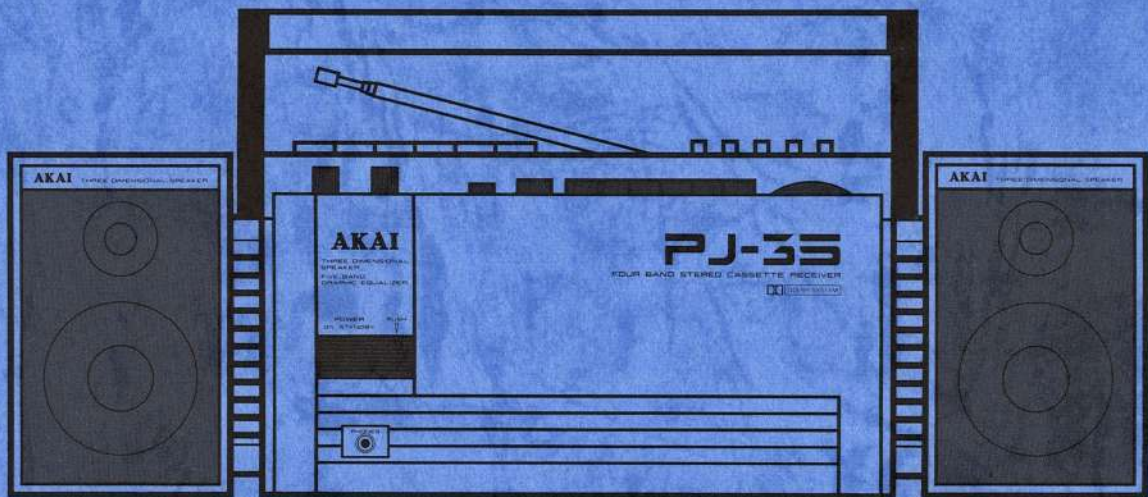


PJ-35FS/FU

AKAI SERVICE MANUAL

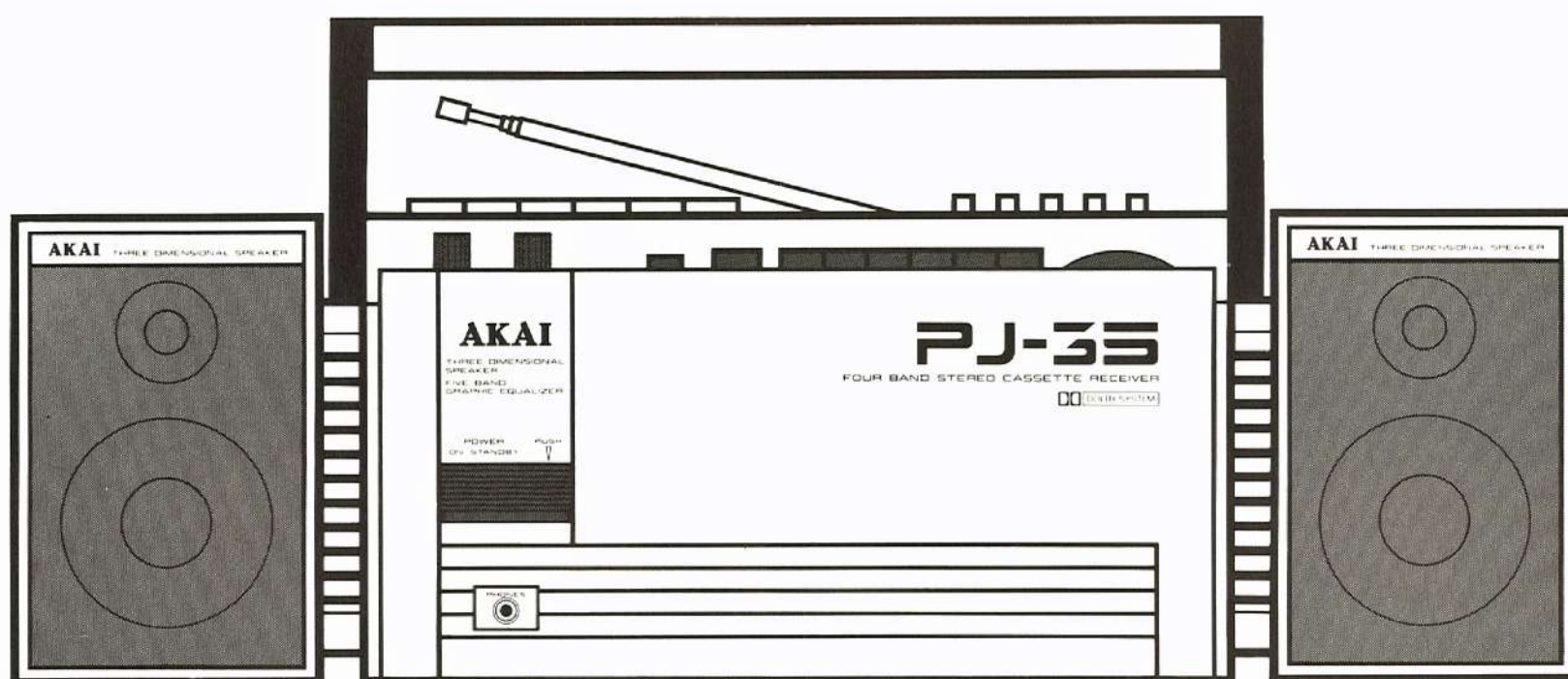


FOUR BAND STEREO CASSETTE RECEIVER

MODEL **PJ-35FS/FU**

AKAI SERVICE MANUAL (ADDITIONAL)

This service manual is for model PJ-35FL service manual.
For DISMANTLING OF UNIT' CONTROLS' PRINCIPAL PARTS LOCATION and etc,
refer to model PJ-35FS/FU service manual.



FOUR BAND STEREO CASSETTE RECEIVER

MODEL PJ-35FL

I. SPECIFICATIONS

TYPE	FOUR BAND STEREO CASSETTE RECEIVER
DECK RECEIVER SECTION	
FREQUENCY RANGE	FM 87.6–108 MHz MW 530–1605 kHz SW 5.9–16.0 MHz LW 150–290 kHz
POWER OUTPUT PEAK MUSIC POWER	
MAXIMUM POWER OUTPUT	Total 30W
RATED POWER OUTPUT	10W x2 (EIAJ 4 ohms)
FTC POWER OUTPUT	7.0W per channel, min. RMS, at 4 ohms from 70Hz to 20kHz, with no more than 10% total harmonic distortion
SPEAKER SYSTEM	Type 3 dimensional –2 way Tweeter 39mm x2 Woofer 92mm x2 Passive Radiator 87mm x2
TRACK SYSTEM	4 track 2 channel stereo
WOW & FLUTTER	0.08% WRMS (JIS)
FREQUENCY RESPONSE	Metal 50Hz to 16,000Hz Normal 50Hz to 13,000Hz
S/N	Better than 50dB (Dolby NR ON: improves up to 10dB above 5kHz)
GENERAL	
POWER REQUIREMENTS	DC power source 12V (eight SUM –1, D, R20 or equivalent sized batteries) AC power source 120V, 60Hz for USA and Canada 220V, 50Hz for Europe except UK 240V, 50Hz for UK and Australia 110V–120V/200V–220V, or 120V/230V, 50/60Hz convertible for other countries.
DIMENSIONS	Total: 538(W) x 165(H) x 187(D) mm (21.2 x 7.4 x 6.5 inches) Cassette receiver: 328(W) x 165(H) x 187(D) mm (12.9 x 7.4 x 6.5 inches) Speaker: 105(W) x 163.5(H) x 152(D) mm (4.1 x 6.4 x 6.0 inches)
WEIGHT	Total: 5.9 kg (13 lbs) Cassette receiver: 3.4 kg (7.5 lbs) Speaker: 1.25 kg (2.75 lbs)

* For improvement purposes, specifications and design are subject to change without notice.

* Noise reduction manufactured under license from Dolby Laboratories Licensing Corporation. “Dolby” and double-D symbol are trade marks of Dolby Laboratories Licensing Corporation.

II. TUNER ADJUSTMENT

2-1. THE INSTRUMENT CONNECTIONS

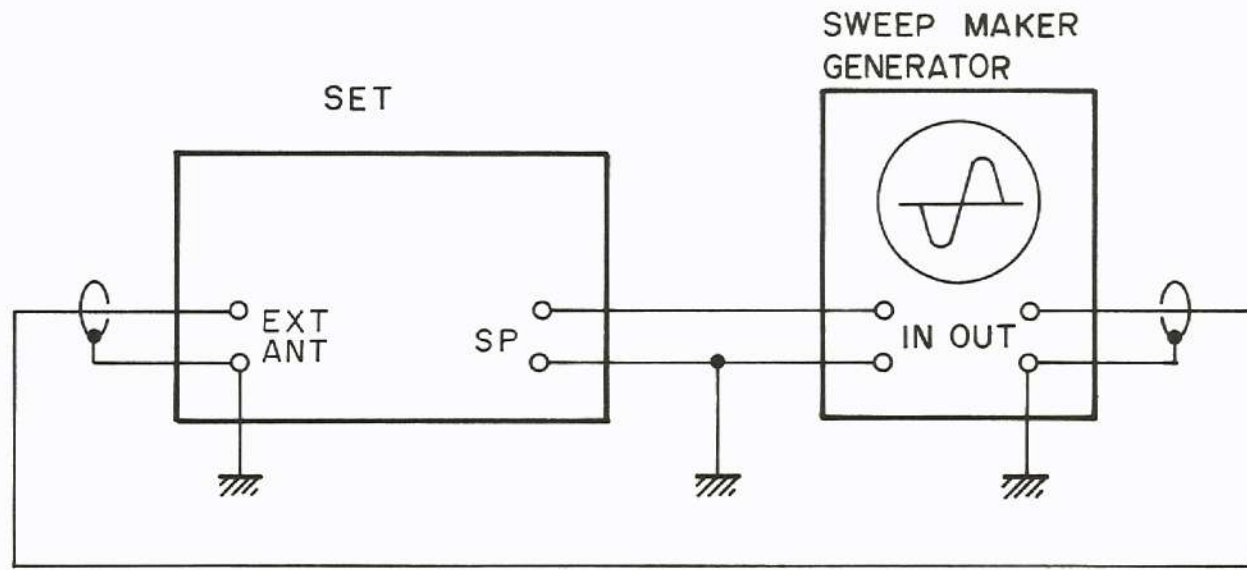


Fig. 2-1 FM IF Adjustment

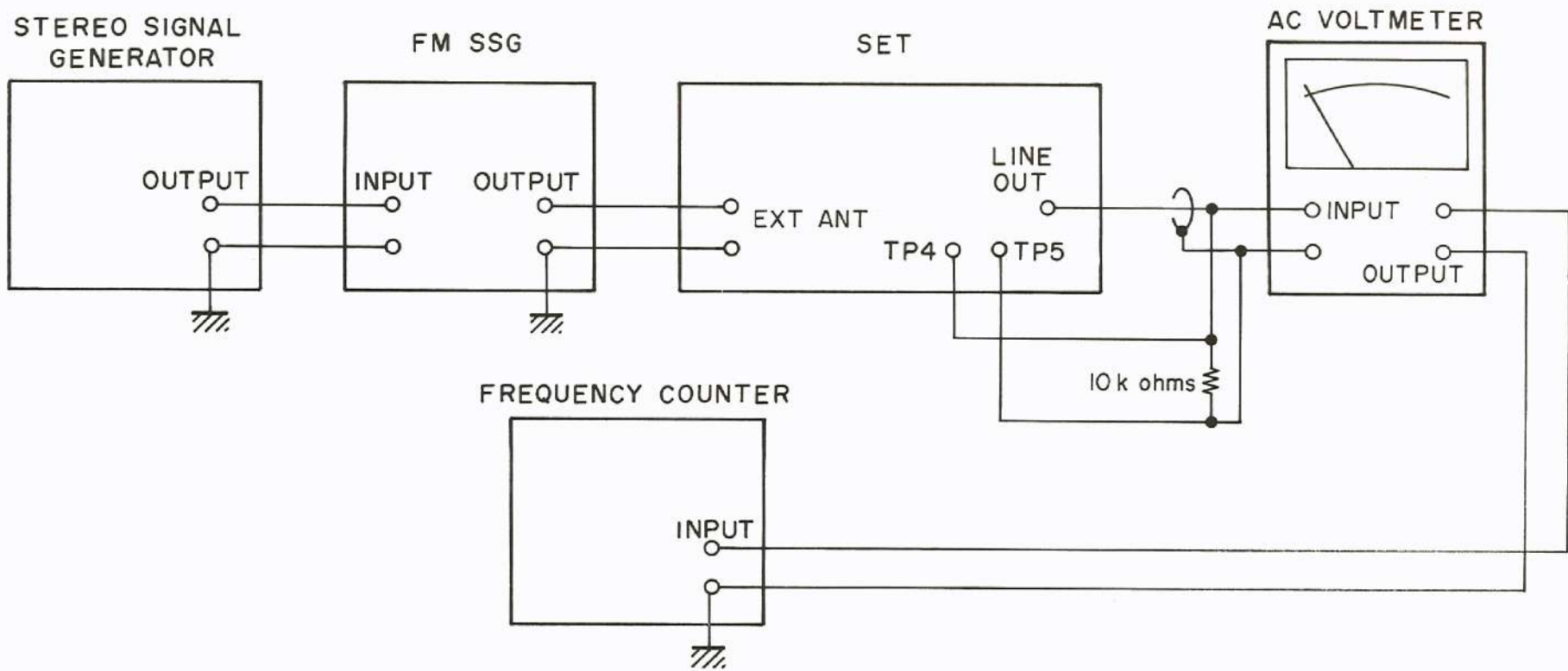


Fig. 2-2 FM Adjustment and Stereo Adjustment

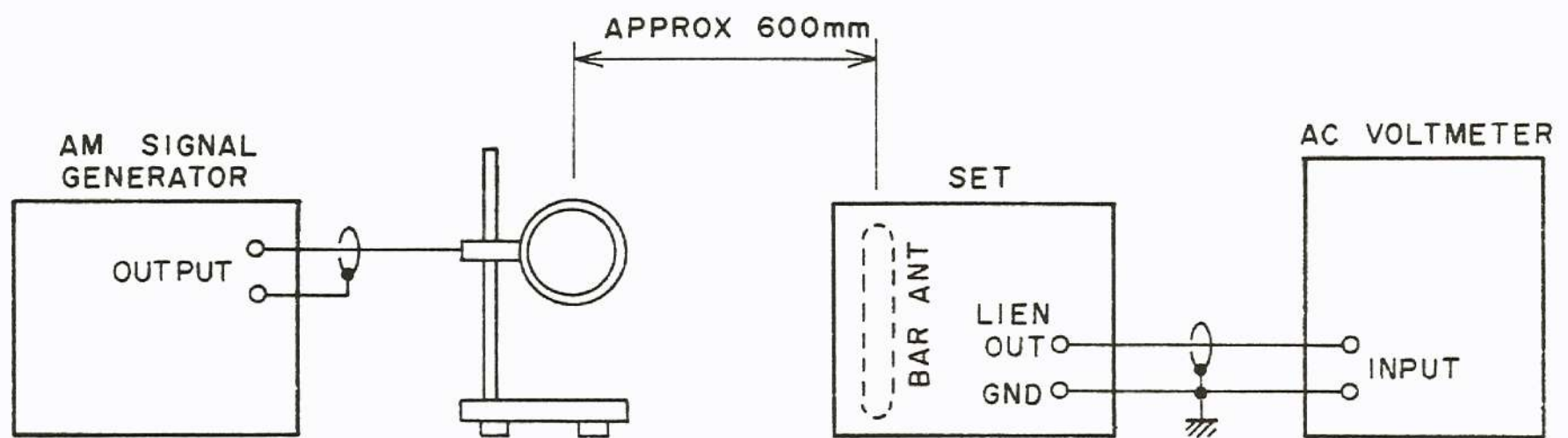


Fig. 2-3 MW, LW Adjustment

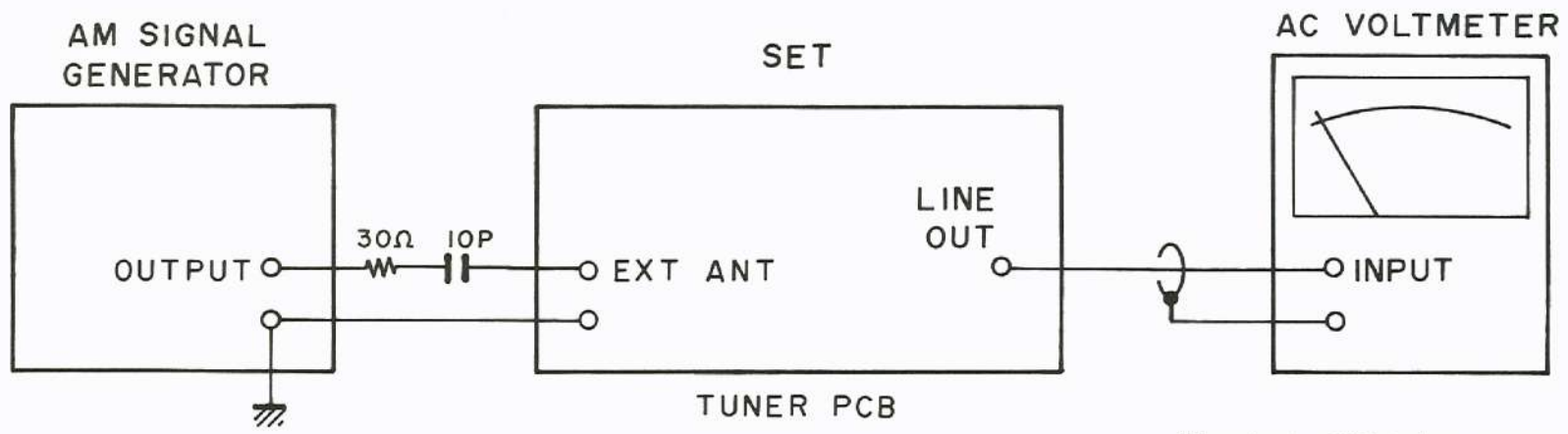


Fig. 2-4 SW Adjustment

2-2. ADJUSTMENT POINTS

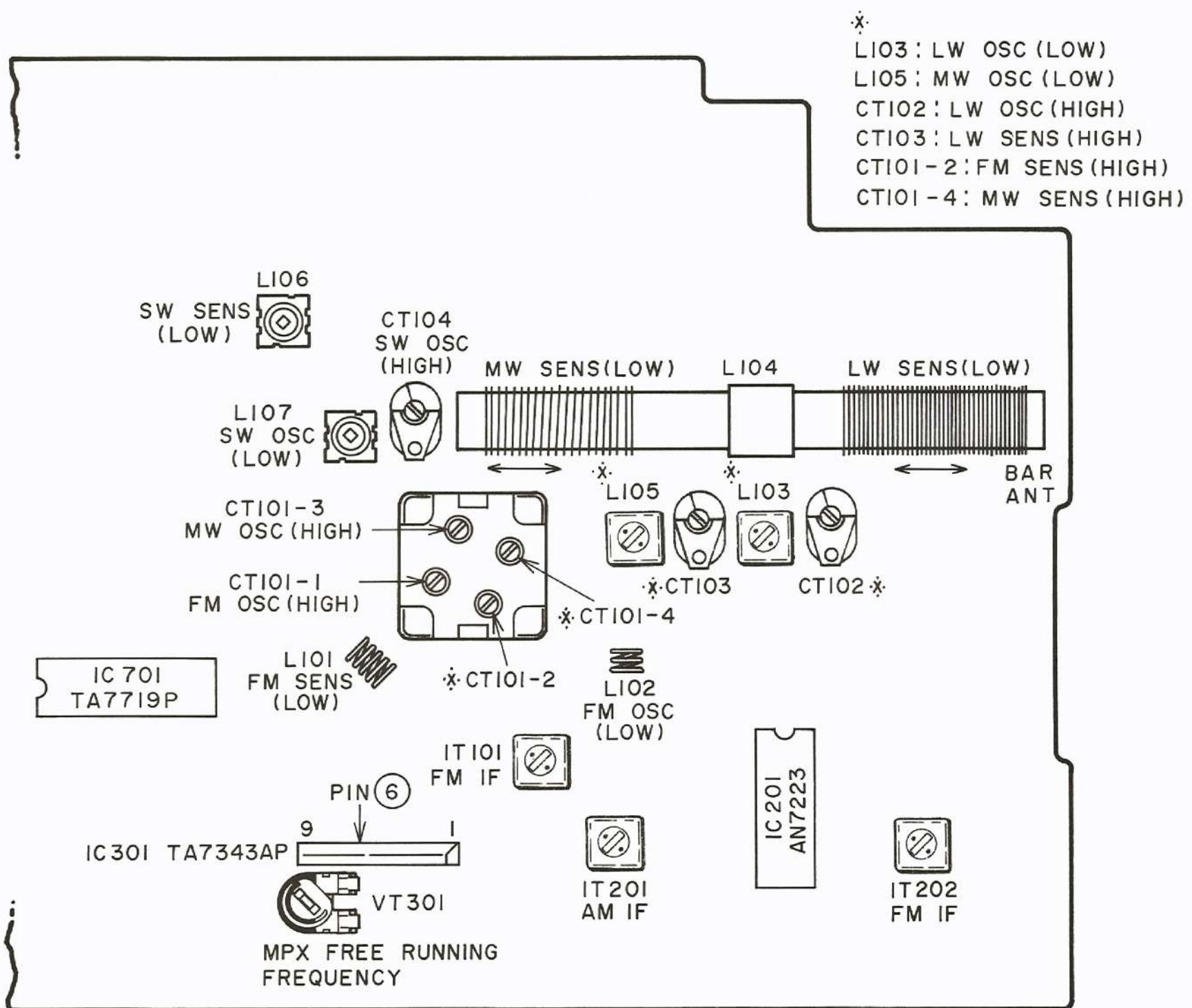



Fig. 2-5

2-3. FM ADJUSTMENT

NOTE:

1. Set the S.S.G to 75kHz deviation, 1kHz for C.A.U.S. models 40kHz deviation, 1kHz for B.E.V models.
2. Confirm that the sensitivity margin between Low and High Range sensitivities is within $3dB\mu$, otherwise readjust Low and High range sensitivities.
3. $0dB\mu = 1\mu V$.
4. Set BAND SELECTOR to FM.

