

ST-J300L

SERVICE MANUAL

AEP Model
UK Model



SPECIFICATIONS

Tuner

Circuit system FM stereo, FM/AM superheterodyne tuner
Quartz-locked PLL digital synthesizer system

FM tuner

Frequency range 87.5 - 108 MHz

Antenna terminals

75 ohms unbalanced

300 ohms balanced

Intermediate frequency

10.7 MHz

Sensitivity (at 46 dB quieting)

16.8 dBf, 3.6 μ V (mono)

37.9 dBf, 43 μ V (stereo)

Signal-to-noise ratio (at 40 kHz deviation)

74 dB (mono)

69 dB (stereo)

Harmonic distortion

0.08% (mono), 0.15% (stereo) at 1 kHz

IM distortion 0.08% (mono), 0.15% (stereo)

Separation 50 dB (at 1 kHz)

Frequency response

40 Hz - 12.5 kHz $\pm$ 0.5 dB

Selectivity 70 dB (at 300 kHz)

Capture ratio 1.0 dB

AM suppression ratio

65 dB

Image response ratio

70 dB

IF response ratio

70 dB

Spurious response ratio

80 dB

Muting threshold 30 dBf

Automatic tuning threshold

30 dBf

Output

410 mV, 3.3 kilohms (at 40 kHz deviation)

AM tuner

Frequency range MW: 522 - 1,611 kHz

LW: 144 - 288 kHz

Antenna

Layout-free AM antenna

External antenna terminal

Intermediate frequency

450 kHz

Usable sensitivity (when layout-free AM antenna is used)

500 μ V/m (999 kHz)

700 μ V/m (230 kHz)

Signal-to-noise ratio

54 dB (50 mV/m) (999 kHz)

50 dB (50 mV/m) (230 kHz)

Harmonic distortion

0.3% (50 mV/m, 400 Hz)

Selectivity

32 dB

General

Power requirements

UK model: 240 V AC (or 220 V AC adjustable by
authorized Sony personnel), 50/60 Hz

AEP model: 220 V AC (or 240 V AC adjustable
by authorized Sony personnel), 50/60 Hz

Power consumption

14 W

Dimensions

Approx. 430 $\times$ 80 $\times$ 246 mm (w/h/d)

(17 $\times$ 3 $\frac{1}{4}$ $\times$ 9 $\frac{3}{4}$ inches)

Weight

Approx. 2.7 kg (5 lb 14 oz)

FM STEREO/FM-AM TUNER

SONY®

AUD



WARNING !!**ADVARSEL!**

Lithiumbatteri – Eksplosionsfare
Udskiftning må kun foretages
af en sagkyndig, og som
beskrevet i servicemanualen.

FEATURES

- Random preset function. Up to 25 stations can be preset for quick tuning.
- FM/MW/LW automatic tuning function
- Two-way (up and down) memory scanning function allows you to scan and check programs broadcast on the preset stations.

LITHIUM BATTERY

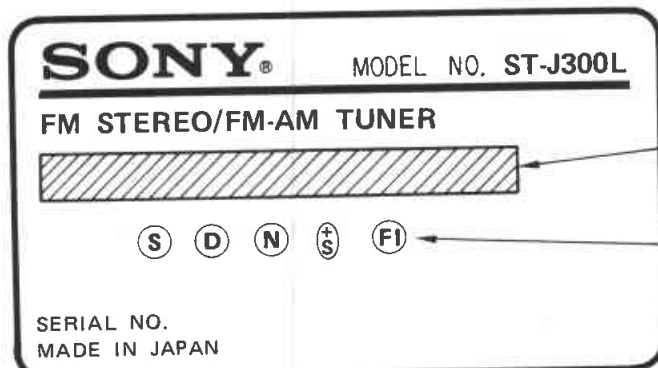
SHOULD ONLY BE CHANGED BY TECHNICAL
PERSONNEL. THERE IS A RISK FOR EXPLOSION
AT A WRONG HANDLING.

“Batteriet må kun udskiftes med et batteri af samme
fabrikat og type”.

Because of the risk for explosion the battery must
be replaced with the same type and manufacture.

MODEL IDENTIFICATION

— Printed on Back Panel —



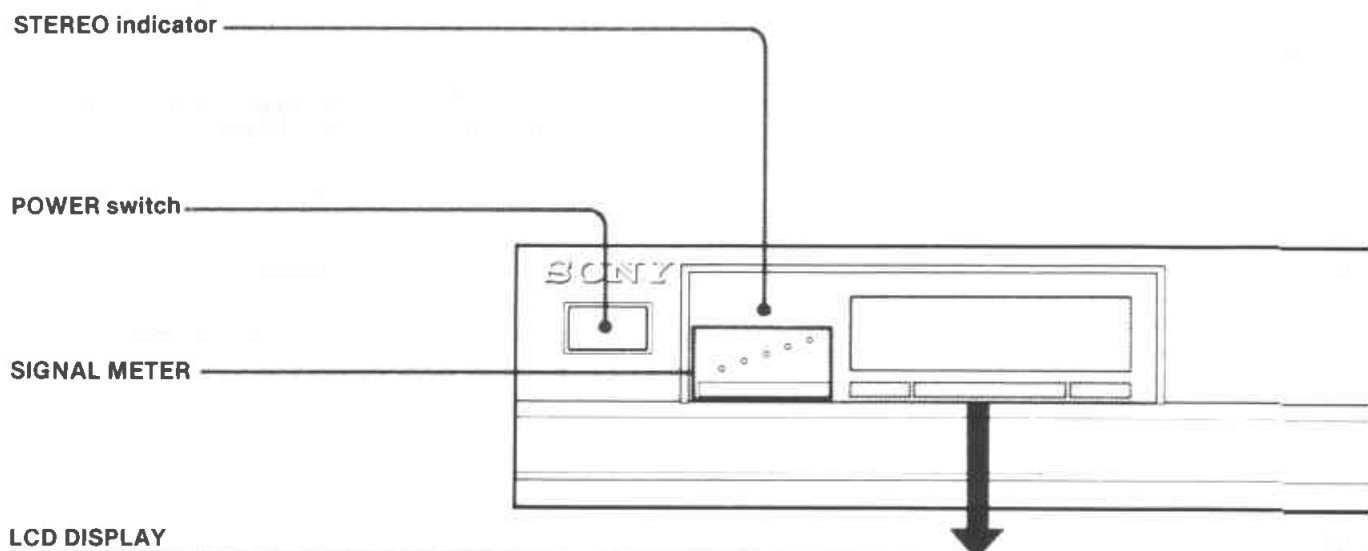
AEP Model: AC: 220 V ~ 50/60 Hz 14 W
UK Model: AC: 240 V ~ 50/60 Hz 14 W

AEP Model: Type 2

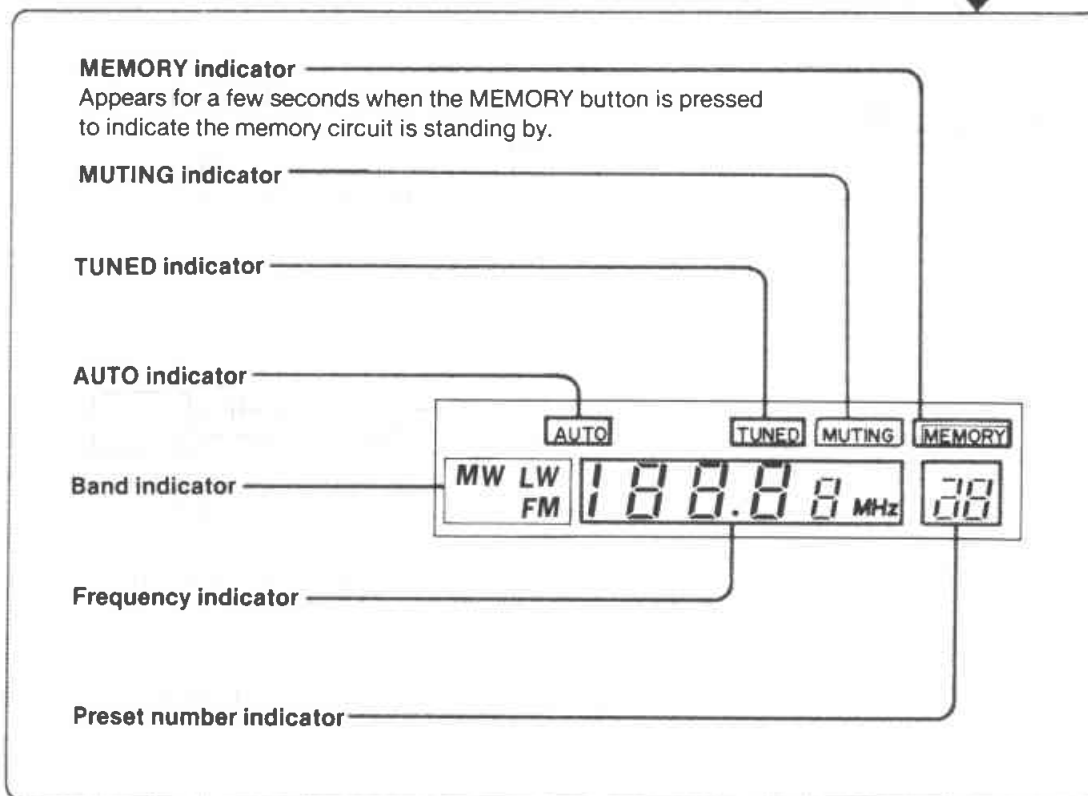
SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY SHADING AND MARK
⚠ ON THE SCHEMATIC DIAGRAMS AND IN THE
PARTS LIST ARE CRITICAL TO SAFE OPERATION.
REPLACE THESE COMPONENTS WITH SONY PARTS
WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS
MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

LOCATION AND FUNCTION OF CONTROLS



LCD DISPLAY



STEREO/MUTE button (for FM reception only)

This switch serves the dual purpose of selecting stereo/monaural mode, and switching the FM muting ON/OFF.

Normally set to the stereo mode (FM muting ON). "MUTING" indication appears in the display. The tuner operates in the stereo mode for a stereo sound source, and automatically switches to mono mode for a monaural sound source.

BAND FM/MW/LW selector**MEMORY button**

Press to operate the memory circuit.

Number buttons

Press appropriate button(s) to select the desired radio station to preset or recall.

ENTER button

Press this button after selecting the desired radio station using the number buttons.

TUNING buttons

Press + to tune in a higher frequency and - for a lower frequency.

MEMORY SCAN button

Press to sequentially receive broadcasting from preset stations.

AUTO (automatic) TUNING button

Select the automatic or manual tuning mode. When the automatic tuning mode is selected, the AUTO indication appears on the display.

SECTION 1

ELECTRICAL ADJUSTMENTS

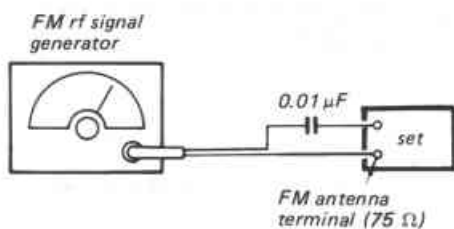
FM SECTION

FM Discriminator Alignment

Setting:

BAND FM/MW/LW switch: FM

Procedure:

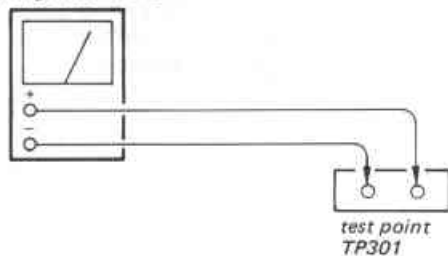


Carrier frequency: 98 MHz
Output level: 1 mV (60 dB)
Modulation: 1 kHz, 40 kHz deviation (100%)

1. Tune the set to 98 MHz.
2. Adjust T301 for a 0 V reading on the VOM.
..... NULL Adjustment
3. Adjust T302 for a minimum reading on the distortion meter. Distortion Adjustment

Note: When the ceramic filter is replaced, these adjustments should be made.

VOM
(range: 2.5 V DC)



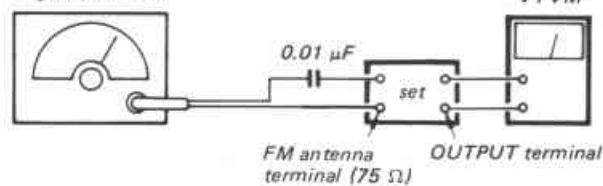
FM Stereo Separation Adjustment

Setting:

STEREO/MUTE switch: ON (STEREO)
BAND FM/MW/LW switch: FM

Procedure:

FM rf stereo
signal generator



Carrier frequency: 98 MHz
Output level: 1 mV (60 dB)
Mode: Stereo
Modulation:
Audio (1 kHz): 16.25 kHz deviation (40.625%)
Pilot (19 kHz): 7.5 kHz deviation (18.75%)
Sub-channel (38 kHz): 16.25 kHz deviation (40.625%)

RV401

T301

T302

TP301

FM stereo signal generator output channel	VTVM connection	VTVM reading (dB)
L-CH	L-CH	(A)
R-CH	L-CH	(B) Adjust RV401 for minimum reading.
R-CH	R-CH	(C)
L-CH	R-CH	(D) Adjust RV401 for minimum reading.

