

ST-SA5ES

SERVICE MANUAL

AEP Model



Photo : GOLD

SPECIFICATIONS

FM tuner section

Frequency range	87.5 - 108.0 MHz
Antenna terminals	75 ohms, unbalanced
Intermediate frequency	10.7 MHz
Sensitivity	at 26 dB quieting (mono) 10.3 dBf, 0.9 μ V/75 Ω at 46 dB quieting (stereo) 38.5 dBf, 23 μ V/75 Ω
Usable sensitivity (IHF)	10.3 dBf, 0.9 μ V/ 75 Ω
S/N	at 40 kHz deviation 95 dB (mono), 86 dB (stereo)
Harmonic distortion	WIDE 0.008% (mono), 0.02 % (stereo) NARROW 0.04% (mono), 0.07 % (stereo)

Frequency response	15 Hz - 15 kHz (± 0.2 dB)
Separation	65 dB at 1 kHz
Selectivity	at 400 kHz WIDE 80 dB NARROW 90 dB
Output	at 40 kHz deviation 600 mV

AM tuner section

Frequency range	MW: 531 - 1,602 kHz (9 kHz step) LW: 153 - 279 kHz (1 kHz step)
Intermediate frequency	450 kHz
Usable Sensitivity	(with AM loop aerial) MW: 200 μ V/m LW: 700 μ V/m

— Continued on next page —

FM STEREO FM/AM TUNER
SONY®



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		• IC701 μ PD780205GF (System Control, FL Drive)	23
Dimensions	430 x 98 x 340 mm	6. EXPLODED VIEW	24
Weight	6.3 kg	7. ELECTRICAL PARTS LIST	25
Supplied accessories	Audio cord (1) AM loop aerial (1) FM wire aerial (1)		

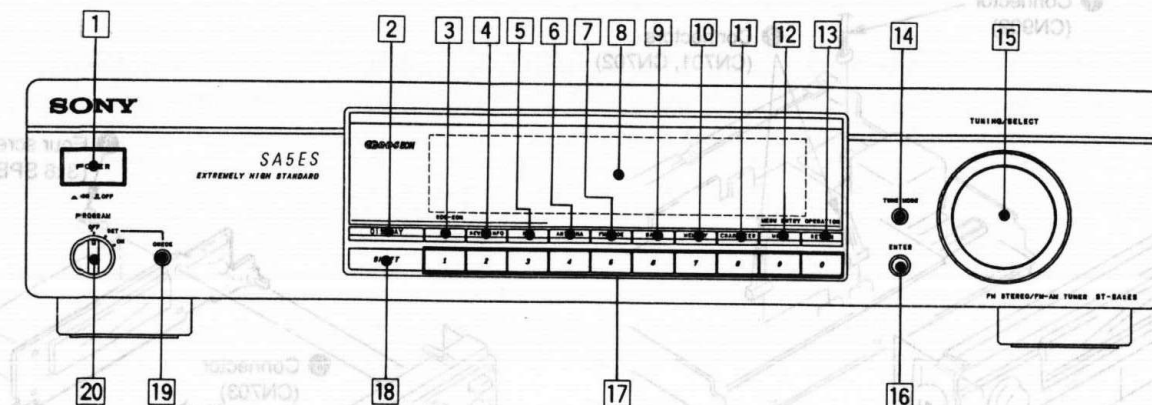
Design and specifications are subject to change without notice.

SAFETY-RELATED COMPONENT WARNING !!

COMPONENTS IDENTIFIED BY MARK Δ OR DOTTED LINE WITH MARK Δ 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

Front Panel

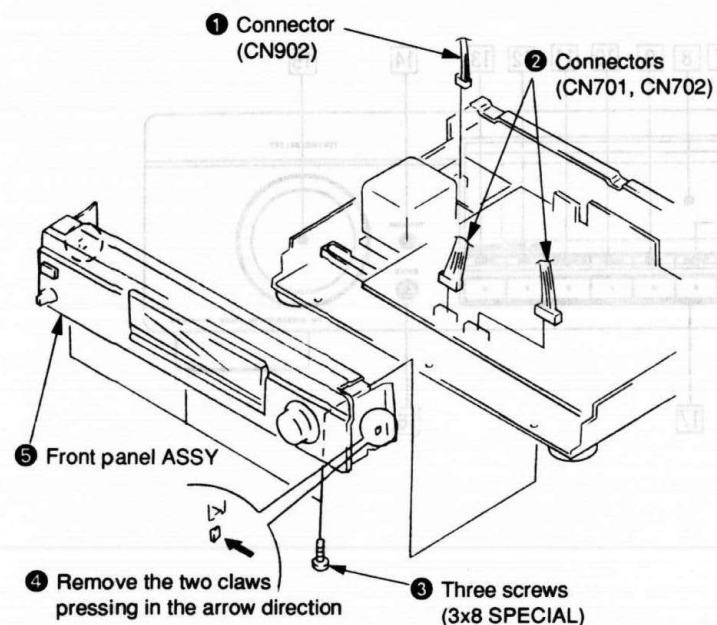


- 1 POWER switch
- 2 DISPLAY button
- 3 TA button
- 4 NEWS/INFO button
- 5 PTY button
- 6 ANTENNA button
- 7 FM MODE button
- 8 Display window
- 9 BAND button
- 10 MEMORY button
- 11 CHARACTER button
- 12 MENU button
- 13 RETURN button
- 14 TUNE MODE button
- 15 TUNING/SELECT knob
- 16 ENTER button
- 17 Preset buttons
- 18 SHIFT button
- 19 CHECK button
- 20 PROGRAM knob

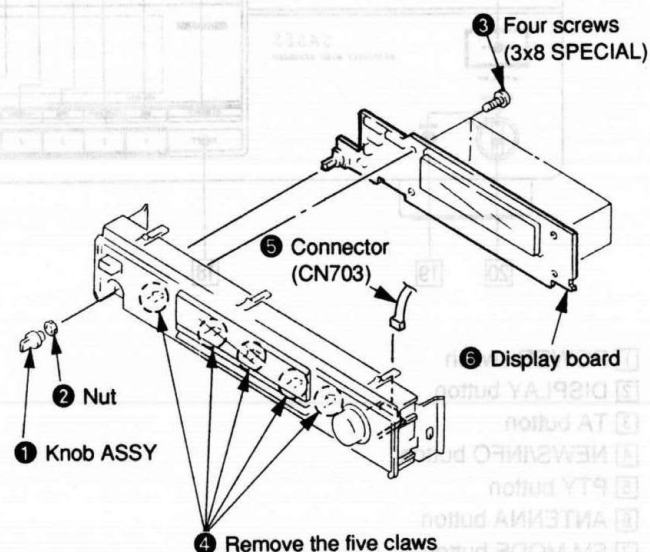
SECTION 2 DISASSEMBLY

Note : Follow the disassembly procedure in the numerical order given.

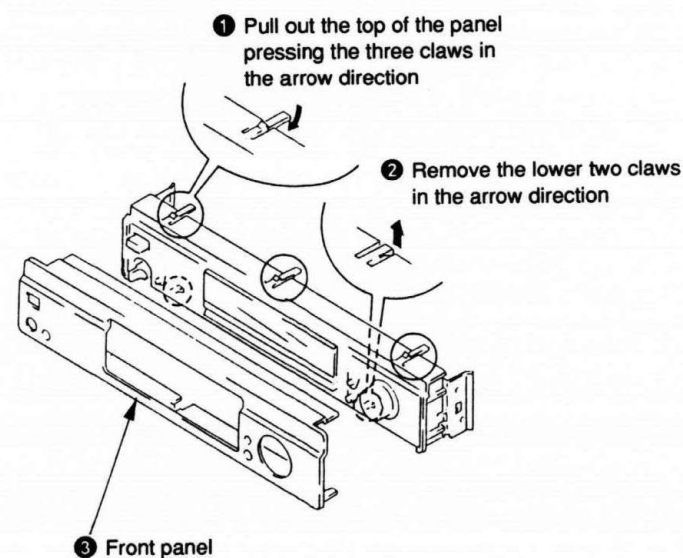
2-1. FRONT PANEL ASSY



2-2. DISPLAY BOARD



2-3. FRONT PANEL



SECTION 3 TEST MODE

1. Circuit Check Mode

Set to the reception frequency that the circuit can STEREO RDS stations. (Set the input level to above 70 dB.)

1. Turn OFF the power.
2. While pressing [4] and [MENU] together, turn ON [POWER].

• The items in the following table will be checked automatically in order every 2 seconds.

Display	Items	DISPLAY		NG
		FM RDS	AM (MW, LW)	
Tuned	AST signal =LOW	OK or NG		IC251 NG, RV251 adjustments
IF Frq	IF COUNT OK	OK or NG	OK or NG	FE101, IC251 NG, or IF count buffer amp (Q251, Q405) NG
Sig Level	SI LEVEL ≥70dB	OK or NG	OK or NG	IC221 NG, RV221 adjustments
Stereo	ST signal=LOW	OK or NG		IC301 NG, RV301 adjustments
RDS Signal	RDS DATA OK	OK or NG		IC801 NG

NOTE : The preset data will be erased when this test mode is used. Therefore, take down the data before setting this mode and preset the data again after completing operations in this mode.

2. Display Tube Check and KEY Check mode

NOTE : Do not perform this check mode when replacing display tubes or excepting when replacing a microcomputer.

1. Turn OFF the power.
2. While pressing **1** and **MENU** together, turn ON **POWER**.
3. While continuously pressing **1** and **MENU** together, check the following.

Microcomputer version indication (1 sec) → All light up “7F” → Dot area only “60” → Dot area only “7E”
 ↓
 Dot area only “5F” ← Dot area only “3D”

Indication test pattern

① 7F	② 60	③ 7E	④ 3D	⑤ 5F
■ ■ ■ ■ ■ ■ ■ ■	□ ■ ■ ■ □	■ ■ ■ ■ ■ ■ ■ ■	□ □ □ □ □	□ □ □ □ □
■ ■ ■ ■ ■ ■ ■ ■	□ ■ ■ ■ □	□ □ □ □ □	□ □ □ □ □	□ □ □ □ □
■ ■ ■ ■ ■ ■ ■ ■	□ ■ ■ ■ □	□ □ □ □ □	■ ■ ■ ■ ■	□ □ □ □ □
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■ ■ ■ ■ ■ ■ ■ ■	□ ■ ■ ■ □	□ □ □ □ □	□ □ □ □ □	■ ■ ■ ■ ■

* The indication test patterns from ② to ⑤ are indicated on only even grids.

The display changes every 1 sec.

4. Release **1** and **MENU**. The KEY CHECK mode will be set.
5. All key numbers will be displayed.
Key Number : 25
6. Each time the key is pressed, the key number will be counted down.
Each key will be counted only once, at the first time.
7. When all keys have been pressed, the process will end.

NOTE : As contents of the Factory Preset will be written into memory after completing this check mode, delete contents of memory according to 4. Forced RESET.

3. Entering the Factory Preset (In case perform just to write memory of the Factory Preset.)

1. Turn OFF the power.
2. While pressing **[3]** and **[MENU]** together, turn ON **[POWER]**.

4. Forced RESET (Used to delete the contents of Factory Preset when it is written into the preset memory.)

Clears all the RAMs and sets the initial state

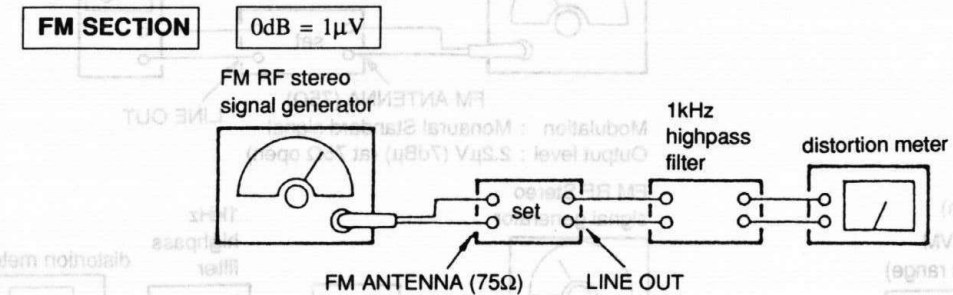
1. Turn OFF the power.
2. While pressing **[5]** and **[MENU]** together, turn ON **[POWER]**.

