

MODEL AT-580



MODEL AT-550

FM AM MPX STEREO TUNER

MODEL AT-580

ALSO APPLICABLE TO MODEL
AT-550 FM AM MPX STEREO TUNER

SECTION 1	SERVICE MANUAL	2
SECTION 2	PARTS LIST	25
SECTION 3	SCHEMATIC DIAGRAM.....	40

SECTION 1

SERVICE MANUAL

TABLE OF CONTENTS

I.	SPECIFICATIONS	3
	MODEL AT-580	3
	MODEL AT-550	4
II.	DISMANTLING OF UNIT	5
III.	ARRANGEMENT OF MAIN PARTS	6
IV.	FM TUNER SECTION ADJUSTMENTS	7
	1. FM IF CIRCUIT ADJUSTMENT	7
	2. FRONT END AND FM IF MATCHING ADJUSTMENT ..	10
	3. TRACKING ADJUSTMENT	10
	4. SENSITIVITY ADJUSTMENT	11
	5. STEREO SEPARATION ADJUSTMENT	11
V.	AM TUNER SECTION ADJUSTMENTS	13
	1. AM IF CIRCUIT ADJUSTMENT	13
	2. TRACKING ADJUSTMENT	16
	3. SENSITIVITY ADJUSTMENT	16
VI.	ADJUSTMENT POINTS OF FRONT END	17
	1. FRONT END FL517U15	17
	2. FRONT END FL315U19	17
VII.	COMPOSITE VIEWS OF COMPONENTS	18
	1. LINE AMP. P.C. BOARD T5-5058	18
	2. LINE AMP. P.C. BOARD T5-5028	19
	3. HEAD PHONE AMP. P.C. BOARD T5-5060	20
	4. POWER SUPPLY P.C. BOARD T5-5032	21
	5. FUSE P.C. BOARD T5-5034	22
	6. METER LAMP P.C. BOARD T5-5012	22
VIII.	TUNING CORD THREADING	23

I. SPECIFICATIONS

MODEL AT-580

An asterisk next to a figure indicates the minimum guaranteed performance.

§ FM SECTION

FREQUENCY RANGE		86 to 109 \pm 1 MHz
TRACKING ERROR		\pm 0.25 MHz
SENSITIVITY (I.H.F.)		1.6 μ V (*2.8 μ V)
SENSITIVITY DIFFERENCE		Within 3 dB
IMAGE REJECTION RATIO		Better than 90 dB (*85 dB) at 98 MHz
IF REJECTION RATIO		Better than 90 dB (*85 dB) at 98 MHz
SPURIOUS RADIATION		Better than 85 dB
CAPTURE RATIO		Less than 1.2 dB (*2.0 dB)
LIMITING SENSITIVITY		Less than 6 dB at -1 dB audio output
MUTING SENSITIVITY		14 \pm 3 dB
AGC CHARACTERISTIC		Less than 0.5% at 114 dB antenna input
SELECTIVITY		Better than 80 dB (*70 dB)
AM SUPPRESSION		Better than 60 dB (*55 dB)
OUTPUT LEVEL	Variable	3 \pm 3 dB Volume max.
	Fixed	-7 \pm 3 dB
SIGNAL TO NOISE RATIO	Mono	Better than 70 dB (*60 dB)
	Stereo	Better than 55 dB
HARMONIC DISTORTION	Mono	Less than 0.3% (*0.5%)
	Stereo	Less than 0.8% (*1.5%)
FREQUENCY RESPONSE		50 to 15,000 Hz \pm 1.5 dB
STEREO UTILITY SENSITIVITY		20 \pm 3 dB
STEREO INDICATOR SENSITIVITY		15 \pm 3 dB
STEREO SEPARATION		Better than 40 dB (*35 dB)
SCA REJECTION RATIO		Better than 55 dB
L-R DEVIATION		Within 1 dB

§ AM SECTION

FREQUENCY RANGE		525 \pm 5 to 1,640 \pm 20 kHz
TRACKING ERROR		Within 2%
SENSITIVITY (I.H.F.)		150 μ V (*180 μ V)
IMAGE REJECTION RATIO		Better than 70 dB (*60 dB)
IF REJECTION RATIO		Better than 70 dB
SELECTIVITY		Better than 25 dB (\pm 20 kHz)
AGC CHARACTERISTIC		Better than 50 dB
SIGNAL TO NOISE RATIO		Better than 50 dB (*45 dB)
HARMONIC DISTORTION		Less than 1.5% at 74 dB input
FREQUENCY RESPONSE		-12 \pm 2 dB at 5 kHz
OUTPUT LEVEL	Variable	-1 \pm 3 dB Volume max.
	Fixed	-13 \pm 3 dB

§ GENERAL SPECIFICATIONS

TRANSISTORS	2SC838(H) 4	2SC900(F) 3
	2SC922(L)(M) 2	2SC945(Q)(R) 6
	2SC1096(L)(M) . . . 1	
I.C.	LA1111 1	LA1221 3
	LA3300 1	MC4080(4) 1
DIODES	1N34A 5	1N60 2
	1N60P 4	10D1 4
	WZ-120 1	
POWER SUPPLY	100 to 240V A.C., 50/60 Hz	
POWER CONSUMPTION	15W	
DIMENSIONS	434(W) x 142(H) x 320(D) mm (17.1" x 5.6" x 12.6")	
WEIGHT	7.8 kg (17.2 lbs.)	

NOTE: Specifications subject to change without notice.

MODEL AT-550

An asterisk next to a figure indicates the minimum guaranteed performance.

§ FM SECTION

FREQUENCY RANGE		87 to 109 ±1 MHz
TRACKING ERROR		±0.25 MHz
SENSITIVITY (I.H.F.)		1.8 μV (*3.2 μV)
SENSITIVITY DIFFERENCE		Within 3 dB
IMAGE REJECTION RATIO		Better than 70 dB at 98 MHz
IF REJECTION RATIO		Better than 80 dB at 98 MHz
SPURIOUS RADIATION		Better than 80 dB
CAPTURE RATIO		Less than 2 dB (*3 dB)
LIMITING SENSITIVITY		Less than 6 dB at -1 dB audio output
MUTING SENSITIVITY		20 ±3 dB
AGC CHARACTERISTIC		Less than 0.5% at 114 dB antenna input
SELECTIVITY		Better than 70 dB (*60 dB)
AM SUPPRESSION		Better than 60 dB (*55 dB)
OUTPUT LEVEL	Variable	3 ±2 dB Volume max.
	Fixed	-6 ±2 dB
SIGNAL TO NOISE RATIO	Mono	Better than 70 dB (*60 dB)
	Stereo	Better than 45 dB
HARMONIC DISTORTION	Mono	Less than 0.3% (*0.5%)
	Stereo	Less than 0.8% (*1.5%)
FREQUENCY RESPONSE		50 to 15,000 Hz ±1.5 dB
STEREO UTILITY SENSITIVITY		20 ±3 dB
STEREO INDICATOR SENSITIVITY		20 ±3 dB
STEREO SEPARATION		Better than 38 dB (*35 dB)
SCA REJECTION RATIO		Better than 45 dB
L-R DEVIATION		Within 1 dB

§ AM SECTION

FREQUENCY RANGE		525 ±5 to 1,640 ±20 kHz
TRACKING ERROR		Within 2%
SENSITIVITY (I.H.F.)		150 μV (*220 μV)
IMAGE REJECTION RATIO		Better than 55 dB
IF REJECTION RATIO		Better than 45 dB
SELECTIVITY		Better than 30 dB (±20 kHz)
AGC CHARACTERISTIC		Better than 50 dB
SIGNAL TO NOISE RATIO		Better than 50 dB (*45 dB)
HARMONIC DISTORTION		Less than 1% (*2%) at 74 dB input
FREQUENCY RESPONSE		-14 ±2 dB at 5 kHz
OUTPUT LEVEL	Variable	-1 ±1.5 dB Volume max.
	Fixed	-10 ±1.5 dB

§ GENERAL SPECIFICATIONS

TRANSISTORS	2SC838(H) 3	2SC922(L)(M) 5
	2SC945(Q)(R) 6	2SC1096(L)(M) . . . 1
I.C.	LA1111 1	LA3300 1
	MC4080(4) 1	
DIODES	1N34A 3	1N60 4
	1N60P 2	1OD1 4
	WZ-120 1	
POWER SUPPLY	100 to 240V A.C., 50/60 Hz	
POWER CONSUMPTION	15W	
DIMENSIONS	434(W) × 142(H) × 320(D) mm (17.1" × 5.6" × 12.6")	
WEIGHT	7.7 kg (16.9 lbs.)	

NOTE: Specifications subject to change without notice.

III. ARRANGEMENT OF MAIN PARTS

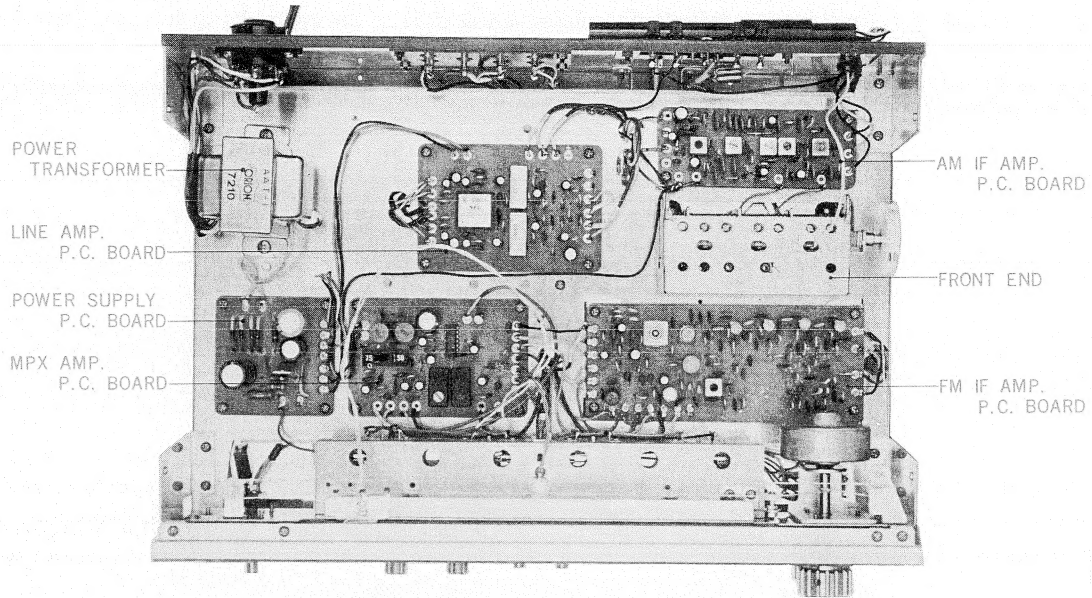


Fig. 1 TOP VIEW

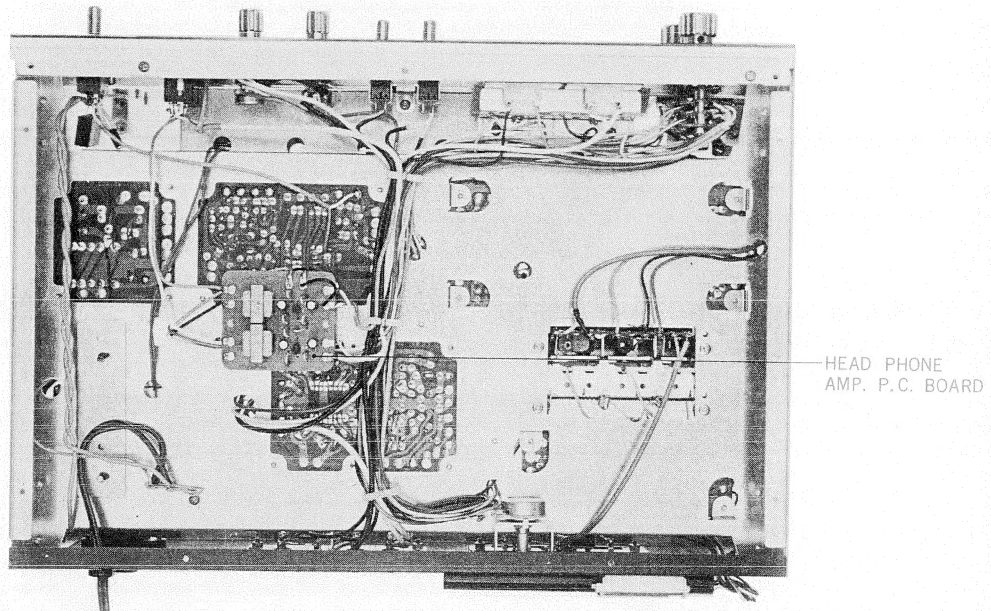


Fig. 2 BOTTOM VIEW

Refer to Chart 1 for different P.C. Boards according to Model No.

	MODEL AT-580	MODEL AT-550
FM IF AMP. P.C. BOARD	T5-5059	T5-5030
MPX. AMP. P.C. BOARD	T5-5031	T5-5031
AM IF AMP. P.C. BOARD	81-5047	T5-5029
LINE AMP. P.C. BOARD	T5-5085	T5-5028
HEAD PHONE AMP. P.C. BOARD	T5-5060	
POWER SUPPLY P.C. BOARD	T5-5032	T5-5032
FUSE P.C. BOARD	T5-5034	T5-5034
METER LAMP P.C. BOARD	T5-5012	T5-5012

Chart 1

IV. FM TUNER SECTION ADJUSTMENTS

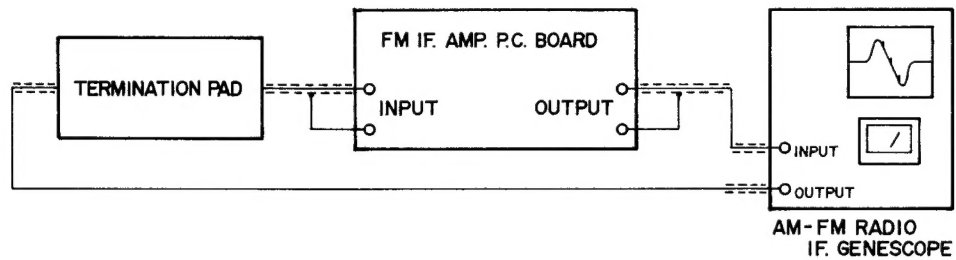


Fig.3

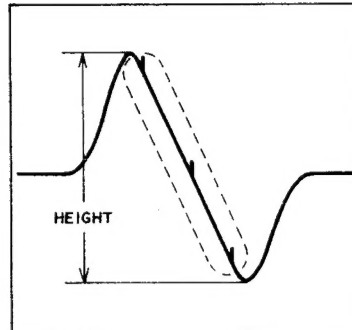


Fig. 4

	MODEL AT-580	MODEL AT-550
VERTICAL GAIN	0.3V p-p 2 cm	0.3V p-p 3 cm
GENESCO OUTPUT LEVEL	86 dB	46 dB
DISCRIMINATOR COIL	L1	L2
S CURVE HEIGHT	5.5 cm	4 cm

Chart 2

1. FM IF CIRCUIT ADJUSTMENT

- 1) Connect the lead wires from an AM-FM Radio IF GENESCO (hereinafter referred to as GENESCO) to the INPUT as well as the OUTPUT terminal of the FM IF Amp. P.C. Board as shown in Fig. 3.
- 2) Set GENESCO to FM mode and adjust vertical gain (refer to Chart 2).
- 3) Set Tuner Source Selector to FM-AUTO, and set the tuning indicator needle to extreme right end of dial. At this time confirm that noise does not enter the S Curve shown in Fig. 4.
- 4) Adjust output level of GENESCO (refer to Chart 2).
- 5) Adjust the upper and lower core of Discriminator coil so that the wave height value of the S Curve shown in Fig. 4 is maximum and the linearity of the part indicated by the dotted line is optimum (refer to Chart 2).
- 6) In making this adjustment, the S Curve marker point will differ according to the rank of the ceramic filter.

