

STR-AV920/AV1020

SERVICE MANUAL

US Model
Canadian Model



Photo : STR-AV1020

SPECIFICATIONS

AUDIO POWER SPECIFICATIONS

POWER OUTPUT AND TOTAL HARMONIC DISTORTION

With 8-ohm load, both channels driven, from 20 – 20,000 Hz, rated 120 watts (STR-AV1020) or 100 watts (STR-AV920) per channel minimum RMS power, with no more than 0.008% total harmonic distortion from 250 milliwatts to rated output.

Other Specifications

Amplifier section

		STR-AV1020	STR-AV920
Dynamic power output	8 ohms, at 1 kHz IHF	195 + 195 watts	140 + 140 watts
	4 ohms, at 1 kHz IHF	250 + 250 watts	190 + 190 watts
Harmonic distortion at rated output	Less than 0.008%	Less than 0.03%	
Intermodulation (IM) distortion at rated output	Less than 0.008%	Less than 0.03%	
Power output of surround/DRLC amplifier (8 ohms, at 1 kHz)	10 + 10 watts		

Amplifier section

		STR-AV1020	STR-AV920
Frequency response	PHONO	RIAA equalization curve ± 0.5 dB	
	CD, DAT, TAPE 1,2 VIDEO 1,2,3*	10 Hz – 70 kHz ± 0 dB	
Residual noise		Less than 70 µV	
Damping factor (8 ohms, at 1 kHz)		50	
Input sensitivity/ impedance	PHONO MM	2.5 mV, 50 kilohms	
	DAT, CD, VIDEO 1,2,3* TAPE 1,2	150mV 50 kilohms	
S/N	PHONO MM	87 dB 79 dB** (A,2.5mV)	
	DAT, CD, VIDEO 1,2,3* TAPE 1,3	105 dB 85 dB** (A,150mV)	
Output sensitivity/ impedance	DAT OUT TAPE OUT 1,2 VIDEO 1	150mV 10 kilohms	
	SPEAKERS	Accepts speakers of 4 – 16 ohms	
	HEADPHONES	Accepts headphones of high and low impedance	
	CENTER OUT*	6 V, 1 kilohm	
MUTING		-20dB	
DBFB		+10 dB(70 Hz)	
Graphic Equalizer		7-band ± 10 dB at 63 Hz, 160 Hz, 400 Hz, 1 kHz, 2.5 kHz, 6.3 kHz, and 16 kHz	

* STR-AV1020 only

** '78IHF

— Continued on page 2 —

FM STEREO/FM-AM RECEIVER
SONY®



Video section

	STR-AV1020	STR-AV920
Inputs	VIDEO 1,2,3: 1 Vp-p 75 ohms	VIDEO 1,2: 1 Vp-p 75 ohms
Outputs	VIDEO 1, MONITOR: 1 Vp-p 75 ohms	

FM tuner section

	STR-AV1020	STR-AV920
Frequency range	87.5 – 108.0 MHz	
Antenna terminals	75 ohms coaxial	300 ohms, balanced 75 ohms, unbalanced
Sensitivity at 50 dB	18.3 dBf, 45 μ V (mono) 38.3 dBf, 45 μ V (stereo)	
Usable sensitivity	11.2 dBf, 2 μ V (IHF)	
S/N	Mono Stereo	84 dB 78 dB
Harmonic distortion at 1 kHz	Mono Stereo	0.2% 0.4%
IM distortion	Mono Stereo	0.2 % 0.4%
Separation	45 dB at 1 kHz	
Frequency response	30 Hz – 15 kHz $+0_{-1.5}$ dB	30 Hz – 15 kHz $+0_{-2}$ dB
Selectivity	65 dB at 300 kHz	60 dB at 400 kHz
Capture ratio	1.2 dB	
AM suppression ratio	60 dB	54 dB
Image response ratio	80 dB	70 dB
IF response ratio	90 dB	70 dB
Spurious response ratio	100 dB	80 dB
RF intermodulation at 800 kHz	65 dB	60 dB
Auto tuning threshold	Low High	30 dBf 50 dBf

AM tuner section

	STR-AV1020	STR-AV920
Frequency range	530 – 1710 kHz (with 10 kHz interval) 531 – 1710 kHz (with 9 kHz interval)	
Antenna	Loop antenna	
Usable sensitivity	50 dB/m (at 1,000 kHz or 999 kHz)	
S/N	54 dB (at 50 mV/m)	
Harmonic distortion	0.5% (50 mV/m, 400 Hz)	
Selectivity	35 dB (9 kHz), 40 dB (10 kHz)	
Auto tuning threshold	55 dB/m	

General

	STR-AV1020	STR-AV920
System	Tuner section	PLL quartz-locked digital synthesizer system
	Preamplifier section	Low-noise NF type equalizer
	Power amplifier section	Pure-complimentary SEPP
Power requirements	120 V AC, 60 Hz	
Power consumption	USA model: 250 watts Canada model: 520 VA	USA model: 210 watts Canada model: 450 VA
AC outlets	Two switched, total 100 watts	
Dimensions	430 × 135 × 350 mm (w/h/d) (17 × 5 $\frac{3}{8}$ × 14 $\frac{1}{8}$ inches)	
Weight	10.3 kg (22 lb 11 oz)	10.2 kg (22 lb 8 oz)

Supplied accessories FM ribbon antenna (1)
 AM loop antenna (1)
 Remote commander (1)
 RM-U201 (STR-AV902)
 RM-P301 (STR-AV1020)
 External antenna connector (1)
 (STR-AV1020 only)
 Sony Batteries SUM-3(NS) (2)

Design and specifications subject to change without notice.

TABLE OF CONTENTS

Section	Title	Page	Section	Title	Page
1. GENERAL			3-8. Schematic Diagram		
1-1. Connections.....	4		– Surround/Graphic Equalizer Section (STR-AV920) –	33	
1-2. Parts Identification.....	5		3-9. Schematic Diagram – Display Section –	37	
1-3. How to Use the Learning Function (STR-AV1020 only)	7		3-10. Printed Wiring Boards – Display Section –	41	
2. ELECTRICAL ADJUSTMENTS	8		3-11. Printed Wiring Boards – Tuner Section (STR-AV1020) –	43	
Explanation of IC502 (μ PD75516)	10		3-12. Schematic Diagram – Tuner Section (STR-AV1020) –	45	
3. DIAGRAMS			3-13. Printed Wiring Boards – Tuner Section (STR-AV920) –	47	
3-1. Semiconductor Lead Layouts	12		3-14. Schematic Diagram – Tuner Section (STR-AV920) –	49	
3-2. Circuit Boards Location.....	12		3-15. IC Block Diagrams	51	
3-3. Printed Wiring Boards – Main Section –	14				
3-4. Schematic Diagram – Main Section –	19				
3-5. Schematic Diagram – Surround/Graphic Equalizer Section (STR-AV1020) –	23				
3-6. Printed Wiring Boards – Surround/Graphic Equalizer Section (STR-AV1020) –	27				
3-7. Printed Wiring Boards – Surround/Graphic Equalizer Section (STR-AV920) –	30				
4. EXPLODED VIEWS					
4-1. Front Panel	53				
4-2. Chassis.....	54				
5. ELECTRICAL PARTS LIST	56				

OUTLINE

The STR-AV1020/AV920 is a FM Stereo/FM-AM receiver and audio/video control center. You can enjoy various audio/video program sources with this unit.

TV/video programs

- You can enjoy TV or CATV programs with FM simulcast.
- Sounds from various audio program sources can be added on video tapes during editing.

Tuner

- Precise tuning is ensured by a quartz lock digital synthesizer.
- Station Index system allows you to tune into a station quickly.

Remote control

- The supplied remote commander allows you to remotely control both the unit and the equipment connected to the unit.
- The commander supplied with the STR-AV1020 can learn various functions of other remote commanders of the infrared type.

Display

- The frequency of each tuned-in broadcast station is displayed.
- The current selection/operation is displayed to clearly indicate what is taking place.

Electronic graphic equalizer

- You can enjoy audio program sources with an appropriate equalization curve.

Surround sound system

This unit incorporates all of 3 types of surround effect.

- **DOLBY SURROUND** * (STR-AV920 only) – expands sound just like listening to it in a movie theater.
- **DOLBY PRO LOGIC** (STR-AV1020 only): STR-AV1020 incorporates the Dolby Pro Logic Surround Decoder which has the same functions for playback, as movie theaters and gives a theater-like experience in your listening room, naturally reproducing the audio sound field.
- Hall Surround-provides reverberation effect that is produced in a large concert hall.
- Simulated Surround-gives the feeling of width and thickness to monaural sound of old movie program, etc.

Sound field

- The sound field function has 10 combinations of surround effect, equalizer curve, and DBFB (Dynamic Bass Feed Back). With an appropriate sound field setting, you can enjoy audio program sources as your preference.
- Combined use of the sound field function and the preset station index system allows you to enjoy broadcast listening immediately with the memorized sound field setting.

Dual room link control (DRLC)

- The DRLC function allows you to link a second room to your main or primary listening room. You can enjoy listening to either the same program source being played in the main room or a different program source in the second room.

SAFETY CHECK-OUT (US Model)

After correcting the original service problem, perform the following safety check before releasing the set to the customer:

Check the antenna terminals, metal trim, "metallized" knobs, screws, and all other exposed metal parts for AC leakage. Check leakage as described below.

LEAKAGE TEST

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5 mA (500 microamperes). Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers' instructions to use these instruments.
2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.

3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The "limit" indication is 0.75 V, so analog meters must have an accurate low-voltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of a passive VOM that is suitable. Nearly all battery operated digital multimeters that have a 2V AC range are suitable. (See Fig. A)

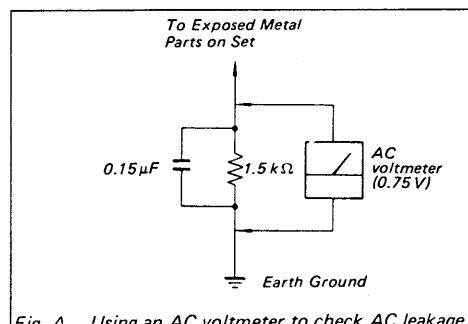


Fig. A. Using an AC voltmeter to check AC leakage.

SAFETY-RELATED COMPONENT WARNING!!

