 μ H | T24-028 |

RESISTORS

| Symbol | Description | Part No. |
|--------|------------------|--------------------------|
| R1 | Carbon film 5.6k | RD $\frac{1}{4}$ PS 562J |
| R2 | Carbon film 1.8k | RD $\frac{1}{4}$ VS 182J |
| R3 | Carbon film 22 | RD $\frac{1}{4}$ PS 220J |
| R4 | Carbon film 27 | RD $\frac{1}{4}$ VS 270J |
| R5 | Carbon film 150 | RD $\frac{1}{4}$ VS 151J |
| R6 | Carbon film 1k | RD $\frac{1}{4}$ PS 102J |
| R7 | Carbon film 4.7k | RD $\frac{1}{4}$ PS 472J |
| R8 | Carbon film 10k | RD $\frac{1}{4}$ VS 103J |
| R9 | Carbon film 4.7k | RD $\frac{1}{4}$ VS 472J |
| R10 | Carbon film 2.2k | RD $\frac{1}{4}$ VS 222J |
| R11 | Carbon film 100 | RD $\frac{1}{4}$ PS 101J |
| R12 | Carbon film 22 | RD $\frac{1}{4}$ VS 220J |
| R13 | Carbon film 22k | RD $\frac{1}{4}$ VS 223J |
| R15 | Carbon film 100 | RD $\frac{1}{4}$ PS 101J |
| R16 | Carbon film 330 | RD $\frac{1}{4}$ PS 331J |
| R17 | Carbon film 330 | RD $\frac{1}{4}$ PS 331J |
| R18 | Carbon film 56 | RD $\frac{1}{4}$ PM 560J |
| R19 | Carbon film 56 | RD $\frac{1}{4}$ PM 560J |
| R20 | Carbon film 560k | RD $\frac{1}{4}$ PS 564J |
| R21 | Carbon film 470 | RD $\frac{1}{4}$ PS 471J |
| R22 | Carbon film 330 | RD $\frac{1}{4}$ PM 331J |
| R23 | Carbon film 47k | RD $\frac{1}{4}$ PS 473J |
| R24 | Carbon film 2.2k | RD $\frac{1}{4}$ PS 222J |
| R25 | Carbon film 8.2k | RD $\frac{1}{4}$ PS 822J |
| R26 | Carbon film 6.8k | RD $\frac{1}{4}$ PS 682J |
| R27 | Carbon film 3.3k | RD $\frac{1}{4}$ PS 332J |
| R28 | Carbon film 15k | RD $\frac{1}{4}$ PS 153J |
| R29 | Carbon film 470 | RD $\frac{1}{4}$ PM 471J |
| R30 | Carbon film 470 | RD $\frac{1}{4}$ PM 471J |
| R31 | Carbon film 5.6k | RD $\frac{1}{4}$ PM 562J |
| R32 | Carbon film 5.6k | RD $\frac{1}{4}$ PM 562J |
| R33 | Carbon film 220 | RD $\frac{1}{4}$ PS 221J |

| Symbol | Description | Part No. |
|--------|--------------------|-------------|
| R34 | Carbon film 3.3k | RD¼PS 332J |
| R35 | Carbon film 56k | RD¼PS 563J |
| R36 | Carbon film 56 | RD¼PS 560J |
| R37 | Carbon film 16k | RD¼PS 163J |
| R38 | Carbon film 1k | RD¼PS 102J |
| R39 | Carbon film 100k | RD¼PS 104J |
| R40 | Carbon film 5.6k | RD¼PS 562J |
| R41 | Carbon film 2.2k | RD¼PS 222J |
| R42 | Carbon film 30k | RD¼PS 303J |
| R43 | Carbon film 30k | RD¼PS 303J |
| R44 | Carbon film 47k | RD¼PS 473G |
| R45 | Carbon film 47k | RD¼PS 473G |
| R46 | Carbon film 8.2k | RD¼PS 822J |
| R47 | Carbon film 8.2k | RD¼PS 822J |
| R48 | Carbon film 3.3k | RD¼PS 332J |
| R49 | Carbon film 3.3k | RD¼PS 332J |
| R50 | Carbon film 100 | RD¼PS 101J |
| R51 | | |
| R52 | | |
| R53 | Carbon film 150 | RD¼PS 151J |
| R54 | Carbon film 39k | RD¼PS 393J |
| R55 | Carbon film 5.1k | RD¼PS 512J |
| R56 | Carbon film 3.3k | RD¼PS 332J |
| R57 | Carbon film 2.2k | RD¼PS 222J |
| R58 | Carbon film 1k | RD¼PS 102J |
| R59 | Carbon film 680 | RD¼PS 681J |
| R60 | Carbon film 47 | RD¼PS 470J |
| R61 | Carbon film 100 | RD¼PS 101J |
| R62 | Carbon film 1k | RD¼PS 102J |
| R63 | Carbon film 100k | RD¼PS 104J |
| R64 | Carbon film 100k | RD¼PS 104J |
| R65 | Carbon film 2.2k | RD¼PS 222J |
| R66 | Carbon film 2.2k | RD¼PS 222J |
| R67 | Carbon film 100k | RD¼PS 100K |
| R68 | Carbon film 100K | RD¼PS 100K |
| R69 | Carbon film 47k | RD¼PS 473J |
| R70 | Carbon film 47k | RD¼PS 473J |
| R71 | Metal film 1.54k | RN¼PT 1541F |
| R72 | Metal film 1.54k | RN¼PT 1541F |
| R73 | Metal film 75k | RN¼PT 7502F |
| R74 | Metal film 75k | RN¼PT 7502F |
| R75 | Metal film 910k ¼W | RN¼PT 9103F |
| R76 | Metal film 910k ¼W | RN¼PT 9103F |
| R77 | Carbon film 560 | RD¼PS 561J |
| R78 | Carbon film 560 | RD¼PS 561J |
| R79 | Carbon film 1.2k | RD¼PS 122J |
| R80 | Carbon film 1.2k | RD¼PS 122J |
| R81 | Carbon film 100k | RD¼PS 104J |
| R82 | Carbon film 100k | RD¼PS 104J |
| R83 | Carbon film 330k | RD¼PS 334J |
| R84 | Carbon film 11k | RD¼PS 113J |
| R85 | Carbon film 18k | RD¼PM 183J |
| R86 | Carbon film 91k | RD¼PS 913J |