Step	Adjustment Item	SSG FREQ/ATT	SET TUNING	Adjustment Part	Result	Remarks
1	FM IF	10.7MHz 60dB μ	SET TO LOW END	IT101 IT202	 Maximum S Curve waveform (Upper waveform symmetry)	10.7MHz
2	FM OSC (LOW)	87.3MHz 60dB μ	SET TO LOW END	L102	Maximum output	
3	FM OSC (HIGH)	109.0MHz 60dB μ	SET TO HIGH END	CT101-1	Maximum output	
4	For best Result, Repeat steps 2 and 3 two or three times.					
5	SENSITIVITY (LOW)	90.0MHz 60dB μ	90.0MHz	L101	Maximum output	
6	SENSITIVITY (HIGH)	106.0MHz 60dB μ	106.0MHz	CT101-2	Maximum output	
7	For best Result, Repeat Steps 5 and 6 two or three times.					
8	MPX Free Running Frequency	106.0MHz 60dB μ	106.0MHz	VT301	38kHz ± 0.1 kHz	Connect a Frequency counter between Pin ⑥ of IC301 and GND.

2-4. MW (AM) ADJUSTMENT

NOTE:

1. Set the S.S.G to 30% 400Hz of each.
2. Confirm that the sensitivity margin between Low and High Range sensitivities is within $6dB\mu$, otherwise readjust Low and High Range Sensitivities.
3. Adjust the sensitivity (Low) by moving the coil in the direction shown with arrow in Fig. 2-5.
4. Set BAND SELECTOR to MW.

Step	Adjustment Item	SSG FREQ	SET TUNING	Adjustment Part	Result	Remarks
1	AM IF	460kHz	SET TO LOW END	IT201	Maximum output	
2	MW OSC (LOW)	515kHz	SET TO LOW END	L105	Maximum output	
3	MW OSC (HIGH)	1650kHz	SET TO HIGH END	CT101-3	Maximum output	
4	For best Result, Repeat Steps 2 and 3 two or three times.					
5	SENSITIVITY (LOW)	600kHz	600kHz	(MW BAR ANT) (See NOTE 3)	Maximum output	
6	SENSITIVITY (HIGH)	1400kHz	1400kHz	CT101-4	Maximum output	
	For best Result, repeat Steps 5 and 6 two or three times.					

2-5. LW ADJUSTMENT

NOTE:

1. Set the S.S.G to 30% 400Hz of each.
2. Confirm that the sensitivity margin between Low and High Range sensitivities is within $6\text{dB}\mu$, otherwise readjust Low and High Range Sensitivities.
3. Adjust the sensitivity (Low) by moving the coil in the direction shown with arrow in Fig. 2-5.
4. Set BAND SELECTOR to LW.

Step	Adjustment Item	SSG FREQ	SET TUNING	Adjustment Part	Result	Remarks
1	LW OSC (LOW)	145kHz	SET TO LOW END	L103	Maximum output	Set BAND SELECTOR to LW.
2	LW OSC (HIGH)	295kHz	SET TO HIGH END	CT102	Maximum output	
3	For best Result, Repeat Steps 1 and 2 two or three times.					
4	LW SENSITIVITY (LOW)	160kHz	160kHz	(LW BAR ANT) (See NOTE 3)	Maximum output	
5	LW SENSITIVITY (HIGH)	250kHz	250kHz	CT103	Maximum output	
6	For best Result, Repeat Steps 4 and 5 two or three times.					

2-6. SW ADJUSTMENT

NOTE:

1. Set the S.S.G to 30% 400Hz of each.
2. Confirm that the sensitivity margin between Low and High Range sensitivities is within $6\text{dB}\mu$, otherwise readjust Low and High Range Sensitivities.
3. Set BAND SELECTOR to SW.

Step	Adjustment Item	SSG FREQ	SET TUNING	Adjustment Part	Result	Remarks
1	SW OSC (LOW)	5.6MHz	SET TO LOW END	L107	Maximum output	Set BAND SELECTOR to SW.
2	SW OSC (HIGH)	16.5MHz	SET TO HIGH END	CT104	Maximum output	
3	For best Result, Repeat Steps 1 and 2 two or three times.					
4	SW SENSITIVITY (LOW)	6.5MHz	6.5MHz	L106	Maximum output	

III. DIALCORD RESTRINGING

1. Build a Dial cord as shown in Fig. 3-1.
2. Turn the Dial drum clockwise fully.
3. Set the Dial cord as shown in Fig. 3-2.
4. Turn the Tuning Dial to Low end, then set the Dial pointer to Low end point as shown in Fig. 3-3.

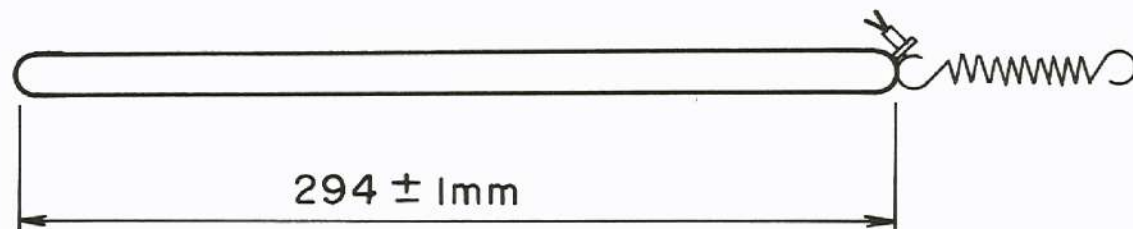


Fig. 3-1

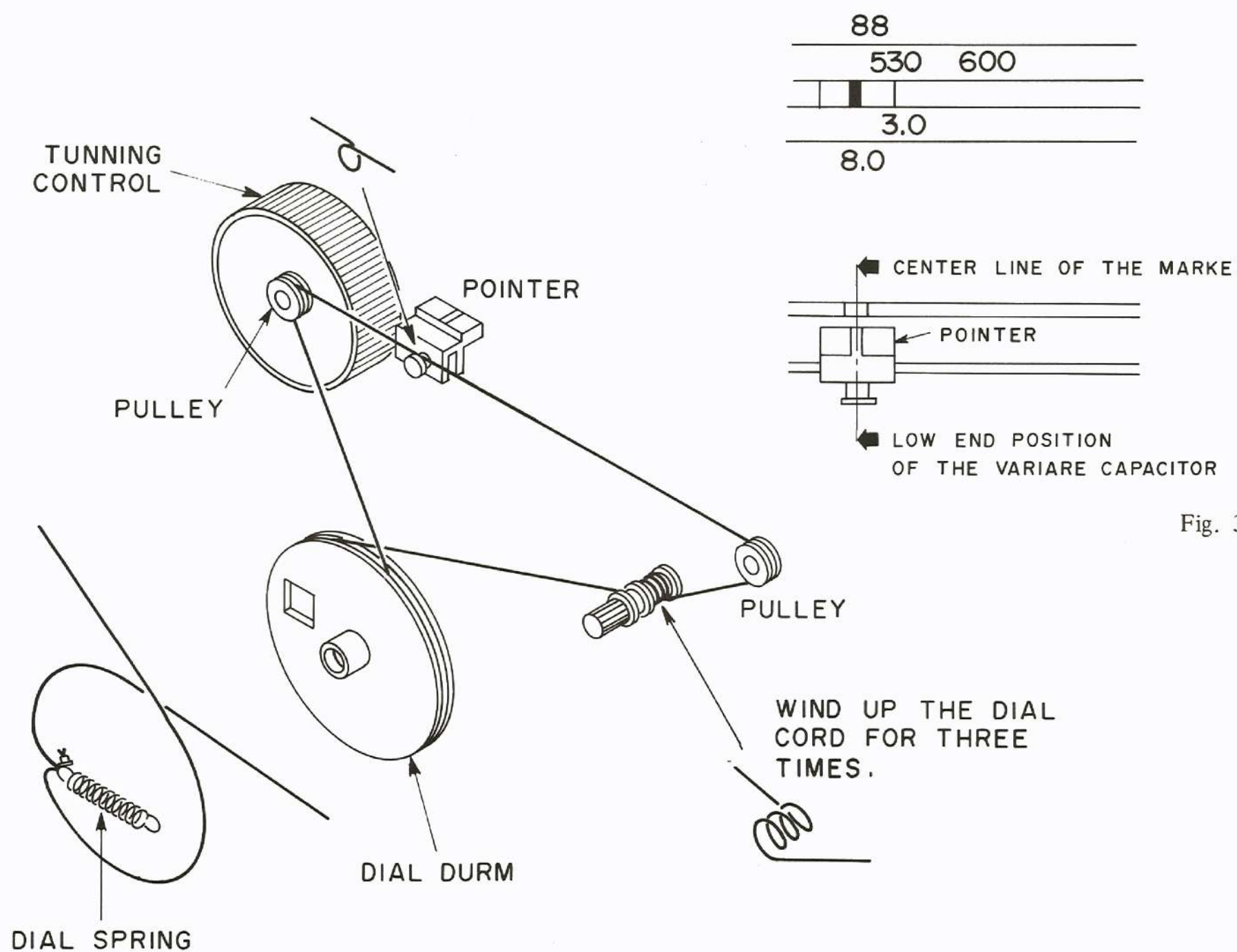


Fig. 3-3

Fig. 3-2

IV. PARTS LIST

The composite parts of model PJ-35FL, except for these which have been changed as list following pages, are identical to these of Model PJ-35FS/FU. Therefore, when ordering parts for this Model, please utilize Model PJ-35FS/FU.

2. PC BOARD BLOCK

REF. NO.	PART NO.	DESCRIPTION
2-1B	BA-716655	PC MAIN BLK PJ-35FL
2-2C	BA-716651	PC AF BLK PJ-35FL

NOTE:

(1) PC MAIN BLK consists of following PC BOARDS.

- MAIN PC BOARD
- G.EQ PC BOARD
- REC PC BOARD

(2) PC AF BLK consists of following PC BOARDS.

- AF PC BOARD
- POWER SUPPLY PC BOARD
- POWER SW PC BOARD
- HEAD PHONE PC BOARD

3. MAIN PC BOARD

REF. NO.	PART NO.	DESCRIPTION
3-TR623B	ET-307195	TR2SC2240 GR, BL
3-VT601B,602B	EV-715103	R S-FIX 103
3-L103B	EO-702670	COIL OSC LW
3-L104B	EO-717094	COIL ANT ASSY
3-L105B	EO-713196	COIL OSC MW 22245450
3-L106B	EO-714066	COIL ANT SW
3-L107B	EO-714064	COIL OSC SW
3-CT102B,103B	EC-706605	C S-FIX 1R
3-VC101B	EC-716460	VC POLY VC-4-20/335

4. AF PC BOARD

REF. NO.	PART NO.	DESCRIPTION
4-TR409B	ET-307195	TR 2SC2240 GR, BL
4-R3A	ER-702368	△ R FUSE 1/4W 2R2J

5. G.EQ PC BOARD

REF. NO.	PART NO.	DESCRIPTION
5-R856B	ER-303840	R OMF H FS 1W 470J

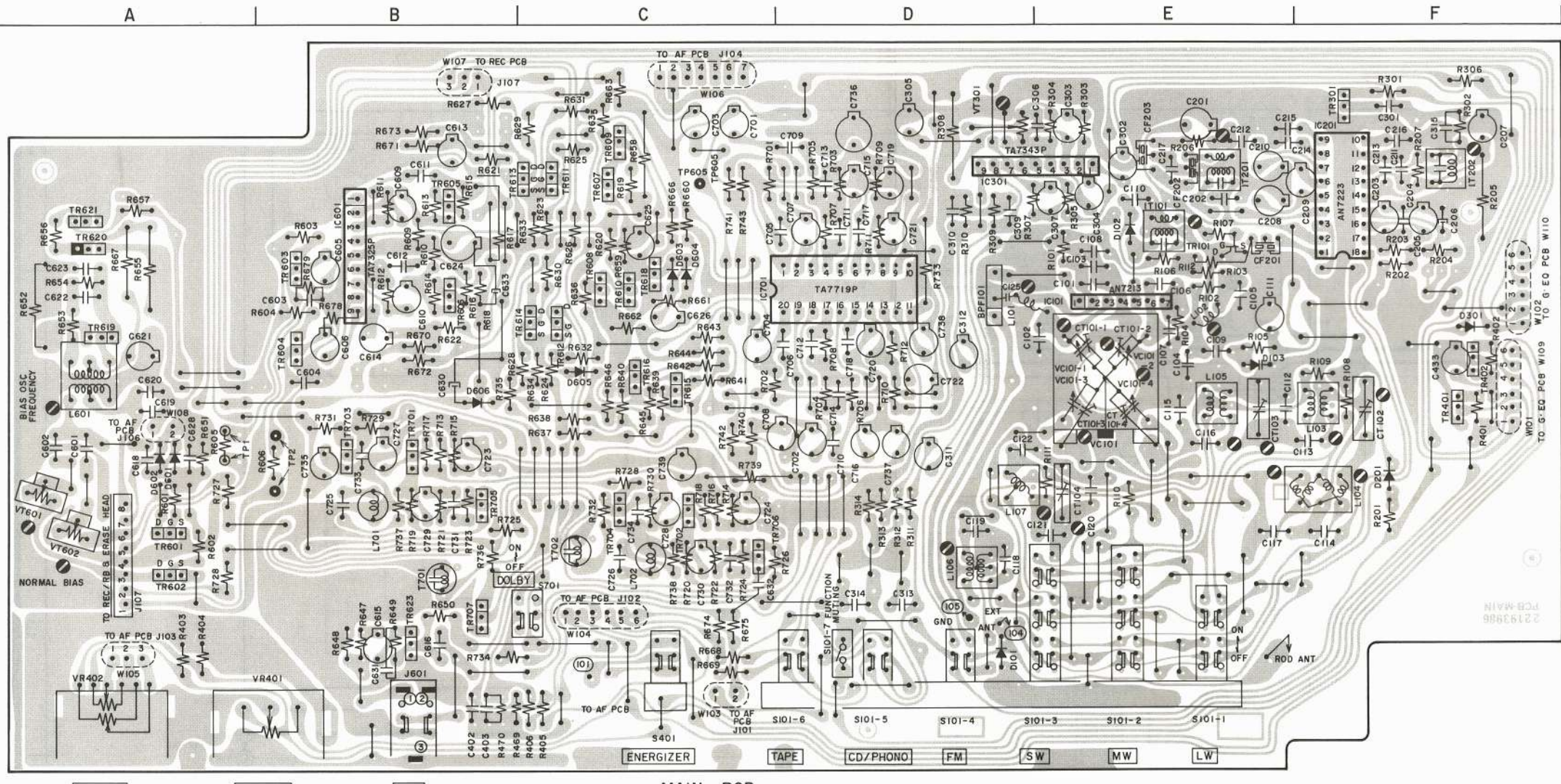
6. POWER SUPPLY PC BOARD

REF. NO.	PART NO.	DESCRIPTION
6-J1A	EJ-715154	△ SOCKET INLET
6-F1A	EF-300609	△ FUSE FST3100 T 250V 5.00A

7. FINAL ASSEMBLY BLOCK

REF. NO.	PART NO.	DESCRIPTION
7-10xC	EW-706565	△ AC CORD [E,V]
7-10xD	EW-716096	△ AC CORD 2 CORES BS [B]
7-12B	BC-716151	CABINET UPPER BLK PJ-35FL
7-12D	BC-716458	CABINET UPPER BLK PJ-35FL-R
7-12F	BC-716456	CABINET UPPER BLK PJ-35FL-B
7-T1C	BT-716147	△ TRANS POWER 22224723 [E,V]
7-T1D	BT-716146	△ TRANS POWER 22224722 [B,S]

AKAI ELECTRIC CO., LTD.

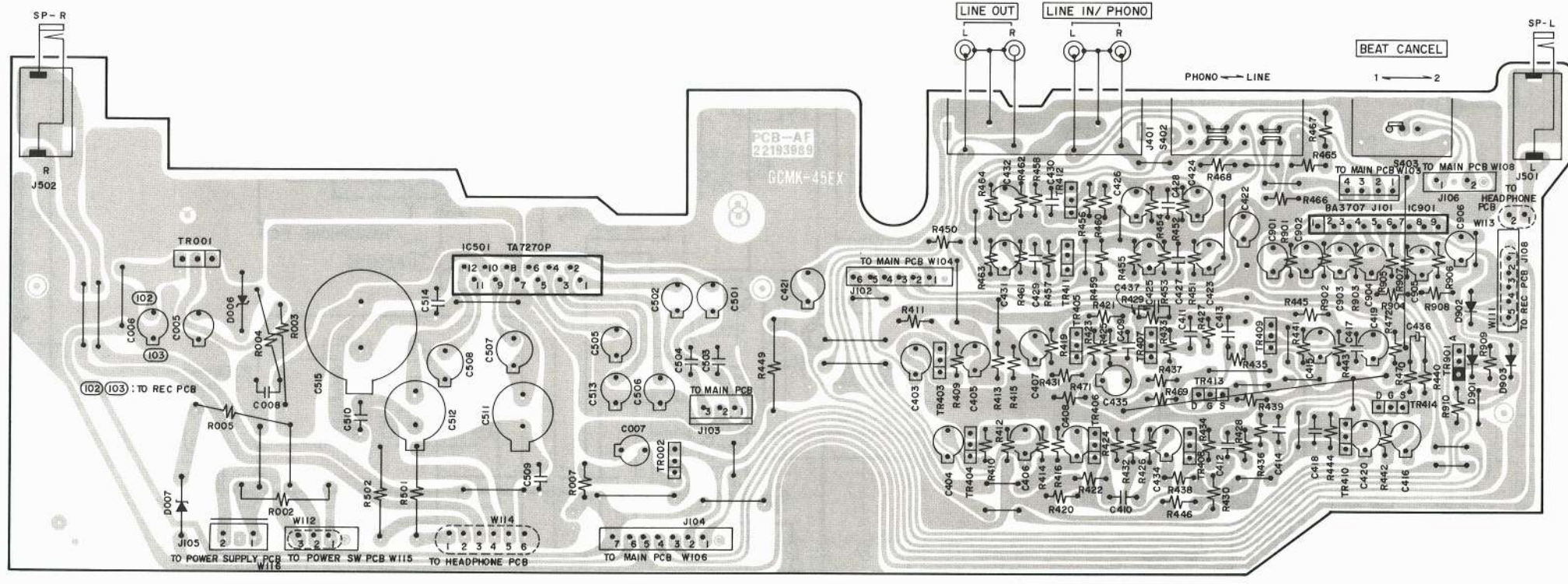


MAIN PCB

LOCATION OF COMPONENTS

TR's	IC's	CONNECTOR's
TR301.....1F	IC101.....2E	W101.....2F
TR401, 402.....2A	IC201.....1F	W102.....1F
TR601, 602.....3A	IC301.....1D	W103.....3C
TR603, 605.....1B	IC601.....1B	W104.....3C
TR604, 606.....2B	IC701.....1D	W105.....3A
TR607, 609, 611, 613.....1C		W106.....1C
TR608, 610, 612, 614, 615, 616.....2C		W107.....1B
TR618.....1C		W108.....2A
TR620, 621.....1A		W109.....3C
TR623.....3B		W110.....3A
TR701, 703, 705.....2B		
TR702, 704.....2C		
TR706.....3C		
TR707.....3B		