SECTION 4

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.



- **Standard Setting of FM Stereo RF Signal Generator.**

STEREO STANDARD SIGNAL	MONAURAL STANDARD SIGNAL
Carrier frequency : 98MHz	Carrier frequency : 98MHz
Modulation : Audio 1kHz	Modulation : Audio 1kHz
Main channel (L+R) : 33.75kHz deviation	75kHz deviation
Sub channel (L-R) : 33.75kHz deviation	
Pilot : 7.5kHz deviation	

How to switch IF BAND WIDE/NARROW

Method 1 :

1. Push the MENU key and turn the TUNING/SELECT to indicate "Reception" on the fluorescent display tube, then press the ENTER key.
 2. Turn the TUNING/SELECT to indicate "ATT/IF Band" on the fluorescent display tube, then press the ENTER key.
 3. Turn the TUNING/SELECT to indicate "ANT ATT: OFF" on the fluorescent display tube, then press the ENTER key.
 4. Turn the TUNING/SELECT to indicate "IF: NARROW" or "IF: WIDE" on the fluorescent display tube, then press the ENTER key.
- When the IF BAND: NARROW is set, "NARROW" is indicated on the fluorescent display tube.
5. Set "WIDE" after the all Adjustment.

Method 2 :

After the test modes “2. Display Tube Check and KEY Check mode” or “3. Entering the Factory Preset”, “IF : NARROW” and “IF : WIDE” are switched every time pressing [RETURN] key.

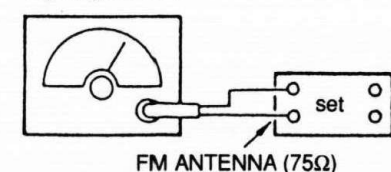
This function does not work if the power is turned off once.

Set “WIDE” after the all adjustments.

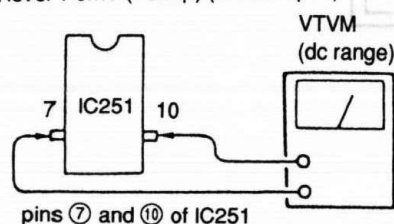
Stereo Width Adjustment

Setting :
IF BAND : WIDE

FM RF Stereo
signal generator



Modulation : Stereo Standard signal
Output level : 6mV (76dBμ) (at 75Ω open)



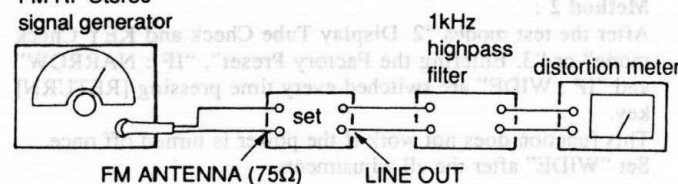
Procedure :

1. Tune the set to 98 MHz.
2. Adjust IFT251 for 0V reading on the VTVM.

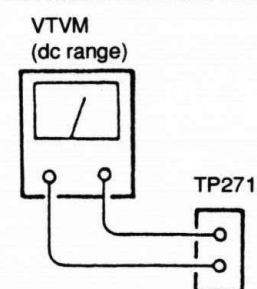
NULL/PLL Detect Distortion Adjustment

Setting :
IF BAND : WIDE

FM RF Stereo
signal generator



Modulation : Monaural Standard signal



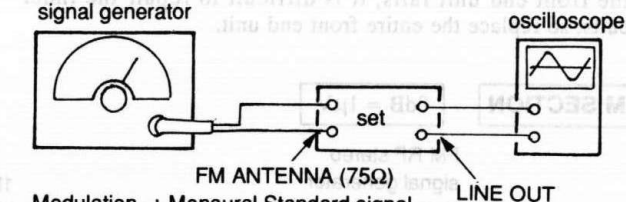
Procedure :

1. Tune the set to 98 MHz.
2. Short-circuit TP201 to the ground (The set turns into IF through state.)
3. Set the SSG output to 6mV (76dBμ).
4. Adjust IFT272 for 0V reading on the VTVM (TP271). (Null adj.)
5. Adjust CT271 for a minimum distortion reading on the distortion meter. (PLL Detect Distortion adj.)
6. Repeat the step 4 and 5 several times.
7. Remove the short circuit of TP201.

Note : When replacing the ceramic filter perform this alignment.

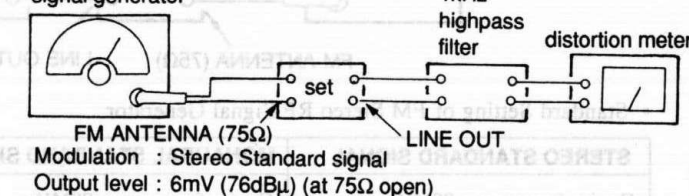
Front End IFT/STEREO Distortion Rate Adjustment

Setting :
IF BAND : WIDE
FM RF Stereo
signal generator



Modulation : Monaural Standard signal
Output level : 2.2μV (7dBμ) (at 75Ω open)

FM RF Stereo
signal generator



Modulation : Stereo Standard signal
Output level : 6mV (76dBμ) (at 75Ω open)

Procedure :

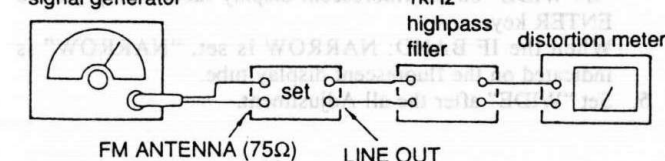
1. Tune the set to 98 MHz.
2. Remove the top cover of the front end (FE101).
3. Adjust IFT1 of the front end (FE101) to put the noise up-and-down and symmetrically on the waveform of the oscilloscope. (Front End IFT adj.)
4. Adjust the front end (FE101) IFT1 to minimize the STEREO distortion rate. (STEREO Distortion Rate Adj.)
5. Attach the removed top cover of the front end (FE101) as it was.

Note : Do not turn more than a half turn from the core position which is adjusted on the front end IFT adjustment.

Narrow THD Adjustment

Setting :
IF BAND : NARROW

FM RF Stereo
signal generator



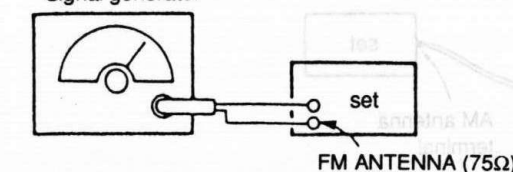
Modulation : Stereo Standard signal
Output level : 10mV (80dBμ) (at 75Ω open)

Procedure :

1. Tune the set to 98 MHz.
2. Set "IF BAND : NARROW" according to the procedure of "How to switch IF BAND WIDE/NARROW" on page 7.
3. Set SSG output level to 80dBμ.
4. Adjust RV232 for a minimum reading on the distortion meter.

Stereo Operation Adjustment

Setting :
IF BAND : WIDE, NARROW
FM RF Stereo
signal generator



Modulation : Stereo Standard signal
Output level : 17.8μV (25dB) (at 75Ω open)

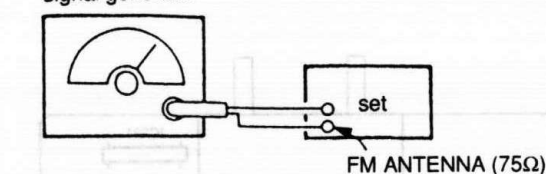
Procedure :

1. Tune the set to 98 MHz.
2. Set "IF BAND : WIDE" according to the procedure of "How to switch IF BAND WIDE/NARROW" on page 7.
3. Adjust RV251 so that the STEREO indicator goes on.
4. Set "IF BAND : NARROW" according to the procedure of "How to switch IF BAND WIDE/NARROW" on page 7.
5. Adjust RV231 so that the STEREO indicator goes on.

FM Meter Level Adjustment

Setting :
IF BAND : WIDE

FM RF Stereo
signal generator



Modulation : Stereo Standard signal
Output level : 6mV (76dBμ) (at 75Ω open)

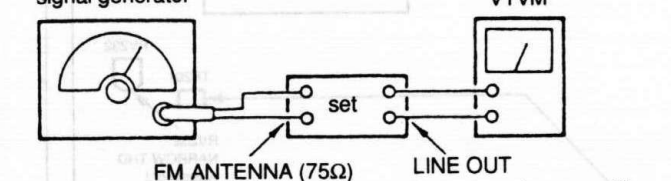
Procedure :

1. Tune the set to 98 MHz.
2. Press [DISPLAY] key to display the digital signal, then adjust RV221 to be displayed as "SIG 70dB".

Pilot Cancel Adjustment

Setting :
IF BAND : WIDE

FM RF stereo
signal generator



Carrier frequency : 98MHz
Modulation : pilot only
Output level : 10mV (80dBμ) (at 75Ω open)

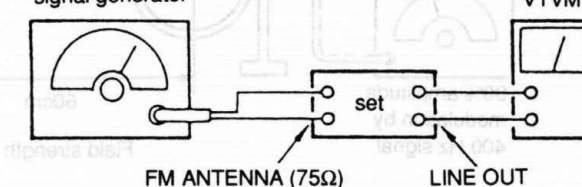
Procedure :

1. Tune the set to 98 MHz.
2. Adjust RV301 and L301 alternately for minimum reading on the VTVM and also tune the both channel of L-CH and R-CH balanced at this time.
3. Repeat the step 2 several times.

Stereo Separation Adjustment

Setting :
IF BAND : WIDE (WIDE SEPARATION)
IF BAND : NARROW (NARROW SEPARATION)

FM RF stereo
signal generator



Modulation : Stereo Standard signal
Output level : 10mV (80dBμ) (at 75Ω open)

Procedure :

1. Refer to "How to switch IF BAND WIDE/NARROW" on page 7.

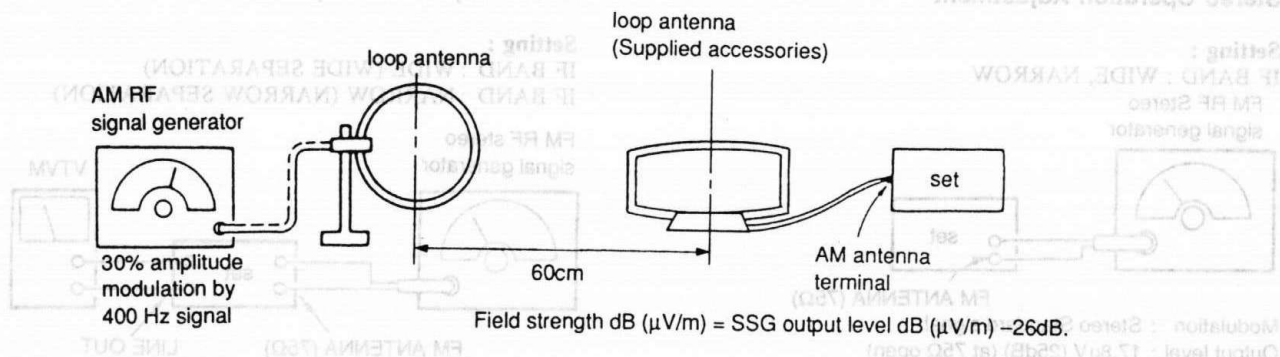
FM stereo Signal generator Output channel	VTVM connection	VTVM reading (dB)
L-CH	L-CH	Ⓐ
R-CH	L-CH	Ⓑ [Ⓐ] IF BAND WIDE : Adjust RV303 for minimum reading on VTVM IF BAND NARROW : Adjust RV302 for minimum reading on VTVM
R-CH	R-CH	Ⓒ
L-CH	R-CH	Ⓓ [Ⓒ] IF BAND WIDE : Adjust RV305 for minimum reading on VTVM IF BAND NARROW : Adjust RV304 for minimum reading on VTVM

L-CH Stereo separation : Ⓐ - Ⓑ[Ⓐ]
R-CH Stereo separation : Ⓒ - Ⓓ[Ⓒ]

The separations of both channels should be equal.