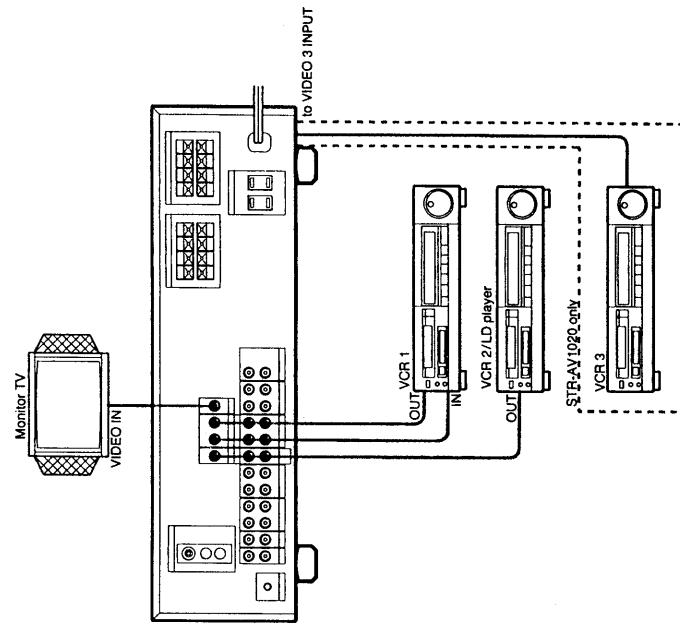
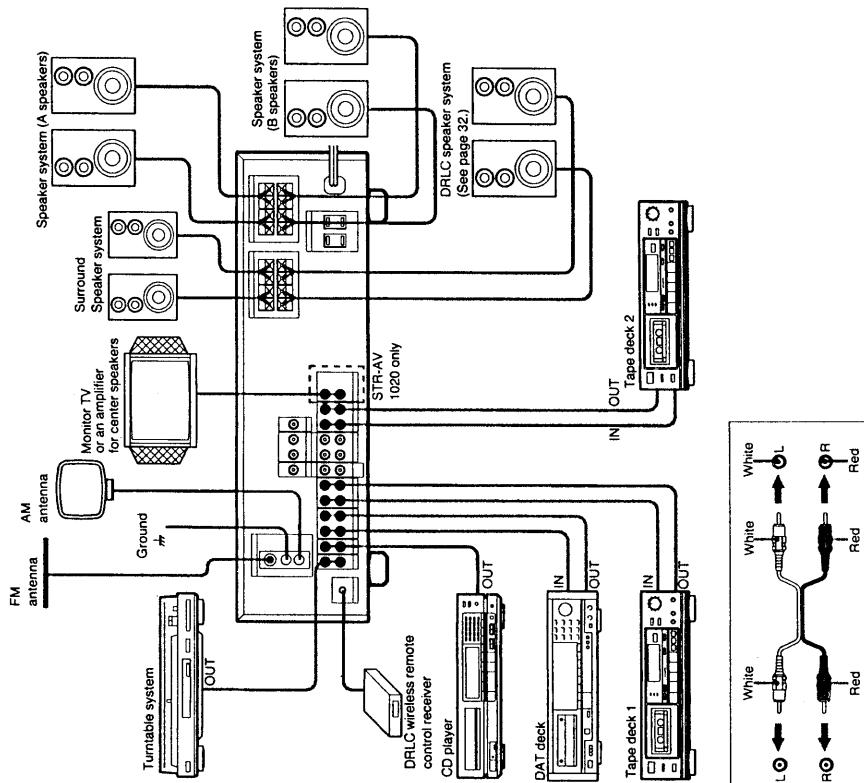
COMPONENTS IDENTIFIED BY MARK OR DOTTED LINE WITH MARK ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!

LES COMPOSANTS IDENTIFIÉS PAR UNE MARQUE SUR LES DIAGRAMMES SCHÉMATIQUES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COMPOSANTS QUE PAR DES PIÈCES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DANS LES SUPPLÉMENTS PUBLIÉS PAR SONY.

SECTION 1

GENERAL

Connecting Video Equipment**Connecting Audio Equipment**

1-1. CONNECTIONS

Notes on Connection

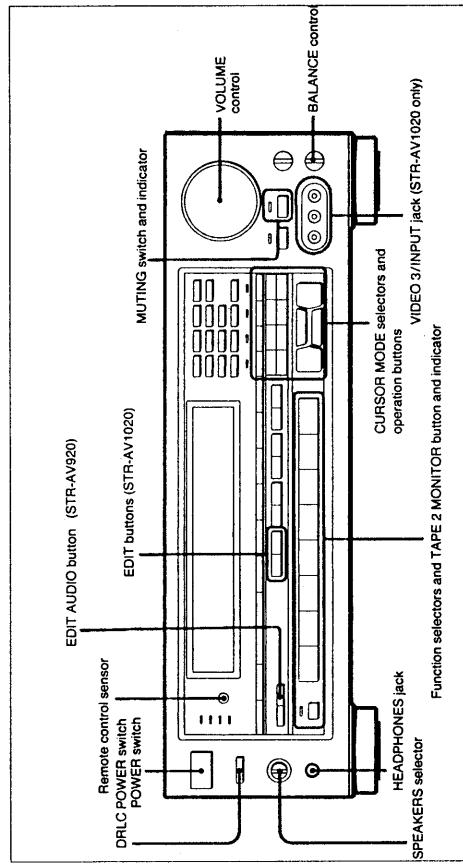
- Do not connect the power cord to an AC outlet nor press the POWER switch before accomplishing all other connections.
- The cable connectors should be fully inserted into the jacks. Loose connection may cause hum and noise.
- Jacks and plugs of the connecting cord are color-coded as follows:

 - Red jacks and plugs: for the right channel of audio signals
 - White jacks and plugs: for the left channel of audio signals
 - Yellow jacks and plugs: for video signals

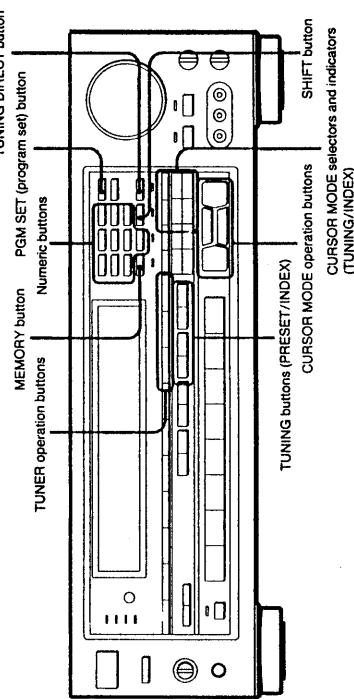
1-2. PARTS IDENTIFICATION

Front Panel

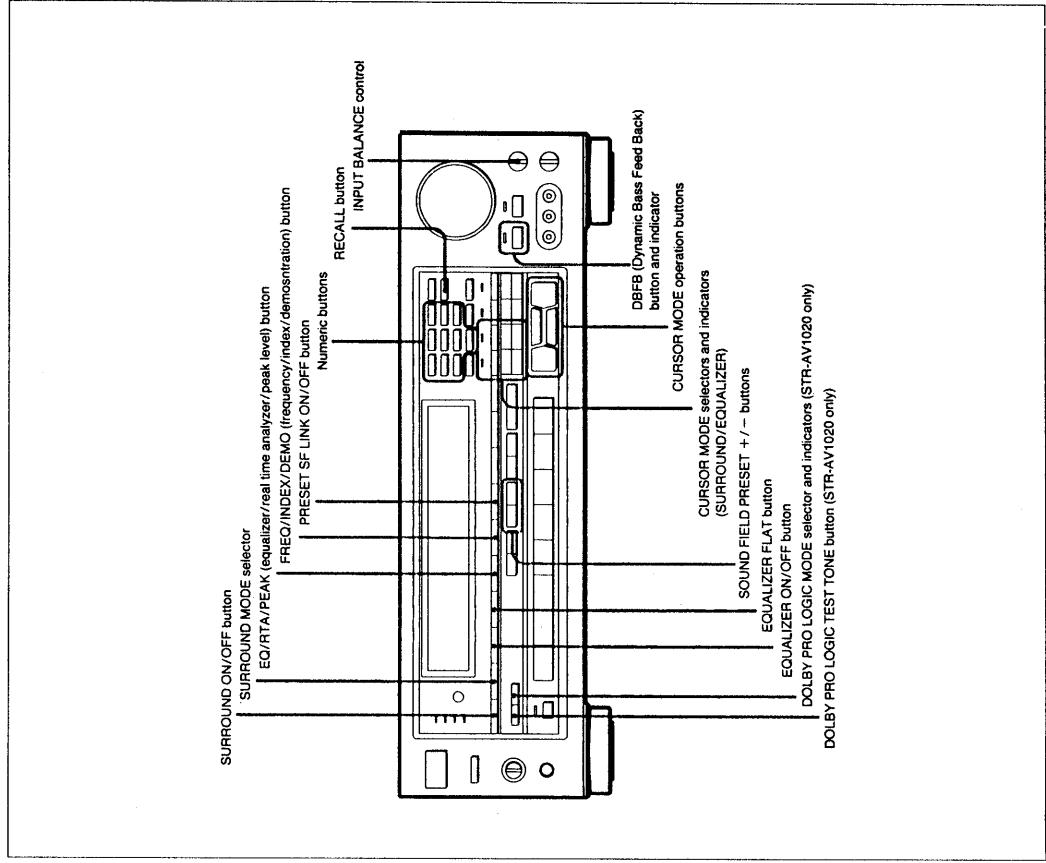
Amplifier and general section

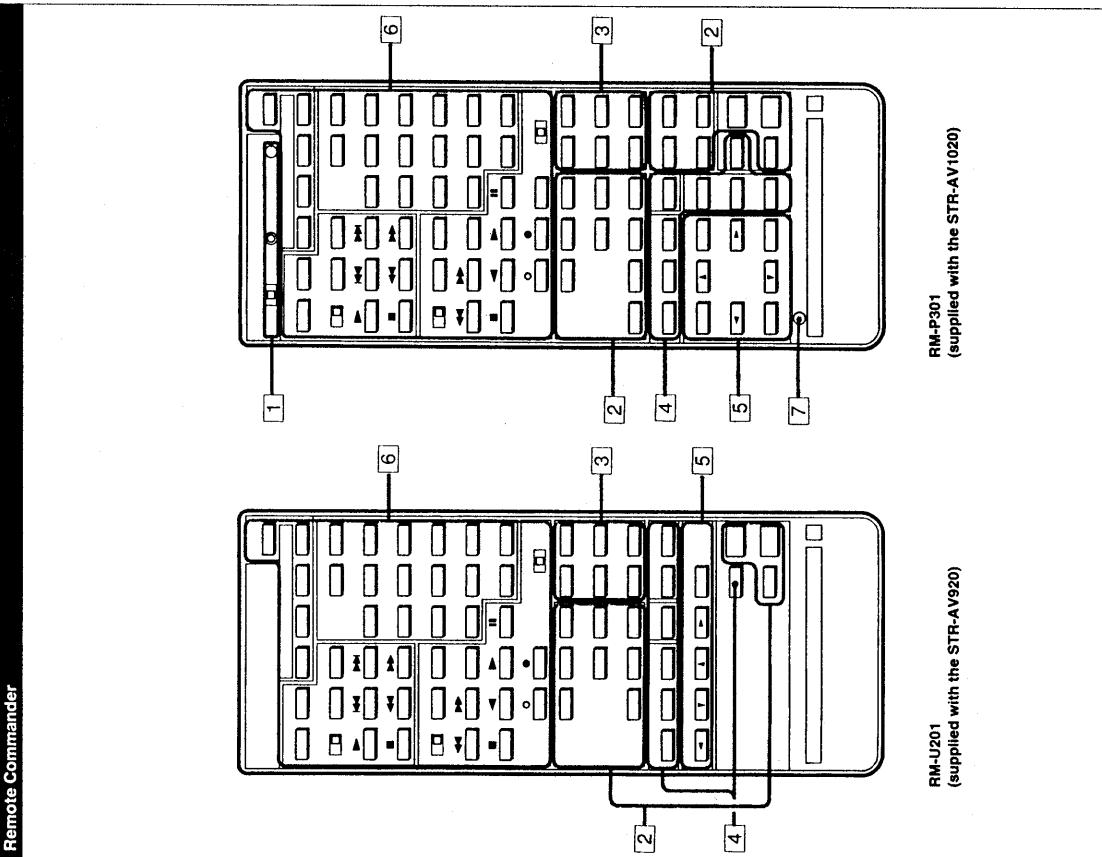


Tuner section



Sound field control section



Parts Identification**Remote Commander**

1 Program control section (RM-P301 only)
Mode selector and indicator (page 34)
SONY STD (standard): To control Sony equipment
USER STD (standard): To control equipment whose
remote control functions are stored.
LEARN: To store functions of other remote
commanders emitting infrared rays.
PROGRAM CLEAR button: Clears the stored functions.