| Symbol | Description | Part No. |
|--------|------------------|------------|
| R87 | Carbon film 560 | RD¼PS 561J |
| R88 | Carbon film 15k | RD¼PM 153J |
| R89 | Carbon film 470 | RD¼PS 471J |
| R90 | Carbon film 1k | RD¼PS 102J |
| R91 | Carbon film 2.2k | RD¼PS 222J |
| R92 | Carbon film 2.2k | RD¼PS 222J |
| R93 | Carbon film 2.2k | RD¼PS 222J |
| R94 | Carbon film 2.2k | RD¼PS 222J |
| R95 | Carbon film 2.2k | RD¼PS 222J |
| R96 | Carbon film 2.2k | RD¼PS 222J |
| R97 | Carbon film 68k | RD¼PS 683J |
| R98 | Carbon film 68k | RD¼PS 683J |
| R99 | Carbon film 6.2k | RD¼PS 622J |
| R100 | Carbon film 6.2k | RD¼PS 622J |
| R101 | Carbon film 390k | RD¼PS 394J |
| R102 | Carbon film 390k | RD¼PS 394J |
| R103 | Carbon film 100k | RD¼PS 104J |
| R104 | Carbon film 100k | RD¼PS 104J |
| R105 | Carbon film 1M | RD¼PS 105J |
| R106 | Carbon film 150 | RD¼PS 151J |
| R107 | Carbon film 100k | RD¼PS 104J |
| R108 | Carbon film 100k | RD¼PM 104J |
| R109 | Carbon film 2.7k | RD¼PS 272J |
| R110 | Carbon film 100k | RD¼PS 104J |
| R111 | | |

CAPACITORS

| Symbol | Description | Part No. |
|--------|--------------------|---------------|
| C1 | Ceramic 15p 50V | CCDSH 150K 50 |
| C2 | Ceramic 100p 50V | CCDSL 101K 50 |
| C3 | Ceramic 0.01 50V | CKDYF 103Z 50 |
| C4 | Ceramic 2p 50V | CCDSL 020C 50 |
| C5 | Ceramic 0.01 50V | CKDYF 103Z 50 |
| C6 | Ceramic 0.01 50V | CKDYF 103Z 50 |
| C7 | Ceramic 18p 50V | CCDSH 180K 50 |
| C8 | Ceramic 18p 50V | CCDSH 180K 50 |
| C9 | Ceramic 4p 50V | CCDSL 040D 50 |
| C10 | Ceramic 0.39p 500V | CGB R39K 500 |
| C11 | Ceramic 15p 50V | CCDRH 150K 50 |
| C12 | Ceramic 8p 50V | CCDCH 080F 50 |
| C13 | Ceramic 33p 50V | CCDCH 330K 50 |
| C14 | Ceramic 15p 50V | CCDCH 150K 50 |
| C15 | Ceramic 0.01 50V | CKDYB 103K 50 |
| C16 | Ceramic 100p 50V | CCDSL 101K 50 |
| C17 | Ceramic 0.01 50V | CKDYF 103Z 50 |
| C18 | Ceramic 0.01 50V | CKDYF 103Z 50 |
| C19 | Ceramic 0.01 50V | CKDYF 103Z 50 |
| C20 | Ceramic 15p 50V | CCDSL 150K 50 |
| C21 | Ceramic 0.047 25V | CKDBC 473Z 25 |
| 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 | Ceramic 0.01 50V | CKDYF 103Z 50 |