L-CH Stereo separation: (A) – (B)
R-CH Stereo separation: (C) – (D)

The separations of both channels should be equal.

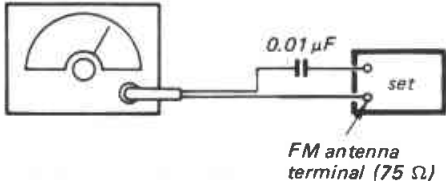
The FM front-end is carefully adjusted at the factory and is supplied as one whole block for replacement.

SIGNAL METER Lighting Level Adjustment

Setting:
BAND FM/MW/LW switch: FM

Procedure:

FM rf signal generator



Carrier frequency: 98 MHz
Modulation: 1 kHz, 40 kHz deviation (100%)
Output level: 562 μV (55 dB)

1. Tune the set to 98 MHz.
2. Adjust RV350 until the scale-5 on SIGNAL METER indicator light up.

RV350

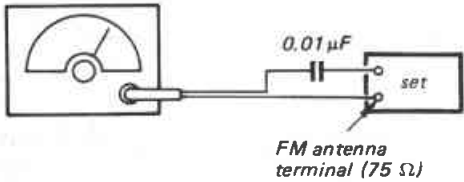
RV301

TUNED Indication Lighting Level Adjustment

Setting:
STEREO/MUTE switch: OFF
BAND FM/MW/LW switch: FM

Procedure:

FM rf signal generator



Carrier frequency: 98 MHz
Modulation: 1 kHz, 40 kHz deviation (100%)
Output level: 17.9 μV (25 dB)

1. Tune the set to 98 MHz.
2. Adjust RV301 so that the TUNED indicator goes on.

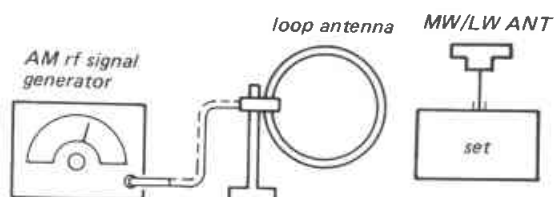
AM SECTION

TUNED Indication Lighting Level Adjustment

Setting:

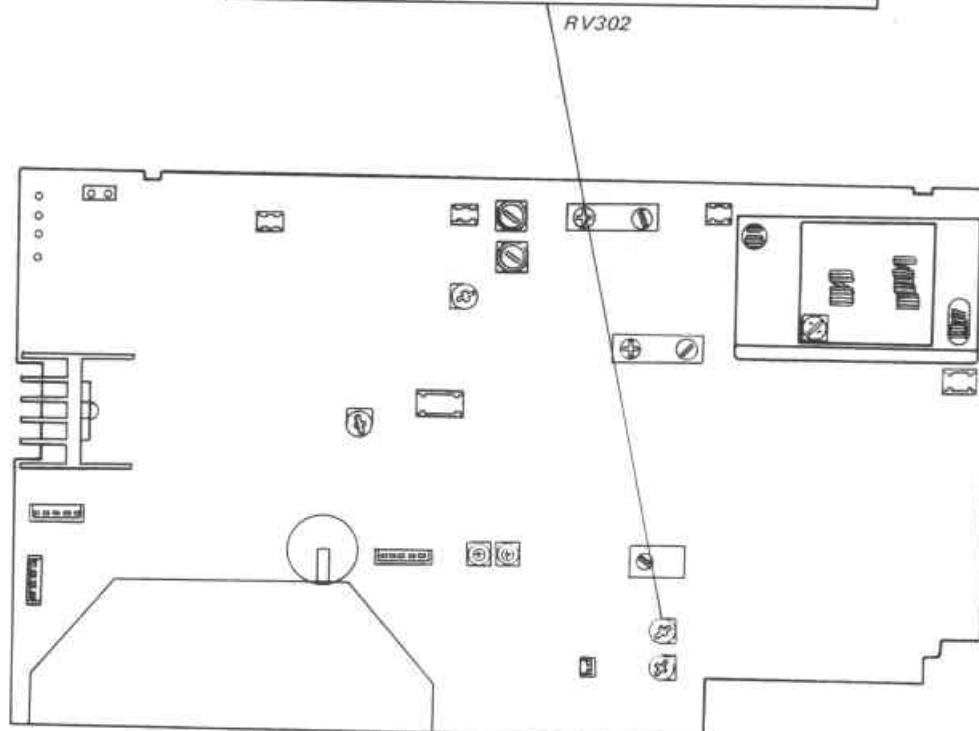
BAND FM/MW/LW switch: LW

Procedure:



Carrier frequency: 216 kHz
Modulation: 400 Hz, 30% modulation

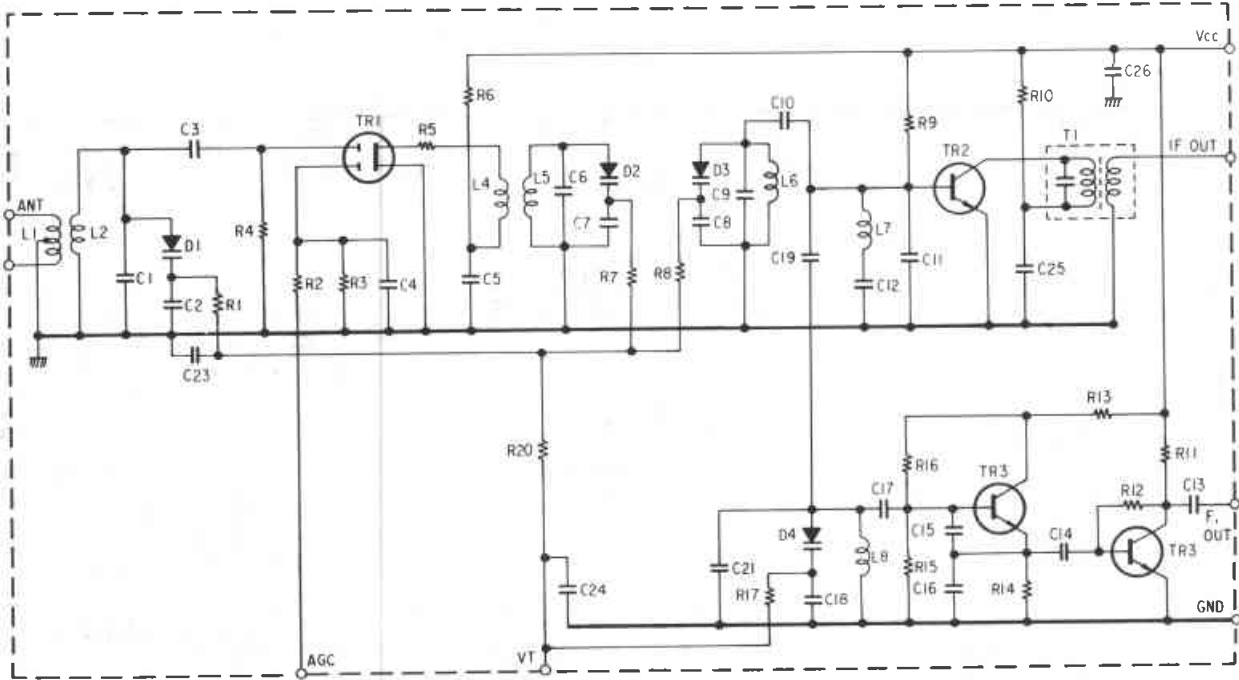
1. Set the loop antenna so that the AM antenna input level becomes 2.5 mV/m (68 dB μ /m).
2. Adjust RV302 so that the TUNED indicator goes on.



SECTION 2
DIAGRAMS

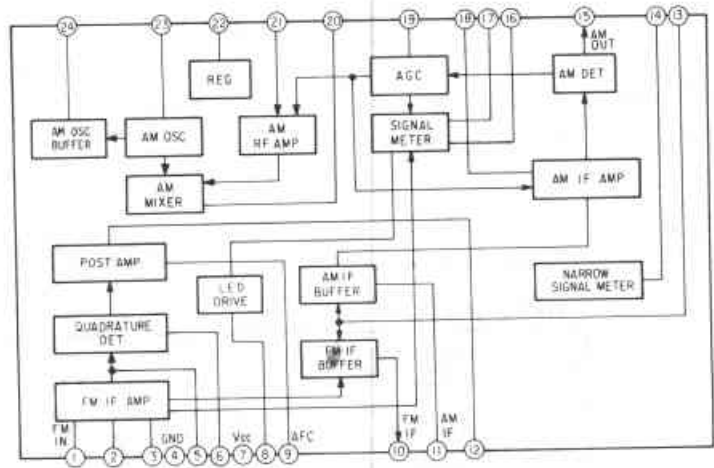
2-1. FM FRONT-END SCHEMATIC DIAGRAM

The FM front-end is carefully adjusted at the factory and is supplied as one whole block for replacement.

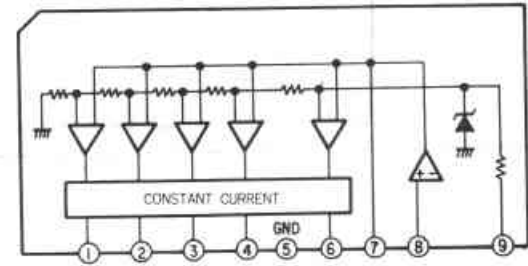


2-2. IC BLOCK DIAGRAMS

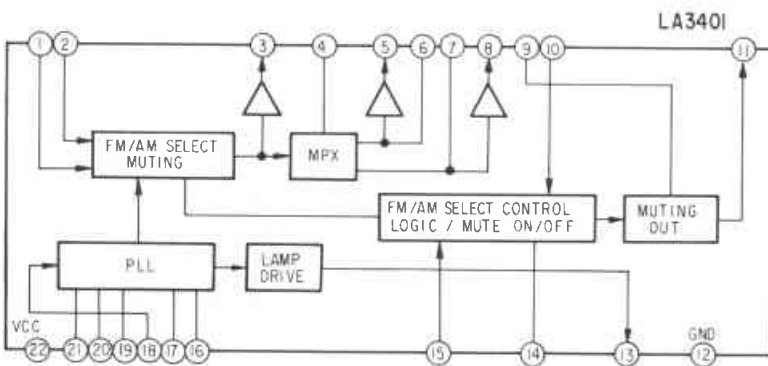
• IC301 LA1266



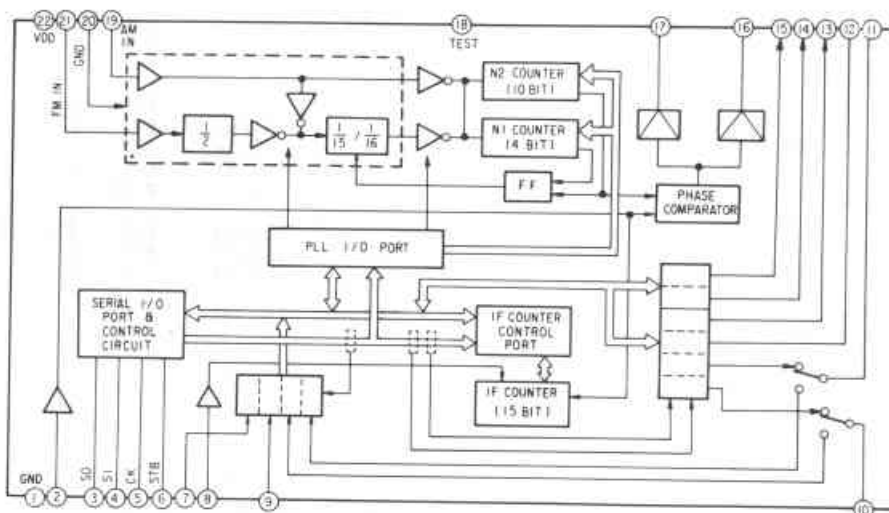
• IC302 IR2E31A



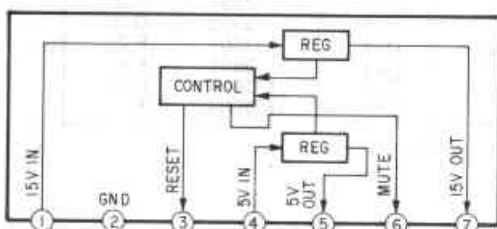
• IC401 LA3401



• IC601 TC9171P



• IC501 LA5666



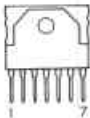
2-3. MOUNTING DIAGRAM

● Semiconductor Lead Layouts

2SA1175



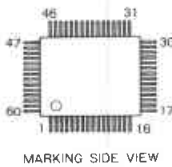
LA5666



2SC634SP
2SC2669
2SC3402



TC9306F-009



2SC3112B



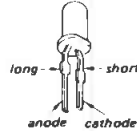
10E2N
US1060M



2SK246GR3



SEL2210W-C



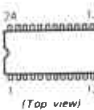
IR2E31A



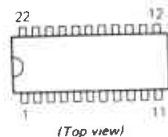
SEL2510C



LA1266

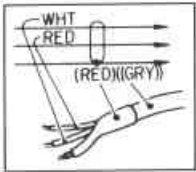


LA3401
TC9171P



Note on Mounting Diagram:

- Color code or sleeving over the end of the jacket.



