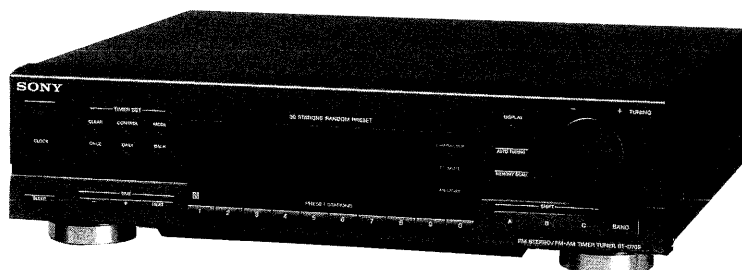


ST-D709

SERVICE MANUAL

*AEP Model
UK Model
E Model
Australian Model
Tourist Model*



This set is the tuner section in
LBT-A57CD/A57CDM/A67CD/A67CDM/A77CD/A77CDM
/D509CD/D559CD/D609CD/D709CD/D759CD.

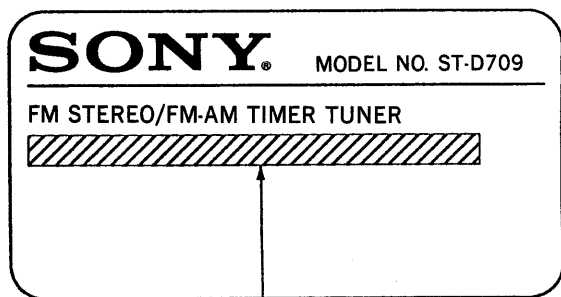
SPECIFICATIONS

System	FM stereo FM/AM superheterodyne tuner	Power consumption	AEP, G, IT, EE model 11W UK, E, AUS, EA, MY, SP, JE model 10W
FM tuner section		AC outlet	2 switched, total 450W max.
Tuning range	except for EE model 87.5 to 108 MHz EE model FM1: 65 to 74MHz FM2: 87.5 to 108MHz	Weight	Approx. 2.7kg (6 lbs)
Antenna	75 ohms unbalanced 300Ω balanced (E, AUS, EA, MY, SP, JE)	Dimensions	AEP, G, IT, EE model Approx. 355×95×330mm (14×3 ⁹ / ₄ ×12 ⁷ / ₈ inches) (w/h/d, including projections)
Intermediate frequency	10.7 MHz		UK, E, AUS, EA, MY, SP, JE model Approx. 355×95×340mm (14×3 ³ / ₄ ×13 ³ / ₄ inches (w/h/d, including projections)
AM tuner section			
Tuning range	AEP, UK, G, IT, EE model MW: 522 to 1,611kHz (IT) 531 to 1,602kHz (AEP, UK, G, EE) LW: 153 to 279kHz (AEP, UK, EE) E, AUS, EA, MY, SP, JE model AM: 531 to 1,602kHz (at 9kHz interval) 530 to 1,700kHz (at 10kHz interval)	Design and specifications are subject to change without notice.	
Antenna	AM loop antenna External antenna terminal	• G : German model • IT : Italian model • EE : East European model • AUS: Australian model • EA : Saudi Arabia model • MY : Malaysia model • SP : Singapore model • JE : Tourist model	
Intermediate frequency	450 kHz		
Power requirements	AEP, G, IT, EE model 220—230V AC, 50/60Hz UK model 240V AC, 50/60Hz E, AUS, EA, MY, SP, JE model 120V/220V—240V AC, adjustable with the voltage selector, 50/60Hz		

FM STEREO/FM-AM TIMER TUNER
SONY®

MODEL IDENTIFICATION

—Model Number Portion—



AEP, G, IT EE model : AC: 220V—230V~50/60Hz 11W
 UK model : AC: 240V~50/60Hz
 E, AUS, EA, MY, SP, JE model: AC: 120V/220V—240V~50/60Hz

- G : German model
- IT : Italian model
- EE : East European model
- AUS: Australian model
- EA : Saudi Arabia model
- MY : Malaysia model
- SP : Singapore model
- JE : Tourist model

TABLE OF CONTENTS

<u>Section</u>	<u>Title</u>	<u>Page</u>
1. GENERAL		
1-1.	Location of Controls.....	3
1-2.	Setting The Clock	3
2. ELECTRICAL ADJUSTMENTS		4
3. DIAGRAMS		
3-1.	Semiconductor Lead Layouts.....	6
3-2.	Printed Wiring Boards.....	7
3-3.	Schematic Diagram—Panel Section—	11
3-4.	Schematic Diagram—Tuner Section (AEP, UK, EE model)—	15
3-5.	Schematic Diagram—Tuner Section (G, IT model)—	17
3-6.	Schematic Diagram—Tuner Section (E, AUS, EA, MY, SP, JE model)—	19
4. EXPLODED VIEW		22
5. ELECTRICAL PARTS LIST		24

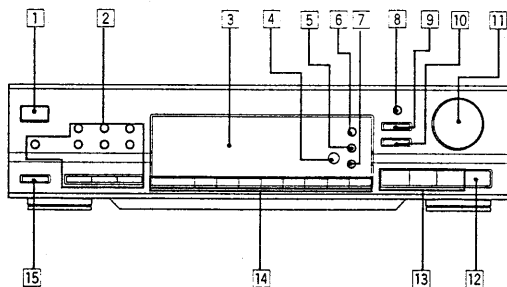
SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK  OR DOTTED LINE WITH 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.

SECTION 1 GENERAL

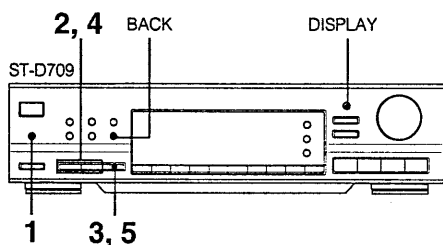
This section is extracted from instruction manual.

1-1. LOCATION OF CONTROLS



- 1 SYSTEM POWER switch
- 2 Buttons for setting the clock and timer
- 3 Display window
- 4 Remote sensor
- 5 ST/MUTE button
- 6 CHARACTER button
- 7 MEMORY button
- 8 DISPLAY button
- 9 AUTO TUNING button
- 10 MEMORY SCAN button
- 11 TUNING knob
- 12 BAND selector
- 13 SHIFT buttons (A, B, C)
- 14 Numeric buttons
- 15 SLEEP button

1-2. SETTING THE CLOCK



The built-in clock shows the time in the display. Set the clock correctly to enjoy timer-activated features (pages 112 and 114).

The time is shown in the 24-hour system.

1 Press the CLOCK button.

2 Set the hour with the TIME – or + button.

3 Press the NEXT button.

4 Set the minute with the TIME – or + button.

5 Press the NEXT button.
The built-in clock starts operating.

To make corrections

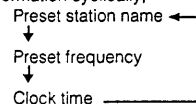
The indication which is blinking can be altered. To make the hour indication blink, press the BACK button.

To reset the clock

Repeat the procedure above.

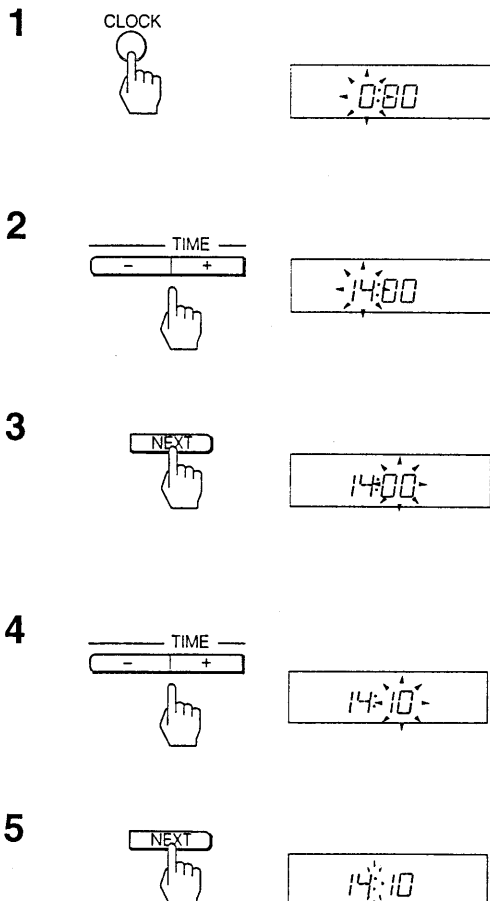
To switch among the clock time, preset station name and preset frequency display

Each time you press the DISPLAY button, the display changes to give you following information cyclically;



If a power failure occurs

The clock will start running again after the power is supplied. However, since the clock will not run during the power failure, it may be necessary to reset it.



SECTION 2 ELECTRICAL ADJUSTMENTS

Precautions in Repairing

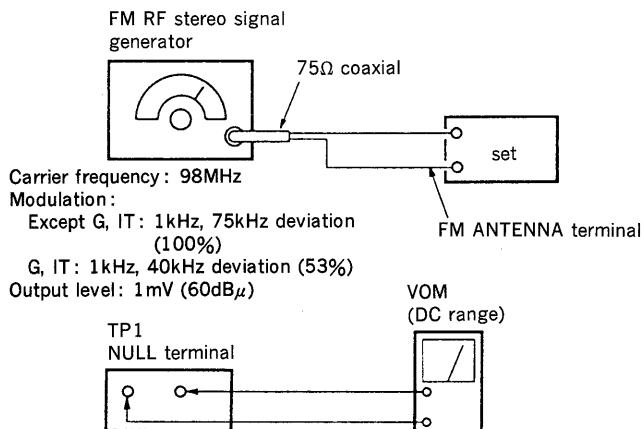
If the front end unit fails, it is difficult to repair the inner circuits, so replace the entire front end unit.

FM SECTION

FM Discriminator Adjustment (NULL Adjustment)

Setting :

BAND switch : FM



Procedure :

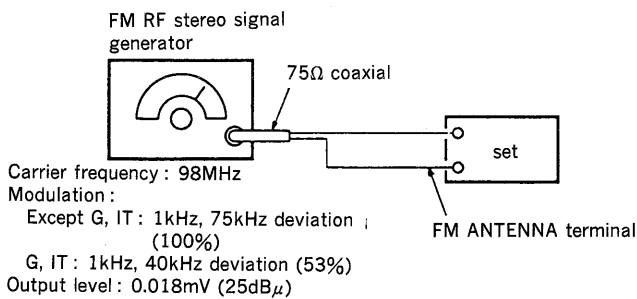
1. Tune the set to 98MHz.
2. Adjust T21 for 0V reading on the VOM.

Note : FM Tuning Level adjustment should be made after FM discriminator alignment.

FM Tuning Level Adjustment

Setting :

BAND switch : FM



Procedure :

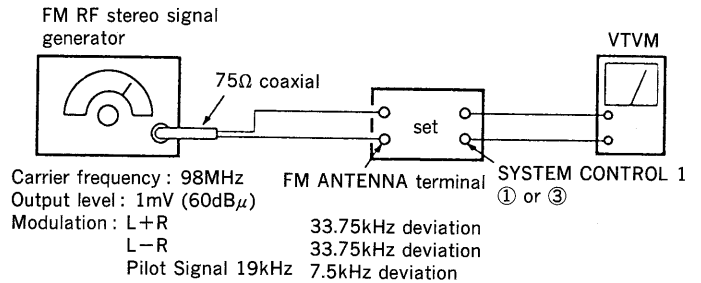
1. Tune the set to 98MHz.
2. Adjust RV24 so that the TUNED indicator goes on.

- G : German model
- IT : Italian model

FM Stereo Separation Adjustment

Setting :

BAND switch : FM



Procedure :

Tune the set to 98MHz.

