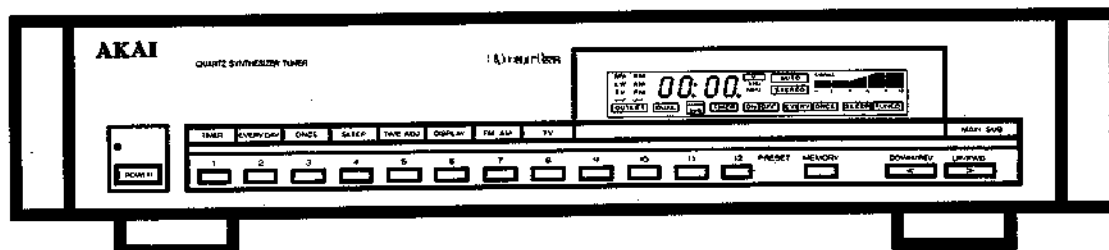


AKAI SERVICE MANUAL



QUARTZ SYNTHESIZER TUNER

MODEL AT-M739/L

SPECIFICATIONS

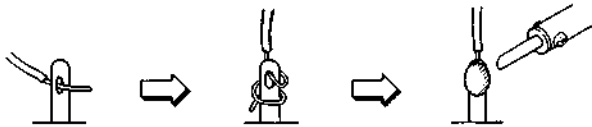
FM section		LW section	
Tuning frequency range . . .	87.5 MHz to 108.0 MHz	Tuning frequency range . . .	146 kHz to 353 kHz
Usable sensitivity	19.2 dBf (V) Model only 11.2 dBf Other models	Usable sensitivity	3,980 μ V/m (S/N = 20 dB)
Quieting sensitivity (S/N = 50 dB)	Mono 29.2 dBf (V) Model only 16.2 dBf other models Stereo 50.2 dBf (V) Model only 37.2 dBf Other models	Selectivity	50 dB
Capture ratio	1.5dB	Image rejection (250 kHz) . .	35 dB
Alternate channel selectivity (+/-400 kHz)	60 dB	IF rejection	45 dB
Image rejection (98 MHz) . .	80 dB	S/N ratio	35 dB
IF rejection	80 dB	Distortion (T.H.D. 1 kHz) . .	1.0%
Suprious rejection	80 dB	OUTPUT LEVEL/IMPEDANCE section	
AM suppression	60 dB	FM (75 kHz DIV. 1 kHz) . .	1,200 mV/2 kohms (V) Model only
Sub carrier suppression . . .	60 dB		775 mV/2 kohms Other models
Frequency response	20 Hz to 15 kHz \pm 1 dB	MW/LW (30% MOD. 400Hz).	220 mV/2 kohms
S/N ratio	Mono 65 dB (V) model only 70 dB Other models Stereo 60 dB (IHF-A)	TIMER section	
Distortion (T.H.D. 1 kHz) . .	Mono 0.3% (V) Model only 0.1% Other models Stereo 0.4% (V) model only 0.5% Other models	Timer accuracy	\pm 15 seconds within one month (25°C)
Stereo separation (1 kHz) . .	35 dB (V) Model only 45 dB Other models	Timer base	Quartz oscillator
Muting threshold level	22 dBf	Timer operation accuracy . .	Less than 0.2 seconds
MW section		Timer display	24 hour, FL display
Tuning frequency range . . .	531 kHz to 1,602 kHz	Timer system	Daylyn 2 programs
Usable sensitivity	800 μ V/m (S/N = 20 dB)	Timer set period	1 minute to 24 hours and 59 minutes
Selectivity	50 dB	Sleep timer set period	1 minute to 1 hour and 59 minutes
Image rejection (999 kHz) . .	40 dB	AC outlets	Switched x 2 total 400W maximum
IF rejection	30 dB	Power requirements	220 V, 50 Hz for Europe except UK 240 V, 50 Hz for UK and
S/N ratio	40 dB	Dimensions	385 (W) x 74 (H) x 330 (D) mm (15.2 x 2.9 x 13.0 inches)
Distortion (T.H.D. 1 kHz) . .	0.8%	Weight	3.6 kg (7.9 lbs)

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

★ SAFETY INSTRUCTIONS

PRECAUTIONS DURING SERVICING

1. Parts identified by the Δ 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.

SAFETY CHECK AFTER SERVICING

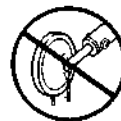
Confirm the specified insulation resistance between power cord plug prongs and externally exposed parts of the set is greater than 10 M ohms. but for equipment with external antenna terminals (tuner, receiver, etc.) and is intended for **C** or **A**, specified insulation resistance should be headphone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

PRECAUTIONS FOR LITHIUM BATTERY

The lithium battery may explode when heated excessively.

[OBSERVE THE FOLLOWING WHEN REPLACING]

- Replace with the same make and type only.
- Use soldering iron in "recommended way" only.
- Place battery in correct polarity.
- Do not short the terminals.
- Do not recharge battery.
- Do not dispose of battery in fire.



[DANGER]



[RECOMMENDED WAY]

★ INFORMATION

SYMBOLS FOR PRIMARY DESTINATION

Alphabet indicates the destination of the units as listed below.

Symbols	Principal Destinations
A	USA
B	UK
C	Canada
E	Europe (except UK)
J	Japan
S	Australia
V	W. Germany only
U	Universal Area
Y*	Custom version

I. CONTROLS

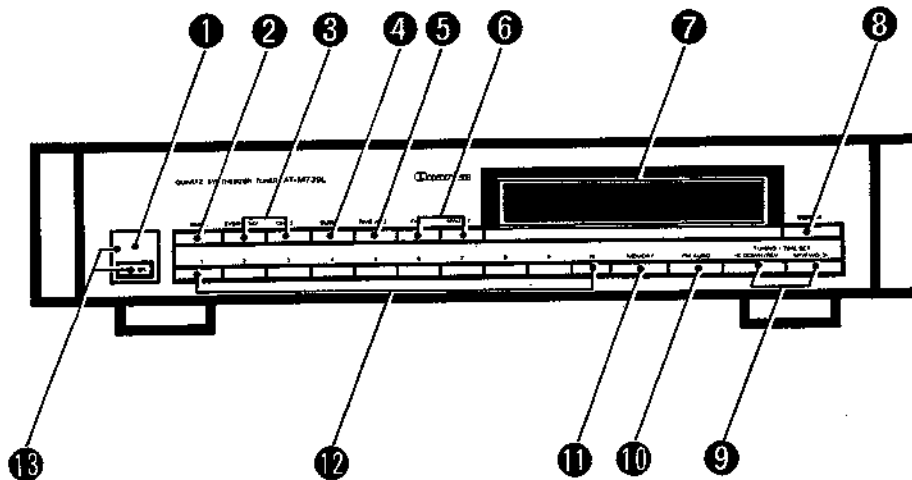


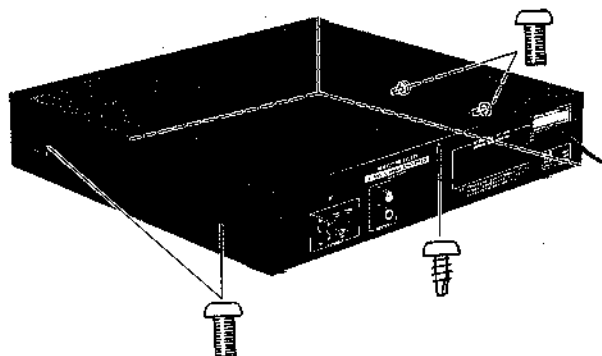
Fig. 1-1 Controls

- ① **Remote control receiver**
- ② **TIMER button**
To turn the power on and off at a memorized time.
- ③ **EVERY DAY and ONCE button**
To memorize the turn on and off time of the timer for either one time or everyday timer operation. Also used for confirming that the turn on/off time has been memorized.
- ④ **SLEEP button**
For automatically turning off the tuner at a memorized time.
- ⑤ **TIME ADJ button**
To set the timer to the present time.
- ⑥ **BAND (FM and AM for AT-M739, FM and MW/LW for AT-M739L) Button**
To select the band.
- ⑦ **FL (Fluorescent) Display**
Shows tuning information and timer information.
- ⑧ **DISPLAY button**
To change the display mode of the FL display for tuning information or timer information.
- ⑨ **TUNING/TIME SET (< DOWN/REV, UP/FWD >) buttons**
To tune in a station or to adjust the time during time setting.
- ⑩ **FM AUTO button**
To select FM AUTO or monaural mode.
- ⑪ **MEMORY button**
To memorize preset stations and to memorize a time setting.
- ⑫ **Preset Station Buttons (1 to 20)**
To memorize preset stations and tune in memorized stations.
- ⑬ **POWER Switch and LED (Light Emitting Diode) indicator**
To turn the power on and off.
The switched AC outlets turn on and off at the same time.