2 Amplifier section

FUNCTION selectors: Select an input source of the receiver. (The VIDEO 3 button does not operate on the STR-AV920.)
DIGITAL button (RM-P301 only): This button does not operate.
REAR LEVEL + / - buttons (RM-P301 only): Control the volume of rear speakers (surround level).
MUTING button: Mutes the sound.
MASTER VOL + / - buttons: Control the receiver volume.
CENTER LEVEL + / - buttons (RM-P301 only): These buttons do not operate.

3 Tuner section

INDEX SELECT and INDEX + / - buttons: Select an indexed preset station.
TUNER SHIFT and PRESET + / - buttons: Select a preset station.

4 Sound control section

SURROUND buttons
ON/OFF: Turns on/off the surround mode.
MODE: Selects the surround mode.
T. (test) TONE: Generates a pink noise signal that is sent in succession to each speaker. (This button does not operate on the STR-AV920.)
EQUALIZER ON/OFF button: Turns on/off the equalizer.
S.(sound) FIELD buttons
MODE: Selects sound field mode.
LINK: Links sound field to preset station.
USER/PRESET button (RM-P301 only): This button does not operate.
DBFB button (RM-U201 only): Turns on/off the DBFB (Dynamic Bass Feed Back), DDS/DBFB button (RM-P301 only): Turns on/off the DBFB (Dynamic Bass Feed Back). (DDS function is not available with this receiver.)

5 Cursor control section

CURSOR CONTROL buttons
MODE button: Selects cursor mode.
MAIN, SUB, and EQ buttons (RM-P301 only): These buttons do not operate.

RM-P301 (supplied with the STR-AV1020)**RM-U201 (supplied with the STR-AV920)**

6 Control for other equipment
Power control block
SYSTEM OFF button: Turns off the power of the whole system: LDP, VTR, TV, and AUDIO.
LDP/VTR/TV/AUDIO POWER buttons: Control the power of each unit. (The VTR button can be operative only when TAPE/VTR selector is set to VTR.)

CDP/LDP control block

CDP/LDP selector: Selects CD player or LD player to be played. The combined CD/LD player can be controlled with this selector set to LDP.
CONTINUE: Continuous play (only for CD player)
SHUFFLE: Shuffle play (only for CD player)
PGM (program): Program play (only for CD player)
D (disc) SKIP: Disc skip (for a CD player equipped with a multi-disc changer)
▶: Starts play.
◀: Locates a desired selection.
■: Stops play.
◀/▶: Manual search (only for LD player)

Tape deck/VCR control block

TAPE/VTR selector: Selects TAPE (tape deck) or VTR (VCR) to be controlled.
ANT (antenna) TV/VTR button: Selects the output signal from the antenna terminal on the VCR, either a TV signal or VCR programs.
CH (channel) + / - buttons: Select channel on the VCR.
◀/▶: fast winding
■: Stop
▶/◀: Play
II: Pause
O (RM-U201 only): Record muting
● (RM-U201 only): Recording (While pressing ●, press ▲ or ▼)
REV/REC/FWD (recording) buttons (RM-P301 only): For reverse recording, press REV and REC together.
For forward recording, press FWD and REC together.
DECK/VTR selector
DECK A, B, and DAT: Selects A, B, or DAT deck.
VTR 1, 2, and 3: Selects VCR type.
1: Betamax VCRs
2: 8 mm VCRs
3: VHS VCRs

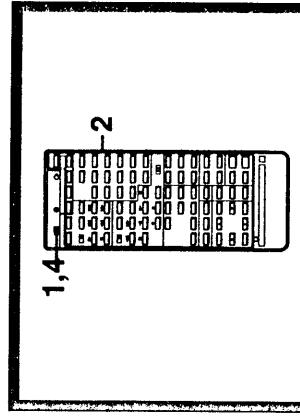
7 TV control block
TV/VIDEO selector: Selects the program to see: TV or VIDEO.
VOL (volume) + / - buttons: Control the TV volume.
CH (channel) + / - buttons: Select a preset TV channel.
Program number (1 to 0) and ENTER buttons: Select the TV channel.

7 RESET button (RM-P301 only)
Reset the commander to the initial state.

1-3. HOW TO USE THE LEARNING FUNCTION (STR-AV1020 ONLY)

Programming Signals of Other Audio/Video Equipment with Programmable System Commander RM-P301

The RM-P301 learns various functions of other remote commanders emitting infrared rays and allows you to control most of audio and video equipment from a distance.



1 Set the mode selector to LEARN.

2 Program a signal.

- ① Press and hold the button which shall "learn" the remote-control signal until the LEARN indicator lights up.
- ② Press and hold the button of other manufacturer's remote commander whose signal is to be learned.
- ③ Remove your finger(s) from the button(s) after the LEARN indicator goes off.

The two remote commanders must:

- face straight each other.
- be placed at a distance of approx. 5 cm (2 inches).
- not be moved during programming operation.

3 Repeat operation for each button to be programmed.

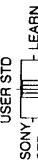
4 Set the mode selector to USER STD or SONY STD.

After programming
Be sure to test if the equipment really works with the programmed signals.

Number of signals that the commander can learn
It depends on the format of the signal. If you program signals of Sony equipment, approximately 50 - 60 signals can be programmed.



4



If the LEARN indicator flashes or does not go out in step 2②, ③.

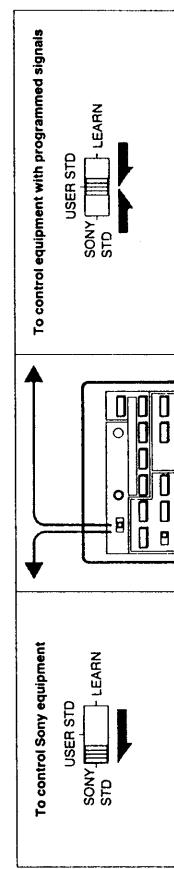
The memory capacity has become full. This occurs when other signals stronger than the remote-control signals have been stored because the signals were programmed in a noisy environment or the remote commanders were placed too far apart from each other.
→ Clear all the signals following the procedure on the right and program again from the beginning under the proper conditions.

Notes on programming

- Remote-control signals of equipment of manufacturers other than Sony can be programmed only when they are compatible with the infrared wireless remote control system. Since the programmable commander can "learn" only the signals output from another remote commander, it cannot control equipment that does not use a remote commander. Also, note that there are some special remote-control signals that cannot be programmed.
- Do not attempt to use the programmable commander with an air conditioner or other household appliances.

Controlling Equipment

By switching the mode selector as shown below, a single button alternately controls Sony equipment and another manufacturer equipment.



When Sony equipment cannot be remote-controlled
Program the signal in the same way as for equipment from other manufacturers. In this case, even with Sony equipment, set the mode selector to USER STD.

If no signal has been programmed
The programmable commander can control Sony equipment even when the mode selector is set to USER STD.
If the equipment works incorrectly
The programmed contents of the buttons are not cleared by pressing RESET.

Notes on Battery
If the LEARN indicator does not light when a button is pressed, the batteries are almost exhausted.
When the batteries are exhausted, the remote commander can no longer operate the unit or programming becomes impossible.
If this happens, replace both batteries with new ones. We recommend the use of alkaline batteries for prolonged use.

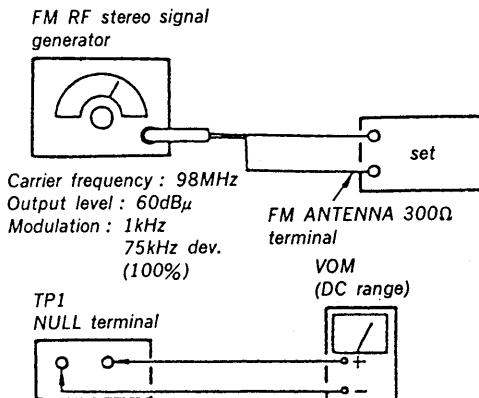
SECTION 2

ELECTRICAL ADJUSTMENTS

FM SECTION

• FM Discriminator (NULL) Adjustment

Setting :



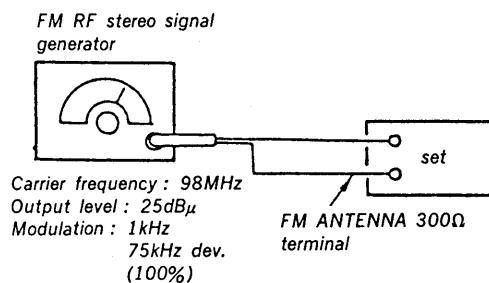
Procedure :

1. Tune the set to 98MHz.
2. Adjust T21 and T22 (AV1010 only) for 0V reading on the VOM.

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

• FM Stereo Operation Level Adjustment

Setting :

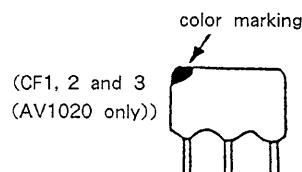


Procedure :

1. Tune the set to 98MHz.
2. Adjust RV24 so that the STEREO LED goes on.

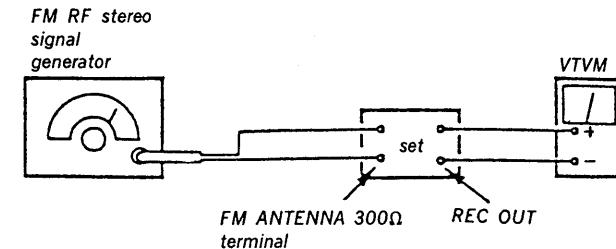
Note on Ceramic Filter (CF1, 2 and 3 (AV1020 only)) Replacement.

This set employs two ceramic filters (CF1, 2 and 3 (AV1020 only)) which should have the same color marking to identify their center frequency. Therefore FM IF offset adjustment by D234, D235 mounted is necessary to match the center frequency of the ceramic filters used with FM intermediate frequency.