7) FM IF AMP. P.C. BOARD T5-5059

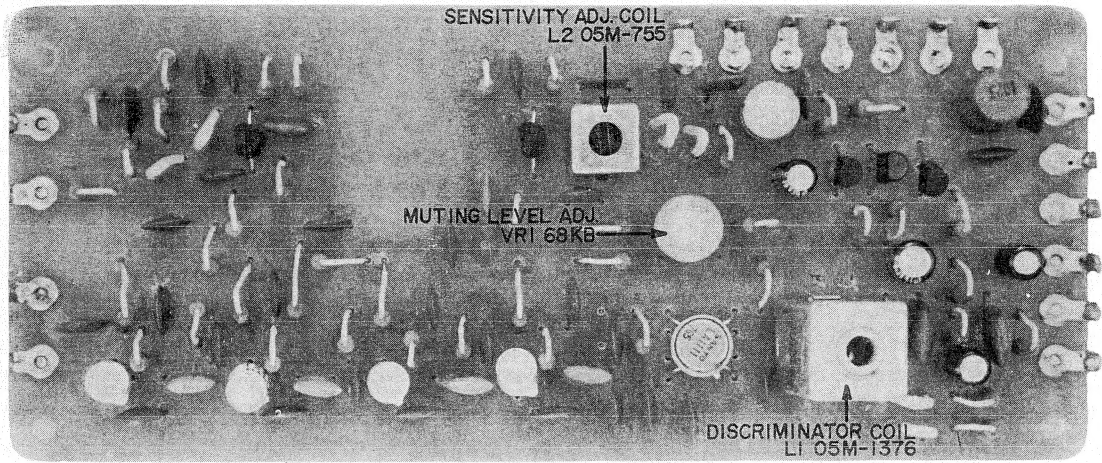


Fig. 5 FACE SIDE

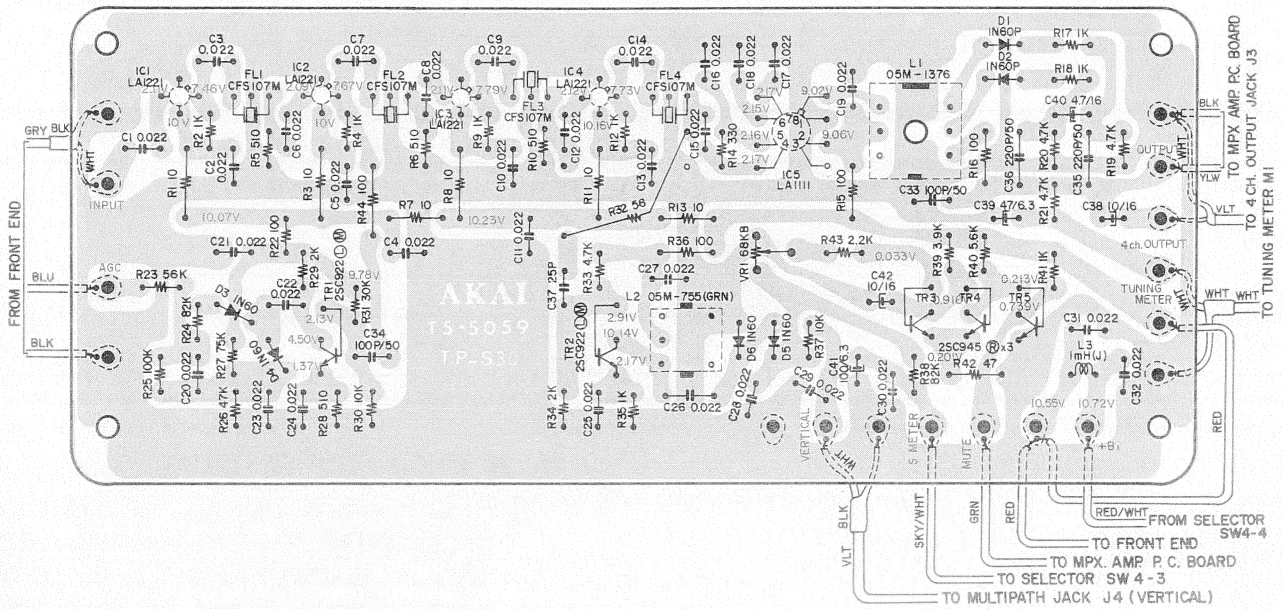


Fig. 6 REVERSE SIDE

8) FM IF AMP. P.C. BOARD T5-5030

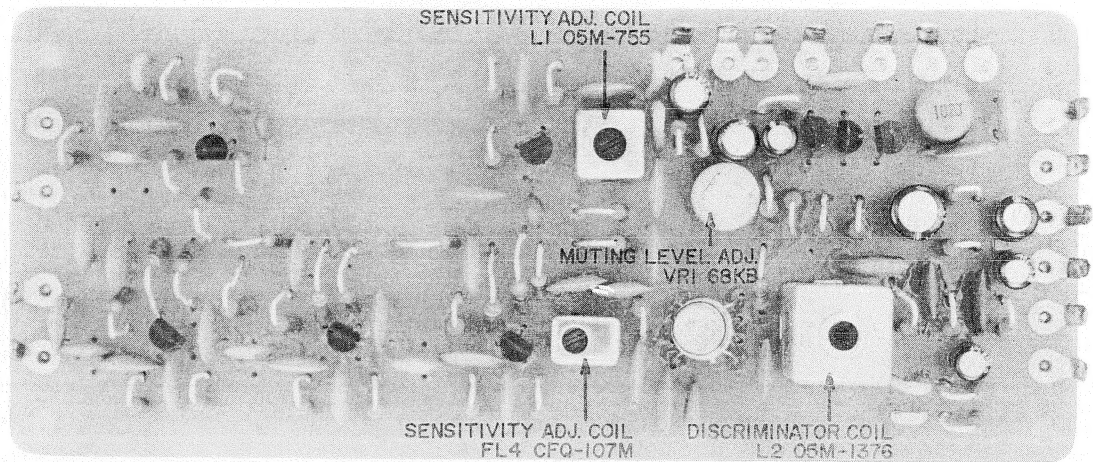


Fig. 7 FACE SIDE

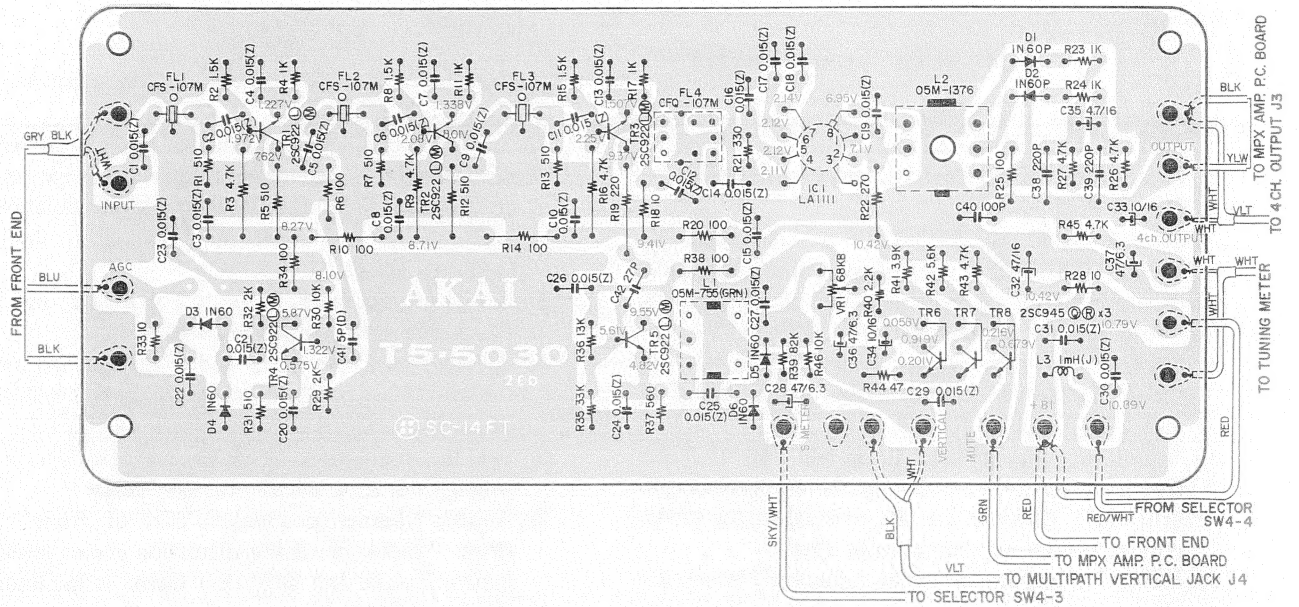


Fig. 8 REVERSE SIDE

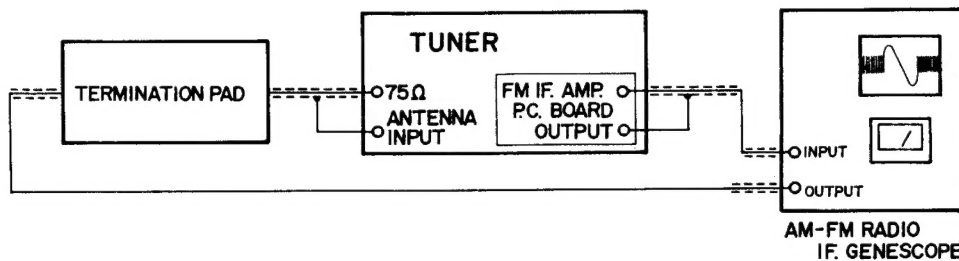


Fig. 9

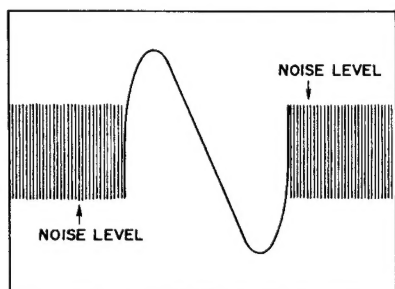


Fig. 10

	MODEL AT-580	MODEL AT-550
FM S.G. OUTPUT	46 dB	46 dB
CORE (Low Range)	Lo	Lo
TRIMMER CONDENSER (High Range)	TCo	TCo

Chart 3

2. FRONT END AND FM IF MATCHING ADJUSTMENT

- 1) Connect the GENESCOPE lead wires to the 75Ω ANTENNA TERMINALS of the tuner as well as to the FM IF Amp. P.C. Board OUTPUT as shown in Fig. 9.
- 2) Set the GENESCOPE to FM mode and adjust the V Gain of GENESCOPE to obtain 20 mm, amplitude of the 0.3V p-p calibration voltage on GENESCOPE screen and set the attenuator to 100 dB.
- 3) Set Tuner Source Selector to FM-AUTO, and set the tuning indicator needle to extreme right end of dial.
- 4) Adjust the upper core of Front End IF Coil (see Figs. 22, 24) to obtain maximum wave height value of S^{*} Curve in Fig. 10, and adjust the lower core to obtain maximum noise level.
- 5) Make this adjustment again following FM sensitivity adjustment.

3. TRACKING ADJUSTMENT

- 1) Connect the various measuring instruments as shown in Fig. 11.
- 2) Set the oscillation frequency of the FM SIGNAL GENERATOR (hereinafter referred to as FM S.G.) to 90 MHz (400 Hz, 75% internal modulation), and set the output of the FM S.G. to 46 dB (refer to Chart 3).
- 3) Set Tuner Source Selector to FM-AUTO, and set the tuning indicator needle to 90 MHz.
- 4) Adjust core Lo of front end (Figs. 22, 24) until the distortion meter level is maximum and the distortion factor is minimum (refer to Chart 3).
- 5) Set the oscillation frequency of FM S.G. and tuning indicator needle to 106 MHz.
- 6) Adjust trimmer condenser TCo of front end (Figs. 22, 24) until the distortion meter level is maximum and the distortion factor is minimum. (Refer to Chart 3).
- 7) Repeat adjustments outlined in Items 2) through 6) two or three times for minimum tracking error.

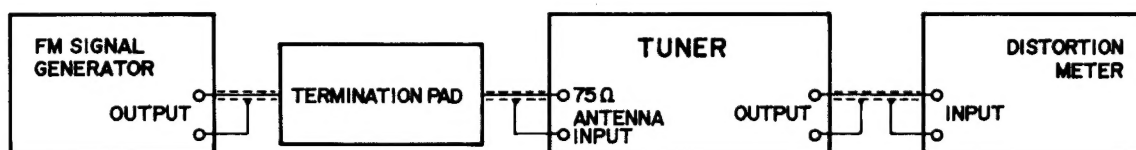


Fig. 11

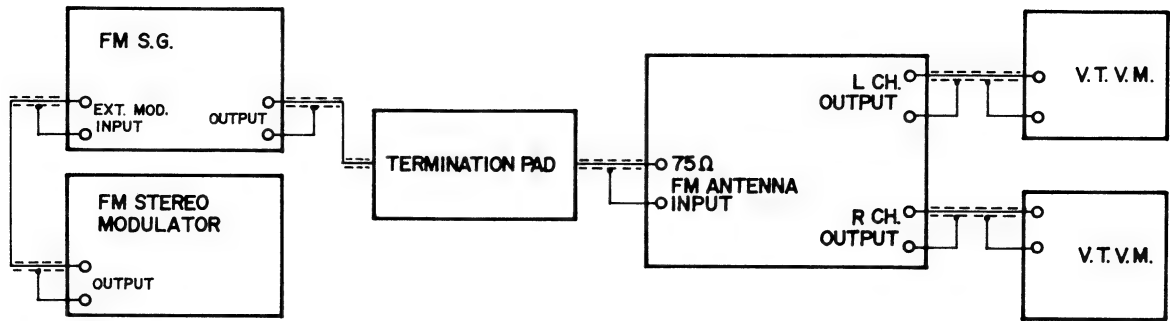


Fig. 12

4. SENSITIVITY ADJUSTMENT

- 1) Carry out these adjustments after the previously described Tracking Adjustments have been completed.
- 2) Measuring instrument connections are the same as described in Tracking Adjustments.
- 3) Set the oscillation frequency of the FM S.G. to 90 MHz (400 Hz, 75% internal modulation), set Tuner Source Selector to FM-AUTO, and set the tuning indicator needle to 90 MHz.
- 4) Adjust the FM S.G. Attenuator to obtain a 3% distortion factor.
- 5) Adjust the cores of front end (Figs. 22, 24) until the distortion meter level is maximum, and the distortion factor is minimum (refer to Chart 4).
- 6) Set the oscillation frequency of FM S.G. and tuning indicator needle to 106 MHz.
- 7) Adjust the FM S.G. Attenuator to obtain a 3% distortion factor.
- 8) Adjust trimmer condensers of front end (Figs. 22, 24) until the distortion meter level is maximum and the distortion factor is minimum. (Refer to Chart 4)
- 9) Set the oscillation frequency of FM S.G. and the tuning indicator needle to 98 MHz.
- 10) Adjust the FM S.G. Attenuator to obtain a 3% distortion factor.
- 11) Adjust the upper and lower core of IF Coil in front end (Figs. 22, 24) and the lower core of FM IF Amp. P.C. Board Discriminator Coil until the distortion meter level is maximum and the distortion factor is minimum. (Refer to Chart 4)
- 12) Repeat adjustments outlined in Items 3) through 11) at 90 MHz, 98 MHz, and 106 MHz two or three times for highest sensitivity.

5. STEREO SEPARATION ADJUSTMENT

- 1) Connect the various measuring instruments as shown in Fig. 12.
- 2) Set the FM STEREO MODULATOR pilot signal 19 kHz to 10%, and the main signal 400 Hz (left channel + right channel) to 90% modulation, and supply this composite signal (ratio 9:1) to the EXT MOD. input terminal of the FM S.G.
- 3) Set the oscillation frequency of the FM S.G. to 98 MHz, and the attenuator to 66 dB.
- 4) Set Tuner Source Selector to FM-AUTO, and the tuning indicator needle to 98 MHz to receive the FM S.G. Signal.
- 5) Set the main signal selector of FM STEREO MODULATOR to LEFT channel.
- 6) Adjust the cores of MPX Amp. P.C. BOARD 19 kHz Filter L1 (BLK), and 38 kHz Filter L2 (WHT) until the right channel output level is minimum.
- 7) Further, adjust the MPX Adjustment Volume located on rear panel of tuner until the right channel output level is minimized, and stereo separation is within specifications.

NOTE: When MPX Adjustment Volume is turned clockwise, if two adjustment points appear, set to the first adjustment point.

- 8) Set main signal selector of FM STEREO MODULATOR to RIGHT channel.
- 9) Confirm that the left channel output level is within stereo separation specifications, and if separation of left and right channel is not average, fine adjust MPX Adjustment Volume again.

NOTE: FM Separation for both machines is better than 35 dB.

	MODEL AT-580	MODEL AT-550
CORE (Low Range)	LA, LR1, LR2	LA, LR, LR
TRIMMER CONDENSER (High Range)	TCA, TCR1, TCR2	TCA, TCR, TCR
IF COIL (Mid Range)	IF	IF
DISCRIMINATOR COIL (Mid Range)	L1	L2

Chart 4

10) MPX Amp. P.C. Board T5-5031

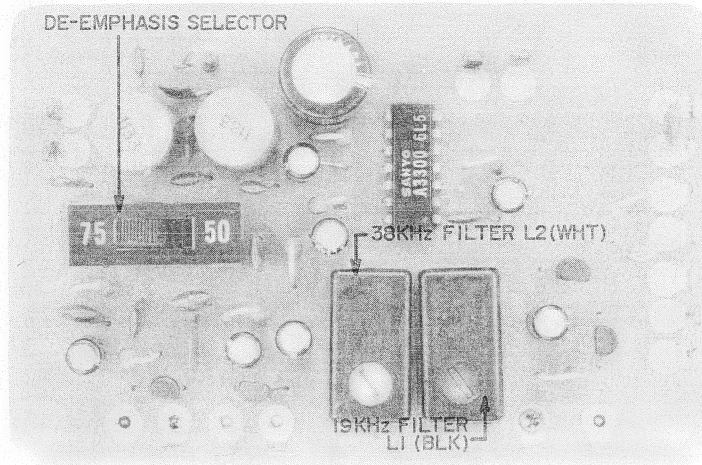


Fig. 13 FACE SIDE

	AT-580	AT-550
1	9.71V	9.99V
2	2.06V	2.08V
3	0.012V (MONO)	0.012V (MONO)
4	2.83V	2.79V
5	1.328V	1.341V
6	0 (MONO)	0 (MONO)
7	0.559V	0.557V
8	0.036V	0.328V
9	0	0.035V
10	9.71V	9.98V
11	3.75V	3.71V
12	7.34V	7.78V
13	7.53V	7.82V
14	3.75V	3.71V
15	0	0.035V
16	0.041V	0.587V
17	10.72V (MONO)	10.69V (MONO)
18	0	0.035V
19	19.2V	19.9V
20	0	0
21	0	0
22	10.72V	10.89V

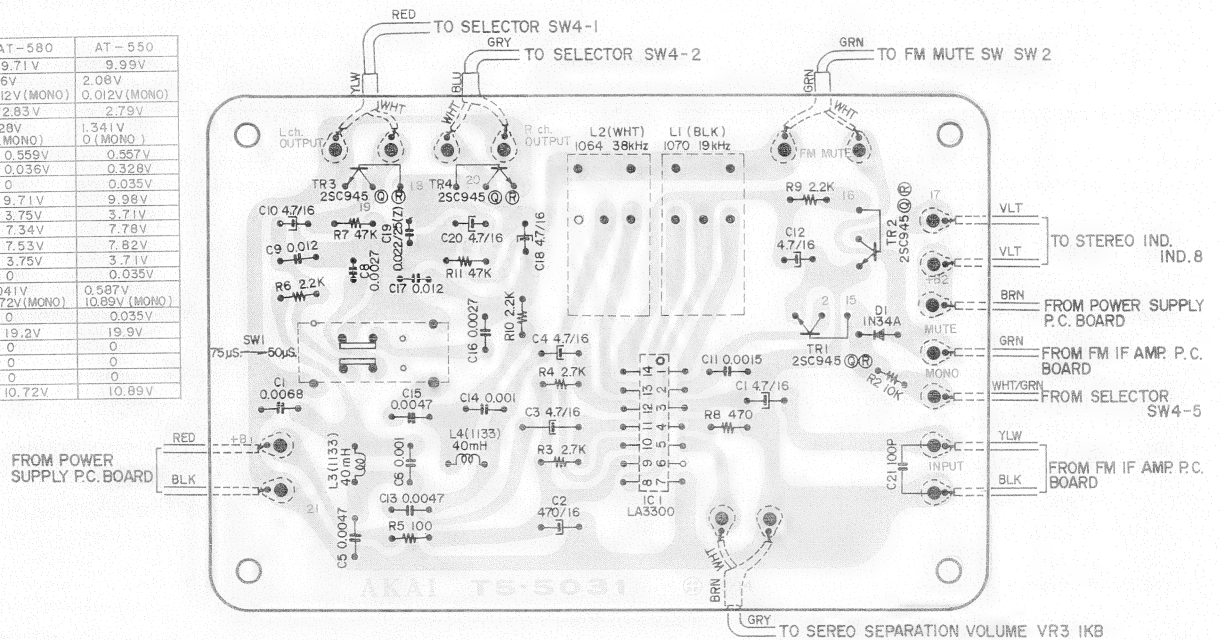


Fig. 14 REVERSE SIDE

V. AM TUNER SECTION ADJUSTMENTS

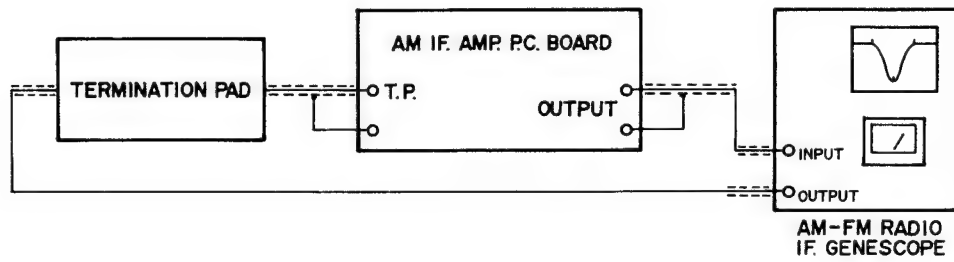


Fig. 15

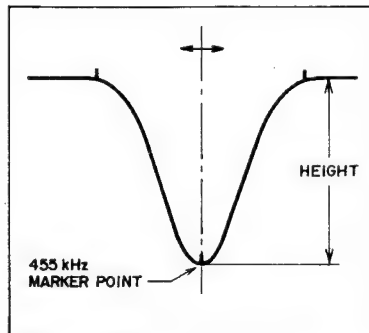


Fig. 16

	MODEL AT-580	MODEL AT-550
VERTICAL GAIN	0.3V p-p 2 cm	0.3V p-p 3 cm
GENESCO OUTPUT LEVEL	81 dB	76 dB
SINGLE PEAKED CURVE HEIGHT	2 cm	3 cm

Chart 5

1. AM IF CIRCUIT ADJUSTMENT

- 1) Connect the AM-FM Radio IF GENESCOPE (hereinafter referred to as GENESCO) lead wires to Test Point (T.P.) as well as the output terminal of the AM IF Amp. P.C. Board as shown in Fig. 15.
- 2) Set GENESCO to FM mode and adjust vertical gain (refer to Chart 5).
- 3) Set Tuner Source Selector to AM and set the tuning indicator needle to extreme right end of dial.