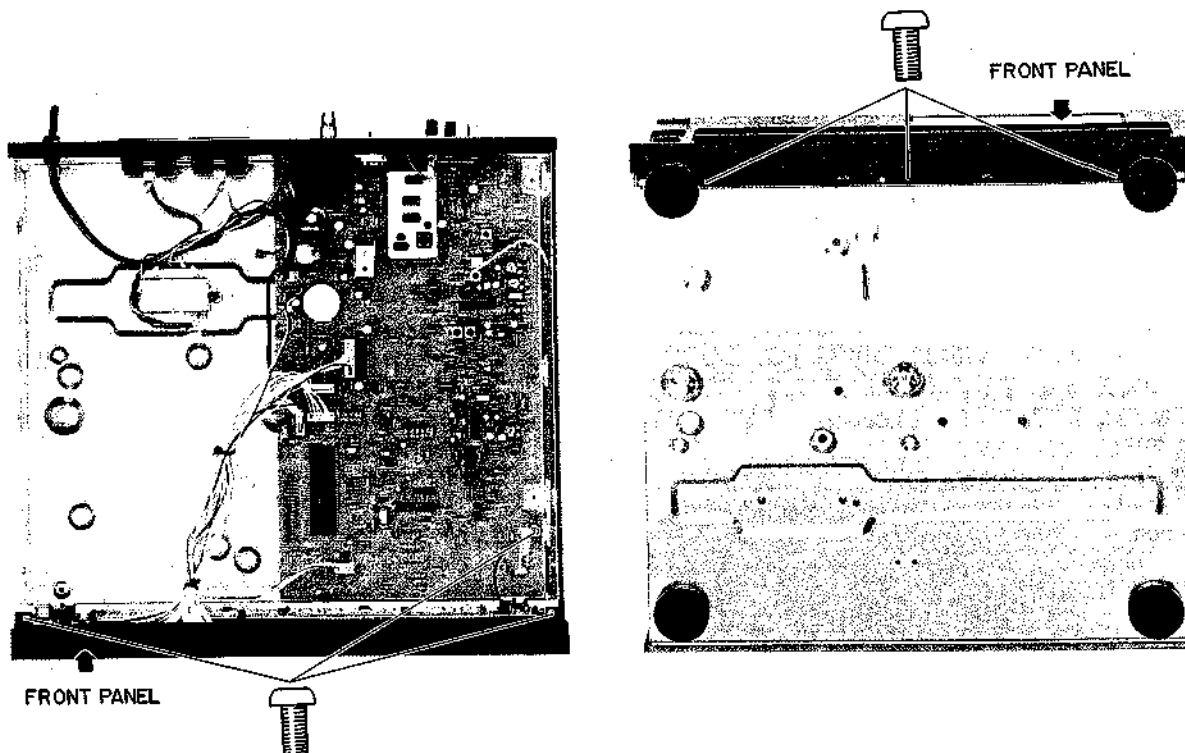
II. DISASSEMBLY

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

1 REMOVAL OF UPPER COVER



2 REMOVAL OF FRONT PANEL



III. PRINCIPAL PARTS LOCATION

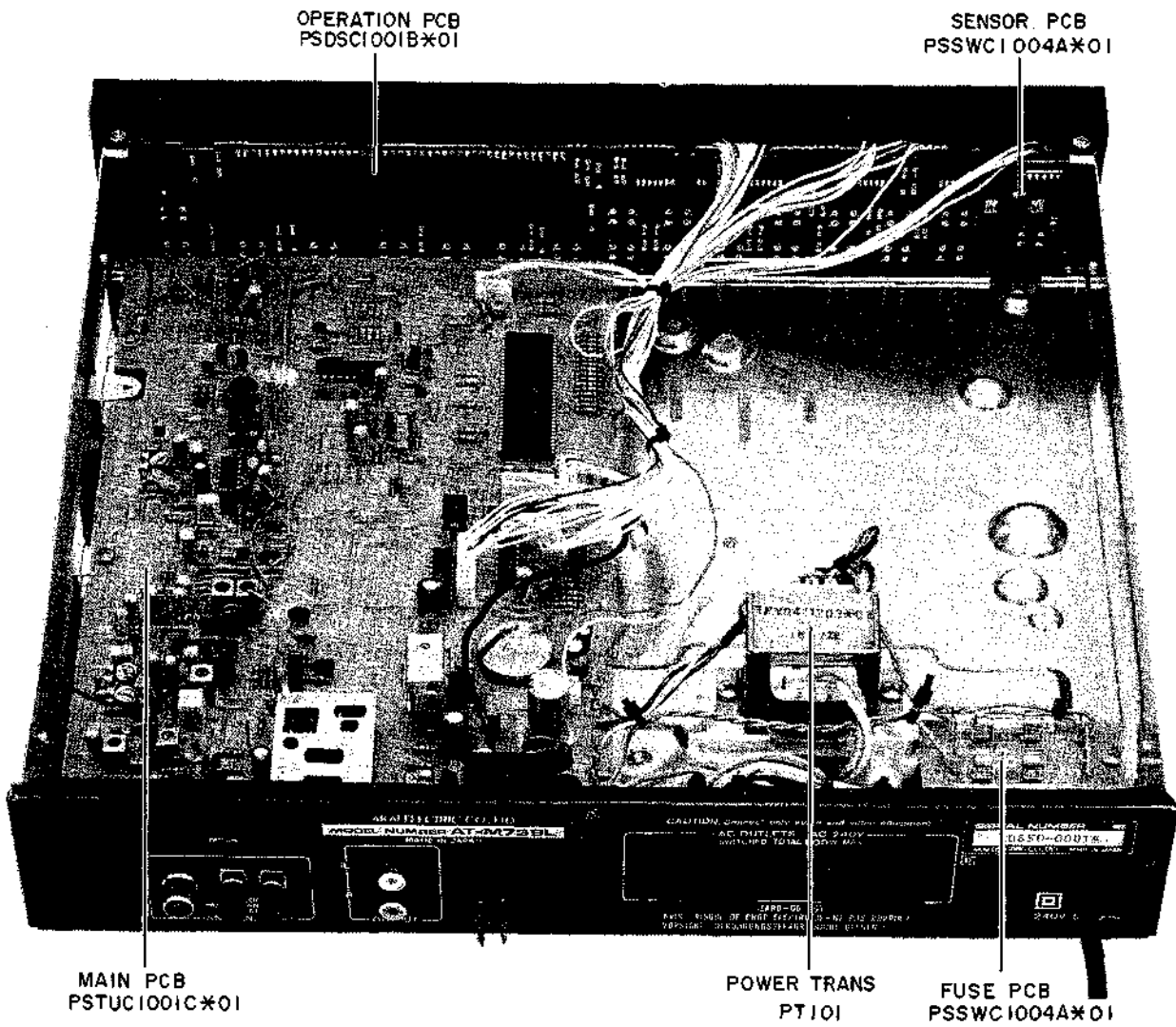


Fig. 3-1

IV. ADJUSTMENT

4.1. INSTRUMENTS CONNECTION

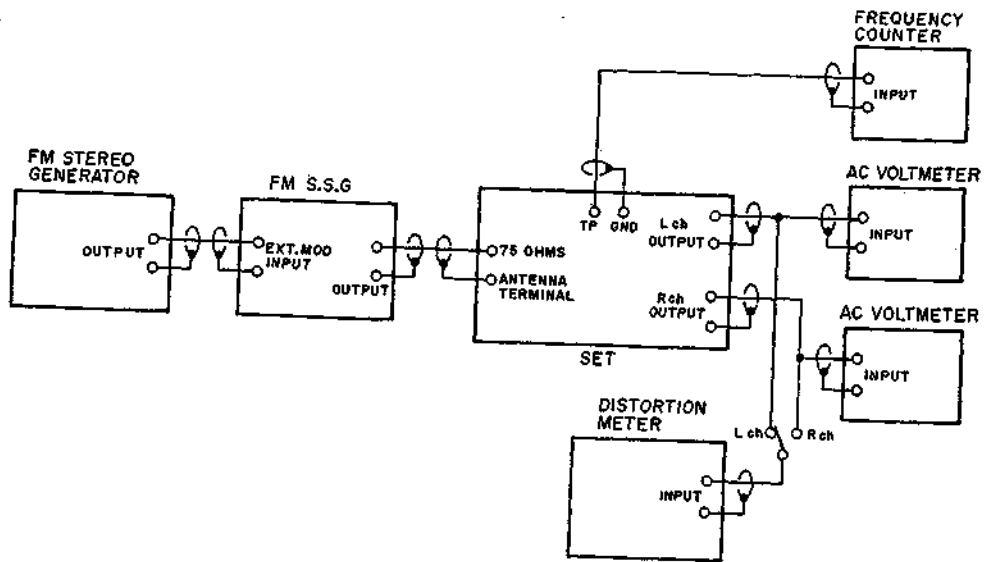


Fig. 4-1 Instruments Connection for FM Section Adjustment

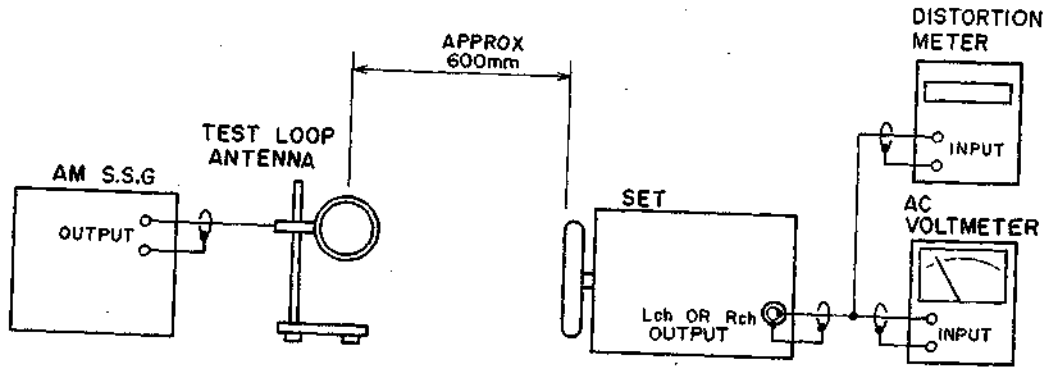


Fig. 4-2 Instruments Connection for AM (MW/LW) Section Adjustment

4-2. TUNER ADJUSTMENT AND ADJUSTMENT POINTS

STEP	ADJUSTMENT ITEM
1.	SSG FREQ & ATT.
2.	SET TUNING FREQ.
3.	TEST POINT & ADJ. PART.
4.	RESULT & REMARKS.

TEST POINT ADJ PART

LW

NOTES:
 1. SET THE SSG TO 30%, 1kHz OF EACH.
 2. CONFIRM THAT THE SENSITIVITY MARGIN BETWEEN LOW AND HIGH RANGE SENSITIVITIES IS WITHIN 6dB. OTHERWISE READJUST LOW AND HIGH RANGE SENSITIVITY.

LW 1	TUNING VOLTAGE CHECK	LW 2	TRACKING
1.	146kHz, 353kHz	1.	170kHz, 320kHz / 60dB
2.	CONNECT A DIGITAL VOLTMETER BETWEEN TP1 AND TP2	2.	170kHz, 320kHz
3.	1.52V AT 146kHz	3.	LINEOUT T107 AT 170kHz
4.	7.0V AT 353kHz	4.	CT102 AT 320kHz
			MAXIMUM OUTPUT AND MINIMUM DISTORTION
			※ FOR BEST RESULT REPEAT 170kHz AND 320kHz 2 OR 3 TIMES

NOTE:
 1. SET THE SSG TO 30%, 1kHz OF EACH.
 2. CONFIRM THAT THE SENSITIVITY MARGIN BETWEEN LOW AND HIGH RANGE SENSITIVITIES IS WITHIN 6dB. OTHERWISE READJUST LOW AND HIGH RANGE SENSITIVITY.

AM

AM 3	TRACKING
1.	603kHz, 1404kHz / 60dB
2.	603kHz, 1404kHz
3.	LINEOUT T101 AT 603kHz
4.	CT101 AT 1404kHz
	MAXIMUM OUTPUT AND MINIMUM DISTORTION
	※ FOR BEST RESULT REPEAT 603kHz AND 1404kHz 2 OR 3 TIMES

AM 1 TUNING VOLTAGE CHECK

1.	531kHz, 1602kHz
2.	CONNECT A DIGITAL VOLTMETER BETWEEN TP1 AND TP2
3.	7.3V AT 1602kHz
4.	1.45V AT 531kHz

AM 4 TUNING LED(IND)

1.	999kHz / 52dB, 51dB
2.	999kHz
3.	RV101
4.	TUNING IND ON AT 52dB
	TUNING IND OFF AT 51dB

AM 2 AM IF

1.	450kHz
2.	531kHz
3.	LINEOUT T103
4.	MAXIMUM OUTPUT

FM

FM 1 TUNING VOLTAGE CHECK

1.	108MHz, 87.5MHz
2.	CONNECT A DIGITAL VOLTMETER BETWEEN TP1 AND TP2
3.	8V AT 108MHz
4.	1.6V AT 87.5MHz

FM 2 FM SENSITIVITY

1.	98.0MHz / 54dB
2.	98.0MHz
3.	LINEOUT IFT
4.	MAXIMUM OUTPUT
	※ CONNECT AN OSCILLOSCOPE AND DISTORTION METER.

FM 4 TUNING LED(IND)

1.	98.0MHz / 11dB
2.	98.0MHz
3.	RV102
4.	TUNING IND ON

FM 3 FM CENTER VOLTAGE AND THD ADJ.