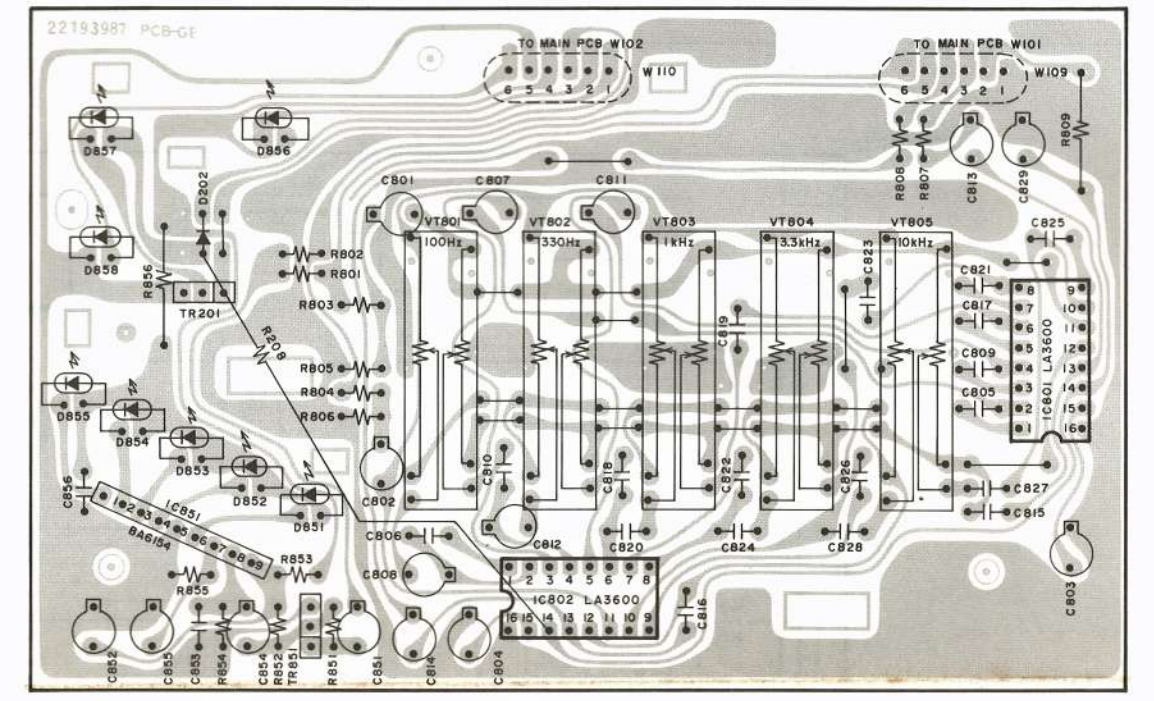
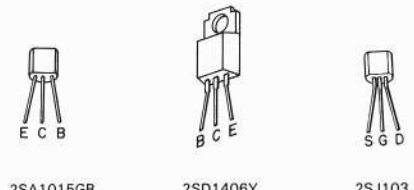
L101	FM SENS. (LOW)
L102	FM OSC (LOW)
L103	LW OSC (LOW)
L104	MW, LW SENS. (LOW)
L105	MW OSC (LOW)
L106	SW SENS. (LOW)
L107	SW OSC (LOW)
IT101	FM 1F
IT201	MW (AM) 1F
IT202	FM 1F
CT101-1	FM OSC (HIGH)
CT101-2	FM SENS. (HIGH)
CT101-3	MW OSC (HIGH)
CT101-4	MW SENS. (HIGH)
CT102	LW OSC (HIGH)
CT103	LW SENS. (HIGH)
CT104	SW OSC (HIGH)
VT301	MPX Free Running Frequency



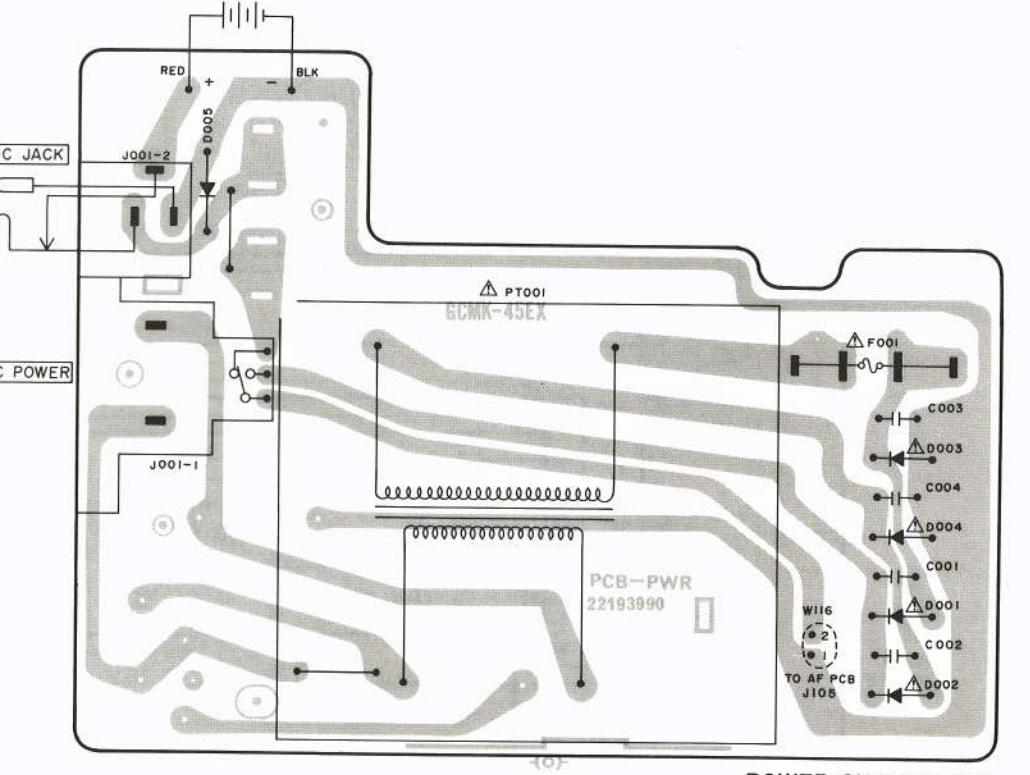
AF PCB

LOCATION OF COMPONENTS

TR's	CONNECTOR's
TR001.....1A	J101.....1F
TR002.....2C	J102.....1D
TR403, 404.....2D	J103.....2C
TR405, 406, 407, 408, 409.....2E	J104.....2C
TR410.....2F	J105.....2A
TR411, 412.....1E	J106.....1F
TR413.....2E	W111.....1F
TR414.....2F	W112.....2B
TR901.....2F	W113.....1F
IC's	W114.....2B
IC501.....1B	W115.....1A
IC901.....1F	

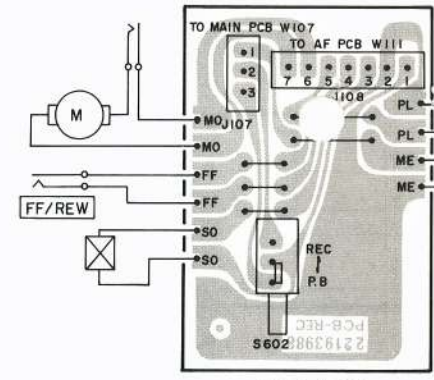


G-EQ PCB

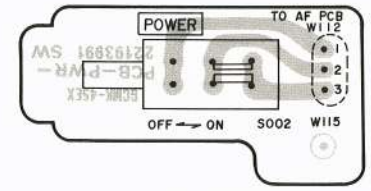
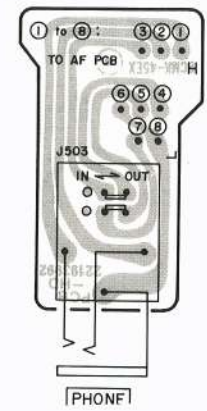


POWER SUPPLY PCB

WARNING: Δ INDICATES SAFETY CRITICAL COMPONENTS FOR CONTINUED SAFETY. REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS.
 AVERTISSEMENT: Δ IL INDIQUE LES COMPOSANTS CRITIQUES DE SÉCURITÉ. POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL, NE REMPLACER QUE DES PIÈCES RECOMMANDÉES PAR LE FABRICANT.



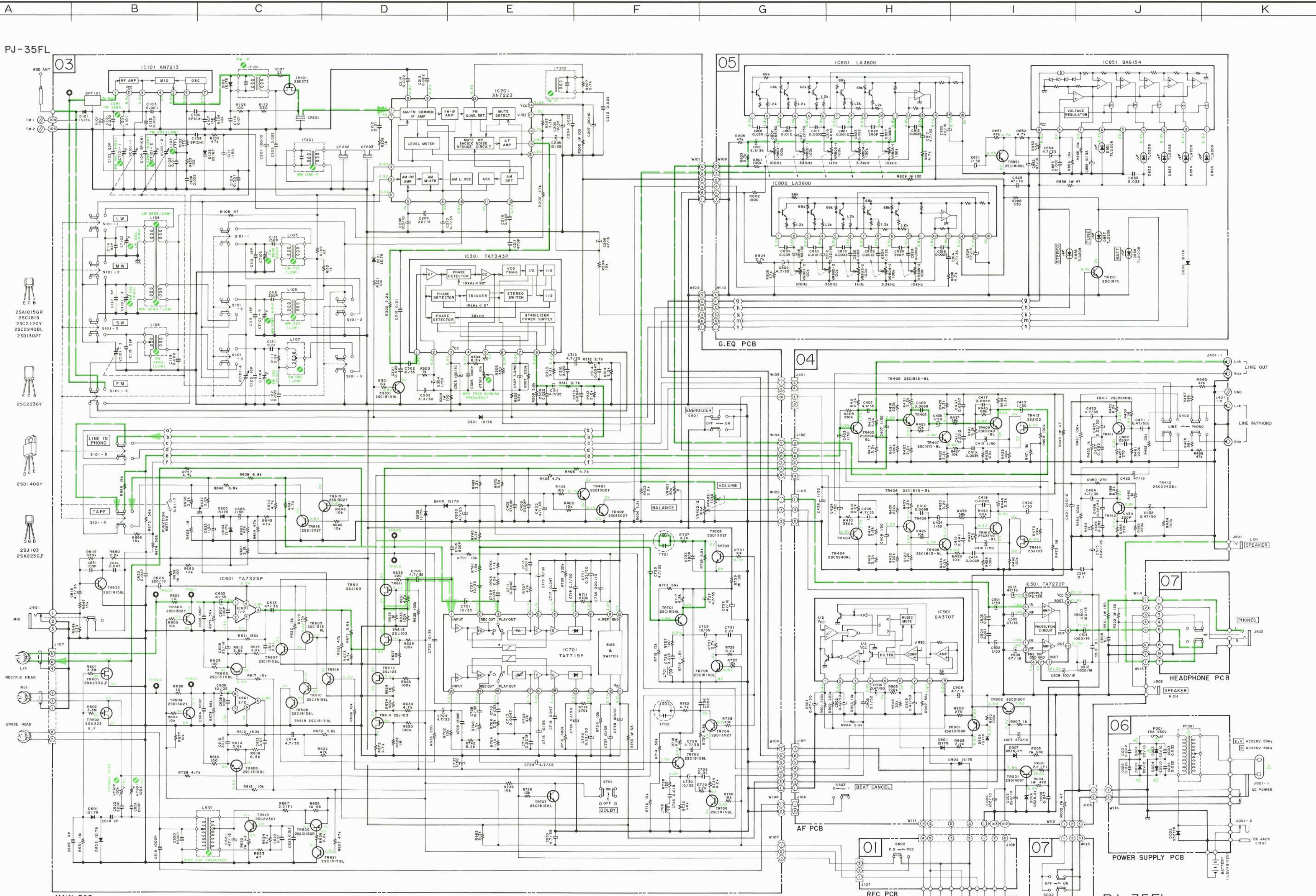
REC PCB



POWER SW PCB

AKAI SCHEMATIC DIAGRAM AND PCB BOARD

MODEL PJ-35FL



- 25A1015GR
- 25C1815
- 25C2120Y
- 25C2240BL
- 25D1302T
- 25C2236Y
- 25D1406Y
- 25J103
- 25K233GF

(POWER SUPPLY) LINE
 REC MODE SIGNAL LINE
 P.B AND FM SIGNAL LINE

WARNING: A INDICATES SAFETY CRITICAL COMPONENTS FOR CONTINUED SAFETY.
 REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S
 RECOMMENDED PARTS.
 AVERTISSEMENT: A₁ INDIQUE LES COMPOSANTS CRITIQUES DE SECURITE.
 POUR MAINTENIR LE DEGRE DE SECURITE DE L'APPAREIL,
 NE REMPLACEZ QUE LES PIECES RECOMMANDEES PAR LE FABRICANT.

NOTE: UNLESS OTHERWISE SPECIFIED
 ALL RESISTORS IN OHMS (1/5W/1/4)
 ALL CAPACITORS IN P.F. (50WV/10)
 POWER TRANSFORMER IS DIFFERENT
 ACCORDING TO AREA.

VOLTAGES ARE INDICATED AT FM TUNED MODE

PJ-35FL
SCHEMATIC DIAGRAM
 No. 850902A

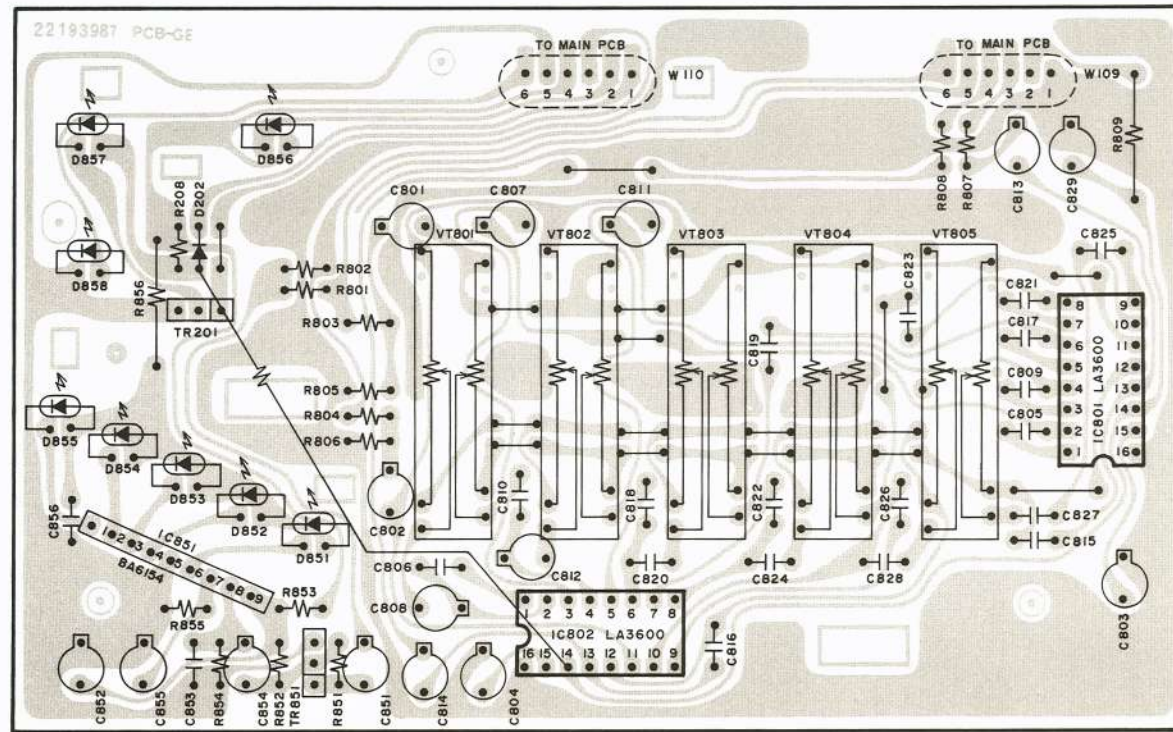
AKAI

MODEL PJ-35FS/FU

SCHEMATIC DIAGRAM AND PC BOARD

TABLE OF CONTENTS

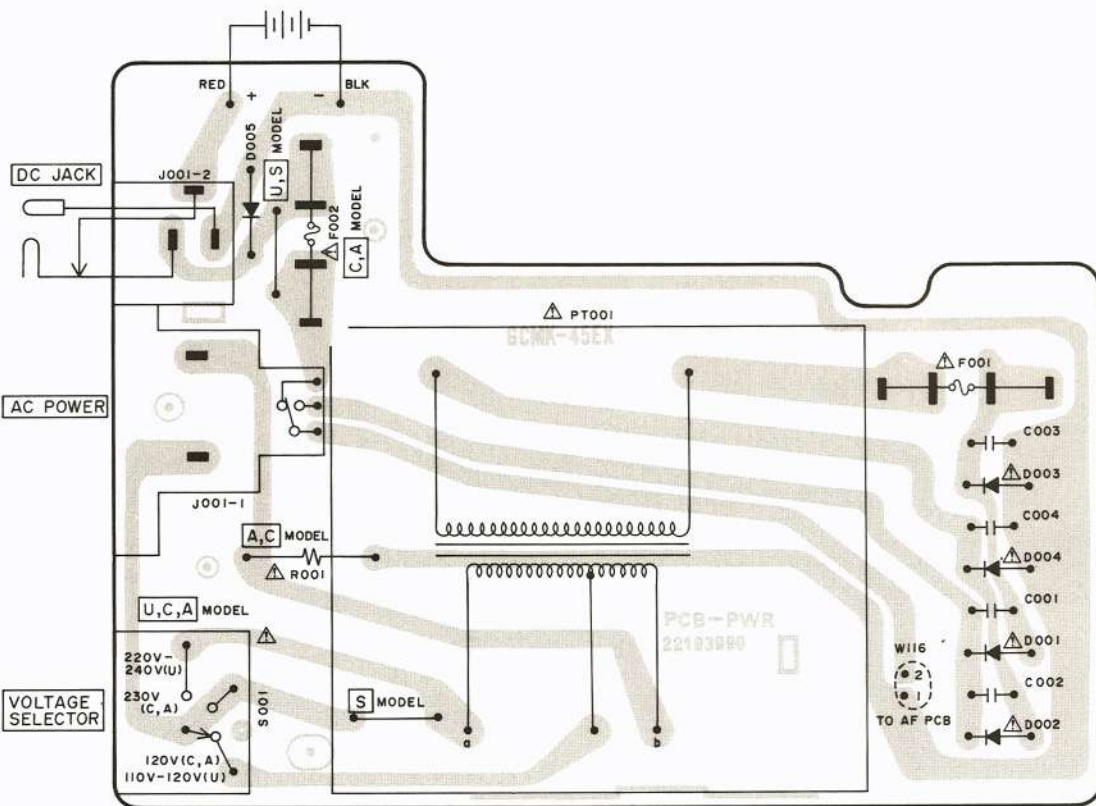
1. G.EQ PCB, HEAD PHONE PCB, POWER SUPPLY PCB, POWER SW PCB, REC PCB	2
2. AF PCB	3
3. MAIN PCB	4
4. PJ-35FS/FU SCHEMATIC DIAGRAM	5



TR201..... 2SC1815
 TR851..... 2SC1815

G-EQ PCB

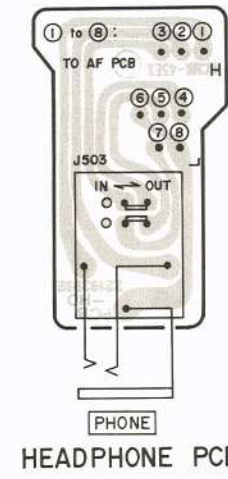
2SC1815 E C B



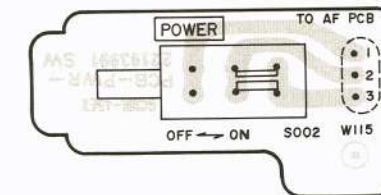
POWER SUPPLY PCB



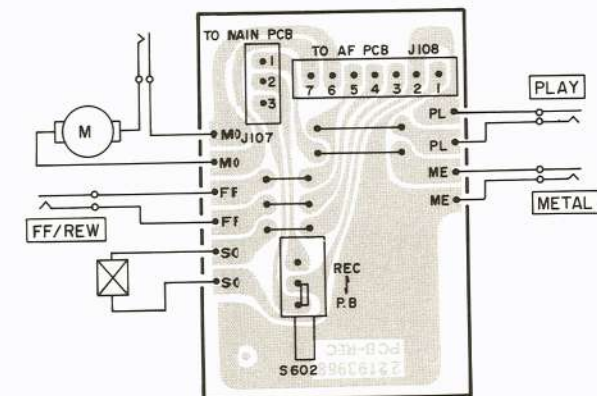
WARNING: Δ INDICATES SAFETY CRITICAL COMPONENTS. FOR CONTINUED SAFETY, REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS.
 AVERTISSEMENT: Δ IL INDIQUE LES COMPOSANTS CRITIQUES DE SÉCURITÉ. POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL, NE REMPLACER QUE DES PIÈCES RECOMMANDÉES PAR LE FABRICANT