• FM Stereo Separation Adjustment

Setting :



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	Ⓑ
R-CH	R-CH	Ⓒ
L-CH	R-CH	Ⓓ

L-CH Stereo separation : Ⓐ - Ⓑ

R-CH Stereo separation : Ⓒ - Ⓓ

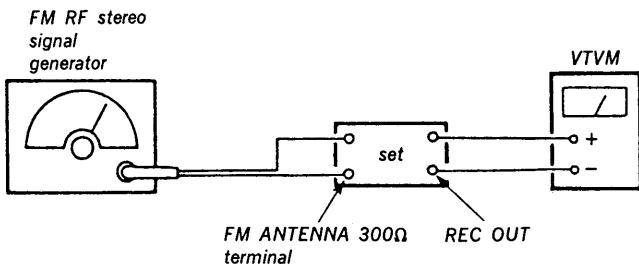
The separations of both channels should be equal.

○ : Mounted
× : not Mounted

Ceramic filter		Mount		FM intermediate frequency (MHz)
Color mark	Center frequency (MHz)	IF+50k (D234)	IF-50k (D235)	
White	10.750	○	×	10.750
Red	10.700	○	○	10.700
Black	10.650	×	○	10.650

• Auto Stop Level Adjustment

Setting :



Carrier frequency : 98MHz

Output level : 40dB μ or 45dB μ

Procedure :

1. Turn the High/Low select switch to High.
2. Adjust RV25 so that the TUNED LED goes on.

AMP SECTION

DC Bias Adjustment

- Perform this adjustment after replacement of power amp or drive circuit transistors.

Setting :

VOLUME : 0

SPEAKERS : OFF (no load)

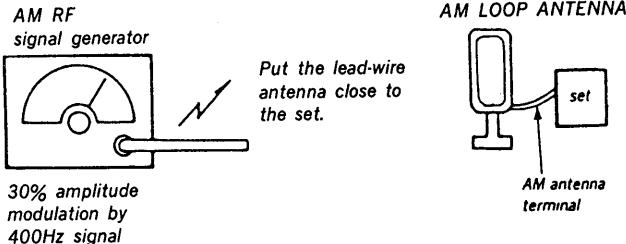
Procedures :

1. Connect the digital voltmeter to Bias Test Point (TP-701 ①, ② L-CH, TP-751 ①, ② R-CH).
2. Increase the AC power voltage gradually to 120V confirming that the voltmeter will not indicate an abnormal value.
3. Confirm that the display is normal.
4. Adjust RT701 (L-ch) or RT751 (R-ch) so that the reading on the voltmeter becomes 4mV within 30 seconds after the power turned on.

AM SECTION

• AM Meter Adjustment

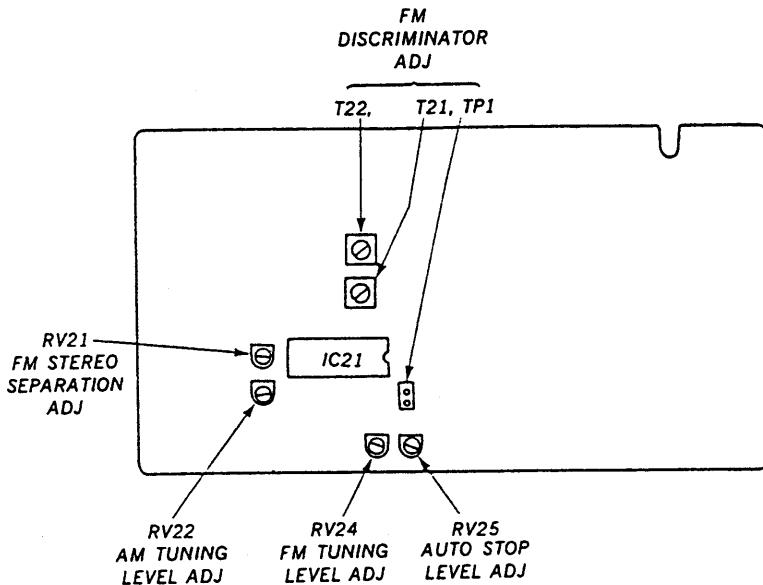
Setting :



Procedure :

1. Tune the set to 1,050kHz.
2. Adjust the RV22 so that the TUNED LED goes on.

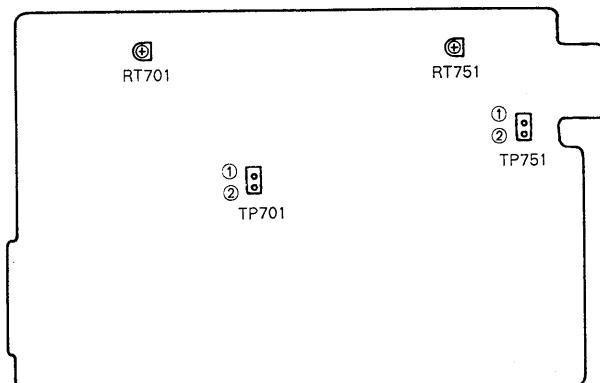
Adjustment Location : tuner board



Note : It is normal that the voltage will increase as time passes.

5. Turn the power off and remove the digital voltmeter.

Adjustment Location : main board



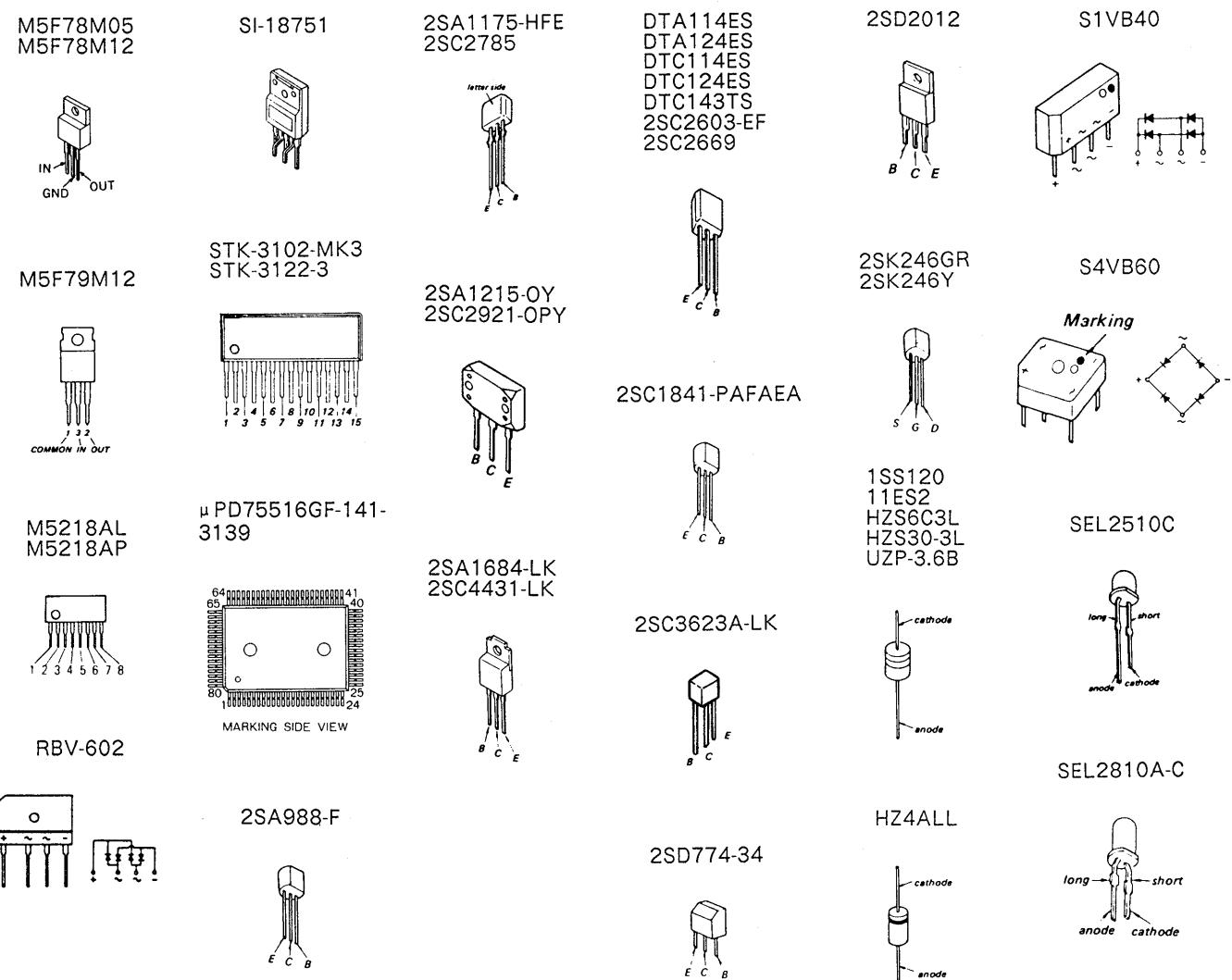
EXPLANATION OF IC502 (μ PD75516)

P No.	SIGNAL NAME	FUNCTION	I/O	ACT
1.	A _{No}	POWER IN	I	-
2.	A _{VREF}	A/D Vref	-	-
3.	V _{DD}	V _{DD}	-	-
4.	V _{DD}	POWER SUPPLY	-	-
5.	P113	T. LEVEL	O	H
6.	P112	T. MUTE	O	H
7.	P111	ES. DATA	O	L
8.	P110	ES. CLOCK	O	L
9.	P103	DBFB	O	L
10.	P102	K/O-C	O	H
11.	P101	K/O-B	O	H
12.	P100	K/O-A	O	H
13.	P93	TAPE2	O	H
14.	P92	K/I-C	O	H
15.	P91	K/I-B	O	H
16.	P90	K/I-A	O	H
17.	P83	N. C	I	-
18.	P82	FLS. DATA	O	H
19.	P81	FLS. CLOCK	O	H
20.	P80	KEY-IN	I	H
21.	P73	VOL -	O	H
22.	P72	VOL +	O	H
23.	P71	FL. LS	O	H
24.	P70	FL. CL	O	L
25.	P63	L. CE	O	H
26.	P62	L. CL	O	L
27.	P61	IF-DIN	I	H
28.	P60	T-A. S	I	L
29.	P53	SAME	O	H
30.	P52	SUB/SURR	O	H
31.	P51	SUB. MUTE	O	L
32.	P50	F. MUTE	O	L
33.	GND	GND	-	-
34.	P43	-20dB MUTE	O	L
35.	P42	P. MUTE	O	L
36.	P41	SUB. RY	O	H
37.	P40	SURR. RY	O	H
38.	P33	P. RY	O	H
39.	P32	S. RY	O	H
40.	P31	S. CLOCK	O	H
41.	P30	S. DATA	O	H
42.	P23	S. CE	O	H
43.	P22	D. CE	O	H
44.	P21	VIDEO A	O	H
45.	P20	VIDEO B	O	H
46.	P13	STEREO IN	I	L
47.	P12	PROTE IN	I	L
48.	P11	RM-2	I	L
49.	P10	RM-1	I	L
50.	P03	A. CE	I	L