| Symbol | Description | | | Part No. |
|--------|--------------|--------|------|---------------|
| C26 | Ceramic | 0.01 | 50V | CKDYF 103Z 50 |
| C27 | Electrolytic | 0.47 | 50V | CEA R47P 50 |
| 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 | Ceramic | 0.047 | 25V | CKDBC 473Z 25 |
| C32 | Ceramic | 0.047 | 25V | CKDBC 473Z 25 |
| C33 | Ceramic | 0.47p | 500V | CGB R47K 500 |
| C34 | Ceramic | 0.047 | 25V | CKDBC 473Z 25 |
| C35 | Ceramic | 0.047 | 25V | CKDBC 473Z 25 |
| C36 | Ceramic | 0.047 | 25V | CKDBC 473Z 25 |
| C37 | Ceramic | 390p | 50V | CKDYB 391K 50 |
| C38 | Ceramic | 390p | 50V | CKDYB 391K 50 |
| C39 | Ceramic | 150p | 50V | CCDSL 151K 50 |
| C40 | Ceramic | 0.01 | 50V | CKDYF 103Z 50 |
| C41 | Electrolytic | 100 | 16V | CEA 101P 16 |
| C42 | Electrolytic | 220 | 16V | CEA 221P 16 |
| C43 | Mylar | 0.047 | 50V | CQMA 473K 50 |
| C44 | Polystyrene | 510p | 50V | CQSH 511J 50 |
| C45 | Electrolytic | 4.7 | 16V | CSZA 4R7M 16 |
| C46 | Electrolytic | 1 | 25V | CSZA 010M 25 |
| C47 | Electrolytic | 3.3 | 10V | CSZA 3R3M 10 |
| C48 | Electrolytic | 0.22 | 35V | CSZA R22M 35 |
| C49 | Polystyrene | 510p | 50V | CQSA 511J 50 |
| C50 | Polystyrene | 510p | 50V | CQSA 511J 50 |
| C51 | Mylar | 0.0047 | 50V | CQMA 472J 50 |
| C52 | Mylar | 0.0047 | 50V | CQMA 472J 50 |
| C53 | Ceramic | 0.04 | 50V | CKDYF 403Z 50 |
| C54 | Electrolytic | 220 | 6V | CEA 221P 6 |
| C55 | Ceramic | 12p | 50V | CCDXL 120K 50 |
| C56 | Polystyrene | 330p | 50V | CQSA 331J 50 |
| C57 | Ceramic | 0.01 | 50V | CKDYF 103Z 50 |
| C58 | Ceramic | 0.04 | 50V | CKDYF 403Z 50 |
| C59 | Ceramic | 0.04 | 50V | CKDYF 403Z 50 |
| C60 | Electrolytic | 4.7 | 35V | CEA 4R7P 35 |
| C61 | Electrolytic | 47 | 6V | CEA 470P 6 |
| C62 | Electrolytic | 220 | 16V | CEA 221P 16 |
| C63 | Ceramic | 220p | 50V | CCDSL 221K 50 |
| C64 | Ceramic | 0.01 | 50V | CKDYF 103Z 50 |
| C65 | Ceramic | 0.01 | 50V | CKDYF 103Z 50 |
| C66 | Electrolytic | 0.1 | 35V | CSZA 0R1M 35 |
| C67 | Ceramic | 0.01 | 50V | CKDYF 103Z 50 |
| C68 | Ceramic | 0.01 | 50V | CKDYF 103Z 50 |
| C69 | Ceramic | 0.04 | 50V | CKDYF 403Z 50 |
| C70 | Ceramic | 0.04 | 50V | CKDYF 403Z 50 |
| C71 | Ceramic | 0.01 | 50V | CKDYF 103Z 50 |
| C72 | Ceramic | 150p | 50V | CCDSL 151K 50 |
| C73 | Ceramic | 47p | 50V | CCDSL 470K 50 |
| C74 | Ceramic | 0.04 | 50V | CKDYF 403Z 50 |
| C75 | Ceramic | 0.047 | 25V | CKDBC 473Z 25 |
| C76 | Ceramic | 0.047 | 25V | CKDBC 473Z 25 |
| C80 | Electrolytic | 10 | 16V | CEA 100P 16 |

| Symbol | Description | | | Part No. |
|--------|------------------|-------|-----|----------------|
| C81 | Electrolytic | 10 | 16V | CEA 100P 16 |
| C82 | Electrolytic | 1 | 25V | CSZA 010M 25 |
| C83 | Electrolytic | 1 | 25V | CSZA 010M 25 |
| C84 | Electrolytic | 220 | 25V | CEA 221P 25 |
| C85 | Electrolytic | 220 | 25V | CEA 221P 25 |
| C86 | Electrolytic | 4.7 | 16V | CEANL 4R7M16NF |
| C88 | Electrolytic | 100 | 6V | CEA 101P 6 |
| C89 | Electrolytic | 100 | 6V | CEA 101P 6 |
| C90 | Ceramic | 5p | 50V | CCDSL 050D 50 |
| C91 | Ceramic | 5p | 50V | CCDSL 050D 50 |
| C92 | Ceramic | 27p | 50V | CCDSL 270K 50 |
| C93 | Ceramic | 27p | 50V | CCDSL 270K 50 |
| C94 | Polystyrene | 1000p | 50V | CQSA 102G 50 |
| C95 | Polystyrene | 1000P | 50V | CQSA 102G 50 |
| C96 | Polystyrene | 3500p | 50V | CQSA 352G 50 |
| C97 | Polystyrene | 3500p | 50V | CQSA 352G 50 |
| C98 | Electrolytic | 2.2 | 25V | CSZA 2R2M 25 |
| C99 | Electrolytic | 2.2 | 25V | CSZA 2R2M 25 |
| C100 | Ceramic | 220p | 50V | CCDSL 221K 50 |
| C101 | Ceramic | 220p | 50V | CCDSL 221K 50 |
| C102 | Electrolytic | 2.2 | 25V | CSZA 2R2M 25 |
| C103 | Ceramic | 100p | 50V | CCDSL 101K 50 |
| C104 | Ceramic | 15p | 50V | CCDSL 150K 50 |
| C105 | Electrolytic | 2.2 | 25V | CSZA 2R2M 25 |
| C106 | Electrolytic | 220 | 35V | CEA 221P 35 |
| C107 | Ceramic | 220p | 50V | CCDSL 221K 50 |
| C108 | Ceramic | 220p | 50V | CCDSL 221K 50 |
| C109 | Mylar | 0.12 | 50V | CQMA 124K 50 |
| C110 | Mylar | 0.12 | 50V | CQMA 124K 50 |
| C111 | Electrolytic | 10 | 16V | CEA 100P 16 |
| C112 | Ceramic | 0.04 | 50V | CKDYF 403Z 50 |
| C113 | Ceramic | 0.04 | 50V | CKDYF 403Z 50 |
| C114 | Ceramic | 82p | 50V | CCDSL 820K 50 |
| C115 | Ceramic | 82p | 50V | CCDSL 820K 50 |
| C116 | Ceramic | 0.04 | 50V | CKDYF 403Z 50 |
| VC1 | Tuning capacitor | | | ACK-015 |
| TC6 | Ceramic trimmer | | | ACM-006 |