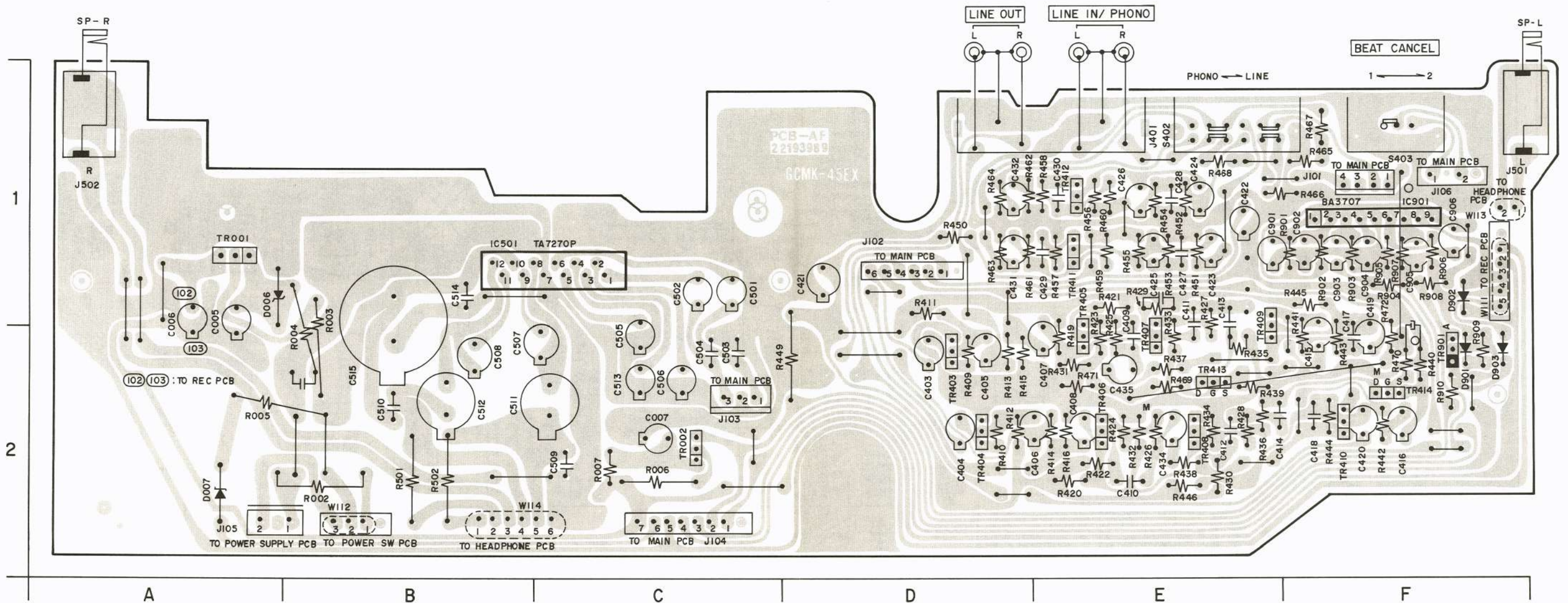
HEADPHONE PCB



POWER SW PCB



REC PCB



AF PCB

LOCATION OF COMPONENTS

TR's	
TR001	1A
TR002	2C
TR403, 404	2D
TR405, 406, 407, 408, 409	2E
TR410	2F
TR411, 412	1E
TR413	2E
TR414	2F
TR901	2F
IC's	
IC501	1B
IC901	1F

CONNECTOR'S

J101	1F
J102	1D
J103	2C
J104	2C
J105	2A
J106	1F
W111	1F
W112	2B
W113	1F
W114	2B
(102) (103)	1A

TR001	2SD1406Y
TR002	2SC2120Y
TR403, 404	2SC2240
TR405 to 410	2SC1815BL
TR411, 412	2SC1815BL
TR413, 414	2SJ103
TR901	2SA1015GR



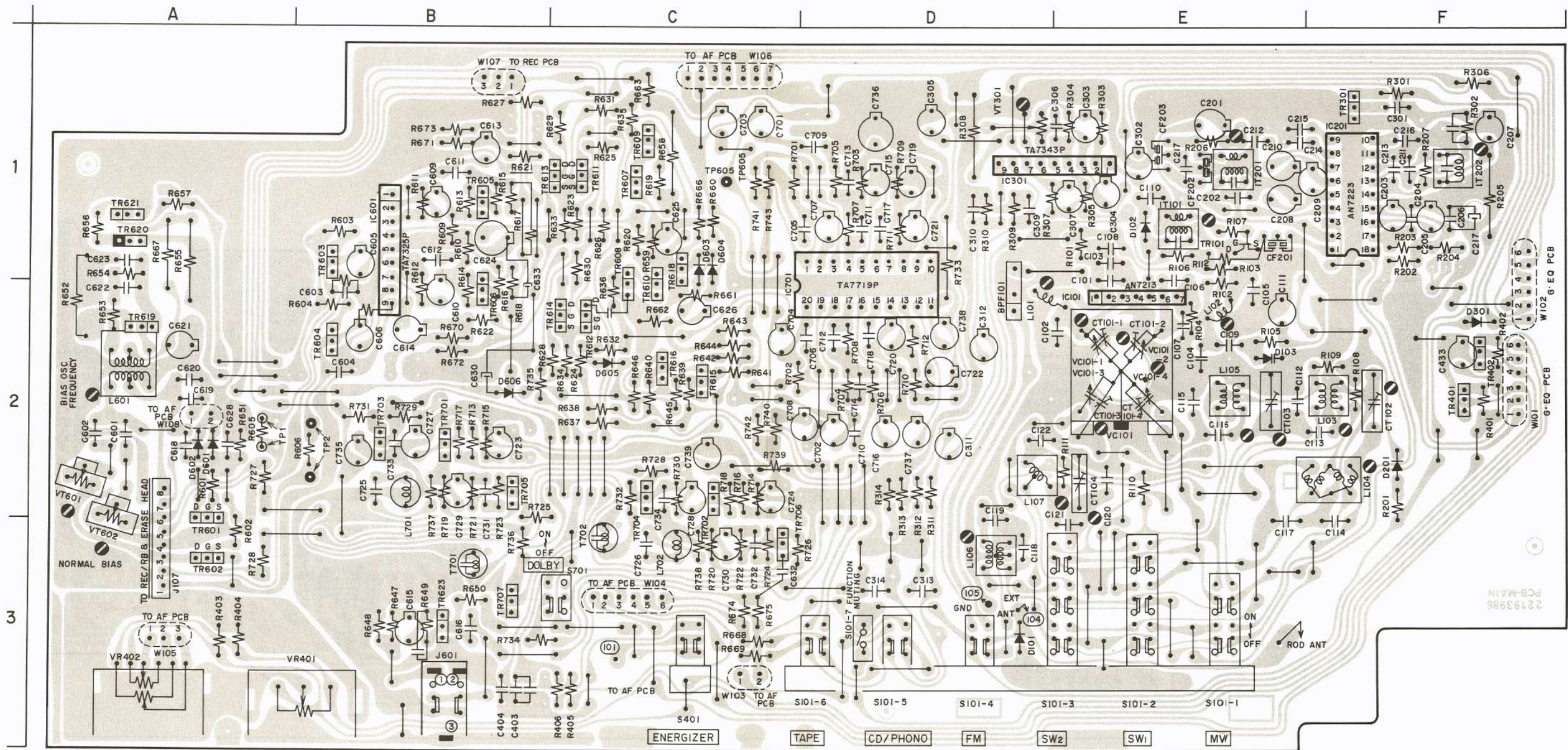
2SA1015GR
2SC1815BL
2SC2120Y
2SC2240



2SD1406Y



2SJ103



LOCATION OF COMPONENTS

TR's	IC's
TR301.....	1F
TR401, 402.....	2F
TR601, 602.....	3A
TR603, 605.....	1B
TR604, 606.....	2B
TR607, 609, 611, 613, 615, 616.....	1C
TR618.....	1C
TR620, 621.....	1A
TR623.....	3B
TR701, 703, 705.....	2B
TR702, 704.....	2C
TR706.....	3C
TR707.....	3B

IC's

IC101.....	2E
IC201.....	1F
IC301.....	1D
IC601.....	1B
IC701.....	1D

CONNECTOR'S

W101.....	2F
W102.....	1F
W103.....	3C
W104.....	3C
W105.....	3A
W106.....	1C
W107.....	1B
W108.....	2A
(10).....	3C
J107.....	3A

TR301.....	2SC1815BL
TR401, 402.....	2SD1302T
TR601, 602.....	2SK223
TR603, 604.....	2SD1302T
TR605 to 610.....	2SC1815BL
TR611 to 614.....	2SJ103
TR615, 616.....	2SD1302T
TR618.....	2SC1815BL
TR620.....	2SA1015GR
TR621, 623.....	2SC1815BL
TR701, 702.....	2SC1815BL
TR703, 704.....	2SD1302T
TR705 to 707.....	2SC1815BL

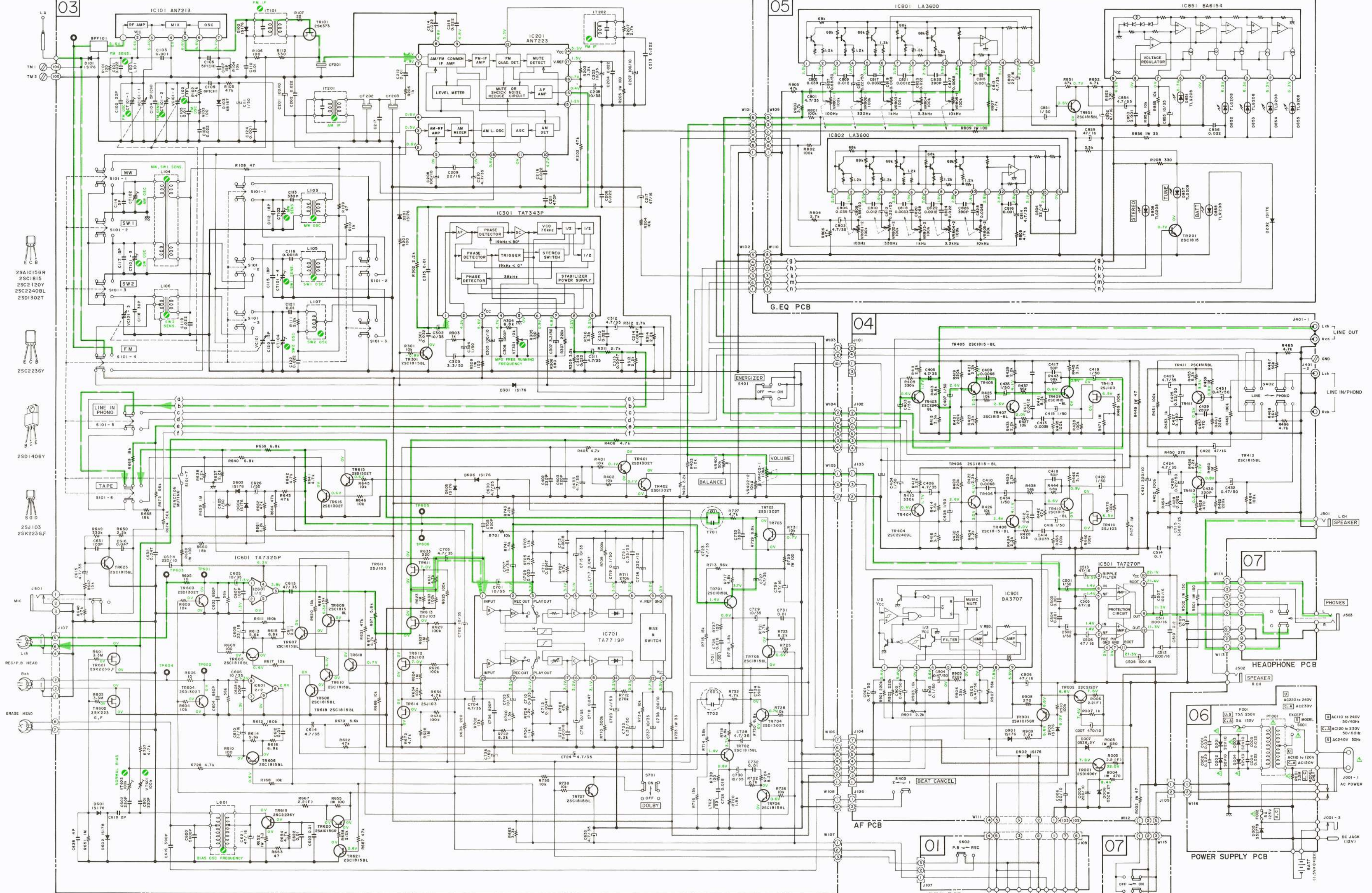


2SA1015
2SC1815
2SD1302T



2SJ103
2SK223

L101	FM SENS. (LOW)
L102	FM OSC (LOW)
L103	MW OSC (LOW)
L104	MW, SW1 SENS. (LOW)
L105	SW1 OSC (LOW)
L106	SW2 SENS. (LOW)
L107	SW2 OSC (LOW)
IT101	FM IF
IT201	AM IF
IT202	FM IF
CT101-1	FM OSC (HIGH)
CT101-2	FM SENS. (HIGH)
CT101-3	SW1 OSC (HIGH)
CT101-4	SW1 SENS. (HIGH)
CT102	MW OSC (HIGH)
CT103	MW SENS. (HIGH)
CT104	SW2 OSC (HIGH)
VT301	MPX Free Running Frequency



- 25A1015BR
- 25C1815
- 25C2120Y
- 25C2240BL
- 25D1302T
- 25C2236V
- 25D1406Y
- 25J103
- 25K233GJ

— B (POWER SUPPLY) LINE
— REC MODE SIGNAL LINE
— P-B AND FM SIGNAL LINE

WARNING: Δ INDICATES SAFETY CRITICAL COMPONENTS FOR CONTINUED SAFETY.
 REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S
 RECOMMENDED PARTS.
 AVERTISSEMENT: Δ INDIQUE LES COMPOSANTS CRITIQUES DE SÉCURITÉ.
 POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL,
 NE REMPLACER QUE DES PIÈCES RECOMMANDÉES PAR LE FABRICANT.

NOTE
 UNLESS OTHERWISE SPECIFIED
 ALL RESISTORS IN OHMS (1/W/W)
 ALL CAPACITORS IN μF (W/W)
 POWER TRANSFORMER IS DIFFERENT
 ACCORDING TO AREA

VOLTAGES ARE INDICATED AT FM TUNED MODE.

PJ-35FS/FU
SCHEMATIC DIAGRAM
No. 850902A



FOUR BAND STEREO CASSETTE RECEIVER

MODEL **PJ-35FS/FU**

SECTION 1	SERVICE MANUAL	3
SECTION 2	PARTS LIST	15

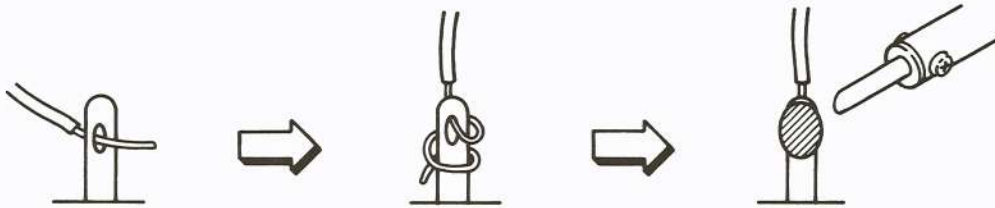
SAFETY INSTRUCTIONS

SAFETY CHECK AFTER SERVICING

Confirm the specified insulation resistance between power cord plug prongs and externally exposed parts of the set is greater than 10 Mohms, but for equipment with external antenna terminals (tuner, receiver, etc.) and is intended for **C** or **A**, specified insulation resistance should be more than 2.2 Mohms (ground terminals, microphone jacks, headphone jacks, line-in-out jacks etc.)

PRECAUTIONS DURING SERVICING

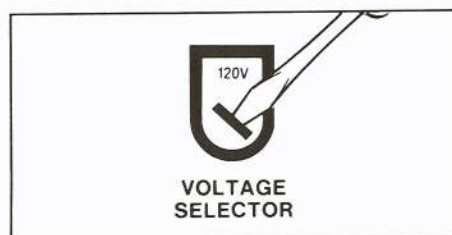
1. Parts identified by the \triangle symbol parts are critical for safety.
Replace only with parts number specified.
2. In addition to safety, other parts and assemblies are specified for conformance with such regulations as those applying to spurious radiation. These must also be replaced only with specified replacements.
Examples: RF converters, tuner units, antenna selector switches, RF cables, noise blocking capacitors, noise blocking filters, etc.
3. Use specified internal wiring. Note especially:
 - 1) Wires covered with PVC tubing
 - 2) Double insulated wires
 - 3) High voltage leads
4. Use specified insulating materials for hazardous live parts. Note especially:
 - 1) Insulation Tape
 - 2) PVC tubing
 - 3) Spacers (Insulating Barriers)
 - 4) Insulation sheets for transistors
 - 5) Plastic screws for fixing microswitch (especially in turntable)
5. When replacing AC primary side components (transformers, power cords, noise blocking capacitors, etc.), wrap ends of wires securely about the terminals before soldering.



6. Observe that wires do not contact heat producing parts (heatsinks, oxide metal film resistors, fusible resistors, etc.).
7. Check that replaced wires do not contact sharp edged or pointed parts.
8. Also check areas surrounding repaired locations.
9. Use care that foreign objects (screws, solder droplets, etc.) do not remain inside the set.

VOLTAGE CONVERSION

Models for Canada, Europe, UK and Australia are not equipped with this facility. Each machine is preset at the factory according to destination, but some machines can be set to 110V–120V or 220V–240V, 120V or 230V as required. If your machine's voltage can be converted: Turn the voltage selector, located on the back panel, with a screwdriver until the correct voltage is indicated.



SECTION 1

SERVICE MANUAL

TABLE OF CONTENTS

I. SPECIFICATIONS	4
II. DISMANTLING OF UNIT	5
III. CONTROLS	6
IV. PRINCIPAL PARTS LOCATION	7
V. MECHANICAL ADJUSTMENT	8
1. TAPE SPEED ADJUSTMENT	8
2. REC/PB HEAD AZIMUTH ADJUSTMENT	8
VI. AMPLIFIER ADJUSTMENT	9
1. AMPLIFIER ADJUSTMENT POINT	9
VII. TUNER ADJUSTMENT	10
1. THE INSTRUMENT CONNECTIONS	10
2. ADJUSTMENT POINTS	11
3. FM ADJUSTMENT	12
4. AM (MW) ADJUSTMENT	12
5. SW ADJUSTMENT	13

For basic adjustments, measuring methods, and operating principles, refer to GENERAL TECHNICAL MANUAL.

I. SPECIFICATIONS

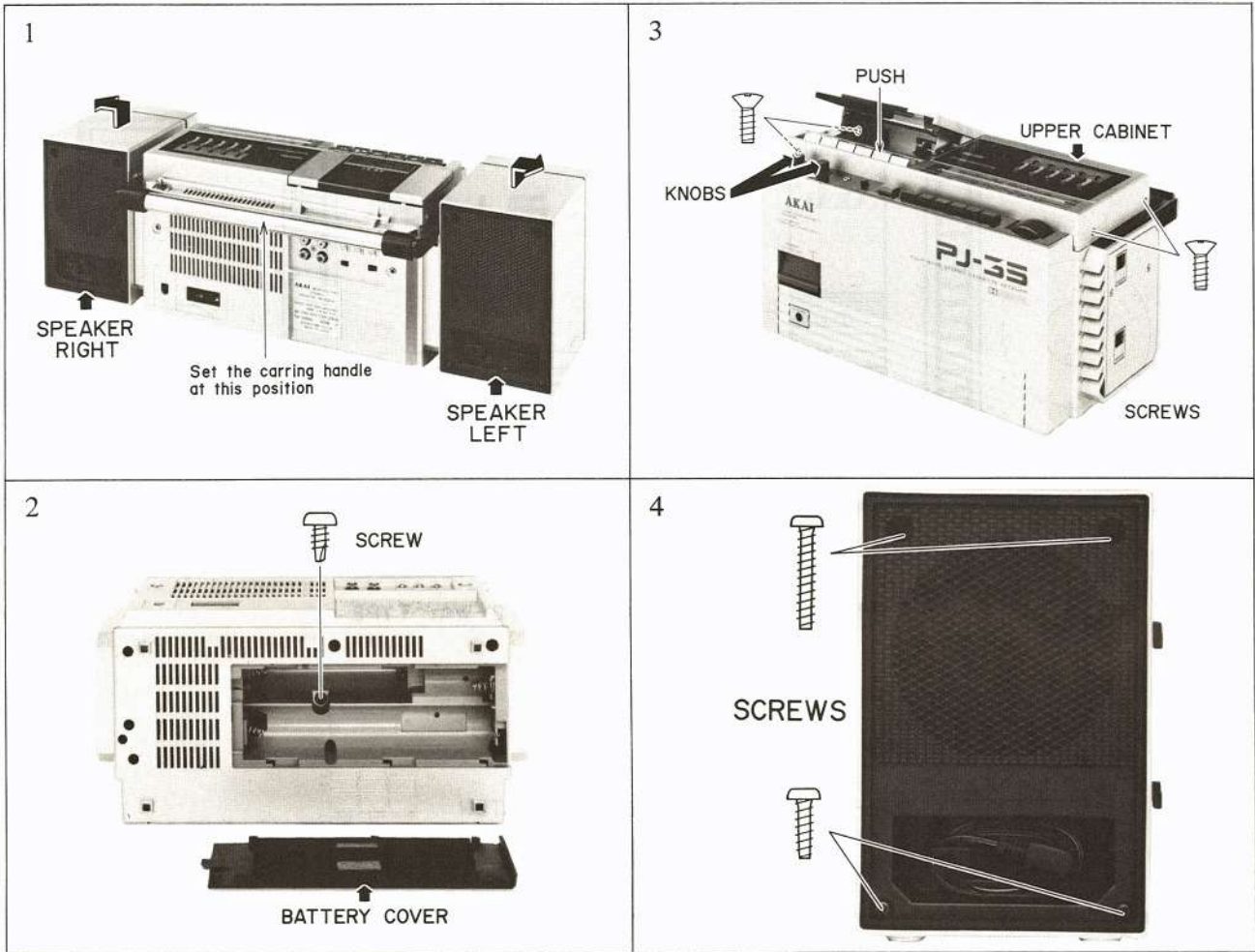
TYPE	Stereo Portable Component
DECK RECEIVER SECTION	
FREQUENCY RANGE	FM 88.0–108.0MHz MW 530–1605kHz SW1 3.0–8.0MHz SW2 8.0–22.0MHz
POWER OUTPUT PEAK MUSIC POWER	
OUTPUT	Total 70W (for PJ-35 FS)
MAXIMUM POWER OUTPUT	Total 30W (for PJ-35 FU)
RATED POWER OUTPUT	10W x2 (EIAJ 4 ohms)
FTC POWER OUTPUT	7.0W per channel, min. RMS, at 4 ohms from 70Hz to 20kHz, with no more than 10% total harmonic distortion
SPEAKER SYSTEM	Type 3 dimensional–2 way Tweeter 39mm x2 Woofer 92mm x2 Passive Radiator 87mm x2
TRACK SYSTEM	4 track 2 channel stereo
WOW & FLUTTER	0.08% WRMS (JIS)
FREQUENCY RESPONSE	Metal 50Hz to 16,000Hz Normal 50Hz to 13,000Hz
S/N	Better than 50dB (Dolby NR ON: improves up to 10dB above 5kHz)
GENERAL	
POWER REQUIREMENTS	DC power source 12V (eight SUM–1, D, R20 or equivalent sized batteries) AC power source 120V, 60Hz for USA and Canada 220V, 50Hz for Europe except UK 240V, 50Hz for UK and Australia 110V–120V/200V–220V, or 120V/230V, 50/60Hz convertible for other countries.
DIMENSIONS	Total: 538(W) x 165(H) x 187(D) mm (21.2 x 7.4 x 6.5 inches) Cassette receiver: 328(W) x 165(H) x 187 (D) mm (12.9 x 7.4 x 6.5 inches) Speaker: 105(W) x 163.5(H) x 152(D) mm (4.1 x 6.4 x 6.0 inches)
WEIGHT	Total: 5.9 kg (13 lbs) Cassette receiver: 3.4 kg (7.5 lbs) Speaker: 1.25 kg (2.75 lbs)

* For improvement purposes, specifications and design are subject to change without notice.