- : parts extracted from the component side.
- : part mounted on the conductor side.

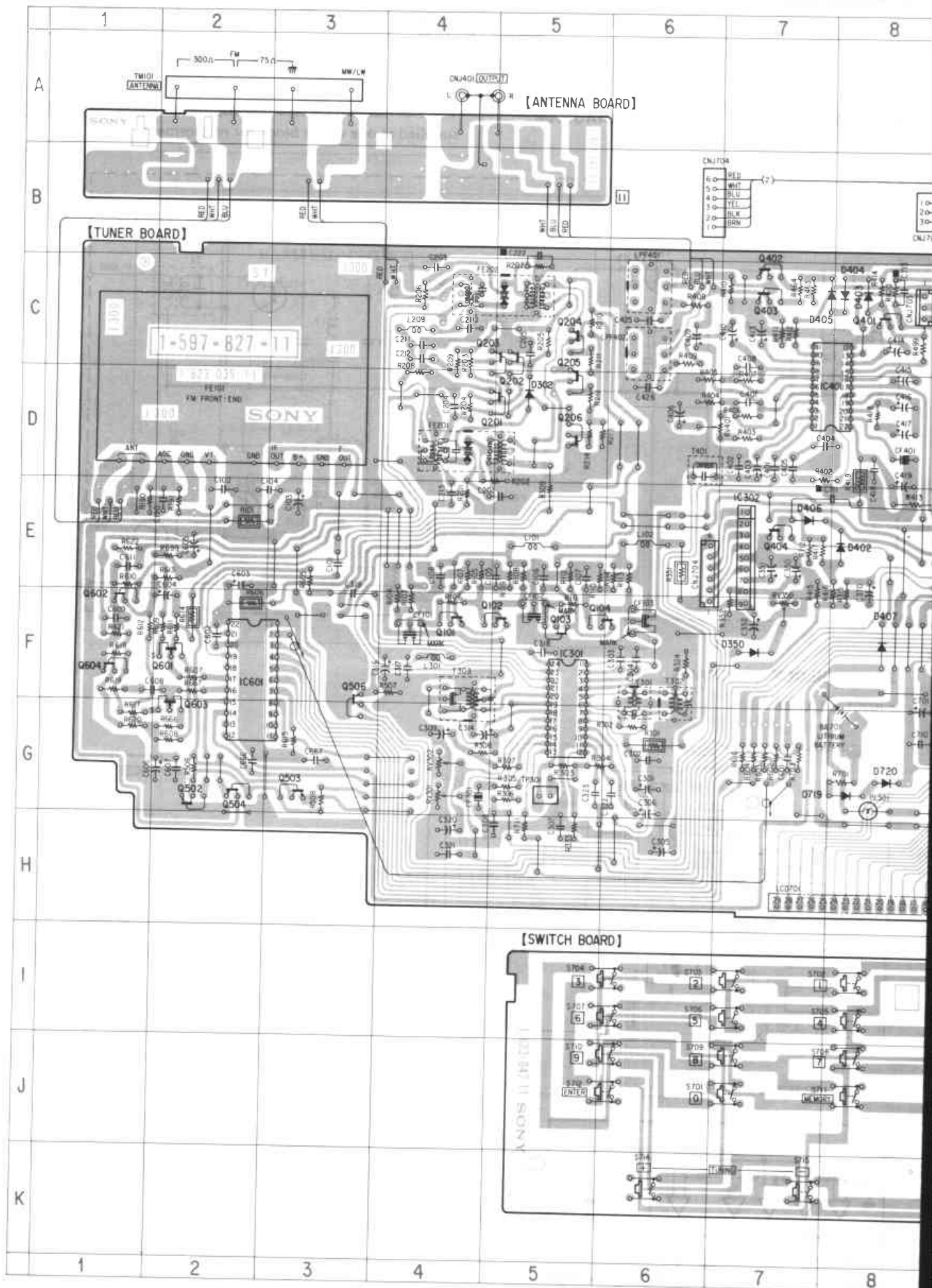
Note on Schematic Diagram:

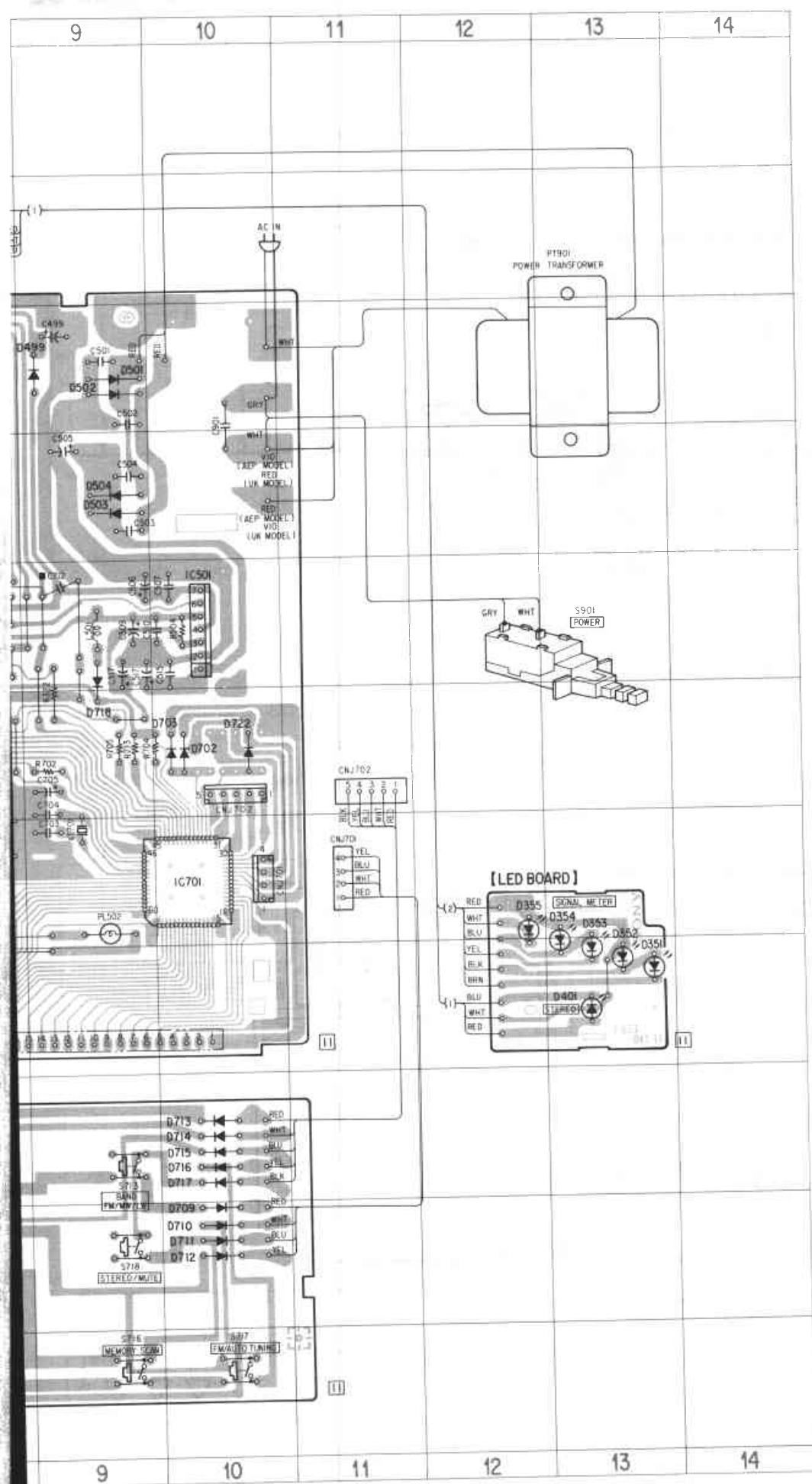
- All capacitors are in μF unless otherwise noted. pF : $\mu\mu\text{F}$ 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and $\frac{1}{4}\text{W}$ or less unless otherwise specified.
- : nonflammable resistor.
- : signal path.
- : L-CH signal path.
- : R-CH signal path.
- : AM
- : B+ bus.
- : adjustment for repair.
- Voltages are dc with respect to ground unless otherwise noted.
- Readings are taken under no-signal (detuned) conditions with a VOM (50 $\text{k}\Omega/\text{V}$).
- no mark : FM
- () : MW
- (()) : LW
- Voltage variations may be noted due to normal production tolerances.
- Switch

Ref. No.	Switch	Position
S701 - 710	0 - 9	OFF
S711	MEMORY	OFF
S712	ENTER	OFF
S713	BAND FM/MW/LW	OFF
S714	TUNING/+	OFF
S715	TUNING/-	OFF
S716	MEMORY SCAN	OFF
S717	FM AUTO TUNING	OFF
S718	STEREO/MUTE	OFF
S901	POWER	OFF