AM SECTION

Setting :



AM Meter Level Adjustment

Setting :

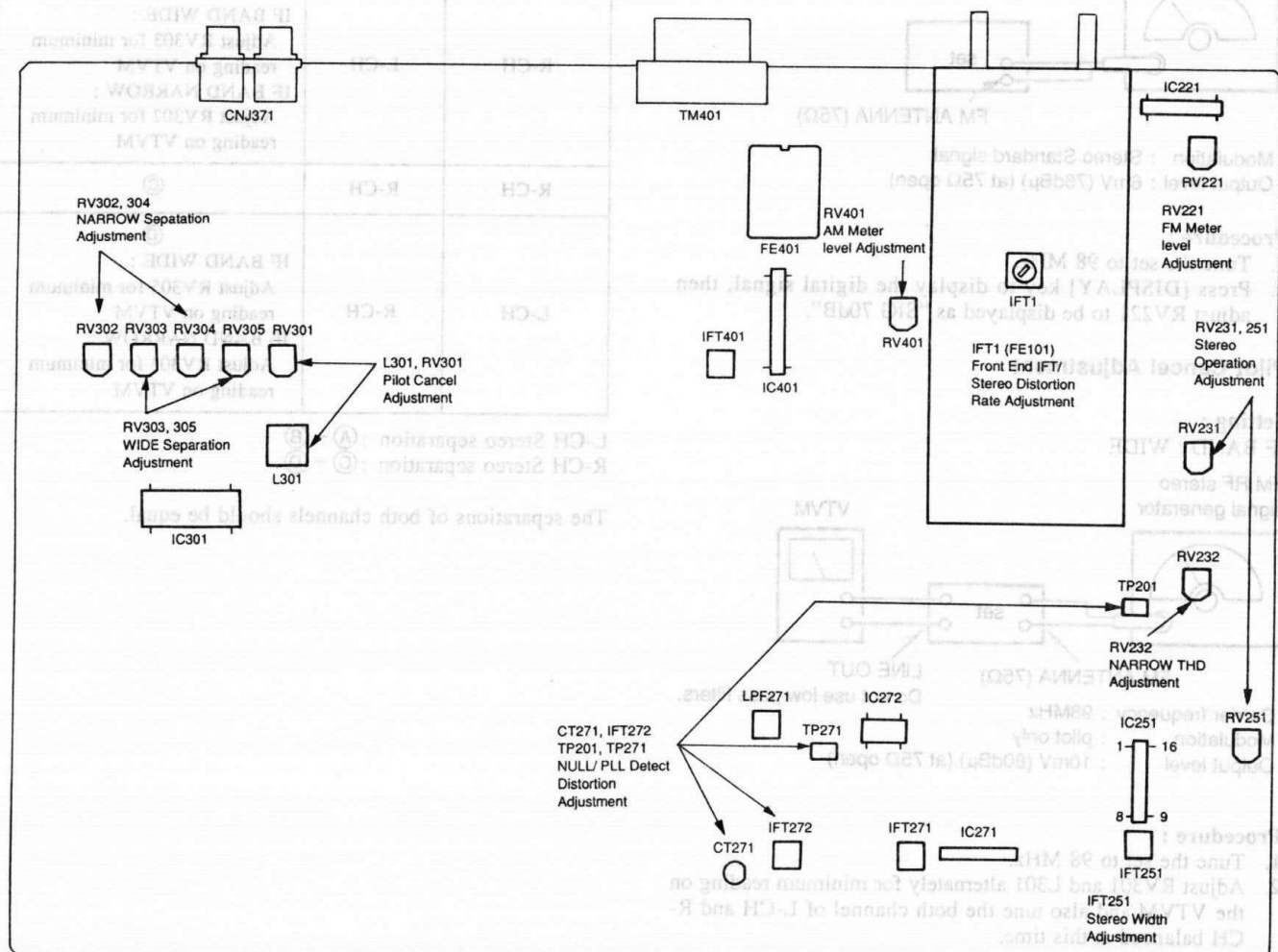
Carrier frequency : 216kHz

Modulation : 400Hz, 30% modulation

Procedure :

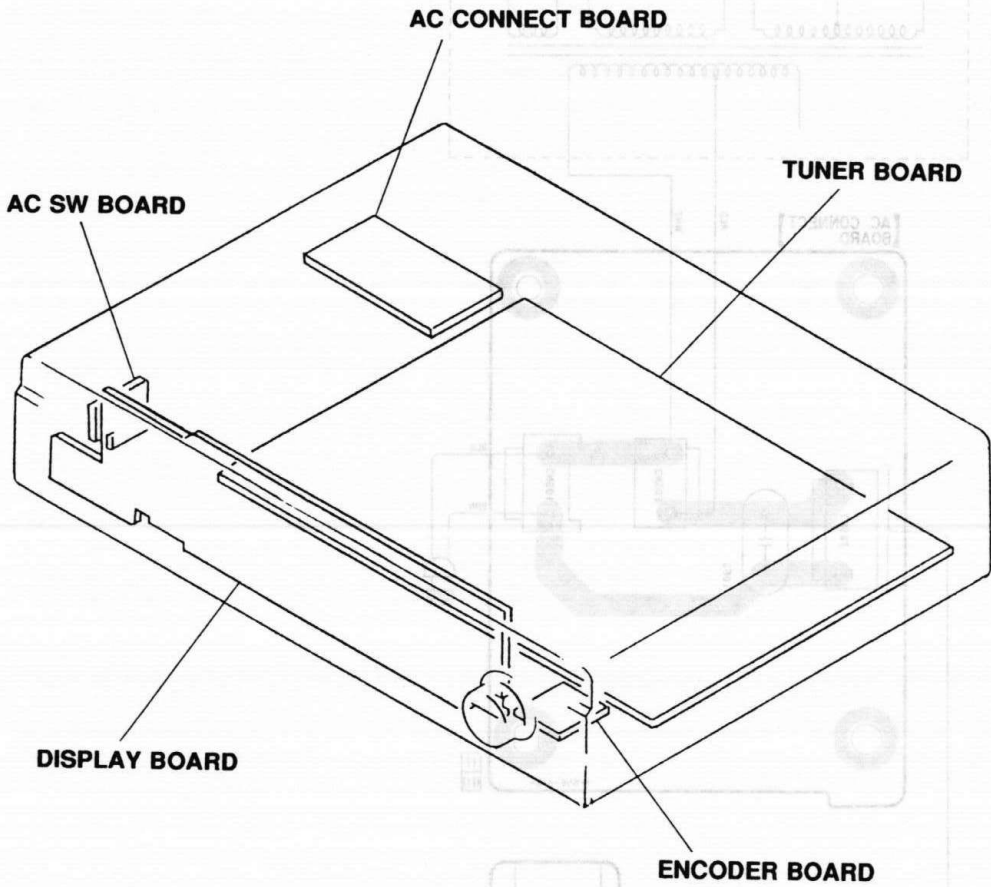
1. Set AM RF signal generator so that the AM antenna input level of the unit becomes 74dBμ/m.
2. Adjust RV401 so that 1 to 16 indication bars light up on the signal meter.

Adjustment Location :