FM stereo Signal generator Output channel	VTVM connection	VTVM reading (dB)
L-CH	L-CH	Ⓐ
R-CH	L-CH	Ⓑ Adjust RV21 for minimum reading.
R-CH	R-CH	Ⓒ
L-CH	R-CH	Ⓓ Adjust RV21 for minimum reading.

L-CH Stereo separation : Ⓐ—Ⓑ

R-CH Stereo separation : Ⓒ—Ⓓ

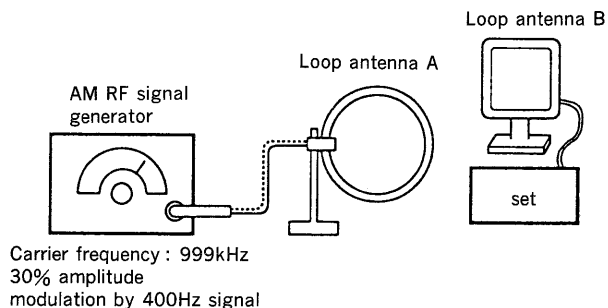
The separations of both channels should be equal.

AM SECTION

AM Tuning Level Adjustment

Setting :

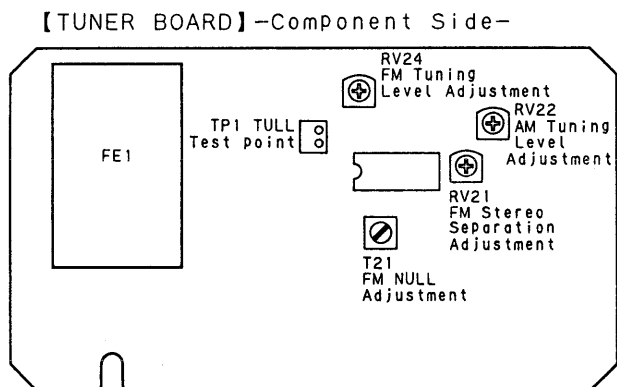
BAND switch : AM or MW



Procedure :

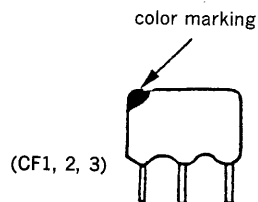
1. Set loop antenna A so that the loop antenna B input level becomes $58\text{dB}\mu/\text{m}$ ($0.8\text{mV}/\text{m}$)
2. Tune the set to 999kHz.
3. Adjust the RV22 so that the TUNED indicator goes on.

Adjustment Location :



Note on Ceramic Filter (CF1, 2, 3) Replacement

This set employs three ceramic filters (CF1, 2, 3) which should have the same color marking to identify their center frequency. Therefore FM IF offset adjustment by D609, D610 mounted is necessary to match the center frequency of the ceramic filters used with FM intermediate frequency.



(CF3: G, IT model only)

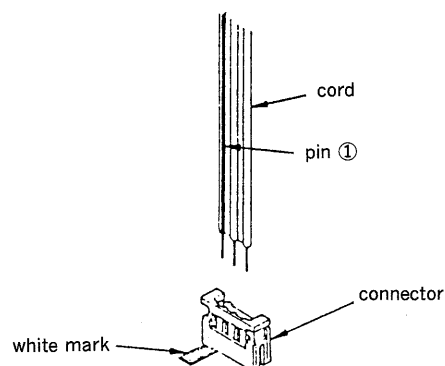
○ : Mounted
× : not Mounted

Ceramic filter		Mount		FM intermediate frequency (MHz)
Color mark	Center frequency (MHz)	* A D610	* B D609	
White	10.750	×	○	10.750
Red	10.700	○	○	10.700
Black	10.650	○	×	10.650

FM intermediate frequency is determined by the three types as shown above. Ceramic filters of same center frequency, i. e., of same color coding should be used for CF1, CF2 and CF3. When replacing the ceramic filters, perform the FM Discriminator Adjustment.

[Note on Inserting the Cord to the Connector on Tuner Board]

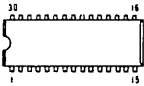
- Insert the cord to the connector fitting Pin ① of the cord in accordance with the white mark on the board at the connector as shown in the figure.



SECTION 3
DIAGRAMS

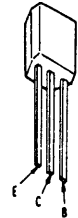
3-1. SEMICONDUCTOR LEAD LAYOUTS

LA1851N

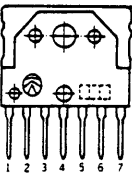


(TOP VIEW)

DTA114ES
DTC114ES
DTC124ES
2SC2603-EF
2SC2669-OY

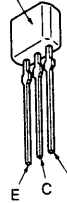


LA5667

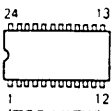


2SA1175-HFE
2SC2785-HFE
2SC3113-AB

letter side



LC7218

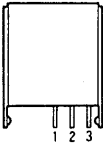


(TOP VIEW)

2SB1116A-L



SBX1610-59

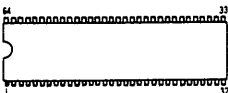


1. VCC
2. VOUT
3. GND

2SK246-GR3

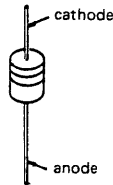


TMP47C1270AN-
H211

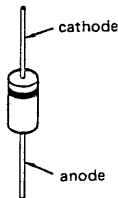


(TOPVIEW)

HZS30-2L



UZP-5.6B
1N4148M
10E2N



• Semiconductor Location

TUNER BOARD

E, AUS, EA MY,SP, JE model

TUNER BOARD

AEP, UK, EE model

Ref. No.	Location
D21	D-8
D22	D-8
D23	D-8
D24	D-8
IC21	D-6
IC81	B-4
Q1	C-4
Q2	C-5
Q21	C-7
Q22	C-7
Q23	C-5
Q24	C-5
Q26	E-7
Q27	D-8
Q28	D-8
Q81	C-5
Q82	C-5
Q83	B-3
Q84	B-2

Ref. No.	Location
D21	D-17
D22	D-17
D23	D-17
D24	D-17
D61	D-14
IC21	D-15
IC81	B-13
Q1	C-13
Q2	C-13
Q21	C-16
Q22	C-16
Q23	C-14
Q24	C-14
Q26	E-16
Q27	C-17
Q28	D-17
Q61	D-13
Q62	D-3
Q63	E-13
Q64	D-13
Q65	D-14
Q66	D-13
Q81	C-14
Q82	C-14
Q83	B-12
Q84	B-11
Q85	C-11
Q86	C-11

TUNER BOARD

G, IT model

Ref. No.	Location
D21	I-8
D22	I-8
D23	I-8
D24	I-8
IC21	I-6
IC81	G-4
Q1	H-4
Q2	H-4
Q3	H-5
Q4	H-5
Q21	H-7
Q22	H-7
Q23	H-5
Q24	H-5
Q26	J-7
Q27	H-8
Q28	I-8
Q81	H-5
Q82	H-5
Q83	G-3
Q84	G-2