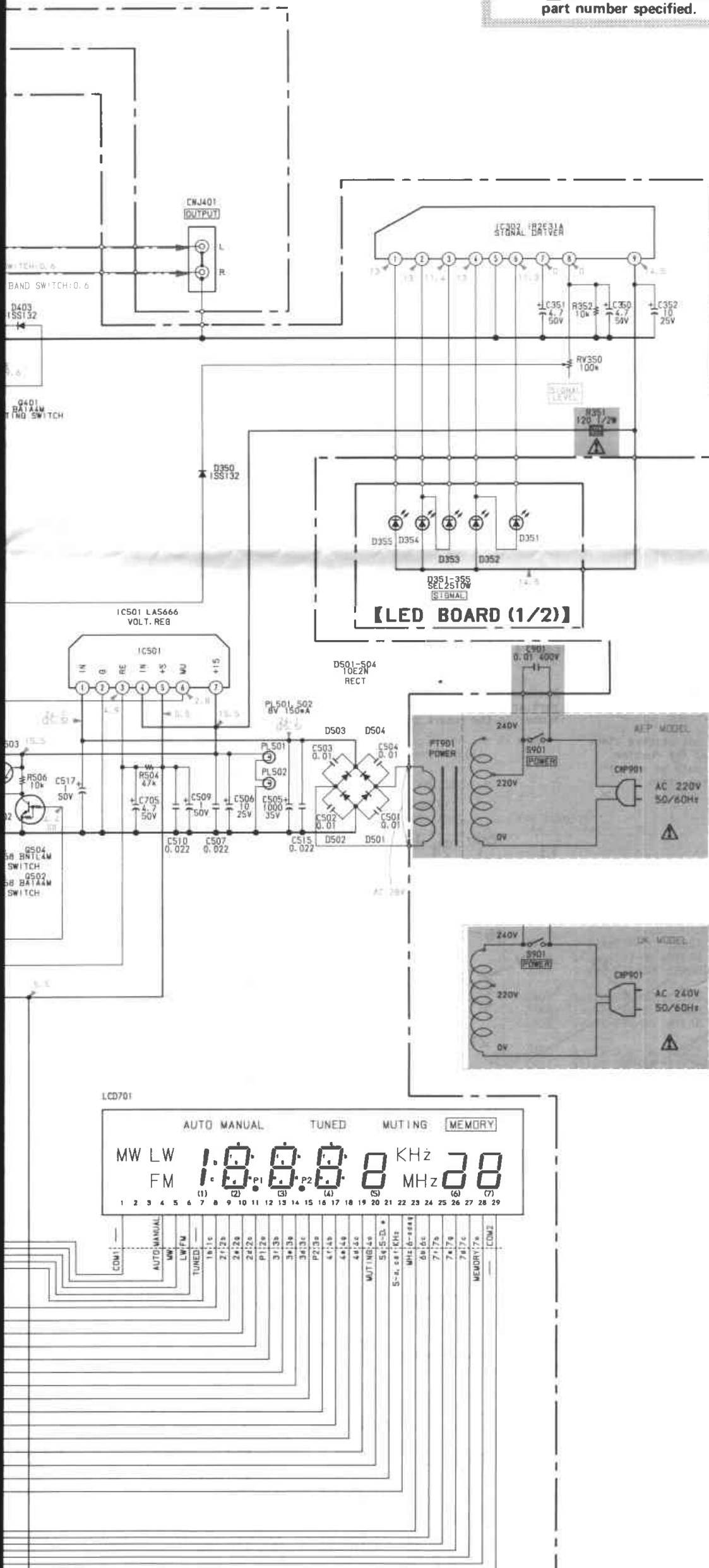
● SEMICONDUCTOR LOCATION

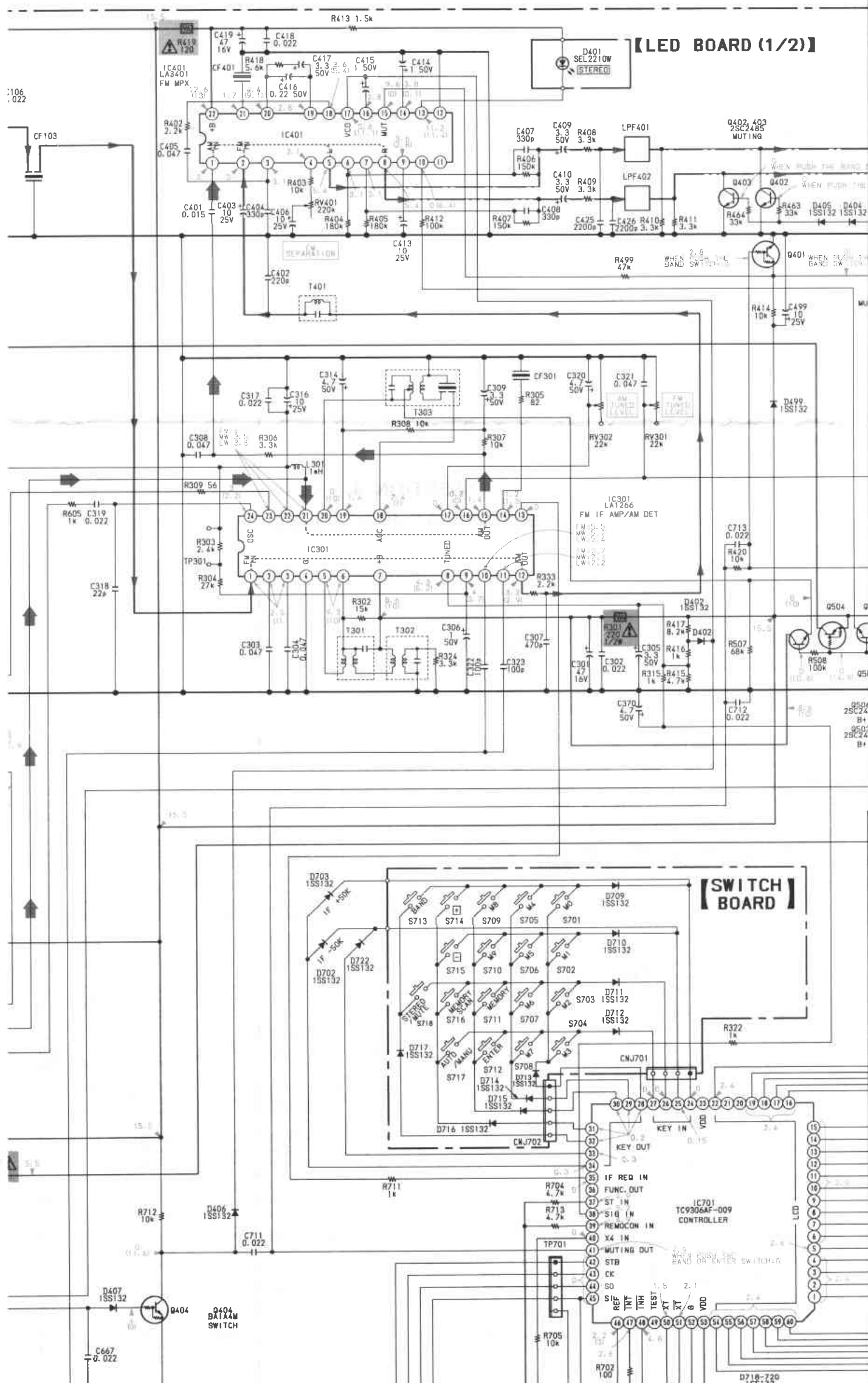
Ref. No.	Location
D302	D-5
D350	F-7
D351	H-13
D352	H-13
D353	H-13
D354	H-13
D355	G-12
D401	H-13
D402	E-8
D403	C-8
D404	C-8
D405	C-7
D406	E-7
D407	F-8
D499	C-9
D501	C-9
D502	C-9
D503	D-9
D504	D-9
D702	F-10
D703	F-10
D709	J-10
D710	J-10
D711	J-10
D712	J-10
D713	I-10
D714	I-10
D715	I-10
D716	I-10
D717	I-10
D718	E-9
D719	G-8
D720	G-8
D722	F-10
IC301	G-5
IC302	E-7
IC401	D-7
IC501	E-10
IC601	F-2
IC701	G-10
Q101	F-4
Q102	F-5
Q103	F-5
Q104	F-5
Q201	D-4
Q202	C-5
Q203	C-4
Q204	C-5
Q205	D-5
Q206	D-5
Q401	C-8
Q402	C-7
Q403	C-7
Q404	E-7
Q502	G-2
Q503	G-3
Q504	G-2
Q506	G-3
Q601	F-2
Q602	F-1
Q603	G-2
Q604	F-1



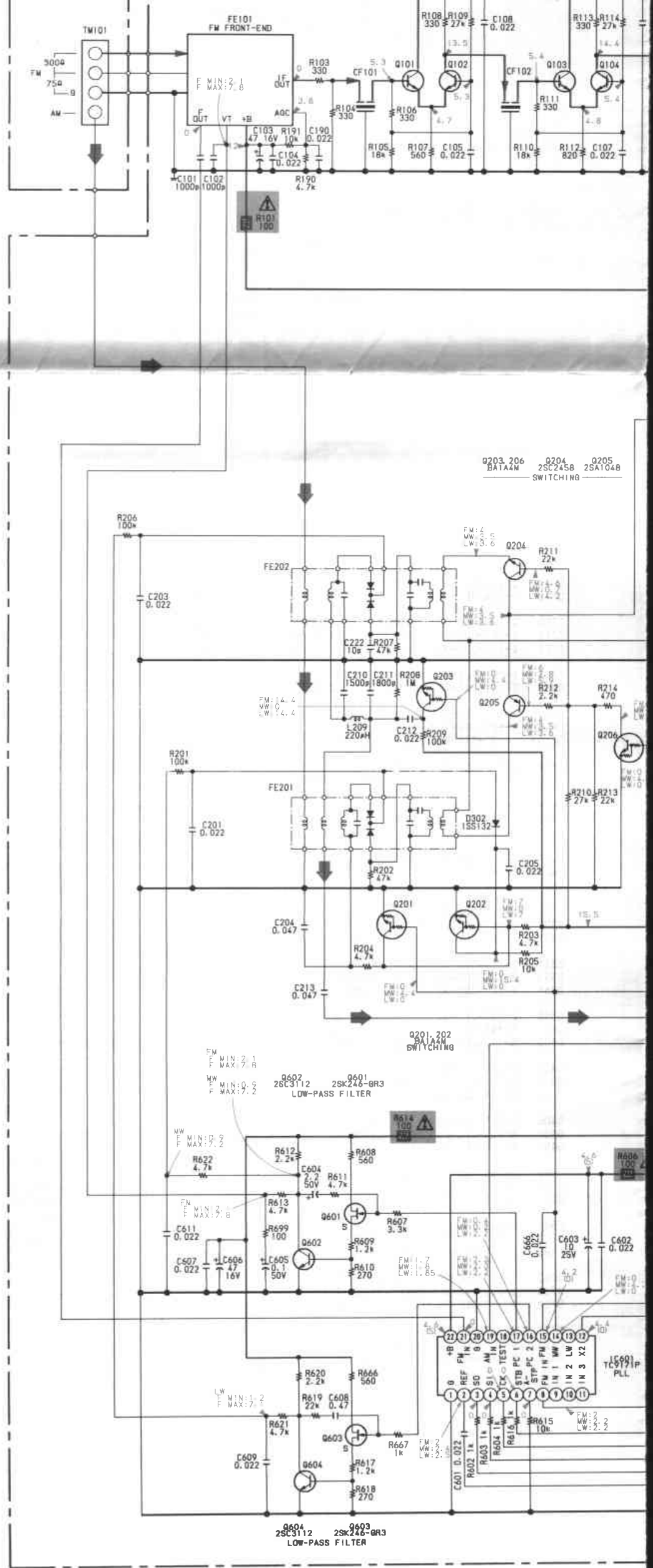


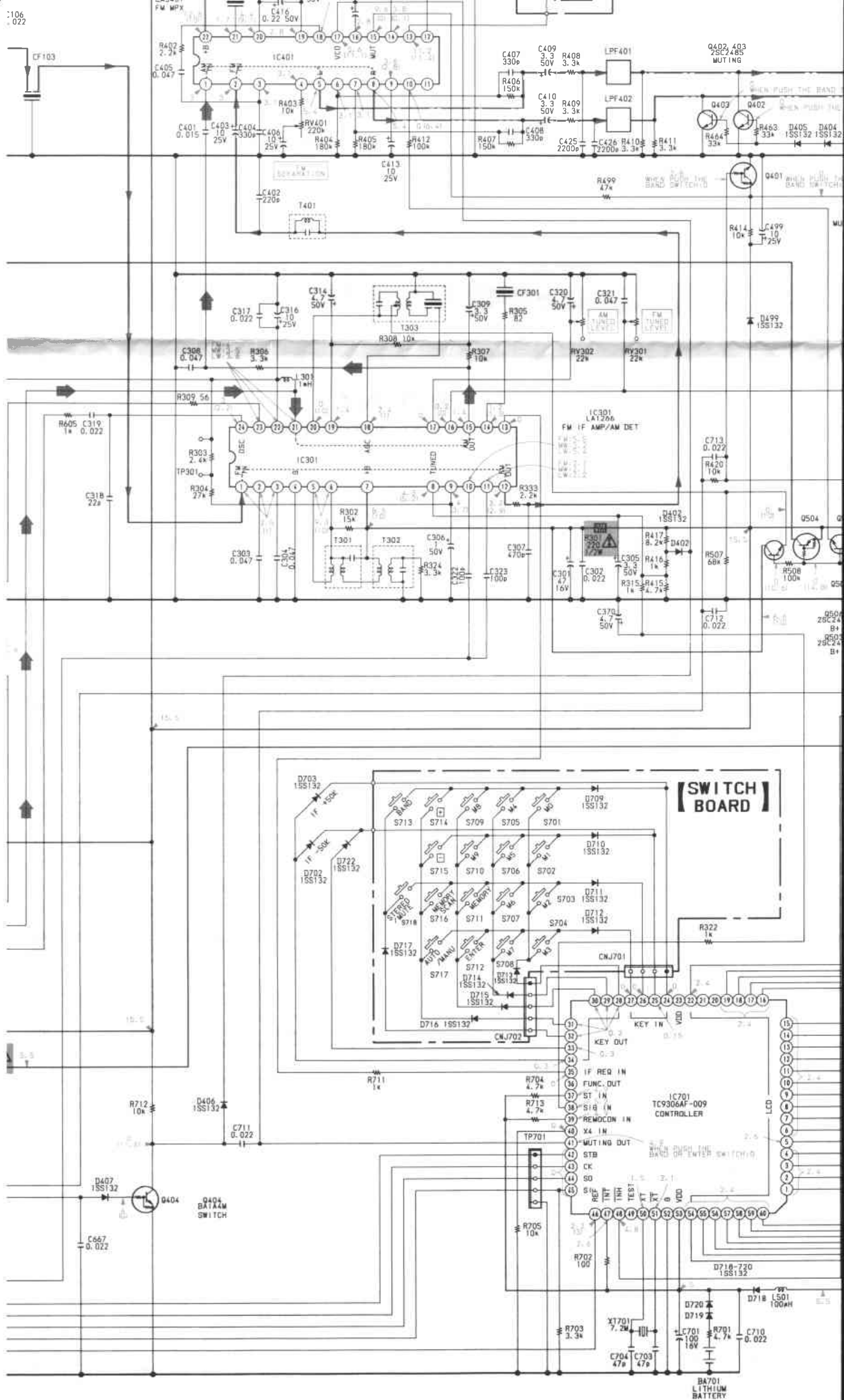
Note: The components identified by shading and mark  are critical for safety. Replace only with part number specified.