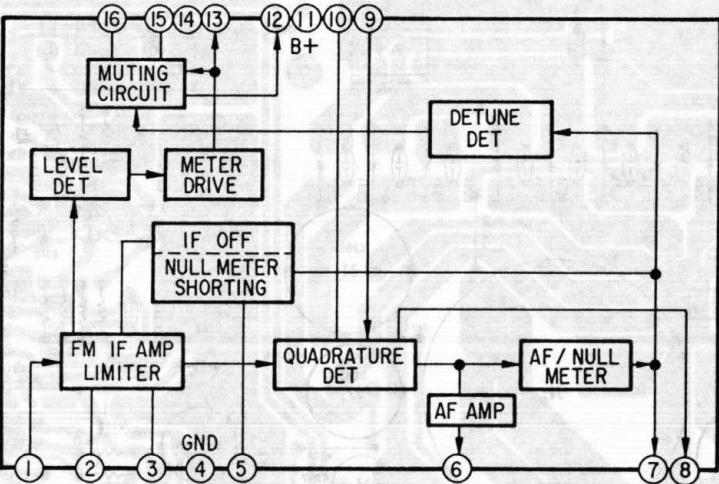
SECTION 5
DIAGRAMS

5-1. CIRCUIT BOARDS LOCATION

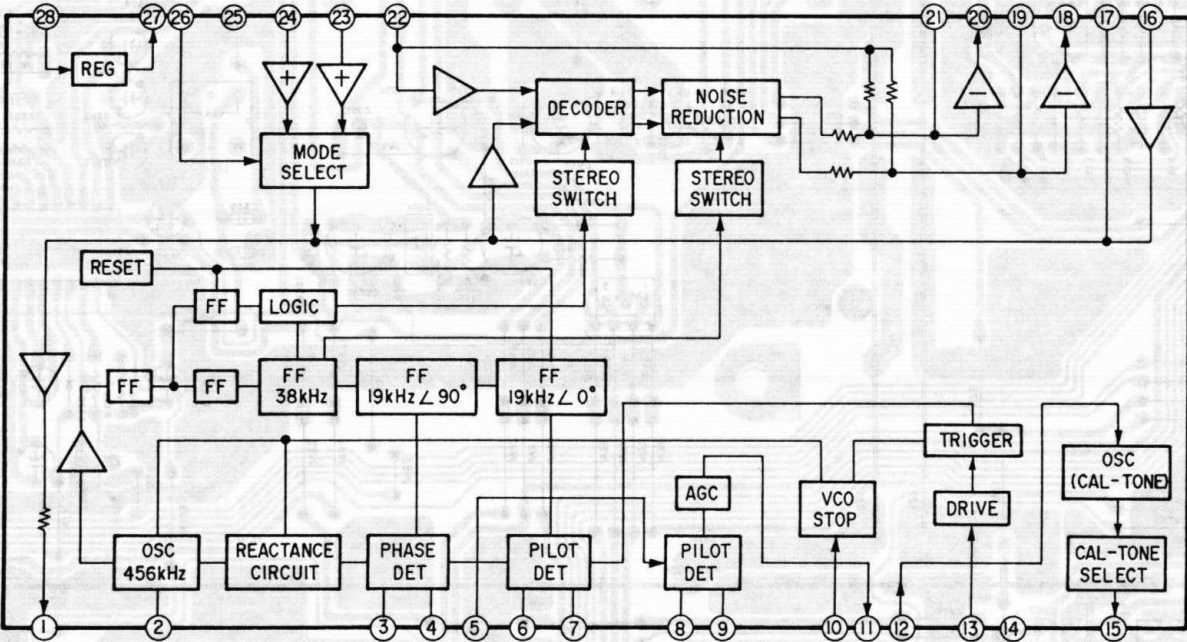


5-2. IC BLOCK DIAGRAMS

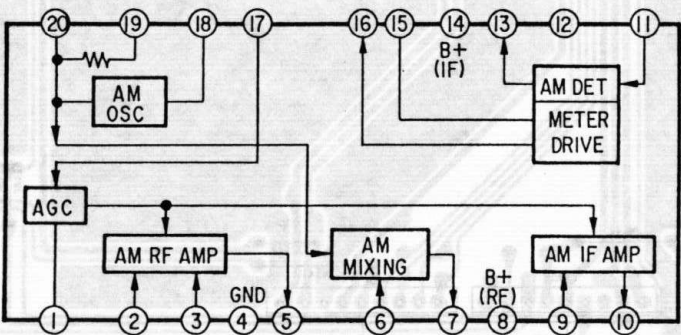
IC221, IC251 LA1235



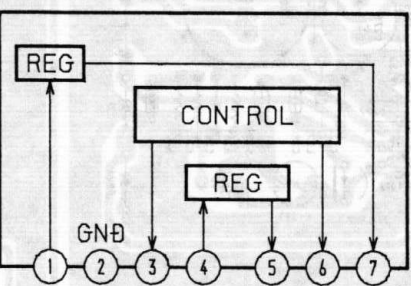
IC301 CXA1064S



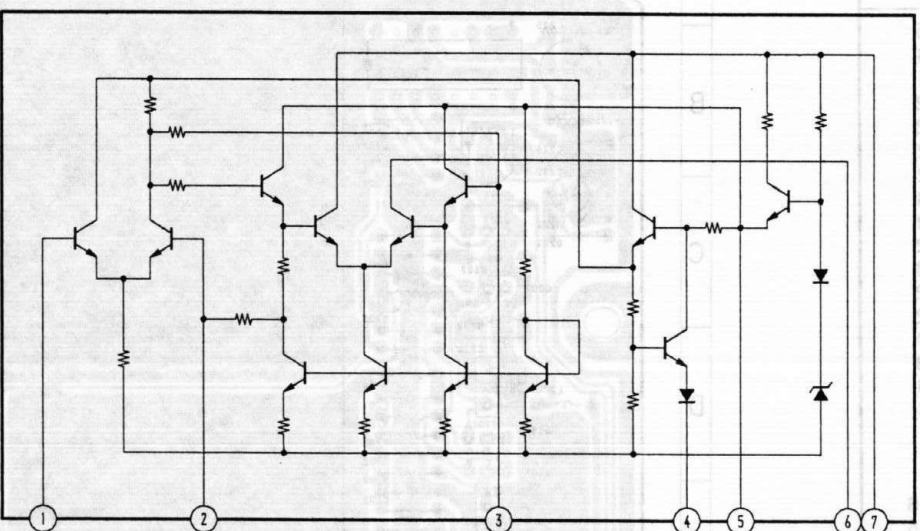
IC401 LA1245



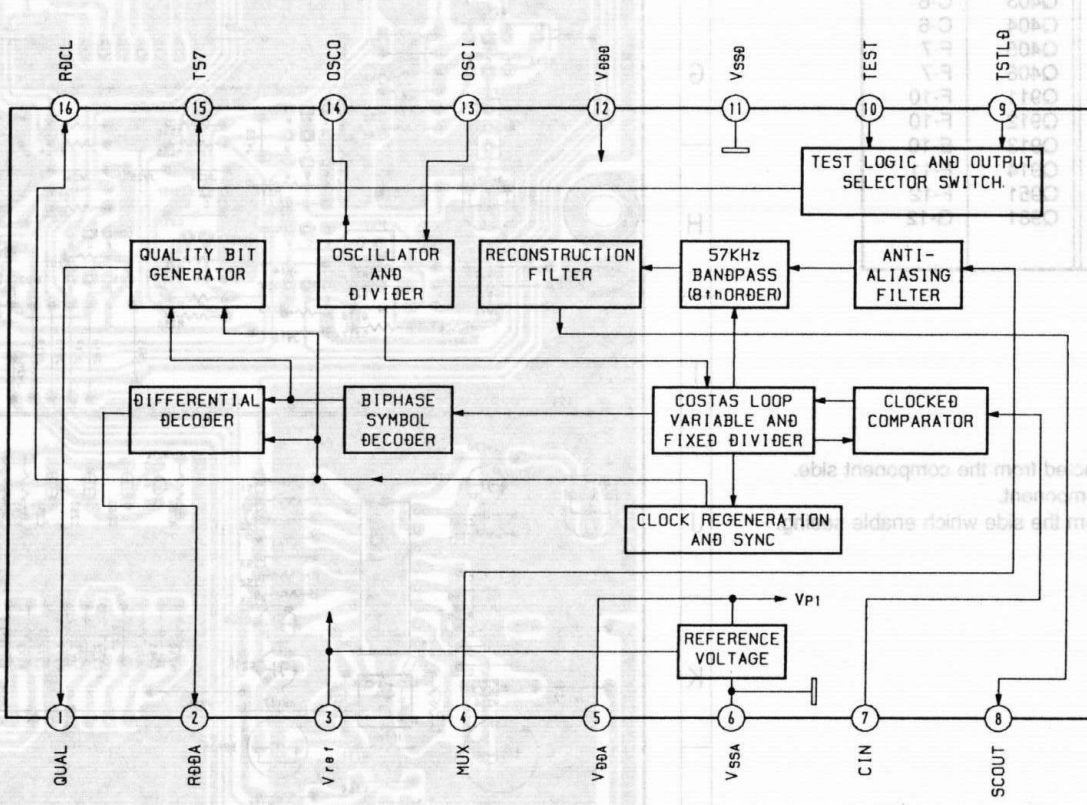
IC951 LA5667



IC271 TA7302P



IC801 SAA6579T



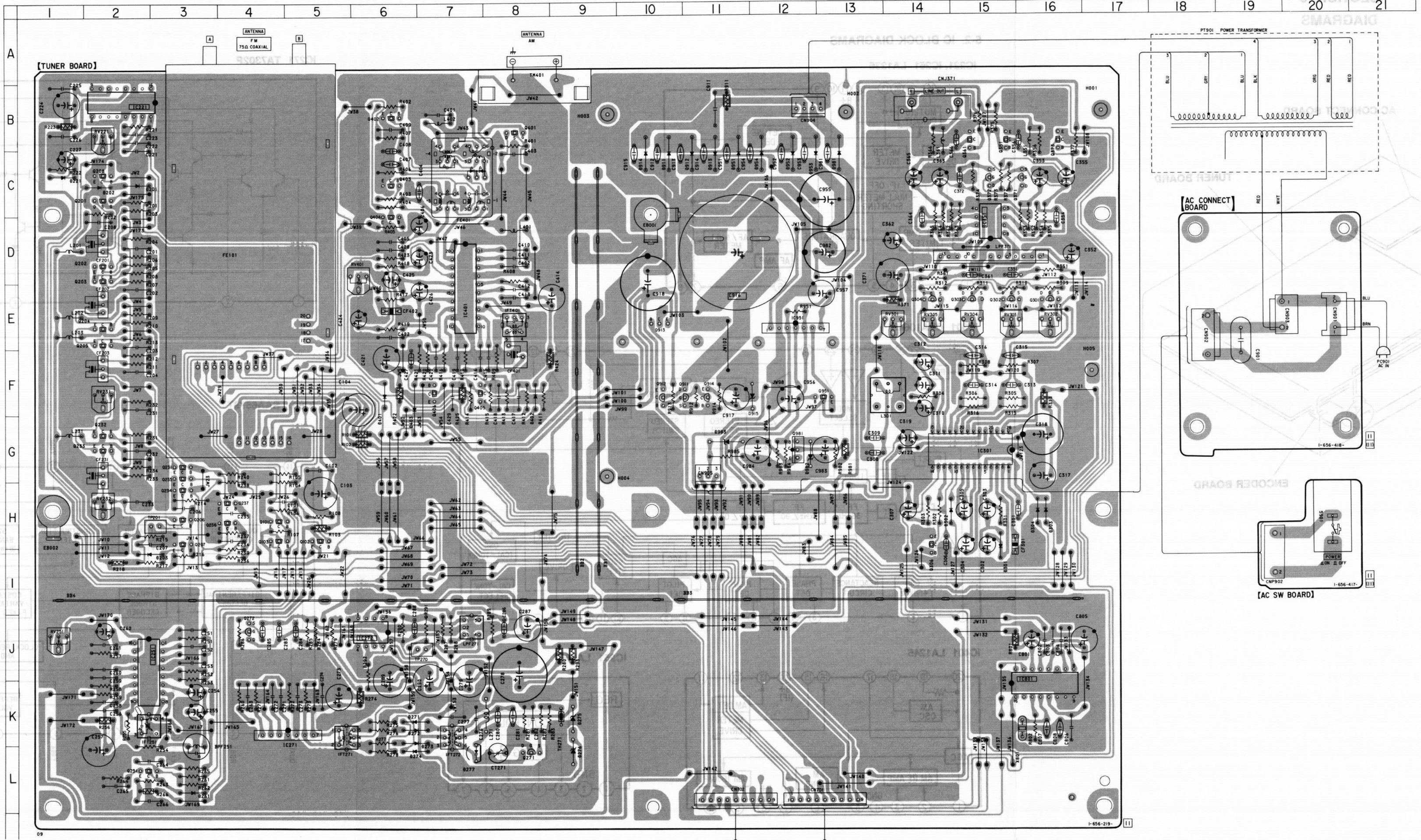
5-3. PRINTED WIRING BOARD — TUNER SECTION —
• See page 11 for Circuit Boards Location.

• Semiconductor Location

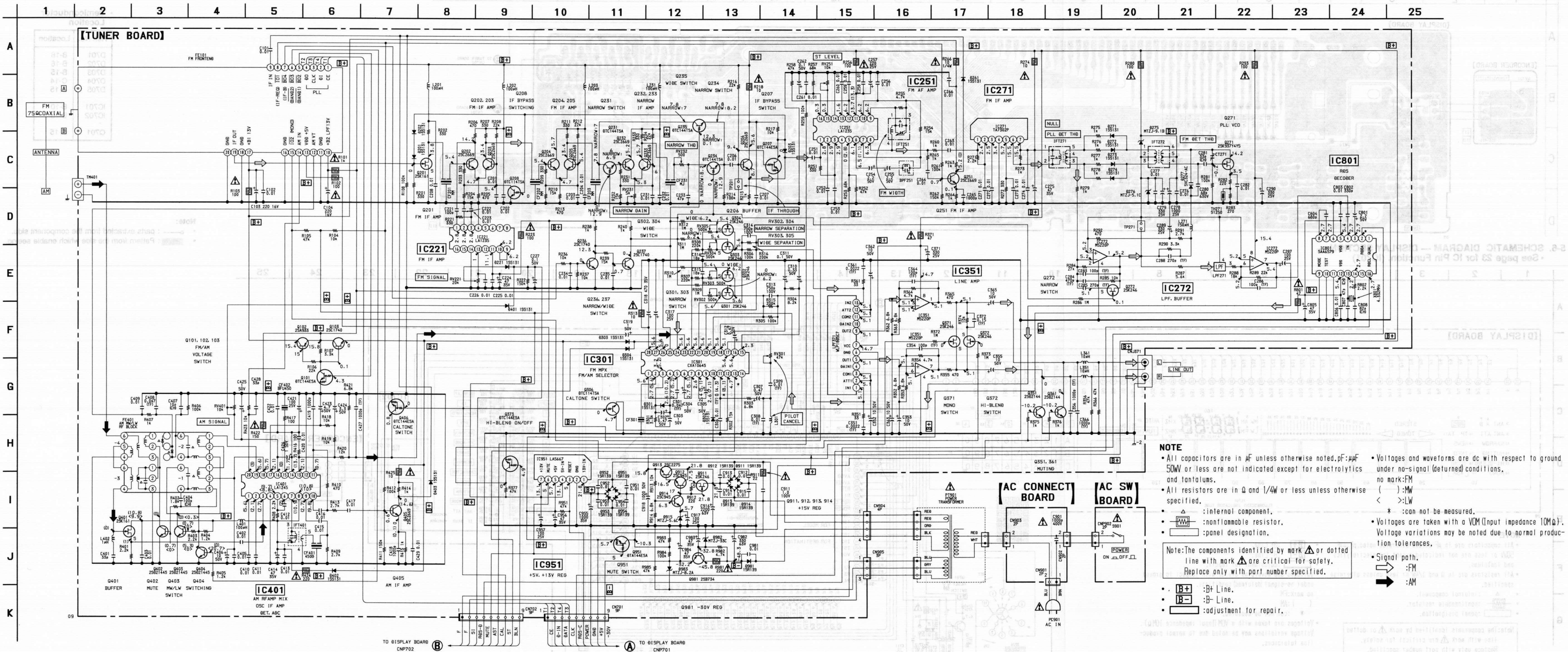
Ref. No.	Location	Ref. No.	Location
D201	C-2	Q102	H-5
D202	C-2	Q103	H-4
D203	I-3	Q201	C-1
D221	C-1	Q202	D-2
D261	L-3	Q203	D-2
D271	K-6	Q204	E-2
D272	K-6	Q205	E-2
D273	L-6	Q206	H-3
D274	L-6	Q207	H-3
D275	K-9	Q208	C-2
D276	L-9	Q231	G-3
D277	L-7	Q232	G-2
D301	I-15	Q233	G-2
D302	H-14	Q234	H-3
D303	H-16	Q235	G-3
D304	H-16	Q236	H-3
D401	F-6	Q237	H-4
D402	G-8	Q251	L-2
D403	G-6	Q271	L-8
D911	C-10	Q272	J-4
D912	C-11	Q301	E-16
D913	C-11	Q302	E-15
D914	C-10	Q303	E-15
D915	F-11	Q304	E-14
D951	C-11	Q306	I-14
D952	C-12	Q351	C-15
D953	C-12	Q361	C-15
D954	C-12	Q371	C-16
D981	C-13	Q372	C-15
D982	G-12	Q373	C-16
D983	G-11	Q401	B-8
		Q402	B-6
IC221	B-2	Q403	C-6
IC251	J-2	Q404	C-6
IC271	K-4	Q405	F-7
IC272	J-6	Q406	F-7
IC301	G-15	Q911	F-10
IC351	D-15	Q912	F-10
IC401	E-7	Q913	E-10
IC801	K-16	Q914	F-11
IC951	E-12	Q951	F-12
		Q981	G-12
Q101	H-4		