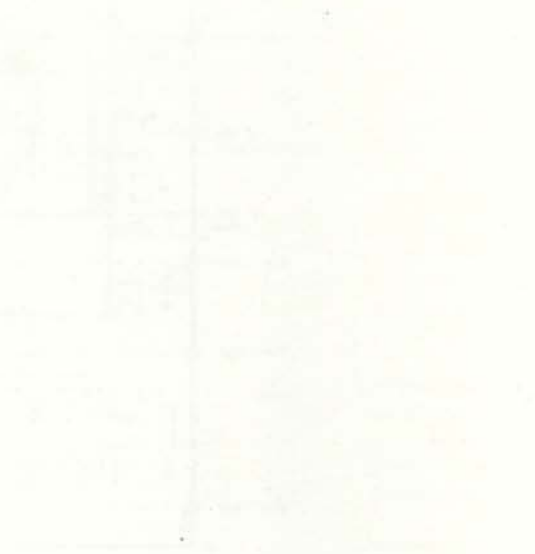
VARIABLE RESISTORS, OTHERS

| Symbol | Description | Part No. |
|--------|-----------------------------|----------|
| VR1 | Semi-fixed 47k-B | C92-048 |
| VR2 | Semi-fixed 4.7k-B | ACP-055 |
| VR3 | Semi-fixed 100k-B | C92-047 |
| VR4 | Variable resistor (BALANCE) | ACV-135 |
| VR5 | Variable resistor (VOLUME) | ACV-179 |

OTHERS

| | | |
|--|-----------------------------|---------|
| | Terminal (TAPE 1) | AKB-027 |
| | (TAPE 2) | AKB-027 |
| | (INPUT) | AKB-027 |
| | Connector socket (REC/PLAY) | AKP-011 |
| | Phone jack (MIC) | AKN-011 |

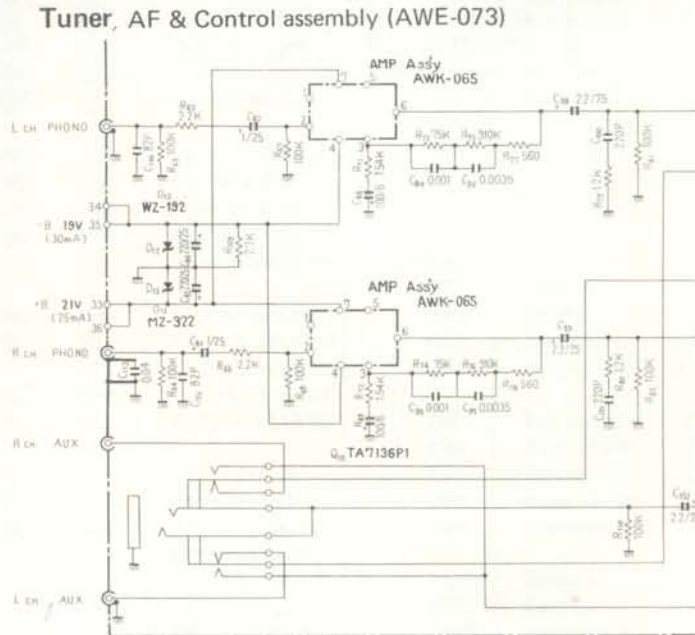
| Symbol | Description | Part No. |
|--------|-------------|----------|
| | Nut | B71-004 |
| | Washer | ABE-001 |
| | Screw | ABA-121 |



REVISIONS

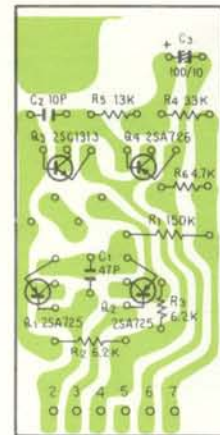
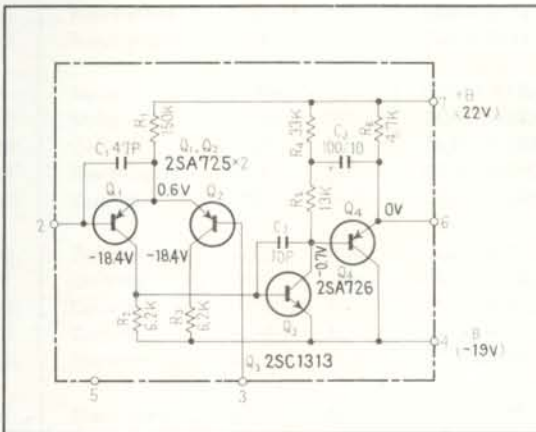
| REV. | DESCRIPTION | DATE |
|------|-------------|----------|
| 1 | Initial | 11/11/70 |
| 2 | Revised | 11/11/70 |
| 3 | Revised | 11/11/70 |
| 4 | Revised | 11/11/70 |
| 5 | Revised | 11/11/70 |
| 6 | Revised | 11/11/70 |
| 7 | Revised | 11/11/70 |
| 8 | Revised | 11/11/70 |
| 9 | Revised | 11/11/70 |
| 10 | Revised | 11/11/70 |

12.11 AMPLIFIER ASSEMBLY (AWK-065)



AWK-065 circuit diagram

AWK-065 PCB



Parts List of Amplifier Assembly (AWK-065)