NOTE: Noise should not enter the single peaked curve shown in Fig. 16.

- 4) Adjust output level of GENESCO (refer to Chart 5).
- 5) Adjust the core of AM IF Amp. P.C. Board IFT T3 (BLK) so that the 455 kHz marker point of the single peaked curve displays maximum amplitude as shown in Fig. 16.
- 6) Adjust the cores of AM IF Amp. P.C. Board IFT T2 (WHT), T1 (YLW) so that the left and right rise up characteristics of the single peaked curve shown in Fig. 16 are identical from the center (indicated by the dotted line in the figure).

8) AM IF AMP. P.C. BOARD T5-5029

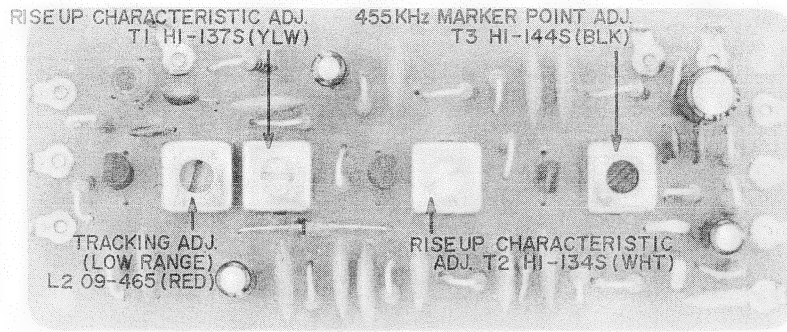


Fig. 19 FACE SIDE

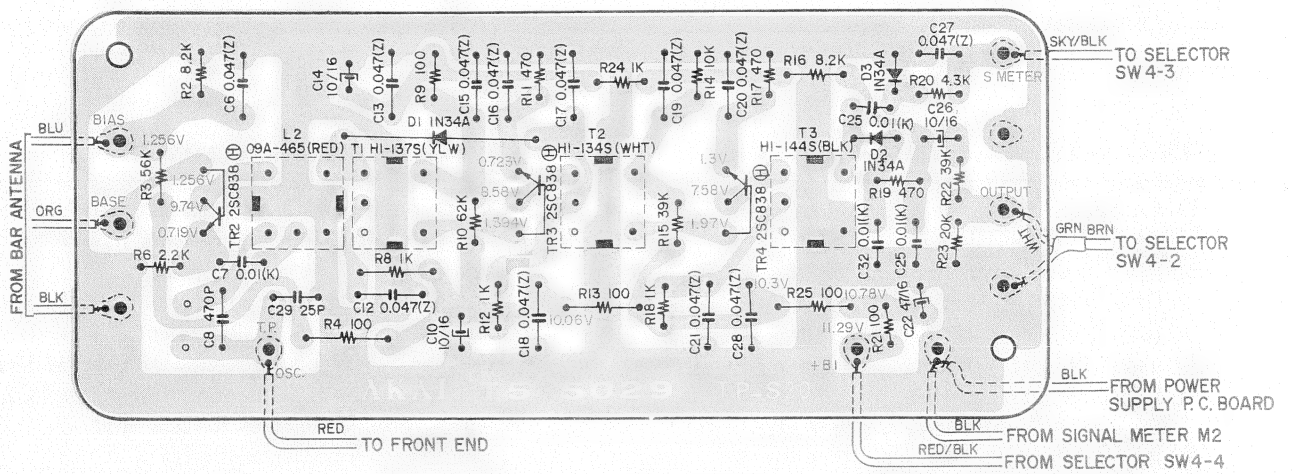


Fig. 20 REVERSE SIDE

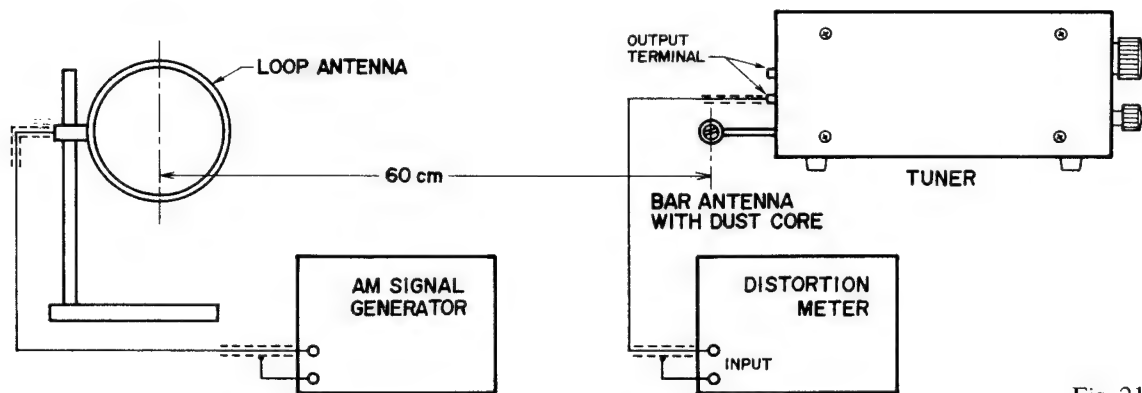


Fig. 21

	MODEL AT-580	MODEL AT-550
AM S.G. OUTPUT	60 dB	56 dB
CORE (Low Range)	L2 (RED)	L2 (RED)
TRIMMER CONDENSER (High Range)	TC3	TC3

Chart 6

	MODEL AT-580	MODEL AT-550
BAR ANTENNA DUST CORE (Low Range)	ANT1	ANT1
TRIMMER CONDENSER (High Range)	TC1, TC2	TC2

Chart 7

2. TRACKING ADJUSTMENT

- 1) Connect the various measuring instruments as shown in Fig. 21.
- 2) Set the oscillation frequency of the AM SIGNAL GENERATOR (hereinafter referred to as AM S.G) to 550 kHz (400 Hz 30% internal modulation) and adjust the AM S.G. Attenuator (refer to Chart 6).
- 3) Set Tuner Source Selector to AM and set the tuning indicator needle to 550 kHz.
- 4) Adjust the core of AM IF Amp. P.C. Board tracking adjustment coil L2 in Figs. 17, 19 until the distortion meter level is maximum and the distortion factor is minimum.
- 5) Set the oscillation frequency of AM S.G. and tuning indicator needle of tuner to 1,600 kHz.
- 6) Adjust front end trimmer condensers in Figs. 22, 24 until the distortion meter level is maximum and the distortion factor is minimum. (Refer to Chart 6)
- 7) Repeat adjustments outlined in Items 2) through 6) two or three times for minimum tracking error.

3. SENSITIVITY ADJUSTMENT

- 1) Carry out these adjustments after the previously described Tracking Adjustments have been completed.
- 2) Measuring instrument connections are the same as described in Tracking Adjustments.
- 3) Set the oscillation frequency of the AM S.G. to 550 kHz (400 Hz, 30% internal modulation). Set Tuner Source Selector to AM and the tuning indicator needle to 550 kHz.
- 4) Adjust AM S.G. Attenuator to obtain a 10% distortion factor.
- 5) Adjust dust core of Bar Antenna shown in Fig. 21 until the distortion meter level is maximum and the distortion factor is minimum.
- 6) In the case of Model AT-580, also adjust the core of AM IF Amp. P.C. Board Coil L1 (SKY) shown in Fig. 17.
- 7) Set oscillation frequency of AM S.G. and Tuning Indicator needle of tuner to 1,600 kHz.
- 8) Adjust AM S.G. Attenuator to obtain a 10% distortion factor.
- 9) Adjust front end trimmer condensers in Figs. 22, 24 until the distortion meter level is maximum and the distortion factor is minimum. (Refer to Chart 7)
- 10) Repeat adjustments outlined in Items 3) through 9) at 550 kHz, 1,000 kHz, and 1,600 kHz two or three times for highest sensitivity.