- Note:
- —

parts extracted from the component side.
- —

parts extracted from the conductor side.
- G

: German model
- IT

: Italian model
- EE

: East European model
- AUS

: Australian model
- EA

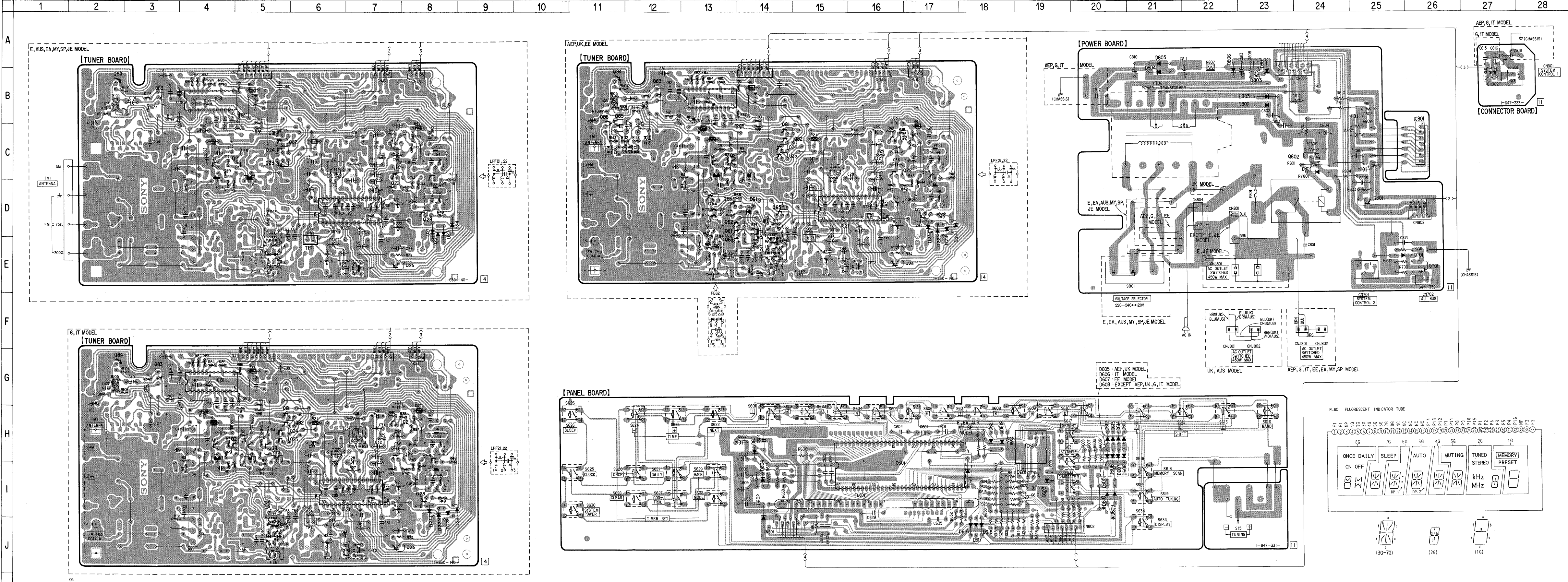
: Saudi Arabia model
- MY

: Malaysia model
- SP

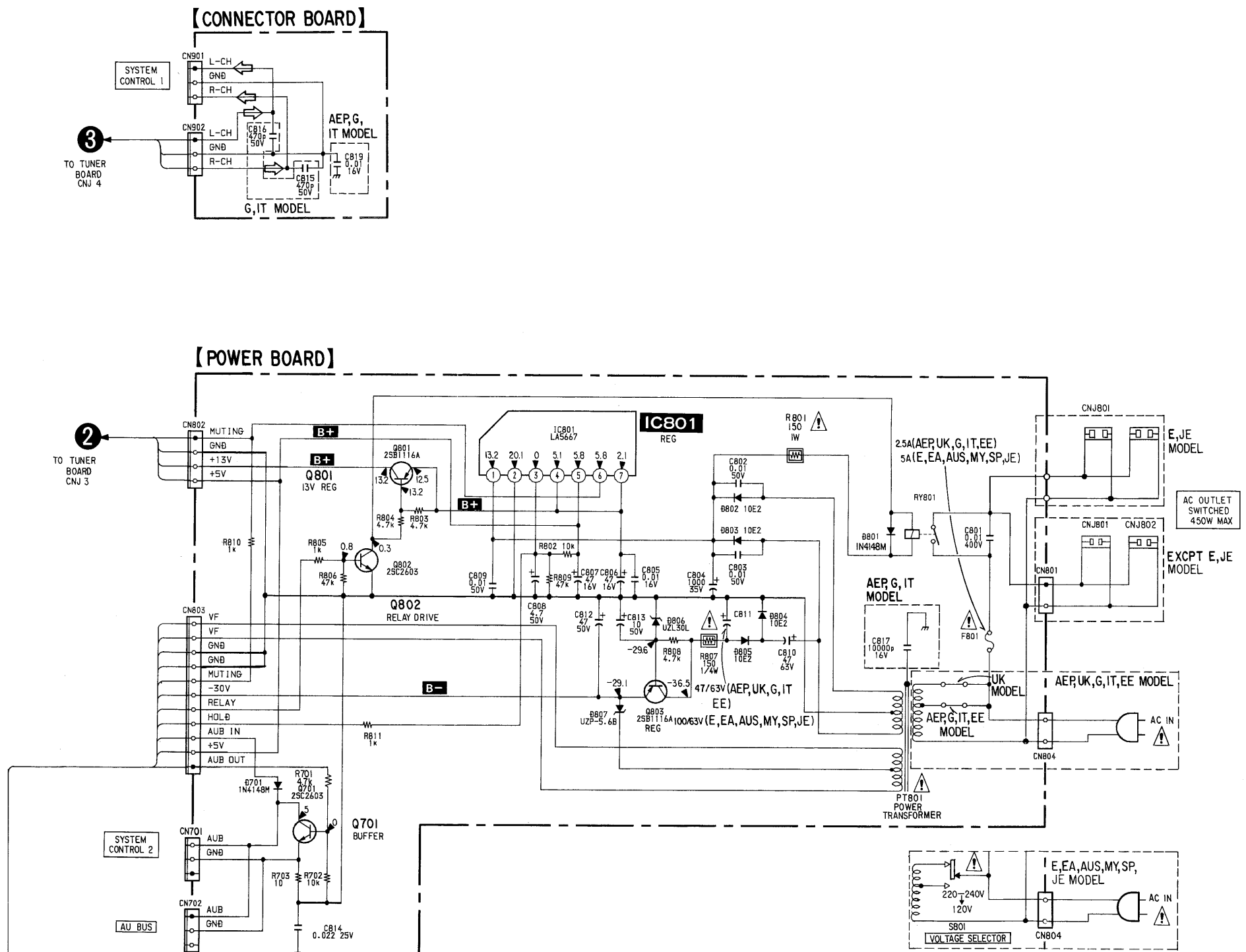
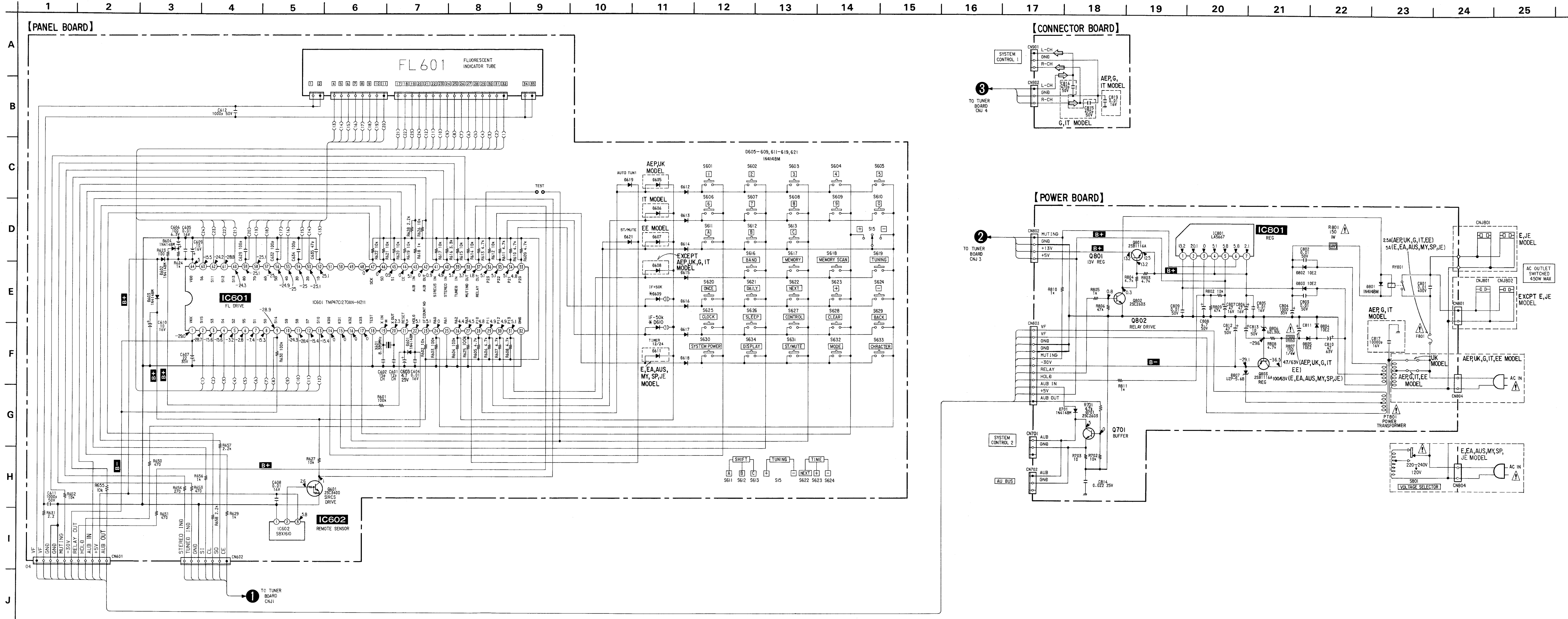
: Singapore model
- JE

: Tourist model

3-2. PRINTED WIRING BOARDS • Refer to page 6 for Semiconductor Lead Layouts.