SEMICONDUCTORS

| Symbol | Description | Part No. |
|--------|-------------|-------------------------------------|
| Q1 | Transistor | 2SA725-G (2SA640-E) |
| Q2 | Transistor | 2SA725-G (2SA640-E) |
| Q3 | Transistor | 2SC1313-G |
| Q4 | Transistor | 2SA726-G ₂ (2SA640-E) |

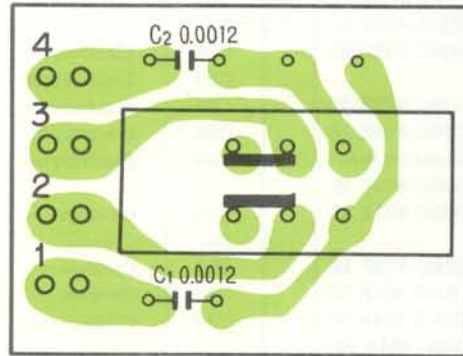
RESISTORS

| Symbol | Description | Part No. |
|--------|------------------|---------------|
| R1 | Carbon film 150k | RD¼VS 154J NL |
| R2 | Carbon film 6.2k | RD¼VS 622J |
| R3 | Carbon film 6.2k | RD¼VS 622J |
| R4 | Carbon film 33k | RD¼VS 333J |
| R5 | Carbon film 13k | RD¼VS 133J |
| R6 | Carbon film 4.7k | RD¼VS 472J |

CAPACITORS

| Symbol | Description | Part No. |
|--------|----------------------|---------------|
| C1 | Ceramic 47p 50V | CCDSL 470K 50 |
| C2 | Ceramic 10p 50V | CCDSL 100K 50 |
| C3 | Electrolytic 100 10V | CEA 101P 10 |

12.12 DE-EMPHASIS SWITCH ASSEMBLY (AWX-095)



Parts List of De-emphasis Switch Assembly (AWX-095)

| Symbol | Description | Part No. |
|--------|----------------------------|--------------|
| | Slide switch (DE-EMPHASIS) | ASH-015 |
| C1 | Mylar capacitor 0.0012 50V | CQMA 122J 50 |
| C2 | Mylar capacitor 0.0012 50V | CQMA 122J 50 |

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.

Luthagen-Haven 9, 2030 Antwerp, Belgium

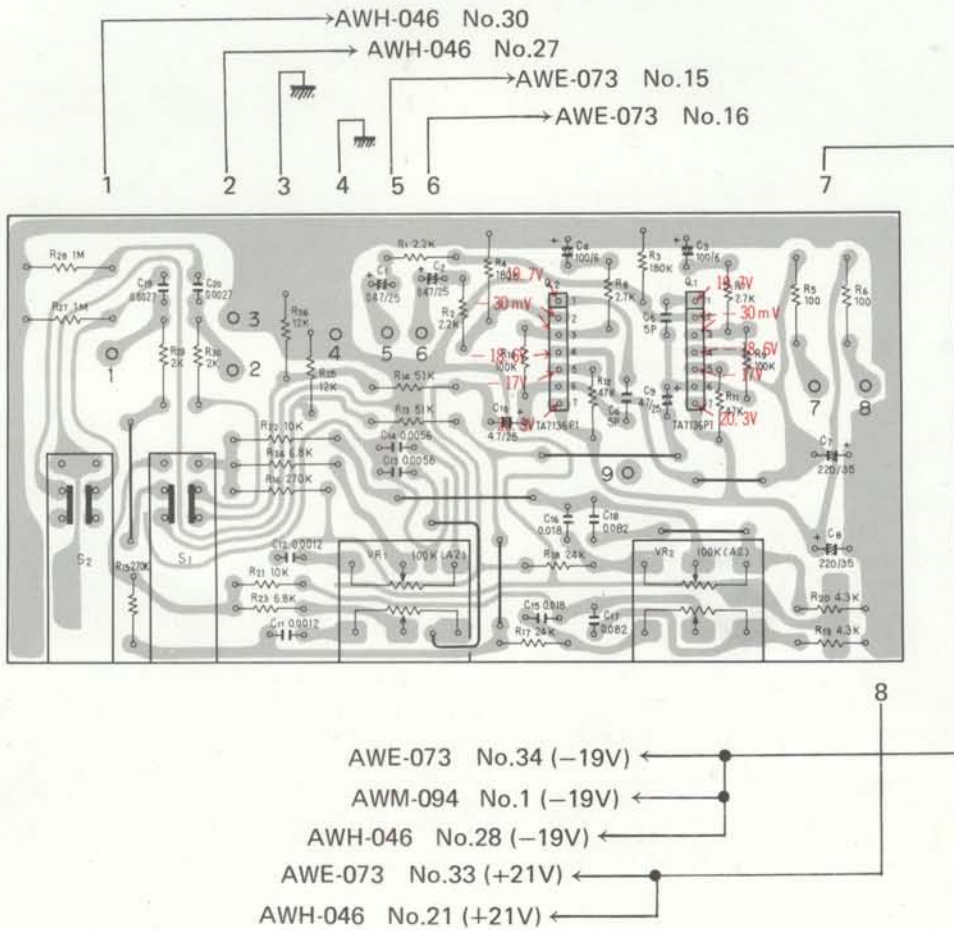
PIONEER ELECTRONICS AUSTRALIA PTY. LTD.

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

AMENDMENT TO SX-750/KU-KC Service Manual

A misprint appears on page 52 "12.5 TONE CONTROL ASSEMBLY (AWG-046)" in point of voltage value.