VI. ADJUSTMENT POINTS OF FRONT END

1. FRONT END FL517U15

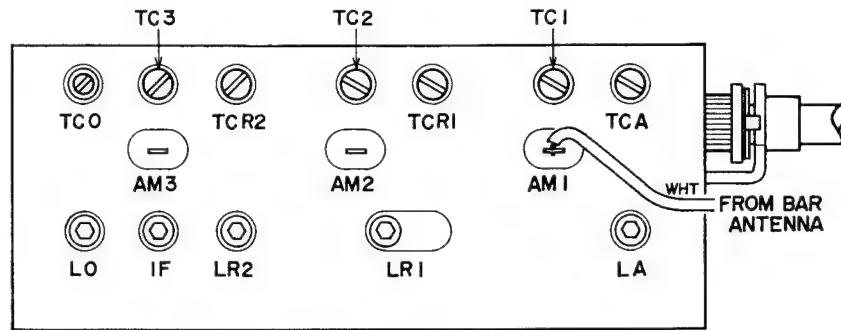


Fig. 22

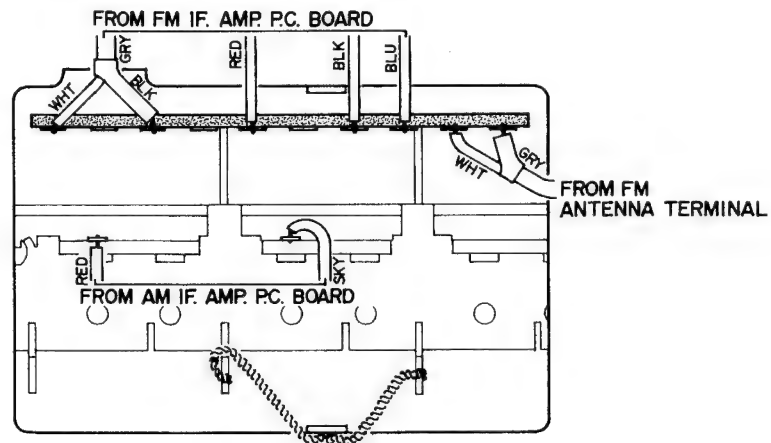


Fig. 23

2. FRONT END FL315U19

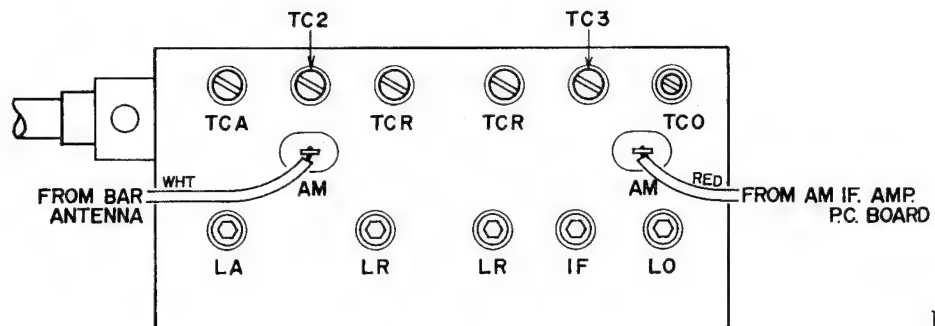


Fig. 24

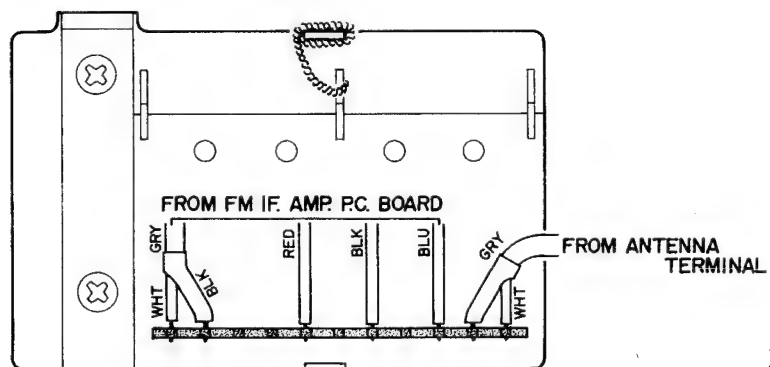


Fig. 25

VII. COMPOSITE VIEWS OF COMPONENTS

1. LINE AMP. P.C. BOARD T5-5058

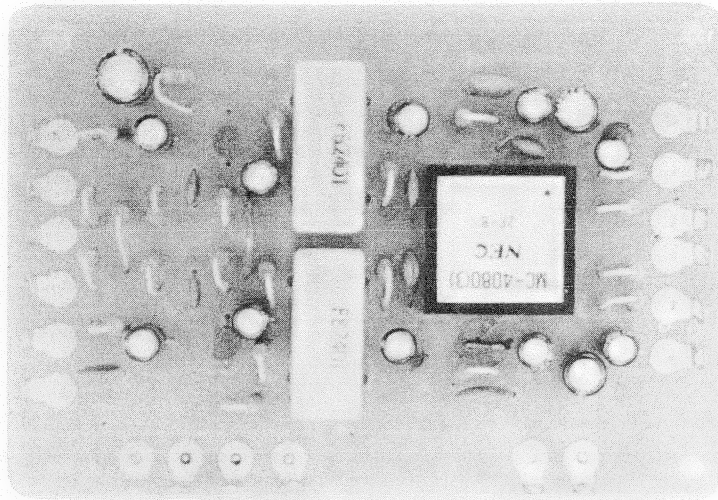


Fig. 26 FACE SIDE

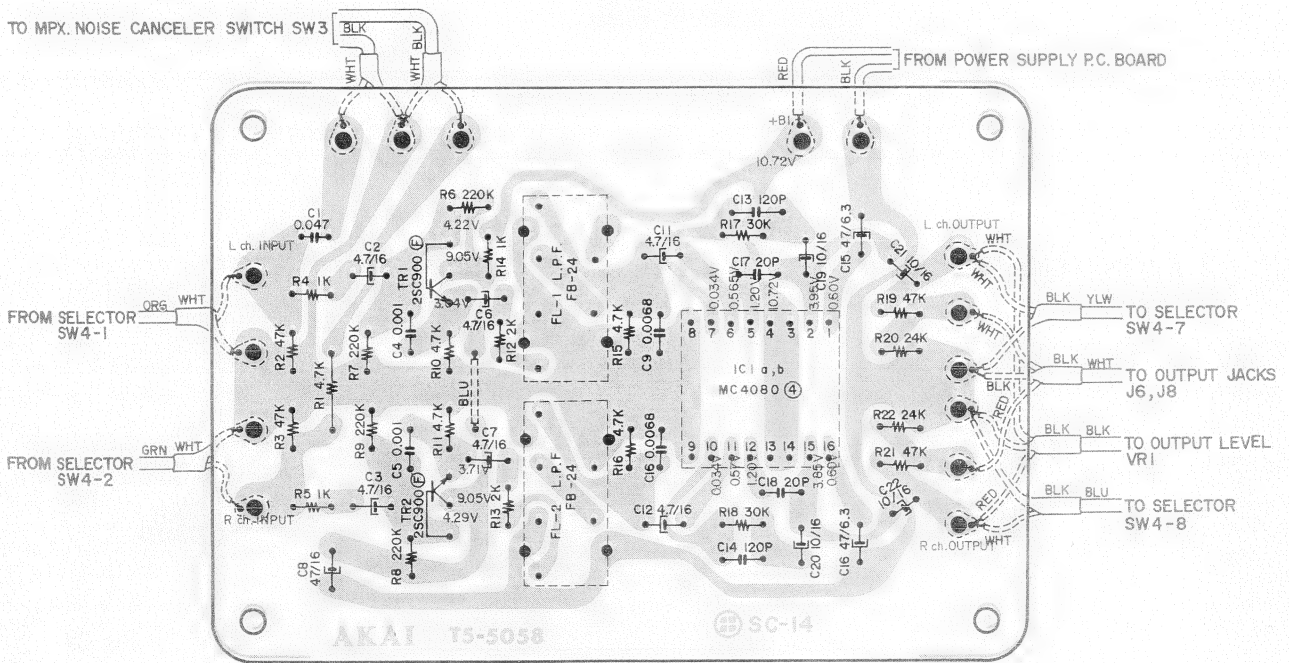


Fig. 27 REVERSE SIDE

2. LINE AMP. P.C. BOARD T5-5028

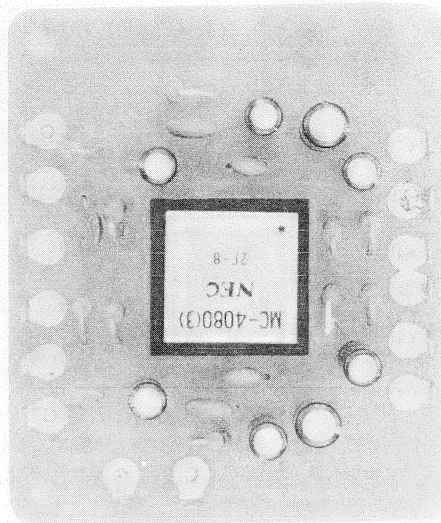


Fig. 28 FACE SIDE

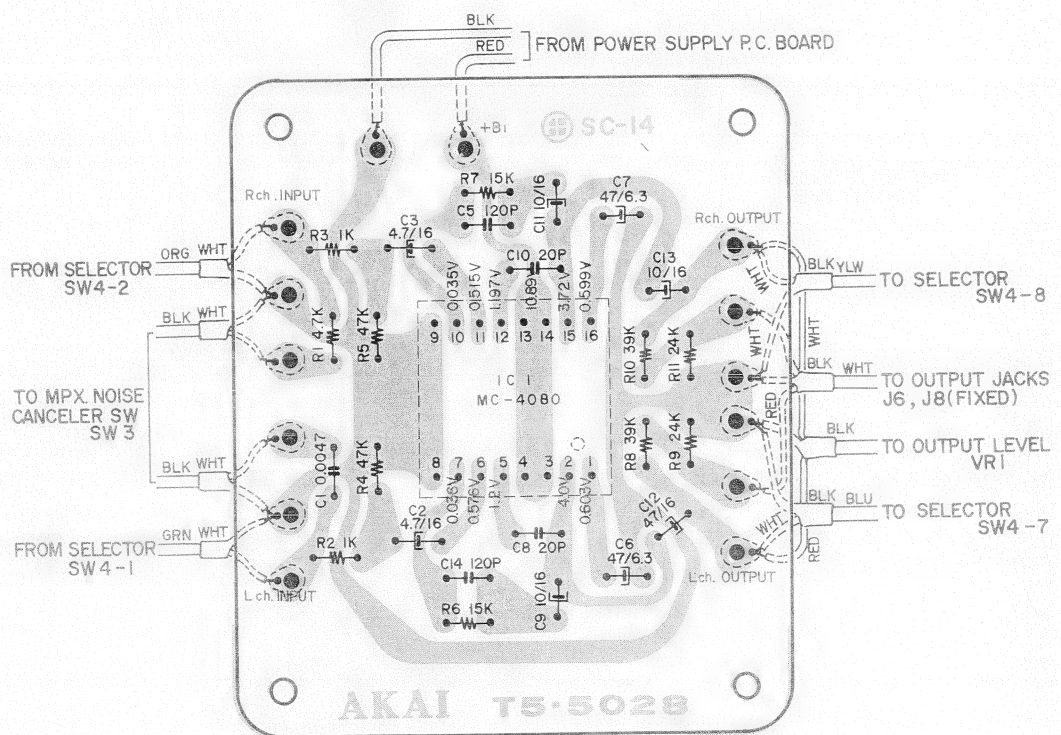


Fig. 29 REVERSE SIDE

3. HEAD PHONE AMP. P.C. BOARD T5-5060

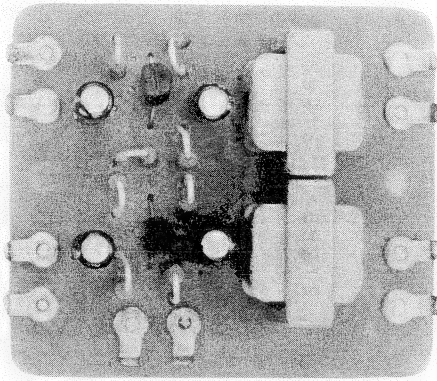


Fig. 30 FACE SIDE

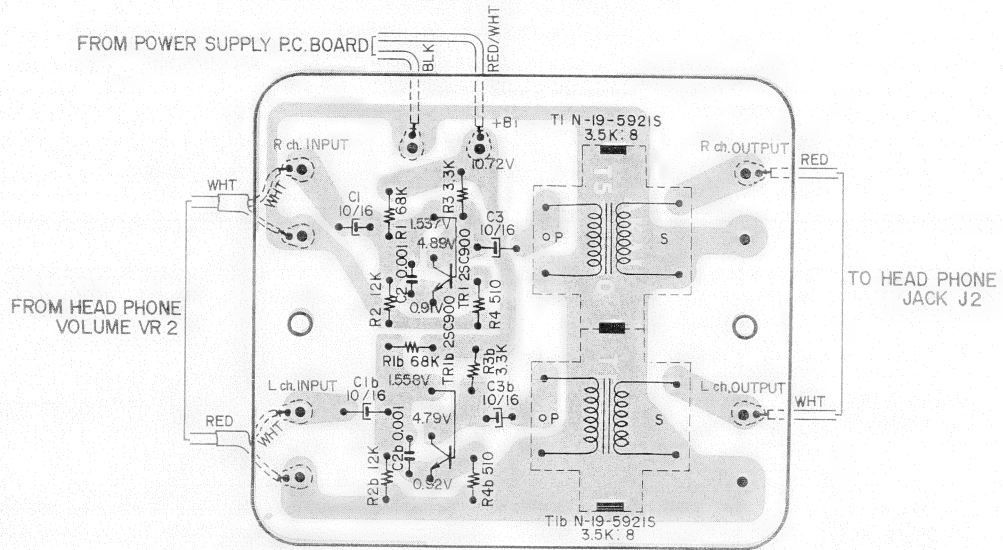


Fig. 31 REVERSE SIDE

4. POWER SUPPLY P.C. BOARD T5-5032

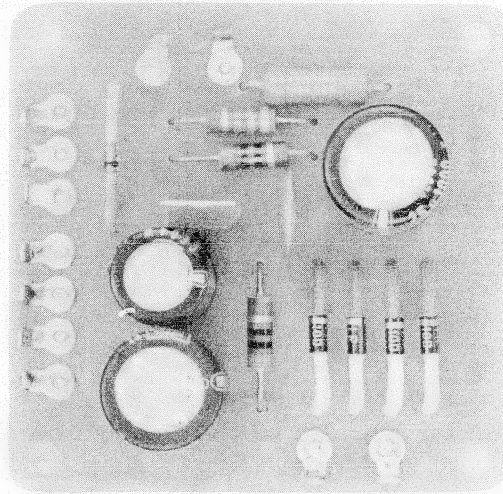


Fig. 32 FACE SIDE

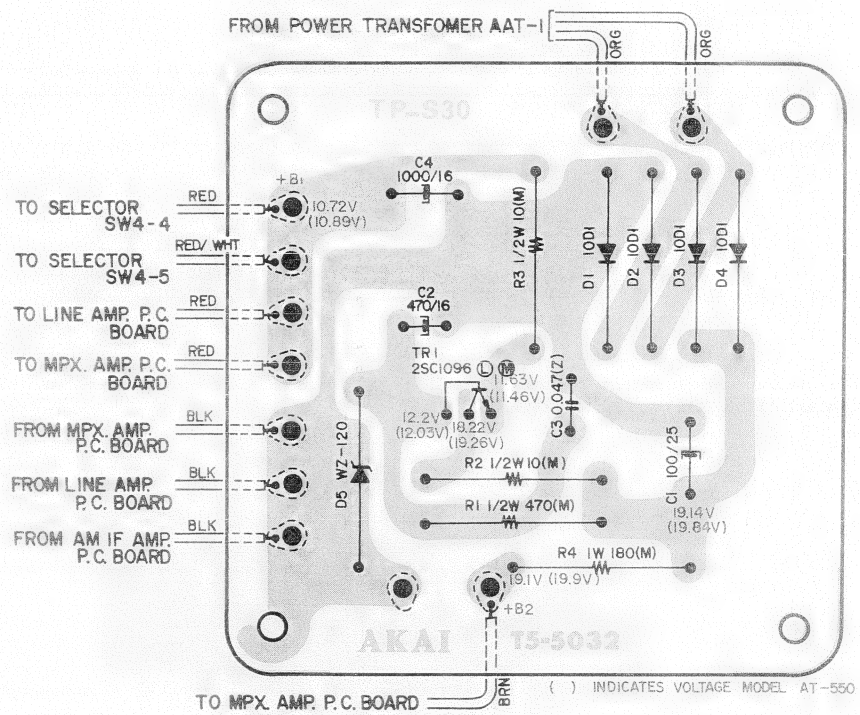


Fig. 33 REVERSE SIDE

5. FUSE P.C. BOARD T5-5034

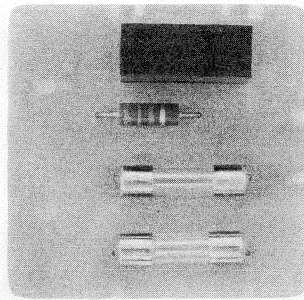


Fig. 34 FACE SIDE

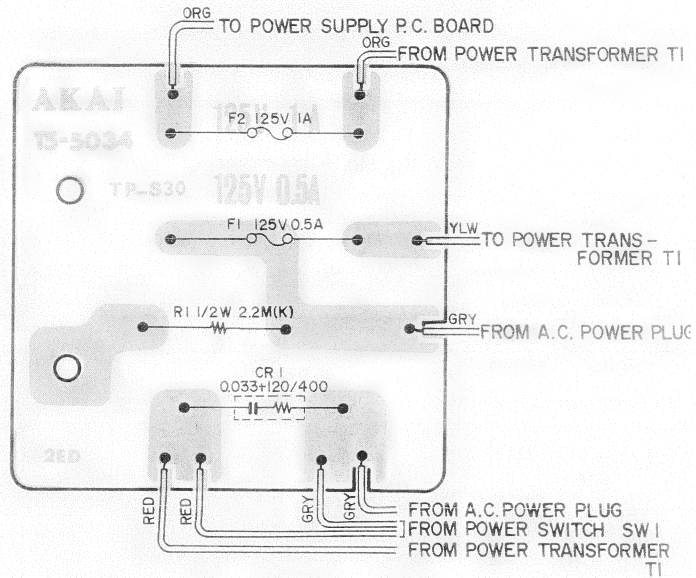


Fig. 35 REVERSE SIDE

6. METER LAMP P.C. BOARD T5-5012

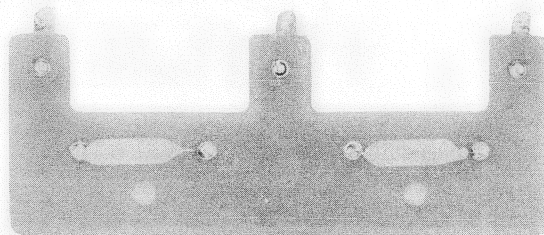


Fig. 36 FACE SIDE

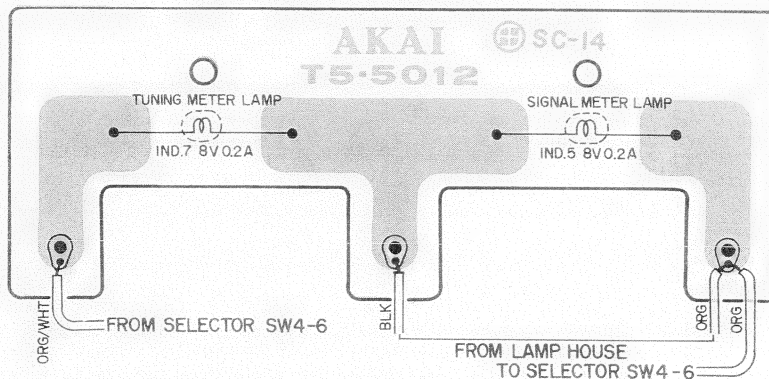


Fig. 37 REVERSE SIDE

VIII. TUNING CORD THREADING

NOTE: Vanes must be closed to max. before threading the tuning cord.

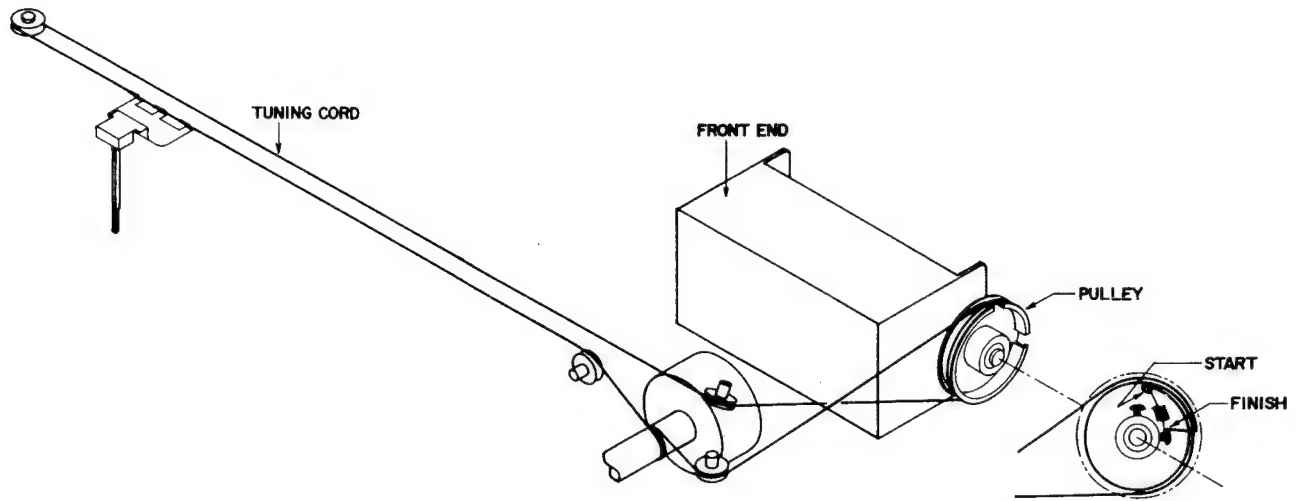


Fig. 38

MEMO:

SECTION 2

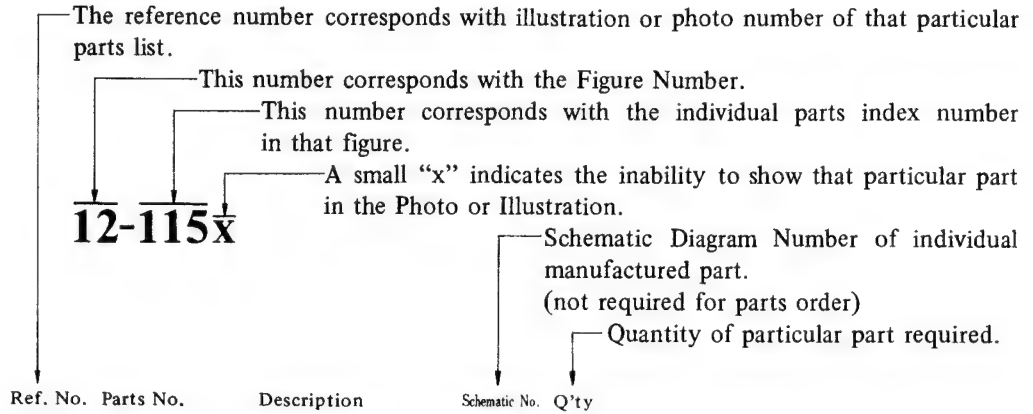
PARTS LIST

TABLE OF CONTENTS

FIG. 1	FM. IF P.C. BOARD (T5-5059) BLOCK	28
FIG. 2	FM. IF P.C. BOARD (T5-5030) BLOCK	29
FIG. 3	MPX P.C. BOARD (T5-5031) BLOCK	30
FIG. 4	AM. IF P.C. BOARD (81-5047)/(T5-5029) BLOCK.....	30
FIG. 5	LINE AMP. P.C. BOARD (T5-5058) BLOCK.....	31
FIG. 6	LINE AMP. P.C. BOARD (T5-5028) BLOCK.....	32
FIG. 7	HEAD PHONE AMP. P.C. BOARD (T5-5060) BLOCK ..	32
FIG. 8	POWER SUPPLY P.C. BOARD (T5-5032) BLOCK	33
FIG. 9	FUSE P.C. BOARD (T5-5034) BLOCK	33
FIG. 10	ASSEMBLY BLOCK	35
FIG. 11	FINAL ASSEMBLY BLOCK.....	37
INDEX	38

HOW TO USE THIS PARTS LIST

1. This parts list is compiled by various individual blocks based on assembly process.
2. When ordering parts, please describe parts number, serial number, and model number in detail.
3. How to read list.



Ref. No.	Parts No.	Description	Schematic No.	Q'ty
FLYWHEEL BLOCK #13				
12-115x	800425	Flywheel Block Assy. Comp.	RDC #13	1
12-116	244506	Flywheel Only	RD-233	1
12-117x	244754	Felt, Flywheel	RD-275	1
12-118	251324	Main Metal Case	RD-236	1
12-119	253080	Main Metal	RD-237	1

4. The symbol numbers shown on the P.C. Board list can be matched with the Composite Views of components of the Schematic Diagram or Service Manual.
5. The indications of Resistors and Capacitors in the photos of P.C. Board are being eliminated.
6. The shape of the parts and parts name, etc. can be confirmed by comparing them with the parts shown on the Electrical Parts Table of P.C. Board.
7. Both the kind of part and installation position can be determined by the Parts Number. To determine where a parts number is listed, utilize Parts Index at end of Parts List.
It is necessary first of all to find the Parts Number. This can be accomplished by using the Reference Number listed at right of parts number in the Parts Index. (meaning of ref. no. outlined in Item 3 above).
8. Utilize separate "Price List for Parts" to determine unit price. The most simple method of finding parts Price is to utilize the reference number.

ELECTRICAL PARTS TABLE


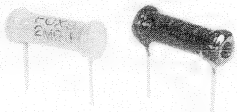



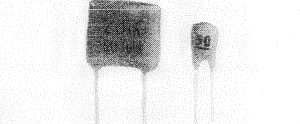
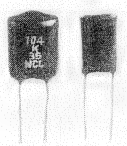



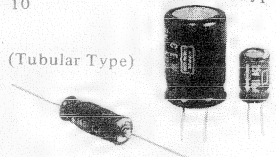

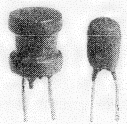
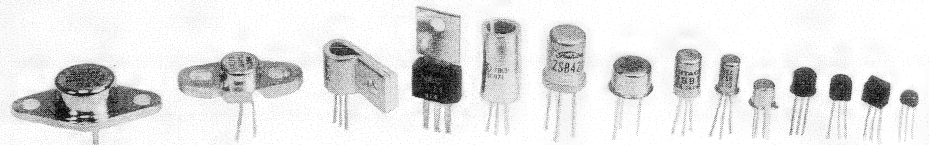
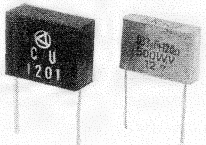
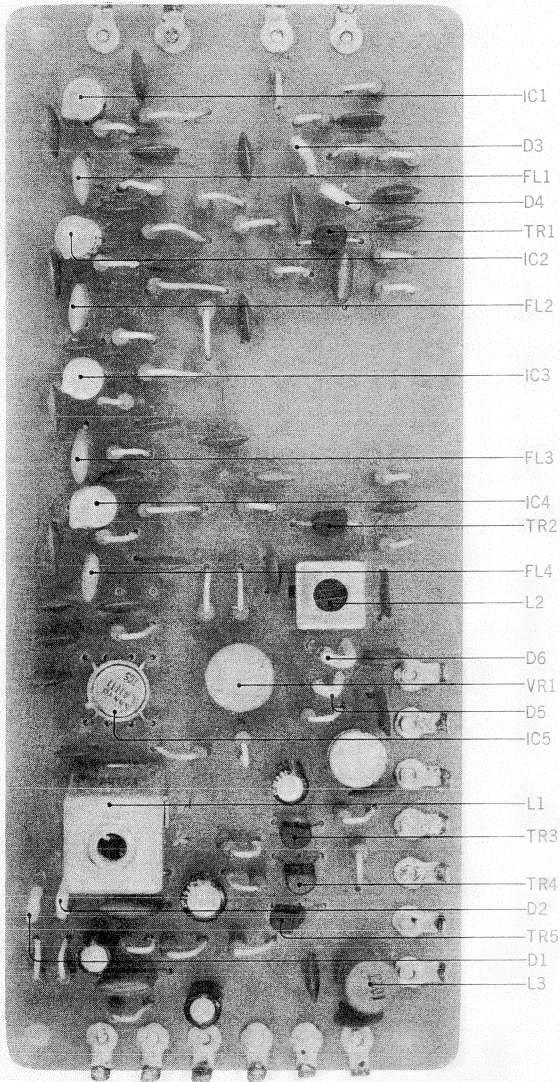
<p>Because the indication of resistors and capacitors in the P. C. Board photos are being eliminated, please confirm parts name and shape by comparing them with the parts shown in this table.</p>	<p style="text-align: center;">1</p>  <p style="text-align: center;">Solid Resistor</p>	<p style="text-align: center;">2</p> <p style="text-align: right;">Stopper Type</p>  <p style="text-align: center;">Insulator Type</p> <p style="text-align: center;">Carbon Resistor</p>	<p style="text-align: center;">3</p>  <p style="text-align: center;">Metal Oxide Film Resistor</p>	
	<p style="text-align: center;">4</p>  <p style="text-align: center;">Cement Resistor</p>	<p style="text-align: center;">5</p>  <p style="text-align: center;">Wire-Wound Resistor</p>	<p style="text-align: center;">6</p>  <p style="text-align: center;">Thermister</p>	<p style="text-align: center;">7</p>  <p style="text-align: center;">Enamel Resistor</p>
	<p style="text-align: center;">1</p>  <p style="text-align: center;">MP Capacitor (Tubular Type)</p>	<p style="text-align: center;">2</p>  <p style="text-align: center;">Plastic Capacitor</p>	<p style="text-align: center;">3</p>  <p style="text-align: center;">Mylar Capacitor</p>	<p style="text-align: center;">4</p>  <p style="text-align: center;">VFM (Hi-Q) Capacitor</p>
	<p style="text-align: center;">5</p>  <p style="text-align: center;">Mylar Capacitor</p>	<p style="text-align: center;">6</p>  <p style="text-align: center;">Tantalum Capacitor</p>	<p style="text-align: center;">7</p>  <p style="text-align: center;">Oil Capacitor (Tubular Type)</p>	<p style="text-align: center;">8</p> <p style="text-align: right;">Vertical Type</p> <p style="text-align: center;">(Tubular Type)</p>  <p style="text-align: center;">Styrol Capacitor</p>
<p style="text-align: center;">9</p>  <p style="text-align: center;">Electrolytic Capacitor (Tubular Type)</p>	<p style="text-align: center;">10</p> <p style="text-align: right;">Vertical Type</p> <p style="text-align: center;">(Tubular Type)</p>  <p style="text-align: center;">Electrolytic Capacitor</p>	<p style="text-align: center;">11</p>  <p style="text-align: center;">Ceramic Capacitor</p>	<p style="text-align: center;">12</p>  <p style="text-align: center;">Metalized Mylar (Paper) Capacitor</p>	
<p style="text-align: center;">13</p>  <p style="text-align: center;">Trimmer Condenser</p>		<p style="text-align: center;">VR</p>  <p style="text-align: center;">Semi-Fixed Volume</p>		
<p style="text-align: center;">L</p>  <p style="text-align: center;">Ferri Inductor</p>	<p style="text-align: center;">TR</p>  <p style="text-align: center;">Transistor</p>			
<p style="text-align: center;">CR</p>  <p style="text-align: center;">Spark Quencher</p>	<p style="text-align: center;">D</p>  <p style="text-align: center;">Diode (Silicon, Zener, Germanium)</p>			