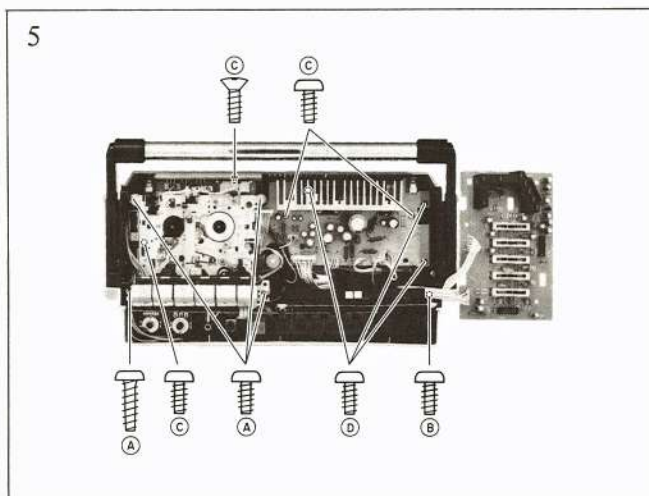
* Noise reduction manufactured under license from Dolby Laboratories Licensing Corporation. “Dolby” and double-D symbol are trade marks of Dolby Laboratories Licensing Corporation.

II. DISMANTLING OF UNIT

In case of trouble, etc. necessitating dismantling, please dismantle in the order shown in the photographs. Reassemble in reverse order.



How to disassemble each block (MECHA Block, AF PCB Block, MAIN PCB Block, POWER Block).



- 1. MECHA Block : Screw group A (x4)
- 2. AF PCB Block : Screw B
- 3. MAIN PCB Block : Screw group C (x4)
- 4. POWER Block : Screw group D (x3)

III. CONTROLS

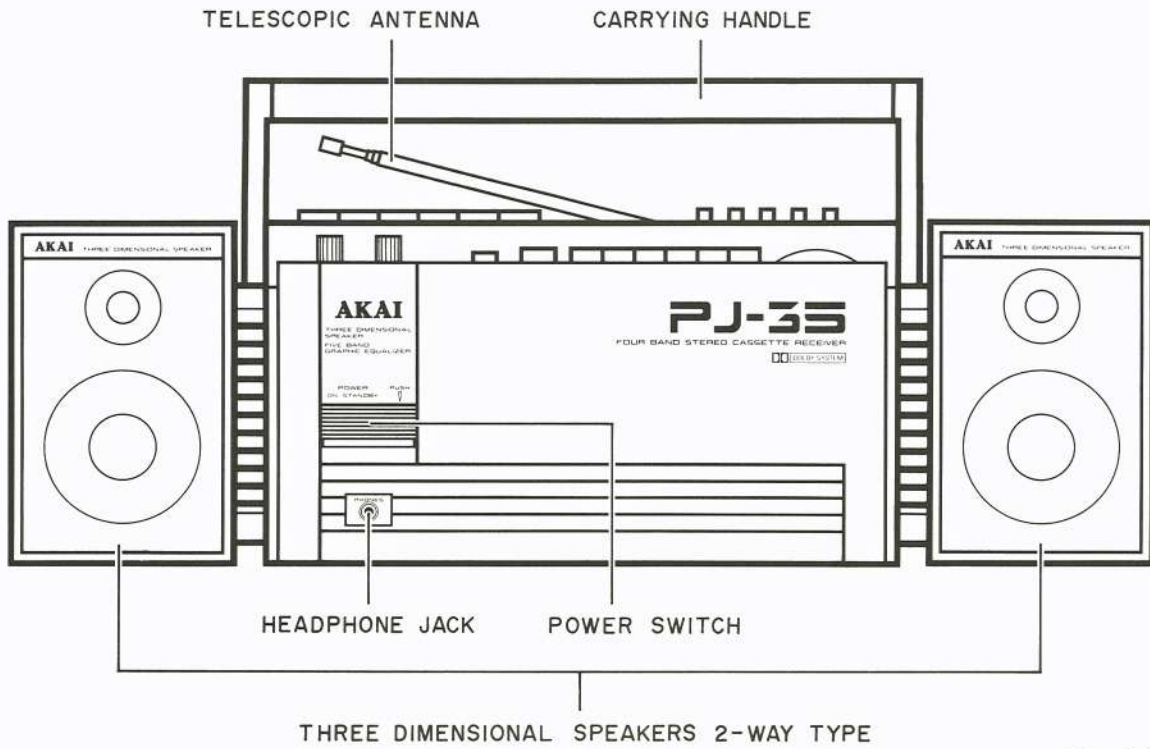


Fig. 3-1

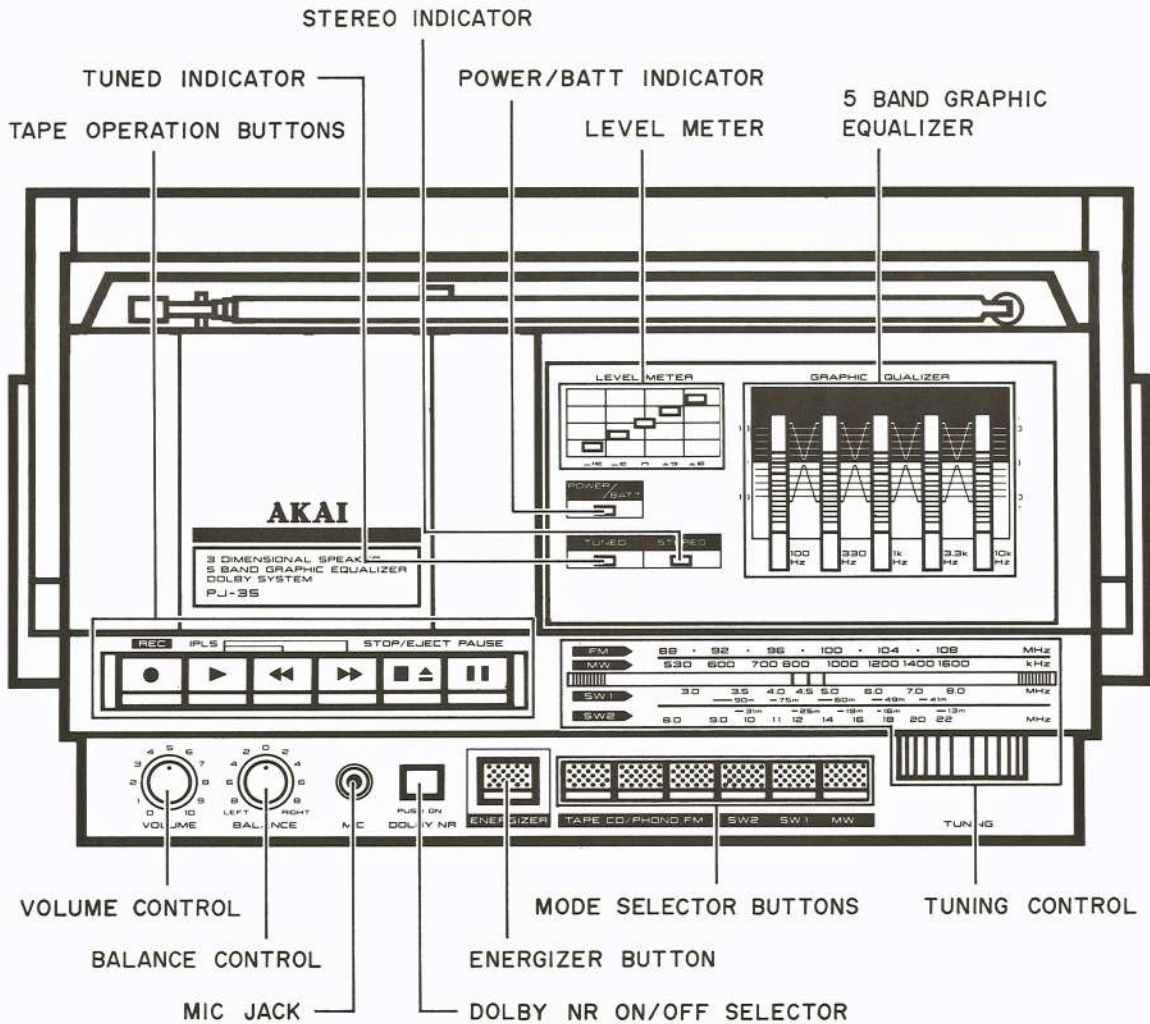


Fig. 3-2

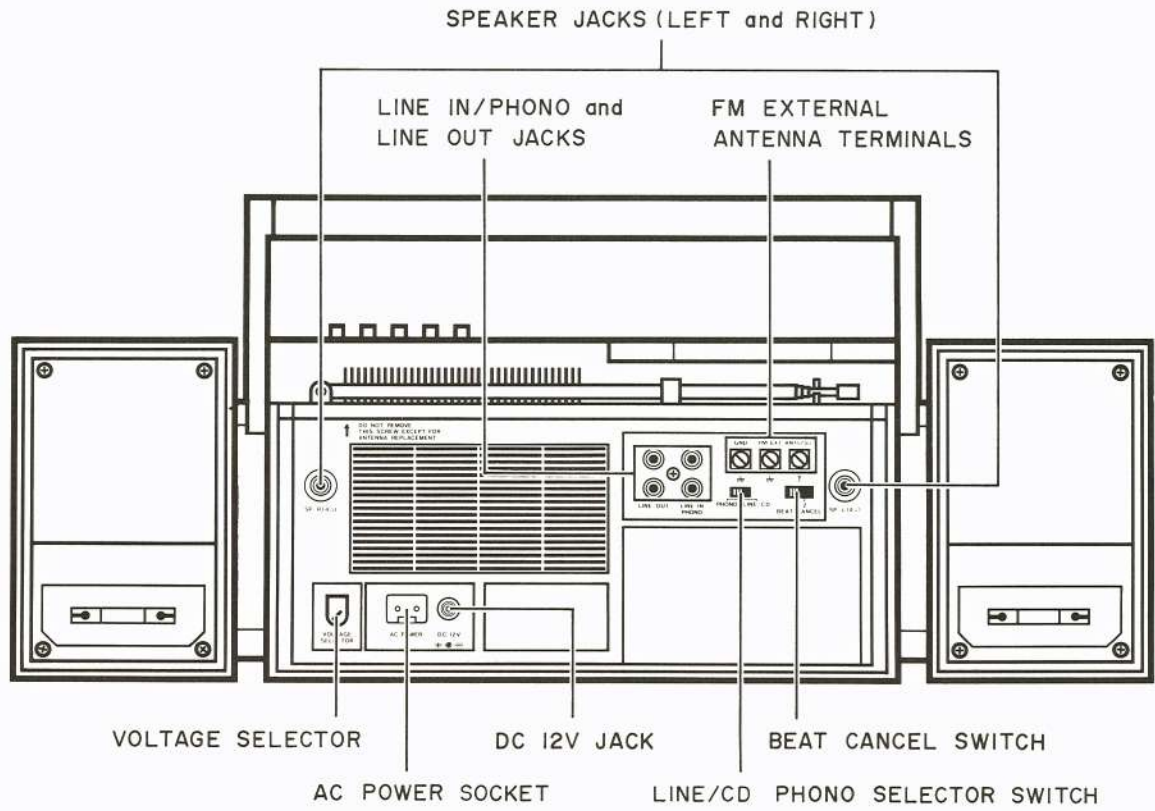


Fig. 3-3

IV. PRINCIPAL PARTS LOCATION

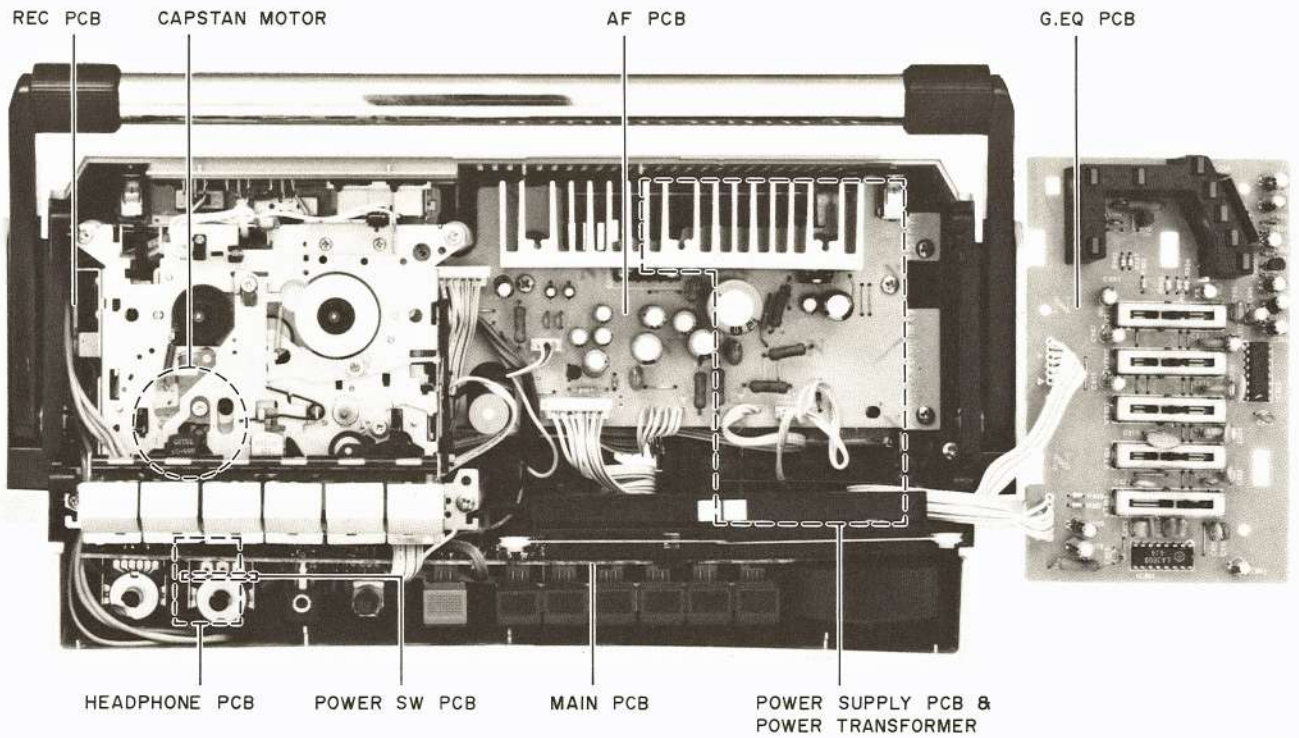


Fig. 4-1

V. MECHANICAL ADJUSTMENT

5-1. TAPE SPEED ADJUSTMENT

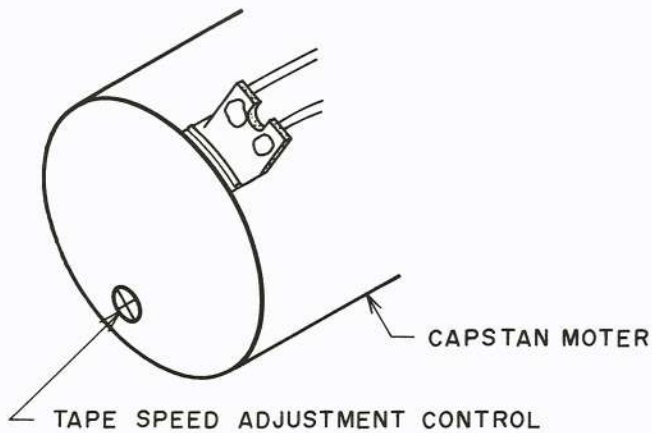


Fig. 5-1

Connect a frequency counter to LINE OUTPUT terminals. Playback a 3150Hz Tape Speed Test Tape (AT-751263) and adjust a tape speed adjustment volume to obtain a tape speed of 3150Hz \pm 30Hz.

5-2. REC/RB HEAD AZIMUTH ALIGNMENT

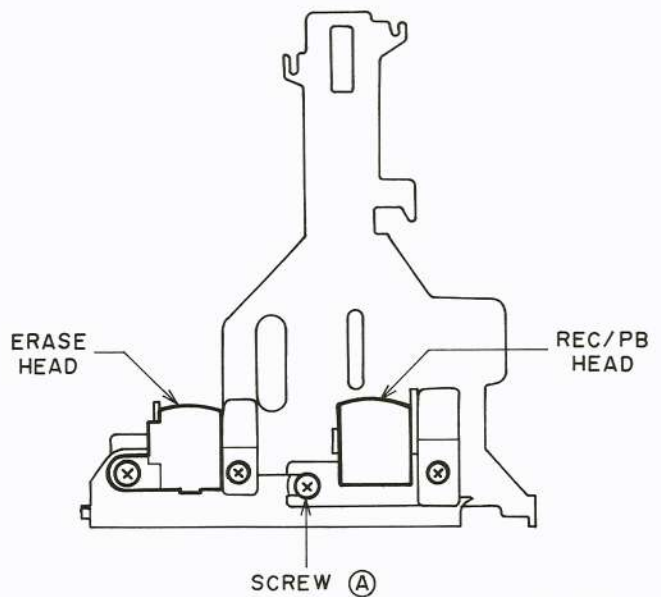


Fig. 5-2

Playback a 10kHz Azimuth Alignment tape (AT-750778) and adjust the screw (A) until the output levels of both channels are maximum.

After adjustment, paint lock the screw (A).

NOTE:

1. Be sure to clean the heads prior to head adjustment.
2. Be careful not to use a magnetized driver or other magnetized tools in the vicinity of the heads.
3. Be sure to demagnetize the heads with a Head Demagnetizer before and after head adjustment.

VI. AMPLIFIER ADJUSTMENT

6-1. AMPLIFIER ADJUSTMENT POINT

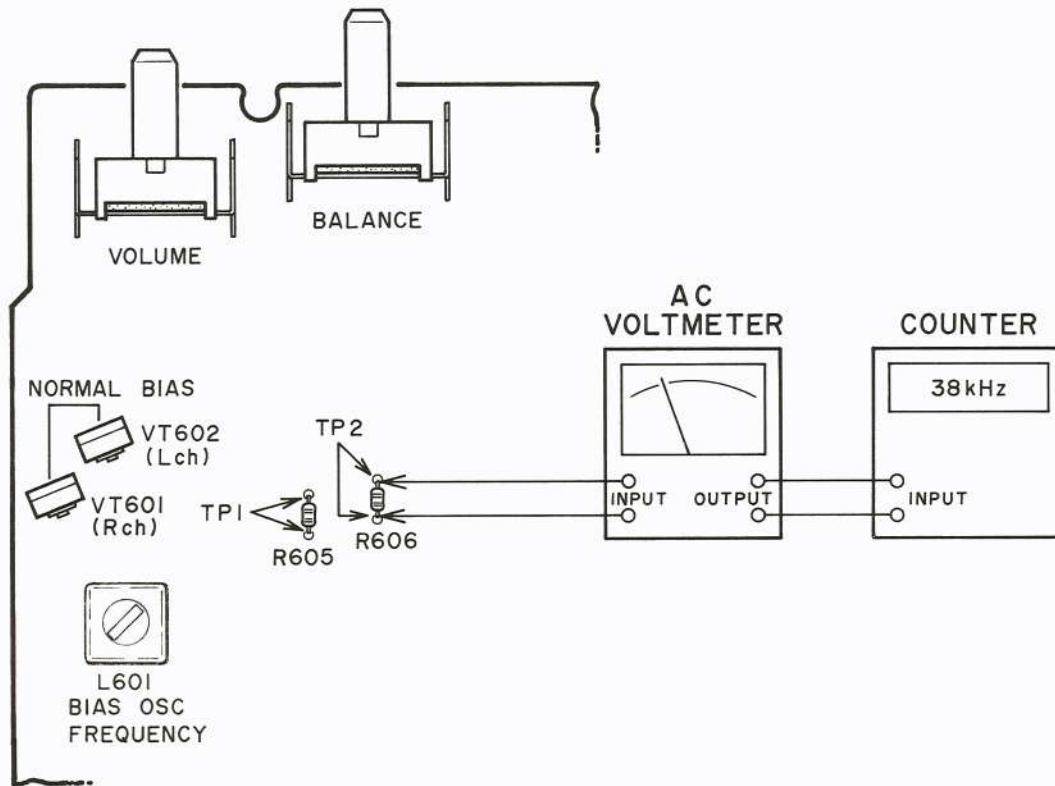


Fig. 6-1

Step	Adjustment Item	Test Tape & Supply Signal	MODE	Adjustment Part	Result	Remarks
1	BIAS OSC Frequency		REC	L601	83kHz±0.1kHz	<ul style="list-style-type: none"> ○ Set BEAT CANCEL SW to 1. ○ Connect Frequency counter to TP1 or TP2.
2	NORMAL BIAS	NORMAL BLANK TAPE 1kHz, 10kHz -33dBm	REC/ P.B.	VT601 (Rch) VT602 (Lch)	1kHz, 10kHz Flat ±3dBm	<ul style="list-style-type: none"> ○ Dolby NR "ON" ○ See NOTE 2.