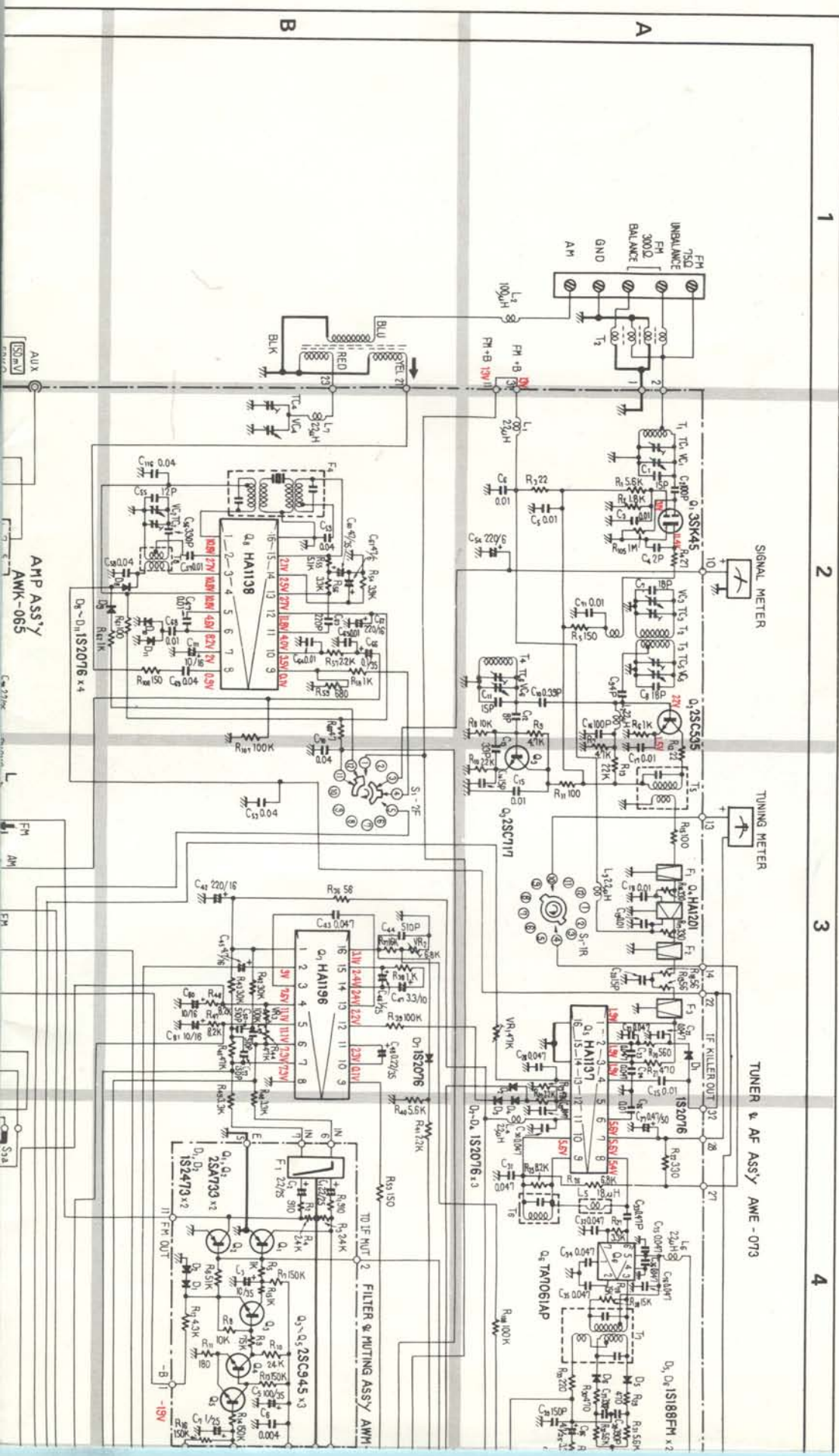
Please replace the original P.C. Board by the ones provided below.