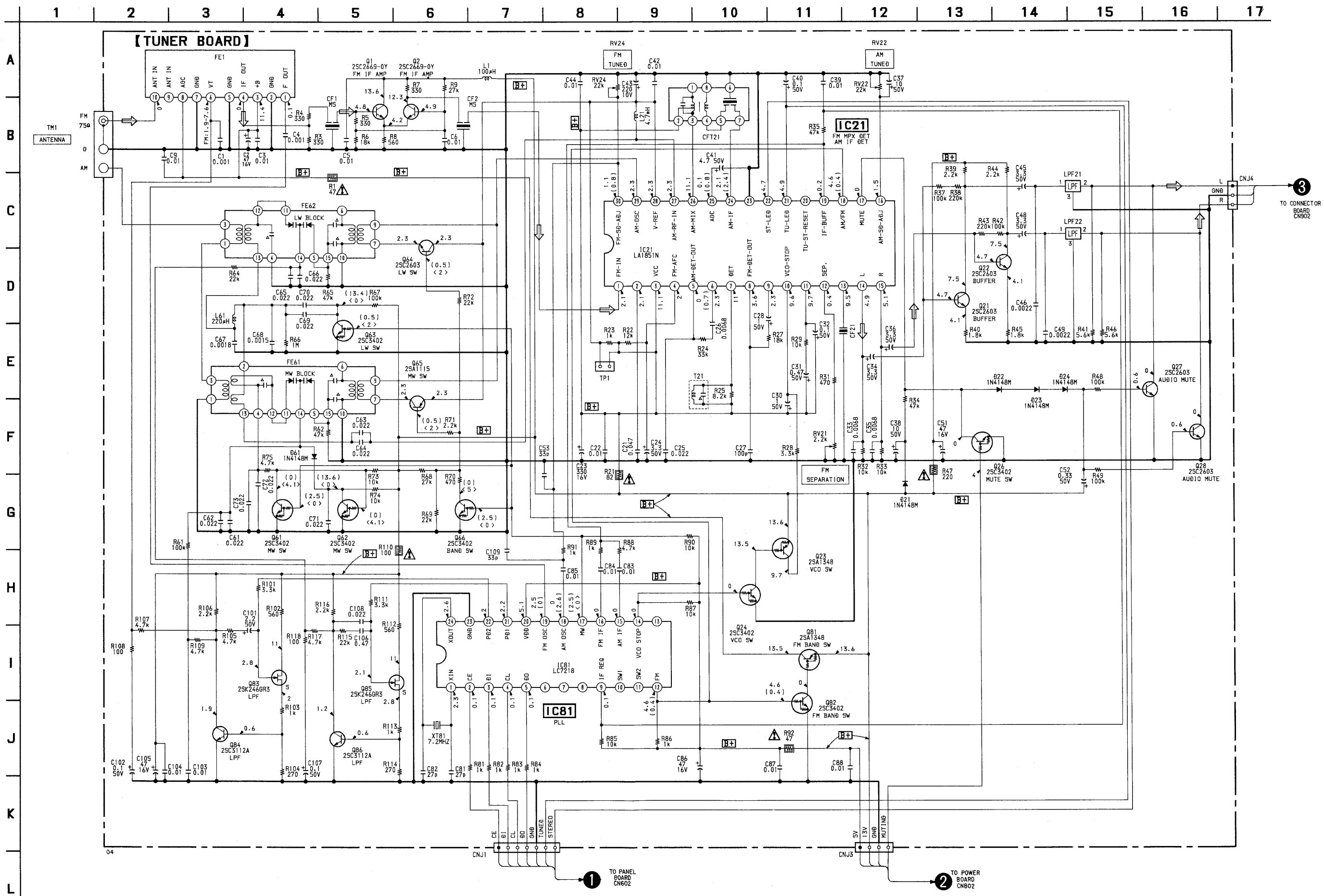


3-3. SCHEMATIC DIAGRAM—PANEL SECTION—

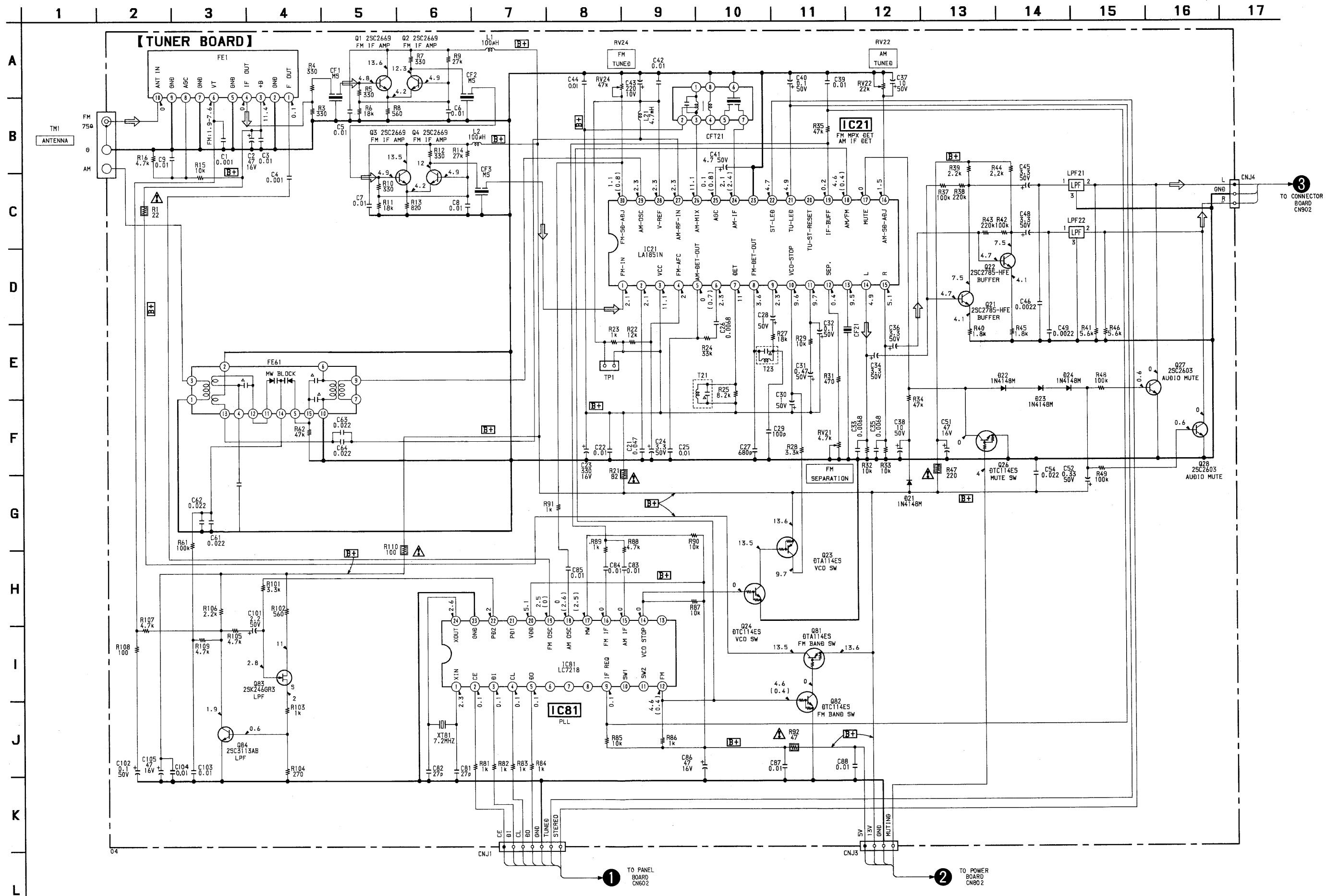


- Note:**
- All capacitors are in μF unless otherwise noted. pF : μF 50WV or less are not indicated except for electrolytics and tantalums.
 - All resistors are in Ω and $\frac{1}{4}\text{W}$ or less unless otherwise specified.
 - : nonflammable resistor.
- Note:** The components identified by mark or dotted line with mark are critical for safety. Replace only with part number specified.
- Voltage and waveforms are dc with respect to ground under no-signal (detuned) conditions.
 - Voltages are taken with a VOM (Input Impedance $10\text{M}\Omega$). Voltage variations may be noted due to normal production tolerances.
 - Signal path.
 : FM
 - G : German model
 - IT : Italian model
 - EE : East European model
 - AUS : Australian model
 - EA : Saudi Arabia model
 - MY : Malaysia model
 - SP : Singapore model
 - JE : Tourist model

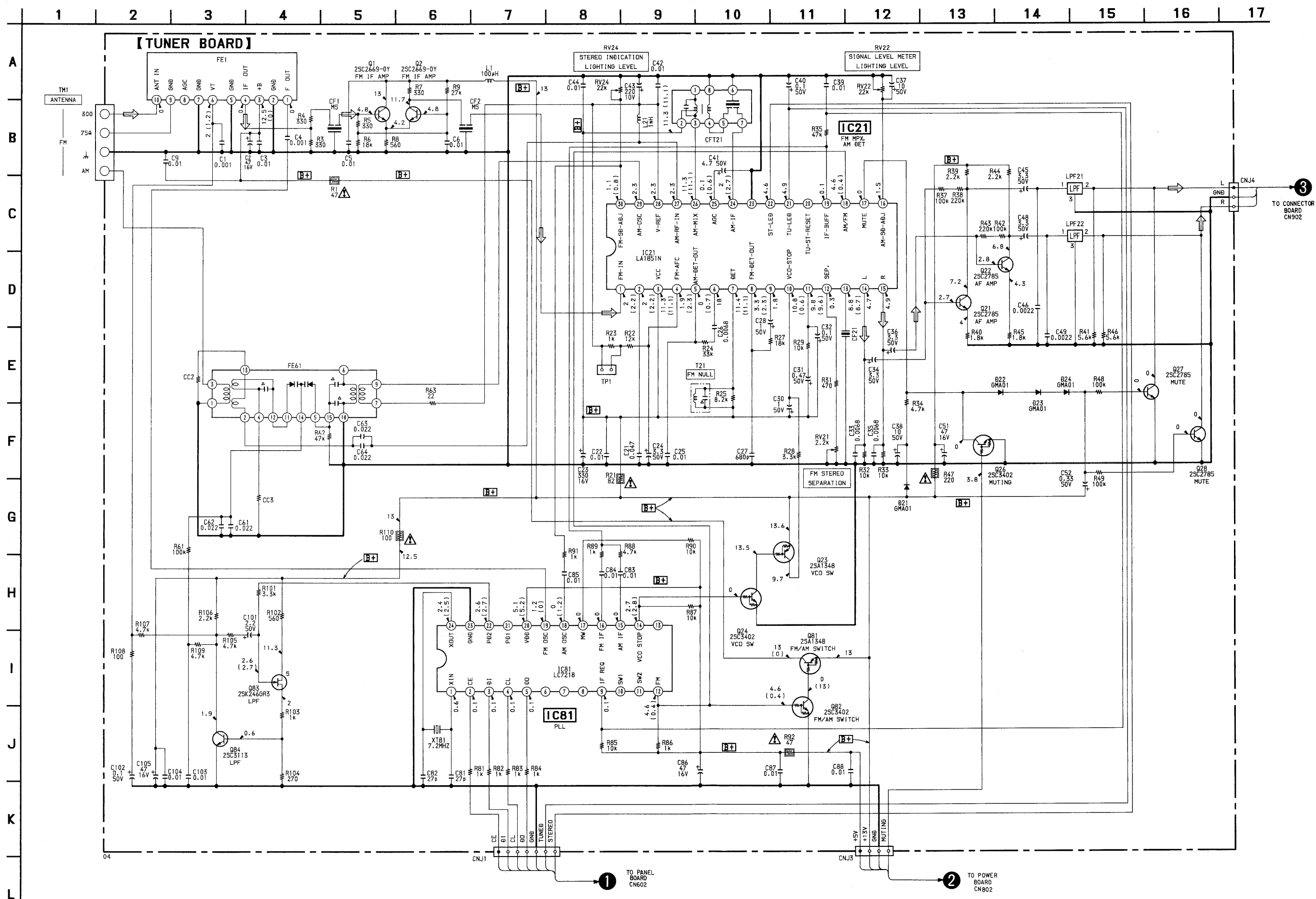
3-4. SCHEMATIC DIAGRAM—TUNER SECTION (AEP, UK, EE model)— • Refer to page 21 for IC Block Diagrams and Note.



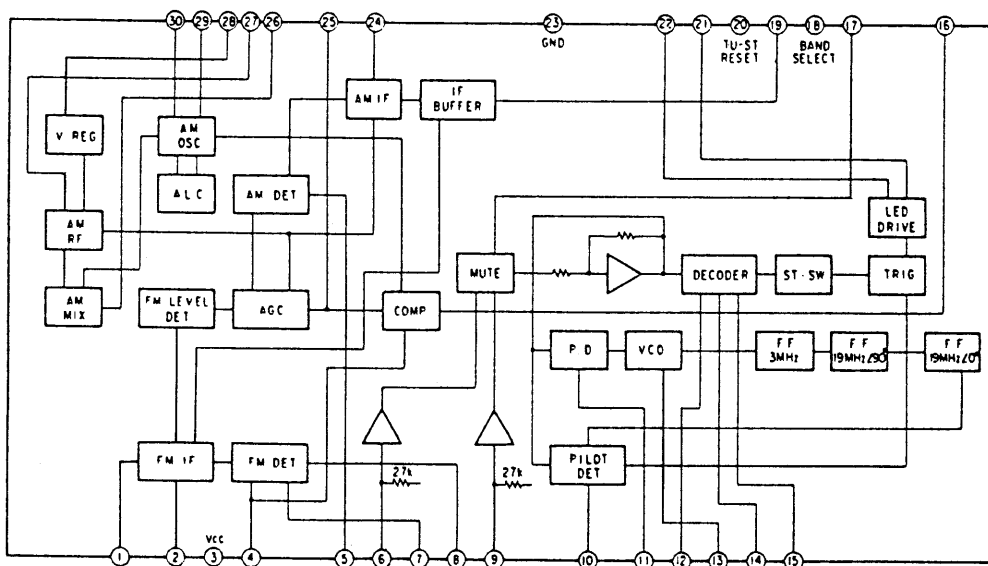
3-5. SCHEMATIC DIAGRAM—TUNER SECTION (G, IT model)— • Refer to page 21 for IC Block Diagrams and Note.



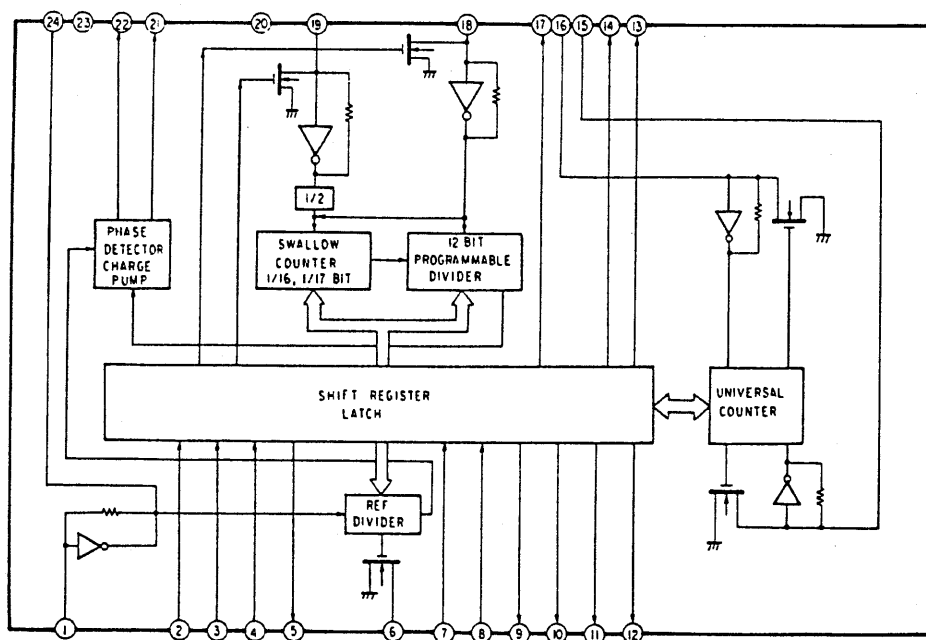
3-6. SCHEMATIC DIAGRAM—TUNER SECTION (E, AUS, EA, MY, SP, JE model)— • Refer to page 21 for IC Block Diagrams and Note.



● IC Block Diagrams
IC21 LA1851N



IC81 LC7218



Note on Schematic Diagram:

- All capacitors are in μF unless otherwise noted. pF : μF 50V 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.
- $\triangle$: internal component.
- $\square$: nonflammable resistor.

Note: The components identified by mark $\triangle$ or dotted line with mark $\triangle$ are critical for safety. Replace only with part number specified.

- $\square$: adjustment for repair.

- Voltage and waveforms are dc with respect to ground under no-signal (detuned) conditions.
no mark : FM
() : AM or MW
< > : LW
- Voltages are taken with a VOM (Input Impedance $10\text{M}\Omega$). Voltage variations may be noted due to normal production tolerances.
- Signal path.
 $\Rightarrow$: FM
- G : German model
- IT : Italian model
- EE : East European model
- AUS: Australian model
- EA : Saudi Arabia model
- MY : Malaysia model
- SP : Singapore model
- JE : Tourist model

SECTION 4 EXPLODED VIEW

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.

- -XX and -X mean standardized parts, so they may have some difference from the original one.