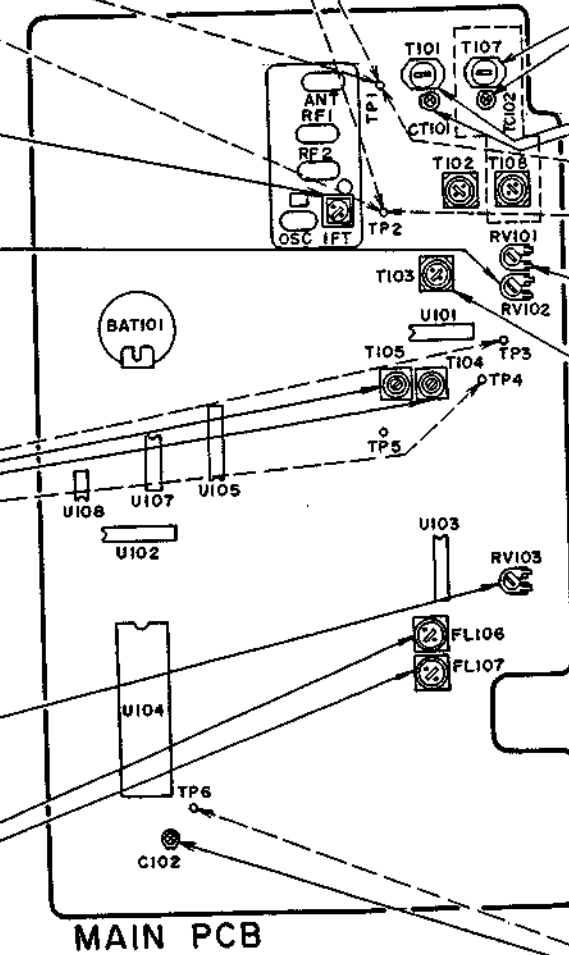
1.	98.0MHz / 54dB
2.	98.0MHz
3.	CONNECT A DIGITAL VOLTMETER BETWEEN TP3 AND TP4
	CONNECT A DISTORTION METER TO LINEOUT.
	T104 ... FM CENTER VOLTAGE
	T105 ... THD
4.	0±50mV
	MINIMUM DISTORTION
	※ FOR BEST RESULT REPEAT T104 AND T105 ADJUSTMENT 2 OR 3 TIMES

FM 5 STEREO SEPARATION

1.	98.0MHz / 54dB STEREO(LOR Rch ONLY)
2.	98.0MHz
3.	LINEOUT RV103
4.	MINIMUM OUT PUT. FROM OTHER CHANNEL
	※ FOR BEST RESULT, REPEAT BOTH CHANNEL 2 OR 3 TIMES.

FM 6 PILOT LEAK

1.	98.0MHz / 54dB STEREO (CARRIER AND PILOT ONLY)
2.	98.0MHz
3.	LINEOUT, FL106, FL107
4.	MINIMUM OUTPUT



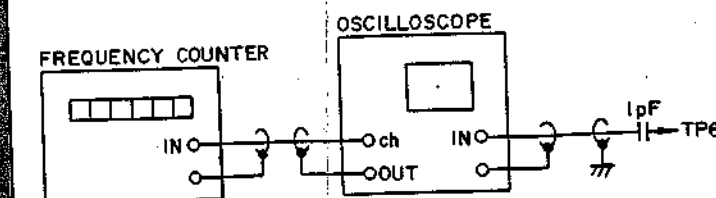
NOTES:
 1. SET THE SSG 75kHz DEVIATION, 1kHz FOR C,A,U,S MODELS 40kHz DEVIATION, 1kHz FOR B,E,V MODELS.
 2. READJUST FROM STEP 2 TO STEP 5, IN CASE T105 IS TURNED MORE THAN A QUARTER TURN OBTAINING THE PROPER DISTORTION (STEREO)
 3. CONFIRM THAT THE SENSITIVITY MARGIN BETWEEN LOW AND HIGH RANGE SENSITIVITIES IS WITHIN 3dB OTHERWISE READJUST LOW AND HIGH RANGE SENSITIVITY.
 4. 0dB = 1μV

MODEL AT-M739L ONLY

TIMER

TIMER 1 X'TAL OSC

- CONNECT A FREQUENCY COUNTER AND OSCILLOSCOPE TO TP6 AS SHOWN BELOW.
- ADJUST THE TIMER CAPACITOR C102 SO THAT THE FREQUENCY COUNTER READING IS 4.194306 MHz ±24Hz



V. PARTS LIST

ATTENTION

- When placing an order for parts, be sure to list Part No., Model No. and the description of each part. Otherwise, the non-delivery of the part or the delivery of a wrong part may result.
- Please make sure that Part No. is correct when ordering. If not, a part different from the one you ordered may be delivered.
- Since the parts shown in Parts List of Preliminary Service Manual may have been the subject of changes, please use this Parts List for all future reference.

HOW TO USE THIS PARTS LIST

- This Parts List lists those parts which are considered necessary for repairs. Other common parts, such as resistors and capacitors, are listed in the "Common List for Service Parts" from which these parts should be selected and stocked.
- The Recommended Spare Parts List shows those parts in the Parts List which are considered particularly important for service.
- Parts not shown in the Parts List and "Common List for Service Parts" will not in principle be supplied.
- How to read the Parts List.
 - Mechanism Block
 - PC Board

2. HEAD BASE BLOCK

REF. NO.	PART NO.	DESCRIPTION
2-1x	BH-T2023A320A	HEAD BASE BLOCK
2-2	HP-H2206A010A	HEAD R/P PR4-8FU C
2-3	ZS-477876	PAN20x03STL CMT
2-4	ZS-536488	BID20x08STL CMT
2-5	ZG-402895	SP CS ANGLE ADJUST

- SP (Service Parts) Classification
- A small "x" indicates that this part is not shown 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. MAIN PC BOARD

REF. NO.	PART NO.	DESCRIPTION
6-IC1	EI-324536	IC HD14049BP
6-IC2	EI-336801	IC MB8841-564M
6-C1A	EC-338399	C MMY V 223M 250AC [U,E,B,S]
6-C1B	EC-350949	C MMY V 223M 250DC [J]
6-C1C	EC-338397	C MMY V 223M 125AC [C,A]
6-X1	EI-318384	OSC X'TAL NC-18C

- Symbols for primary destination:
 - [A]: AAL(U.S.A.) [S]: SAA(Australia)
 - [B]: BEAB(England) [U]: U/T(Universal Area)
 - [C]: CSA(Canada) [V]: VDE(W. Germany)
 - [E]: CEE(Europe) [Y]: Custom Version
 - [J]: JPN(Japan)
- SP (Service Parts) Classification
- These reference symbols correspond with component symbols in the Schematic Diagrams.

The available PC Board Blocks are listed separately.

- When Part No. is known, Parts Index at end of Parts List can be used to locate where that part is shown in Parts List by its Reference No. listed at right of Part No.

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.

1. RECOMMENDED SPARE PARTS

We suggest you to stock the following Recommended Spare Part items listed below since they can cover most of the routine service.

Ref. No.	Part No.	Description
1	BZ-719326	REMOCON SENSOR BLK BX-1407
2	ED-325003	D GERMA H 0A90G
3	ED-370976	D LED SLB-22PW3
4	ED-344280	D SILICON H GMA-01-FY2 F05
5	*ED-719282	D SILICON H MPG06G
6	ED-723355J	D SILICON MA150
7	*ED-704088	D SILICON W02
8	ED-349460-A	D VARACTOR SVC321SPA ABCD DBL
9	ED-367528	D ZENER H MA1047-M
10	*ED-356468	D ZENER H MA1051-M
11	*ED-367529	D ZENER H MA1062-M
12	ED-367530	D ZENER H MA1240-M
13	EE-725248J	FRONT END FE407-G40 [V]
14	EE-723344J	FRONT END 37E-4F-U [E,B]
15	*EF-355374	FUSE BET T 250V 500MA
16	EH-344434	FILTER CE BFU450C4N 0.450MHZ
17	EH-716762	FILTER CE SFE10.7MA5 [E,B]
18	EH-338338	FILTER CE SFE10.7MS3GK-A [V]
19	EH-719331	FILTER CE SFZ450G
20	EH-723392J	FILTER CE 10.7MHZ SFE10.7MK-A [V]
21	EH-723356J	FILTER LC 114KHZ [V]
22	EH-719332	FILTER MPX LXM211X
23	EI-723340J	IC LA1266A
24	EI-349963	IC LA3410
25	EI-719340	IC LB1291
26	EI-321606	IC LM393N
27	EI-354951	IC LM7000N
28	EI-304657	IC TC4011BP
29	*EI-723339J	IC UA7812
30	EI-719844	IC UPD75104CW-048
31	EI-349970	OSC CE CSB456F11 0.456MHZ
32	EI-719342	OSC X'TAL CSA309 4.194304MHZ
33	EI-723343J	OSC X'TAL 7200KHZ
34	*EQ-719345	RELAY G4W-1112P-US-TV8 12V
35	*ER-358910	R OMF H S15 FS 2W 181J
36	ES-356115	SW PUSH J-U3066#01 01-1
37	ES-719325	SW TACT SOA-112HS
38	ET-719334	TR FET 2SK49 F
39	*ET-309184	TR 2SA1020 O.Y
40	ET-357532	TR 2SA933S R
41	ET-749553	TR 2SC1383 Q.R
42	ET-337385	TR 2SC1675 L
43	ET-330225	TR 2SC1815 BL
44	ET-338410	TR 2SC2878 A.B
45	ET-360067	TR 2SC3330 T.U F05

2. P.C BOARD BLOCK

Ref. No.	Part No.	Description
1A	BA-725251J	PC MAIN BLK AT-M739(E)
1B	BA-725249J	PC MAIN BLK AT-M739(V)
1C	BA-725250J	PC MAIN BLK AT-M739(E,B)

3. MAIN P.C BOARD

Ref. No.	Part No.	Description
A101	EE-723344J	FRONT END 37E-4F-U [E,B]
A101	EE-725248J	FRONT END FE407-G40 [V]
BAT101	*EZ-719279	BATTERY LITHIUM CR2430-FT
C102	EC-719646	C S-FIX N750 TZ03R200A 20P
C183	*EC-338496	C CE V FZ 472P 400AC
CT101	EC-719330	C S-FIX N450 TZ03T11A 10PF
CT102	EC-719330	C S-FIX N450 TZ03T11A 10PF [E,B] [AT-M739L ONLY]
D101	ED-349460-A	D VARACTOR SVC321SPA ABCD DBL
D102	ED-349460-A	D VARACTOR SVC321SPA ABCD DBL
D103	ED-344280	D SILICON H GMA-01-FY2 F05 [E,B] [AT-M739L ONLY]
D104	ED-349460-A	D VARACTOR SVC321SPA ABCD DBL [E,B] [AT-M739L ONLY]
D105	ED-349460-A	D VARACTOR SVC321SPA ABCD DBL [E,B] [AT-M739L ONLY]
D106	ED-344280	D SILICON H GMA-01-FY2 F05 [E,B] [AT-M739L ONLY]
D107	ED-344280	D SILICON H GMA-01-FY2 F05 [E,B] [AT-M739L ONLY]
D108	ED-344280	D SILICON H GMA-01-FY2 F05 [E,B] [AT-M739L ONLY]
D109	ED-344280	D SILICON H GMA-01-FY2 F05
D110	ED-344280	D SILICON H GMA-01-FY2 F05
D111	ED-344280	D SILICON H GMA-01-FY2 F05
D112	ED-344280	D SILICON H GMA-01-FY2 F05
D113	ED-344280	D SILICON H GMA-01-FY2 F05
D114	ED-344280	D SILICON H GMA-01-FY2 F05
D115	ED-344280	D SILICON H GMA-01-FY2 F05
D116	ED-344280	D SILICON H GMA-01-FY2 F05
D117	*ED-704088	D SILICON W02
D118	*ED-719282	D SILICON H MPG06G
D119	*ED-719282	D SILICON H MPG06G
D120	ED-367530	D ZENER H MA1240-M
D121	ED-367528	D ZENER H MA1047-M
D122	ED-719282	D SILICON H MPG06G
D124	*ED-367529	D ZENER H MA1062-M
D125	ED-344280	D SILICON H GMA-01-FY2 F05
D126	*ED-356468	D ZENER H MA1051-M
D127	ED-344280	D SILICON H GMA-01-FY2 F05
D128	ED-344280	D SILICON H GMA-01-FY2 F05
D129	ED-723355J	D SILICON MA150
D136	ED-344280	D SILICON H GMA-01-FY2 F05
D137	ED-344280	D SILICON H GMA-01-FY2 F05
D138	ED-325003	D GERMA H 0A90G
D139	ED-344280	D SILICON H GMA-01-FY2 F05
D140	ED-344280	D SILICON H GMA-01-FY2 F05
D141	ED-723776J	D ZENER H MA1091M [V]
FL101	EH-719331	FILTER CE SFZ450G
FL102	EH-716762	FILTER CE SFE10.7MA5 [E,B]
FL102A	EH-723392J	FILTER CE 10.7MHZ SFE 10.7MK-A [V]
FL103	EH-716762	FILTER CE SFE10.7MA5 [E,B]
FL103A	EH-338338	FILTER CE SFE10.7MS3GK-A [V]
FL104	EH-344434	FILTER CE BFU450C4N 0.450MHZ
FL105	EI-349970	OSC CE CSB456F11 0.456MHZ
FL106	EH-719332	FILTER MPX LXM211X
FL107	EH-719332	FILTER MPX LXM211X
FL108	EH-723356J	FILTER LC 114KHZ [V]
JA1	EJ-719344	TERMINAL LEVER YD31 -0215 P 2P [ANTENNA]
JA2	EJ-719343	PIN J YKC21-0048A 2P [OUTPUT]
L101	EO-719333	COIL CHOKE N-393J 391MH J
Q101	ET-719334	TR FET 2SK49 F
Q102	ET-357532	TR 2SA933S R [E,B] [AT-M739L ONLY]