AM/FM STEREO RECEIVER

SX-750

KC KU

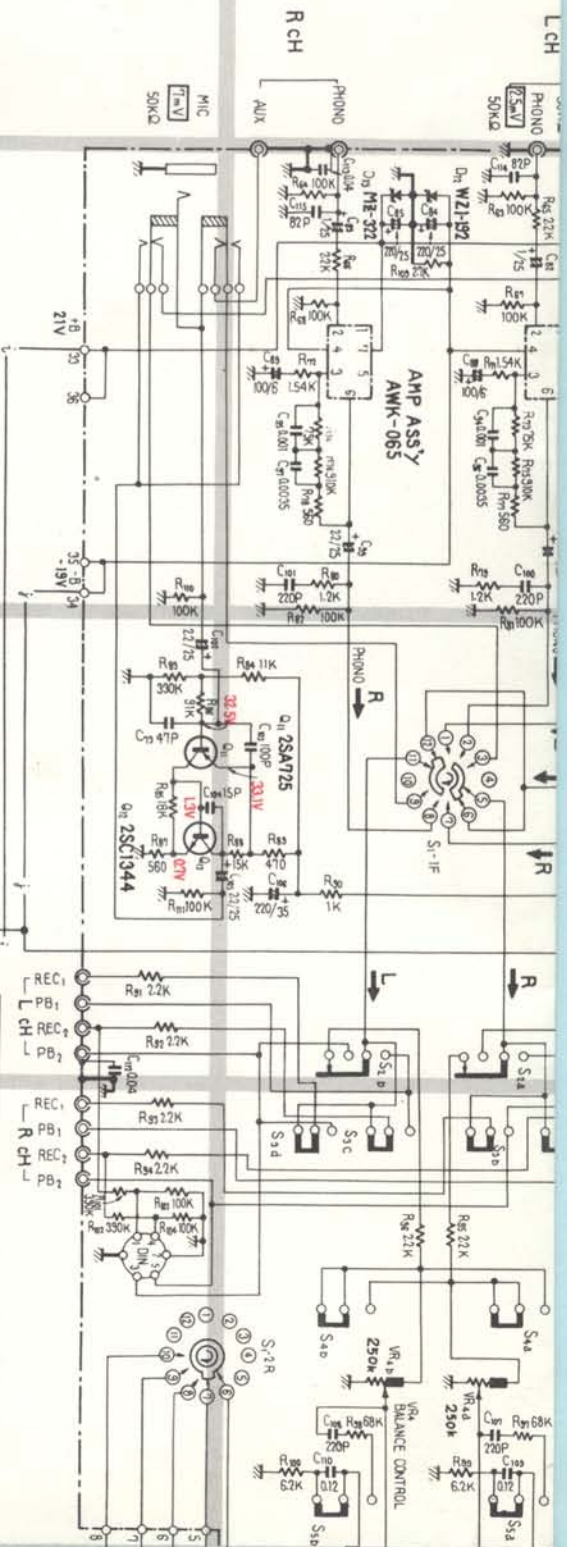


1 2 3 4

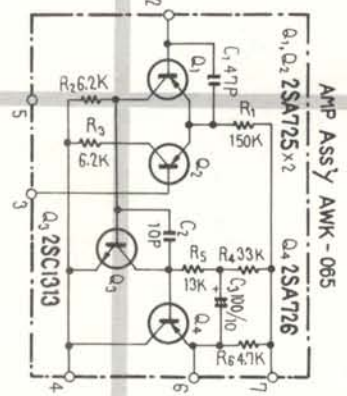
SIGNAL METER
TUNING METER
TUNER & AF ASS'Y AWE-073

FILTER & MUTING ASS'Y AWK-065

AMP ASS'Y
AWK-065



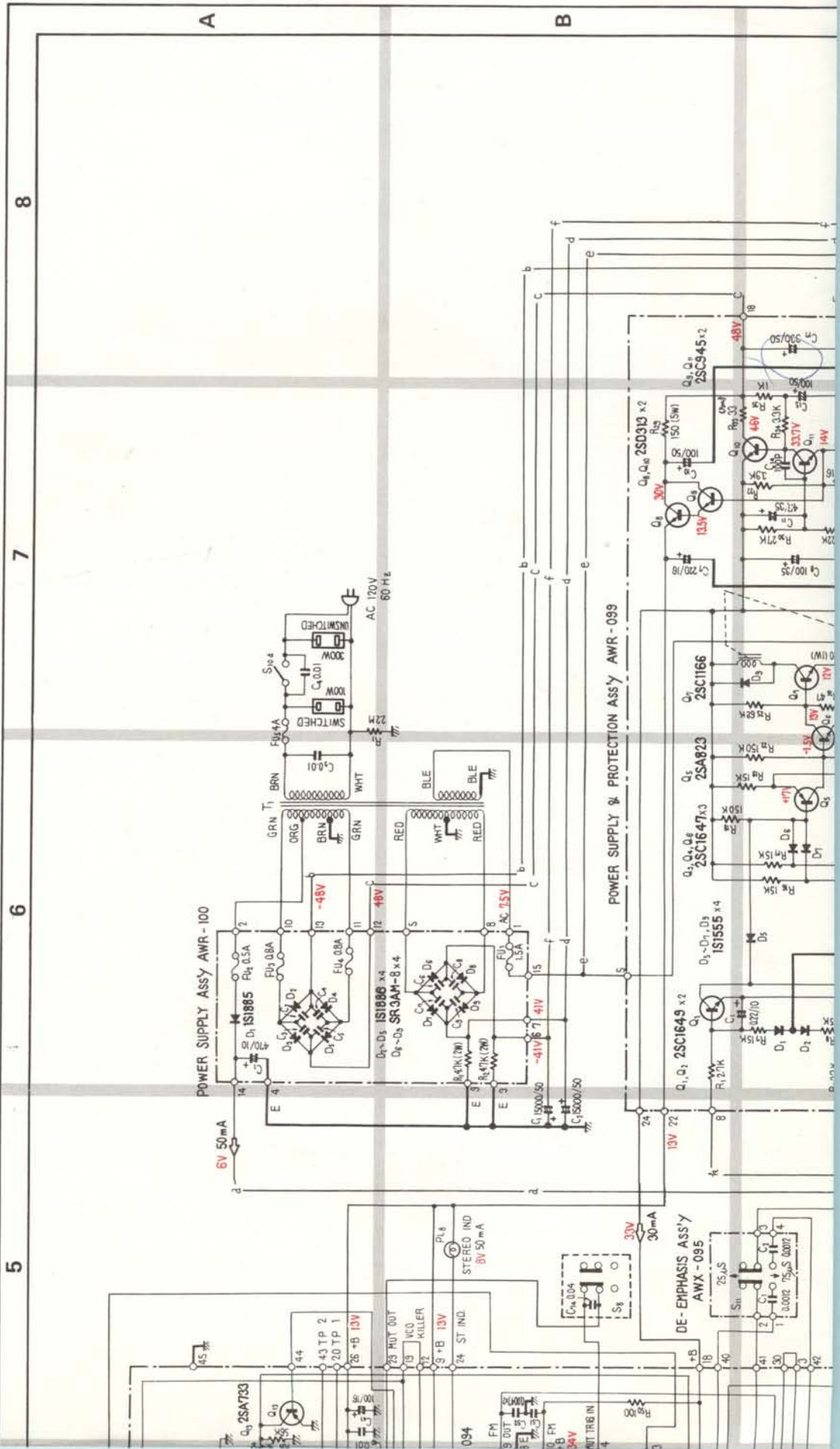
- SWITCHES:**
- S₁ FUNCTION
 - 1 AM
 - 2 FM
 - 3 PHONO
 - 4 AUX/MIC
 - S₂ TAPE MONITOR
 - 1 OFF
 - 2 ON
 - S₃ DUPLICATE
 - OFF
 - ON
 - S₄ MODE
 - STEREO
 - MONO
 - S₅ LOUDNESS
 - OFF
 - ON
 - S₆ TONE
 - OFF
 - ON
 - S₇ HIGH FILTER
 - OFF
 - ON
 - S₈ FM MUTING
 - ON
 - OFF
 - S₉ RELAY
 - S₁₀ SPEAKER
 - 1 POWER OFF
 - 2 SP A
 - 3 SP OFF
 - 4 SP B
 - 5 SP A+B
 - S₁₁ DE-EMPHASIS
 - 25μS
 - 75μS