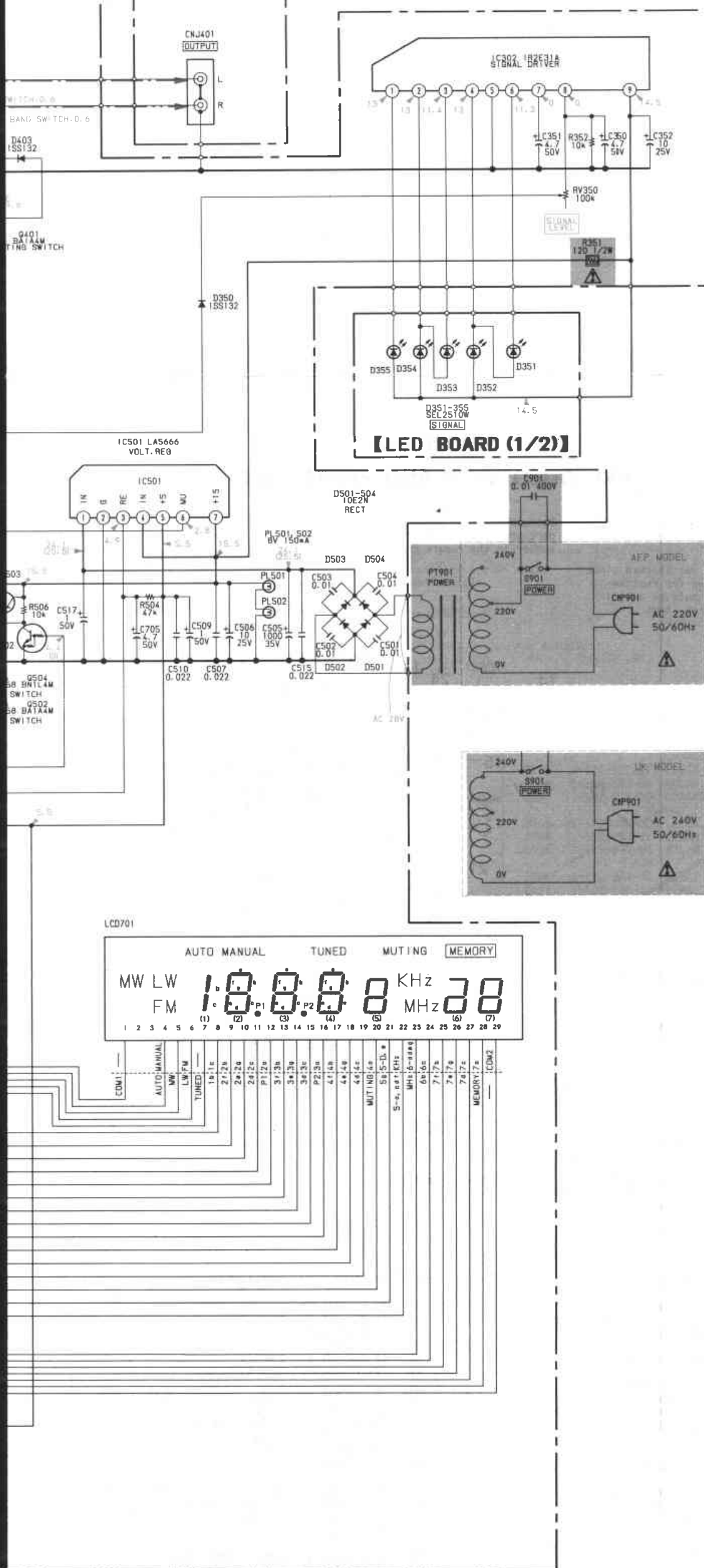


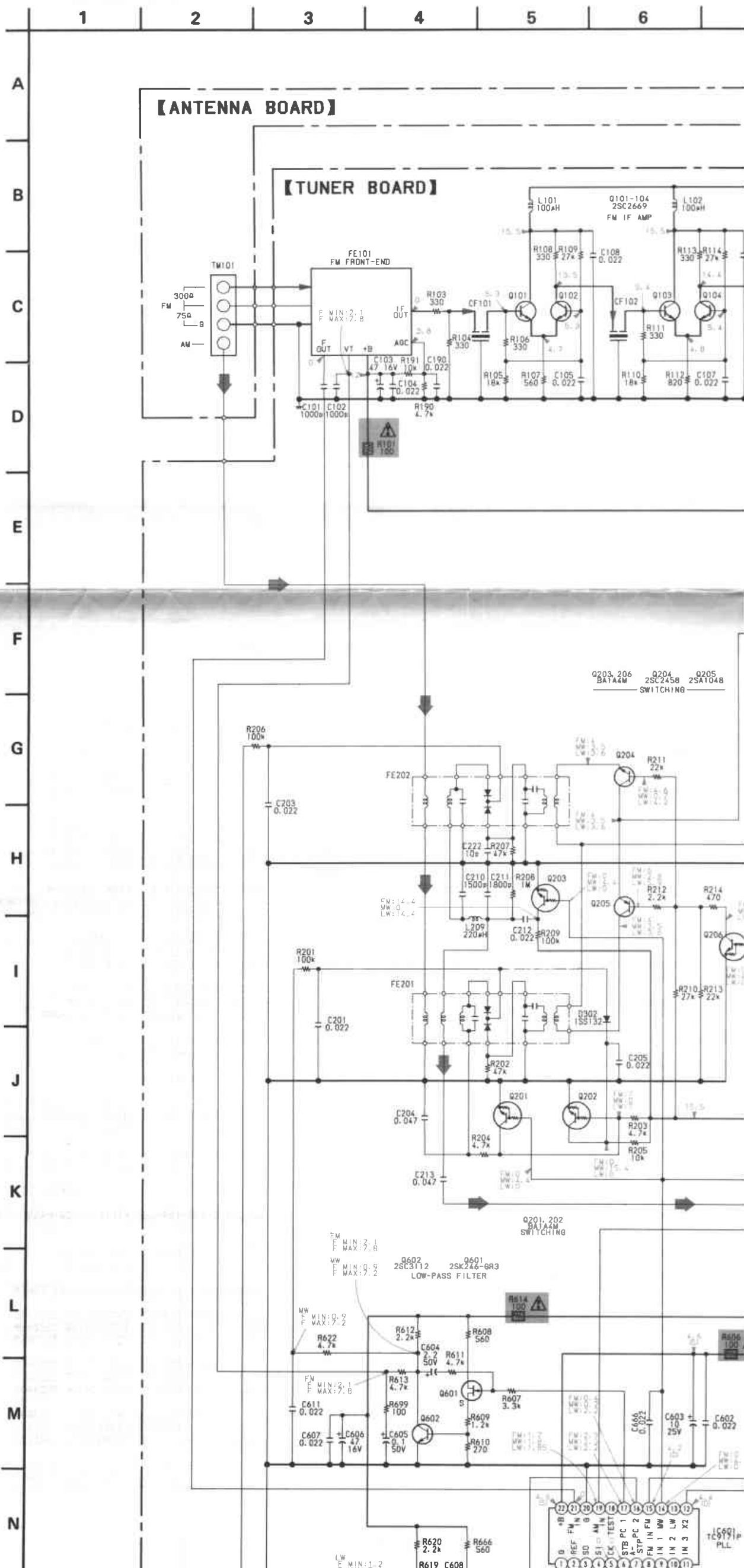


C
D
E
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G
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ELECTRICAL PARTS

Ref.No.	Part No.	Description
C703	1-101-880-00	CERAMIC 47PF 5% 50V
C704	1-101-880-00	CERAMIC 47PF 5% 50V
C705	1-124-927-11	ELECT 4.7MF 20% 50V
C710	1-101-005-00	CERAMIC 0.022MF 50V
C711	1-101-005-00	CERAMIC 0.022MF 50V
C712	1-101-005-00	CERAMIC 0.022MF 50V
C713	1-101-005-00	CERAMIC 0.022MF 50V
C901	1-161-744-00	CERAMIC 0.01MF 400V
CF101	1-527-344-91	FILTER, CERAMIC
CF102	1-527-344-91	FILTER, CERAMIC
CF103	1-527-344-91	FILTER, CERAMIC
CF301	1-527-981-00	FILTER, CERAMIC
CF401	1-567-250-11	OSCILLATOR, CERAMIC
CNJ401	1-507-807-00	JACK, PIN 2P (OUTPUT)
CNJ501	1-535-115-00	TERMINAL
CNJ701	1-564-507-11	PLUG, CONNECTOR 4P
CNJ702	1-564-508-11	PLUG, CONNECTOR 5P
CNJ703	1-564-506-11	PLUG, CONNECTOR 3P
CNJ704	1-564-509-11	PLUG, CONNECTOR 6P
D302	8-719-000-26	DIODE US1060M
D350	8-719-000-26	DIODE US1060M
D351	8-719-303-00	DIODE SEL2510C
D352	8-719-303-00	DIODE SEL2510C
D353	8-719-303-00	DIODE SEL2510C
D354	8-719-303-00	DIODE SEL2510C
D355	8-719-303-00	DIODE SEL2510C
D401	8-719-302-74	DIODE SEL2210W-C
D402	8-719-000-26	DIODE US1060M
D403	8-719-000-26	DIODE US1060M
D404	8-719-000-26	DIODE US1060M
D405	8-719-000-26	DIODE US1060M
D406	8-719-000-26	DIODE US1060M
D407	8-719-000-26	DIODE US1060M
D499	8-719-000-26	DIODE US1060M
D501	8-719-200-77	DIODE 10E2N
D502	8-719-200-77	DIODE 10E2N
D503	8-719-200-77	DIODE 10E2N
D504	8-719-200-77	DIODE 10E2N
D702	8-719-000-26	DIODE US1060M
D703	8-719-000-26	DIODE US1060M
D709	8-719-000-26	DIODE US1060M
D710	8-719-000-26	DIODE US1060M
D711	8-719-000-26	DIODE US1060M
D712	8-719-000-26	DIODE US1060M
D713	8-719-000-26	DIODE US1060M
D714	8-719-000-26	DIODE US1060M

ELECTRICAL PARTS

Ref.No.	Part No.	Description
D715	8-719-000-26	DIODE US1060M
D716	8-719-000-26	DIODE US1060M
D717	8-719-000-26	DIODE US1060M
D718	8-719-000-26	DIODE US1060M
D719	8-719-000-26	DIODE US1060M
D720	8-719-000-26	DIODE US1060M
D722	8-719-000-26	DIODE US1060M
FE101	1-463-871-11	FRONT END, FM
FE201	1-236-026-11	ENCAPSULATED COMPONENT
FE202	1-236-028-11	ENCAPSULATED COMPONENT
IC301	8-759-804-55	IC LA1266
IC302	8-759-917-42	IC IR2E31A
IC401	8-759-801-80	IC LA3401
IC501	8-759-802-61	IC LA5666
IC601	8-759-208-82	IC TC9171P
IC701	8-759-208-69	IC TC9306F-009
JT111	1-535-416-00	TERMINAL
JT112	1-535-416-00	TERMINAL
JT113	1-535-416-00	TERMINAL
JT114	1-535-416-00	TERMINAL
L101	1-410-564-21	MICRO INDUCTOR 100UH
L102	1-410-564-21	MICRO INDUCTOR 100UH
L209	1-410-568-21	MICRO INDUCTOR 220UH
L301	1-410-576-21	MICRO INDUCTOR 1MMH
L501	1-410-564-21	MICRO INDUCTOR 100UH
LCD701	1-807-453-31	DISPLAY PANEL, LIQUID CRYSTAL
LPF401	1-235-164-00	FILTER, LOW PASS
LPF402	1-235-164-00	FILTER, LOW PASS
PL501	1-518-611-11	LAMP, PILOT
PL502	1-518-611-11	LAMP, PILOT
PT901A	1-448-083-11	TRANSFORMER, POWER
Q101	8-729-266-93	TRANSISTOR 2SC2669
Q102	8-729-266-93	TRANSISTOR 2SC2669
Q103	8-729-266-93	TRANSISTOR 2SC2669
Q104	8-729-266-93	TRANSISTOR 2SC2669
Q201	8-729-806-28	TRANSISTOR 2SC3402
Q202	8-729-806-28	TRANSISTOR 2SC3402
Q203	8-729-806-28	TRANSISTOR 2SC3402
Q204	8-729-600-27	TRANSISTOR 2SC634SP
Q205	8-729-117-54	TRANSISTOR 2SA1175
Q206	8-729-806-28	TRANSISTOR 2SC3402
Q401	8-729-806-28	TRANSISTOR 2SC3402
Q402	8-729-600-27	TRANSISTOR 2SC634SP