NOTE: 1. Use the following cassette measuring tapes.

Normal Tape : Maxell UD C-60

CrO₂ Tape : TDK SA C-60

Metal Tape : TDK MA C-60

2. The confirmation of CrO₂ and Metal position level should be made.

VII. TUNER ADJUSTMENT

7-1. THE INSTRUMENT CONNECTIONS

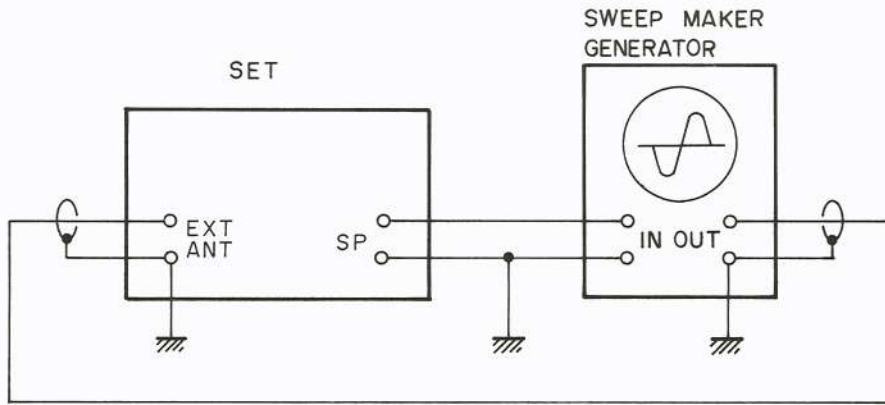


Fig. 7-1 FM IF Adjustment

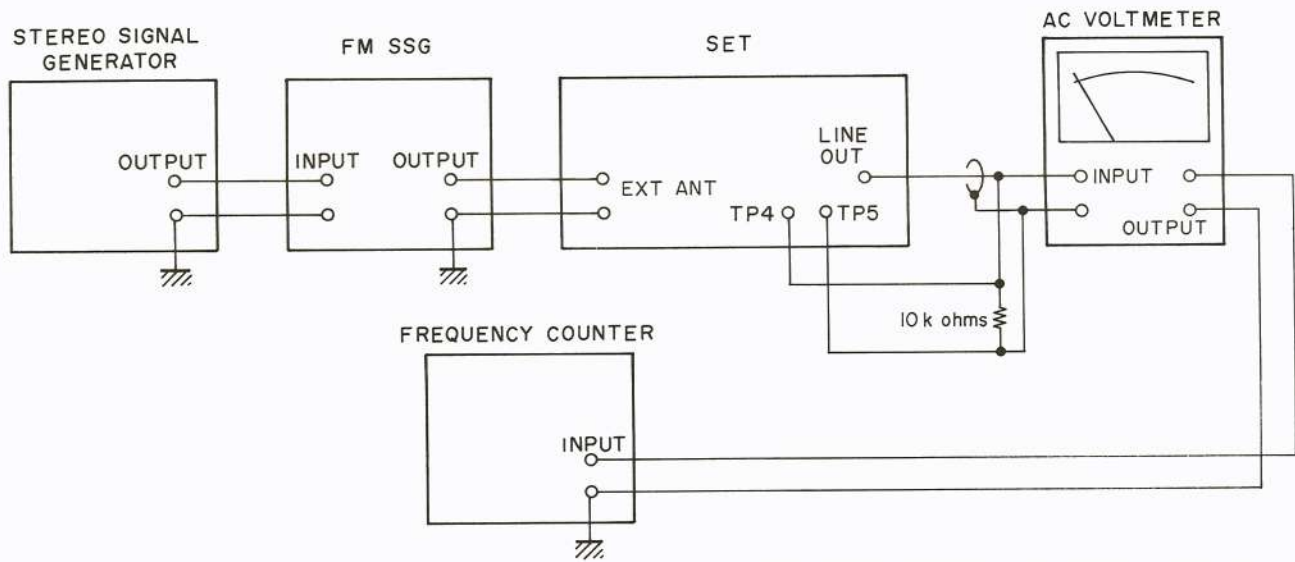


Fig. 7-2 FM Adjustment and Stereo Adjustment

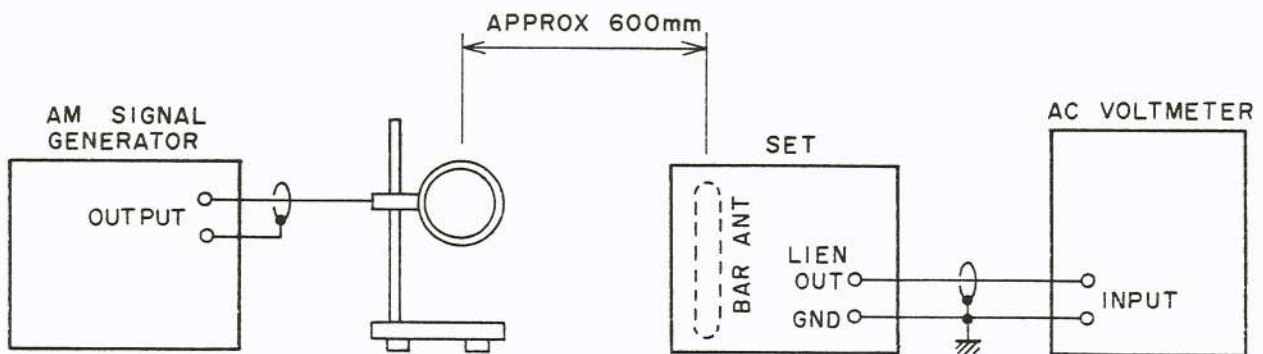


Fig. 7-3 MW, SW1 Adjustment

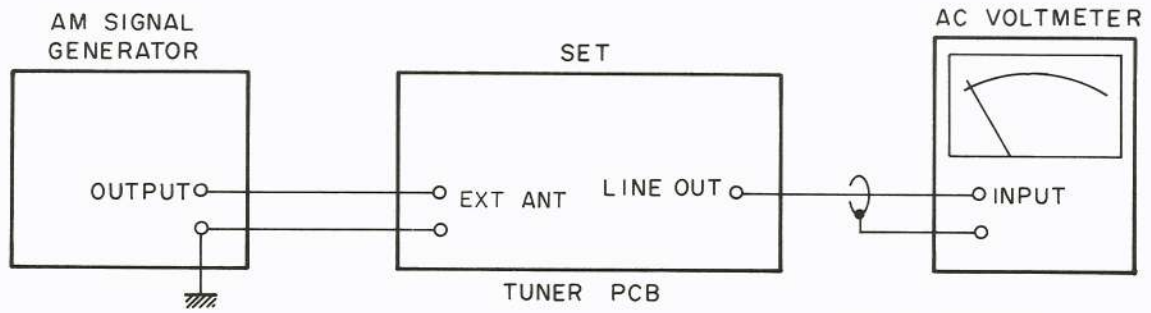


Fig. 7-4 SW2 Adjustment

7-2. ADJUSTMENT POINTS

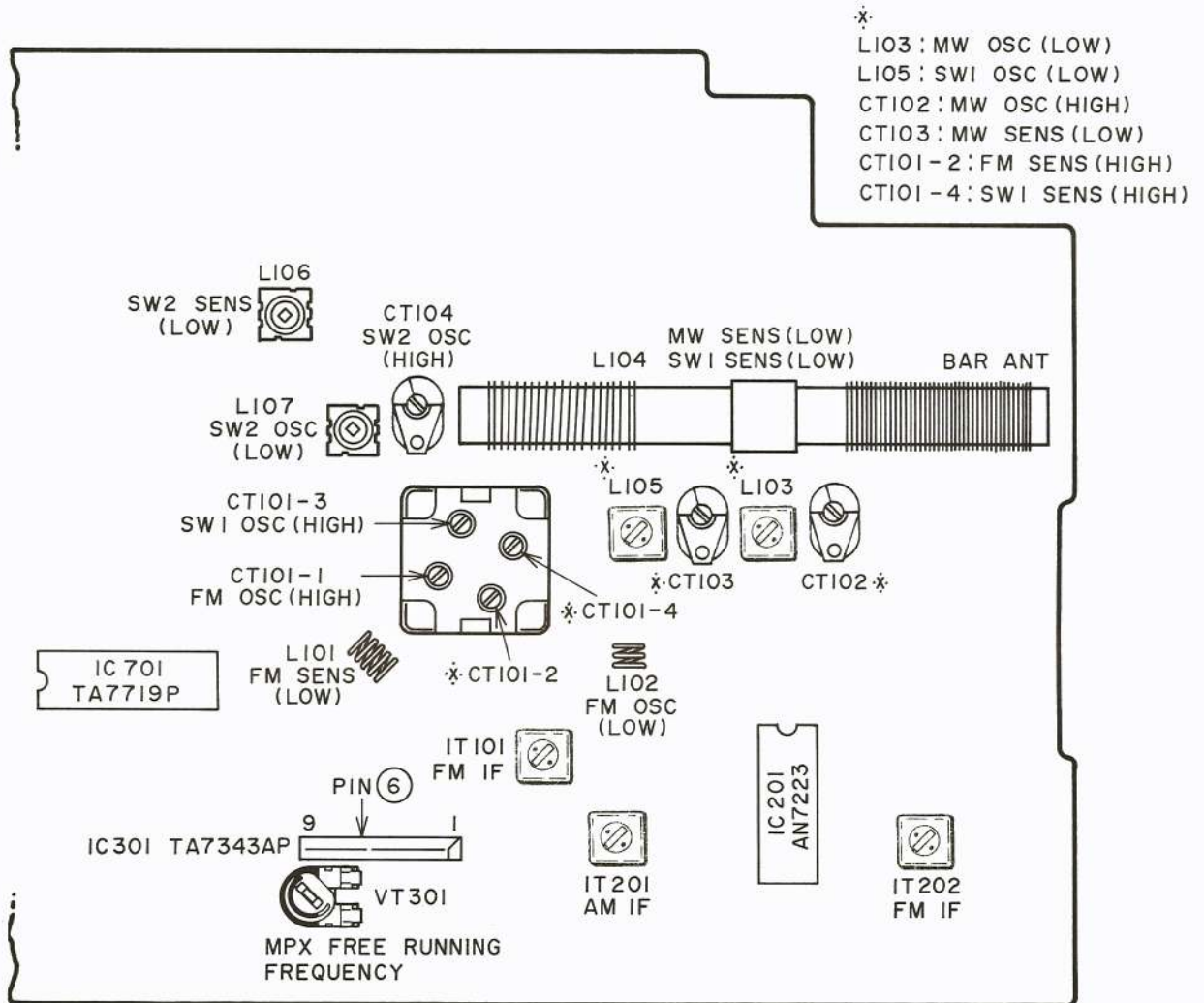



Fig. 7-5

7-3. FM ADJUSTMENT

NOTE:

1. Set the S.S.G to 75kHz deviation, 1kHz for C.A.U.S. models 40kHz deviation, 1kHz for B.E.V models.
2. Confirm that the sensitivity margin between Low and High Range sensitivities is within 3dB μ , otherwise readjust Low and High range sensitivity.
3. 0dB μ = 1 μ V.
4. Set BAND SELECTOR to FM.

Step	Adjustment Item	SSG FREQ/ATT	SET TUNING	Adjustment Part	Result	Remarks
1	FM IF	10.7MHz 60dB μ	SET TO LOW END	IT101 IT202	 Maximum S Curve waveform (Upper waveform symmetricity)	10.7MHz
2	FM OSC (LOW)	87.3MHz 60dB μ	SET TO LOW END	L102	Maximum output	
3	FM OSC (HIGH)	109.0MHz 60dB μ	SET TO HIGH END	CT101-1	Maximum output	
4	For best Result, Repeat step 2 and 3 two or three times.					
5	SENSITIVITY (LOW)	90.0MHz 60dB μ	90.0MHz	L101	Maximum output	
6	SENSITIVITY (HIGH)	106.0MHz 60dB μ	106.0MHz	CT101-2	Maximum output	
7	For best Result, Repeat Step 5 and 6 two or three times.					
8	MPX Free Running Frequency	106.0MHz 60dB μ	106.0MHz	VT301	38kHz \pm 0.1kHz	Connect a Frequency counter between Pin ⑥ of IC301 and GND.

7-4. AM (MW) ADJUSTMENT

NOTE:

1. Set the S.S.G to 30% 1kHz of each.
2. Confirm that the sensitivity margin between Low and High Range sensitivities is within 6dB μ , otherwise readjust Low and High Range Sensitivity.
3. Adjust space between small coil and large coil, by moving small coil.
4. Set BAND SELECTOR to MW.

Step	Adjustment Item	SSG FREQ/ATT	SET TUNING	Adjustment Part	Result	Remarks
1	AM IF	460kHz 60dB μ	SET TO LOW END	IT201	Maximum output	
2	MW OSC (LOW)	515kHz 60dB μ	SET TO LOW END	L103	Maximum output	
3	MW OSC (HIGH)	1650kHz 60dB μ	SET TO HIGH END	CT102	Maximum output	
4	For best Result, Repeat Step 2 and 3 two or three times.					
5	SENSITIVITY (LOW)	600kHz 60dB μ	600kHz	(MW BAR ANT) (See NOTE 3)	Maximum output	
6	SENSITIVITY (HIGH)	1400kHz 60dB μ	1400kHz	CT103	Maximum output	
	For best Result, repeat Step 5 and 6 two or three times.					

7-5. SW ADJUSTMENT

NOTE:

1. Set the S.S.G to 30% 1kHz of each.
2. Confirm that the sensitivity margin between Low and High Range sensitivities is within 6dB μ , otherwise readjust Low and High Range Sensitivity.
3. Adjust space between small coil and large coil, by moving small coil.
4. Set BAND SELECTOR to SW.

Step	Adjustment Item	SSG FREQ/ATT	SET TUNING	Adjustment Part	Result	Remarks
1	SW1 OSC (LOW)	2.8MHz 60dB μ	SET TO LOW END	L105	Maximum output	Set BAND SELECTOR to SW1
2	SW1 OSC (HIGH)	8.2MHz 60dB μ	SET TO HIGH END	CT101-3	Maximum output	
3	For best Result, Repeat Step 1 and 2 two or three times.					
4	SW1 SENSITIVITY (LOW)	3.5MHz 60dB μ	3.5MHz	(SW1 BAR ANT) (See NOTE 3)	Maximum output	
5	SW1 SENSITIVITY (HIGH)	7.5MHz 60dB μ	7.5MHz	CT101-4	Maximum output	
6	For best Result, Repeat Step 4 and 5 two or three times.					
7	SW2 OSC (LOW)	7.8MHz 60dB μ	SET TO LOW END	L107	Maximum output	Set BAND SELECTOR to SW2
8	SW2 OSC (HIGH)	23.0MHz 60dB μ	SET TO HIGH END	CT104	Maximum output	
9	For best Result, Repeat Step 7 and 8 two or three times.					
10	SW2 SENSITIVITY (LOW)	8.0MHz 60dB μ	8.0 MHz	L106	Maximum output	

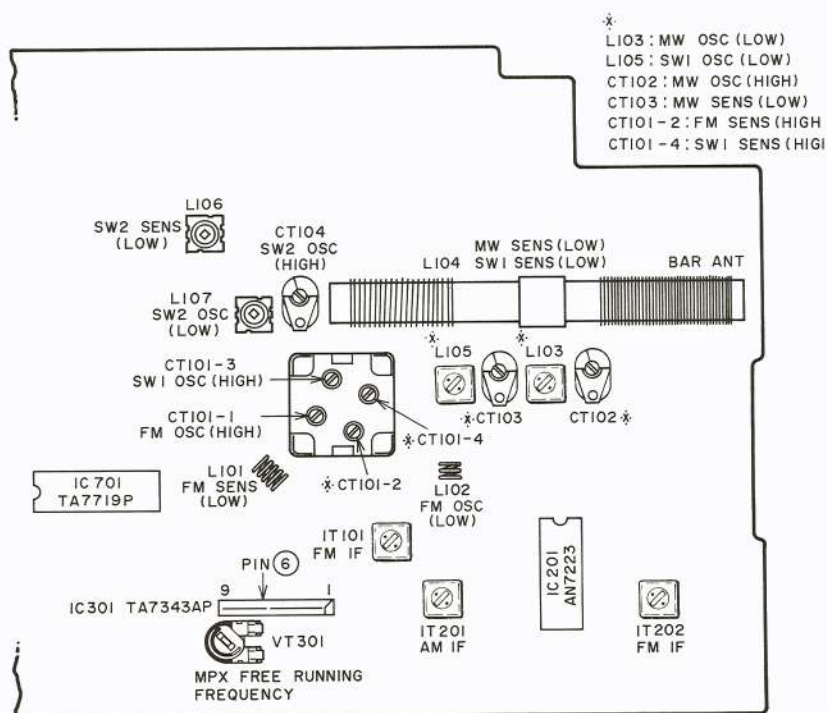


Fig. 7-6

SECTION 2

PARTS LIST

TABLE OF CONTENTS

RECOMMENDED SPARE PARTS	17
1. MECHA BLOCK	19
2. PC BOARD BLOCK	20
3. MAIN PC BOARD	20
4. AF PC BOARD	21
5. G.EQ PC BOARD	21
6. POWER SUPPLY PC BOARD	21
7. FINAL ASSEMBLY BLOCK	23
INDEX	24

Resistor and Capacitor which is not listed in this parts list, please refer to COMMON LIST FOR SERVICE PARTS.

ATTENTION

1. When placing an order for parts, be sure to list the parts no. model no., and description of each part. If any of this information is omitted, there are instances in which parts cannot be shipped or the wrong parts will be delivered.
2. Please be careful not to make a mistake in the parts no. If the parts no. is in error, a part different from the one ordered may be delivered.
3. Because part numbers and part definitions and supply in the Preliminary Parts List may have been the subject of changes, please use this parts list for all future reference.

HOW TO USE THIS PARTS LIST

1. This Parts List shows those parts which are considered necessary for repairs. Other parts, such as resistors and capacitors, are shown in the "Common List for Service Parts" from which these parts should be selected and parts.
2. The Recommended Spare Parts List shows those parts in the Parts List which are considered particularly important for service.
3. Parts not shown in the Parts List and "Common List for Service Parts" will not in principle be supplied.
4. How to read the parts list
 - a) Mechanism Block
 - b) P.C Board Block

2. HEAD BASE BLOCK

REF. NO.	PART NO.	DESCRIPTION
2-1x	BH-T2023A320A	HEAD BASE BLOCK GX-F66R
2-2	HP-H2206A010A	HEAD R/P PR4-8FU C
2-3	ZS-477876	PAN20×03STL CMT
2-4	ZS-536488	BID20×08STL CMT
2-5	ZG-402895	CS ANGLE ADJUST SPRING

SP (Service Parts) Classification

A small "x" indicates the inability to show that particular part in the Photo or Illustration.

This number corresponds with the individual parts index number in that figure

This number corresponds with the Figure Number

6. SYS. CON. P C BOARD BLOCK

REF. NO.	PART NO.	DESCRIPTION
6-1	BA-T2034A070A	PC SYS CON BLK GX-F44R
6-IC1	EI-324536	IC HD14049BP
6-IC2	EI-336801	IC MB8841-564M
6-IC3	EI-331661	IC SN7405N
6-IC4	EI-336725	IC M54527P
6-TR1to4	ET-200985	TR 2SC2603 F,G
6-TR5to28	ET-554657	TR 2SA733A P,Q
6-D1	ED-318292	D SILICON H 1S2473T-77 T26
6-D2to4	ED-308952	D GERMA V 1K34A-LR F07
6-D5to10	ED-318292	D SILICON H 1S2473T-77 T26
6-X1	EI-318384	OSC X'TAL NC-18C 3.579545MHZ

SP (Service Parts) Classification

These reference symbols correspond with component symbols in the Schematic Diagrams.

5. The kind of part and its installation position can both be determined by the Part Number. To determine where a part number is listed, utilize the Parts Index at the end of the Parts List. It is necessary first of all to find the Part Number. This can be accomplished by using the Reference Number listed at the right of the part number in the Parts Index.