Ref. No.	Part No.	Description
Q103	ET-337385	TR 2SC1675 L
Q104	ET-357532	TR 2SA933S R [E.B.] [AT-M739L ONLY]
Q105	ET-357532	TR 2SA933S R
Q106	ET-330225	TR 2SC1815 BL
Q107	ET-330225	TR 2SC1815 BL
Q108	ET-719334	TR FET 2SK49 F [E.B.] [AT-M739L ONLY]
Q109	ET-357532	TR 2SA933S R [E.B.] [AT-M739L ONLY]
Q110	ET-360067	TR 2SC3330 T,U F05
Q111	ET-330225	TR 2SC1815 BL [E.B.] [AT-M739L ONLY]
Q112	ET-330225	TR 2SC1815 BL [E.B.] [AT-M739L ONLY]
Q113	ET-338410	TR 2SC2878 A,B
Q114	ET-338410	TR 2SC2878 A,B
Q115	ET-357532	TR 2SA933S R
Q116	ET-330225	TR 2SC1815 BL
Q118	ET-357532	TR 2SA933S R
Q119	ET-749553	TR 2SC1383 Q,R
Q120	ET-330225	TR 2SC1815 BL
Q121	ET-330225	TR 2SC1815 BL
Q122	ET-337385	TR 2SC1675 L
Q123	ET-749553	TR 2SC1383 Q,R
Q124	*ET-309184	TR 2SA1020 O,Y
Q125	ET-330225	TR 2SC1815 BL
Q126	*ET-749553	TR 2SC1383 Q,R
Q127	ET-330225	TR 2SC1815 BL
Q131	ET-330225	TR 2SC1815 BL
Q132	ET-330225	TR 2SC1815 BL
R244	*ER-358910	R OMF H S15 FS 2W 181J
RV101	EV-338463	R S-FIX H V8K4-11(1S) 0.10W203
RV102	ER-367523	R S-FIX H V8K4-11(1S) 0.10W204
RV103	EV-357837	R S-FIX H V8K4-11(1S) 0.10W104
RY101	*EO-719345	RELAY G4W-1112P-US-TV8 12V
T101	EO-719339	COIL RF 601301004A
T102	EO-719337	COIL RF HW-50454 R12-E668A
T103	EO-723338J	COIL IFT 21K7-H5
T104	EO-719645	COIL RF 10.7MHZ IFT-41M7-M
T105	EO-719336	COIL RF HW-40131 R12-E666A
T107	EO-723353J	COIL LW 6.5MH [E.B.] [AT-M739L ONLY]
T108	EO-723351J	COIL RF HW-6019 [E.B.] [AT-M739L ONLY]
U101	EI-723340J	IC LA1266A
U102	EI-354951	IC LM7000N
U103	EI-349863	IC LA3410
U104	EI-719644	IC UPD75104CW-048
U105	EI-719340	IC LB1291
U106	EI-719340	IC LB1291
U107	EI-304657	IC TC4011BP
U108	EI-321606	IC LM393N
U109	*EI-723339J	IC UA7812
XT101	ES-723343J	OSC X'TAL 7200KHZ
XT102	EI-719342	OSC X'TAL CSA309 4.194304MHZ
F1	*EF-355374	FUSE BET T 250V 500MA
F2	*EF-355374	FUSE BET T 250V 500MA

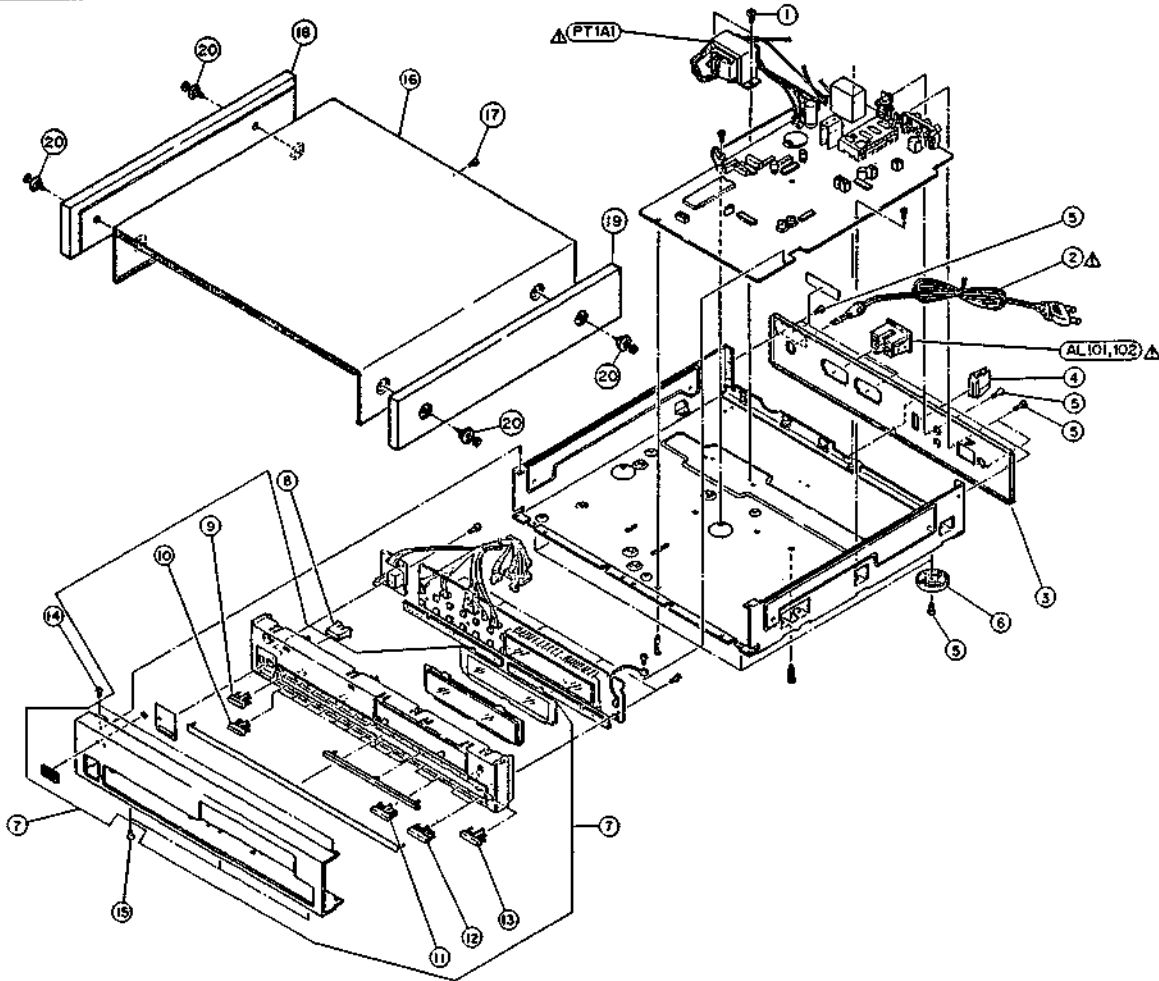
4. OPERATION P.C BOARD

Ref. No.	Part No.	Description
D129	ED-344280	D SILICON H GMA-01-FY2 F05
D130	ED-344280	D SILICON H GMA-01-FY2 F05
D131	ED-344280	D SILICON H GMA-01-FY2 F05
D132	ED-344280	D SILICON H GMA-01-FY2 F05
D133	ED-344280	D SILICON H GMA-01-FY2 F05
D134	ED-344280	D SILICON H GMA-01-FY2 F05
FD101	EM-371183	IND FL 7-BT-49ZK DOUBLE
S101	ES-719325	SW TACT SOA-112HS
S102	ES-719325	SW TACT SOA-112HS
S103	ES-719325	SW TACT SOA-112HS
S104	ES-719325	SW TACT SOA-112HS
S105	ES-719325	SW TACT SOA-112HS
S106	ES-719325	SW TACT SOA-112HS
S107	ES-719325	SW TACT SOA-112HS
S108	ES-719325	SW TACT SOA-112HS
S109	ES-719325	SW TACT SOA-112HS
S110	ES-719325	SW TACT SOA-112HS
S111	ES-719325	SW TACT SOA-112HS
S112	ES-719325	SW TACT SOA-112HS
S113	ES-719325	SW TACT SOA-112HS
S114	ES-719325	SW TACT SOA-112HS
S115	ES-719325	SW TACT SOA-112HS
S116	ES-719325	SW TACT SOA-112HS
S117	ES-719325	SW TACT SOA-112HS
S118	ES-719325	SW TACT SOA-112HS
S119	ES-719325	SW TACT SOA-112HS
S120	ES-719325	SW TACT SOA-112HS
S121	ES-719325	SW TACT SOA-112HS
S122	ES-719325	SW TACT SOA-112HS

5. REMOTE CONTROL P.C BOARD

Ref. No.	Part No.	Description
C1	EC-355371	C CE V DNS472ZV V 472Z 400AC
D135	ED-370976	D LED SLB-22PW3
S1	ES-356115	SW PUSH J-U3066#01 01-1
S123	ES-719325	SW TACT SOA-112HS
Z1	BZ-719326	REMOCON SENSOR BLK BX-1407