Note:

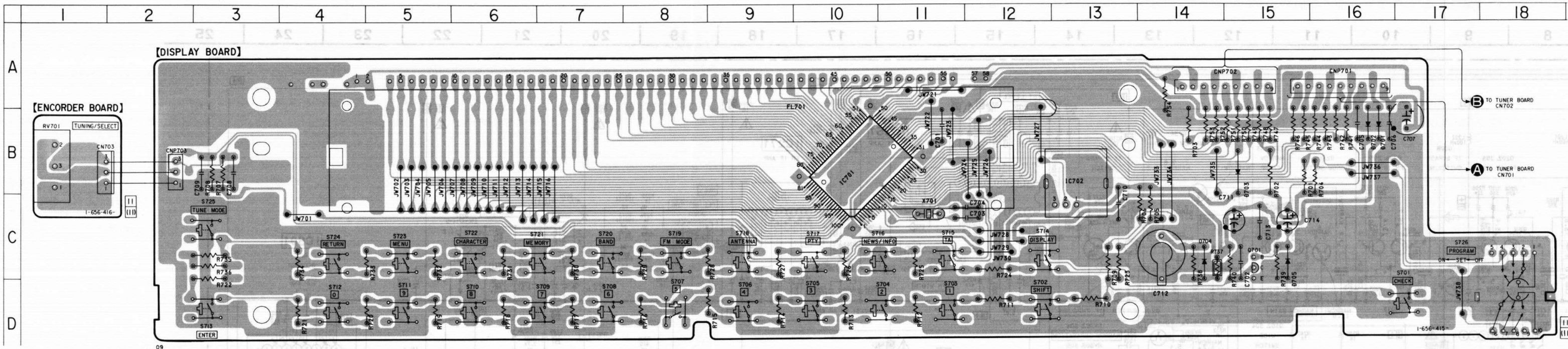
- : parts extracted from the component side.
- △ : internal component.
- : Pattern from the side which enable seeing.



5-4. SCHEMATIC DIAGRAM — TUNER SECTION —
• See page 12 for IC Block Diagrams.



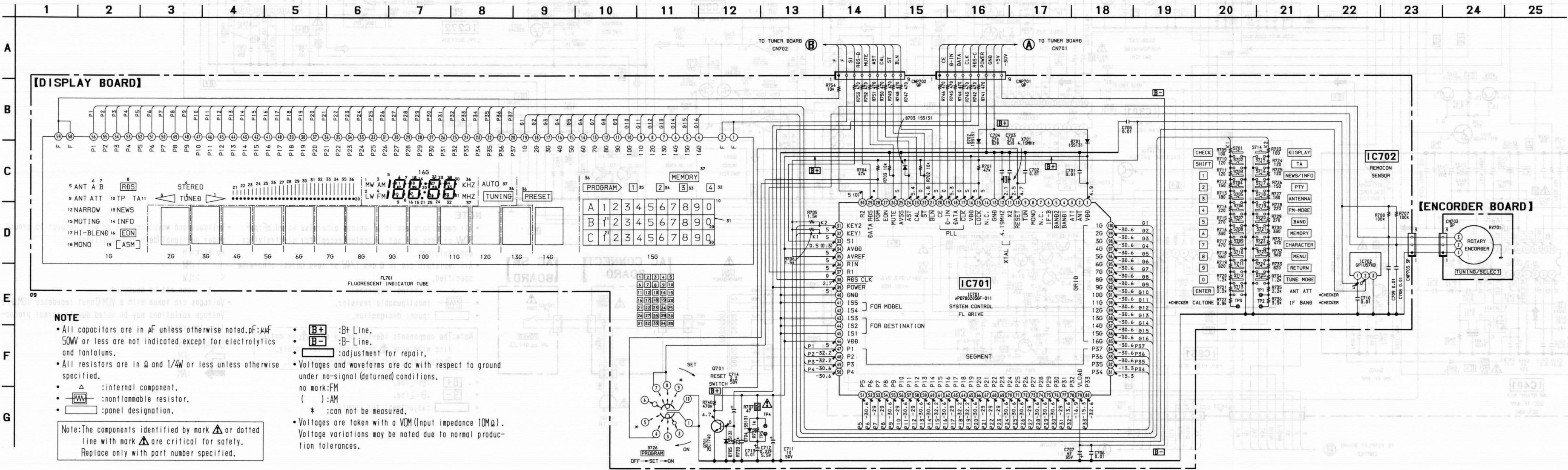
5-5. PRINTED WIRING BOARD — DISPLAY SECTION —
• See page 11 for Circuit Boards Location.



• Semiconductor Location

Ref. No.	Location
D701	B-16
D702	B-16
D703	B-15
D704	C-14
D705	C-15
IC701	B-10
IC702	B-13
Q701	C-15

5-6. SCHEMATIC DIAGRAM — DISPLAY SECTION —
• See page 23 for IC Pin Function. (IC701)



Note:

- : parts extracted from the component side.
- : Pattern from the side which enable seeing.

5-7. IC PIN FUNCTION

• IC701 μ PD780205GF (SYSTEM CONTROL, FL DRIVE)

Pin No.	Pin Name	I/O	Function
1	VDD	—	Power supply (+5V)
2	ANT	O	ANT A/B switching output (open)
3	ATT	O	ANT ATT on/off switching output (open)
4	BAND1	O	FM/AM BAND switching output (open)
5	BAND2	O	AM BAND MW/LW switching output (open)
6	IF-B	O	IF BAND WIDE/NARROW switching output (open)
7	NC	—	Not used (open)
8	MONO	O	Forced FM MONO on/off output (open)
9	TUN	O	TUNING action detection output (open)
10	RESET	I	System reset input
11	4.19	O	Main system clock (4.19 MHz)
12	4.19	I	
13	GND	I	Single chip MODE select input (GND)
14	NC	—	Not used (open)
15	LOCK	I	PROGRAM SW on/off detection input
16	VDD	—	Power supply (+5V)
17	PLL CLK	O	Serial clock output for PLL LC72130
18	PLL DATA	O	Serial data output for PLL LC72130
19	PLL DIN	I	IF COUNT data input and PLL condition detection
20	PLL CE	O	CE signal output for PLL LC72130
21	BLN	O	HI-BLEND on/off switching output
22	ST	I	STEREO display detection input
23	CAL	O	CAL TONE on/off switching output
24	AST	I	AUTO STOP signal detection input
25	AVss	—	GND of the A/D converter
26	MUTE	O	Muting signal on/off switching output
27	EON	O	Receive Reception, outside control output
28	PGM	I	PROGRAM SW SET/OFF detection input
29	RDS DATA	I	RDS DATA input
30	R2	I	Rotary encoder phase detection input
31, 32	KEY2, KEY1	I	Key input
33	SI	I	SIGNAL LEVEL input
34	AVDD	—	Analog power supply of the A/D converter (+5V)
35	AVREF	I	Reference voltage of the A/D converter (+5V)
36	RIN	I	Remote controller signal input
37	R1	I	Rotary encoder number of rotations detection input
38	RDS CLK	I	Clock input for RDS DATA from SAA6579T
39	POWER	I	Power on/off monitor input
40	Vss	—	System GND
41, 42	IS5, IS4	I	Model and function setting input
43 to 45	IS3 to IS1	I	Destination setting input
46	VDD	—	Power supply (+5V)
47 to 78	P1 to P32	O	Segment signal output to the FL tube (FL701)
79	VLOAD	—	Power supply to the FL tube (FL701) (–30V)
80 to 84	P33 to P37	O	Segment signal output to the FL tube (FL701)
85 to 100	16G to 1G	O	Grid signal output to the FL tube (FL701)

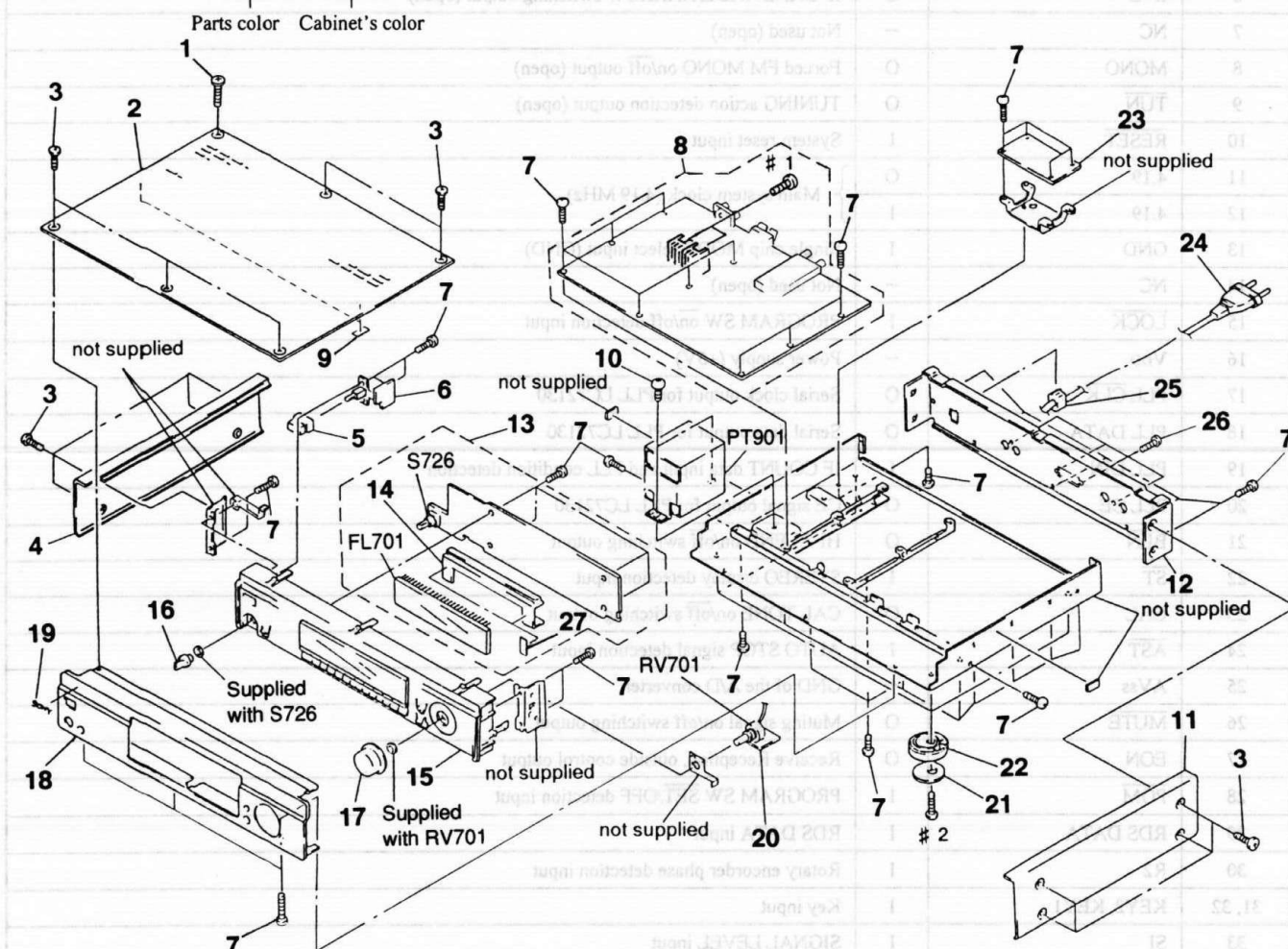
SECTION 6 EXPLODED VIEW

NOTE:

- -XX, -X mean standardized parts, so they may have some difference from the original one.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- Color Indication of Appearance Parts Example: KNOB, BALANCE (WHITE) ... (RED)