SECTION 3

EXPLODED VIEW AND PARTS LIST

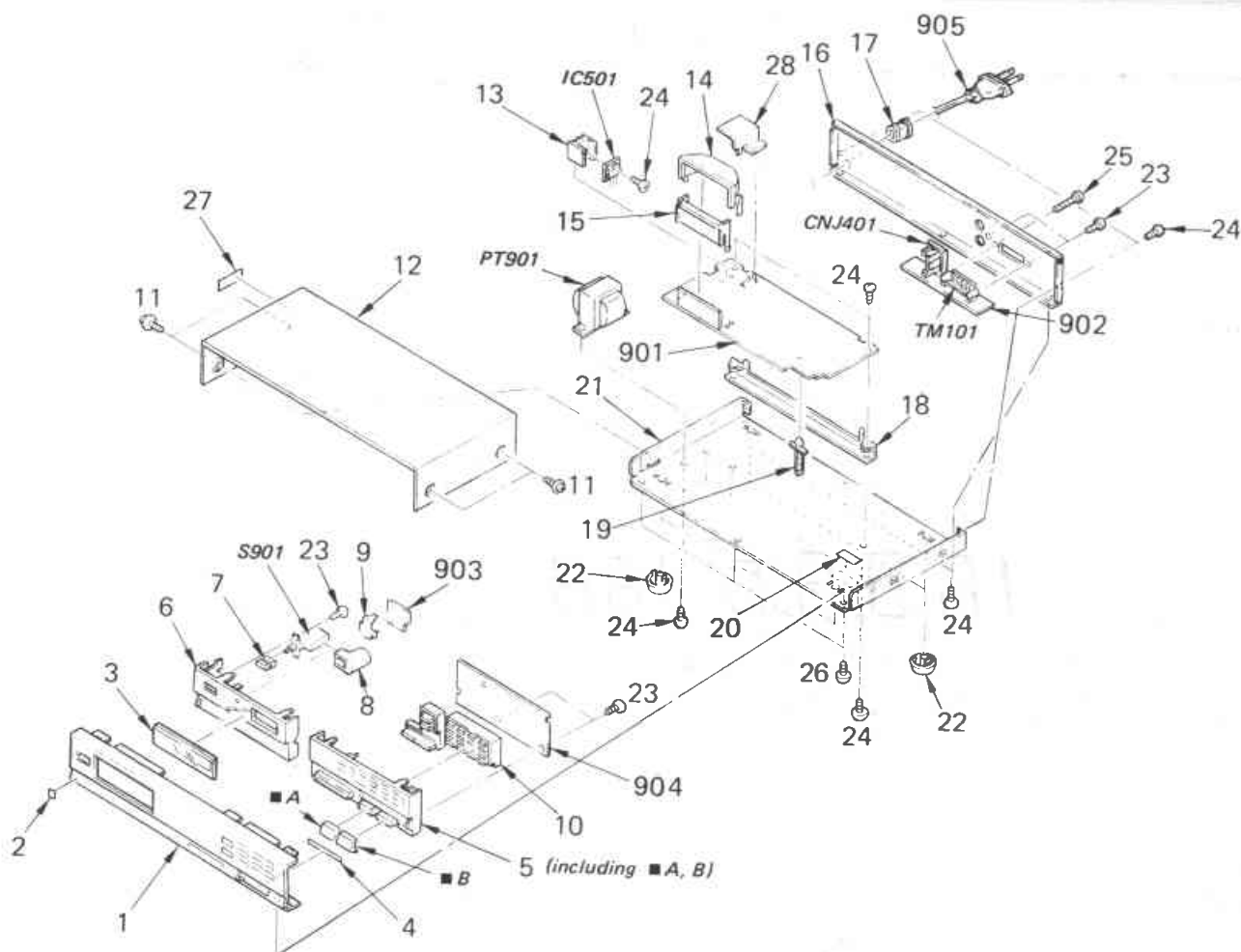
NOTE:

The mechanical parts with no reference number in the exploded views are not supplied.

Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

The construction parts of an assembled part are indicated with a collation number in the remark column.

The components identified by shading and mark  are critical for safety. Replace only with part number specified.



No.	Part No.	Description
1	4-917-029-11	PANEL, FRONT
2	*3-703-713-41	STICKER, SONY SYMBOL (10)
3	4-917-026-01	PLATE, INDICATION
4	4-911-291-11	CUSHION
5	X-4905-257-1	BASE ASSY, PANEL
6	4-917-028-01	BASE (A), PANEL
7	4-917-460-01	KNOB, POWER

No.	Part No.	Description
17	*3-703-244-00	BUSHING (2104), CORD
18	*4-917-024-01	BRACKET
19	*3-670-570-51	SPACER, SUPPORT
20	3-701-030-00	LABEL, SERIAL NUMBER
21	*4-904-481-11	CHASSIS
22	X-3701-069-0	FOOT ASSY, M.F

Remarks

SECTION 3

EXPLODED VIEW AND PARTS LIST

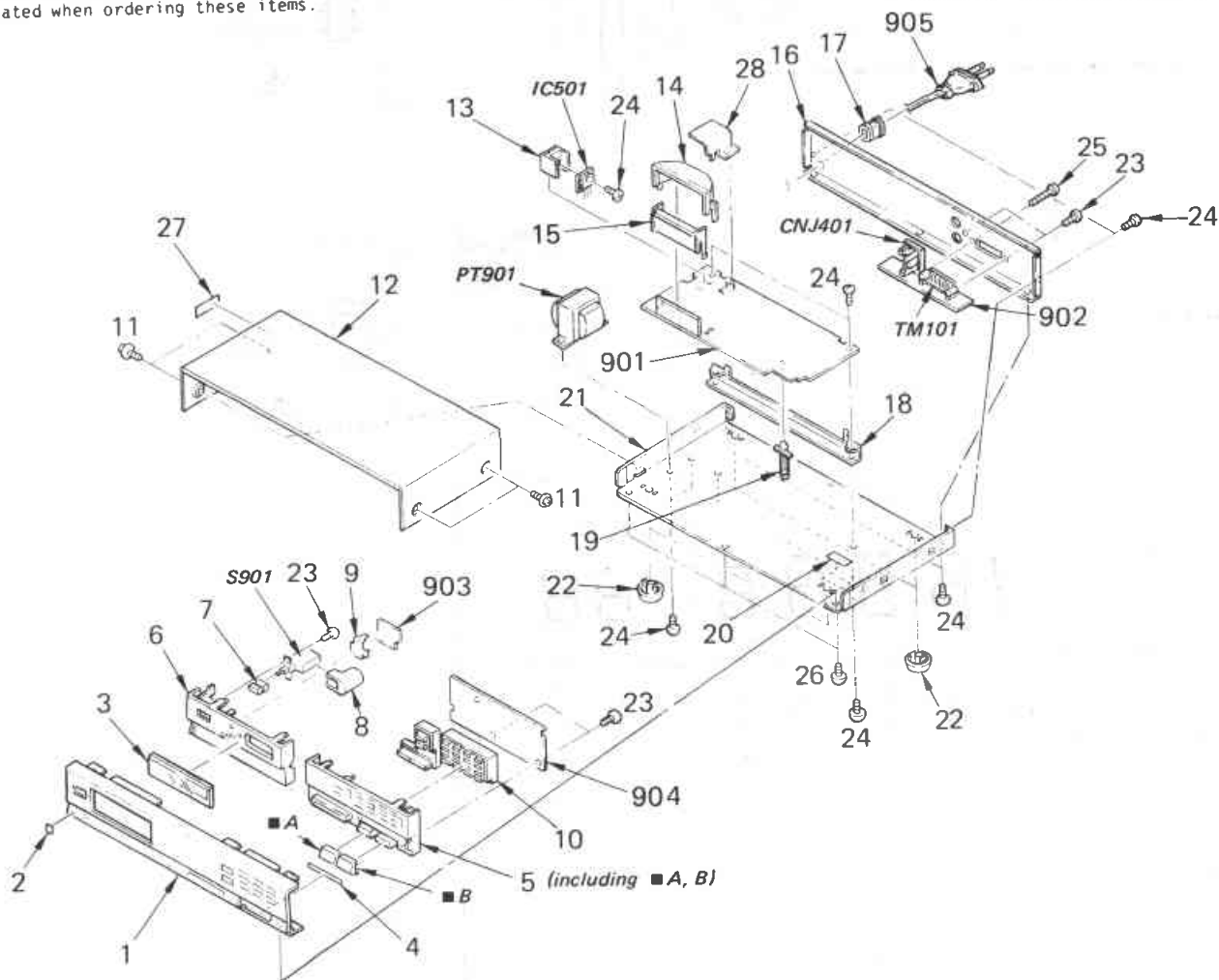
NOTE:

The mechanical parts with no reference number in the exploded views are not supplied.

Items marked "★" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

The construction parts of an assembled part are indicated with a collation number in the remark column.

The components identified by shading and mark  are critical for safety. Replace only with part number specified.



No.	Part No.	Description
1	4-917-029-11	PANEL, FRONT
2	*3-703-713-41	STICKER, SONY SYMBOL (10)
3	4-917-026-01	PLATE, INDICATION
4	4-911-291-11	CUSHION
5	X-4905-257-1	BASE ASSY, PANEL
6	4-917-028-01	BASE (A), PANEL
7	4-917-460-01	KNOB, POWER
8	3-575-524-00	COVER, POWER SWITCH
9	*4-917-022-01	HOLDER, LED
10	4-917-025-01	BUTTON
11	4-886-821-01	SCREW, M3 CASE
12	4-905-463-41	CASE
13	*4-363-147-11	HEAT SINK, H.PIN
14	*4-904-515-01	HOUSE, LAMP
15	*4-909-633-01	ILLUMINATOR
16	*4-917-018-21	(AEP: TYPE 1)....PANEL, BACK
	*4-917-018-31	(AEP: TYPE 2)....PANEL, BACK
	*4-917-018-51	(UK).....PANEL, BACK

No.	Part No.	Description	Remarks
17	*3-703-244-00	BUSHING (2104), CORD	
18	*4-917-024-01	BRACKET	
19	*3-670-570-51	SPACER, SUPPORT	
20	3-701-030-00	LABEL, SERIAL NUMBER	
21	*4-904-481-11	CHASSIS	
22	X-3701-069-0	FOOT ASSY, M.F	
23	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S	
24	7-682-148-01	SCREW +BVTT 3X8 (S)	
25	3-704-242-01	SCREW, TERMINAL, + BVTP CLAW	
26	3-703-685-21	SCREW (+BV 3X8)	
27	3-703-079-21	(UK)....LABEL, SUB CAUTION (BACK)	
28	*4-917-034-01	COVER, AC	
901	*A-4351-607-A	MOUNTED PCB, TUNER	
902	*1-623-040-11	PC BOARD, ANTENNA	
903	*1-623-041-11	PC BOARD, LED	
904	*1-623-042-11	PC BOARD, SWITCH	
905	*1-558-944-11	(AEP)....CORD, POWER	
	*1-556-560-11	(UK)....CORD, POWER	
PT901	*1-448-953-11	TRANSFORMER, POWER	
S901	*1-553-318-00	SWITCH, PUSH (AC POWER)(1 KEY)	

SECTION 4

ELECTRICAL PARTS LIST

NOTE:

- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- If there are two or more same circuits in a set such as a stereophonic machine, only typical circuit parts may be indicated and capacitors and resistors in other same circuits may be omitted.

CAPACITORS:

MF: μ F, PF: μ F.

RESISTORS

- All resistors are in ohms.
- F : nonflammable

COILS

- MMH : mH, UH : μ H

SEMICONDUCTORS

In each case, U : μ , for example:

UA...: μ A..., UPA...: μ PA..., UPC...: μ PC,
UPD...: μ PD...

The components identified by shading and mark are critical for safety. Replace only with part number specified.

ELECTRICAL PARTS

Ref.No.	Part No.	Description			
901	*A-4351-607-A	MOUNTED PCB, TUNER			
902	*1-623-040-11	PC BOARD, ANTENNA			
903	*1-623-041-11	PC BOARD, LED			
904	*1-623-042-11	PC BOARD, SWITCH			
905	1-558-944-11	(AEP)...CORD, POWER			
	1-556-560-11	(UK)...CORD, POWER			
BA701	1-528-120-00	BATTERY, LITHIUM (CR-2025)			
C101	1-162-294-31	CERAMIC	0.001MF	10%	50V
C102	1-162-294-31	CERAMIC	0.001MF	10%	50V
C103	1-123-332-00	ELECT	47MF	20%	16V
C104	1-101-005-00	CERAMIC	0.022MF		50V
C105	1-101-005-00	CERAMIC	0.022MF		50V
C106	1-101-005-00	CERAMIC	0.022MF		50V
C107	1-101-005-00	CERAMIC	0.022MF		50V
C108	1-101-005-00	CERAMIC	0.022MF		50V
C190	1-101-005-00	CERAMIC	0.022MF		50V
C201	1-101-005-00	CERAMIC	0.022MF		50V
C203	1-101-005-00	CERAMIC	0.022MF		50V
C204	1-101-006-00	CERAMIC	0.047MF		50V
C205	1-101-005-00	CERAMIC	0.022MF		50V
C210	1-102-119-00	CERAMIC	0.0015MF	10%	50V
C211	1-102-120-00	CERAMIC	0.0018MF	10%	50V
C212	1-101-005-00	CERAMIC	0.022MF		50V
C213	1-101-006-00	CERAMIC	0.047MF		50V
C222	1-102-947-00	CERAMIC	10PF	0.5PF	50V
C301	1-123-332-00	ELECT	47MF	20%	16V
C302	1-101-005-00	CERAMIC	0.022MF		50V
C303	1-101-006-00	CERAMIC	0.047MF		50V
C304	1-101-006-00	CERAMIC	0.047MF		50V
C305	1-123-382-00	ELECT	3.3MF	20%	50V
C306	1-124-499-11	ELECT	1MF	20%	50V
C307	1-162-290-31	CERAMIC	470PF	10%	50V
C308	1-101-006-00	CERAMIC	0.047MF		50V
C309	1-123-382-00	ELECT	3.3MF	20%	50V
C314	1-124-927-11	ELECT	4.7MF	20%	50V
C316	1-123-356-00	ELECT	10MF	20%	25V