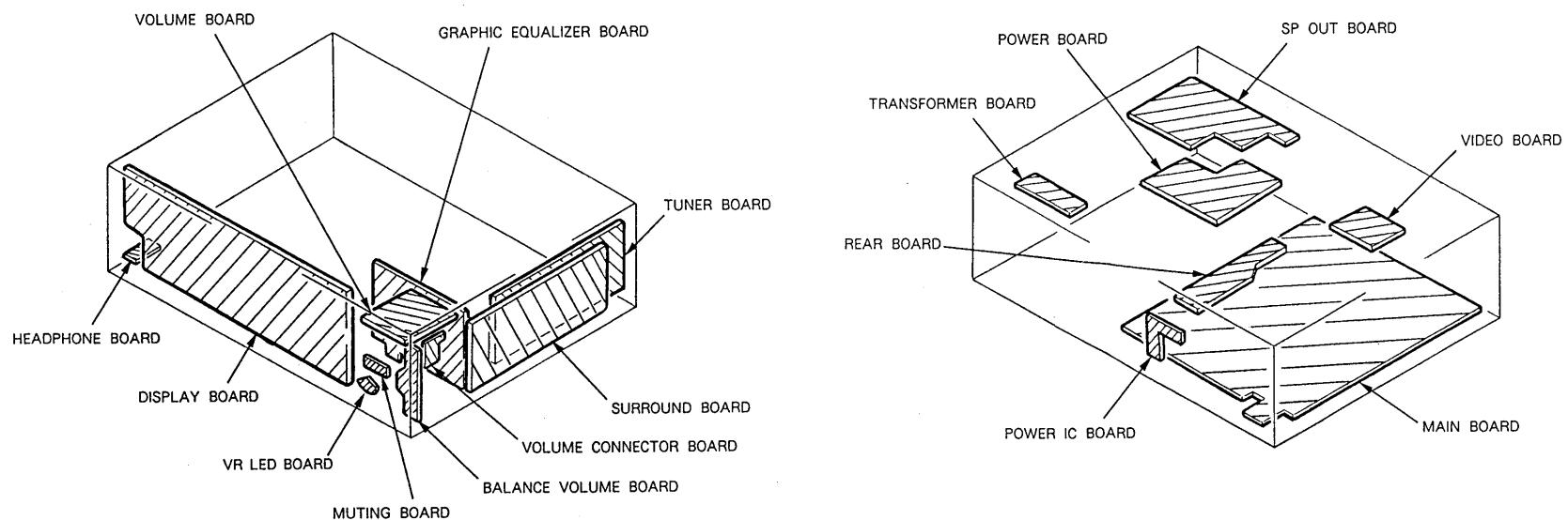
P No.	SIGNAL NAME	FUNCTION	I/O	ACT
51.	P02	N. C	I	-
52.	P01	N. C	I	-
53.	P00	STOP	POWER OFF DET	I L
54.	GND		GND	- -
55.	XT-1			- -
56.	XT-2			- -
57.	IC			- -
58.	X-1	OSC	4.19MHz CERAMIC	- -
59.	X-2	OSC	4.19MHz CERAMIC	- -
60.	RESET	RES	POWER ON RESET	I L
61.	P143	PRO 1	PROLOGIC MODE SELECT	O H
62.	P142	PRO 2	PROLOGIC MODE SELECT	O H
63.	P141	PRO 3	PROLOGIC MODE SELECT	O H
64.	P140	PRO 4	PROLOGIC MODE SELECT	O H
65.	P133	VIDEO C	VIDEO CONTROL C	O H
66.	P132	TEST, TONE	TEST TONE ON/OFF	O H
67.	P131	TEST B	TEST TONE SELECT	O H
68.	P130	TEST A	TEST TONE SELECT	O H
69.	P123	S. CONT	RM-2 CONTROL	O H
70.	P122	SURR-C	SURR MODE SELECT	O H
71.	P121	SURR-B	SURR MODE SELECT	O H
72.	P120	SURR-A	SURR MODE SELECT	O H
73.	AVss		ANALOG GND	- -
74.	AN7	A/D I ch7	SPEANA INPUT Δ 16K	I -
75.	AN6	A/D I ch6	SPEANA INPUT Δ 6.3K	I -
76.	AN5	A/D I ch5	SPEANA INPUT Δ 2.5K	I -
77.	AN4	A/D I ch4	SPEANA INPUT 1K	I -
78.	AN3	A/D I ch3	SPEANA INPUT Δ 400	I -
79.	AN2	A/D I ch2	SPEANA INPUT Δ 160	I -
80.	AN1	A/D I ch1	SPEANA INPUT Δ 63	I -

SECTION 3 DIAGRAMS

3-1. SEMICONDUCTOR LEAD LAYOUTS



3-2. CIRCUIT BOARDS LOCATION



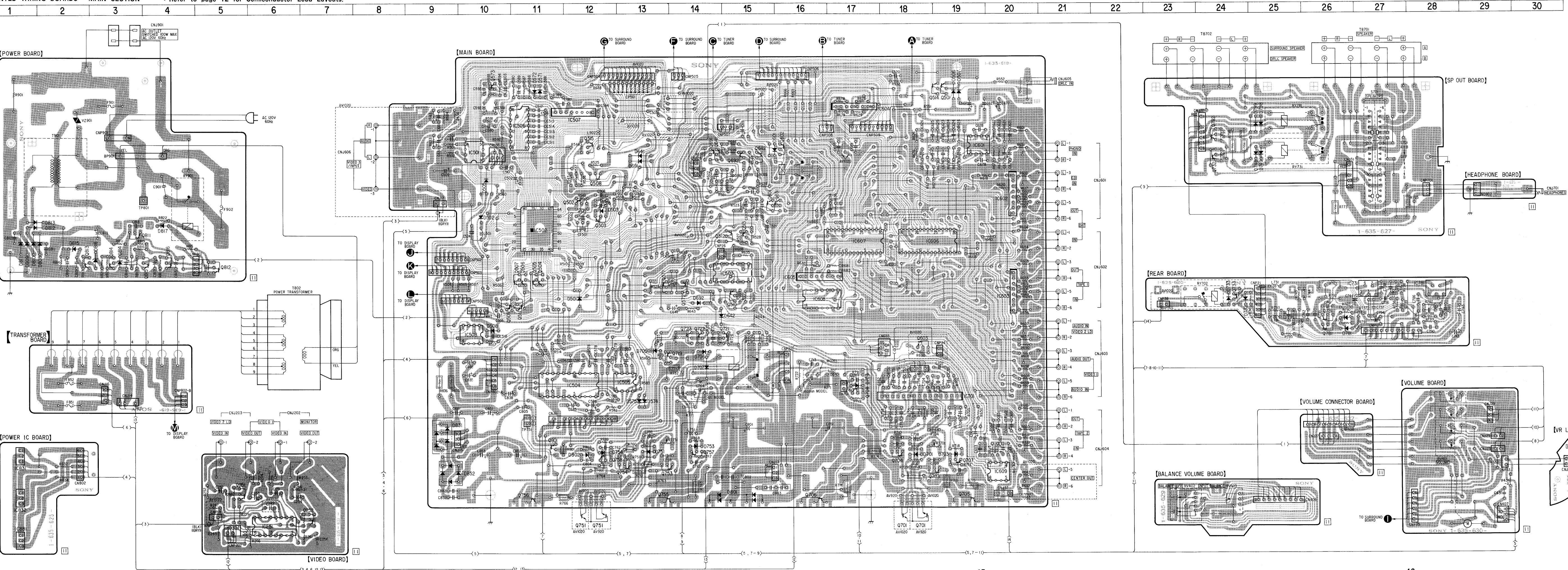
• SEMICONDUCTOR LOCATION

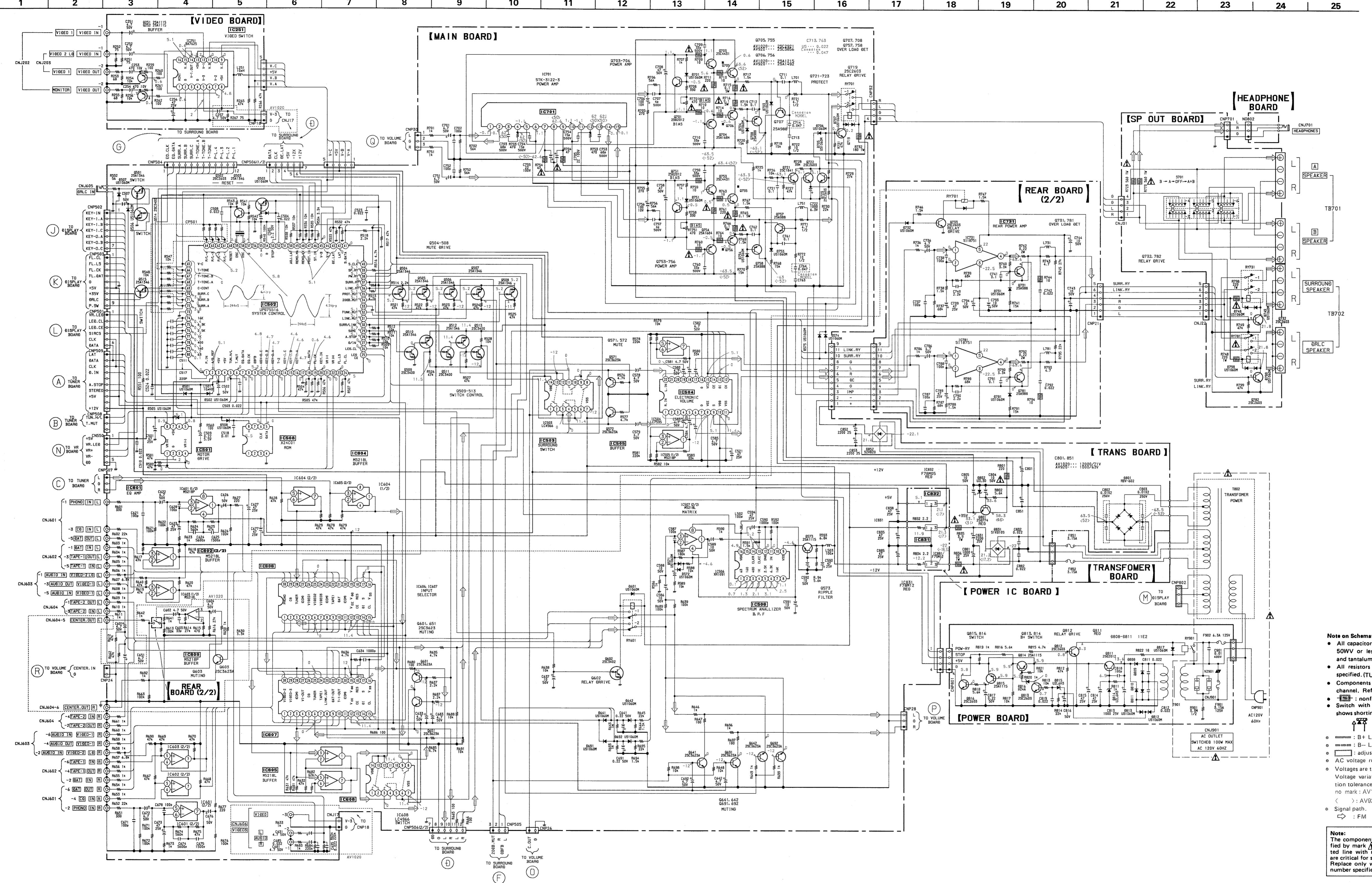
Ref. No.	Location	Ref. No.	Location
IC251	J-6	Q601	D-15
IC501	C-10	Q602	C-16
IC502	E-11	Q603	G-18
IC503	E-15	Q641	C-14
IC504	H-12	Q642	C-15
IC505	G-13	Q651	D-16
IC506	C-11	Q691	C-15
IC507	B-12	Q692	C-15
IC508	G-10	Q701	J-18
IC601	C-19	Q703	I-19
IC602	D-20	Q704	I-18
IC603	F-20	Q705	J-19
IC604	B-17	Q706	J-16
IC605	E-16	Q707	I-19
IC606	E-18	Q708	H-17
IC607	E-17	Q719	G-14
IC608	F-16	Q721	G-15
IC609	I-20	Q722	G-14
IC701	H-19	Q723	G-14
IC731	F-27	Q731	F-26
IC781	F-28	Q732	C-24
IC831	I-1	Q733	F-24
IC832	J-1	Q751	I-12
IC881	J-1	Q753	I-13
Q251	J-5	Q755	J-13
Q252	J-7	Q756	J-11
Q501	B-19	Q757	I-14
Q502	D-12	Q758	I-12
Q503	D-12	Q781	F-26
Q504	E-11	Q82	C-24
Q505	E-11	Q801	I-11
Q506	E-11	Q811	E-3
Q507	E-11	Q812	E-5
Q508	D-12	Q813	E-2
Q509	F-10	Q814	E-3
Q510	F-15	Q815	E-4
Q511	F-11	Q816	E-4
Q512	E-15	Q817	E-3
Q513	E-15	Q818	E-4
Q514	B-19	D401	I-31
Q515	C-12	D501	F-12
Q571	F-13	D502	D-10
Q572	F-14	D503	D-12
Q573	B-10	D505	D-10
		D831	H-9
		D852	I-9
		D808	E-2
		D809	E-1
		D810	E-1
		D811	E-1
		D812	E-1
		D813	D-1
		D814	E-3
		D815	E-2
		D816	E-3
		D817	E-4
		D401	I-31
		D501	F-12
		D502	D-10
		D503	D-12
		D505	D-10
		D506	B-19