FINAL ASSEMBLY BLOCK



6. FINAL ASSEMBLY BLOCK

Ref. No.	Part No.	Description
PT1A1	*BT-723367J	TRANS POW EX2361 AT-M739(E,V)
PT1A1	*BT-723383J	TRANS POW EX2362 AT-M739L(E,B)
1	ZS-304022	ST PAN40X06STL CMT
2A	*EW-338518	AC CORD KP-419C.LTCE-2F E [E,V]
2B	*EW-723384J	AC CORD LTCE-2F [B]
3A	SP-723371J	PANEL REAR AT-M739(E,V) [E,V]
3B	SP-723379J	PANEL REAR AT-M739L(E) [E]
3C	SP-723382J	PANEL REAR AT-M739L(B) [B]
4	SZ-719353	HOLDER LOOP ANT
AL101	*EJ-723370J	AC OUTLET S2-729T-100 [E,V]
AL101	*EJ-723386J	AC OUTLET S2-741T-110 [B]
AL102	*EJ-723370J	AC OUTLET S2-729T-100 [E,V]
AL102	*EJ-723386J	AC OUTLET S2-741T-110 [B]
5	ZS-305827	ST BID30X06STL BNI
6	SA-723357J	LEG ASSY
7A-B	BD-723366J	PANEL FRONT BLK AT-M739-B
7A-G	BD-723378J	PANEL FRONT BLK AT-M739-G
7B-B	BD-723358J	PANEL FRONT BLK AT-M739L-B
7B-G	BD-723377J	PANEL FRONT BLK AT-M739L-G
8-B	SK-723376J	KNOB POWER B
8-G	SK-723400J	KNOB POWER G

Ref. No.	Part No.	Description
9-B	SB-719317	BUTTON A-B
9-G	SK-723401J	KNOB A-G
10-B	SB-719318	BUTTON C-B
10-G	SK-723414J	KNOB C-G
11-B	SB-719320	BUTTON D-B
11-G	SK-723423J	KNOB D-G
12-B	SB-719321	BUTTON E-B
12-G	SK-723427J	KNOB E-G
13-B	SB-719319	BUTTON B-B
13-G	SK-723421J	KNOB B-G
14	ZS-300506	ST PAN30X05STL CMT
15	ZS-305827	ST BID30X06STL BNI
16-B	SP-723365J	COVER UPPER B
16-G	SP-723399J	COVER UPPER-G
17	ZS-305827	ST BID30X06STL BNI
18	SP-371172J1	SIDE BOARD (L)
19	SP-371173J1	SIDE BOARD (R)
20	ZS-365678	SCREW SLIDE TYPE W/WASHER(J)

7. ACCESSARY

Ref. No.	Part No.	Description
1	EW-344151	CORD RR-61A PINX2-PINX2
2	EJ-352118	SOCKET COAX PAL B2-714P-900
3	EE-719359	ANT LOOP
4	EE-320526	ANT DIPOLE SAE-008

PARTS LIST

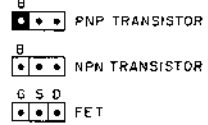
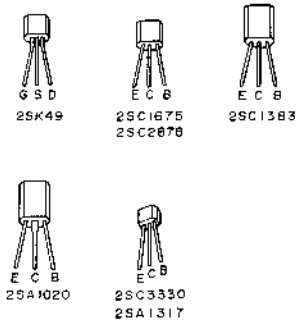
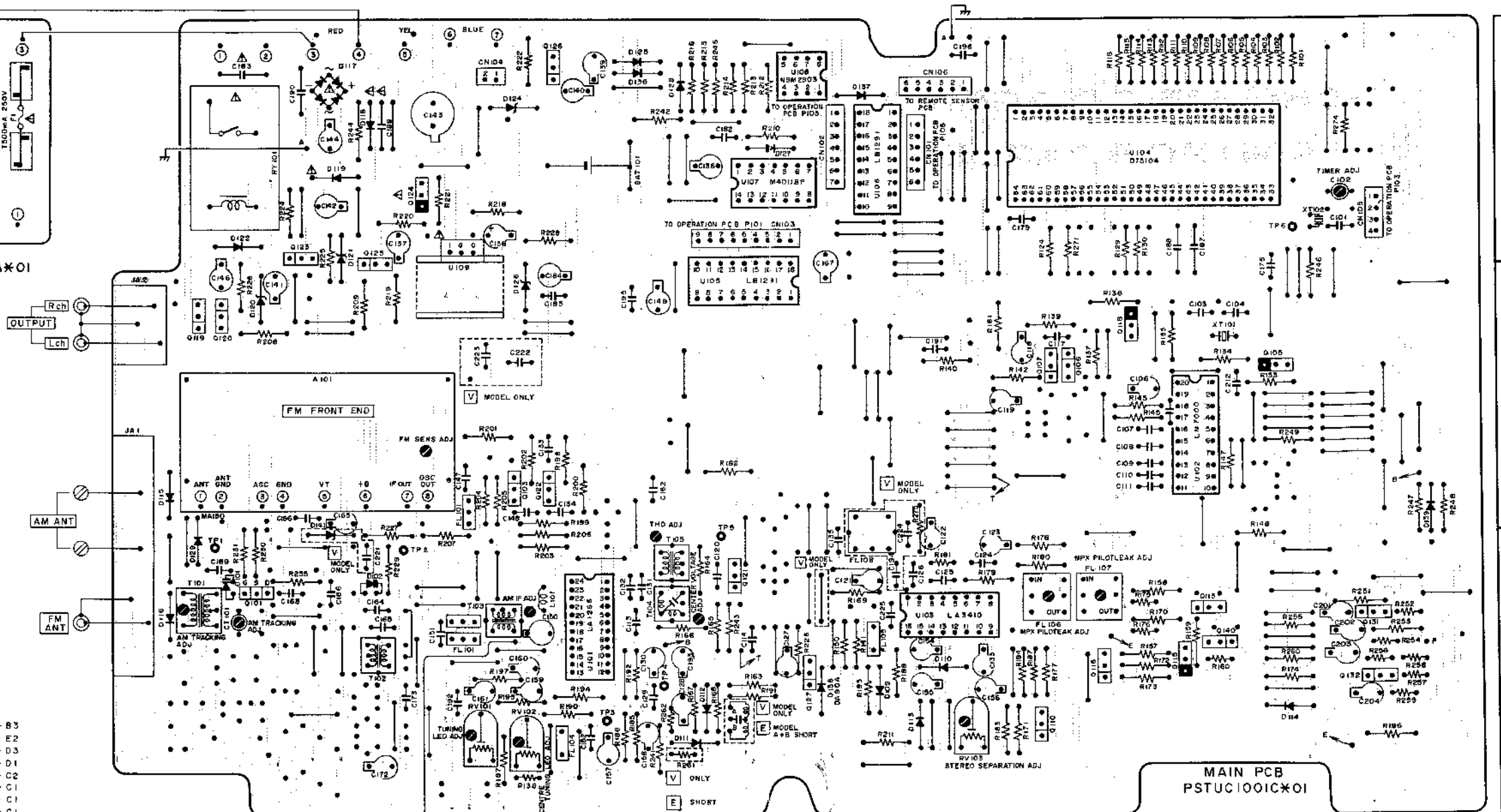
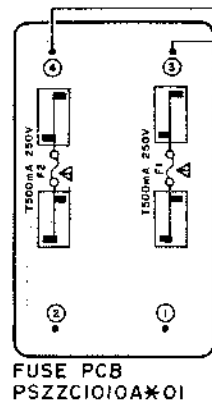
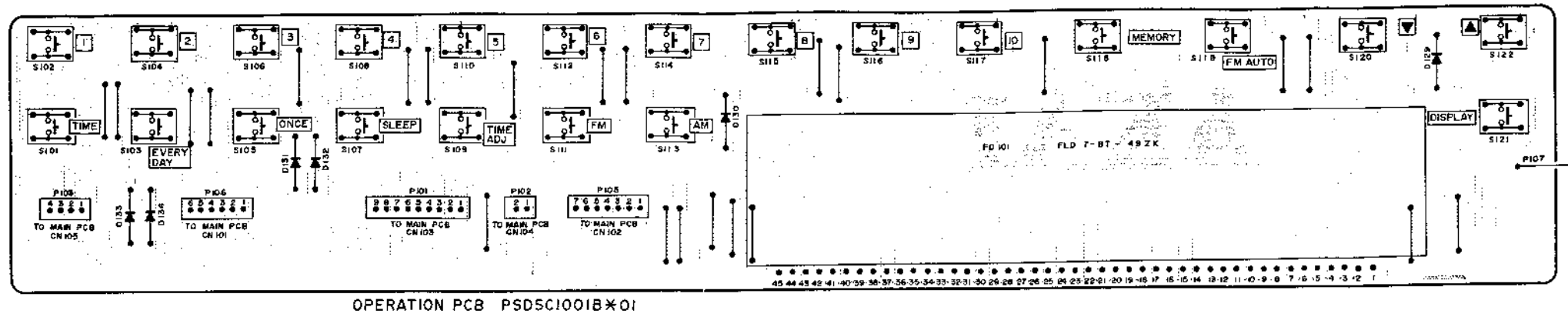
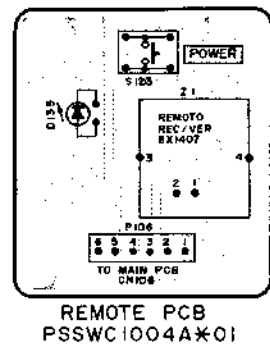
AKAI

MODEL AT-M739/L

SCHEMATIC DIAGRAM AND PC BOARDS

TABLE OF CONTENTS

1. AT-M739 MAIN PC BOARD.....	2
2. AT-M739 SCHEMATIC DIAGRAM	3
3. AT-M739L SCHEMATIC DIAGRAM.....	4
4. AT-M739L MAIN PC BOARD	5
5. BLOCK DIAGRAM	6