- The mechanical parts with no reference number in the exploded views are not supplied.
- Hardware (# mark) list and accessories and packing materials are given in the last of this parts list.
- Abbreviation
G : German model

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



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
1	4-921-439-11	SCREW (M3X8), FLAT HEAD (SILVER).. (GOLD)		15	X-4946-075-1	BASE ASSY (N/5), PANEL (GOLD)	
2	4-921-439-21	SCREW (M3X8), FLAT HEAD (BLACK).. (BLACK)		16	X-4943-846-1	KNOB ASSY (B) (BLACK)	
2	4-970-687-21	PLATE, TOP (BLACK)		16	X-4943-847-1	KNOB ASSY (N) (GOLD)	
2	4-970-687-31	PLATE, TOP (GOLD)		17	4-970-684-01	KNOB (T) (BLACK)	
3	4-924-242-11	SCREW (M3X6), FLAT HEAD (BLACK).. (BLACK)		17	4-970-684-11	KNOB (T) (GOLD)	
3	4-924-242-61	SCREW (M3X6), FLAT HEAD (SILVER).. (GOLD)		18	4-970-683-31	PANEL, FRONT (BLACK)	
4	4-970-685-01	PANEL (L), SIDE (BLACK)		18	4-970-683-41	PANEL, FRONT (GOLD)	
4	4-970-685-11	PANEL (L), SIDE (GOLD)		19	4-942-568-01	EMBLEM (NO. 5), SONY (SILVER).. (BLACK)	
5	4-917-460-01	KNOB, POWER (BLACK)		19	4-942-568-21	EMBLEM (NO. 5), SONY (GOLD).. (GOLD)	
5	4-917-460-51	KNOB, POWER (GOLD)					
* 6	1-656-417-11	AC SW BOARD		* 20	1-656-416-11	ENCODER BOARD	
* 7	4-967-961-01	SCREW (3X8) (SPECIAL)		21	4-970-124-01	CUSHION (F50180S)	
* 8	A-4377-990-A	TUNER BOARD, COMPLETE		22	4-970-123-01	FOOT (F50180S)	
9	3-849-226-01	CLOTH, UNWEAVED (25X6X0.5)		* 23	1-656-418-11	AC CONNECT BOARD	
10	4-967-960-01	SCREW (4X8)		Δ 24	1-575-651-21	CORD, POWER	
11	4-970-686-01	PANEL (R), SIDE (BLACK)		25	3-703-244-00	BUSHING, CORD	
11	4-970-686-11	PANEL (R), SIDE (GOLD)		26	3-704-515-41	SCREW (BV/RING)	
* 12	4-974-313-01	PANEL, BACK		* 27	4-921-941-81	CUSHION (FL)	
* 13	A-4377-986-A	DISPLAY BOARD, COMPLETE		FL701	1-517-427-11	INDICATOR TUBE, FLUORESCENT	
* 14	4-952-115-01	HOLDER, FL TUBE		Δ PT901	1-450-409-21	TRANSFORMER, POWER	
15	X-4946-074-1	BASE ASSY (B/5), PANEL (BLACK)		RV701	1-467-927-11	ENCODER, ROTARY (TUNING/SELECT)	
				S726	1-762-199-11	SWITCH, ROTARY (PROGRAM)	

SECTION 7 ELECTRICAL PARTS LIST

AC CONNECT AC SW DISPLAY

NOTE:

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

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

- 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.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- RESISTORS
All resistors are in ohms
METAL: Metal-film resistor
METAL OXIDE: Metal Oxide-film resistor
F : nonflammable

- 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
- Abbreviation
G : German model

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
*	1-656-418-11	AC CONNECT BOARD				< DIODE >	
		*****		D701	8-719-815-85	DIODE 1S1585	
		< CAPACITOR >		D702	8-719-815-85	DIODE 1S1585	
Δ C901	1-161-741-00	CERAMIC 0.001uF 10% 400V		D703	8-719-815-85	DIODE 1S1585	
		< CONNECTOR >		D704	8-719-815-85	DIODE 1S1585	
CN901	1-580-230-11	PIN, CONNECTOR (PC BOARD) 2P		D705	8-719-815-85	DIODE 1S1585	
* CN902	1-565-792-11	PIN, CONNECTOR 2P				< FLUORESCENT INDICATOR >	
CN903	1-564-321-00	PIN, CONNECTOR 2P		FL701	1-517-427-11	INDICATOR TUBE, FLUORESCENT	
		*****				< IC >	
*	1-656-417-11	AC SW BOARD		IC701	8-759-338-20	IC uPD780205GF-011-3B9	
		*****		IC702	8-749-923-43	IC GP1U57XB	
		< SWITCH >				< TRANSISTOR >	
Δ S901	1-572-267-51	SWITCH, PUSH (AC POWER) (1 KEY) (POWER)		Q701	8-729-119-78	TRANSISTOR 2SC2785-HFE	
		*****				< RESISTOR >	
*	A-4377-986-A	DISPLAY BOARD, COMPLETE		R701	1-249-437-11	CARBON 47K 5% 1/4W	
		*****		R702	1-249-429-11	CARBON 10K 5% 1/4W	
				R703	1-249-429-11	CARBON 10K 5% 1/4W	
				R704	1-249-437-11	CARBON 47K 5% 1/4W	
				R705	1-249-419-11	CARBON 1.5K 5% 1/4W F	
				R706	1-249-419-11	CARBON 1.5K 5% 1/4W F	
				R707	1-249-441-11	CARBON 100K 5% 1/4W	
				R708	1-249-441-11	CARBON 100K 5% 1/4W	
				R709	1-247-807-31	CARBON 100 5% 1/4W	
				R710	1-249-406-11	CARBON 120 5% 1/4W F	
				R711	1-249-406-11	CARBON 120 5% 1/4W F	
				R712	1-249-407-11	CARBON 150 5% 1/4W F	
				R713	1-249-408-11	CARBON 180 5% 1/4W F	
				R714	1-247-815-91	CARBON 220 5% 1/4W	
				R715	1-249-410-11	CARBON 270 5% 1/4W F	
				R716	1-249-411-11	CARBON 330 5% 1/4W	
				R717	1-249-413-11	CARBON 470 5% 1/4W F	
				R718	1-249-414-11	CARBON 560 5% 1/4W F	
				R719	1-249-416-11	CARBON 820 5% 1/4W F	
				R720	1-249-418-11	CARBON 1.2K 5% 1/4W F	
				R721	1-249-421-11	CARBON 2.2K 5% 1/4W F	
				R722	1-249-424-11	CARBON 3.9K 5% 1/4W F	
				R723	1-247-807-31	CARBON 100 5% 1/4W	
				R724	1-249-406-11	CARBON 120 5% 1/4W F	
						< CAPACITOR >	
C701	1-162-306-11	CERAMIC 0.01uF 30% 16V					
C702	1-162-306-11	CERAMIC 0.01uF 30% 16V					
C703	1-162-209-31	CERAMIC 27PF 5% 50V					
C704	1-162-209-31	CERAMIC 27PF 5% 50V					
C705	1-162-306-11	CERAMIC 0.01uF 30% 16V					
C706	1-162-306-11	CERAMIC 0.01uF 30% 16V					
C707	1-126-051-11	ELECT 47uF 20% 35V					
C708	1-162-306-11	CERAMIC 0.01uF 30% 16V					
C709	1-162-306-11	CERAMIC 0.01uF 30% 16V					
C710	1-162-306-11	CERAMIC 0.01uF 30% 16V					
C711	1-126-059-11	ELECT 10uF 20% 50V					
C712	1-104-905-11	DOUBLE LAYERS 0.22F 5.5V					
C713	1-162-306-11	CERAMIC 0.01uF 30% 16V					
C714	1-126-045-11	ELECT 2.2uF 20% 50V					

DISPLAY ENCODER TUNER

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
R725	1-249-406-11	CARBON	120 5% 1/4W F	S719	1-554-303-21	SWITCH, TACTILE (FM MODE)	
R726	1-249-407-11	CARBON	150 5% 1/4W F	S720	1-554-303-21	SWITCH, TACTILE (BAND)	
R727	1-249-408-11	CARBON	180 5% 1/4W F	S721	1-554-303-21	SWITCH, TACTILE (MEMORY)	
R728	1-247-815-91	CARBON	220 5% 1/4W	S722	1-554-303-21	SWITCH, TACTILE (CHARACTER)	
R729	1-249-410-11	CARBON	270 5% 1/4W F	S723	1-554-303-21	SWITCH, TACTILE (MENU)	
R730	1-249-411-11	CARBON	330 5% 1/4W	S724	1-554-303-21	SWITCH, TACTILE (RETURN)	
				S725	1-554-303-21	SWITCH, TACTILE (TUNE MODE)	
R731	1-249-413-11	CARBON	470 5% 1/4W F	S726	1-762-199-11	SWITCH, ROTARY (PROGRAM)	
R732	1-249-414-11	CARBON	560 5% 1/4W F			< VIBRATOR >	
R733	1-249-416-11	CARBON	820 5% 1/4W F	X701	1-760-422-11	VIBRATOR, CRYSTAL (4.19MHz)	
R734	1-249-418-11	CARBON	1.2K 5% 1/4W F			*****	
R735	1-249-421-11	CARBON	2.2K 5% 1/4W F	*	1-656-416-11	ENCODER BOARD	

R736	1-249-424-11	CARBON	3.9K 5% 1/4W F			< CONNECTOR >	
R737	1-249-401-11	CARBON	47 5% 1/4W F	CN703	1-766-276-11	PIN, CONNECTOR (PC BOARD) 3P	
R738	1-249-417-11	CARBON	1K 5% 1/4W F			< VARIABLE RESISTOR >	
R739	1-249-433-11	CARBON	22K 5% 1/4W	RV701	1-467-927-11	ENCODER, ROTARY (TUNING/SELECT)	
R740	1-247-895-00	CARBON	470K 5% 1/4W			*****	
				*	A-4377-990-A	TUNER BOARD, COMPLETE	
R741	1-249-413-11	CARBON	470 5% 1/4W F			*****	
R742	1-249-413-11	CARBON	470 5% 1/4W F			7-682-548-09	SCREW (3X8)
R743	1-249-413-11	CARBON	470 5% 1/4W F			< BUS BAR >	
R744	1-249-413-11	CARBON	470 5% 1/4W F	* BB1	1-560-242-51	BUS BAR 7P	
R745	1-249-413-11	CARBON	470 5% 1/4W F	* BB2	1-560-242-51	BUS BAR 7P	
R746	1-249-413-11	CARBON	470 5% 1/4W F	* BB3	1-560-242-51	BUS BAR 7P	
R747	1-249-413-11	CARBON	470 5% 1/4W F	* BB4	1-560-242-91	BUS BAR 10P	
R748	1-249-413-11	CARBON	470 5% 1/4W F			< BPF >	
R749	1-249-413-11	CARBON	470 5% 1/4W F	BPF251	1-235-046-00	ENCAPSULATED COMPONENT (B. E. F)	
R750	1-249-413-11	CARBON	470 5% 1/4W F			< CAPACITOR >	
				C101	1-162-306-11	CERAMIC 0.01uF 30% 16V	
R751	1-249-413-11	CARBON	470 5% 1/4W F	C102	1-162-306-11	CERAMIC 0.01uF 30% 16V	
R752	1-249-413-11	CARBON	470 5% 1/4W F	C103	1-124-120-11	ELECT 220uF 20% 25V	
R753	1-249-413-11	CARBON	470 5% 1/4W F	C104	1-124-120-11	ELECT 220uF 20% 25V	
R754	1-249-429-11	CARBON	10K 5% 1/4W	C201	1-162-306-11	CERAMIC 0.01uF 30% 16V	
				C202	1-162-306-11	CERAMIC 0.01uF 30% 16V	
				C203	1-162-306-11	CERAMIC 0.01uF 30% 16V	
				C204	1-162-306-11	CERAMIC 0.01uF 30% 16V	
				C206	1-162-306-11	CERAMIC 0.01uF 30% 16V	
				C207	1-162-306-11	CERAMIC 0.01uF 30% 16V	
S701	1-554-303-21	SWITCH, TACTILE (CHECK)					
S702	1-554-303-21	SWITCH, TACTILE (SHIFT)					
S703	1-554-303-21	SWITCH, TACTILE (1)					
S704	1-554-303-21	SWITCH, TACTILE (2)					
S705	1-554-303-21	SWITCH, TACTILE (3)					
S706	1-554-303-21	SWITCH, TACTILE (4)					
S707	1-554-303-21	SWITCH, TACTILE (5)					
S708	1-554-303-21	SWITCH, TACTILE (6)					
S709	1-554-303-21	SWITCH, TACTILE (7)					
S710	1-554-303-21	SWITCH, TACTILE (8)					
S711	1-554-303-21	SWITCH, TACTILE (9)					
S712	1-554-303-21	SWITCH, TACTILE (0)					
S713	1-554-303-21	SWITCH, TACTILE (ENTER)					
S714	1-554-303-21	SWITCH, TACTILE (DISPLAY)					
S715	1-554-303-21	SWITCH, TACTILE (TA)					
S716	1-554-303-21	SWITCH, TACTILE (NEWS/INFO)					
S717	1-554-303-21	SWITCH, TACTILE (PTY)					
S718	1-554-303-21	SWITCH, TACTILE (ANTENNA)					