ELECTRICAL PARTS

Ref.No.	Part No.	Description			
C370	1-124-927-11	ELECT	4.7MF	20%	50V
C401	1-108-583-00	MYLAR	0.015MF	5%	50V
C402	1-102-978-00	CERAMIC	220PF	10%	50V
C403	1-123-356-00	ELECT	10MF	20%	25V
C404	1-162-288-31	CERAMIC	330PF	10%	50V
C405	1-108-595-00	MYLAR	0.047MF	5%	50V
C406	1-123-356-00	ELECT	10MF	20%	25V
C407	1-162-288-31	CERAMIC	330PF	10%	50V
C408	1-162-288-31	CERAMIC	330PF	10%	50V
C409	1-123-382-00	ELECT	3.3MF	20%	50V
C410	1-123-382-00	ELECT	3.3MF	20%	50V
C413	1-123-356-00	ELECT	10MF	20%	25V
C414	1-124-499-11	ELECT	1MF	20%	50V
C415	1-124-499-11	ELECT	1MF	20%	50V
C416	1-124-464-11	ELECT	0.22MF	20%	50V
C417	1-123-382-00	ELECT	3.3MF	20%	50V
C418	1-101-005-00	CERAMIC	0.022MF		50V
C419	1-123-332-00	ELECT	47MF	20%	16V
C425	1-161-375-00	CERAMIC	0.0022MF	30%	16V
C426	1-161-375-00	CERAMIC	0.0022MF	30%	16V
C499	1-123-356-00	ELECT	10MF	20%	25V
C501	1-101-004-00	CERAMIC	0.01MF		50V
C502	1-101-004-00	CERAMIC	0.01MF		50V
C503	1-101-004-00	CERAMIC	0.01MF		50V
C504	1-101-004-00	CERAMIC	0.01MF		50V
C505	1-126-105-11	ELECT	1000MF	20%	35V
C506	1-123-356-00	ELECT	10MF	20%	25V
C507	1-101-005-00	CERAMIC	0.022MF		50V
C509	1-124-499-11	ELECT	1MF	20%	50V
C510	1-101-005-00	CERAMIC	0.022MF		50V
C515	1-101-005-00	CERAMIC	0.022MF		50V
C517	1-124-499-11	ELECT	1MF	20%	50V
C601	1-101-005-00	CERAMIC	0.022MF		50V
C602	1-101-005-00	CERAMIC	0.022MF		50V
C603	1-123-356-00	ELECT	10MF	20%	25V
C604	1-124-925-11	ELECT	2.2MF	20%	50V
C605	1-124-463-00	ELECT	0.1MF	20%	50V

SECTION 4

ELECTRICAL PARTS LIST

NOTE:

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If there are two or more same circuits in a set such as a stereophonic machine, only typical circuit parts may be indicated and capacitors and resistors in other same circuits may be omitted.

CAPACITORS:
MF:μF, PF:μF.

RESISTORS
• All resistors are in ohms.
• F : nonflammable

COILS
• MMH : mH, UH : μH

SEMICONDUCTORS
In each case, U : μ, for example:
UA.... : μA..., UPA.... : μPA..., UPC.... : μPC,
UPD.... : μPD...

The components identified by shading and mark  are critical for safety. Replace only with part number specified.

ELECTRICAL PARTS

Ref.No.	Part No.	Description			
901	*A-4351-607-A	MOUNTED PCB, TUNER			
902	*1-623-040-11	PC BOARD, ANTENNA			
903	*1-623-041-11	PC BOARD, LED			
904	*1-623-042-11	PC BOARD, SWITCH			
905	★1-558-944-11	(AEP)...CORD, POWER			
	★1-556-560-11	(UK)...CORD, POWER			
BA701	1-528-120-00	BATTERY, LITHIUM (CR-2025)			
C101	1-162-294-31	CERAMIC	0.001MF	10%	50V
C102	1-162-294-31	CERAMIC	0.001MF	10%	50V
C103	1-123-332-00	ELECT	47MF	20%	16V
C104	1-101-005-00	CERAMIC	0.022MF		50V
C105	1-101-005-00	CERAMIC	0.022MF		50V
C106	1-101-005-00	CERAMIC	0.022MF		50V
C107	1-101-005-00	CERAMIC	0.022MF		50V
C108	1-101-005-00	CERAMIC	0.022MF		50V
C190	1-101-005-00	CERAMIC	0.022MF		50V
C201	1-101-005-00	CERAMIC	0.022MF		50V
C203	1-101-005-00	CERAMIC	0.022MF		50V
C204	1-101-006-00	CERAMIC	0.047MF		50V
C205	1-101-005-00	CERAMIC	0.022MF		50V
C210	1-102-119-00	CERAMIC	0.0015MF	10%	50V
C211	1-102-120-00	CERAMIC	0.0018MF	10%	50V
C212	1-101-005-00	CERAMIC	0.022MF		50V
C213	1-101-006-00	CERAMIC	0.047MF		50V
C222	1-102-947-00	CERAMIC	10PF	0.5PF	50V
C301	1-123-332-00	ELECT	47MF	20%	16V
C302	1-101-005-00	CERAMIC	0.022MF		50V
C303	1-101-006-00	CERAMIC	0.047MF		50V
C304	1-101-006-00	CERAMIC	0.047MF		50V
C305	1-123-382-00	ELECT	3.3MF	20%	50V
C306	1-124-499-11	ELECT	1MF	20%	50V
C307	1-162-290-31	CERAMIC	470PF	10%	50V
C308	1-101-006-00	CERAMIC	0.047MF		50V
C309	1-123-382-00	ELECT	3.3MF	20%	50V
C314	1-124-927-11	ELECT	4.7MF	20%	50V
C316	1-123-356-00	ELECT	10MF	20%	25V
C317	1-101-005-00	CERAMIC	0.022MF		50V
C318	1-162-207-31	CERAMIC	22PF	5%	50V
C319	1-161-494-00	CERAMIC	0.022MF	30%	25V
C320	1-124-927-11	ELECT	4.7MF	20%	50V
C321	1-101-006-00	CERAMIC	0.047MF		50V
C322	1-162-282-31	CERAMIC	100PF	10%	50V
C323	1-162-282-31	CERAMIC	100PF	10%	50V
C350	1-124-927-11	ELECT	4.7MF	20%	50V
C351	1-124-927-11	ELECT	4.7MF	20%	50V
C352	1-123-356-00	ELECT	10MF	20%	25V

ELECTRICAL PARTS

Ref.No.	Part No.	Description			
C370	1-124-927-11	ELECT	4.7MF	20%	50V
C401	1-108-583-00	MYLAR	0.015MF	5%	50V
C402	1-102-978-00	CERAMIC	220PF	10%	50V
C403	1-123-356-00	ELECT	10MF	20%	25V
C404	1-162-288-31	CERAMIC	330PF	10%	50V
C405	1-108-595-00	MYLAR	0.047MF	5%	50V
C406	1-123-356-00	ELECT	10MF	20%	25V
C407	1-162-288-31	CERAMIC	330PF	10%	50V
C408	1-162-288-31	CERAMIC	330PF	10%	50V
C409	1-123-382-00	ELECT	3.3MF	20%	50V
C410	1-123-382-00	ELECT	3.3MF	20%	50V
C413	1-123-356-00	ELECT	10MF	20%	25V
C414	1-124-499-11	ELECT	1MF	20%	50V
C415	1-124-499-11	ELECT	1MF	20%	50V
C416	1-124-464-11	ELECT	0.22MF	20%	50V
C417	1-123-382-00	ELECT	3.3MF	20%	50V
C418	1-101-005-00	CERAMIC	0.022MF		50V
C419	1-123-332-00	ELECT	47MF	20%	16V
C425	1-161-375-00	CERAMIC	0.0022MF	30%	16V
C426	1-161-375-00	CERAMIC	0.0022MF	30%	16V
C499	1-123-356-00	ELECT	10MF	20%	25V
C501	1-101-004-00	CERAMIC	0.01MF		50V
C502	1-101-004-00	CERAMIC	0.01MF		50V
C503	1-101-004-00	CERAMIC	0.01MF		50V
C504	1-101-004-00	CERAMIC	0.01MF		50V
C505	1-126-105-11	ELECT	1000MF	20%	35V
C506	1-123-356-00	ELECT	10MF	20%	25V
C507	1-101-005-00	CERAMIC	0.022MF		50V
C509	1-124-499-11	ELECT	1MF	20%	50V
C510	1-101-005-00	CERAMIC	0.022MF		50V
C515	1-101-005-00	CERAMIC	0.022MF		50V
C517	1-124-499-11	ELECT	1MF	20%	50V
C601	1-101-005-00	CERAMIC	0.022MF		50V
C602	1-101-005-00	CERAMIC	0.022MF		50V
C603	1-123-356-00	ELECT	10MF	20%	25V
C604	1-124-925-11	ELECT	2.2MF	20%	50V
C605	1-124-463-00	ELECT	0.1MF	20%	50V
C606	1-123-332-00	ELECT	47MF	20%	16V
C607	1-101-005-00	CERAMIC	0.022MF		50V
C608	1-130-776-00	FILM	0.47MF	5%	63V
C609	1-101-005-00	CERAMIC	0.022MF		50V
C611	1-101-005-00	CERAMIC	0.022MF		50V
C666	1-101-005-00	CERAMIC	0.022MF		50V
C667	1-101-005-00	CERAMIC	0.022MF		50V
C701	1-123-333-00	ELECT	100MF	20%	16V

ELECTRICAL PARTS

Ref.No.	Part No.	Description
C703	1-101-880-00	CERAMIC 47PF 5% 50V
C704	1-101-880-00	CERAMIC 47PF 5% 50V
C705	1-124-927-11	ELECT 4.7MF 20% 50V
C710	1-101-005-00	CERAMIC 0.022MF 50V
C711	1-101-005-00	CERAMIC 0.022MF 50V
C712	1-101-005-00	CERAMIC 0.022MF 50V
C713	1-101-005-00	CERAMIC 0.022MF 50V
C901	1-161-744-00	CERAMIC 0.01MF 400V
CF101	1-527-344-91	FILTER, CERAMIC
CF102	1-527-344-91	FILTER, CERAMIC
CF103	1-527-344-91	FILTER, CERAMIC
CF301	1-527-981-00	FILTER, CERAMIC
CF401	1-567-250-11	OSCILLATOR, CERAMIC
CNJ401	1-507-807-00	JACK, PIN 2P (OUTPUT)
CNJ501	1-535-115-00	TERMINAL
CNJ701	1-564-507-11	PLUG, CONNECTOR 4P
CNJ702	1-564-508-11	PLUG, CONNECTOR 5P
CNJ703	1-564-506-11	PLUG, CONNECTOR 3P
CNJ704	1-564-509-11	PLUG, CONNECTOR 6P
D302	8-719-000-26	DIODE US1060M
D350	8-719-000-26	DIODE US1060M
D351	8-719-303-00	DIODE SEL2510C
D352	8-719-303-00	DIODE SEL2510C
D353	8-719-303-00	DIODE SEL2510C
D354	8-719-303-00	DIODE SEL2510C
D355	8-719-303-00	DIODE SEL2510C
D401	8-719-302-74	DIODE SEL2210W-C
D402	8-719-000-26	DIODE US1060M
D403	8-719-000-26	DIODE US1060M
D404	8-719-000-26	DIODE US1060M
D405	8-719-000-26	DIODE US1060M
D406	8-719-000-26	DIODE US1060M
D407	8-719-000-26	DIODE US1060M
D499	8-719-000-26	DIODE US1060M
D501	8-719-200-77	DIODE 10E2N
D502	8-719-200-77	DIODE 10E2N
D503	8-719-200-77	DIODE 10E2N
D504	8-719-200-77	DIODE 10E2N
D702	8-719-000-26	DIODE US1060M
D703	8-719-000-26	DIODE US1060M
D709	8-719-000-26	DIODE US1060M
D710	8-719-000-26	DIODE US1060M
D711	8-719-000-26	DIODE US1060M
D712	8-719-000-26	DIODE US1060M
D713	8-719-000-26	DIODE US1060M
D714	8-719-000-26	DIODE US1060M