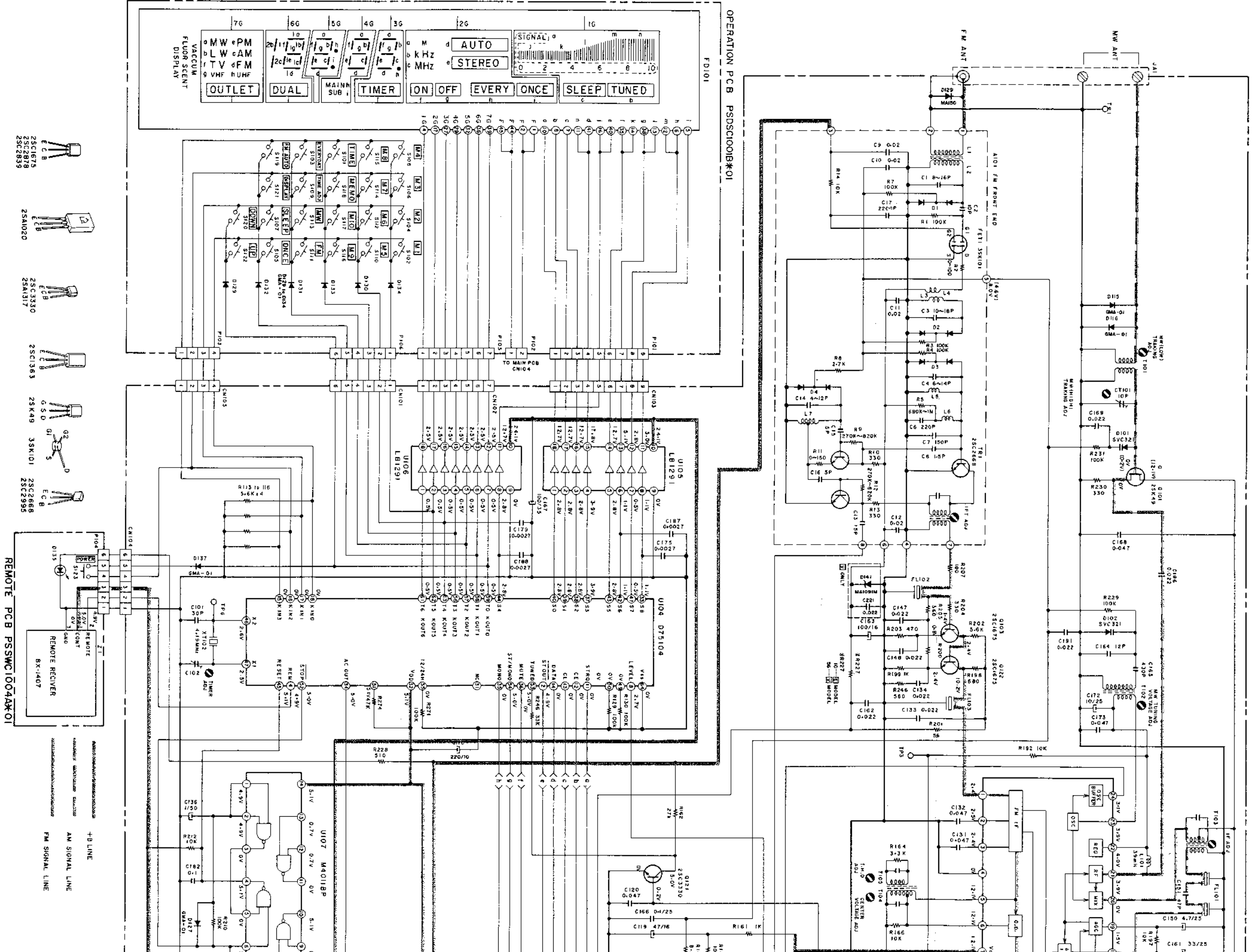


LOCATION OF COMPONENTS

TRS	Q101 ---- A3	Q118 ---- D2	ICS U101 ---- B3
	Q103 ---- B2	Q119 ---- A2	U102 ---- E2
	Q105 ---- E2	Q120 ---- A2	U103 ---- D3
	Q106 ---- D2	Q121 ---- C3	U104 ---- D1
	Q107 ---- D2	Q122 ---- B2	U105 ---- C2
	Q110 ---- D3	Q123 ---- A1	J106 ---- C1
	Q113 ---- E3	Q124 ---- B1	U107 ---- C1
	Q114 ---- E3	Q125 ---- A1	U108 ---- C1
	Q115 ---- E3	Q126 ---- B1	U109 ---- B1
	Q116 ---- D3	Q127 ---- C3	

WARNING: Δ INDICATES SAFETY CRITICAL COMPONENTS. FOR CONTINUED SAFETY, REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS.

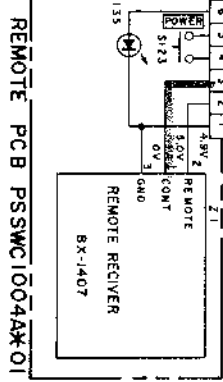
AVERTISSEMENT: Δ IL INDIQUE LES COMPOSANTS CRITIQUES DE SÉCURITÉ. POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL, NE REMPLACER QUE DES PIÈCES RECOMMANDÉES PAR LE FABRICANT.



A B C D E F

1 2 3 4 5 6 7 8

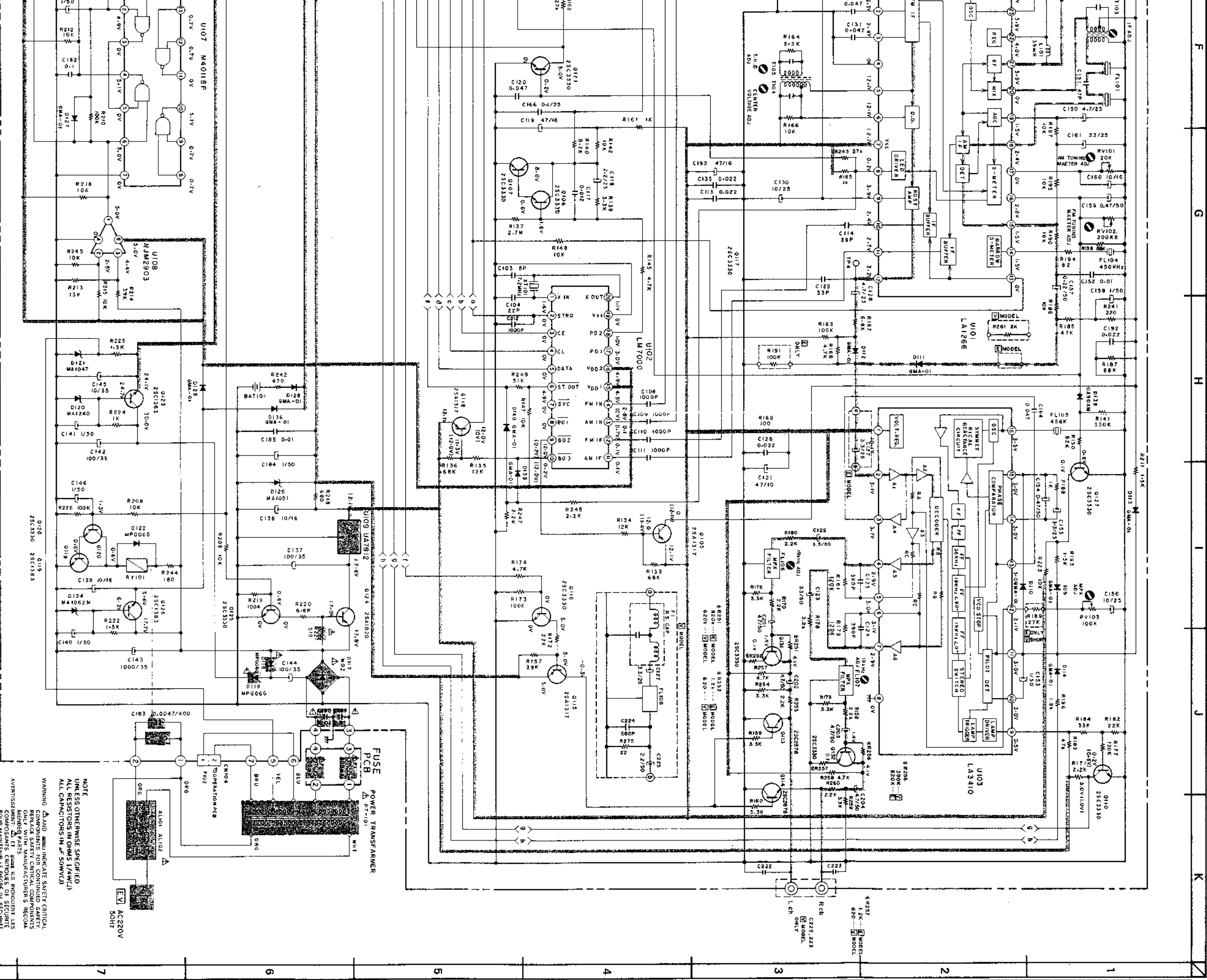
- 25C1675 E C B
- 25C2878 E C B
- 25C2839 E C B
- 25A1020 E C B
- 25C3330 25A117 E C B
- 25C1363 E C B
- 25K49 35K101 25C2668 E C B
- 25C2995 E C B



REMOTE RECEIVER BX-1407

AM SIGNAL LINE

FM SIGNAL LINE



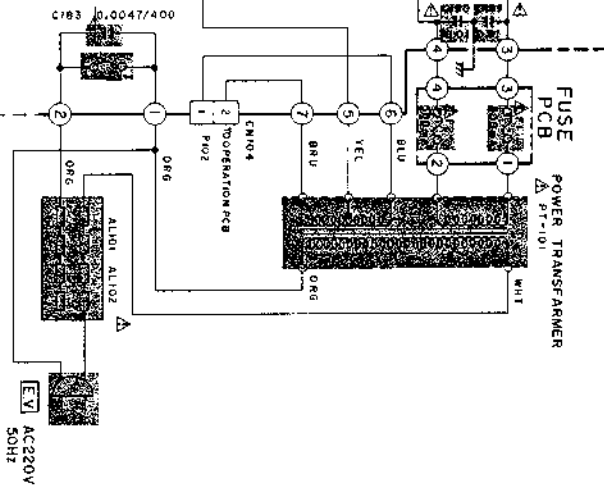
VOLTAGE MEASURED AT FM 99MHz 60dBμ 75% DU STEREO INDICATED IN () AT AM 1000kHz 60dBμ 30%

MAIN PCB PSTUC1001CK01

AT-M739(E)(V) SCHEMATIC DIAGRAM NO. 871017A

NOTE
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN OHMS (1/4W/J)
ALL CAPACITORS IN μF (50WV/J)

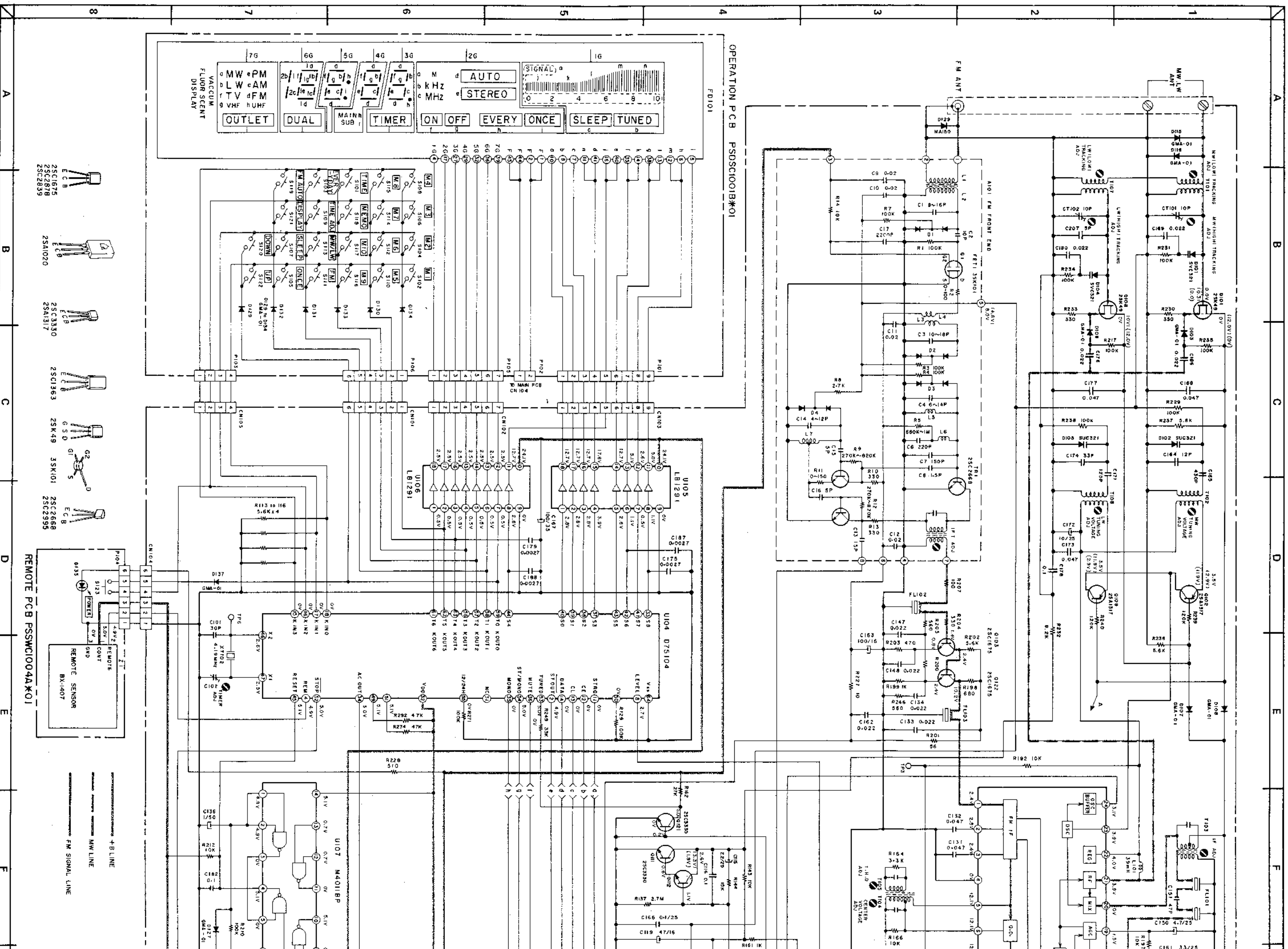
WARNING
AND INDICATE SAFETY CRITICAL COMPONENTS FOR CONTINUED SAFETY.
REPLACE SAFETY CRITICAL COMPONENTS WITH IDENTICAL PARTS.
REPAIRS SHOULD BE MADE BY A QUALIFIED SERVICE PERSON.
AVERTISSEMENT
ET SANS ILS INDICENT LES COMPOSANTS CRITIQUES DE SECURITE.
DE LA PAREIL, NE REMPLACER QUE DES PIECES RECOMMANDEES PAR LE FABRICANT.