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

TUNER

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
C208	1-162-306-11	CERAMIC	0.01uF 30% 16V	C302	1-126-772-11	ELECT	0.47uF 20% 50V
C221	1-162-282-31	CERAMIC	100PF 10% 50V	C303	1-124-791-11	ELECT	1.0uF 20% 100V
C222	1-162-306-11	CERAMIC	0.01uF 30% 16V	C304	1-124-791-11	ELECT	1.0uF 20% 100V
C223	1-162-306-11	CERAMIC	0.01uF 30% 16V	C305	1-124-791-11	ELECT	1.0uF 20% 100V
C224	1-124-918-11	ELECT	47uF 20% 63V	C306	1-136-153-00	FILM	0.01uF 5% 50V
C225	1-162-306-11	CERAMIC	0.01uF 30% 16V	C307	1-126-772-11	ELECT	0.47uF 20% 50V
C226	1-162-306-11	CERAMIC	0.01uF 30% 16V	C308	1-136-153-00	FILM	0.01uF 5% 50V
C227	1-124-463-00	ELECT	0.1uF 20% 50V	C309	1-136-153-00	FILM	0.01uF 5% 50V
C231	1-162-306-11	CERAMIC	0.01uF 30% 16V	C310	1-124-252-00	ELECT	0.33uF 20% 50V
C232	1-162-306-11	CERAMIC	0.01uF 30% 16V	C311	1-124-463-00	ELECT	0.1uF 20% 50V
C233	1-162-215-31	CERAMIC	47PF 5% 50V	C312	1-126-772-11	ELECT	0.47uF 20% 50V
C234	1-162-306-11	CERAMIC	0.01uF 30% 16V	C313	1-137-273-11	FILM	750PF 5% 100V
C235	1-162-306-11	CERAMIC	0.01uF 30% 16V	C314	1-137-273-11	FILM	750PF 5% 100V
C251	1-162-306-11	CERAMIC	0.01uF 30% 16V	C315	1-102-953-00	CERAMIC	18PF 5% 50V
C252	1-162-306-11	CERAMIC	0.01uF 30% 16V	C316	1-102-953-00	CERAMIC	18PF 5% 50V
C253	1-162-306-11	CERAMIC	0.01uF 30% 16V	C317	1-124-122-11	ELECT	100uF 20% 50V
C254	1-124-925-11	ELECT	2.2uF 20% 100V	C318	1-124-713-11	ELECT	470uF 20% 35V
C255	1-124-925-11	ELECT	2.2uF 20% 100V	C319	1-124-791-11	ELECT	1.0uF 20% 100V
C256	1-162-306-11	CERAMIC	0.01uF 30% 16V	C351	1-130-475-00	MYLAR	0.0022uF 5% 50V
C257	1-124-911-11	ELECT	220uF 20% 50V	C352	1-126-059-11	ELECT	10uF 20% 50V
C258	1-162-306-11	CERAMIC	0.01uF 30% 16V	C353	1-126-059-11	ELECT	10uF 20% 50V
C259	1-162-306-11	CERAMIC	0.01uF 30% 16V	C354	1-110-335-11	MYLAR	100PF 5% 50V
C260	1-162-306-11	CERAMIC	0.01uF 30% 16V	C355	1-126-059-11	ELECT	10uF 20% 50V
C261	1-162-306-11	CERAMIC	0.01uF 30% 16V	C356	1-130-471-00	MYLAR	0.001uF 5% 50V
C262	1-124-463-00	ELECT	0.1uF 20% 50V	C361	1-130-475-00	MYLAR	0.0022uF 5% 50V
C263	1-162-306-11	CERAMIC	0.01uF 30% 16V	C362	1-126-059-11	ELECT	10uF 20% 50V
C264	1-162-306-11	CERAMIC	0.01uF 30% 16V	C363	1-126-059-11	ELECT	10uF 20% 50V
C265	1-162-294-31	CERAMIC	0.001uF 10% 50V	C364	1-110-335-11	MYLAR	100PF 5% 50V
C266	1-162-306-11	CERAMIC	0.01uF 30% 16V	C365	1-126-059-11	ELECT	10uF 20% 50V
C271	1-162-306-11	CERAMIC	0.01uF 30% 16V	C366	1-130-471-00	MYLAR	0.001uF 5% 50V
C272	1-162-306-11	CERAMIC	0.01uF 30% 16V	C371	1-126-025-11	ELECT	330uF 20% 25V
C273	1-162-306-11	CERAMIC	0.01uF 30% 16V	C372	1-136-167-00	FILM	0.15uF 5% 50V
C274	1-162-306-11	CERAMIC	0.01uF 30% 16V	C401	1-162-211-31	CERAMIC	33PF 5% 50V
C275	1-124-918-11	ELECT	47uF 20% 63V	C402	1-162-306-11	CERAMIC	0.01uF 30% 16V
C276	1-162-306-11	CERAMIC	0.01uF 30% 16V	C403	1-162-306-11	CERAMIC	0.01uF 30% 16V
C277	1-162-306-11	CERAMIC	0.01uF 30% 16V	C404	1-102-973-00	CERAMIC	100PF 5% 50V
C278	1-124-557-11	ELECT	1000uF 20% 25V	C405	1-162-306-11	CERAMIC	0.01uF 30% 16V
C279	1-126-025-11	ELECT	330uF 20% 25V	C406	1-126-059-11	ELECT	10uF 20% 50V
C280	1-136-272-00	FILM	68PF 5% 630V	C407	1-102-947-00	CERAMIC	10PF 5% 50V
C281	1-102-518-11	CERAMIC	33PF 5% 50V	C408	1-136-161-00	FILM	0.047uF 5% 50V
C282	1-162-306-11	CERAMIC	0.01uF 30% 16V	C409	1-162-306-11	CERAMIC	0.01uF 30% 16V
C283	1-110-335-11	MYLAR	100PF 5% 50V	C410	1-162-306-11	CERAMIC	0.01uF 30% 16V
C284	1-130-467-00	MYLAR	470PF 5% 50V	C411	1-162-306-11	CERAMIC	0.01uF 30% 16V
C285	1-110-340-11	MYLAR	270PF 5% 50V	C412	1-162-306-11	CERAMIC	0.01uF 30% 16V
C286	1-110-335-11	MYLAR	100PF 5% 50V	C413	1-162-306-11	CERAMIC	0.01uF 30% 16V
C287	1-124-122-11	ELECT	100uF 20% 50V	C414	1-124-918-11	ELECT	47uF 20% 63V
C288	1-110-340-11	MYLAR	270PF 5% 50V	C415	1-162-306-11	CERAMIC	0.01uF 30% 16V
C289	1-126-025-11	ELECT	330uF 20% 25V	C416	1-162-306-11	CERAMIC	0.01uF 30% 16V
C290	1-126-025-11	ELECT	330uF 20% 25V	C417	1-162-306-11	CERAMIC	0.01uF 30% 16V
C301	1-136-161-00	FILM	0.047uF 5% 50V	C418	1-162-294-31	CERAMIC	0.001uF 10% 50V

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
		< IC >		Q236	8-729-119-78	TRANSISTOR	2SC403SP-51
IC221	8-759-812-35	IC	LA1235	Q237	8-729-119-78	TRANSISTOR	2SC403SP-51
IC251	8-759-812-35	IC	LA1235	Q251	8-729-230-99	TRANSISTOR	2SC2669-OY
IC271	8-759-273-02	IC	TA7302P	Q271	8-729-031-73	TRANSISTOR	2SK937Y4Y5-A
IC272	8-759-602-01	IC	M5220P				
IC301	8-759-802-57	IC	CXA1064S	Q272	8-729-224-61	TRANSISTOR	2SK246-Y
				Q301	8-729-224-61	TRANSISTOR	2SK246-Y
IC351	8-759-602-01	IC	M5220P	Q302	8-729-224-61	TRANSISTOR	2SK246-Y
IC401	8-759-812-45	IC	LA1245	Q303	8-729-224-61	TRANSISTOR	2SK246-Y
IC801	8-759-169-99	IC	SAA6579	Q304	8-729-224-61	TRANSISTOR	2SK246-Y
IC951	8-759-820-09	IC	LA5667				
		< IFT >		Q306	8-729-030-07	TRANSISTOR	DTC144TSA
IFT251	1-404-669-11	COIL, DISCRIMINATOR		Q351	8-729-922-37	TRANSISTOR	2SD2144S
IFT271	1-404-668-11	COIL, FM DET (1)		Q361	8-729-922-37	TRANSISTOR	2SD2144S
IFT272	1-411-276-11	COIL (PLL)		Q371	8-729-224-61	TRANSISTOR	2SK246-Y
IFT401	1-404-326-00	TRANSFORMER, IF		Q372	8-729-224-61	TRANSISTOR	2SK246-Y
		< COIL >					
L201	1-410-521-11	INDUCTOR	100uH	Q373	8-729-030-03	TRANSISTOR	DTC144ESA
L202	1-410-521-11	INDUCTOR	100uH	Q401	8-729-231-20	TRANSISTOR	2SK161-YGR
L203	1-410-521-11	INDUCTOR	100uH	Q402	8-729-922-37	TRANSISTOR	2SD2144S
L231	1-410-521-11	INDUCTOR	100uH	Q403	8-729-922-37	TRANSISTOR	2SD2144S
L271	1-410-335-11	INDUCTOR	150uH	Q404	8-729-922-37	TRANSISTOR	2SD2144S
L301	1-409-413-11	COIL (TUNING)		Q405	8-729-230-99	TRANSISTOR	2SC2669-OY
L351	1-410-509-11	INDUCTOR	10uH	Q406	8-729-030-03	TRANSISTOR	DTC144ESA
L361	1-410-509-11	INDUCTOR	10uH	Q911	8-729-224-61	TRANSISTOR	2SK246-Y
L401	1-410-521-11	INDUCTOR	100uH	Q912	8-729-281-53	TRANSISTOR	2SC1815-GR
L402	1-414-142-11	INDUCTOR	1uH	Q913	8-729-127-53	TRANSISTOR	2SC2275-P
		< FILTER >					
LPF271	1-235-892-11	FILTER, LOW PASS		Q914	8-729-281-53	TRANSISTOR	2SC1815-GR
LPF371	1-236-560-11	ENCAPSULATED COMPONENT (LPF)		Q951	8-729-029-57	TRANSISTOR	DTA144ESA
		< TRANSISTOR >		Q981	8-729-140-97	TRANSISTOR	2SB734-34
Q101	8-729-030-03	TRANSISTOR	DTC144ESA			< RESISTOR >	
Q102	8-729-119-76	TRANSISTOR	2SA1175-HFE	△R101	1-249-417-11	CARBON	1K 5% 1/4W F
Q103	8-729-119-78	TRANSISTOR	2SC403SP-51	△R102	1-249-405-11	CARBON	100 5% 1/4W F
Q201	8-729-231-20	TRANSISTOR	2SK161-YGR	△R103	1-249-405-11	CARBON	100 5% 1/4W F
Q202	8-729-230-99	TRANSISTOR	2SC2669-OY	R104	1-259-452-11	CARBON	10K 5% 1/6W
				R105	1-259-468-11	CARBON	47K 5% 1/6W
Q203	8-729-230-99	TRANSISTOR	2SC2669-OY				
Q204	8-729-230-99	TRANSISTOR	2SC2669-OY	R106	1-259-460-11	CARBON	22K 5% 1/6W
Q205	8-729-230-99	TRANSISTOR	2SC2669-OY	R107	1-259-440-11	CARBON	3.3K 5% 1/6W
Q206	8-729-230-99	TRANSISTOR	2SC2669-OY	R108	1-259-476-11	CARBON	100K 5% 1/6W
Q207	8-729-030-03	TRANSISTOR	DTC144ESA	R201	1-259-416-11	CARBON	330 5% 1/6W
				R202	1-259-416-11	CARBON	330 5% 1/6W
Q208	8-729-029-69	TRANSISTOR	DTC114TSA				
Q231	8-729-030-07	TRANSISTOR	DTC144TSA	R203	1-259-416-11	CARBON	330 5% 1/6W
Q232	8-729-230-99	TRANSISTOR	2SC2669-OY	R204	1-259-456-11	CARBON	15K 5% 1/6W
Q233	8-729-230-99	TRANSISTOR	2SC2669-OY	R205	1-259-420-11	CARBON	470 5% 1/6W
Q234	8-729-030-07	TRANSISTOR	DTC144TSA	R206	1-259-420-11	CARBON	470 5% 1/6W
				R207	1-259-416-11	CARBON	330 5% 1/6W
Q235	8-729-030-07	TRANSISTOR	DTC144TSA				
				R208	1-259-460-11	CARBON	22K 5% 1/6W
				R209	1-259-416-11	CARBON	330 5% 1/6W
				R210	1-259-456-11	CARBON	15K 5% 1/6W
				R211	1-259-416-11	CARBON	330 5% 1/6W
				R212	1-259-460-11	CARBON	22K 5% 1/6W
				R213	1-259-420-11	CARBON	470 5% 1/6W