- Color Indication of Appearance Parts

Example :

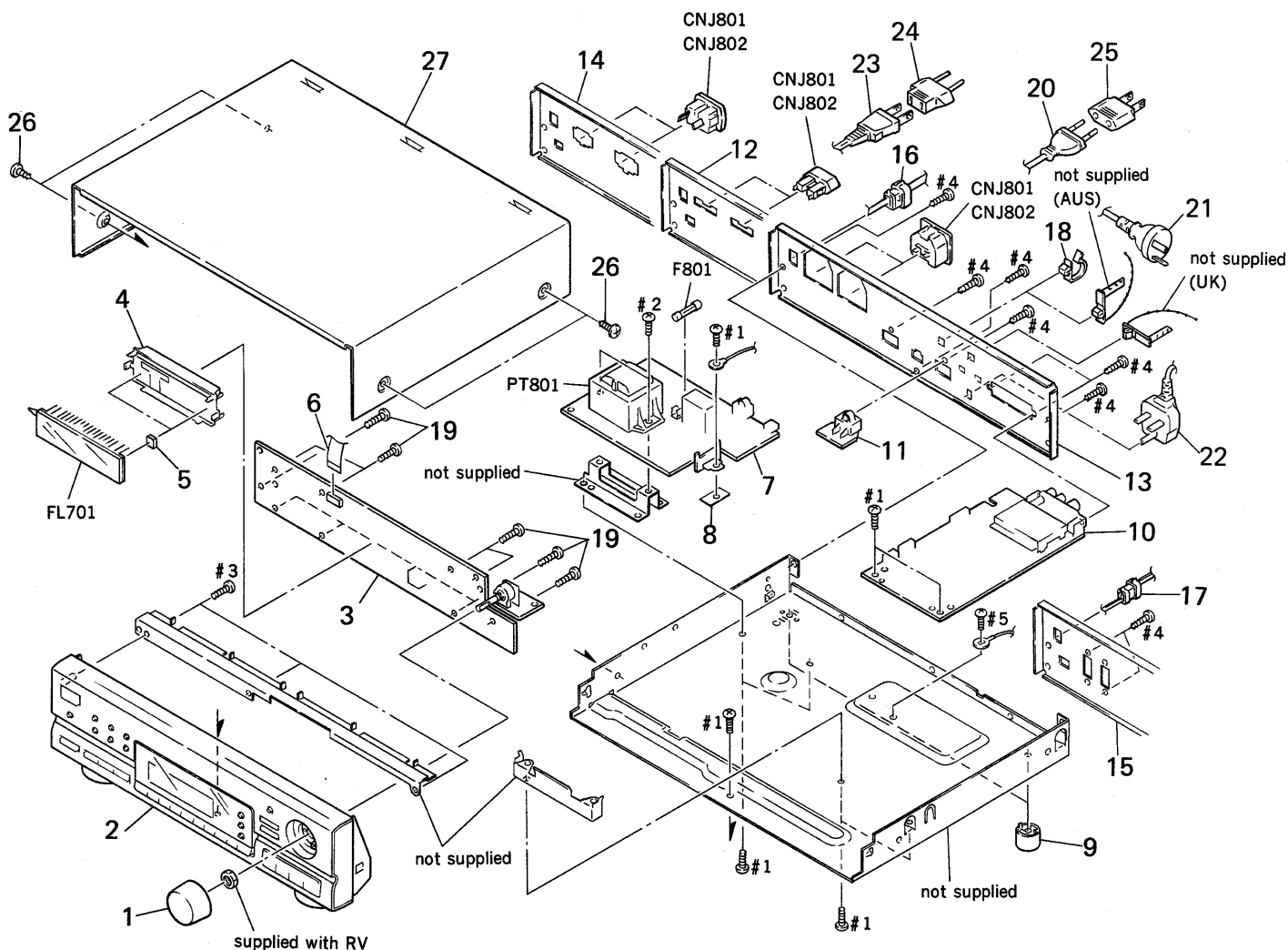
KNOB, BALANCE (WHITE)... (RED)

↑ ↑
Parts Color Cabinet's Color

- Hardware (# mark) list is given in the last of this parts list.

The components identified by mark Δ or dotted line with mark Δ are critical for safety. Replace only with part number specified.

- G : German model
- IT : Italian model
- EE : East European model
- EA : Saudi Arabia model
- AUS : Australian model
- MY : Malaysia model
- SP : Singapore model
- JE : Tourist model



Ref. No.	Part No.	Description	Remark
1	4-930-861-21	KNOB (AEP, E, EE, EA, AUS, MY, SP, JE)	
1	4-930-861-31	KNOB (UK, G, IT)	
2	X-4943-391-2	PANEL ASSY (709), FRONT (AEP, E, EE, EA, AUS, MY, SP, JE)	
2	X-4943-452-2	PANEL ASSY (709), FRONT (UK, G, IT)	
* 3	A-4360-057-A	PANEL BOARD, COMPLETE (AEP)	
* 3	A-4360-058-A	PANEL BOARD, COMPLETE (EE)	
* 3	A-4360-059-A	PANEL BOARD, COMPLETE (E, EA, AUS, MY, SP, JE)	
* 3	A-4360-060-A	PANEL BOARD, COMPLETE (IT)	
* 3	A-4360-061-A	PANEL BOARD, COMPLETE (UK)	
* 3	A-4360-062-A	PANEL BOARD, COMPLETE (G)	
* 4	4-923-103-01	HOLDER, FL TUBE	
* 5	4-921-941-01	CUSHION (FL)	
6	1-575-666-11	WIRE, FLAT TYPE (11 CORE)	
* 7	A-4360-052-A	POWER BOARD, COMPLETE (AEP, EE)	
* 7	A-4360-053-A	POWER BOARD, COMPLETE (EA, AUS)	
* 7	A-4360-054-A	POWER BOARD, COMPLETE (E, JE)	
* 7	A-4360-055-A	POWER BOARD, COMPLETE (UK)	
* 7	A-4360-056-A	POWER BOARD, COMPLETE (G, IT)	
* 7	A-4360-634-A	POWER BOARD, COMPLETE (MY, SP)	
* 8	4-937-354-01	SHEET	
9	4-931-169-01	FOOT	
* 10	A-4347-288-A	TUNER (3SJ) BOARD, COMPLETE (AEP, UK)	
* 10	A-4360-063-A	TUNER (2RJ) BOARD, COMPLETE (G, IT)	
* 10	A-4347-287-A	TUNER (2QJ) BOARD, COMPLETE (E, AUS, EA, MY, SP, JE)	
* 10	A-4347-290-A	TUNER (3UJ) BOARD, COMPLETE (EE)	
* 11	1-647-333-11	CONNECTOR BOARD	
* 12	4-956-867-11	PANEL, BACK (AEP:MADE IN JAPAN, EE)	
* 12	4-956-867-32	PANEL, BACK (G)	
* 12	4-956-867-41	PANEL, BACK (IT)	
* 12	4-956-867-71	PANEL, BACK (EA, MY, SP)	
* 12	4-956-867-91	PANEL, BACK (AEP:MADE IN FRANCE)	

Ref. No.	Part No.	Description	Remark
* 13	4-956-867-21	PANEL, BACK (UK)	
* 14	4-956-867-51	PANEL, BACK (AUS)	
* 15	4-956-867-61	PANEL, BACK (E, JE)	
* 16	3-703-244-00	BUSHING (2104), CORD (AEP, UK, G, IT, EE, EA, AUS, MY, SP)	
* 17	3-703-571-11	BUSHING (S) (4516), CORD (E, JE)	
* 18	4-949-235-01	HOOK (AEP, UK, E, G, IT, EE, EA, MY, SP, JE)	
19	4-951-620-01	SCREW (2. 6X8), +BVTP	
△20	1-575-651-11	CORD, POWER (AEP, EE, EA, MY, SP)	
△20	1-575-651-21	CORD, POWER (G, IT)	
△21	1-690-608-11	CORD, POWER (AUS)	
△22	1-696-907-11	CORD, POWER (UK)	
△23	1-575-653-11	CORD, POWER (E, JE)	
△24	1-569-007-11	ADAPTER, CONVERSION 2P (E3, JE)	
△25	1-569-008-11	ADAPTER, CONVERSION 2P (EA, MY, SP)	
26	3-363-099-01	SCREW (CASE 3 TP2)	
* 27	4-939-802-31	CASE	
△CNJ801	1-251-078-11	OUTLET, AC. (AUS)	
△CNJ801	1-526-751-00	OUTLET, AC (UK)	
△CNJ801	1-526-794-11	OUTLET, AC (AEP, G, IT, EE, EA, MY, SP)	
△CNJ802	1-251-078-11	OUTLET, AC. (AUS)	
△CNJ802	1-526-751-00	OUTLET, AC (UK)	
△CNJ802	1-526-794-11	OUTLET, AC (AEP, G, IT, EE, EA, MY, SP)	
△F801	1-532-286-00	FUSE 2. 5A (UK, G, IT)	
△F801	1-532-299-00	FUSE 5A (E, EA, AUS, MY, SP, JE)	
△F801	1-576-229-31	FUSE (H. B. C.) 2. 5A (AEP, EE)	
FL701	1-519-728-11	INDICATOR TUBE, FLUORESCENT	
△PT801	1-449-978-11	TRANSFORMER, POWER (E, EA, AUS, MY, SP, JE)	
△PT801	1-449-979-11	TRANSFORMER, POWER (AEP, UK, G, IT, EE)	

SECTION 5 ELECTRICAL PARTS LIST

CONNECTOR

PANEL

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
All resistors are in ohms.
METAL: Metal-film resistor.
METAL OXIDE: Metal oxide-film resistor.
F: nonflammable

- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
In each case, u: μ , for example:
uA...: μ A... uPA...: μ PA..
uPB...: μ PB... uPC...: μ PC... uPD...: μ PD..
● CAPACITORS
uF: μ F
● COILS
uH: μ H

When indicating parts by reference number, please include the board.

The components identified by mark Δ or dotted line with mark Δ are critical for safety. Replace only with part number specified.

- G : German model
- IT : Italian model
- EE : East European model
- EA : Saudi Arabia model
- AUS : Australian model
- MY : Malaysia model
- SP : Singapore model
- JE : Tourist model

Ref. No.	Part No.	Description	Remark		
*	1-647-333-11	CONNECTOR BOARD *****			
		< CAPACITOR >			
C815	1-164-081-11	CERAMIC 470PF (G, IT)	10%	50V	
C816	1-164-081-11	CERAMIC 470PF (G, IT)	10%	50V	
C819	1-161-379-00	CERAMIC 0.01uF (AEP, G, IT)	20%	25V	
		< CONNECTOR >			
* CN901	1-569-625-41	SOCKET, CONNECTOR 3P (SYSTEM CONTROL 1)			
CN902	1-568-269-11	SOCKET, CONNECTOR 3P *****			
*	A-4360-057-A	PANEL BOARD, COMPLETE (AEP)			
*	A-4360-058-A	PANEL BOARD, COMPLETE (EE)			
*	A-4360-059-A	PANEL BOARD, COMPLETE (E, EA, AUS, MY, SP, JE)			
*	A-4360-060-A	PANEL BOARD, COMPLETE (IT)			
*	A-4360-061-A	PANEL BOARD, COMPLETE (UK)			
*	A-4360-062-A	PANEL BOARD, COMPLETE (G) *****			
*	4-921-941-01	CUSHION (FL)			
*	4-923-103-01	HOLDER, FL TUBE			
		< CAPACITOR >			
C601	1-162-201-31	CERAMIC 12PF	5%	50V	
C602	1-162-203-31	CERAMIC 15PF	5%	50V	
C603	1-126-163-11	ELECT 4.7uF	20%	50V	
C604	1-161-379-00	CERAMIC 0.01uF	20%	25V	
C605	1-161-379-00	CERAMIC 0.01uF	20%	25V	
C606	1-126-177-11	ELECT 100uF	20%	10V	
C607	1-124-916-11	ELECT 22uF	20%	63V	
C608	1-161-379-00	CERAMIC 0.01uF	20%	25V	
C609	1-126-157-11	ELECT 10uF	20%	16V	
C610	1-126-157-11	ELECT 10uF	20%	16V	
C611	1-162-294-31	CERAMIC 0.001uF	10%	50V	
C612	1-162-294-31	CERAMIC 0.001uF	10%	50V	
C629	1-162-282-31	CERAMIC 100PF	10%	50V	