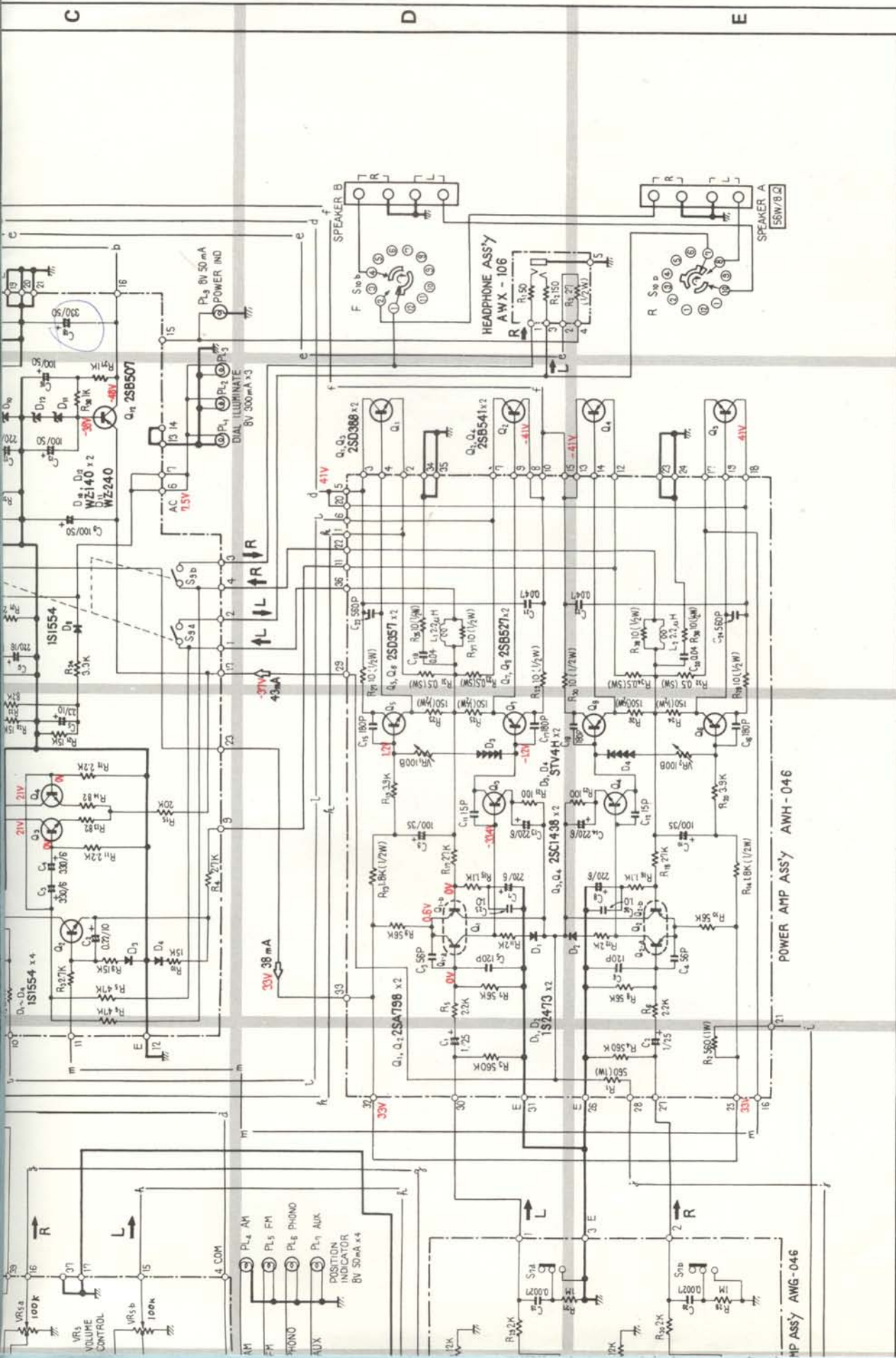


RESISTORS:
IN OHM, 1/4 W, ±5% TOLERANCE UNLESS OTHERWISE NOTED K: KΩ M: MΩ

CAPACITORS:
IN μF UNLESS OTHERWISE NOTED P: pF

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





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POWER AMP ASSY AWH-046

HP ASSY AWG-046