FIG. 1 PHOTO OF
FM. IF P.C. BOARD (T5-5059)

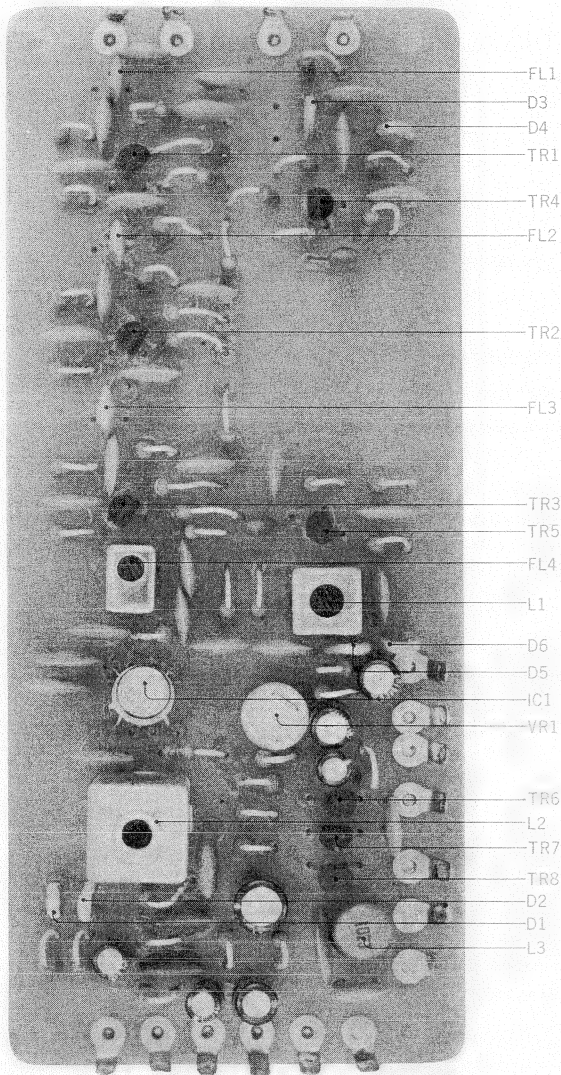


FM. IF P.C. BOARD (T5-5059) BLOCK

Symbol No.	Parts No.	Description	Q'ty
1-1x	BA514394	FM. IF P.C. Board Comp. (T5-5059)	1
1-IC1 to 4	BI469967	I.C. LA-1221	4
1-IC5	EI443665	I.C. LA1111	1
1-TR1, 2	ET510693	Transistor 2SC922(L) (M)	2
1-TR3 to 5	ET398788	Transistor 2SC945(R)	3
1-D1, 2	ED379855	Germanium Diode 1N60P	2
1-D3 to 6	ED428264	Germanium Diode 1N60	4
1-FL1 to 4	ER492355	Ceramic Filter CFS-107M	4
1-L1	EO537232	Coil O5M-1376	1
1-L2	EO443700	Tuning Coil O5M-755 (10.7MHz)	1
1-L3	EO443722	Ferri Inductor FL9H 1MH(J)	1
1-VR1	EV443733	Semi-fixed Volume SR19R 68 kB (Solid type)	1
Capacitor, Vertical Type			
1-C1 to 32	EC513933	Ceramic TLD08F 0.022 μ F (Z) 25WV	32
1-C33, 34	EC290520	VFM 100PF(J) 50WV	2
1-C35, 36	EC329850	VFM 220PF(J) 50WV	2
1-C37	EC428995	VFM 25PF(J) 50WV	1
1-C38	EC320051	Elect. 10 μ F 16WV	1
1-C39	EC329771	Elect. 47 μ F 6.3WV	1
1-C40	EC350706	Elect. 4.7 μ F 16WV	1
1-C41	EC220364	Elect. 100 μ F 6.3WV	1
1-C42	EC320051	Elect. 10 μ F 16WV	1
Resistor, Stopper Type			
1-R1	ER304290	Carbon RD1/4 10(J)	1
1-R2	ER211465	Carbon RD1/4 1k(J)	1
1-R3	ER304290	Carbon RD1/4 10(J)	1
1-R4	ER211465	Carbon RD1/4 1k(J)	1
1-R5, 6	ER213096	Carbon RD1/4 510(J)	2
1-R7, 8	ER304290	Carbon RD1/4 10(J)	2
1-R9	ER211465	Carbon RD1/4 1k(J)	1
1-R10	ER213096	Carbon RD1/4 510(J)	1
1-R11	ER304290	Carbon RD1/4 10(J)	1
1-R12	ER211465	Carbon RD1/4 1k(J)	1
1-R13	ER304290	Carbon RD1/4 10(J)	1
1-R14	ER212681	Carbon RD1/4 330(J)	1
1-R15, 16	ER211667	Carbon RD1/4 100(J)	2
1-R17, 18	ER211465	Carbon RD1/4 1k(J)	2
1-R19 to 21	ER212883	Carbon RD1/4 4.7k(J)	3
1-R22	ER211667	Carbon RD1/4 100(J)	1
1-R23	ER361528	Carbon RD1/4 56k(J)	1
1-R24	ER357491	Carbon RD1/4 82k(J)	1
1-R25	ER211757	Carbon RD1/4 100k(J)	1
1-R26	ER346601	Carbon RD1/4 47k(J)	1
1-R27	ER362520	Carbon RD1/4 75k(J)	1
1-R28	ER213096	Carbon RD1/4 510(J)	1
1-R29	ER371946	Carbon RD1/4 2k(J)	1
1-R30	ER336442	Carbon RD1/4 10k(J)	1
1-R31	ER379473	Carbon RD1/4 30k(J)	1
1-R32	ER356501	Carbon RD1/4 56(J) (Insu. type)	1
1-R33	ER212883	Carbon RD1/4 4.7k(J)	1
1-R34	ER371946	Carbon RD1/4 2k(J)	1
1-R35	ER211465	Carbon RD1/4 1k(J)	1
1-R36	ER211667	Carbon RD1/4 100(J)	1
1-R37	ER336442	Carbon RD1/4 10k(J)	1
1-R38	ER357491	Carbon RD1/4 82k(J)	1
1-R39	ER352045	Carbon RD1/4 3.9k(J)	1
1-R40	ER213030	Carbon RD1/4 5.6k(J)	1
1-R41	ER211465	Carbon RD1/4 1k(J)	1
1-R42	ER361642	Carbon RD1/4 47(J)	1
1-R43	ER357456	Carbon RD1/4 2.2k(J)	1
1-R44	ER211667	Carbon RD1/4 100(J)	1

When ordering parts, please describe Parts Number, Serial Number, and Model Number in detail.

FIG. 2 PHOTO OF
FM. IF P.C. BOARD (T5-5030)



FM. IF P.C. BOARD (T5-5030) BLOCK

Symbol No.	Parts No.	Description	Q'ty
2-1x	BA514225	FM. IF P.C. Board Comp. (T5-5030) (AT-550)	1
2-IC1	EI443665	I.C. LA1111	1
2-TR1 to 5	ET510693	Transistor 2SC922(L) (M)	5
2-TR6 to 8	ET398711	Transistor 2SC945(Q) (R)	3
2-D1, 2	ED379855	Germanium Diode 1N60P	2
2-D3 to 6	ED428264	Germanium Diode 1N60	4
2-FL1 to 3	ER492355	Ceramic Filter CFS-107M	3
2-FL4	ER510704	Ceramic Filter CFQ-107M	1
2-L1	EO443700	Tuning Coil 05M-755(10.7MHz)	1
2-L2	EO537232	Coil 05M-1376	1
2-L3	EO443722	Ferri Inductor FL9H 1MH(J)	1
2-VR1	EV443733	Semi-fixed Volume SR19R68 kB (Solid type)	1
		Capacitor, Vertical Type	
2-C1 to 31	EC404256	Ceramic DD610YM 0.015 μ F(Z) 50WV	1
2-C32	EC320040	Elect. 47 μ F 16WV	1
2-C33, 34	EC320051	Elect. 10 μ F 16WV	1
2-C35	EC350706	Elect. 4.7 μ F 16WV	1
2-C36, 37	EC329771	Elect. 47 μ F 6.3WV	1
2-C38, 39	EC329850	VFM 220PF(J) 50WV	2
2-C40	EC290520	VFM 100PF(J) 50WV	1
2-C41	EC469675	VFM 5PF(D) 50WV	1
2-C42	EC361721	VFM 27PF(J) 50WV	1
		Resistor, Stopper Type	
2-R1	ER213096	Carbon RD1/4 510(J)	1
2-R2	ER211320	Carbon RD1/4 1.5k(J)	1
2-R3	ER212883	Carbon RD1/4 4.7k(J)	1
2-R4	ER211465	Carbon RD1/4 1k(J)	1
2-R5	ER213096	Carbon RD1/4 510(J)	1
2-R6	ER211667	Carbon RD1/4 100(J)	1
2-R7	ER213096	Carbon RD1/4 510(J)	1
2-R8	ER211320	Carbon RD1/4 1.5k(J)	1
2-R9	ER212883	Carbon RD1/4 4.7k(J)	1
2-R10	ER211667	Carbon RD1/4 100(J)	1
2-R11	ER211465	Carbon RD1/4 1k(J)	1
2-R12, 13	ER213096	Carbon RD1/4 510(J)	2
2-R14	ER211667	Carbon RD1/4 100(J)	1
2-R15	ER211320	Carbon RD1/4 1.5k(J)	1
2-R16	ER212883	Carbon RD1/4 4.7k(J)	1
2-R17	ER211465	Carbon RD1/4 1k(J)	1
2-R18	ER304290	Carbon RD1/4 10(J)	1
2-R19	ER357412	Carbon RD1/4 220(J)	1
2-R20	ER211667	Carbon RD1/4 100(J)	1
2-R21	ER212681	Carbon RD1/4 330(J)	1
2-R22	ER347038	Carbon RD1/4 270(J)	1
2-R23, 24	ER211465	Carbon RD1/4 1k(J)	2
2-R25	ER211667	Carbon RD1/4 100(J)	1
2-R26, 27	ER212883	Carbon RD1/4 4.7k(J)	2
2-R28	ER304290	Carbon RD1/4 10(J)	1
2-R29	ER371946	Carbon RD1/4 2k(J)	1
2-R30	ER336442	Carbon RD1/4 10k(J)	1
2-R31	ER213096	Carbon RD1/4 510(J)	1
2-R32	ER371946	Carbon RD1/4 2k(J)	1
2-R33	ER304290	Carbon RD1/4 10(J)	1
2-R34	ER211667	Carbon RD1/4 100(J)	1
2-R35	ER349907	Carbon RD1/4 33k(J)	1
2-R36	ER430020	Carbon RD1/4 13k(J)	1
2-R37	ER363644	Carbon RD1/4 560(J)	1
2-R38	ER211667	Carbon RD1/4 100(J)	1
2-R39	ER357491	Carbon RD1/4 82k(J)	1
2-R40	ER357456	Carbon RD1/4 2.2k(J)	1
2-R41	ER352045	Carbon RD1/4 3.9k(J)	1
2-R42	ER213030	Carbon RD1/4 5.6k(J)	1
2-R43	ER212883	Carbon RD1/4 4.7k(J)	1
2-R44	ER361642	Carbon RD1/4 47(J)	1
2-R45	ER212883	Carbon RD1/4 4.7k(J)	1
2-R46	ER336442	Carbon RD1/4 10k(J)	1

FIG. 3 PHOTO OF
MPX P.C. BOARD (T5-5031)

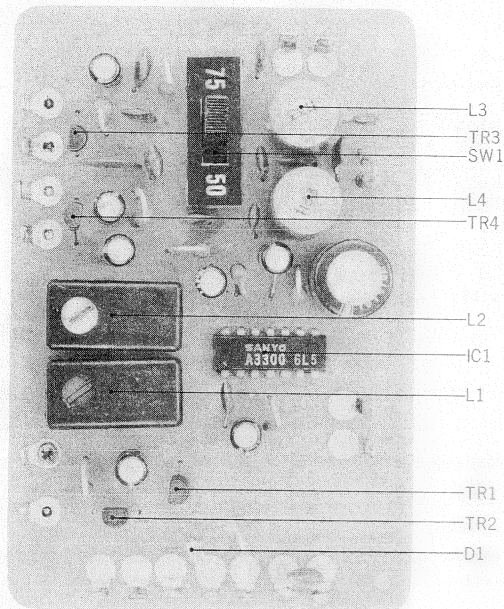
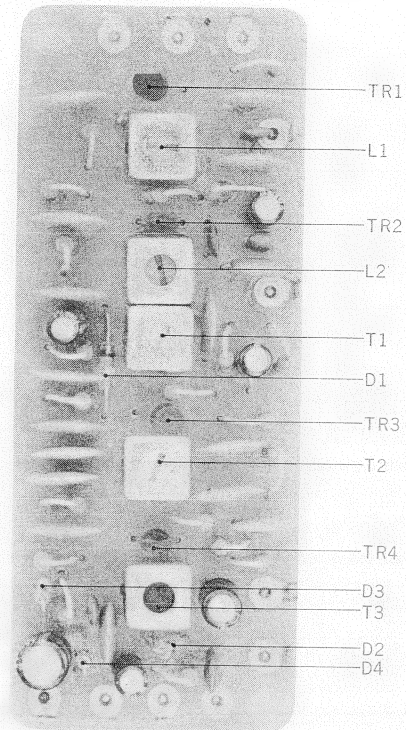
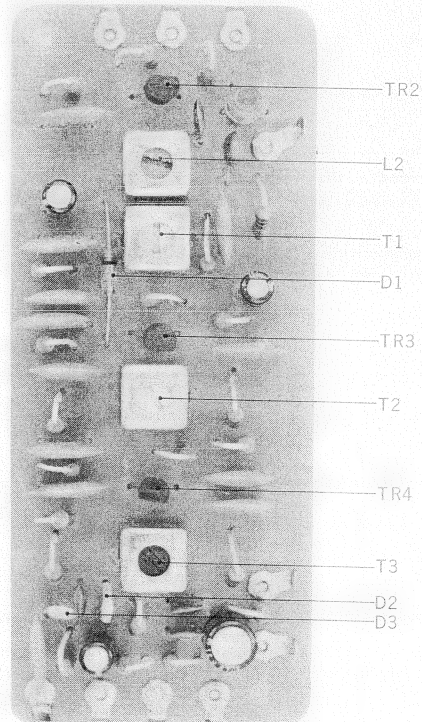


FIG. 4 PHOTO OF AM. IF
P.C. BOARD (81-5047)/(T5-5029)



MPX P.C. BOARD (T5-5031) BLOCK

Symbol No.	Parts No.	Description	Q'ty
3-1x	BA514236	MPX P.C. Board Comp. (T5-5031)	1
3-IC1	EI443744	I.C. LA3300	1
3-TR1 to 4	ET398711	Transistor 2SC945(Q) (R)	4
3-D1	ED219464	Germanium Diode 1N34A	1
3-L1	EO443766	Coil (19KC) 02-1070-03 1070(black)	1
3-L2	EO443777	Coil (38KC) 02-1064-03 1064(white)	1
3-L3, 4	EO443788	Choke Coil 7-1133-02 L=40MH	2
3-SW1	ES513922	Slide Switch SSB02242	1
Capacitor, Vertical Type			
3-C1	EC350706	Elect. 4.7 μ F 16WV	1
3-C2	EC339096	Elect. 470 μ F 16WV	1
3-C3, 4	EC350706	Elect. 4.7 μ F 16WV	2
3-C5	EC337500	Mylar 0.0047 μ F(J) 50WV	1
3-C6	EC350875	Mylar 0.001 μ F(J) 50WV	1
3-C7	EC380621	Mylar 0.0068 μ F(J) 50WV	1
3-C8	EC379765	Mylar 0.0027 μ F(J) 50WV	1
3-C9	EC311793	Mylar 0.012 μ F(J) 50WV	1
3-C10	EC350706	Elect. 4.7 μ F 16WV	1
3-C11	EC389474	Mylar 0.0015 μ F(J) 50WV	1
3-C12	EC350706	Elect. 4.7 μ F 16WV	1
3-C13	EC337500	Mylar 0.0047 μ F(J) 50WV	1
3-C14	EC350875	Mylar 0.001 μ F(J) 50WV	1
3-C15	EC380621	Mylar 0.0068 μ F(J) 50WV	1
3-C16	EC379765	Mylar 0.0027 μ F(J) 50WV	1
3-C17	EC311793	Mylar 0.012 μ F(J) 50WV	1
3-C18	EC350706	Elect. 4.7 μ F 16WV	1
3-C19	EC513933	Ceramic TLDO8F 0.022 μ F(Z) 25WV	1
3-C20	EC350706	Elect. 4.7 μ F 16WV	1
3-C21	EC290520	VFM 100PF(J) 50WV	1
Resistor, Stopper Type			
3-R1	ER304290	Carbon RD1/4 10(J)	1
3-R2	ER336442	Carbon RD1/4 10k(J)	1
3-R3, 4	ER343078	Carbon RD1/4 2.7k(J)	2
3-R5	ER211667	Carbon RD1/4 100(J)	1
3-R6	ER357456	Carbon RD1/4 2.2k(J)	1
3-R7	ER346601	Carbon RD1/4 47k(J)	1
3-R8	ER304402	Carbon RD1/4 470(J)	1
3-R9, 10	ER357456	Carbon RD1/4 2.2k(J)	1
3-R11	ER346601	Carbon RD1/4 47k(J)	1

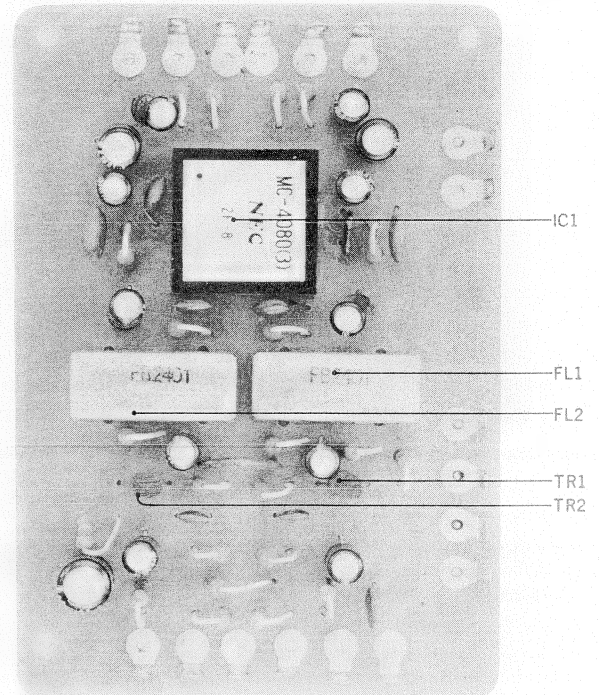


When ordering parts, please describe Parts Number, Serial Number, and Model Number in detail.