Note on Mounting Diagram:
● : parts extracted from the component side.

3-3. PRINTED WIRING BOARDS - MAIN SECTION -

• Refer to page 12 for Semiconductor Lead Layouts.



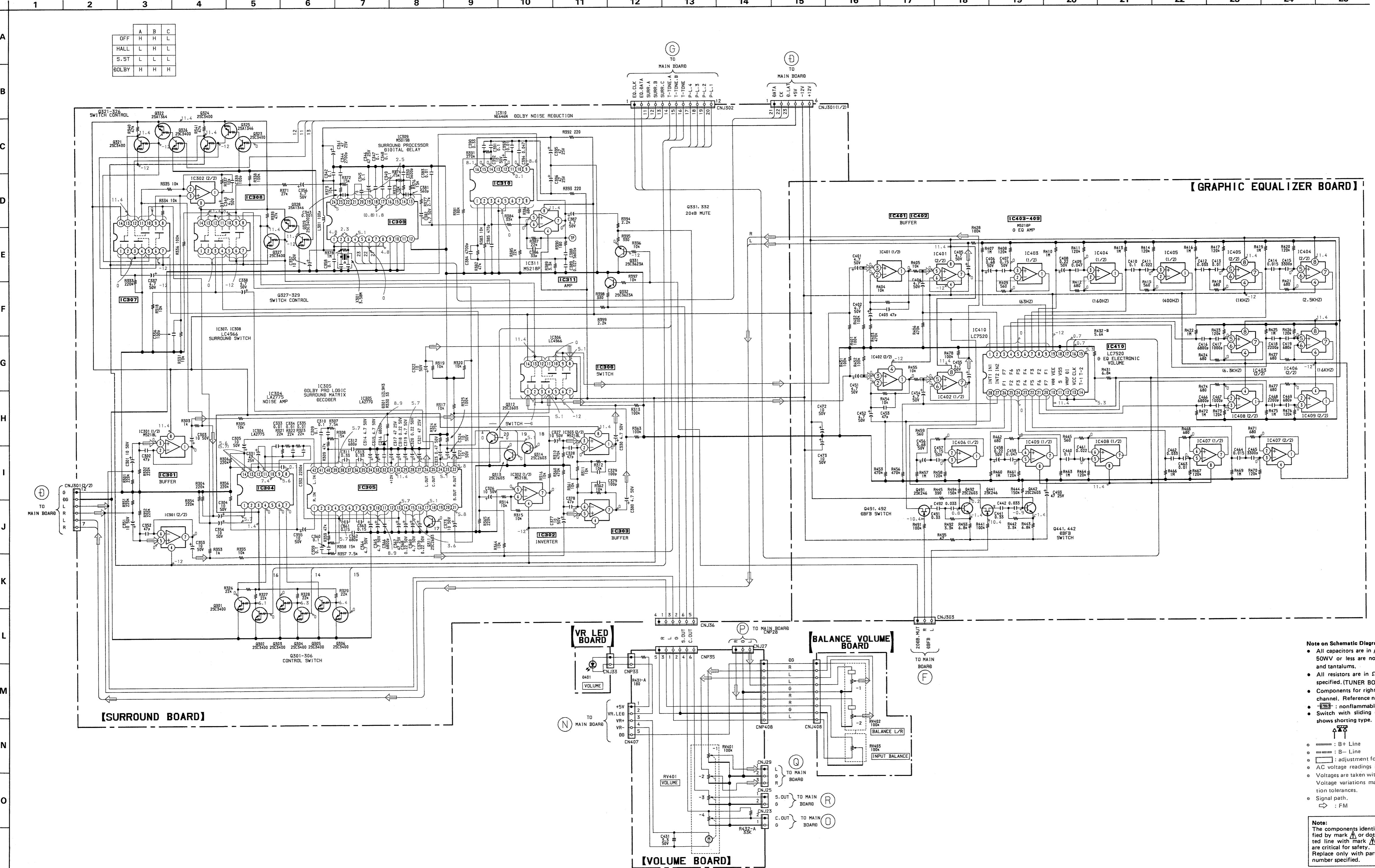


Note on Schematic Diagram:

- All capacitors are in μF unless otherwise noted. pF: $\mu\mu F$ 50V or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and $1/4 W$ or less unless otherwise specified. (TUNER BOARD 1/2W)
- Components for right channel have same values as for left channel. Reference numbers are coded from
- Switch with sliding contact indicated by hatched lines shows shorting type.
- : B+ Line
- : B- Line
- : Adjustment for repair.
- AC voltage readings in the bias oscillator with a VTM.
- Voltages are taken with a VOM (Input Impedance 10M Ω). Voltage variations may be noted due to normal production tolerances.
- no mark : AV1020
- < : AV920
- Signal path.
- : FM

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

Note:
Les composants identifiés par une marque Δ ou pointillée avec une marque Δ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.



Note on Schematic Diagram:

- All capacitors are in μF unless otherwise noted. pF: μF 500V or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and $1/4\text{W}$ or less unless otherwise specified. (TUNER BOARD $1/2\text{W}$)
- Components for right channel have same values as for left channel. Reference numbers are coded from \square : nonflammable resistor.
- Switch with sliding contact indicated by hatched lines shows shorting type.

- --- : B+ Line
- --- : B- Line
- --- : adjustment for repair.
- AC voltage readings in the bias oscillator with a VTVM.
- Voltages are taken with a VOM (Input Impedance 10M Ω). Voltage variations may be noted due to normal production tolerances.
- Signal path.
- \Rightarrow : FM

Note:

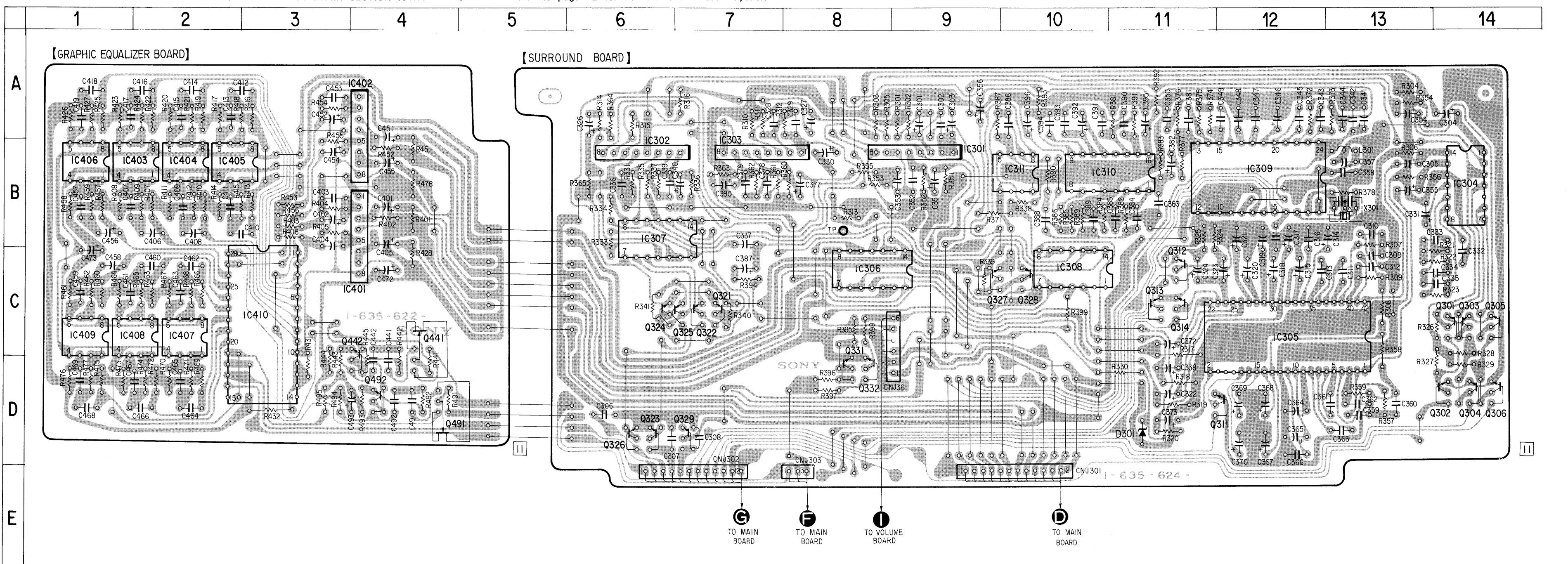
The components identified by mark Δ or dotted line with mark Δ are critical for safety. Replace only with part number specified.

Note:

Les composants identifiés par une marque Δ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

3-6. PRINTED WIRING BOARDS -SURROUND/GRAFIC EQUALIZER SECTION (STR-AV1020) -

• Refer to page 12 for Semiconductor Lead Layouts.



Note on Mounting Diagram:
• — : parts extracted from the component side.