Ref. No.	Part No.	Description	Remark		
C632	1-162-282-31	CERAMIC	100PF	10%	50V
C634	1-162-282-31	CERAMIC	100PF	10%	50V
C635	1-162-215-31	CERAMIC	47PF	5%	50V
< CONNECTOR >					
* CN601	1-568-854-11	SOCKET, CONNECTOR 11P			
* CN602	1-568-273-11	SOCKET, CONNECTOR 7P			
< DIODE >					
D601	8-719-987-63	DIODE	1N4148M		
D602	8-719-987-63	DIODE	1N4148M		
D603	8-719-987-63	DIODE	1N4148M		
D604	8-719-987-63	DIODE	1N4148M		
D605	8-719-987-63	DIODE	1N4148M (AEP, UK)		
D606	8-719-987-63	DIODE	1N4148M (IT)		
D607	8-719-987-63	DIODE	1N4148M (EE)		
D608	8-719-987-63	DIODE	1N4148M (E, EE, EA, AUS, MY, SP, JE)		
D609	8-719-987-63	DIODE	1N4148M		
D610	8-719-987-63	DIODE	1N4148M		
D611	8-719-987-63	DIODE	1N4148M (E, EA, AUS, MY, SP, JE)		
D612	8-719-987-63	DIODE	1N4148M		
D613	8-719-987-63	DIODE	1N4148M		
D614	8-719-987-63	DIODE	1N4148M		
D615	8-719-987-63	DIODE	1N4148M		
D616	8-719-987-63	DIODE	1N4148M		
D617	8-719-987-63	DIODE	1N4148M		
D618	8-719-987-63	DIODE	1N4148M		
D619	8-719-987-63	DIODE	1N4148M		
D621	8-719-987-63	DIODE	1N4148M		
< FLUORESCENT INDICATOR >					
FL601	1-519-728-11	INDICATOR TUBE, FLUORESCENT			
< IC >					
IC601	8-759-157-67	IC	TMP47C1270AN-H211		
IC602	8-741-100-48	IC	SBX1610-59		
< TRANSISTOR >					
Q601	8-729-900-36	TRANSISTOR	DTC124ES		

PANEL
POWER

Ref. No.	Part No.	Description	Remark
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< RESISTOR >

R601	1-249-441-11	CARBON	100K 5% 1/4W
R602	1-249-429-11	CARBON	10K 5% 1/4W
R603	1-249-441-11	CARBON	100K 5% 1/4W
R604	1-249-441-11	CARBON	100K 5% 1/4W
R605	1-249-425-11	CARBON	4.7K 5% 1/4W F
R606	1-249-425-11	CARBON	4.7K 5% 1/4W F
R607	1-249-425-11	CARBON	4.7K 5% 1/4W F
R608	1-249-425-11	CARBON	4.7K 5% 1/4W F
R609	1-249-425-11	CARBON	4.7K 5% 1/4W F
R610	1-249-425-11	CARBON	4.7K 5% 1/4W F
R611	1-249-425-11	CARBON	4.7K 5% 1/4W F
R612	1-249-429-11	CARBON	10K 5% 1/4W
R613	1-249-425-11	CARBON	4.7K 5% 1/4W F
R614	1-249-429-11	CARBON	10K 5% 1/4W
R615	1-249-429-11	CARBON	10K 5% 1/4W
R616	1-249-423-11	CARBON	3.3K 5% 1/4W F
R617	1-249-429-11	CARBON	10K 5% 1/4W
R618	1-249-417-11	CARBON	1K 5% 1/4W F
R619	1-249-429-11	CARBON	10K 5% 1/4W
R620	1-249-429-11	CARBON	10K 5% 1/4W
R621	1-249-429-11	CARBON	10K 5% 1/4W
R622	1-249-429-11	CARBON	10K 5% 1/4W
R623	1-249-405-11	CARBON	100 5% 1/4W F
R624	1-249-417-11	CARBON	1K 5% 1/4W F
R625	1-249-441-11	CARBON	100K 5% 1/4W
R626	1-249-429-11	CARBON	10K 5% 1/4W
R627	1-249-429-11	CARBON	10K 5% 1/4W
R628	1-249-421-11	CARBON	2.2K 5% 1/4W F
R629	1-249-417-11	CARBON	1K 5% 1/4W F
R630	1-249-441-11	CARBON	100K 5% 1/4W
R631	1-249-385-11	CARBON	2.2 5% 1/6W F
R650	1-249-413-11	CARBON	470 5% 1/4W F
R651	1-249-413-11	CARBON	470 5% 1/4W F
R652	1-249-429-11	CARBON	10K 5% 1/4W
R653	1-249-413-11	CARBON	470 5% 1/4W F
R654	1-249-410-11	CARBON	270 5% 1/4W F
R655	1-249-429-11	CARBON	10K 5% 1/4W
R656	1-249-417-11	CARBON	1K 5% 1/4W F
R657	1-249-421-11	CARBON	2.2K 5% 1/4W F
R658	1-249-421-11	CARBON	2.2K 5% 1/4W F

< SWITCH >

S15	1-571-955-11	SWITCH, ROTARY (TUNING)
S601	1-554-303-21	SWITCH, TACTILE (1)
S602	1-554-303-21	SWITCH, TACTILE (2)
S603	1-554-303-21	SWITCH, TACTILE (3)
S604	1-554-303-21	SWITCH, TACTILE (4)

Ref. No.	Part No.	Description	Remark
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S605	1-554-303-21	SWITCH, TACTILE (5)
S606	1-554-303-21	SWITCH, TACTILE (6)
S607	1-554-303-21	SWITCH, TACTILE (7)
S608	1-554-303-21	SWITCH, TACTILE (8)
S609	1-554-303-21	SWITCH, TACTILE (9)
S610	1-554-303-21	SWITCH, TACTILE (0)
S611	1-554-303-21	SWITCH, TACTILE (SHIFT A)
S612	1-554-303-21	SWITCH, TACTILE (SHIFT B)
S613	1-554-303-21	SWITCH, TACTILE (SHIFT C)
S616	1-554-303-21	SWITCH, TACTILE (BAND)
S617	1-554-303-21	SWITCH, TACTILE (MEMORY)
S618	1-554-303-21	SWITCH, TACTILE (MEMORY SCAN)
S619	1-554-303-21	SWITCH, TACTILE (TUNING)
S620	1-554-303-21	SWITCH, TACTILE (ONCE)
S621	1-554-303-21	SWITCH, TACTILE (DAILY)
S622	1-554-303-21	SWITCH, TACTILE (TIME NEXT)
S623	1-554-303-21	SWITCH, TACTILE (TIME +)
S624	1-554-303-21	SWITCH, TACTILE (TIME -)
S625	1-554-303-21	SWITCH, TACTILE (CLOCK)
S626	1-554-303-21	SWITCH, TACTILE (SLEEP)
S627	1-554-303-21	SWITCH, TACTILE (CONTROL)
S628	1-554-303-21	SWITCH, TACTILE (CLEAR)
S629	1-554-303-21	SWITCH, TACTILE (BACK)
S630	1-554-303-21	SWITCH, TACTILE (SYSTEM POWER)
S631	1-554-303-21	SWITCH, TACTILE (ST/MUTE)
S632	1-554-303-21	SWITCH, TACTILE (MODE)
S633	1-554-303-21	SWITCH, TACTILE (CHRACTER)
S634	1-554-303-21	SWITCH, TACTILE (DISPLAY)

< VIBRATOR >

X601	1-579-564-11	VIBRATOR, CRYSTAL (8.389MHz)
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*	A-4360-052-A	POWER BOARD, COMPLETE (AEP, EE)
*	A-4360-053-A	POWER BOARD, COMPLETE (EA, AUS)
*	A-4360-054-A	POWER BOARD, COMPLETE (E, JE)
*	A-4360-055-A	POWER BOARD, COMPLETE (UK)
*	A-4360-056-A	POWER BOARD, COMPLETE (G, IT)
*	A-4360-634-A	POWER BOARD, COMPLETE (MY, SP)

< CAPACITOR >

C801	1-161-744-00	CERAMIC	0.01uF	400V
C802	1-101-004-00	CERAMIC	0.01uF	50V
C803	1-101-004-00	CERAMIC	0.01uF	50V
C804	1-126-105-11	ELECT	1000uF	20% 35V
C805	1-161-379-00	CERAMIC	0.01uF	20% 25V
C806	1-126-022-11	ELECT	47uF	20% 16V
C807	1-126-022-11	ELECT	47uF	20% 16V
C808	1-126-163-11	ELECT	4.7uF	20% 50V

POWER

TUNER

Ref. No.	Part No.	Description	Remark
C809	1-101-004-00	CERAMIC 0.01uF	50V
C810	1-124-918-11	ELECT 47uF	20% 63V
C811	1-124-918-11	ELECT 47uF	20% 63V
		(AEP, UK, G, IT, EE)	
C811	1-124-572-11	ELECT 100uF	20% 63V
		(E, EA, AUS, MY, SP, JE)	
C812	1-124-910-11	ELECT 47uF	20% 50V
C813	1-126-059-11	ELECT 10uF	20% 50V
C814	1-161-494-00	CERAMIC 0.022uF	25V
C817	1-161-379-00	CERAMIC 0.01uF	20% 25V
		(AEP, G, IT)	

< CONNECTOR >

* CN701	1-569-625-11	SOCKET, CONNECTOR 3P (SYSTEM CONTROL 2)
* CN702	1-565-561-11	PIN, CONNECTOR 3P (AU BUS)
CN801	1-535-139-00	BASE POST 22MM (10MM PITCH) 2P
		(EXCEPT E, JE)
* CN802	1-568-308-11	SOCKET, CONNECTOR 4P
* CN803	1-568-830-11	SOCKET, CONNECTOR 11P
* CN804	1-564-321-00	PIN, CONNECTOR 2P
△CNJ801	1-540-041-11	OUTLET, AC (NONPOLAR) (2P) (AC OUTLET)
		(E, JE)

< DIODE >

D701	8-719-987-63	DIODE 1N4148M
D801	8-719-987-63	DIODE 1N4148M
D802	8-719-200-77	DIODE 10E2N
D803	8-719-200-77	DIODE 10E2N
D804	8-719-200-77	DIODE 10E2N
D805	8-719-200-77	DIODE 10E2N
D806	8-719-934-22	DIODE HZS30-2L
D807	8-719-014-66	DIODE UZP-5.6B

< FUSE HOLDER >

* FH801	1-533-213-11	HOLDER, FUSE
* FH802	1-533-213-31	HOLDER, FUSE

< IC >

IC801	8-759-820-09	IC LA5667
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< TRANSISTOR >

Q701	8-729-620-05	TRANSISTOR 2SC2603-EF
Q801	8-729-140-04	TRANSISTOR 2SB1116A-L
Q802	8-729-620-05	TRANSISTOR 2SC2603-EF
Q803	8-729-140-04	TRANSISTOR 2SB1116A-L

< RESISTOR >

R701	1-249-425-11	CARBON 4.7K 5%	1/4W F
R702	1-249-429-11	CARBON 10K 5%	1/4W

Ref. No.	Part No.	Description	Remark
R703	1-249-393-11	CARBON 10 5%	1/4W F
△R801	1-215-864-00	METAL OXIDE 150 5%	1W F
R802	1-249-429-11	CARBON 10K 5%	1/4W
R803	1-249-425-11	CARBON 4.7K 5%	1/4W F
R804	1-249-425-11	CARBON 4.7K 5%	1/4W F
R805	1-249-417-11	CARBON 1K 5%	1/4W F
R806	1-249-437-11	CARBON 47K 5%	1/4W
△R807	1-247-702-11	CARBON 150 5%	1/4W
R808	1-249-425-11	CARBON 4.7K 5%	1/4W F
R809	1-249-437-11	CARBON 47K 5%	1/4W
R810	1-249-417-11	CARBON 1K 5%	1/4W F
R811	1-249-417-11	CARBON 1K 5%	1/4W F