**AM. IF P.C. BOARD
(81-5047)/(T5-5029) BLOCK**

Symbol No.	Parts No.	Description	Q'ty
4-1x	BA514383	AM. IF P.C. Board Comp. (81-5047)	1
4-2x	BA514214	AM. IF P.C. Board Comp. (T5-5029) (AT-550)	1
4-TR1 to 4	ET427860	Transistor 2SC838(H)	4
4-D1 to 4	ED219464	Germanium Diode 1N34A	4
4-L1	EO443608	High Frequency Coil 05M-741A MW RF	1
4-L2	EO443621	OSC. Coil 0.9A-465 MW OSC	1
4-T1	BT379991	Trans. HI-137S(yellow)	1
4-T2	BT380384	Trans. HI-134S(white)	1
4-T3	BT443610	Trans. H-144S(black)	1
Capacitor, Vertical Type			
4-C1, 2	EC492142	Ceramic DD512 0.047 μ F(YM) 50WV	2
4-C3	EC320051	Elect. 10 μ F 16WV	1
4-C4	EC492142	Ceramic DD512 0.047 μ F(YM) 50WV	1
4-C5	EC443654	VFM 15PF(K) 50WV	1
4-C6	EC492142	Ceramic DD512 0.047 μ F(YM) 50WV	1
4-C7	EC250885	Mylar 0.01 μ F(K) 50WV	1
4-C8	EC443632	VFM 430PF(J) 50WV	1
4-C8	EC423562	VFM 470PF(J) 50WV (AT-550)	1
4-C9	EC394907	VFM 27PF(K) 50WV	1
4-C10	EC320051	Elect. 10 μ F 16WV	1
4-C11 to 13	EC492142	Ceramic DD512 0.047 μ F(YM) 50WV	3
4-C14	EC450527	Elect. 4.7 μ F 25WV	1
4-C14	EC320051	Elect. 10 μ F 16WV (AT-550)	1
4-C15 to 21	EC492142	Ceramic DD512 0.047 μ F(YM) 50WV	7
4-C22	EC331705	Elect. 22 μ F 16WV	1
4-C22	EC320040	Elect. 47 μ F 16WV (AT-550)	1
4-C23	EC250885	Mylar 0.01 μ F(K) 50WV	1
4-C24	EC457582	VFM 240PF(J) 50WV	1
4-C24	EC250885	Mylar 0.01 μ F(K) 50WV (AT-550)	1
4-C25	EC250885	Mylar 0.01 μ F(K) 50WV	1
4-C26	EC320051	Elect. 10 μ F 16WV	1
4-C27	EC320040	Elect. 47 μ F 16WV	1
4-C27	EC492142	Ceramic DD512 0.047 μ F(YM) 50WV(AT-550)	1
4-C28	EC492142	Ceramic DD512 0.047 μ F(YM) 50WV	1
4-C29	EC428995	VFM 25PF(J) 50WV	1
Resistor, Stopper Type			
4-R1	ER357412	Carbon RD1/4 220(J)	1
4-R2	ER212883	Carbon RD1/4 4.7k(J)	1
4-R2	ER349942	Carbon RD1/4 8.2k(J) (AT-550)	1
4-R3	ER342933	Carbon RD1/4 27k(J)	1
4-R3	ER361528	Carbon RD1/4 56k(J) (AT-550)	1
4-R4	ER379934	Carbon RD1/4 27(J)	1
4-R4	ER211667	Carbon RD1/4 100(J) (AT-550)	1
4-R5	ER211667	Carbon RD1/4 100(J)	1
4-R6	ER357456	Carbon RD1/4 2.2k(J)	1
4-R7	ER357491	Carbon RD1/4 82k(J)	1
4-R8	ER211465	Carbon RD1/4 1k(J)	1
4-R9	ER304290	Carbon RD1/4 10(J)	1
4-R9	ER211667	Carbon RD1/4 100(J) (AT-550)	1
4-R10	ER211950	Carbon RD1/4 130k(J)	1
4-R10	ER379517	Carbon RD1/4 62k(J) (AT-550)	1
4-R11	ER304402	Carbon RD1/4 470(J)	1
4-R12	ER211465	Carbon RD1/4 1k(J)	1
4-R13	ER211667	Carbon RD1/4 100(J)	1
4-R14	ER336442	Carbon RD1/4 10k(J)	1
4-R15	ER361528	Carbon RD1/4 56k(J)	1
4-R15	ER357535	Carbon RD1/4 39k(J) (AT-550)	1
4-R16	ER346994	Carbon RD1/4 18k(J)	1
4-R16	ER349942	Carbon RD1/4 8.2k(J) (AT-550)	1
4-R17	ER304402	Carbon RD1/4 470(J)	1
4-R18	ER211465	Carbon RD1/4 1k(J)	1
4-R19	ER304402	Carbon RD1/4 470(J)	1
4-R20	ER212872	Carbon RD1/4 4.3k(J) (AT-550)	1
4-R21	ER211667	Carbon RD1/4 100(J)	1
4-R21	ER304290	Carbon RD1/4 10(J) (AT-550)	1
4-R22	ER357535	Carbon RD1/4 39k(J) (AT-550)	1
4-R23	ER349828	Carbon RD1/4 20k(J) (AT-550)	1
4-R24	ER211465	Carbon RD1/4 1k(J) (AT-550)	1
4-R25	ER211667	Carbon RD1/4 100(J) (AT-550)	1

**FIG. 5 PHOTO OF
LINE AMP. P.C. BOARD (T5-5058)**



LINE AMP. P.C. BOARD (T5-5058) BLOCK

Symbol No.	Parts No.	Description	Q'ty
5-1x	BA514372	Line Amp. P.C. Board Comp. (T5-5058)	1
5-IC1	EI469844	I.C. MC-4080(4)	1
5-TR1, 2	ET443992	Transistor 2SC900(F)	1
5-FL1, 2	ER512201	Filter FB-24	2
Capacitor, Vertical Type			
5-C1	EC337500	Mylar 0.0047 μ F(J) 50WV	1
5-C2, 3	EC350706	Elect. 4.7 μ F 16WV	2
5-C4, 5	EC350875	Mylar 0.001 μ F(J) 50WV	2
5-C6, 7	EC350706	Elect. 4.7 μ F 16WV	1
5-C8	EC320040	Elect. 47 μ F 16WV	1
5-C9, 10	EC380621	Mylar 0.0068 μ F(J) 50WV	2
5-C11, 12	EC350706	Elect. 4.7 μ F 16WV	2
5-C13, 14	EC310792	VFM 120PF(J) 50WV	2
5-C15, 16	EC329771	Elect. 47 μ F 6.3WV	2
5-C17, 18	EC452665	VFM 20PF(J) 50WV	2
5-C19 to 22	EC320051	Elect. 10 μ F 16WV	4
Resistor, Stopper Type			
5-R1	ER212883	Carbon RD1/4 4.7k(J)	1
5-R2, 3	ER346601	Carbon RD1/4 47k(J)	2
5-R4, 5	ER211465	Carbon RD1/4 1k(J)	2
5-R6 to 9	ER380711	Carbon RD1/4 220k(J)	4
5-R10, 11	ER212883	Carbon RD1/4 4.7k(J)	2
5-R12, 13	ER371946	Carbon RD1/4 2k(J)	2
5-R14	ER211465	Carbon RD1/4 1k(J)	1
5-R15, 16	ER212883	Carbon RD1/4 4.7k(J)	2
5-R17, 18	ER379473	Carbon RD1/4 30k(J)	2
5-R19	ER346601	Carbon RD1/4 47k(J)	1
5-R20	ER407316	Carbon RD1/4 24k(J)	1
5-R21	ER346601	Carbon RD1/4 47k(J)	1
5-R22	ER407316	Carbon RD1/4 24k(J)	1

When ordering parts, please describe Parts Number, Serial Number, and Model Number in detail.

FIG. 6 PHOTO OF
LINE AMP. P.C. BOARD (T5-5028)

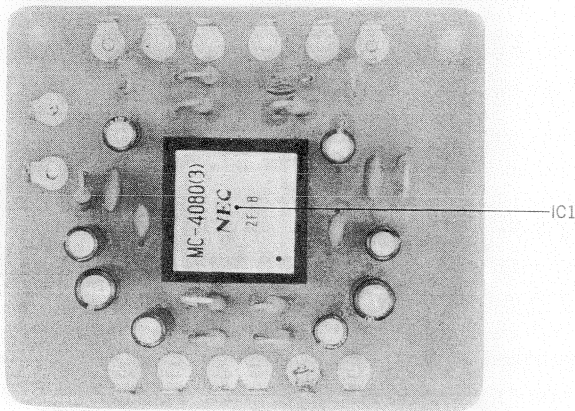
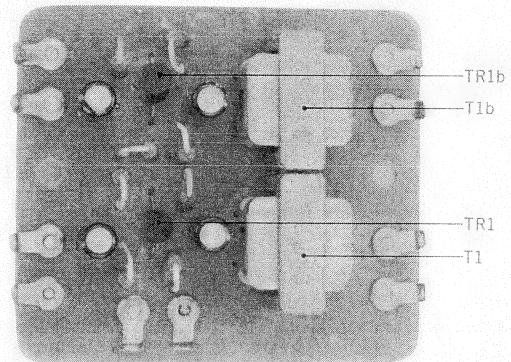


FIG. 7 PHOTO OF HEAD PHONE AMP.
P.C. BOARD (T5-5060)



LINE AMP. P.C. BOARD (T5-5028) BLOCK

Symbol No.	Parts No.	Description	Q'ty
6-1x	BA514203	Line Amp. P.C. Board Comp. (T5-5028)(AT-550)	1
6-IC1	EI469844	I.C. MC-4080(4)	1
Capacitor, Vertical Type			
6-C1	EC337500	Mylar 0.0047 μ F(J) 50WV	1
6-C2, 3	EC350706	Elect. 4.7 μ F 16WV	2
6-C4, 5	EC310792	VFM 120PF(J) 50WV	2
6-C6, 7	EC329771	Elect. 47 μ F 6.3WV	2
6-C8	EC452665	VFM 20PF(J) 50WV	1
6-C9	EC320051	Elect. 10 μ F 16WV	1
6-C10	EC452665	VFM 20PF(J) 50WV	1
6-C11 to 13	EC320051	Elect. 10 μ F 16WV	3
Resistor, Stopper Type			
6-R1	ER212883	Carbon RD1/4 4.7k(J)	1
6-R2, 3	ER211465	Carbon RD1/4 1k(J)	2
6-R4, 5	ER346601	Carbon RD1/4 47k(J)	2
6-R6, 7	ER306887	Carbon RD1/4 15k(J)	2
6-R8	ER357535	Carbon RD1/4 39k(J)	1
6-R9	ER407316	Carbon RD1/4 24k(J)	1
6-R10	ER357535	Carbon RD1/4 39k(J)	1
6-R11	ER407316	Carbon RD1/4 24k(J)	1

**HEAD PHONE AMP.
P.C. BOARD (T5-5060) BLOCK**

Symbol No.	Parts No.	Description	Q'ty
7-1x	BA514405	Head Phone Amp. P.C. Board Comp. (T5-5060)	1
7-TR1	ET452687	Transistor 2SC900(E) (F)	2
7-T1	BT247768	Head Phone Trans. N19-5921S	2
Capacitor, Vertical Type			
7-C1	EC320051	Elect. 10 μ F 16WV	2
7-C2	EC350875	Mylar 0.001 μ F(J) 50WV	2
7-C3	EC320051	Elect. 10 μ F 16WV	2
Resistor, Stopper Type			
7-R1	ER350100	Carbon RD1/4 68k(J)	2
7-R2	ER211858	Carbon RD1/4 12k(J)	2
7-R3	ER212477	Carbon RD1/4 3.3k(J)	2
7-R4	ER213096	Carbon RD1/4 510(J)	2

FIG. 8 PHOTO OF POWER SUPPLY
P.C. BOARD (T5-5032)

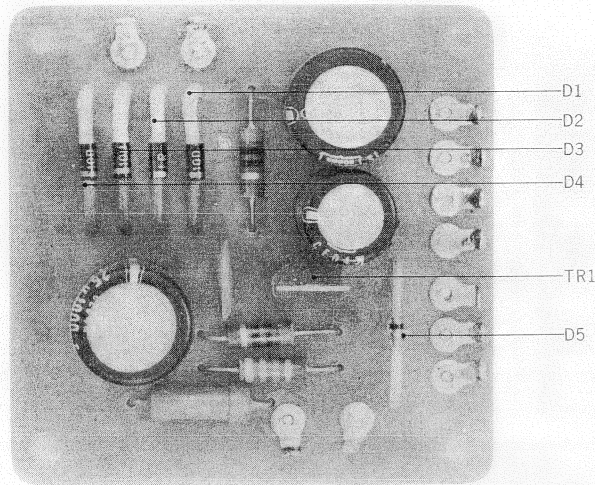
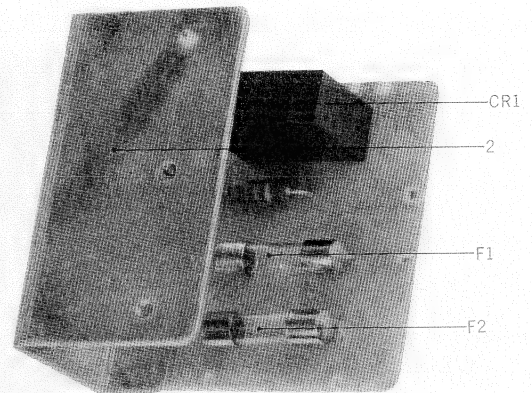


FIG. 9 PHOTO OF
FUSE P.C. BOARD (T5-5034)



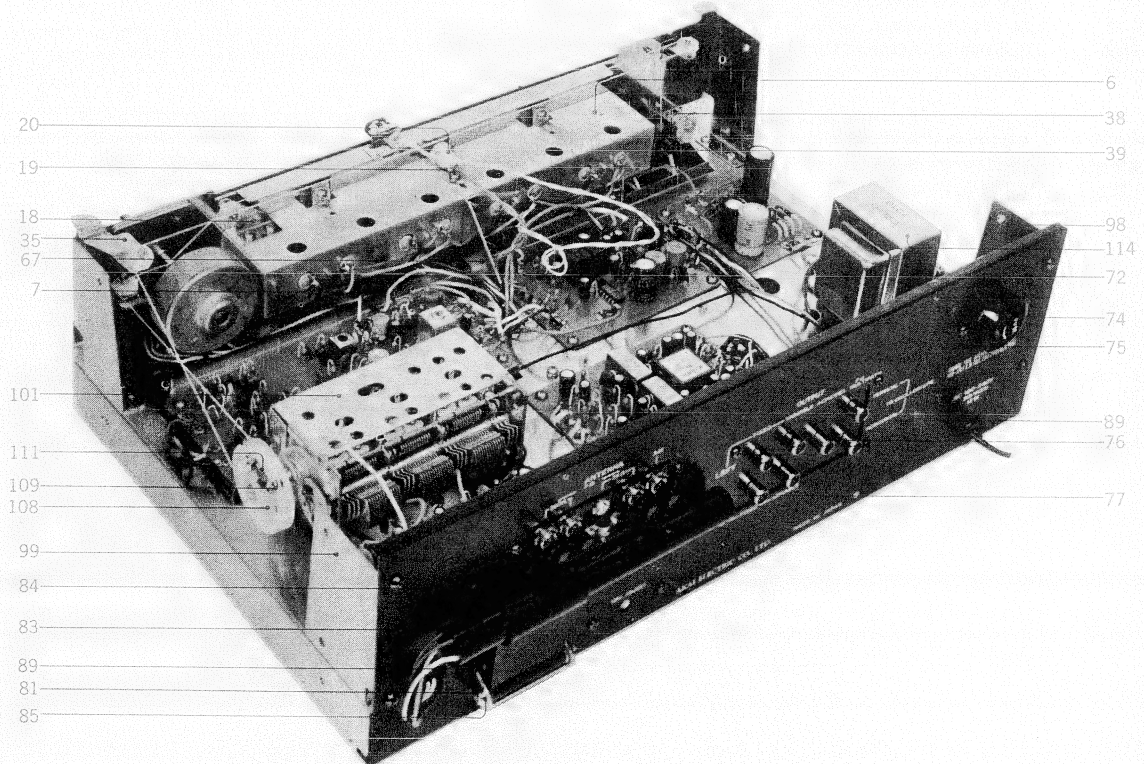
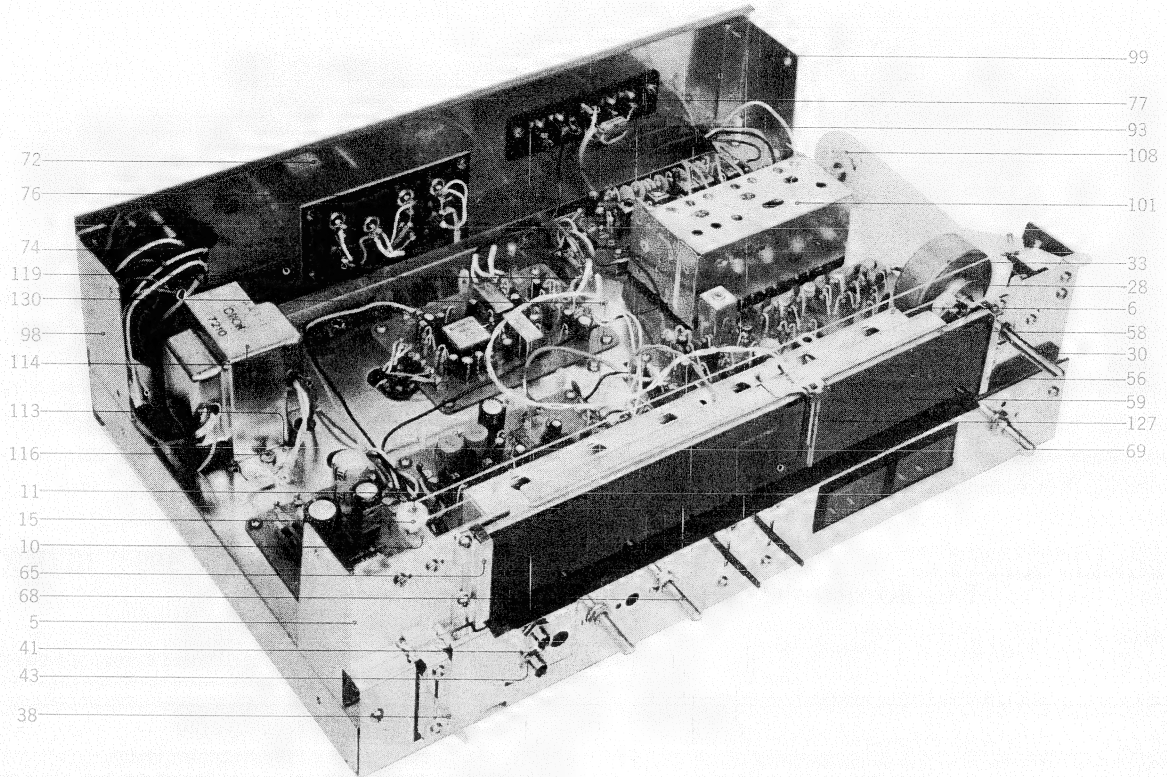
**POWER SUPPLY
P.C. BOARD (T5-5032) BLOCK**