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Replace only with part number specified.

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
R214	1-259-476-11	CARBON 100K 5% 1/6W		R288	1-259-458-11	CARBON 18K 5% 1/6W	
R215	1-259-428-11	CARBON 1K 5% 1/6W		R289	1-259-460-11	CARBON 22K 5% 1/6W	
R216	1-259-460-11	CARBON 22K 5% 1/6W		R290	1-259-440-11	CARBON 3.3K 5% 1/6W	
R217	1-259-452-11	CARBON 10K 5% 1/6W		R291	1-259-438-11	CARBON 2.7K 5% 1/6W	
△R218	1-249-393-11	CARBON 10 5% 1/4W F		R292	1-259-420-11	CARBON 470 5% 1/6W	
R221	1-259-416-11	CARBON 330 5% 1/6W		△R293	1-249-405-11	CARBON 100 5% 1/4W F	
R222	1-259-480-11	CARBON 150K 5% 1/6W		R301	1-259-440-11	CARBON 3.3K 5% 1/6W	
△R223	1-249-405-11	CARBON 100 5% 1/4W F		R302	1-259-456-11	CARBON 15K 5% 1/6W	
R231	1-259-416-11	CARBON 330 5% 1/6W		R303	1-259-448-11	CARBON 6.8K 5% 1/6W	
R232	1-259-456-11	CARBON 15K 5% 1/6W		R304	1-259-450-11	CARBON 8.2K 5% 1/6W	
R233	1-259-416-11	CARBON 330 5% 1/6W		R305	1-259-476-11	CARBON 100K 5% 1/6W	
R234	1-259-460-11	CARBON 22K 5% 1/6W		R306	1-259-476-11	CARBON 100K 5% 1/6W	
R236	1-259-452-11	CARBON 10K 5% 1/6W		R307	1-259-484-11	CARBON 220K 5% 1/6W	
R237	1-259-452-11	CARBON 10K 5% 1/6W		R308	1-259-484-11	CARBON 220K 5% 1/6W	
R238	1-259-428-11	CARBON 1K 5% 1/6W		R309	1-259-500-11	CARBON 1M 5% 1/6W	
R239	1-259-456-11	CARBON 15K 5% 1/6W		R310	1-259-500-11	CARBON 1M 5% 1/6W	
R240	1-259-428-11	CARBON 1K 5% 1/6W		R311	1-259-500-11	CARBON 1M 5% 1/6W	
R251	1-259-416-11	CARBON 330 5% 1/6W		R312	1-259-500-11	CARBON 1M 5% 1/6W	
R252	1-259-468-11	CARBON 47K 5% 1/6W		△R313	1-249-393-11	CARBON 10 5% 1/4W F	
R253	1-259-472-11	CARBON 68K 5% 1/6W		R315	1-259-483-11	CARBON 200K 5% 1/6W	
R254	1-259-456-11	CARBON 15K 5% 1/6W		R316	1-259-483-11	CARBON 200K 5% 1/6W	
R255	1-259-444-11	CARBON 4.7K 5% 1/6W		R351	1-259-392-11	CARBON 33 5% 1/6W	
△R256	1-249-405-11	CARBON 100 5% 1/4W F		R352	1-259-448-11	CARBON 6.8K 5% 1/6W	
R257	1-259-472-11	CARBON 68K 5% 1/6W		R353	1-259-448-11	CARBON 6.8K 5% 1/6W	
R258	1-259-468-11	CARBON 47K 5% 1/6W		R354	1-259-444-11	CARBON 4.7K 5% 1/6W	
R259	1-259-476-11	CARBON 100K 5% 1/6W		R355	1-259-420-11	CARBON 470 5% 1/6W	
R260	1-259-428-11	CARBON 1K 5% 1/6W		R356	1-259-468-11	CARBON 47K 5% 1/6W	
R261	1-259-476-11	CARBON 100K 5% 1/6W		R361	1-259-392-11	CARBON 33 5% 1/6W	
R262	1-259-480-11	CARBON 150K 5% 1/6W		R362	1-259-448-11	CARBON 6.8K 5% 1/6W	
R263	1-259-428-11	CARBON 1K 5% 1/6W		R363	1-259-448-11	CARBON 6.8K 5% 1/6W	
R264	1-259-428-11	CARBON 1K 5% 1/6W		R364	1-259-444-11	CARBON 4.7K 5% 1/6W	
R265	1-259-428-11	CARBON 1K 5% 1/6W		R365	1-259-420-11	CARBON 470 5% 1/6W	
△R266	1-249-393-11	CARBON 10 5% 1/4W F		R366	1-259-468-11	CARBON 47K 5% 1/6W	
R271	1-259-436-11	CARBON 2.2K 5% 1/6W		△R371	1-249-401-11	CARBON 47 5% 1/4W F	
R272	1-259-416-11	CARBON 330 5% 1/6W		R372	1-259-500-11	CARBON 1M 5% 1/6W	
R273	1-259-428-11	CARBON 1K 5% 1/6W		R373	1-259-500-11	CARBON 1M 5% 1/6W	
△R274	1-249-393-11	CARBON 10 5% 1/4W F		R374	1-259-452-11	CARBON 10K 5% 1/6W	
R275	1-259-428-11	CARBON 1K 5% 1/6W		R375	1-259-428-11	CARBON 1K 5% 1/6W	
R276	1-259-428-11	CARBON 1K 5% 1/6W		R376	1-259-428-11	CARBON 1K 5% 1/6W	
R277	1-259-428-11	CARBON 1K 5% 1/6W		R377	1-259-468-11	CARBON 47K 5% 1/6W	
R278	1-259-428-11	CARBON 1K 5% 1/6W		R401	1-259-436-11	CARBON 2.2K 5% 1/6W	
R279	1-259-428-11	CARBON 1K 5% 1/6W		R402	1-259-434-11	CARBON 1.8K 5% 1/6W	
△R280	1-249-405-11	CARBON 100 5% 1/4W F		R403	1-259-436-11	CARBON 2.2K 5% 1/6W	
R281	1-259-476-11	CARBON 100K 5% 1/6W		R404	1-259-430-11	CARBON 1.2K 5% 1/6W	
R282	1-259-412-11	CARBON 220 5% 1/6W		R405	1-259-430-11	CARBON 1.2K 5% 1/6W	
R283	1-259-414-11	CARBON 270 5% 1/6W		R406	1-259-476-11	CARBON 100K 5% 1/6W	
R284	1-259-462-11	CARBON 27K 5% 1/6W		R407	1-259-428-11	CARBON 1K 5% 1/6W	
R285	1-259-452-11	CARBON 10K 5% 1/6W		R408	1-259-436-11	CARBON 2.2K 5% 1/6W	
R286	1-259-500-11	CARBON 1M 5% 1/6W		R409	1-259-438-11	CARBON 2.7K 5% 1/6W	
R287	1-259-446-11	CARBON 5.6K 5% 1/6W		R410	1-259-420-11	CARBON 470 5% 1/6W	

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Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
R411	1-259-480-11	CARBON	150K 5% 1/6W			< VIBRATOR >	
R412	1-259-476-11	CARBON	100K 5% 1/6W				
R413	1-259-438-11	CARBON	2.7K 5% 1/6W	X801	1-579-900-21	VIBRATOR, CRYSTAL (4.332MHz)	
R414	1-259-428-11	CARBON	1K 5% 1/6W			*****	
R415	1-259-428-11	CARBON	1K 5% 1/6W			MISCELLANEOUS	
R416	1-259-404-11	CARBON	100 5% 1/6W			*****	
R417	1-259-404-11	CARBON	100 5% 1/6W				
R418	1-259-452-11	CARBON	10K 5% 1/6W	△24	1-575-651-21	CORD, POWER	
R419	1-259-452-11	CARBON	10K 5% 1/6W	FL701	1-517-427-11	INDICATOR TUBE, FLUORESCENT	
R420	1-259-454-11	CARBON	12K 5% 1/6W	△PT901	1-450-409-21	TRANSFORMER, POWER	
R421	1-259-448-11	CARBON	6.8K 5% 1/6W	RV701	1-467-927-11	ENCODER, ROTARY (TUNING/SELECT)	
△R422	1-249-407-11	CARBON	150 5% 1/4W F	S726	1-762-199-11	SWITCH, ROTARY (PROGRAM)	
R423	1-259-452-11	CARBON	10K 5% 1/6W			*****	
△R424	1-249-409-11	CARBON	220 5% 1/4W F			ACCESSORIES & PACKING MATERIALS	
△R425	1-249-393-11	CARBON	10 5% 1/4W F			*****	
△R801	1-249-401-11	CARBON	47 5% 1/4W F			1-501-594-11	ANTENNA (FM)
R802	1-259-436-11	CARBON	2.2K 5% 1/6W			1-501-761-41	ANTENNA, LOOP
△R911	1-249-397-11	CARBON	22 5% 1/4W F			1-590-925-31	CORD, CONNECTION (AUDIO 100cm)
R912	1-259-412-11	CARBON	220 5% 1/6W			3-798-043-11	MANUAL, INSTRUCTION (ENGLISH, FRENCH, SPANISH, PORTUGUESE) (AEP)
R913	1-259-452-11	CARBON	10K 5% 1/6W			3-798-043-31	MANUAL, INSTRUCTION (GERMAN, DUTCH, SWEDISH, ITALIAN) (AEP)
R914	1-259-448-11	CARBON	6.8K 5% 1/6W			3-798-043-61	MANUAL, INSTRUCTION (GERMAN) (G)
R951	1-259-468-11	CARBON	47K 5% 1/6W	*		4-974-634-01	INDIVIDUAL CARTON
△R981	1-249-409-11	CARBON	220 5% 1/4W F	*		4-974-636-01	CUSHION
R982	1-259-444-11	CARBON	4.7K 5% 1/6W			*****	
R983	1-259-468-11	CARBON	47K 5% 1/6W			*****	
R984	1-259-476-11	CARBON	100K 5% 1/6W			HARDWARE LIST	
R985	1-259-468-11	CARBON	47K 5% 1/6W			*****	
				#1	7-682-548-09	SCREW (3X8)	
				#2	7-685-650-79	SCREW +BVTP 3X16 TYPE2 IT-3	

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RESULT

Sony Corporation

Consumer A&V Products Company
Home A&V Products Div.

English

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