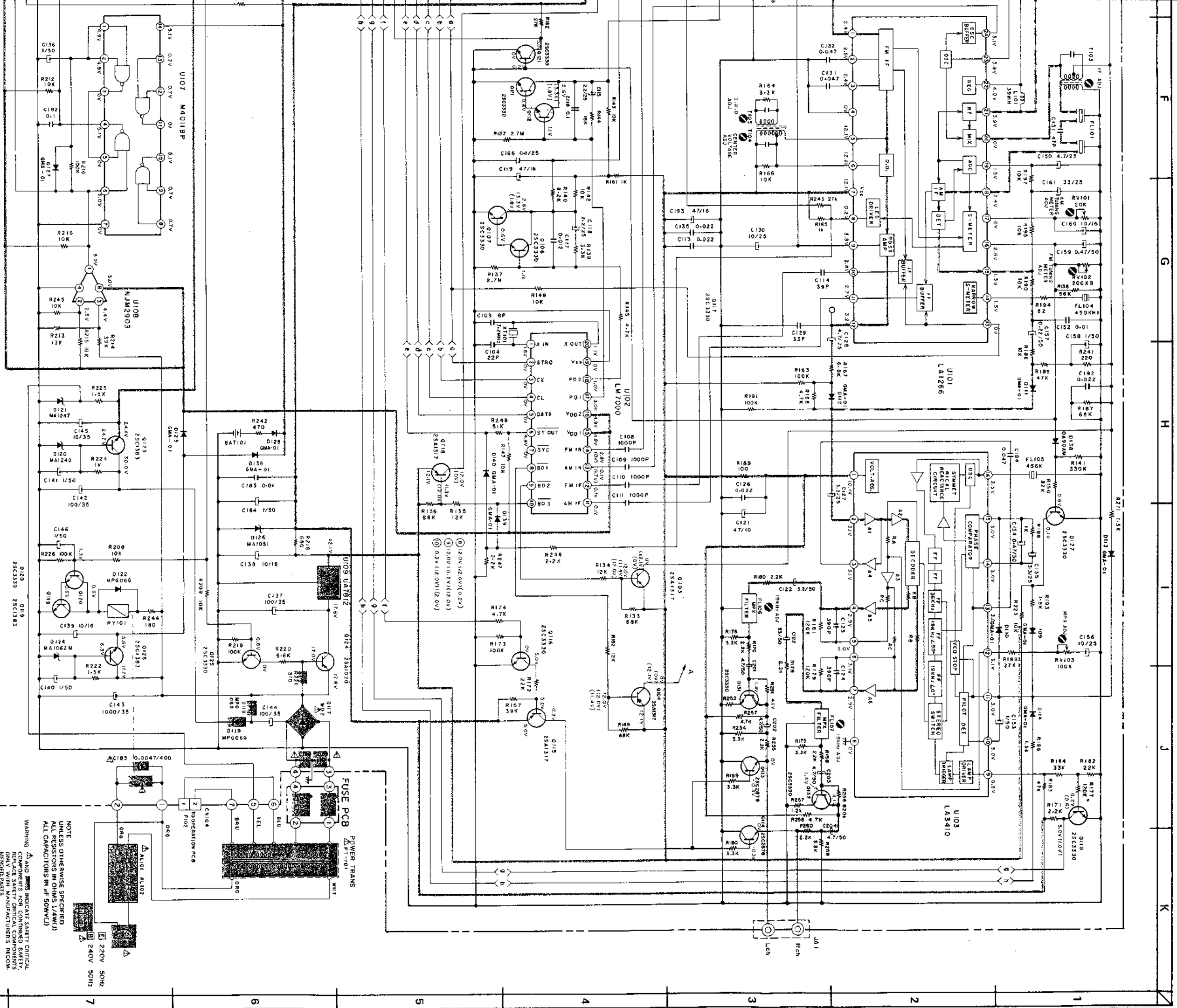


F G H I J K

7 6 5 4 3 2 1

8

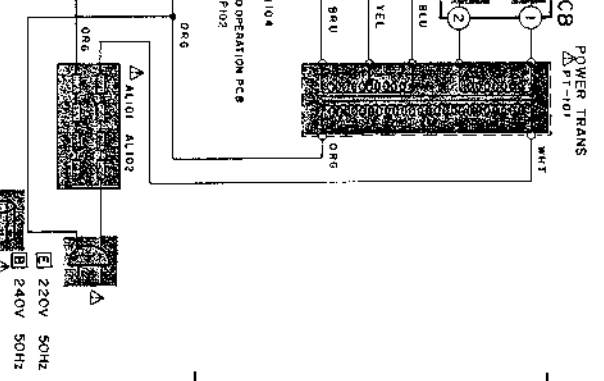




VOLTAGE MEASURED AT FM 98MHz 60dB, 75% DIV STEREO
 INDICATED IN () AT MW 1000kHz 60dB, 30%
 INDICATED IN () AT LW 300kHz 70dB, 30%

MAIN PCB PSTUC1001C*01

AT-M739L SCHEMATIC DIAGRAM No. 871018A



NOTE UNLESS OTHERWISE SPECIFIED
 ALL RESISTORS IN OHMS (1/4W/1%)
 ALL CAPACITORS IN μ F (50VVC)

WARNING Δ AND ∇ INDICATE SAFETY CRITICAL COMPONENTS FOR CONTINUED SAFETY. ONLY WITH MANUFACTURER'S RECOMMENDATIONS.
AVERTISSEMENT: Δ ET ∇ INDICENT LES COMPOSANTS CRITIQUES DE SECURITE. SEULS AVEC LES RECOMMANDATIONS DE L'APPAREIL, NE REMPLACER QUE DES PIECES RECOMMANDEES PAR LE FABRICANT.

RESISTOR VALUE TOLERANCE
 CAPACITOR VALUE TOLERANCE

RESISTOR VALUE TOLERANCE
 CAPACITOR VALUE TOLERANCE

RESISTOR VALUE TOLERANCE
 CAPACITOR VALUE TOLERANCE

RESISTOR VALUE TOLERANCE
 CAPACITOR VALUE TOLERANCE

RESISTOR VALUE TOLERANCE
 CAPACITOR VALUE TOLERANCE

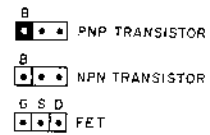
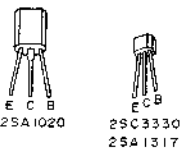
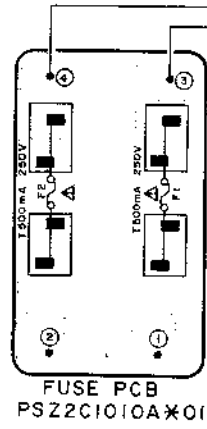
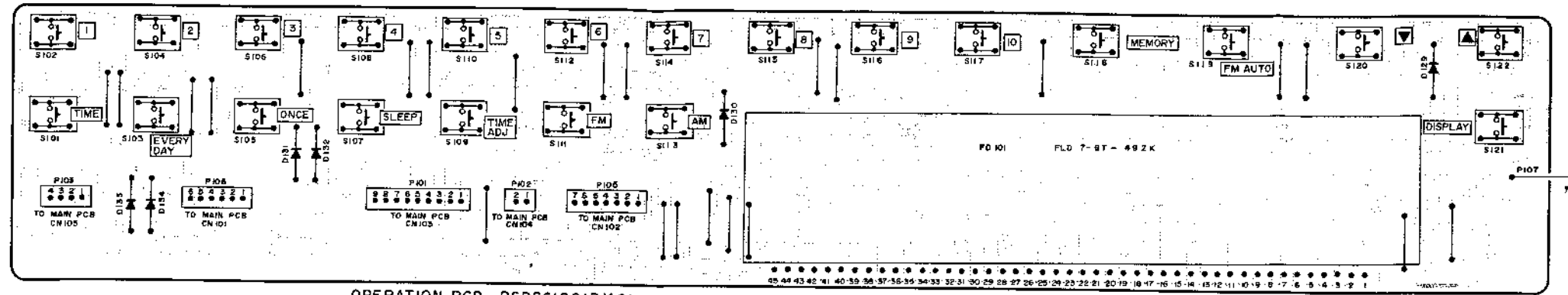
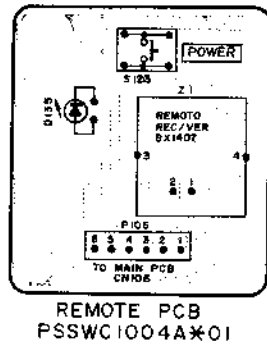
RESISTOR VALUE TOLERANCE
 CAPACITOR VALUE TOLERANCE