• SEMICONDUCTOR LOCATION

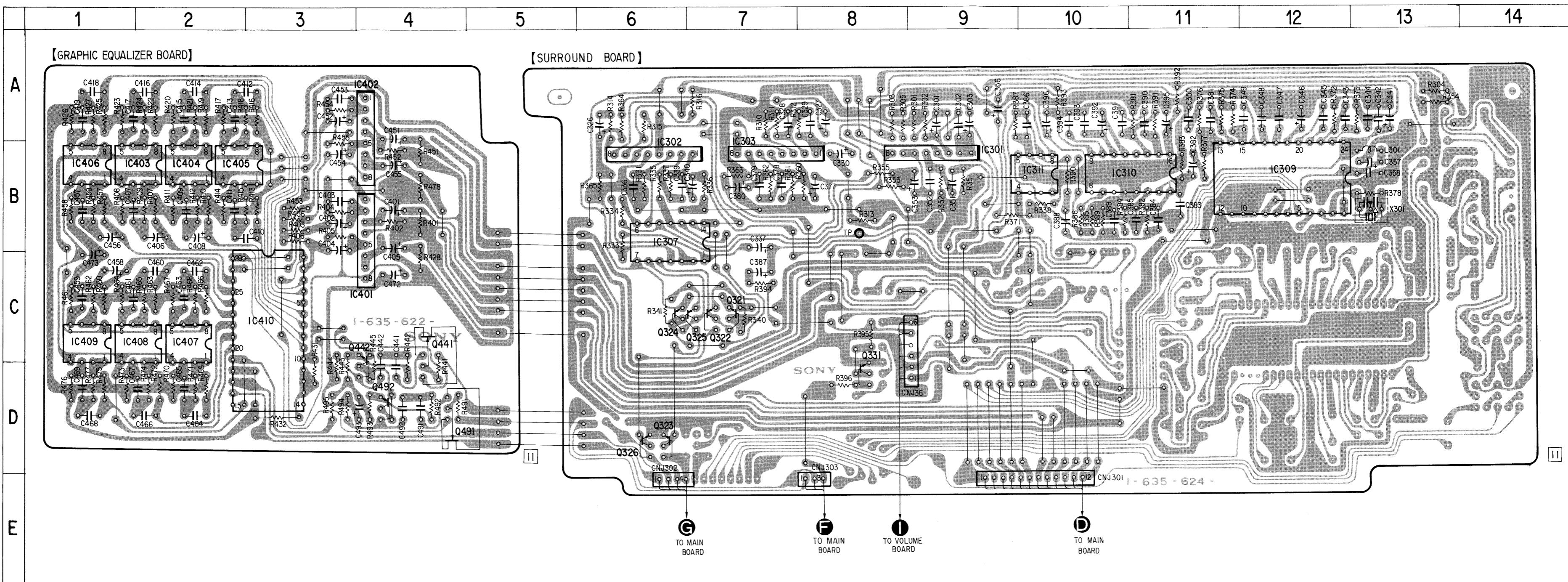
Ref. No.	Location
IC301	B-9
IC302	B-6
IC303	B-7
IC304	B-14
IC305	C-12
IC306	C-8
IC307	B-6
IC308	C-10
IC309	B-12
IC310	B-10
IC311	B-10
IC401	C-4
IC402	A-4
IC403	B-2
IC404	B-2
IC405	B-2
IC406	B-1
IC407	C-2
IC408	C-2
IC409	C-1
IC410	C-3
Q301	C-14
Q302	D-14
Q303	C-14
Q304	D-14
Q305	C-14
Q306	D-14
Q311	D-12
Q312	C-11
Q313	C-11
Q314	C-11
Q321	C-7
Q322	C-7
Q323	D-6
Q326	D-6
Q327	C-9
Q328	C-10
Q329	D-7
Q331	D-8
Q332	D-8
Q441	C-4
Q442	C-4
Q491	D-4
Q492	D-4
D301	D-11

• SEMICONDUCTOR LOCATION

Ref. No.	Location
IC301	B-9
IC302	B-6
IC303	B-7
IC307	B-6
IC309	B-12
IC310	B-10
IC311	B-10
IC401	C-4
IC402	A-4
IC403	B-2
IC404	B-2
IC405	B-2
IC406	B-1
IC407	C-2
IC408	C-2
IC409	C-1
IC410	C-3
Q321	C-7
Q322	C-7
Q323	D-6
Q324	C-6
Q325	C-7
Q326	D-6
Q331	D-8
Q441	C-4
Q442	C-4
Q491	D-4
Q492	D-4
D301	D-11

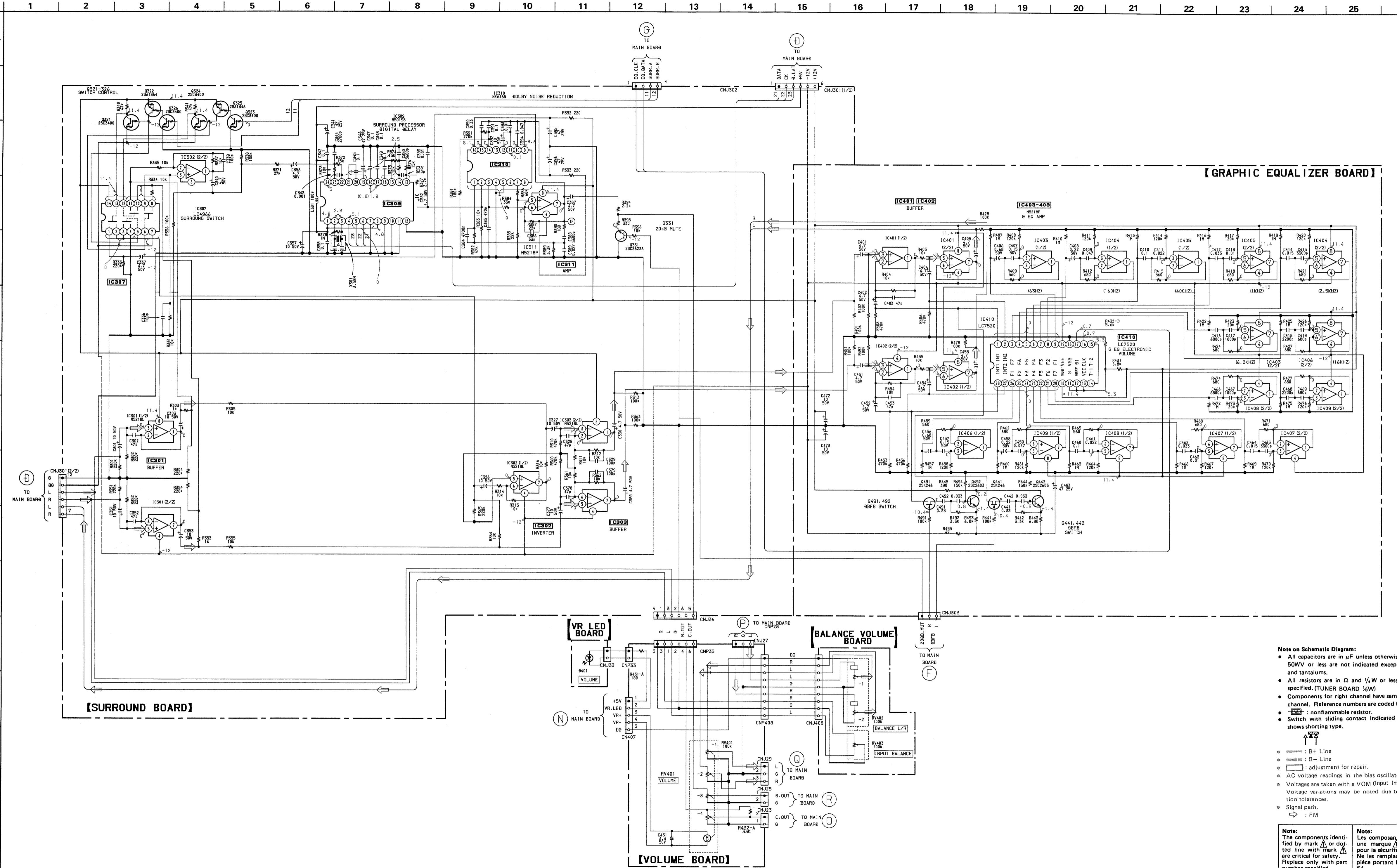
3-7. PRINTED WIRING BOARDS -SURROUND/GRAFIC EQUALIZER SECTION (STR-AV920) -

• Refer to page 12 for Semiconductor Lead Layouts.



Note on Mounting Diagram:

- : parts extracted from the component side.



Note on Schematic Diagram:

- All capacitors are in μF unless otherwise noted. pF: μF 50W or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and $1/4\text{W}$ or less unless otherwise specified. (TUNER BOARD $1/2\text{W}$)
- Components for right channel have same values as for left channel. Reference numbers are coded from
- \square : nonflammable resistor.
- Switch with sliding contact indicated by hatched lines shows shorting type.

Legend:

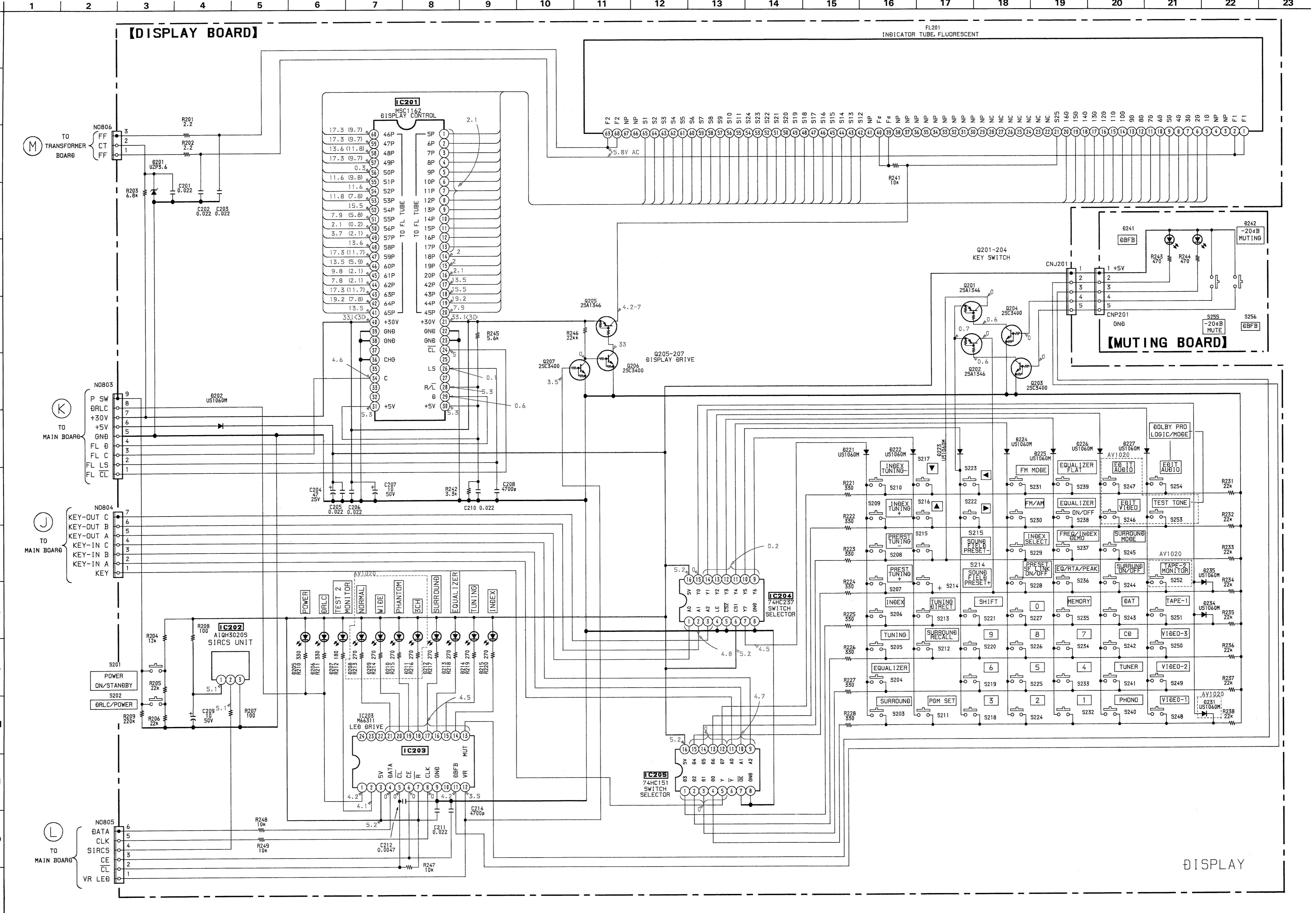
- --- : B+ Line
- --- : B- Line
- \square : adjustment for repair.
- AC voltage readings in the bias oscillator with a VTVM.
- Voltages are taken with a VOM (Input Impedance 10M Ω). Voltage variations may be noted due to normal production tolerances.
- Signal path.
- \square : FM