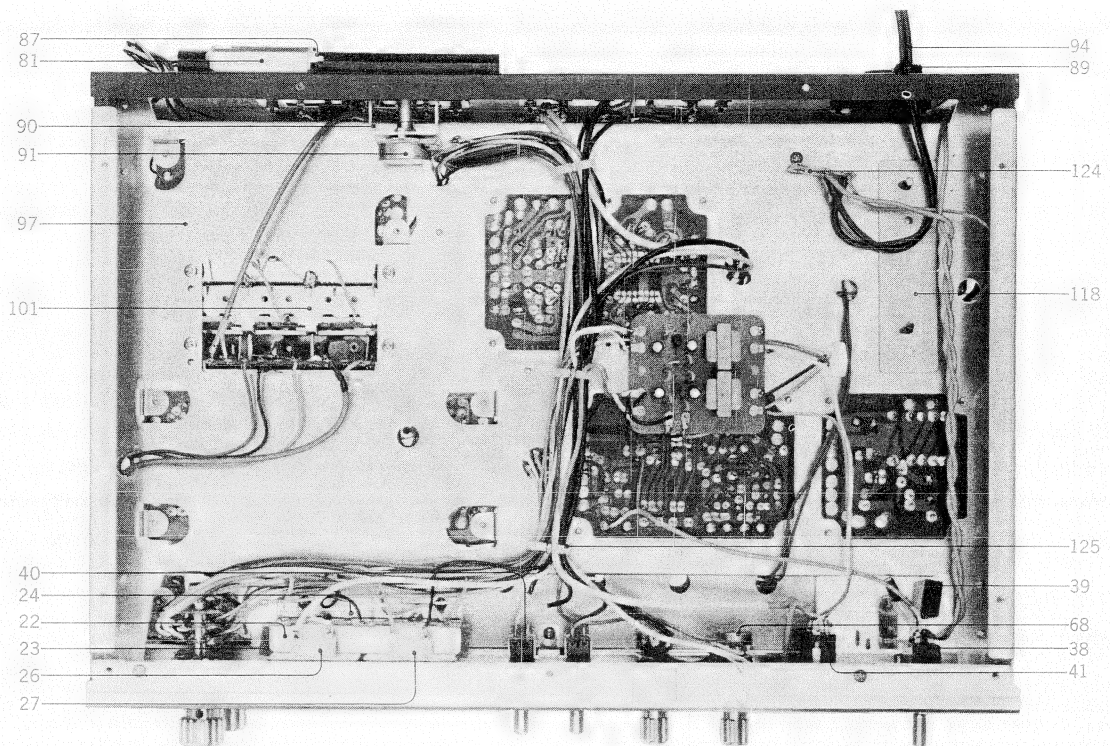
Symbol No.	Parts No.	Description	Q'ty
8-1x	BA514247	Power Supply P.C. Board Comp. (T5-5032)	1
8-TR1	ET510761	Transistor 2SC1096(L) (M)	1
8-D1 to 4	ED224526	Silicon Diode 10D1	4
8-D5	ED510772	Zener Diode WL-120	1
Capacitor, Vertical Type			
8-C1	EC450270	Elect. 1000 μ F 25WV	1
8-C2	EC336148	Elect. 1000 μ F 16WV	1
8-C3	EC492142	Ceramic DD512 0.047 μ F(YM) 50WV	1
8-C4	EC339096	Elect. 470 μ F 16WV	1
Resistor, Stopper Type			
8-R1	ER229511	Solid RC1/2 470(K)	1
8-R2, 3	ER332212	Solid RC1/2 10(K)	2
8-R4	ER511222	Solid RC1 180(J)	1

FUSE P.C. BOARD (T5-5034) BLOCK

Symbol No.	Parts No.	Description	Q'ty
9-1x	BA516161	Fuse P.C. Board Comp. (T5-5034)	1
9-CR1	ER450797	Spark(Quencher U/L 0.033 μ +120 400WV	1
9-F1	EF495718	Fuse 0.5A 125V	1
9-F2	EF480903	Fuse 1A 125V	1
9-2	AA515676	Fuse Retaining Metal	1
9-3x	ZW413728	Screw, binding head 3x6, w/washer	2
9-R1	ER428567	Solid RC1/2 2.2M(K)	1

FIG. 10 PHOTO OF ASSEMBLY BLOCK





ASSEMBLY BLOCK

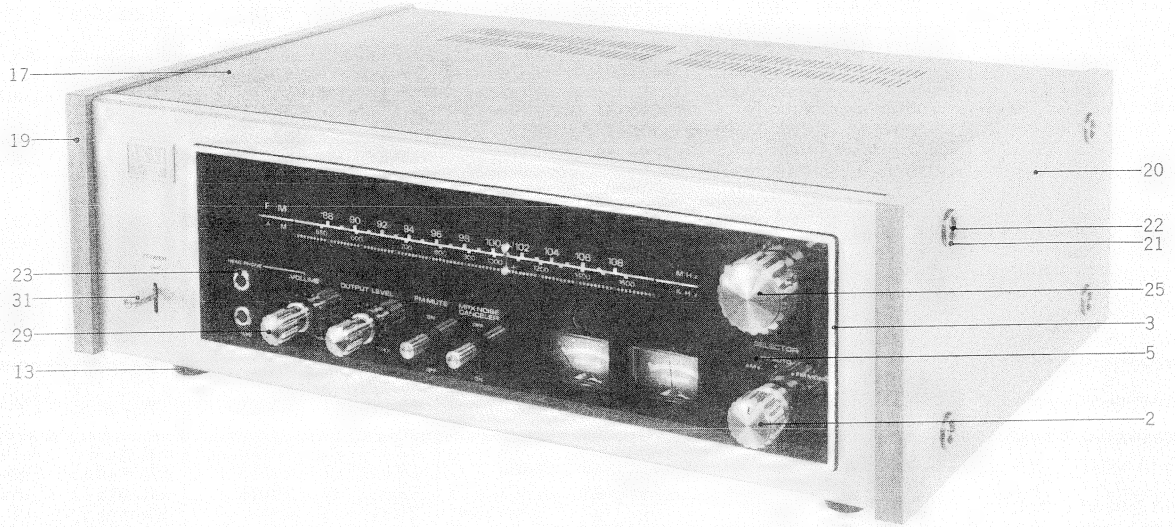
Ref. No.	Parts No.	Description	Schematic No.	Q'ty	Ref. No.	Parts No.	Description	Schematic No.	Q'ty
FRONT CHASSIS RIGHT BOX BLOCK									
10-1x	BZ514361	Front Chassis Right Box Block Comp.		1	10-31x	ZW260122	Washer (Nylon)D6.1x10x1t		1
					10-32x	ZW260054	Washer (SUP)D6.1x10x0.25t		1
					10-33	BF377998	Flywheel	AA-5525	1
10-2x	BZ515643	Front Chassis Right Box Block Comp. (U, CSA)		1	10-34x	ZW466413	ISO Set Screw, hexagon socket 4x5(cup)		1
10-3x	BZ514170	Front Chassis Right Box Block Comp. (AT-550)		1	10-35	AA510884	Roller Retaining Table C	T5-5050	1
10-4x	BZ515632	Front Chassis Right Box Block Comp. (AT-550U, CSA)		1	10-36x	AA510535	Roller Retaining Table B (AT-550)	T5-5004	1
10-5	AA510412	Front Chassis	T5-5003	1	10-37x	ZW371856	ISO Screw, binding head 3x5		2
10-6	AA510480	Lamp House	T5-5005	1	10-38	ES445050	Lever Switch LPS60122CG00 (Power)	25-4-10	1
10-7	EJ367986	1P Fuse Holder AC125V 5A	40-1-8	4	10-39	ER376413	Spark Quencher U/L 0.033μ+120 500WV	41-1-37	1
10-8x	ZW447772	Tapping Screw #2 3x6(BR)		14	10-40	ES443013	Lever Switch SQ11 12-4-2	25-12-3	2
10-9x	EL443518	Fuse Type Lamp 6V 0.2A	28-2-21	4	10-41	EJ376604	Mic. Jack 3PMJ1	31-2-17	2
10-10	AA510524	Roller Table	T5-5007	1	10-42x	ZW434597	Washer (ALP)D9.3x14.2x 0.7t		2
10-11	EZ443125	Roller Pin B	81-5056	4	10-43	ZW270191	E Jack Nut		2
10-12x	ZW273745	Spring Washer M3		4	FRONT CHASSIS BLOCK				
10-13x	ZW348107	ISO Nut M3		4	10-44x	BZ514348	Front Chassis Block Comp. (U)		1
10-14x	ZW259514	Washer (Nylon)D3.1x8x1t		2	10-45x	BZ514350	Front Chassis Block Comp. (A)		1
10-15	WM428163	Roller	AA-726	4	10-46x	BZ515621	Front Chassis Block Comp. (U, CSA)		1
10-16x	ZW270088	'E' Ring 1.9M	6-1-9	5	10-47x	BZ514337	Front Chassis Block Comp. (J)		1
10-17x	ZW379405	ISO Screw, binding head 3x6		8	10-48x	BZ514157	Front Chassis Block Comp. (AT-550U)		1
10-18	AA510467	Roller Mt. Table A	T5-5009	1	10-49x	BZ514168	Front Chassis Block Comp. (AT-550A)		1
10-19	AA510513	Holder Bracket	T5-5008	1	10-50x	BZ515610	Front Chassis Block Comp. (AT-550U, CSA)		1
10-20	AA510502	Lamp Holder	T5-5035	1	10-51x	BZ514146	Front Chassis Block Comp. (AT-550J)		1
10-21x	EL512212	Pilot Lamp 12V 35MA (120M/Mx2) (Lead type)	28-2-23	1					
10-22	AA510546	Meter Retaining Plate	T5-5010	1					
10-23	AA510557	Meter Cushion	T5-5011	3					
10-24	EA510568	Meter Lamp P.C. Board	T5-5012	1					
10-25x	EL295312	No. 2 Lamp 8V 0.2A	28-2-8	2					
10-26	EM510208	Tuning Meter A-085R	46-1-62	1					
10-27	EM510210	Tuning Meter A-086B (Signal)	46-1-63	1					
10-28	EZ443081	Shaft Table, w/metal	81-5008	1					
10-29x	ZW379405	ISO Screw, binding head 3x6		5					
10-30	MS443103	Tuning Shaft A	81-5009	1					

When ordering parts, please describe Parts Number, Serial Number, and Model Number in detail.

Ref. No.	Parts No.	Description	Schematic No.	Q'ty	Ref. No.	Parts No.	Description	Schematic No.	Q'ty
10-52x	BZ514361	Front Chassis Right Box Block Comp.		1	10-109	ZW321298	ISO Screw, binding head 3x8		1
10-53x	BZ515643	Front Chassis Right Box Block Comp. (U, CSA)		1	10-110x	ZW474333	ISO Set Screw, hexagon socket 3x6(cup)		1
10-54x	BZ514170	Front Chassis Right Box Block Comp. (AT-550)		1	10-111	ZG243437	Spring, Pinch Roller	BT-170	1
10-55x	BZ515632	Front Chassis Right Box Block Comp. (AT-550U, CSA)		1	10-112x	ZW366120	Screw, round head 3x6		2
10-56	AA510445	Scale Plate Retainer A	T5-5015	1	10-113	EZ486617	Trans. Reinforcement Plate B	LF-5222	2
10-57x	ZW379405	ISO Screw, binding head 3x6		4	10-114	BT510287	Power Trans. AAT-1	38-4-187	1
10-58	AA510434	Back Plate	T5-5014	1	10-115x	BT510322	Power Trans. AAT-2 (CSA)	38-4-197	1
10-59	AA513832	Dial Plate 580(U)	T5-5013	1	10-116	ZW515946	ISO Screw, binding head 4x8		2
10-60x	AA513843	Dial Plate 580(A)	T5-5013	1	10-117x	ZW273914	Spring Washer M4		2
10-61x	AA513821	Dial Plate 580(J)	T5-5013	1	10-118	AA515755	Trans. Retaining Plate	T5-5042	1
10-62x	AA513786	Dial Plate 550(U)	T5-5013	1	10-119	EJ331435	Lug Plate VB2L	33-4-6	1
10-63x	AA513797	Dial Plate 550(A)	T5-5013	1	10-120x	ER213647	Carbon/R. RD1/4 10k(J) (Insu. type)	35-9-5	1
10-64x	AA510423	Dial Plate 550(J)	T5-5013	1	10-121x	ER458100	Carbon/R. RD1/4 30k(J) (Insu. type)	35-9-5	1
10-65	AA510456	Scale Plate Retainer B	T5-5015	1	10-122x	EC320051	Elect. 10μF 16WV(Vert. type)	24-12-9	1
10-66x	ZW447772	Tapping Screw #2 3x6(BR)		2	10-123x	EF516870	Fuse ST-4 0.2A	39-1-28	1
10-67	AA515744	Chassis Reinforcement Plate	T5-5043	1	10-124	EJ339107	Lug Plate KP2L	33-3-20	1
10-68	EV510570	Co-axial 2-throw Volume GM10A 50 kAx2	36-22-3	2	10-125	EJ510333	Wire Clip 220-JD481610- 0104(Nylon)	2-7-17	3
10-69	ES510581	Rotary Switch Y-383	25-7-29	1	10-126x	EJ514607	Wire Clip 220-JD485210- 01(Nylon)	2-7-18	2
REAR PANEL BLOCK									
10-70x	BZ514181	Rear Panel Block Comp.	AT-58, 55	1	10-127	EZ444328	Dial Pointer	28-2-20	1
10-71x	BZ514192	Rear Panel Block Comp. (U, CSA)	AT-58, 55	1	10-128x	EZ443215	Spacer	81-5064	1
10-72	SP510592	Rear Panel A	T5-5017	1	10-129x	ZW207347	Thread		1
10-73x	SP510603	Rear Panel B (U, CSA)	T5-5017	1	10-130	ZG443226	Spring	81-5065	1
10-74	EJ233370	Power Plug Socket S-18010	40-2-3	1					
10-75	ZW393794	ISO Screw, round head 3x8		6					
10-76	EJ510636	7P Pin Jack	31-1-101	1					
10-77	AA510625	5P Antenna Terminal Plate	32-1-29	1					
10-78x	ZW393794	ISO Screw, round head 3x8		6					
10-79x	ZW348107	ISO Nut M3		6					
10-80x	EF516881	Fuse ST-4 0.3A	39-1-28	1					
10-81	AA378257	Antenna Channel	AA-5551	1					
10-82x	ZW447761	Tapping Screw #2 3x6(BR)		2					
10-83	AA510658	Bar Antenna	55-1-12	1					
10-84	WM378268	Antenna Support	AA-5552	1					
10-85	ZW513900	ISO Screw, round head 4x50		1					
10-86x	ZW273892	Toothed Lock Washer M4		2					
10-87	ZW510660	ISO Nut M4		1					
10-88x	ZW420682	Washer (Nylon)D4.2x9x0.5t		2					
10-89	EZ382263	Strain Relief SR-4K-4	2-7-12	2					
10-90	EZ458673	ST Supporter	AA-745	1					
10-91	EV461608	Volume V24L5N 25S 1 kB	36-2-24	1					
10-92x	ZW379438	ISO Screw, round head 3x6		2					
10-93	BT444137	Balum Trans. 75Ω-300Ω	23-1-129	1					
10-94	EZ516464	AC Cord (CSA) 2.5M	26-3-29	1					
10-95x	EZ315448	Australia Cord (3 core)	26-3-11	1					
10-96x	EZ246936	Strain Relief SR-6W-1 (3 core)	2-7-8	1					
ASSEMBLY BLOCK									
10-97	AA510265	Main Chassis	T5-5001	1					
10-98	EZ457738	Corner Plate A (Left)	55-5002	1					
10-99	EZ457740	Corner Plate B (Right)	55-5002	1					
10-100x	ZW447772	Tapping Screw #2 3x6(BR)		20					
10-101	WM510805	Front End FL-517U (AT-580U, CSA)	53-1-77	1					
10-102x	WM510816	Front End FL-517S (AT-580A)	53-1-76	1					
10-103x	WM510794	Front End FL-517J (AT-580J)	53-1-78	1					
10-104x	WM510300	Front End FL-315U19 (AT-550U, CSA)	53-1-72	1					
10-105x	WM510311	Front End FL-315S11 (AT-550A)	53-1-75	1					
10-106x	WM510298	Front End FL-315J17 (AT-550J)	53-1-71	1					
10-107x	AA510276	Front End Retaining Table (AT-550)	T5-5002	1					
10-108	MR443193	Pulley	81-5062	1					

When ordering parts, please describe Parts Number, Serial Number, and Model Number in detail.

FIG. 11 PHOTO OF FINAL ASSEMBLY BLOCK



FINAL ASSEMBLY BLOCK

Ref. No.	Parts No.	Description	Schematic No.	Q'ty	Ref. No.	Parts No.	Description	Schematic No.	Q'ty
FRONT PANEL BLOCK					ASSEMBLY BLOCK				
11-1x	BZ514326	Front Panel Block Comp.		1	11-12x	AA513527	Bottom Plate	55-5028	1
11-2x	BZ514135	Front Panel Block Comp. (AT-550)		1	11-13	SZ377190	LM Rubber Foot	LM-404	4
11-3	AA510851	Dial Escutcheon B	T5-5023	1	11-14x	ZW419646	Washer (SPC)D4.5x9.8x0.5t		4
11-4x	AA510366	Dial Escutcheon A	T5-5023	1	11-15x	ZW463375	Tapping Screw #2 4x15(truss)		4
11-5	AA510862	Window Plate B	T5-5053	1	11-16x	ZW273778	Earth Lug M3		1
11-6x	AA510377	Window Plate	T5-5024	1	11-17	SZ457773	Upper Plate	55-5027	1
11-7x	AA510388	Escutcheon Retaining Plate (L=324)	T5-5026	2	11-18x	ZW447761	Tapping Screw #2 3x6(BR) (black)		2
11-8x	ZW417273	Screw, binding head 2.3x4		8	11-19	BC514451	Side Plate A1	55-5029	1
11-9x	ZW483456	Screw, countersunk head 2.3x4		6	11-20	BC514462	Side Plate B1	55-5030	1
11-10x	EJ510390	Window Cramp (L=88)	T5-5027	2	11-21	ZW513764	Spot Facing Washer B	2-4-28	8
11-11x	ZW447772	Tapping Screw #2 3x6(BR)		4	11-22	ZW513775	ISO Screw, binding head 4x15	MC-5006	8
					11-23	ZW526577	Collar B, Jack		2
					11-24x	ZW482927	Washer (SPC)D9.2x14x0.5t		2
					11-25	SK442675	Knob A-1	81-5601	1
					11-26x	ZW446422	ISO Set Screw, hexagon socket 4x8		1
					11-27	SK442721	Knob B-1	81-5602	1
					11-28x	ZW446433	ISO Set Screw, hexagon socket 4x4		1
					11-29	SK457918	Mic. Volume Knob	55-5031	2
					11-30x	ZW463364	ISO Set Screw, hexagon socket 3x3(cup)		2
					11-31	SK442765	Lever Switch Knob A1	81-5603	3
					11-32x	EZ378573	FM Di-pole Antenna A (gray)	55-1-1	1
					11-33x	EZ378584	FM Di-pole Antenna B (white)	55-1-2	1
					11-34x	EF516881	Fuse ST-4 0.3A	39-1-28	1
					11-35x	EF516870	Fuse ST-4 0.2A	39-1-28	1

When ordering parts, please describe Parts Number, Serial Number, and Model Number in detail.