< RELAY >

RY801	1-515-617-11	RELAY
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< SWITCH >

△S801	1-572-675-11	SWITCH, POWER VOLTAGE CHANGE
		(VOLTAGE SELECTOR) (E, EA, AUS, MY, SP, JE)

*	A-4347-287-A	TUNER (2QJ) BOARD, COMPLETE
		(E, EA, AUS, MY, SP, JE)
*	A-4360-063-A	TUNER (2RJ) BOARD, COMPLETE (G, IT)
*	A-4347-288-A	TUNER (3SJ) BOARD, COMPLETE (AEP, UK)
*	A-4347-290-A	TUNER (3UJ) BOARD, COMPLETE (EE)

*	4-612-009-01	SPACER (A) (G, IT)
*	4-923-470-01	PLATE, SHIELD (G, IT)
*	4-930-855-01	SHEET (2P) (G, IT)
*	4-924-988-11	PLATE (ST), GROUND

< CAPACITOR >

C1	1-162-294-31	CERAMIC 1000PF	20% 25V
C2	1-124-477-11	ELECT 47uF	20% 25V
C3	1-163-059-00	CERAMIC CHIP 0.01uF	20% 16V
C4	1-162-294-31	CERAMIC 1000PF	20% 25V
C5	1-163-059-00	CERAMIC CHIP 0.01uF	20% 16V
C6	1-163-059-00	CERAMIC CHIP 0.01uF	20% 16V
C7	1-163-059-00	CERAMIC CHIP 0.01uF	20% 16V
		(G, IT)	
C8	1-163-059-00	CERAMIC CHIP 0.01uF	20% 16V
		(G, IT)	
C9	1-163-059-00	CERAMIC CHIP 0.01uF	20% 16V
C21	1-101-006-00	CERAMIC 0.047uF	50V
		(EXCEPT G, IT)	
C21	1-161-021-11	CERAMIC 0.047uF	10% 25V
		(G, IT)	
C22	1-163-059-00	CERAMIC CHIP 0.01uF	20% 16V
C23	1-124-119-00	ELECT 330uF	20% 16V

The components identified by mark △ or dotted line with mark △ are critical for safety. Replace only with part number specified.

TUNER

Ref. No.	Part No.	Description	Remark
C24	1-123-382-00	ELECT 3.3uF	20% 100V
C25	1-163-063-00	CERAMIC CHIP 22000PF (AEP, UK, EE)	25V
C25	1-163-059-00	CERAMIC CHIP 0.01uF (G, IT, E, EA, AUS, MY, SP, JE)	20% 16V
C26	1-163-019-00	CERAMIC CHIP 6800PF	20% 12V
C27	1-162-516-11	CERAMIC CHIP 100PF (AEP, UK, E, EE, EA, AUS, MY, SP, JE)	10% 50V
C27	1-162-521-11	CERAMIC CHIP 680PF (G, IT)	10% 50V
C28	1-124-903-11	ELECT 1uF	20% 50V
C29	1-216-516-11	CERAMIC CHIP 100PF (G, IT)	10% 50V
C30	1-124-903-11	ELECT 1uF	20% 50V
C31	1-124-902-00	ELECT 0.47uF	20% 50V
C32	1-124-463-00	ELECT 0.1uF	20% 50V
C33	1-130-481-00	MYLAR 0.0068uF	5% 50V
C34	1-123-382-00	ELECT 3.3uF	20% 100V
C35	1-130-481-00	MYLAR 0.0068uF	5% 50V
C36	1-123-382-00	ELECT 3.3uF	20% 100V
C37	1-124-907-11	ELECT 10uF	20% 50V
C38	1-124-907-11	ELECT 10uF	20% 50V
C39	1-163-059-00	CERAMIC CHIP 0.01uF	20% 16V
C40	1-124-463-00	ELECT 0.1uF	20% 50V
C41	1-124-927-11	ELECT 4.7uF	20% 100V
C42	1-163-059-00	CERAMIC CHIP 0.01uF	20% 16V
C43	1-126-176-11	ELECT 220uF	20% 10V
C44	1-163-059-00	CERAMIC CHIP 0.01uF	20% 16V
C45	1-123-382-00	ELECT 3.3uF	20% 100V
C46	1-161-375-00	CERAMIC 2200P	20% 25V
C48	1-123-382-00	ELECT 3.3uF	20% 100V
C49	1-161-375-00	CERAMIC 2200P	20% 25V
C51	1-124-477-11	ELECT 47uF	20% 25V
C52	1-124-252-00	ELECT 0.33uF	20% 50V
C53	1-163-105-00	CERAMIC CHIP 33PF (AEP, UK, EE)	5% 50V
C54	1-101-005-00	CERAMIC 22000PF (G, IT)	50V
C61	1-163-063-00	CERAMIC CHIP 22000PF	25V
C62	1-163-063-00	CERAMIC CHIP 22000PF	25V
C63	1-163-063-00	CERAMIC CHIP 22000PF	25V
C64	1-163-063-00	CERAMIC CHIP 22000PF	25V
C65	1-163-063-00	CERAMIC CHIP 22000PF (AEP, UK, EE)	25V
C66	1-163-063-00	CERAMIC CHIP 22000PF (AEP, UK, EE)	25V
C67	1-102-120-00	CERAMIC 0.0018uF (AEP, UK, EE)	10% 50V
C68	1-163-011-11	CERAMIC CHIP 1500PF (AEP, UK, EE)	20% 25V

Ref. No.	Part No.	Description	Remark
C69	1-163-063-00	CERAMIC CHIP 22000PF (AEP, UK, EE)	25V
C70	1-163-063-00	CERAMIC CHIP 22000PF (AEP, UK, EE)	25V
C71	1-163-063-00	CERAMIC CHIP 22000PF (AEP, UK, EE)	25V
C72	1-163-063-00	CERAMIC CHIP 22000PF (AEP, UK, EE)	25V
C73	1-163-063-00	CERAMIC CHIP 22000PF (AEP, UK, EE)	25V
C81	1-102-961-00	CERAMIC 27PF	5% 50V
C82	1-102-961-00	CERAMIC 27PF	5% 50V
C83	1-163-059-00	CERAMIC CHIP 0.01uF	20% 16V
C84	1-163-059-00	CERAMIC CHIP 0.01uF	20% 16V
C85	1-163-059-00	CERAMIC CHIP 0.01uF	20% 16V
C86	1-124-477-11	ELECT 47uF	20% 25V
C87	1-163-059-00	CERAMIC CHIP 0.01uF	20% 16V
C88	1-163-059-00	CERAMIC CHIP 0.01uF	20% 16V
C101	1-124-925-11	ELECT 2.2uF	20% 100V
C102	1-124-463-00	ELECT 0.1uF	20% 50V
C103	1-163-059-00	CERAMIC CHIP 0.01uF	20% 16V
C104	1-163-059-00	CERAMIC CHIP 0.01uF	20% 16V
C105	1-124-477-11	ELECT 47uF	20% 25V
C106	1-136-173-00	FILM 0.47uF (AEP, UK, EE)	5% 50V
C107	1-124-463-00	ELECT 0.1uF (AEP, UK, EE)	20% 50V
C108	1-163-063-00	CERAMIC CHIP 22000PF (AEP, UK, EE)	25V
C109	1-102-963-00	CERAMIC 33PF (AEP, UK, EE)	5% 50V
< CARBON MELF >			
CC2	1-249-366-11	CARBON MELF 0 5% (E, EA, AUS, MY, SP, JE)	1/5W
CC3	1-249-366-11	CARBON MELF 0 5% (E, EA, AUS, MY, SP, JE)	1/5W
< FILTER >			
CF1	1-567-389-11	FILTER, CERAMIC	
CF2	1-567-389-11	FILTER, CERAMIC	
CF3	1-567-389-11	FILTER, CERAMIC (G, IT)	
CF21	1-577-075-11	OSCILLATOR, CERAMIC	
< TRANSFORMER >			
CFT21	1-404-853-11	TRANSFORMER, IF (CERAMIC FILTER)	
< CONNECTOR >			
* CNJ1	1-568-273-11	SOCKET, CONNECTOR 7P	

TUNER

Ref. No.	Part No.	Description	Remark
* CNJ3	1-568-308-11	SOCKET, CONNECTOR 4P	
CNJ4	1-568-269-11	SOCKET, CONNECTOR 3P	
< DIODE >			
D21	8-719-987-63	DIODE 1N4148M	
D22	8-719-987-63	DIODE 1N4148M	
D23	8-719-987-63	DIODE 1N4148M	
D24	8-719-987-63	DIODE 1N4148M	
D61	8-719-987-63	DIODE 1N4148M (AEP, UK, EE)	
< FRONT END >			
FE1	1-463-862-21	FRONT END, FM (AEP, UK, E, EA, AUS, MY, SP, JE)	
FE1	1-463-857-11	FRONT END (FM) (G, IT)	
FE1	1-465-560-11	FRONT END (FM 3 GANG) (EE)	
FE61	1-236-462-11	ENCAPSULATED COMPONENT (AEP, UK, G, IT, EE)	
FE61	1-236-461-11	ENCAPSULATED COMPONENT (E, EA, AUS, MY, SP, JE)	
FE62	1-236-463-11	ENCAPSULATED COMPONENT (AEP, UK, EE)	
< IC >			
IC21	8-759-821-45	IC LA1851N	
IC81	8-759-820-91	IC LC7218	
< COIL >			
L1	1-410-645-31	INDUCTOR 100uH	
L2	1-410-645-31	INDUCTOR 100uH (G, IT)	
L21	1-407-500-00	INDUCTOR 4.7mH (AEP, UK, G, IT, EE)	
L21	1-410-171-11	INDUCTOR 1mH (E, EA, AUS, MY, SP, JE)	
L61	1-410-525-11	INDUCTOR 220uH (AEP, UK, EE)	
< FILTER >			
LPF21	1-235-164-00	FILTER, LOW PASS	
LPF22	1-235-164-00	FILTER, LOW PASS	
< TRANSISTOR >			
Q1	8-729-230-99	TRANSISTOR 2SC2669-OY	
Q2	8-729-230-99	TRANSISTOR 2SC2669-OY	
Q3	8-729-230-99	TRANSISTOR 2SC2669-OY (G, IT)	
Q4	8-729-230-99	TRANSISTOR 2SC2669-OY (G, IT)	
Q21	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q22	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q23	8-729-900-61	TRANSISTOR DTA114ES	
Q24	8-729-900-80	TRANSISTOR DTC114ES	
Q26	8-729-900-80	TRANSISTOR DTC114ES	
Q27	8-729-620-05	TRANSISTOR 2SC2603-EF (AEP, UK, G, IT, EE)	
Q27	8-729-119-78	TRANSISTOR 2SC2785-HFE (E, EA, AUS, MY, SP, JE)	
Q28	8-729-620-05	TRANSISTOR 2SC2603-EF (AEP, UK, G, IT, EE)	