WARNING

⚠ INDICATES SAFETY CRITICAL COMPONENTS. FOR CONTINUED SAFETY, REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURE'S RECOMMENDED PARTS

AVERTISSEMENT

⚠ IL INDIQUE LES COMPOSANTS CRITIQUES DE SÉCURITÉ. POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL, NE REMPLACER QUE DES PIÈCES RECOMMANDÉES PAR LE FABRICANT

RECOMMENDED SPARE PARTS

Because, if the parts listed below are on hand, almost any repair can be accomplished, we suggest that you stock these Recommended Spare Parts Items.

REF. NO.	PART NO.	DESCRIPTION
1 N	BF-716173	FLYWHEEL ASSY (F)
2	BL-712799	PINCH ROLLER ARM ASSY
3 N	BM-715113	△ MOTOR ASSY W/PULLEY
4 N	BR-715919	SUPPLY REEL TABLE BLK HX-M10
5 N	BR-715918	TAKE-UP REEL TABLE BLK HX-M10
6 N	BT-715153	△ TRANS POWER 22224719 [U]
7 N	BT-716145	△ TRANS POWER 22224720 C,A [C,A]
8 N	BT-716146	△ TRANS POWER 22224722 S,B [B,S]
9 N	BT-716147	△ TRANS POWER 22224723 E,V[E,V]
10	EC-713202	C S-FIX
11	EC-706605	C S-FIX 1R
12	ED-707920	△ D SILICON S2V10X
13	ED-749384	D LED TLG208
14	ED-749382	D LED TLR208
15	ED-706596	D SILICON KB167
16	ED-306724	D SILICON S5277B 100/1.0A
17	ED-713348	D SILICON 1SS176
18	ED-713919	D SILICON 1SS178
19	ED-337606	D ZENER H 05Z6.2 Y
20	ED-347149	D ZENER H 05Z8.2 Y
21 N	EE-716030	ANT ROD
22 N	EC-716157	VC POLY VC-4-20/335 [FU,FS]
23 N	EC-716460	VC POLY VC-4-20/335 [FL]
24	EI-713190	IC AN7213
25	EI-351848	IC AN7273
26 N	EI-711984	IC BA3707
27 N	EI-715106	IC BA6154
28 N	EI-715105	IC LA3600
29	EI-713942	IC TA7270P
30	EI-709447	IC TA7325P
31	EI-708420	IC TA7343P
32	EI-713916	IC TA7719P
33 N	EO-709407	COIL IFT FM-D
34 N	EO-716202	SOLENOID
35	ER-702368	△ R FUSE 1/4W 2R2J
36 N	ES-715111	△ SW PUSH
37 N	ES-715155	△ SW SELECTOR [U]
38 N	ES-716144	△ SW SELECTOR [C,A]
39 N	ES-715945	SW LEAF LSA-1119C
40 N	ES-716201	SW LEAF LSA-1120F-1N
41 N	ES-715944	SW LEAF LSA-1132EAU
42	ES-713178	SW LSA-1120-YN
43 N	ES-715099	SW PUSH [FUNCTION]
44 N	ES-716143	SW PUSH
45	ES-713971	SW SLIDE [REC SW]
46 N	ES-716158	SW SLIDE [PHONO-LINE/CD]
47 N	ES-716159	SW SLIDE [BEAT]
48	ET-7328844	△ TR 2SC2120 O,Y
49	ET-349285	△ TR 2SD1406 Y
50	ET-353734	TR FET 2SJ103 GR,BL
51	ET-336864	TR FET 2SK223 F
52	ET-308867	TR 2SA1015 O,Y,GR
53	ET-328861	TR 2SA562TM O,Y
54	ET-330225	TR 2SC1815 BL
55	ET-306719	TR 2SC2236 O,Y
56	ET-307195	TR 2SC2240 GR,BL
57	ET-338565	TR 2SD1302 R,S
58 N	EV-715098	R S-FIX 103
59	EV-715103	R S-FIX 103 [FL]
60 N	EV-716148	R S-FIX 104 [FU,FS]
61	EV-715108	VR ROTARY 103
62	EV-715109	VR ROTARY 503
63 N	EV-716000	VR SLIDE 503
64 N	HE-715115	HEAD E
65 N	HP-715114	HEAD R/P
66	MB-712818	BELT AUTO
67 N	MB-716183	BELT DRIVE
68 N	MB-716184	BELT FR
69	MI-715935	CLUTCH ARM ASSY

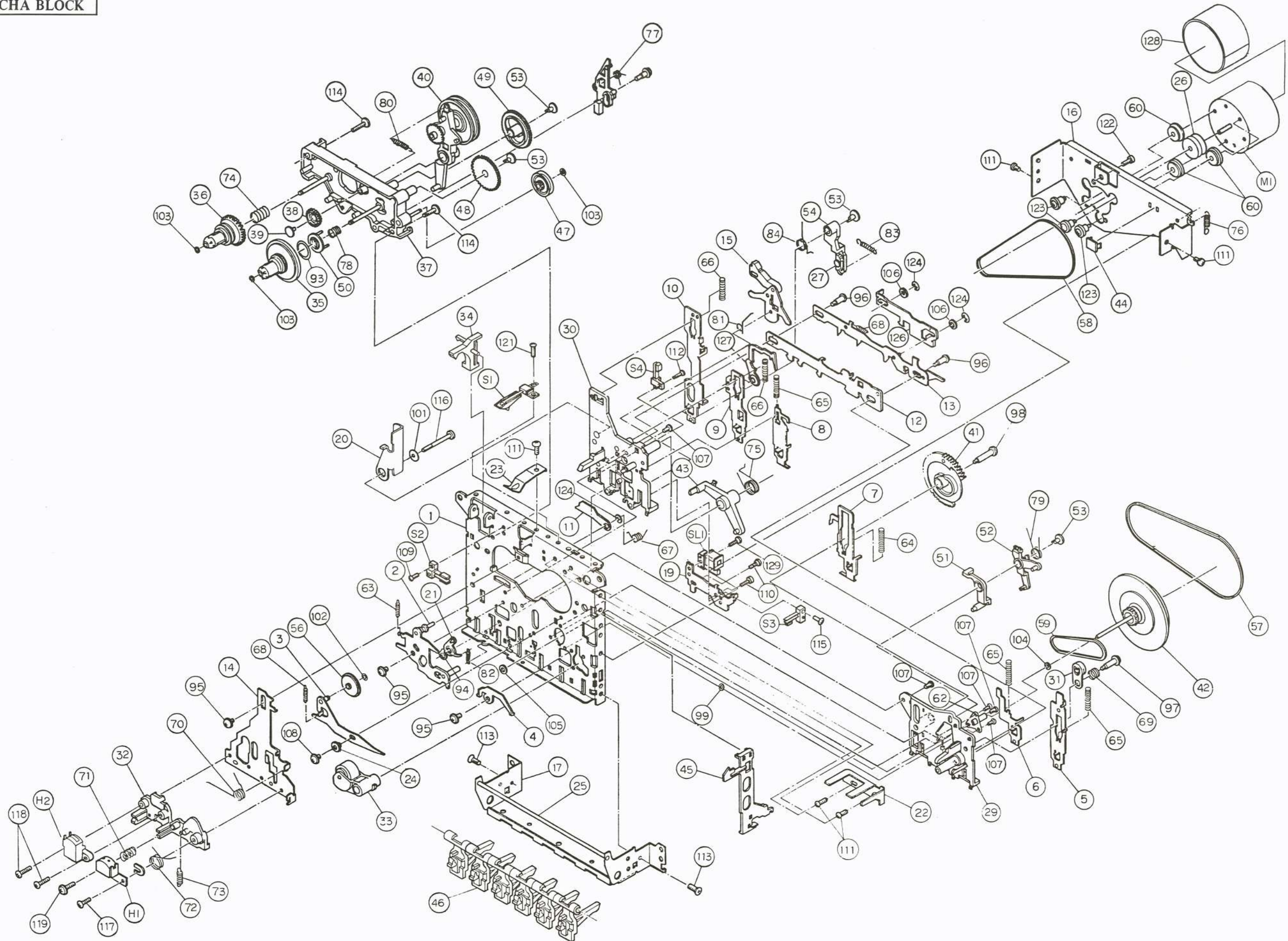
REF. NO.	PART NO.	DESCRIPTION
70	MI-715920	CLUTCH AUTO
71	MI-712817	IDLER PLAY
72	MI-712812	PULLEY AUTO
73	MZ-712813	GEAR AUTO
74	MZ-711710	GEAR C
75	MZ-712814	GEAR CAM AUTO
76	MZ-712804	GEAR FF

“NOTE” N: New Parts

SYMBOL FOR DESTINATION

FU [A]	: AAL (U.S.A.)
FL [B]	: UK (England)
FU [C]	: CSA (Canada)
FL [E]	: CEE (Europe)
FS [S]	: SAA (Australia)
FS [U]	: U/T (Universal Area)
FL [V]	: VDE (West Germany)

MECHA BLOCK



PARTS LIST

1. MECHA BLOCK

REF. NO.	PART NO.	DESCRIPTION
MECHA BLOCK		
1-1	BB-715112	MECHA BLK
1-15	ML-716169	ARM RC ASSY
1-23	ZG-712822	SP PACK
1-27	MS-716170	SHAFT CHIP
1-31	MZ-716171	CAM PAUSE
1-32	HZ-716172	BASE HEAD
1-33	BL-712799	PINCH ROLLER ARM ASSY
1-34	ML-712806	SENSOR REC
1-35	BR-715918	TAKE-UP REEL TABLE BLK HX-M10
1-36	BR-715919	SUPPLY REEL TABLE BLK HX-M10
1-38	MZ-712804	GEAR FF
1-39	MZ-749256	BUSH
1-40	MI-715935	CLUTCH ARM ASSY
1-41	MZ-711710	GEAR C
1-42	BF-716173	FLYWHEEL ASSY (F)
1-43	ML-716175	ARM LOCK (H)
1-44	ZW-716176	SPACER CAPSTAN
1-45	ML-716177	LEVER EJECT (F)
1-46	SB-716178	BUTTON LEVER
1-47	MI-712812	PULLEY AUTO
1-48	MZ-712813	GEAR AUTO
1-49	MZ-712814	GEAR CAM AUTO
1-50	MI-715920	CLUTCH AUTO
1-51	ML-716179	ARM AUTO (B)
1-52	ML-716180	ARM AUTO LOCK
1-53	ZW-716181	BUSH
1-54	ML-716182	ARM SOLENOID
1-56	MI-712817	IDLER PLAY
1-57	MB-716183	BELT DRIVE
1-58	MB-716184	BELT FR
1-59	MB-712818	BELT AUTO
1-60	MB-715936	CUSHION MOTOR
1-62	MV-716186	MAIN CASE
1-67	ZG-716187	SP REC LEVER
1-68	ZG-716188	SP CAM
1-69	ZG-716189	SP PAUSE CAM
1-70	ZG-716190	SP HEAD CHASSIS
1-71	ZG-749268	SP HEAD
1-72	ZG-715921	SP PINCH ROLLER
1-73	ZG-715940	SP HEAD RETURN
1-74	ZG-716191	SP BACK TENSION
1-75	ZG-716192	SP LOCK ARM (H)
1-76	ZG-716193	SP EJECT LEVER
1-77	ZG-716194	SP AUTO SENSOR
1-78	ZG-716195	SP AUTO CLUTCH
1-79	ZG-716197	SP AUTO LOCK ARM
1-80	ZG-715922	SP CLUTCH ARM
1-81	ZG-716198	SP RC ARM
1-83	ZG-716199	SP ARM SOLENOID
1-84	ZG-716200	SP TRIGGER ARM
1-93	TC-712823	FELT AUTO CLUTCH
1-96	ZS-715982	SCREW (B)
1-97	ZS-716203	SCREW SPECIAL (C)
1-98	ZS-716204	SCREW SPECIAL (D)
1-103	ZW-716206	PW17x035x025PSL
1-114	ZS-707587	T2BID26x08STL CR 3
1-117	ZS-536488	BID20x08STL CMT
1-118	ZS-749293	BID20x09STL CMT TW
1-119	ZS-749293	BID20x09STL CMT TW
1-123	ZS-715943	SCREW SPECIAL
1-127	ML-716205	ARM TRIGGER
1-M1	BM-715113	△ MOTOR ASSY W/PULLEY
1-H1	HP-715114	HEAD R/P
1-H2	HE-715115	HEAD E
1-S1	ES-715944	SW LEAF LSA-1132EAU
1-S2	ES-713178	SE LSA-1120-YN
1-S3	ES-716201	SW LEAF LSA-1120F-1N
1-S4	ES-715945	SW LEAF LSA-1119C
1-SL1	EP-716202	SOLENOID

REF. PART NO. DESCRIPTION
NO.

REC PC BOARD

1-S602 ES-713971 SW SLIDE [REC SW]

Note:

Parts will not be supplied if they are not listed in the parts list, even if they appear on the assembling illustrations with reference No.

2. PC BOARD BLOCK

REF. NO.	PART NO.	DESCRIPTION
2-1A	BA-716654	PC MAIN BLK PJ-35FS/FU
2-1B	BA-716655	PC MAIN BLK PJ-35FL
2-2A	BA-716653	PC AF BLK PJ-35FS (U)
2-2B	BA-716652	PC AF BLK PJ-35FU (C,A)
2-2C	BA-716651	PC AF BLK PJ-35FL (E,V,B)
2-2D	BA-716650	PC AF BLK PJ-35FS (S)

NOTE:

(1) PC MAIN BLK consists of following PC BOARDS.

- MAIN PC BOARD
- G.EQ PC BOARD
- REC PC BOARD

(2) PC AF BLK consists of following PC BOARDS.

- AF PC BOARD
- POWER SUPPLY PC BOARD
- POWER SW PC BOARD
- HEAD PHONE PC BOARD

3. MAIN PC BOARD

REF. NO.	PART NO.	DESCRIPTION
3-IC101	EI-713190	IC AN7213
3-IC201	EI-351848	IC AN7273
3-IC301	EI-708420	IC TA7343P
3-IC601	EI-709447	IC TA7325P
3-IC701	EI-713916	IC TA7719P
3-TR201	ET-330255	TR 2SC1815 BL
3-TR301	ET-330225	TR 2SC1815 BL
3-TR401	ET-338565	TR 2SD1302 R,S
3-TR402	ET-338565	TR 2SD1302 R,S
3-TR601	ET-336864	TR FET 2SK223 F
3-TR602	ET-336864	TR FET 2SK223 F
3-TR603	ET-338565	TR 2SD1302 R,S
3-TR604	ET-338565	TR 2SD1302 R,S
3-TR605	ET-330225	TR 2SC1815 BL
3-TR606	ET-330225	TR 2SC1815 BL
3-TR607	ET-330225	TR 2SC1815 BL
3-TR608	ET-330225	TR 2SC1815 BL
3-TR609	ET-330225	TR 2SC1815 BL
3-TR610	ET-330225	TR 2SC1815 BL
3-TR611	ET-353734	TR FET 2SJ103 GR,BL
3-TR612	ET-353734	TR FET 2SJ103 GR,BL
3-TR613	ET-353734	TR FET 2SJ103 GR,BL
3-TR614	ET-353734	TR FET 2SJ103 GR,BL
3-TR615	ET-338565	TR 2SD1302 R,S
3-TR616	ET-338565	TR 2SD1302 R,S
3-TR618	ET-330225	TR 2SC1815 BL
3-TR619	ET-306719	TR 2SC2236 O,Y
3-TR620	ET-328861	TR 2SA562TM O,Y
3-TR621	ET-330225	TR 2SC1815 BL
3-TR623A	ET-330225	TR 2SC1815 BL [FU,FS]
3-TR623B	ET-307195	TR 2SC2240 GR,BL [FL]
3-TR701	ET-330225	TR 2SC1815 BL
3-TR702	ET-330225	TR 2SC1815 BL
3-TR703	ET-338565	TR 2SD1302 R,S
3-TR704	ET-338565	TR 2SD1302 R,S
3-TR705	ET-330225	TR 2SC1815 BL
3-TR706	ET-330225	TR 2SC1815 BL
3-TR707	ET-330225	TR 2SC1815 BL
3-D101	ED-713348	D SILICON 1SS176
3-D102	ED-713348	D SILICON 1SS176
3-D103	ED-706596	D SILICON KB167
3-D201	ED-713348	D SILICON 1SS176
3-D301	ED-713348	D SILICON 1SS176
3-D601	ED-713919	D SILICON 1SS178
3-D602	ED-713919	D SILICON 1SS178

REF. NO.	PART NO.	DESCRIPTION
3-D603	ED-713348	D SILICON 1SS176
3-D604	ED-713348	D SILICON 1SS176
3-D605	ED-713348	D SILICON 1SS176
3-D606	ED-713348	D SILICON 1SS176
3-S101	ES-715099	SW PUSH [FUNCTION]
3-S401	ES-716143	SW PUSH [ENERGIZER]
3-S701	ES-716143	SW PUSH [DOLBY NR]
3-VT301	EV-715098	R S-FIX 103
3-VR401	EV-715109	VR ROTARY 503
3-VR402	EV-715108	VR ROTARY 103
3-VT601A	EV-716148	R S-FIX 104 [FU,FS]
3-VT601B	EV-715103	R S-FIX 103 [FL]
3-VT602A	EV-716148	R S-FIX 104 [FU,FS]
3-VT602B	EV-715103	R S-FIX 103 [FL]
3-F101	EH-716156	FILTER BP BPF-88108
3-F101B	EH-713195	FILTER BP BPWB5 [FL]
3-CF201	EH-749216	FILTER CE E10.7S
3-CF202	EH-713194	FILTER CE 460B
3-CF203	EH-713194	FILTER CE 460B
3-IT101	EO-713192	COIL IFT FM-M 22265844
3-IT201	EO-714077	COIL IFT-IT13-4837
3-IT202	EO-709407	COIL IFT FM-D
3-T701	EO-709425	COIL CHOKE AF 12MH
3-T702	EO-709425	COIL CHOKE AF 12MH
3-L101	EO-742244	COIL FM-RF
3-L102	EO-713191	COIL FM RF
3-L103A	EO-713196	COIL OSC MW 22245450 [FU,FS]
3-L103B	EO-702670	COIL OSC LW [FL]
3-L104A	EO-715097	COIL ANT ASSY [FU,FS]
3-L104B	SZ-716325	CLAMPER CORD [FL]
3-L105A	EO-713197	COIL OSC SW 22285353 [FU,SF]
9-L105B	EO-713196	COIL OSC MW 22245450 [FL]
3-L106A	EO-715097	COIL ANT ASSY [FS,FU]
3-L106B	EO-714066	COIL ANT SW [FL]
3-L107A	EO-713198	COIL OSC SW [FS,FU]
3-L107B	EO-714064	COIL OSC SW [FL]
3-L601	EO-715100	COIL OSC AF
3-L701	EO-713931	COIL CHOKE AF
3-L702	EO-713931	COIL CHOKE AF
3-CT102A	EC-713202	C S-FIX [FU,FS]
3-CT102B	EC-706605	C S-FIX 1R [FL]
3-CT103A	EC-713202	C S-FIX [FU,FS]
3-CT103B	EC-706605	C S-FIX 1R [FL]
3-CT104	EC-713202	C S-FIX
3-R205	ER-324251	R OMF H FS 1W 101J
3-R308	ER-324251	R OMF H FS 1W 101J
3-R652	ER-715104	R OMF 1W 3R3M
3-R655	ER-341633	R OMF H S15 FS 1W 680J
3-R658	ER-324251	R OMF H FS 1W100J
3-R667	ER-702368	△ R FUSE 1/4W 2R2J
3-R733	ER-707982	R OMF FS 1W 330J
3-R739	ER-324251	R OMF H FS 1W 101J
3-J601	EJ-715102	JACK 3.5 [MIC]
3-VC101A	EC-716157	VC POLY VC-4-20/335 [FS,FU]
3-VC101B	EC-716460	VC POLY VC-4-20/335 [FL]

4. AF PC BOARD

REF. NO.	PART NO.	DESCRIPTION
4-IC501	EI-713942	IC TA7270P
4-IC901	EI-711984	IC BA3707
4-TR1	ET-349285	△ TR 2SD1406 Y
4-TR2	ET-328844	△ TR 2SC2120 O,Y
4-TR403	ET-307159	TR 2SC2240 GR,BL
4-TR404	ET-307195	TR 2SC2240 GR,BL
4-TR405	ET-330225	TR 2SC1815 BL
4-TR406	ET-330225	TR 2SC1815 BL
4-TR407	ET-330225	TR 2SC1815 BL
4-TR408	ET-330225	TR 2SC1815 BL
4-TR409A	ET-330225	TR 2SC1815 BL [FU,FS]
4-TR409B	ET-307195	TR 2SC2240 GR,BL [FL]
4-TR410	ET-307195	TR 2SC2240 GR,BL
4-TR411	ET-307195	TR 2SC2240 GR,BL
4-TR412	ET-307195	TR 2SC2240 GR,BL
4-TR413	ET-353734	TR FET 2SJ103 GR,BL
4-TR414	ET-353734	TR FET 2SJ103 GR,BL
4-TR901	ET-308867	TR 2SA1015 O,Y,GR
4-D6	ED-347149	D ZENER H 05Z8.2 Y
4-D7	ED-337606	D ZENER H 05Z6.2 Y
4-D901	ED-713348	D SILICON 1SS176
4-D902	ES-713348	D SILICON 1SS176
4-D903	ED-713348	D SILICON 1SS176
4-S402	ES-716158	SW SLIDE [PHONO-LINE/CD]
4-S403	ES-716159	SW SLIDE [BEAT]
4-R2	ER-303840	R OMF H FS 1W 470J
4-R3A	ER-702368	△ R FUSE 1/4W 2R2J [EXCEPT C,A]
4-R3B	ER-353878	△ R OMF H S15 FS 1W 2R2J [C,A]
4-R4	ER-704159	R OMF 1W 471
4-R5	ER-313791	R OMF H FS 1W 681J
4-R6	ER-702368	△ R FUSE 1/4W 2R2J [FU,FS]
4-R449	ER-303840	R OMF H FS 1W 470J
4-R501	ER-701107	R OMF 1W 151J
4-R502	ER-701107	R OMF 1W 151J
4-C6	EC-316187	C EC V CUT SM 102M 16DC
4-C511	EC-316187	C EC V CUT SM 102M 16DC
4-C512	EC-316187	C EC V CUT SM 102M 16DC
4-C515	EC-322420	C EC V CUT SM 332M 25.0DC
4-J401	EJ-709456	PIN J US4P
4-J501	EJ-706586	PHONE J 3.5 [SP-L]
4-J502	EJ-706586	PHONE J 3.5 [SP-R]