INDEX

Parts No.	Ref. No. & Symbol No.	Parts No.	Ref. No. & Symbol No.	Parts No.	Ref. No. & Symbol No.	Parts No.	Ref. No. & Symbol No.	Parts No.	Ref. No. & Symbol No.
AA378257	10-81	EC290520	2-C40	EC492142	4-C28	ER211667	2-R38	ER352045	1-R39
AA510265	10-97	EC290520	3-C21	EC492142	8-C3	ER211667	3-R5	ER352045	2-R41
AA510276	10-107x	EC310792	5-C13,14	EC513933	1-C1 to 32	ER211667	4-R4	ER356501	1-R32
AA510366	11-4x	EC310792	6-C4, 5	EC513933	3-C19	ER211667	4-R5	ER357412	2-R19
AA510377	11-6x	EC311793	3-C9	ED219464	3-D1	ER211667	4-R9	ER357412	4-R1
AA510388	11-7x	EC311793	3-C17	ED219464	4-D1 to 4	ER211667	4-R13	ER357456	1-R43
AA510412	10-5	EC320040	2-C32	ED224526	8-D1 to 4	ER211667	4-R21	ER357456	2-R40
AA510423	10-64x	EC320040	4-C22	ED379855	1-D1, 2	ER211667	4-R25	ER357456	3-R6
AA510434	10-58	EC320040	4-C27	ED379855	2-D1, 2	ER211757	1-R25	ER357456	3-R9, 10
AA510445	10-56	EC320040	5-C8	ED428264	1-D3 to 6	ER211858	7-R2	ER357456	4-R6
AA510456	10-65	EC320051	1-C38	ED428264	2-D3 to 6	ER211950	4-R10	ER357491	1-R24
AA510467	10-18	EC320051	1-C42	ED510772	8-D5	ER212477	7-R3	ER357491	1-R38
AA510480	10-6	EC320051	2-C33,34	EF480903	9-F2	ER212681	1-R14	ER357491	2-R39
AA510502	10-20	EC320051	4-C3	EF495718	9-F1	ER212681	2-R21	ER357491	4-R7
AA510513	10-19	EC320051	4-C10	EF516870	10-123x	ER212872	4-R20	ER357535	4-R15
AA510524	10-10	EC320051	4-C14	EF516870	11-35x	ER212883	1-R19 to 21	ER357535	4-R22
AA510535	10-36x	EC320051	4-C26	EF516881	10-80x	ER212883	1-R33	ER357535	6-R8
AA510546	10-22	EC320051	5-C19 to 22	EF516881	11-34x	ER212883	2-R3	ER357535	6-R10
AA510557	10-23	EC320051	6-C9	EI443665	1-IC5	ER212883	2-R9	ER361528	1-R23
AA510625	10-77	EC320051	6-C11 to 13	EI443665	2-IC1	ER212883	2-R16	ER361528	4-R3
AA510658	10-83	EC320051	7-C1	EI443744	3-IC1	ER212883	2-R26,27	ER361528	4-R15
AA510851	11-3	EC320051	7-C3	EI469844	5-IC1	ER212883	2-R43	ER361642	1-R42
AA510862	11-5	EC320051	10-122x	EI469844	6-IC1	ER212883	2-R45	ER361642	2-R44
AA510884	10-35	EC329771	1-C39	EI469967	1-IC1 to 4	ER212883	4-R2	ER362520	1-R27
AA513527	11-12x	EC329771	2-C36,37	EJ233370	10-74	ER212883	5-R1	ER363644	2-R37
AA513786	10-62x	EC329771	5-C15,16	EJ331435	10-119	ER212883	5-R10,11	ER371946	1-R29
AA513797	10-63x	EC329771	6-C6, 7	EJ339107	10-124	ER212883	5-R15, 16	ER371946	1-R34
AA513821	10-61x	EC329850	1-C35,36	EJ367986	10-7	ER212883	6-R1	ER371946	2-R29
AA513832	10-59	EC329850	2-C38,39	EJ376604	10-41	ER213030	1-R40	ER371946	2-R32
AA513843	10-60x	EC331705	4-C22	EJ510333	10-125	ER213030	2-R42	ER371946	5-R12,13
AA515676	9-2	EC336148	8-C2	EJ510390	11-10x	ER213096	1-R5, 6	ER376413	10-39
AA515744	10-67	EC337500	3-C5	EJ510636	10-76	ER213096	1-R10	ER379473	1-R31
AA515755	10-118	EC337500	3-C13	EJ514607	10-126x	ER213096	1-R28	ER379473	5-R17,18
BA514203	6-1x	EC337500	5-C1	EL295312	10-25x	ER213096	2-R1	ER379517	4-R10
BA514214	4-2x	EC337500	6-C1	EL443518	10-9x	ER213096	2-R5	ER379934	4-R4
BA514225	2-1x	EC339096	3-C2	EL512212	10-21x	ER213096	2-R7	ER380711	5-R6 to 9
BA514236	3-1x	EC339096	8-C4	EM510208	10-26	ER213096	2-R12,13	ER407316	5-R20
BA514247	8-1x	EC350706	1-C40	EM510210	10-27	ER213096	2-R31	ER407316	5-R22
BA514372	5-1x	EC350706	2-C35	EO443608	4-L1	ER213096	7-R4	ER407316	6-R9
BA514383	4-1x	EC350706	3-C1	EO443621	4-L2	ER213647	10-120x	ER407316	6-R11
BA514394	1-1x	EC350706	3-C3, 4	EO443700	1-L2	ER229511	8-R1	ER428567	9-R1
BA514405	7-1x	EC350706	3-C10	EO443700	2-L1	ER304290	1-R1	ER430020	2-R36
BA516161	9-1x	EC350706	3-C12	EO443722	1-L3	ER304290	1-R3	ER450797	9-CR1
BC514451	11-19	EC350706	3-C18	EO443722	2-L3	ER304290	1-R7, 8	ER458100	10-121x
BC514462	11-20	EC350706	3-C20	EO443766	3-L1	ER304290	1-R11	ER492355	1-FL1 to 4
BF377998	10-33	EC350706	5-C2, 3	EO443777	3-L2	ER304290	1-R13	ER492355	2-FL1 to 3
BT247768	7-T1	EC350706	5-C6, 7	EO443788	3-L3, 4	ER304290	2-R18	ER510704	2-FL4
BT379991	4-T1	EC350706	5-C11, 12	EO537232	1-L1	ER304290	2-R28	ER511222	8-R4
BT380384	4-T2	EC350706	6-C2, 3	EO537232	2-L2	ER304290	2-R33	ER512201	5-FL1, 2
BT443610	4-T3	EC350875	3-C6	ER211320	2-R2	ER304290	3-R1	ES443013	10-40
BT444137	10-93	EC350875	3-C14	ER211320	2-R8	ER304290	4-R9	ES445050	10-38
BT510287	10-114	EC350875	5-C4, 5	ER211320	2-R15	ER304290	4-R21	ES510581	10-69
BT510322	10-115x	EC350875	7-C2	ER211465	1-R2	ER304402	3-R8	ES513922	3-SW1
BZ514135	11-2x	EC361721	2-C42	ER211465	1-R4	ER304402	4-R11	ET398711	2-TR6 to 8
BZ514146	10-51x	EC379765	3-C8	ER211465	1-R9	ER304402	4-R17	ET398711	3-TR1 to 4
BZ514157	10-48x	EC379765	3-C16	ER211465	1-R12	ER304402	4-R19	ET398788	1-TR3 to 4
BZ514168	10-49x	EC380621	3-C7	ER211465	1-R17,18	ER306887	6-R6, 7	ET427860	4-TR1 to 4
BZ514170	10-3x	EC380621	3-C15	ER211465	1-R35	ER332212	8-R2, 3	ET443992	5-TR1, 2
BZ514170	10-54x	EC380621	5-C9, 10	ER211465	1-R41	ER336442	1-R30	ET452687	7-TR1
BZ514181	10-70x	EC389474	3-C11	ER211465	2-R4	ER336442	1-R37	ET510693	1-TR1, 2
BZ514192	10-71x	EC394907	4-C9	ER211465	2-R11	ER336442	2-R30	ET510693	2-TR1 to 5
BZ514326	11-1x	EC404256	2-C1 to 31	ER211465	2-R17	ER336442	2-R46	ET510761	8-TR1
BZ514337	10-47x	EC423562	4-C8	ER211465	2-R23,24	ER336442	3-R2	EV443733	1-VR1
BZ514348	10-44x	EC428995	1-C37	ER211465	4-R8	ER336442	4-R14	EV443733	2-VR1
BZ514350	10-45x	EC428995	4-C29	ER211465	4-R12	ER342933	4-R3	EV461608	10-91
BZ514361	10-1x	EC443632	4-C8	ER211465	4-R18	ER343078	4-R3, 4	EV510570	10-68
BZ514361	10-52x	EC443654	4-C5	ER211465	4-R24	ER346601	1-R26	EZ246936	10-96x
BZ515610	10-50x	EC450270	8-C1	ER211465	5-R4, 5	ER346601	3-R7	EZ315448	10-95x
BZ515621	10-46x	EC450527	8-C14	ER211465	5-R14	ER346601	3-R11	EZ378573	11-32x
BZ515632	10-4x	EC452665	5-C17,18	ER211465	6-R2, 3	ER346601	5-R2, 3	EZ378584	11-33x
BZ515632	10-55x	EC452665	6-C8	ER211667	1-R15, 16	ER346601	5-R19	EZ382263	10-89
BZ515643	10-2x	EC452665	6-C10	ER211667	1-R22	ER346601	5-R21	EZ443081	10-28
BZ515643	10-53x	EC457582	4-C24	ER211667	1-R36	ER346601	6-R4, 5	EZ443125	10-11
EA510568	10-24	EC469675	2-C41	ER211667	1-R44	ER346994	4-R16	EZ443215	10-128x
EC220364	1-C41	EC492142	4-C1, 2	ER211667	2-R6	ER347038	2-R22	EZ444328	10-127
EC250885	4-C7	EC492142	4-C4	ER211667	2-R10	ER349828	4-R23	EZ457738	10-98
EC250885	4-C23	EC492142	4-C6	ER211667	2-R14	ER349907	2-R35	EZ457740	10-99
EC250885	4-C24	EC492142	4-C11 to 13	ER211667	2-R20	ER349942	4-R2	EZ458673	10-90
EC250885	4-C25	EC492142	4-C15 to 21	ER211667	2-R25	ER349942	4-R16	EZ486617	10-113
EC290520	1-C33,34	EC492142	4-C27	ER211667	2-R34	ER350100	7-R1	EZ516464	10-94

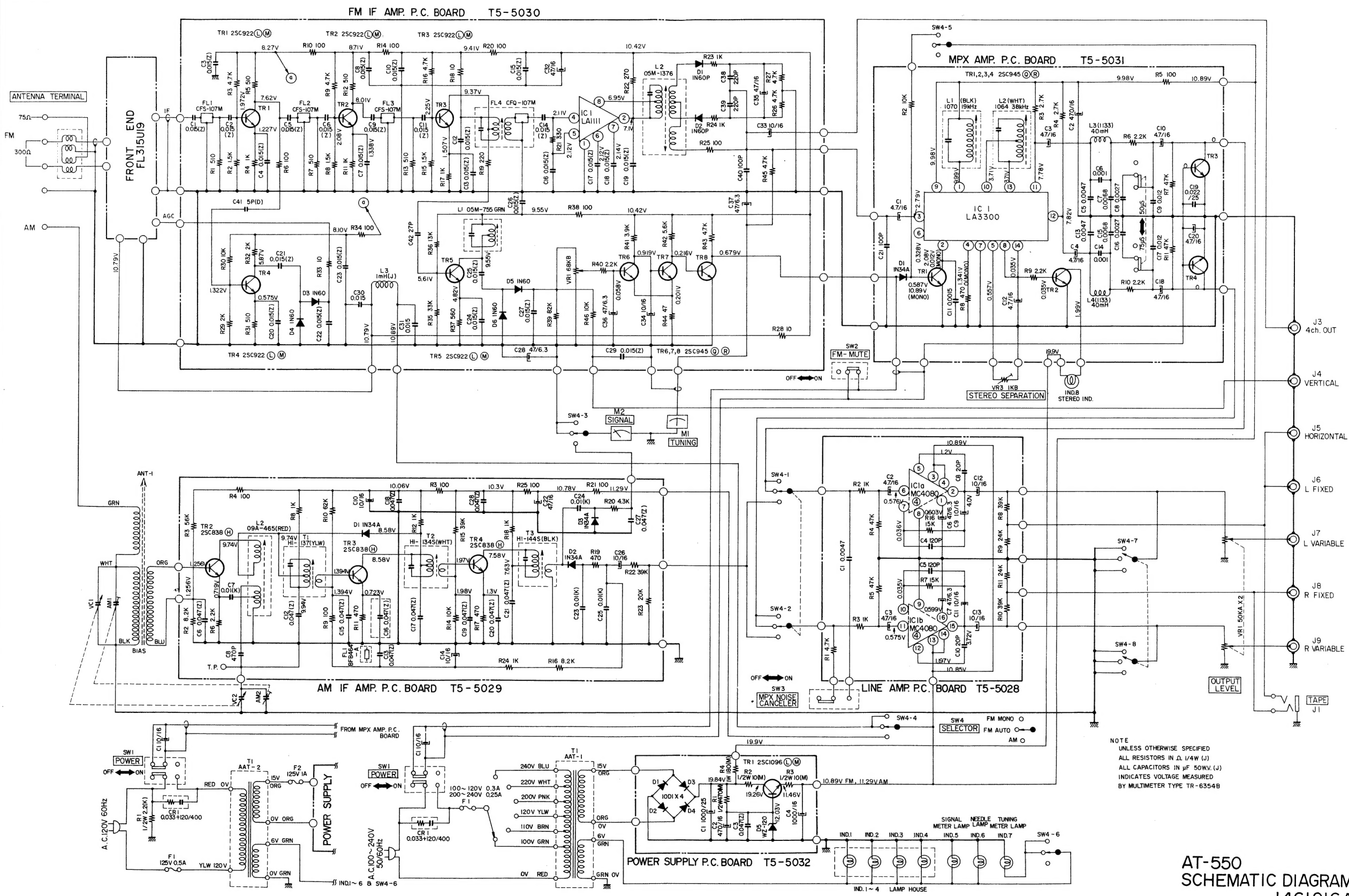
INDEX

Parts No.	Ref. No. & Symbol No.	Parts No.	Ref. No. & Symbol No.	Parts No.	Ref. No. & Symbol No.	Parts No.	Ref. No. & Symbol No.
MR443193	10-108						
MS443103	10-30						
SK442675	11-25						
SK442721	11-27						
SK442765	11-31						
SK457918	11-29						
SP510592	10-72						
SP510603	10-73x						
SZ377190	11-13						
SZ457773	11-17						
WM378268	10-84						
WM428163	10-15						
WM510298	10-106x						
WM510300	10-104x						
WM510311	10-105x						
WM510794	10-103x						
WM510805	10-101						
WM510816	10-102x						
ZG243437	10-111						
ZG443226	10-130						
ZW207347	10-129x						
ZW259514	10-14x						
ZW260054	10-32x						
ZW260122	10-31x						
ZW270088	10-16x						
ZW270191	10-43						
ZW273745	10-12x						
ZW273778	11-16x						
ZW273892	10-86x						
ZW273914	10-117x						
ZW321298	10-109						
ZW348107	10-13x						
ZW348107	10-79x						
ZW366120	10-112x						
ZW371856	10-37x						
ZW379405	10-17x						
ZW379405	10-29x						
ZW379405	10-57x						
ZW379438	10-92x						
ZW393794	10-75						
ZW393794	10-78x						
ZW413728	9-3x						
ZW417273	11-8x						
ZW419646	11-14x						
ZW420682	10-88x						
ZW434597	10-42x						
ZW446422	11-26x						
ZW446433	11-28x						
ZW447761	10-82x						
ZW447761	11-18x						
ZW447772	10-8x						
ZW447772	10-66x						
ZW447772	10-100x						
ZW447772	11-11x						
ZW463364	11-30x						
ZW463375	11-15x						
ZW466413	10-34x						
ZW474333	10-110x						
ZW482927	11-24x						
ZW483456	11-9x						
ZW510660	10-87						
ZW513764	11-21						
ZW513775	11-22						
ZW513900	10-85						
ZW515946	10-116						
ZW526577	11-23						

SECTION 3

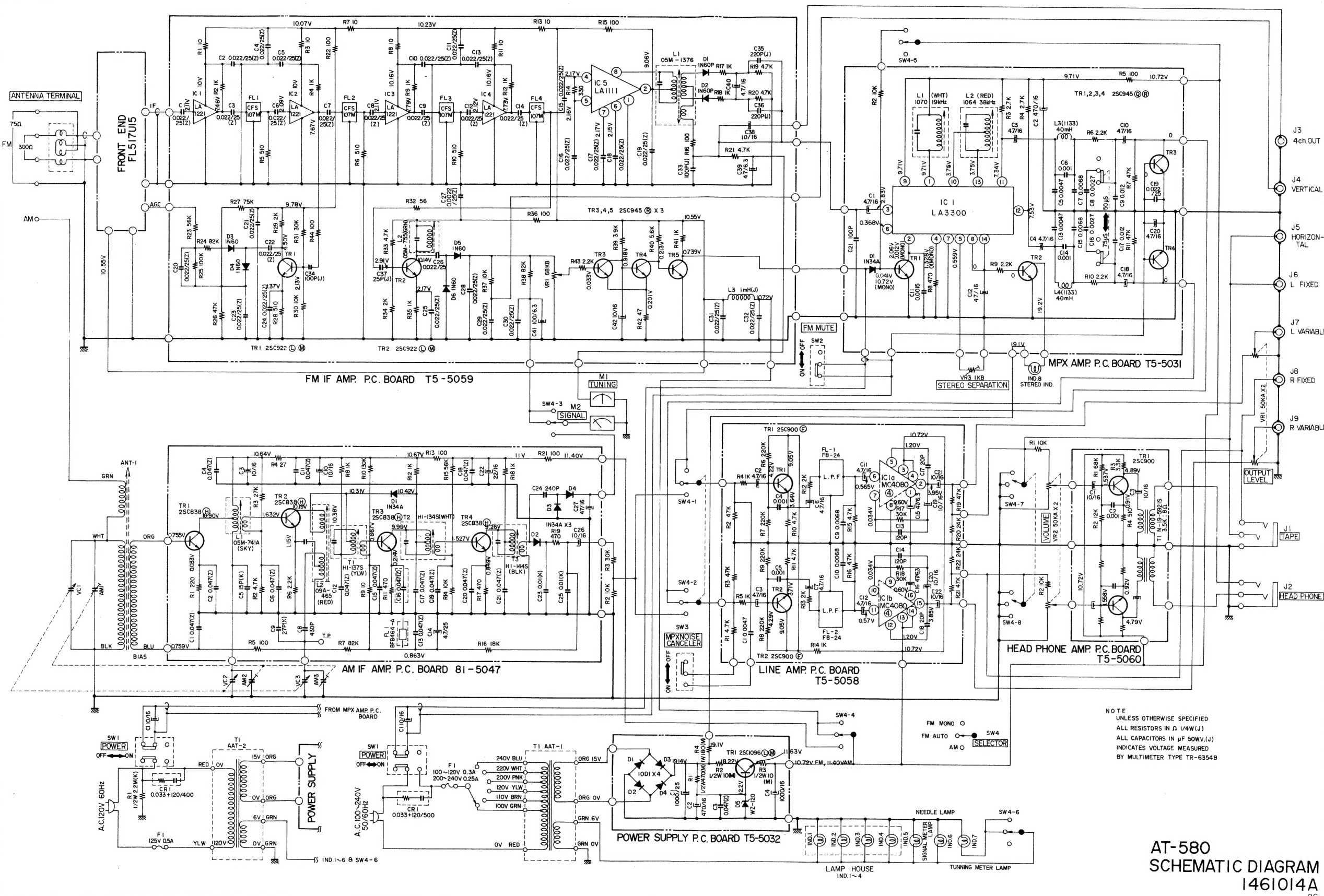
SCHEMATIC DIAGRAM

1. AT-580 SCHEMATIC DIAGRAM
2. AT-550 SCHEMATIC DIAGRAM



NOTE
 UNLESS OTHERWISE SPECIFIED
 ALL RESISTORS IN Ω, 1/4W (J)
 ALL CAPACITORS IN μF 50WV (J)
 INDICATES VOLTAGE MEASURED
 BY MULTIMETER TYPE TR-63548

AT-550
 SCHEMATIC DIAGRAM
 1461016A
 2C



NOTE
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN Ω 1/4W(J)
ALL CAPACITORS IN μ F 50WV.(J)
INDICATES VOLTAGE MEASURED
BY MULTIMETER TYPE TR-635A-B

AT-580
SCHEMATIC DIAGRAM
1461014A
2C