Ref. No.	Part No.	Description	Remark
Q28	8-729-119-78	TRANSISTOR 2SC2785-HFE (E, EA, AUS, MY, SP, JE)	
Q61	8-729-900-80	TRANSISTOR DTC114ES (AEP, UK, EE)	
Q62	8-729-900-80	TRANSISTOR DTC114ES (AEP, UK, EE)	
Q63	8-729-900-80	TRANSISTOR DTC114ES (AEP, UK, EE)	
Q64	8-729-620-05	TRANSISTOR 2SC2603-EF (AEP, UK, EE)	
Q65	8-729-119-76	TRANSISTOR 2SA1175-HFE (AEP, UK, EE)	
Q66	8-729-900-80	TRANSISTOR DTC114ES (AEP, UK, EE)	
Q81	8-729-900-61	TRANSISTOR DTA114ES	
Q82	8-729-900-80	TRANSISTOR DTC114ES	
Q83	8-729-202-67	TRANSISTOR 2SK246-GR3	
Q84	8-729-230-93	TRANSISTOR 2SC3113-AB	
Q85	8-729-202-67	TRANSISTOR 2SK246-GR3 (AEP, UK, EE)	
Q86	8-729-230-93	TRANSISTOR 2SC3113-AB (AEP, UK, EE)	
< RESISTOR >			
△R1	1-249-401-11	CARBON 47 5% 1/4W F (EXCEPT G, IT)	
△R1	1-249-397-11	CARBON 22 5% 1/4W F (G, IT)	
R3	1-249-329-11	CARBON MELF 330 5% 1/8W	
R4	1-249-329-11	CARBON MELF 330 5% 1/8W	
R5	1-249-329-11	CARBON MELF 330 5% 1/8W (AEP, UK, E, EE, EA, AUS, MY, SP, JE)	
R6	1-249-350-11	CARBON MELF 18K 5% 1/8W	
R7	1-249-329-11	CARBON MELF 330 5% 1/8W	
R8	1-249-332-11	CARBON MELF 560 5% 1/8W	
R9	1-249-352-11	CARBON MELF 27K 5% 1/8W	
R10	1-249-329-11	CARBON MELF 330 5% 1/8W (G, IT)	
R11	1-249-350-11	CARBON MELF 18K 5% 1/8W (G, IT)	
R12	1-249-329-11	CARBON MELF 330 5% 1/8W (G, IT)	
R13	1-249-334-11	CARBON MELF 820 5% 1/8W (G, IT)	
R14	1-249-352-11	CARBON MELF 27K 5% 1/8W (G, IT)	
R15	1-249-347-11	CARBON MELF 10K 5% 1/8W (G, IT)	
R16	1-249-343-11	CARBON MELF 4.7K 5% 1/8W (G, IT)	
△R21	1-249-404-00	CARBON 82 5% 1/4W F	
R22	1-249-430-11	CARBON 12K 5% 1/4W (EXCEPT G, IT)	
R22	1-249-431-11	CARBON 15K 5% 1/4W (G, IT)	
R23	1-249-335-11	CARBON MELF 1K 5% 1/8W	
R24	1-249-353-11	CARBON MELF 33K 5% 1/8W	
R25	1-249-346-11	CARBON MELF 8.2K 5% 1/8W	
R27	1-249-432-11	CARBON 18K 5% 1/4W	
R28	1-249-423-11	CARBON 3.3K 5% 1/4W F	
R29	1-249-347-11	CARBON MELF 10K 5% 1/8W	
R31	1-249-331-11	CARBON MELF 470 5% 1/8W	
R32	1-249-347-11	CARBON MELF 10K 5% 1/8W	
R33	1-249-347-11	CARBON MELF 10K 5% 1/8W	
R34	1-249-425-11	CARBON 4.7K 5% 1/4W F	
R35	1-249-355-11	CARBON MELF 47K 5% 1/8W	

The components identified by mark △ or dotted line with mark △ are critical for safety. Replace only with part number specified.

TUNER

Ref. No.	Part No.	Description	Remark
R37	1-249-359-11	CARBON MELF 100K 5%	1/8W
R38	1-249-363-11	CARBON MELF 220K 5%	1/8W
R39	1-249-339-11	CARBON MELF 2.2K 5%	1/8W
R40	1-249-338-11	CARBON MELF 1.8K 5%	1/8W
R41	1-249-344-11	CARBON MELF 5.6K 5%	1/8W
R42	1-249-359-11	CARBON MELF 100K 5%	1/8W
R43	1-249-363-11	CARBON MELF 220K 5%	1/8W
R44	1-249-339-11	CARBON MELF 2.2K 5%	1/8W
R45	1-249-338-11	CARBON MELF 1.8K 5%	1/8W
R46	1-249-344-11	CARBON MELF 5.6K 5%	1/8W
△R47	1-249-409-91	CARBON 220 5%	1/4W F
R48	1-249-359-11	CARBON MELF 100K 5%	1/8W
R49	1-249-359-11	CARBON MELF 100K 5%	1/8W
R61	1-249-359-11	CARBON MELF 100K 5%	1/8W
R62	1-249-355-11	CARBON MELF 47K 5%	1/8W
R63	1-249-315-11	CARBON MELF (E, EA, AUS, MY, SP, JE) 22 5%	1/8W
R64	1-249-351-11	CARBON MELF (AEP, UK, EE) 22K 5%	1/8W
R65	1-249-355-11	CARBON MELF (AEP, UK, EE) 47K 5%	1/8W
R66	1-215-493-00	METAL (AEP, UK, EE) 1M 5%	1/4W
R67	1-249-359-11	CARBON MELF (AEP, UK, EE) 100K 5%	1/8W
R68	1-249-352-11	CARBON MELF (AEP, UK, EE) 27K 5%	1/8W
R69	1-249-351-11	CARBON MELF (AEP, UK, EE) 22K 5%	1/8W
R70	1-249-331-11	CARBON MELF (AEP, UK, EE) 470 5%	1/8W
R71	1-249-339-11	CARBON MELF (AEP, UK, EE) 2.2K 5%	1/8W
R72	1-249-351-11	CARBON MELF (AEP, UK, EE) 22K 5%	1/8W
R73	1-249-347-11	CARBON MELF (AEP, UK, EE) 10K 5%	1/8W
R74	1-249-347-11	CARBON MELF (AEP, UK, EE) 10K 5%	1/8W
R75	1-249-343-11	CARBON MELF (AEP, UK, EE) 4.7K 5%	1/8W
R81	1-249-335-11	CARBON MELF 1K 5%	1/8W
R82	1-249-335-11	CARBON MELF 1K 5%	1/8W
R83	1-249-335-11	CARBON MELF 1K 5%	1/8W
R84	1-249-335-11	CARBON MELF 1K 5%	1/8W
R85	1-249-347-11	CARBON MELF 10K 5%	1/8W
R86	1-249-335-11	CARBON MELF 1K 5%	1/8W
R87	1-249-347-11	CARBON MELF 10K 5%	1/8W
R88	1-249-343-11	CARBON MELF 4.7K 5%	1/8W
R89	1-249-335-11	CARBON MELF 1K 5%	1/8W

Ref. No.	Part No.	Description	Remark
R90	1-249-343-11	CARBON MELF (AEP, UK, EE, G, IT) 4.7K 5%	1/8W
R90	1-249-347-11	CARBON MELF (E, EA, AUS, MY, SP, JE) 10K 5%	1/8W
R91	1-249-335-11	CARBON MELF 1K 5%	1/8W
△R92	1-249-401-11	CARBON 47 5%	1/4W F
R101	1-249-341-11	CARBON MELF 3.3K 5%	1/8W
R102	1-249-332-11	CARBON MELF 560 5%	1/8W
R103	1-249-335-11	CARBON MELF 1K 5%	1/8W
R104	1-249-328-11	CARBON MELF 270 5%	1/8W
R105	1-249-343-11	CARBON MELF 4.7K 5%	1/8W
R106	1-249-339-11	CARBON MELF 2.2K 5%	1/8W
R107	1-249-343-11	CARBON MELF 4.7K 5%	1/8W
R108	1-249-323-11	CARBON MELF 100 5%	1/8W
R109	1-249-343-11	CARBON MELF (AEP, UK, E, EE, EA, AUS, MY, SP, JE) 4.7K 5%	1/8W
△R110	1-249-405-11	CARBON 100 5%	1/4W F
R111	1-249-341-11	CARBON MELF (AEP, UK, EE) 3.3K 5%	1/8W
R112	1-249-332-11	CARBON MELF (AEP, UK, EE) 560 5%	1/8W
R113	1-249-335-11	CARBON MELF (AEP, UK, EE) 1K 5%	1/8W
R114	1-249-328-11	CARBON MELF (AEP, UK, EE) 270 5%	1/8W
R115	1-249-351-11	CARBON MELF (AEP, UK, EE) 22K 5%	1/8W
R116	1-249-339-11	CARBON MELF (AEP, UK, EE) 2.2K 5%	1/8W
R117	1-249-343-11	CARBON MELF (AEP, UK, EE) 4.7K 5%	1/8W
R118	1-249-323-11	CARBON MELF (AEP, UK, EE) 100 5%	1/8W
< VARIABLE RESISTOR >			
RV21	1-241-628-11	RES, ADJ, CARBON 2.2K (EXCEPT G, IT)	
RV21	1-241-629-11	RES, ADJ, CARBON 4.7K (G, IT)	
RV22	1-241-631-11	RES, ADJ, CARBON 22K	
RV24	1-241-631-11	RES, ADJ, CARBON 22K (EXCEPT G, IT)	
RV24	1-238-019-11	RES, ADJ, CARBON 47K (G, IT)	
< TRANSFORMER >			
T21	1-404-807-11	TRANSFORMER, DISCRIMINATOR	
T23	1-236-465-11	ENCAPSULATED COMPONENT (G, IT)	
< TERMINAL >			
* TM1	1-537-138-31	TERMINAL BOARD (ANTENNA) (AEP, UK, G, IT, EE)	
TM1	1-537-238-21	TERMINAL BOARD (ANTENNA) (E, EA, AUS, MY, SP, JE)	

The components identified by mark △ or dotted line with mark △ are critical for safety. Replace only with part number specified.

TUNER

Ref. No.	Part No.	Description	Remark
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< TEST PIN >

* TP1 1-560-060-00 PIN, CONNECTOR 2P

< VIBRATOR >

XT81 1-577-126-21 VIBRATOR, CRYSTAL (7.2MHz)

MISCELLANEOUS

△6 1-575-666-11 WIRE, FLAT TYPE (11 CORE)
△20 1-575-651-11 CORD, POWER (AEP, EE, EA, MY, SP)
△20 1-575-651-21 CORD, POWER (G, IT)
△21 1-690-608-11 CORD, POWER (AUS)
△22 1-696-907-11 CORD, POWER (UK)

△23 1-575-653-11 CORD, POWER (E, JE)
△24 1-569-007-11 ADAPTER, CONVERSION 2P (E3, JE)
△25 1-569-008-11 ADAPTER, CONVERSION 2P (EA, MY, SP)
△CNJ801 1-251-078-11 OUTLET, AC. (AUS)
△CNJ801 1-526-751-00 OUTLET, AC (UK)

△CNJ801 1-526-794-11 OUTLET, AC (AEP, G, IT, EE, EA, MY, SP)
△CNJ802 1-251-078-11 OUTLET, AC. (AUS)
△CNJ802 1-526-751-00 OUTLET, AC (UK)
△CNJ802 1-526-794-11 OUTLET, AC (AEP, G, IT, EE, EA, MY, SP)
△F801 1-532-286-00 FUSE 2. 5A (UK, G, IT)

△F801 1-532-299-00 FUSE 5A (E, EA, AUS, MY, SP, JE)
△F801 1-576-229-31 FUSE (H. B. C.) 2. 5A (AEP, EE)
△PT801 1-449-978-11 TRANSFORMER, POWER (E, EA, AUS, MY, SP, JE)
△PT801 1-449-979-11 TRANSFORMER, POWER (AEP, UK, G, IT, EE)

HARDWARE LIST

#1 7-685-646-79 SCREW +BVTP 3X8 TYPE2 N-S
#2 7-685-647-79 SCREW +BVTP 3X10 TYPE2 N-S
#3 7-685-134-19 SCREW +BTP 2. 6X8 TYPE2 N-S
#4 7-621-849-00 SCREW (BV/RING)
#5 7-685-645-79 SCREW +BVTP 3X6 TYPE2 N-S (UK)

The components identified by
mark △ or dotted line with mark.
△ are critical for safety.
Replace only with part number
specified.