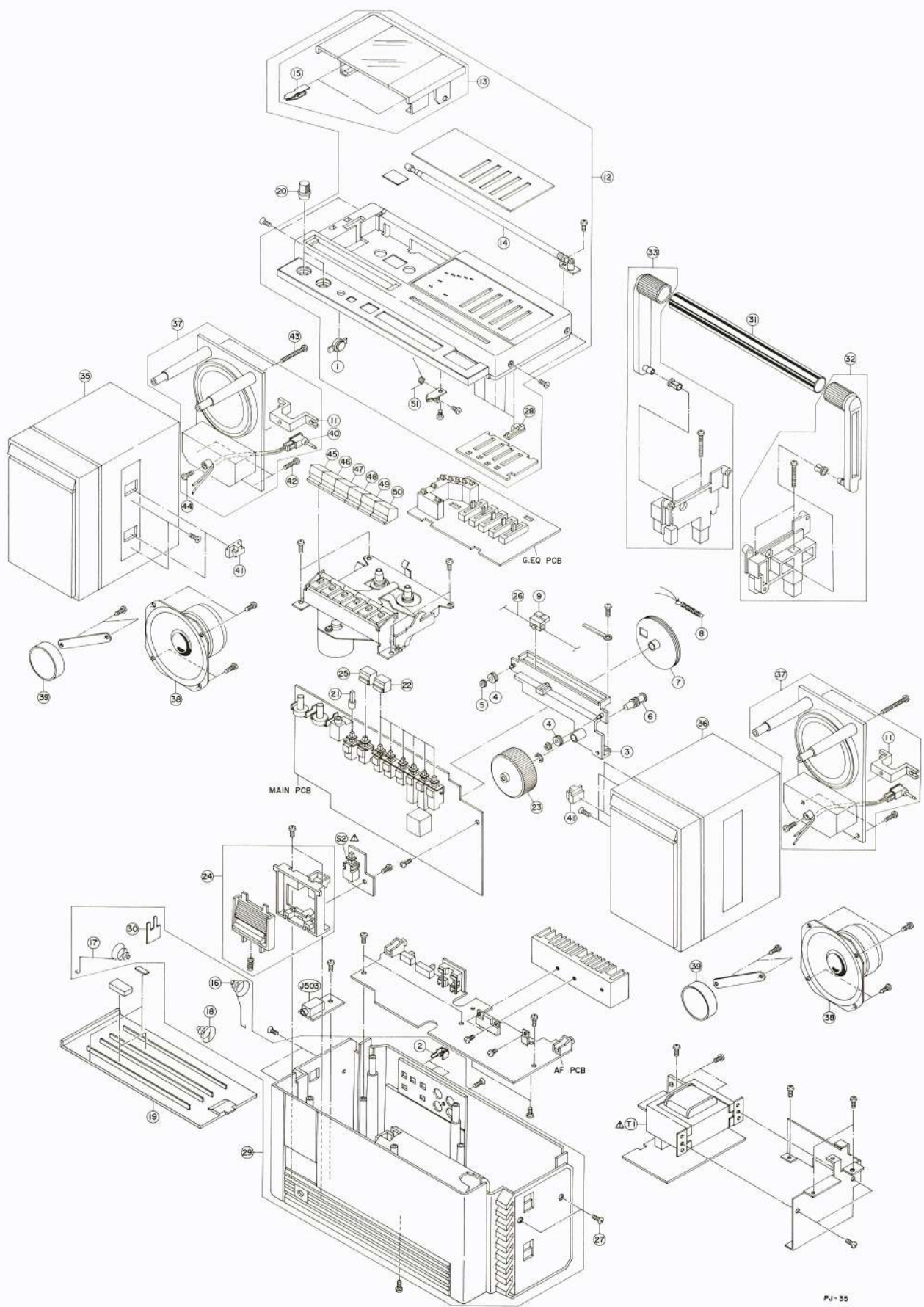
5. G.EQ PC BOARD

REF. NO.	PART NO.	DESCRIPTION
5-IC801	EI-715105	IC LA3600
5-IC802	EI-715105	IC LA3600
5-IC851	EI-715106	IC BA6154
5-TR201	ET-330225	TR 2SC1815 BL
5-TR851	ET-330225	TR 2SC1815 BL
5-D851	ED-749384	D LED TLG208
5-D852	ED-749384	D LED LTG208
5-D853	ED-749384	D LED TLG208
5-D854	ED-749384	D LED TLG208
5-D855	ED-749384	D LED TLG208
5-D856	ED-749384	D LED TLG208
5-D857	ED-749384	D LED TLG208
5-D858	ED-749382	D LED TLR208
5-VT801	EV-716000	VR SLIDE 503
5-VT802	EV-716000	VR SLIDE 503
5-VT803	EV-716000	VR SLIDE 503
5-VT804	EV-716000	VR SLIDE 503
5-VT805	EV-716000	VR SLIDE 503
5-R809	ER-324251	R OMF H FS 1W 101J
5-R856A	ER-707982	R OMF FS 1W 330J [FU,FS]
5-R856B	ER-303840	R OMF H FS 1W 470J [FL]

6. POWER SUPPLY PC BOARD

REF. NO.	PART NO.	DESCRIPTION
POWER SUPPLY PC BOARD		
6-D1	ED-707920	△ D SILICON S2V10X
6-D2	ED-707920	△ D SILICON S2V10X
6-D3	ED-707920	△ D SILICON S2V10X
6-D4	ED-707920	△ D SILICON S2V10X
6-D5	ED-306724	D SILICON S5277B 100/1.0A
6-S1A	ES-715155	△ SW SELECTOR [U]
6-S1B	ES-716144	△ SW SELECTOR [C,A]
6-J1A	EJ-715154	△ SOCKET INLET [U,E,V,B,S]
6-J1B	EJ-716142	△ SOCKET INLET [C,A]
FINAL ASSEMBLY BLOCK		
6-F1A	EF-300609	△ FUSE FST3100 T 250V 5.00A [U,E,V,B,S]
6-F1B	EF-346139	△ FUSE TSC 125V 5.00A [C,A]
6-F2	EF-346139	△ FUSE TSC 125V 5.00A [C,A]

FINAL ASSEMBLY BLOCK



FJ-35

PARTS LIST

7. FINAL ASSEMBLY BLOCK

REF. NO.	PART NO.	DESCRIPTION
FINAL ASSEMBLY BLOCK		
7-1	MZ-715129	DAMPER ASSY
7-2	EJ-716031	TERMINAL SIP
7-3	TK-716160	CHASSIS MAIN
7-4	MR-714202	PULLEY
7-5	ZW-711691	BUSHING
7-6	MS-715136	SHAFT TUNING
7-7	MR-715137	DIAL WHEEL
7-8	ZG-742239	SP PULL AJ-360
7-9	MD-715139	POINTER
7-10xA	EW-715125	△ AC CORD CP SET [U]
7-10xB	EW-716098	△ AC CORD 2 CORES UL-SET [C,A]
7-10xC	EW-706565	△ AC CORD (E) [E,V]
7-10xD	EW-716096	△ AC CORD 2 CORES BS [B]
7-10xE	EW-716097	△ AC CORD 2 CORES SET-A2 [S]
7-11	SZ-716325	CLAMPER CORD
7-12A	BC-715125	CABINET UPPER BLK PJ-35 FU/FS [FU,FS]
7-12B	BC-716151	CABINET UPPER BLK PF-35FL [FL]
7-12C	BC-716457	CABINET UPPER BLK PJ-35FU/FS-R [FU,FS]
7-12D	BC-716458	CABINET UPPER BLK PJ-35FL-R [FL]
7-12E	BC-716153	CABINET UPPER BLK PJ-35FU/FS-B [FU,FS]
7-12F	BC-716456	CABINET UPPER BLK PJ-35 FL-B [FL]
7-13	BD-715126	LID PART
7-13R	BD-716594	LID PART-R
7-13B	BD-716150	LID PART-B
7-14	EE-716030	ANT ROD
7-15	ZG-716320	SP P
7-16	ZG-713699	SP BATTERY-C
7-17	ZG-714215	SP BATTERY-SX
7-18	ZG-714214	SP BATTERY-A
7-19	BC-715135	COVER BATTERY
7-19R	BC-716149	COVER BATTERY-B [RED,BLACK]
7-20	SK-715145	KNOB VR
7-21	SK-715146	KNOB DIRECTION
7-22	SK-715147	KNOB SELECT
7-23	SK-715148	KNOB TUNING
7-24	SK-715149	KNOB POWER PART
7-25	SK-716167	KNOB EXCITER
7-26	TA-716595	DIAL STRING PART
7-27	ZS-716168	OCS30×12STL
7-28	SK-715130	KNOB SLIDE
7-29	BC-715131	CABINET BOTTOM BLK PJ-35
7-29R	BD-716591	CABINET BOTTOM BLK PJ-35-R
7-29B	BC-716590	CABINET BOTTOM BLK PJ-35-B
7-30	EJ-713701	SP BATTERY-A
7-31	SH-715134	HANDLE
7-32	SZ-716597	HOLDER HANDLE (R) PART
7-33	SZ-716596	HOLDER HANDLE (L) PART
7-34	ZS-714380	T2BID30×25
7-35	BC-716161	CABINET SPEAKER (L) BLK PJ-35
7-35R	BC-716592	CABINET SPEAKER (L) BLK PJ-35-R
7-35B	BC-716154	CABINET SPEAKER (L) BLK PJ-35-B
7-36	BC-716166	CABINET SPEAKER (R) BLK PJ-35
7-36R	BC-716593	CABINET SPEAKER (R) BLK PJ-35-R
7-36B	BC-716155	CABINET SPEAKER (R) BLK PJ-35-B
7-37	BC-716598	COVER BACK CABINET SPEAKER PART
7-38	SS-715142	SPEAKER SP-80
7-39	SS-715143	SPEAKER SP-30
7-40	EW-716162	CORD SPEAKER W/JACK
7-41	SZ-716164	JOINT SPEAKER BOX
7-42	ZS-711858	2DTBID30×12ZN 3K
7-43	ZS-716165	T2BID30×30 N13
7-44	ZS-711859	2DTBID30×20ZN 3A
7-45	SB-715118	BUTTUN RECK
7-46	SB-715119	BUTTON PLAY
7-47	SB-715120	BUTTON REW
7-48	SB-715121	BUTTON FF
7-49	SB-715122	BUTTON STOP
7-50	SB-715123	BUTTON PAUSE
7-51	ZG-715128	SP EJECT
7-T1A	BT-715153	△ TRANS POWER 22224719 [U]

REF. NO.	PART NO.	DESCRIPTION
7-T1B	BT-716145	△ TRANS POWER 22224720 C,A [C,A]
7-T1C	BT-716147	△ TRANS POWER 22224723 E,V [E,V]
7-T1D	BT-716146	△ TRANS POWER 22224722 S,B [B,S]

POWER SW PC BOARD

7-S2	ES-715111	△ SW PUSH
------	-----------	-----------

HEAD PHONE PC BOARD

7-J503	EJ-713933	JACK 3.5ST
--------	-----------	------------

SYMBOL FOR COLOR VARIATION

NON: SILVER

R: RED

B or BL: BLACK

INDEX

PART NO.	REF. NO.	PART NO.	REF. NO.	PART NO.	REF. NO.	PART NO.	REF. NO.	PART NO.	REF. NO.
BA-716650	2-2D	EF-346139	6-F2	ET-307195	3-TR623B	ML-712806	1-34	ZS-749293	1-118
BA-716651	2-2C	EH-713194	3-CF202	ET-307195	4-TR410	ML-716169	1-15	ZS-749293	1-119
BA-716652	2-2B	EH-713194	3-CF203	ET-307195	4-TR411	ML-716175	1-43	ZW-711691	7-5
BA-716653	2-2A	EH-713195	3-F101B	ET-307195	4-TR412	ML-716177	1-45	ZW-716176	1-44
BA-716654	2-1A	EH-716156	3-F101	ET-307195	4-TR403	ML-716179	1-51	ZW-716181	1-53
BA-716655	2-1B	EH-749216	3-CF201	ET-307195	4-TR404	ML-716180	1-52	ZW-716206	1-103
BB-715112	1-1	EI-351848	3-IC201	ET-307195	4-TR409B	ML-716182	1-54		
BC-715125	7-12A	EI-708420	3-IC301	ET-308867	4-TR901	ML-716205	1-127		
BC-715131	7-29	EI-709447	3-IC601	ET-328844	4-TR2	MR-714202	7-4		
BC-715135	7-19	EI-711984	4-IC901	ET-328861	3-TR620	MR-715137	7-7		
BC-716149	7-19R	EI-713190	3-IC101	ET-330225	3-TR201	MS-715136	7-6		
BC-716151	7-12B	EI-713916	3-IC701	ET-330225	3-TR301	MS-716170	1-27		
BC-716153	7-12E	EI-713942	4-IC501	ET-330225	3-TR605	MV-716186	1-62		
BC-716154	7-35B	EI-715105	5-IC801	ET-330225	3-TR606	MZ-711710	1-41		
BC-716155	7-36B	EI-715105	5-IC802	ET-330225	3-TR607	MZ-712804	1-38		
BC-716161	7-35	EI-715106	5-IC851	ET-330225	3-TR608	MZ-712813	1-48		
BC-716166	7-36	EJ-706586	4-J501	ET-330225	3-TR609	MZ-712814	1-49		
BC-716456	7-12F	EJ-706586	4-J502	ET-330225	3-TR610	MZ-715129	7-1		
BC-716457	7-12C	EJ-709456	4-J401	ET-330225	3-TR618	MZ-716171	1-31		
BC-716458	7-12D	EJ-713701	7-30	ET-330255	3-TR621	MZ-749256	1-39		
BC-716590	7-29B	EJ-713933	7-J503	ET-330225	3-TR623A	SB-715118	7-45		
BC-716592	7-35R	EJ-715102	3-J601	ET-330225	3-TR701	SB-715119	7-46		
BC-716593	7-36R	EJ-715154	6-J1A	ET-330225	3-TR702	SB-715120	7-47		
BC-716598	7-37	EJ-716031	7-2	ET-330225	3-TR705	SB-715121	7-48		
BD-715126	7-13	EJ-716142	6-J1B	ET-330225	3-TR706	SB-715122	7-49		
BD-716150	7-13B	EO-702670	3-L103B	ET-330225	3-TR707	SB-715123	7-50		
BD-716591	7-29R	EO-709407	3-IT202	ET-330225	4-TR409A	SB-716178	1-46		
BD-716594	7-13R	EO-709425	3-T701	ET-330225	4-TR405	SH-715134	7-31		
BF-716173	1-42	EO-709425	3-T702	ET-330225	4-TR406	SK-715130	7-28		
BL-712799	1-33	EO-713191	3-L102	ET-330225	4-TR407	SK-715145	7-20		
BM-715113	1-M1	EO-713192	3-IT101	ET-330225	4-TR408	SK-715146	7-21		
BR-715918	1-35	EO-713196	3-L103A	ET-330225	5-TR201	SK-715147	7-22		
BR-715919	1-36	EO-713196	9-L105B	ET-330225	5-TR851	SK-715148	7-23		
BT-715153	7-T1A	EO-713197	3-L105A	ET-336864	3-TR601	SK-715149	7-24		
BT-716145	7-T1B	EO-713198	3-L107A	ET-336864	3-TR602	SK-716167	7-25		
BT-716146	7-T1D	EO-713931	3-L701	ET-338565	3-TR401	SS-715142	7-38		
BT-716147	7-T1C	EO-713931	3-L702	ET-338565	3-TR402	SS-715143	7-39		
EC-316187	4-C6	EO-714064	3-L107B	ET-338565	3-TR603	SZ-716164	7-41		
EC-316187	4-C511	EO-714066	3-L106B	ET-338565	3-TR604	SZ-716325	3-L104B		
EC-316187	4-C512	EO-714077	3-IT201	ET-338565	3-TR615	SZ-716325	7-11		
EC-322420	4-C515	EO-715097	3-L104A	ET-338565	3-TR616	SZ-716596	7-33		
EC-706605	3-CT102B	EO-715097	3-L106A	ET-338565	3-TR703	SZ-716597	7-32		
EC-706605	3-CT103B	EO-715100	3-L601	ET-338565	3-TR704	TA-716595	7-26		
EC-713202	3-CT102A	EO-742244	3-L101	ET-349285	4-TR1	TC-712823	1-93		
EC-713202	3-CT103A	EP-716202	1-LS1	ET-353734	3-TR611	TK-716160	7-3		
EC-713202	3-CT104	ER-303840	4-R2	ET-353734	3-TR612	ZG-712822	1-23		
ED-306724	6-D5	ER-308340	4-TR449	ET-353734	3-TR613	ZG-713699	7-16		
ED-337606	4-D7	ER-303840	5-R856B	ET-353734	3-TR614	ZG-714214	7-18		
ED-347149	4-D6	ER-313791	4-R5	ET-353734	4-TR413	ZG-714215	7-17		
ED-706596	3-D103	ER-324251	3-R205	ET-353734	4-TR414	ZG-715128	7-51		
ED-707920	6-D4	ER-324251	3-R308	EV-715098	3-VT301	ZG-715921	1-72		
ED-707920	6-D1	ER-324251	3-R658	EV-715103	3-VT601B	ZG-715922	1-80		
ED-707920	6-D2	ER-324251	3-R739	EV-715103	3-VT602B	ZG-715940	1-73		
ED-707920	6-D3	ER-324251	5-R809	EV-715108	3-VR402	ZG-716187	1-67		
ED-713348	3-D101	ER-341633	3-R655	EV-715109	3-VR401	ZG-716188	1-68		
ED-713348	3-D102	ER-353878	4-R3B	EV-716000	5-VT802	ZG-716189	1-69		
ED-713348	3-D201	ER-701107	4-R502	EV-716000	5-VT803	ZG-716190	1-70		
ED-713348	3-D301	ER-701107	4-R501	EV-716000	5-VT801	ZG-716191	1-74		
ED-713348	3-D603	ER-702368	3-R667	EV-716000	5-VT805	ZG-716192	1-75		
ED-713348	3-D604	ER-702368	4-R6	EV-716000	5-VT804	ZG-716193	1-76		
ED-713348	3-D605	ER-702368	4-R3A	EV-716148	3-VT601A	ZG-716194	1-77		
ED-713348	3-D606	ER-704159	4-R4	EV-716148	3-VT602A	ZG-716195	1-78		
ED-713348	4-D903	ER-707982	3-R733	EW-706565	7-10xC	ZG-716197	1-79		
ED-713348	4-D902	ER-707982	5-R856A	EW-715152	7-10xA	ZG-716198	1-18		
ED-713348	4-D901	ER-715104	3-R652	EW-716096	7-10xD	ZG-716199	1-83		
ED-713919	3-D601	ES-713178	1-S2	EW-716097	7-10xE	ZG-716200	1-84		
ED-713919	3-D602			EW-716098	7-10xB	ZG-716320	7-15		
ED-749382	5-D858	ES-713971	1-S602	EW-716162	7-40	ZG-742239	7-8		
ED-749384	5-D857	ES-715099	3-S101	HE-715115	1-H2	ZG-749268	1-71		
ED-749384	5-D851	ES-715111	7-S2	HP-715114	1-H1	ZS-536488	1-117		
ED-749384	5-D852	ES-715155	6-S1A	HZ-716172	1-32	ZS-707587	1-114		
ED-749384	5-D856	ES-715944	1-S1	MB-712818	1-59	ZS-711858	7-42		
ED-749384	5-D855	ES-715945	1-S4	MB-715936	1-60	ZS-711859	7-44		
ED-749384	5-D854	ES-716143	3-S401	MB-716183	1-57	ZS-714380	7-34		
ED-749384	5-D853	ES-716143	3-S701	MB-716148	1-58	ZS-715943	1-123		
EE-716030	7-14	ES-716144	7-S1B	MD-715139	7-9	ZS-715982	1-96		
EC-716157	3-VC101A	ES-716158	4-S402	MI-712812	1-47	ZS-716165	7-43		
EC-716460	3-VC101B	ES-716159	4-S403	MI-712817	1-56	ZS-716168	7-27		
EF-300609	6-F1A	ES-716201	1-S3	MI-715920	1-50	ZS-716203	1-97		
EF-346139	6-F1B	ET-306719	3-TR619	MI-715935	1-40	ZS-716204	1-98		