RESISTOR VALUE TOLERANCE
 CAPACITOR VALUE TOLERANCE

RESISTOR VALUE TOLERANCE
 CAPACITOR VALUE TOLERANCE

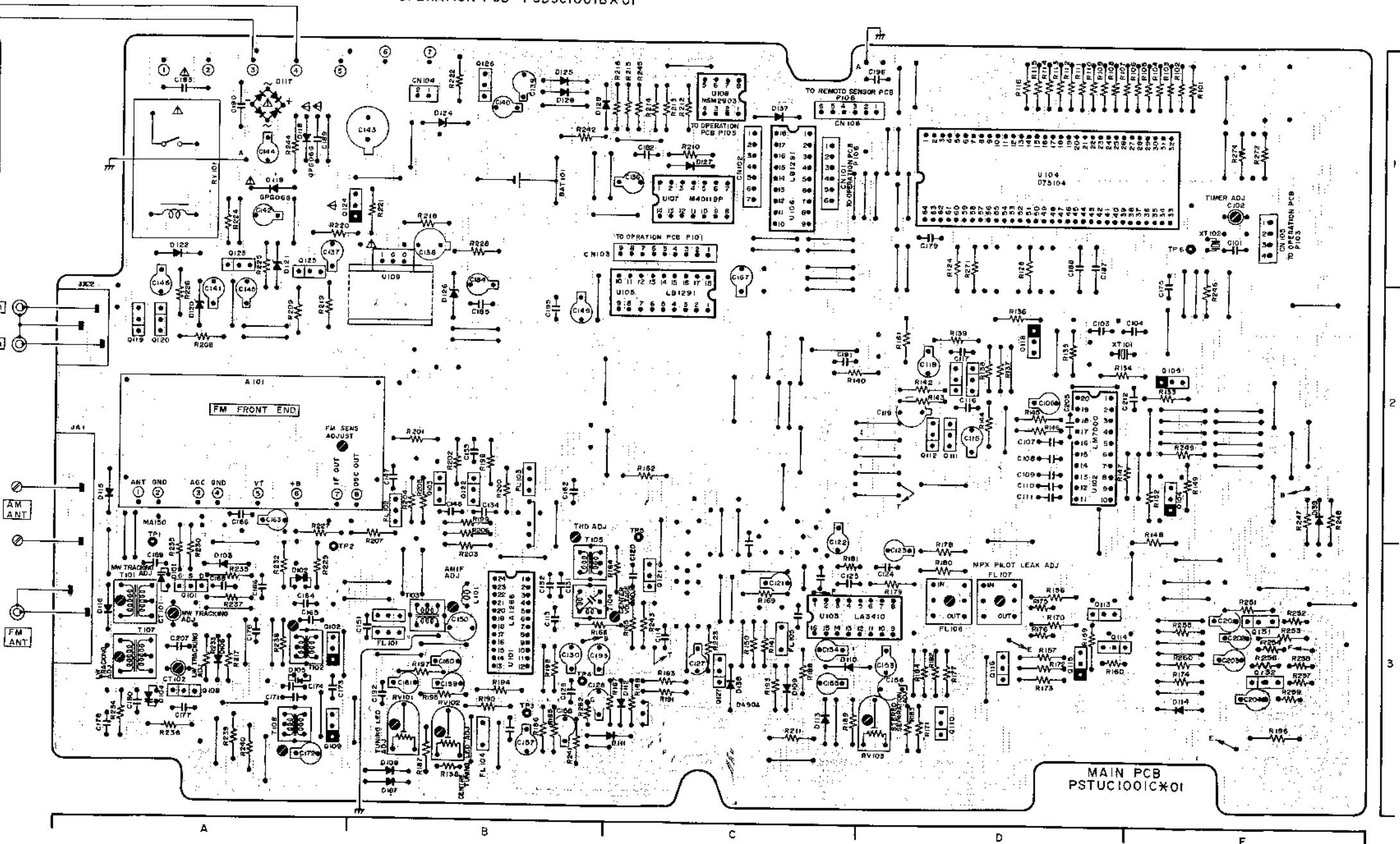
F G H I J K

1 2 3 4 5 6 7 8



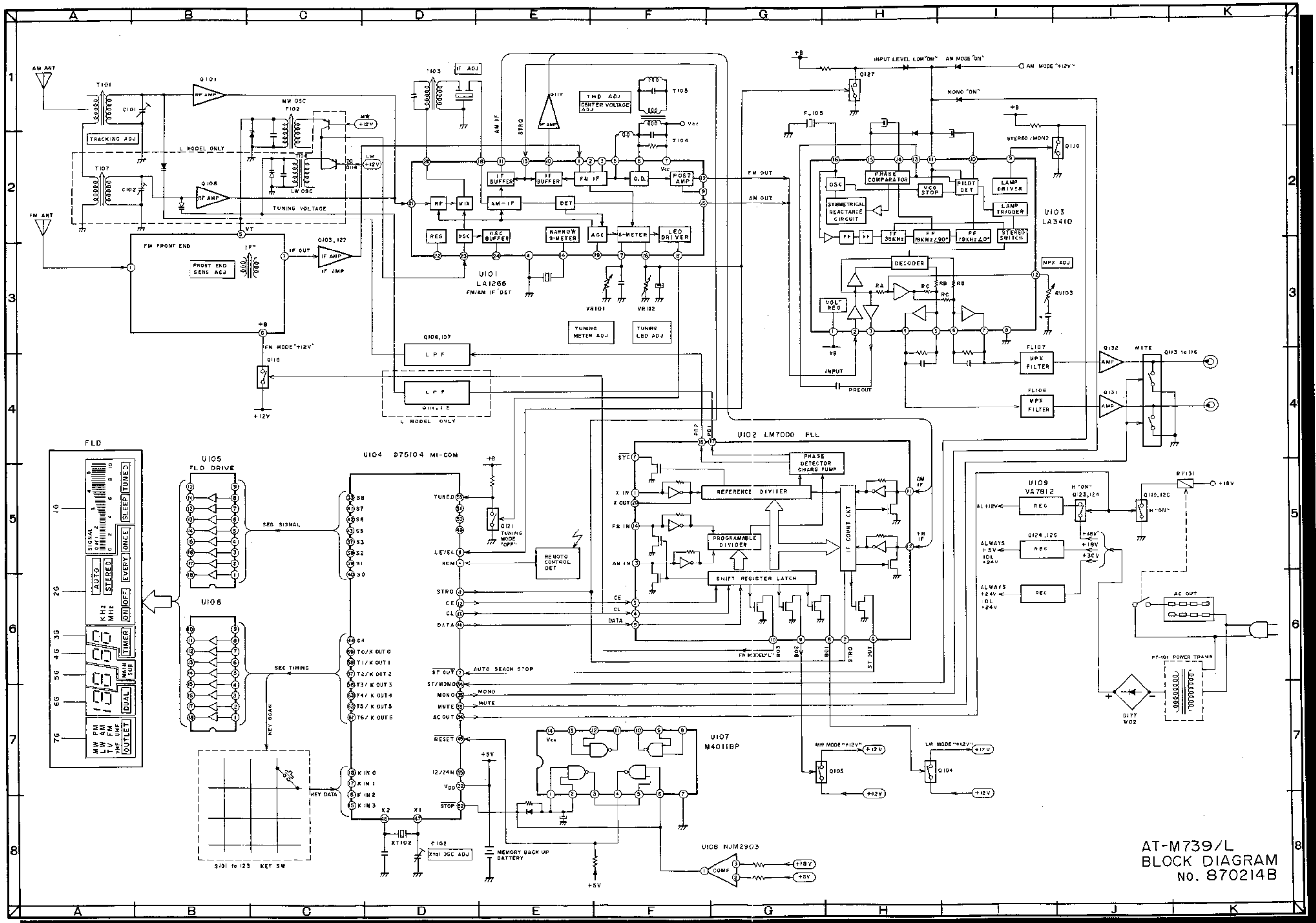
LOCATION OF COMPONENTS

Q101...A3	Q114...E3	IC9
Q102...B3	Q115...E3	U101...B3
Q103...B2	Q116...D3	U102...E2
Q104...E2	Q118...D2	U103...D3
Q105...E2	Q119...A2	U104...D1
Q106...D2	Q120...A2	U105...C2
Q107...D2	Q121...C3	U106...C1
Q108...A3	Q122...B2	U107...C1
Q109...B3	Q123...A1	U108...C1
Q110...D3	Q124...B1	U109...B1
Q111...D2	Q125...A1	
Q112...D2	Q126...B1	
Q113...E3	Q127...C3	



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.



INDEX

Part No.	Ref. No.	Part No.	Ref. No.	Part No.	Ref. No.	Part No.	Ref. No.
BA-725249J	1B	EH-344434	FL104	ES-719325	S121		
BA-725250J	1C	EH-716762	17	ES-719325	S122		
BA-725251J	1A	EH-716762	FL102	ES-719325	S123		
BD-723356J	7B-B	EH-716762	FL103	ET-309184	39		
BD-723366J	7A-B	EH-719331	19	ET-309184	Q124		
BD-723377J	7B-G	EH-719331	FL101	ET-330226	43		
BD-723378J	7A-G	EH-719332	22	ET-330225	Q106		
BT-723387J	PT1A1	EH-719332	FL106	ET-330225	Q107		
BT-723383J	PT1A1	EH-719332	FL107	ET-330225	Q111		
BZ-719326	1	EH-723356J	21	ET-330225	Q112		
BZ-719326	Z1	EH-723356J	FL108	ET-330225	Q116		
EC-338496	C183	EH-723392J	20	ET-330225	Q120		
EC-355371	C1	EH-723392J	FL102A	ET-330225	Q121		
EC-719330	CT101	EI-304657	28	ET-330225	Q125		
EC-719330	CT102	EI-304657	U107	ET-330225	Q127		
EC-719846	C102	EI-321606	26	ET-330225	Q131		
ED-325003	2	EI-321606	U108	ET-330225	Q132		
ED-325003	D138	EI-349963	24	ET-337385	42		
ED-344280	4	EI-349963	U103	ET-337385	Q103		
ED-344280	D103	EI-349970	31	ET-337385	Q122		
ED-344280	D106	EI-349970	FL105	ET-338410	44		
ED-344280	D107	EI-354951	27	ET-338410	Q113		
ED-344280	D108	EI-354951	U102	ET-338410	Q114		
ED-344280	D109	EI-719340	25	ET-357532	40		
ED-344280	D110	EI-719340	U105	ET-357532	Q102		
ED-344280	D111	EI-719340	U106	ET-357532	Q104		
ED-344280	D112	EI-719342	32	ET-357532	Q105		
ED-344280	D113	EI-719342	XT102	ET-357532	Q109		
ED-344280	D114	EI-719644	30	ET-357532	Q115		
ED-344280	D115	EI-719644	U104	ET-357532	Q118		
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ED-344280	D125	EI-723339J	U109	ET-360067	Q110		
ED-344280	D127	EI-723340J	23	ET-719334	38		
ED-344280	D128	EI-723340J	U101	ET-719334	Q101		
ED-344280	D136	EI-723343J	33	ET-719334	Q108		
ED-344280	D137	EI-723343J	XT101	ET-749553	41		
ED-344280	D139	EJ-352118	2	ET-749553	Q119		
ED-344280	D140	EJ-719343	JA2	ET-749553	Q123		
ED-344280	D129	EJ-719344	JA1	ET-749553	Q126		
ED-344280	D130	EJ-723370J	AL101	EV-338463	RV101		
ED-344280	D131	EJ-723370J	AL102	EV-357837	RV103		
ED-344280	D132	EJ-723386J	AL101	EW-338616	2A		
ED-344280	D133	EJ-723386J	AL102	EW-344161	1		
ED-344280	D134	EM-371183	FD101	EW-723384J	2B		
ED-349460-A	8	EO-719333	L101	EZ-719279	BAT101		
ED-349460-A	D101	EO-719336	T105	SA-723367J	6		
ED-349460-A	D102	EO-719337	T102	SB-719317	9-B		
ED-349460-A	D104	EO-719339	T101	SB-719318	10-B		
ED-349460-A	D105	EO-719645	T104	SB-719319	13-B		
ED-356468	10	EO-723338J	T103	SB-719320	11-B		
ED-356468	D126	EO-723351J	T108	SB-719321	12-B		
ED-367528	9	EO-723363J	T107	SK-723376J	8-B		
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ED-704088	D117	ES-719325	S101	SP-723365J	16-B		
ED-719282	6	ES-719325	S102	SP-723371J	3A		
ED-719282	D118	ES-719325	S103	SP-723379J	3B		
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ED-719282	D122	ES-719325	S105	SP-723399J	16-G		
ED-723355J	6	ES-719325	S106	SZ-719353	4		
ED-723355J	D129	ES-719325	S107	ZS-300506	14		
ED-723776J	D141	ES-719325	S108	ZS-304022	1		
EE-320526	4	ES-719325	S109	ZS-305827	5		
EE-719359	3	ES-719325	S110	ZS-305827	15		
EE-723344J	14	ES-719325	S111	ZS-305827	17		
EE-723344J	A101	ES-719325	S112	ZS-365678	20		
EE-725248J	13	ES-719325	S113				
EE-725248J	A101	ES-719325	S114				
EF-355374	15	ES-719325	S115				
EF-355374	F1	ES-719325	S116				
EF-355374	F2	ES-719325	S117				
EH-338338	18	ES-719325	S118				
EH-338338	FL103A	ES-719325	S119				
EH-344434	16	ES-719325	S120				

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