ELECTRICAL PARTS

Ref.No.	Part No.	Description
D715	8-719-000-26	DIODE US1060M
D716	8-719-000-26	DIODE US1060M
D717	8-719-000-26	DIODE US1060M
D718	8-719-000-26	DIODE US1060M
D719	8-719-000-26	DIODE US1060M
D720	8-719-000-26	DIODE US1060M
D722	8-719-000-26	DIODE US1060M
FE101	1-463-871-11	FRONT END, FM
FE201	1-236-026-11	ENCAPSULATED COMPONENT
FE202	1-236-028-11	ENCAPSULATED COMPONENT
IC301	8-759-804-55	IC LA1266
IC302	8-759-917-42	IC IR2E31A
IC401	8-759-801-80	IC LA3401
IC501	8-759-802-61	IC LA5666
IC601	8-759-208-82	IC TC9171P
IC701	8-759-208-69	IC TC9306F-009
JT111	1-535-416-00	TERMINAL
JT112	1-535-416-00	TERMINAL
JT113	1-535-416-00	TERMINAL
JT114	1-535-416-00	TERMINAL
L101	1-410-564-21	MICRO INDUCTOR 100UH
L102	1-410-564-21	MICRO INDUCTOR 100UH
L209	1-410-568-21	MICRO INDUCTOR 220UH
L301	1-410-576-21	MICRO INDUCTOR 1MMH
L501	1-410-564-21	MICRO INDUCTOR 100UH
LCD701	1-807-453-31	DISPLAY PANEL, LIQUID CRYSTAL
LPF401	1-235-164-00	FILTER, LOW PASS
LPF402	1-235-164-00	FILTER, LOW PASS
PL501	1-518-611-11	LAMP, PILOT
PL502	1-518-611-11	LAMP, PILOT
PT901A	1-448-953-11	TRANSFORMER, POWER
Q101	8-729-266-93	TRANSISTOR 2SC2669
Q102	8-729-266-93	TRANSISTOR 2SC2669
Q103	8-729-266-93	TRANSISTOR 2SC2669
Q104	8-729-266-93	TRANSISTOR 2SC2669
Q201	8-729-806-28	TRANSISTOR 2SC3402
Q202	8-729-806-28	TRANSISTOR 2SC3402
Q203	8-729-806-28	TRANSISTOR 2SC3402
Q204	8-729-600-27	TRANSISTOR 2SC634SP
Q205	8-729-117-54	TRANSISTOR 2SA1175
Q206	8-729-806-28	TRANSISTOR 2SC3402
Q401	8-729-806-28	TRANSISTOR 2SC3402
Q402	8-729-600-27	TRANSISTOR 2SC634SP

The components identified by shading and mark  are critical for safety. Replace only with part number specified.

ELECTRICAL PARTS

Ref.No.	Part No.	Description			
Q403	8-729-600-27	TRANSISTOR	2SC634SP		
Q404	8-729-806-28	TRANSISTOR	2SC3402		
Q502	8-729-806-28	TRANSISTOR	2SC3402		
Q503	8-729-600-27	TRANSISTOR	2SC634SP		
Q504	8-729-806-28	TRANSISTOR	2SC3402		
Q506	8-729-600-27	TRANSISTOR	2SC634SP		
Q601	8-729-202-67	TRANSISTOR	2SK246GR3		
Q602	8-729-201-84	TRANSISTOR	2SC3112B		
Q603	8-729-202-67	TRANSISTOR	2SK246GR3		
Q604	8-729-201-84	TRANSISTOR	2SC3112B		
R101	1-249-411-11	CARBON	330	5%	1/4W
R103	1-249-411-11	CARBON	330	5%	1/4W
R104	1-249-411-11	CARBON	330	5%	1/4W
R105	1-249-432-11	CARBON	18K	5%	1/4W
R106	1-249-411-11	CARBON	330	5%	1/4W
R107	1-249-414-11	CARBON	560	5%	1/4W
R108	1-249-411-11	CARBON	330	5%	1/4W
R109	1-249-434-11	CARBON	27K	5%	1/4W
R110	1-249-432-11	CARBON	18K	5%	1/4W
R111	1-249-411-11	CARBON	330	5%	1/4W
R112	1-249-416-11	CARBON	820	5%	1/4W
R113	1-249-411-11	CARBON	330	5%	1/4W
R114	1-249-434-11	CARBON	27K	5%	1/4W
R190	1-249-425-11	CARBON	4.7K	5%	1/4W
R191	1-249-429-11	CARBON	10K	5%	1/4W
R201	1-249-441-11	CARBON	100K	5%	1/4W
R202	1-249-437-11	CARBON	47K	5%	1/4W
R203	1-249-425-11	CARBON	4.7K	5%	1/4W
R204	1-249-425-11	CARBON	4.7K	5%	1/4W
R205	1-249-429-11	CARBON	10K	5%	1/4W
R206	1-249-441-11	CARBON	100K	5%	1/4W
R207	1-249-437-11	CARBON	47K	5%	1/4W
R208	1-215-493-00	CARBON	1M	5%	1/4W
R209	1-249-441-11	CARBON	100K	5%	1/4W
R210	1-249-434-11	CARBON	27K	5%	1/4W
R211	1-249-433-11	CARBON	22K	5%	1/4W
R212	1-249-421-11	CARBON	2.2K	5%	1/4W
R213	1-249-433-11	CARBON	22K	5%	1/4W
R214	1-249-413-11	CARBON	470	5%	1/4W
R301	1-247-743-11	CARBON	220	5%	1/2W
R302	1-249-431-11	CARBON	15K	5%	1/4W
R303	1-215-430-00	CARBON	2.4K	5%	1/4W
R304	1-249-434-11	CARBON	27K	5%	1/4W
R305	1-249-404-00	CARBON	82	5%	1/4W
R306	1-249-423-11	CARBON	3.3K	5%	1/4W
R307	1-249-429-11	CARBON	10K	5%	1/4W

ELECTRICAL PARTS

Ref.No.	Part No.	Description			
R308	1-249-429-11	CARBON	10K	5%	1/4W
R309	1-249-402-11	CARBON	56	5%	1/4W
R315	1-249-417-11	CARBON	1K	5%	1/4W
R322	1-249-417-11	CARBON	1K	5%	1/4W
R324	1-249-423-11	CARBON	3.3K	5%	1/4W
R333	1-249-421-11	CARBON	2.2K	5%	1/4W
R351	1-247-740-11	CARBON	120	5%	1/2W
R352	1-249-429-11	CARBON	10K	5%	1/4W
R402	1-249-421-11	CARBON	2.2K	5%	1/4W
R403	1-249-429-11	CARBON	10K	5%	1/4W
R404	1-247-885-00	CARBON	180K	5%	1/4W
R405	1-247-885-00	CARBON	180K	5%	1/4W
R406	1-247-883-00	CARBON	150K	5%	1/4W
R407	1-247-883-00	CARBON	150K	5%	1/4W
R408	1-249-423-11	CARBON	3.3K	5%	1/4W
R409	1-249-423-11	CARBON	3.3K	5%	1/4W
R410	1-249-423-11	CARBON	3.3K	5%	1/4W
R411	1-249-423-11	CARBON	3.3K	5%	1/4W
R412	1-249-441-11	CARBON	100K	5%	1/4W
R413	1-247-715-11	CARBON	1.5K	5%	1/4W
R414	1-249-429-11	CARBON	10K	5%	1/4W
R415	1-249-425-11	CARBON	4.7K	5%	1/4W
R416	1-249-417-11	CARBON	1K	5%	1/4W
R417	1-249-428-11	CARBON	8.2K	5%	1/4W
R418	1-247-849-00	CARBON	5.6K	5%	1/4W
R419	1-249-429-11	CARBON	10K	5%	1/4W
R420	1-249-429-11	CARBON	10K	5%	1/4W
R463	1-249-435-11	CARBON	33K	5%	1/4W
R464	1-249-435-11	CARBON	33K	5%	1/4W
R499	1-249-437-11	CARBON	47K	5%	1/4W
R504	1-249-437-11	CARBON	47K	5%	1/4W
R506	1-249-429-11	CARBON	10K	5%	1/4W
R507	1-249-439-11	CARBON	68K	5%	1/4W
R508	1-249-441-11	CARBON	100K	5%	1/4W
R602	1-249-417-11	CARBON	1K	5%	1/4W
R603	1-249-417-11	CARBON	1K	5%	1/4W
R604	1-249-417-11	CARBON	1K	5%	1/4W
R605	1-249-417-11	CARBON	1K	5%	1/4W
R607	1-249-423-11	CARBON	3.3K	5%	1/4W
R608	1-249-414-11	CARBON	560	5%	1/4W
R609	1-249-418-11	CARBON	1.2K	5%	1/4W
R610	1-249-410-11	CARBON	270	5%	1/4W
R611	1-249-425-11	CARBON	4.7K	5%	1/4W
R612	1-249-421-11	CARBON	2.2K	5%	1/4W

The components identified by shading and mark  are critical for safety. Replace only with part number specified.

ELECTRICAL PARTS

Ref.No.	Part No.	Description
R613	1-249-425-11	CARBON 4.7K 5% 1/4W
R615	1-249-429-11	CARBON 10K 5% 1/4W
R616	1-249-417-11	CARBON 1K 5% 1/4W
R617	1-249-418-11	CARBON 1.2K 5% 1/4W
R618	1-249-410-11	CARBON 270 5% 1/4W
R619	1-249-433-11	CARBON 22K 5% 1/4W
R620	1-249-421-11	CARBON 2.2K 5% 1/4W
R621	1-249-425-11	CARBON 4.7K 5% 1/4W
R622	1-249-425-11	CARBON 4.7K 5% 1/4W
R666	1-249-414-11	CARBON 560 5% 1/4W
R667	1-249-417-11	CARBON 1K 5% 1/4W
R699	1-249-405-11	CARBON 100 5% 1/4W
R701	1-249-425-11	CARBON 4.7K 5% 1/4W
R702	1-249-405-11	CARBON 100 5% 1/4W
R703	1-249-423-11	CARBON 3.3K 5% 1/4W
R704	1-249-425-11	CARBON 4.7K 5% 1/4W
R705	1-249-429-11	CARBON 10K 5% 1/4W
R711	1-249-417-11	CARBON 1K 5% 1/4W
R712	1-249-429-11	CARBON 10K 5% 1/4W
R713	1-249-425-11	CARBON 4.7K 5% 1/4W
RV301	1-228-995-00	RES, ADJ, CARBON 22K
RV302	1-228-995-00	RES, ADJ, CARBON 22K
RV350	1-228-997-00	RES, ADJ, CARBON 100K
RV401	1-228-998-00	RES, ADJ, CARBON 220K
S701	1-554-303-21	SWITCH, KEY BOARD (0)
S702	1-554-303-21	SWITCH, KEY BOARD (1)
S703	1-554-303-21	SWITCH, KEY BOARD (2)
S704	1-554-303-21	SWITCH, KEY BOARD (3)
S705	1-554-303-21	SWITCH, KEY BOARD (4)
S706	1-554-303-21	SWITCH, KEY BOARD (5)
S707	1-554-303-21	SWITCH, KEY BOARD (6)
S708	1-554-303-21	SWITCH, KEY BOARD (7)
S709	1-554-303-21	SWITCH, KEY BOARD (8)
S710	1-554-303-21	SWITCH, KEY BOARD (9)
S711	1-554-303-21	SWITCH, KEY BOARD (MEMORY)
S712	1-554-303-21	SWITCH, KEY BOARD (ENTER)
S713	1-554-303-21	SWITCH, KEY BOARD (BAND FM/MW/LW)
S714	1-554-303-21	SWITCH, KEY BOARD (TUNING +)
S715	1-554-303-21	SWITCH, KEY BOARD (TUNING -)
S716	1-554-303-21	SWITCH, KEY BOARD (MEMORY SCAN)
S717	1-554-303-21	SWITCH, KEY BOARD (FM AUTO TUNING)
S718	1-554-303-21	SWITCH, KEY BOARD (STEREO/MUTE)

ELECTRICAL PARTS

Ref.No.	Part No.	Description
T301	1-404-743-11	COIL, DISCRIMINATOR
T302	1-404-742-11	COIL, DISCRIMINATOR
T303	1-404-713-11	TRANSFORMER, IF
T401	1-235-126-00	ENCAPSULATED COMPONENT
TM101	1-536-708-00	TERMINAL BOARD, PUSH 4P (ANTENNA)
TP301	*1-560-060-00	PIN, CONNECTOR 2P
XT701	1-567-767-11	VIBRATOR, CRYSTAL

ACCESSORY & PACKING MATERIAL

Part No.	Description
1-402-082-11	ANTENNA, FERRITE-ROD (LW/MW/SW)
1-501-351-21	ANTENNA, FEEDER
1-558-543-11	CORD, CONNECTION
3-701-630-00	BAG, POLYETHYLENE
3-769-222-11	MANUAL, INSTRUCTION
3-769-222-41	(AEP)...MANUAL, INSTRUCTION
4-876-352-00	SHEET, PROTECTION
4-917-009-81	INDIVIDUAL CARTON
4-917-021-01	CUSHION

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9-952-798-11

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