Note:

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

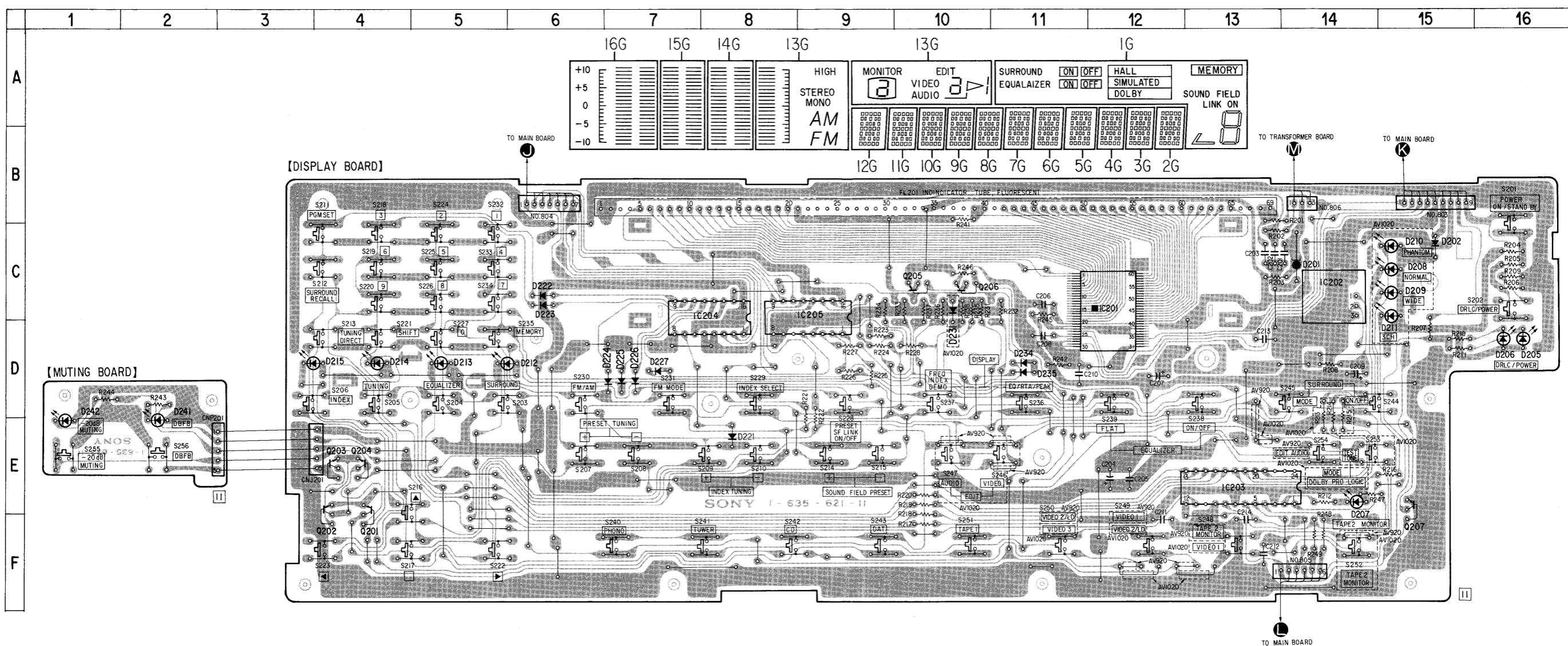
Note:

Les composants identifiés par une marque \triangle ou une ligne pointillée avec une marque \triangle sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.



3-10. PRINTED WIRING BOARDS -DISPLAY SECTION-

• Refer to page 12 for Semiconductor Lead Layouts.



• SEMICONDUCTOR LOCATION

Ref. No.	Location	Ref. No.	Location	Ref. No.	Location
IC201	C-12	D201	C-14	D221	E-8
IC202	C-14	D202	C-15	D222	C-6
IC203	E-13	D205	D-16	D223	C-6
IC204	C-8	D206	D-16	D224	D-7
IC205	C-9	D207	E-14	D225	D-7
		D208	C-15	D226	D-7
Q201	F-4	D209	C-15	D227	D-7
Q202	F-4	D210	C-15	D231	D-10
Q203	E-4	D211	C-15	D234	D-11
Q204	E-4	D212	D-6	D235	D-11
Q205	C-10	D213	D-5	D241	E-2
Q206	C-10	D214	D-4	D242	E-1
Q207	E-15	D215	D-4		

Note on Mounting Diagram:

• — : parts extracted from the component side.

3-11. PRINTED WIRING BOARDS -TUNER SECTION (STR-AV1020) - • Refer to page 12 for Semiconductor Lead Layouts.

• Semiconductor Location

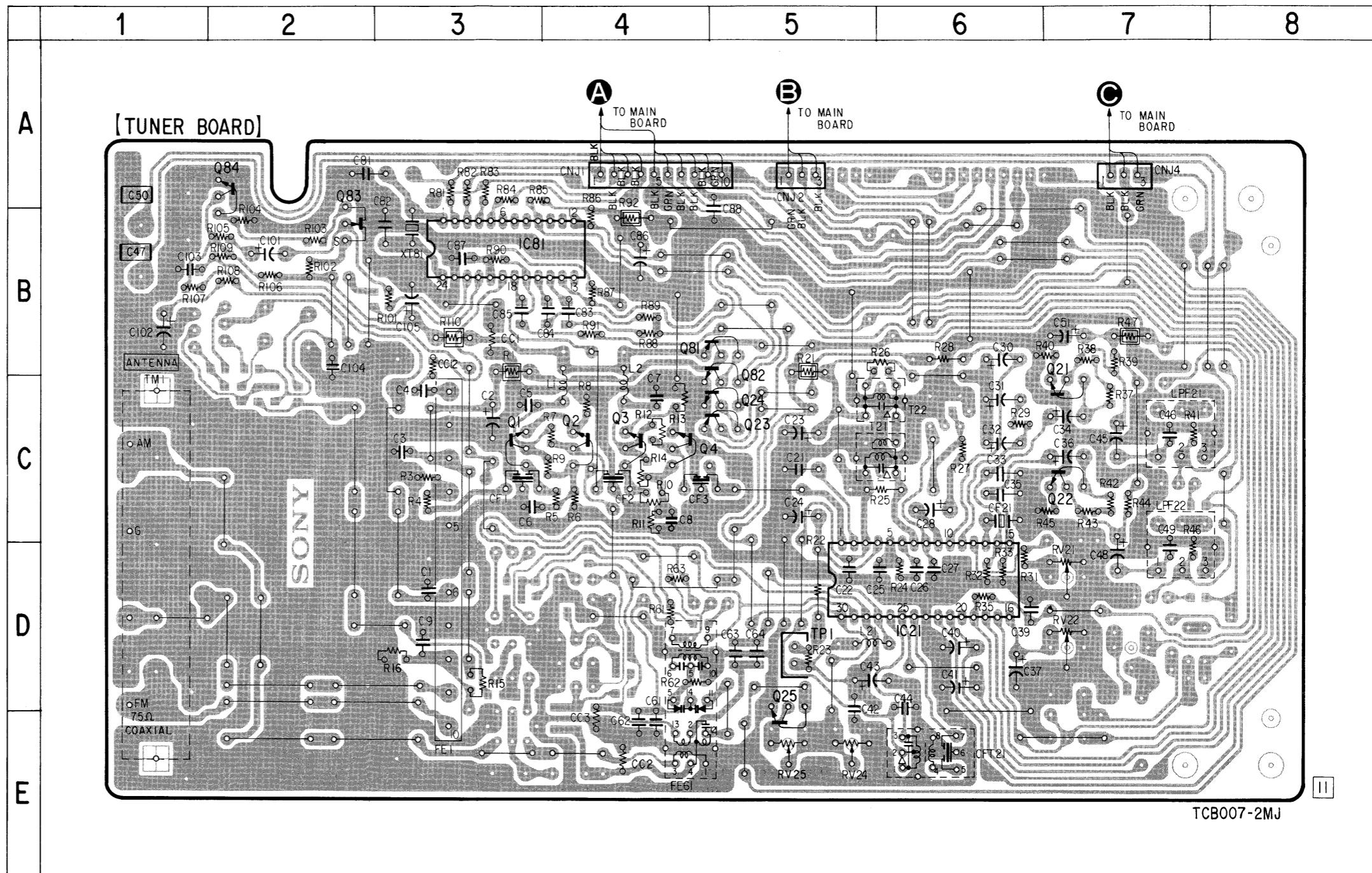
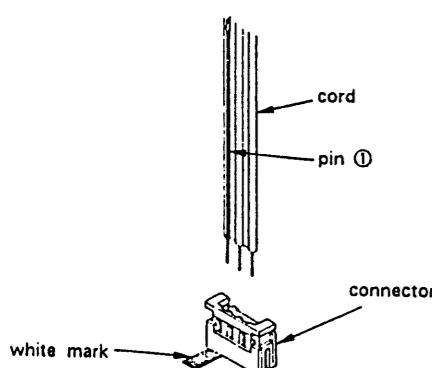
Ref. No.	Location
IC21	D-6
IC81	B-3
Q1	C-3
Q2	C-4
Q3	C-4
Q4	C-4
Q21	C-7
Q22	C-7
Q23	C-5
Q24	C-5
Q25	E-5
Q81	B-5
Q82	B-5
Q83	B-2
Q84	A-2

Note on Mounting Diagram:

- — : parts extracted from the component side.

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

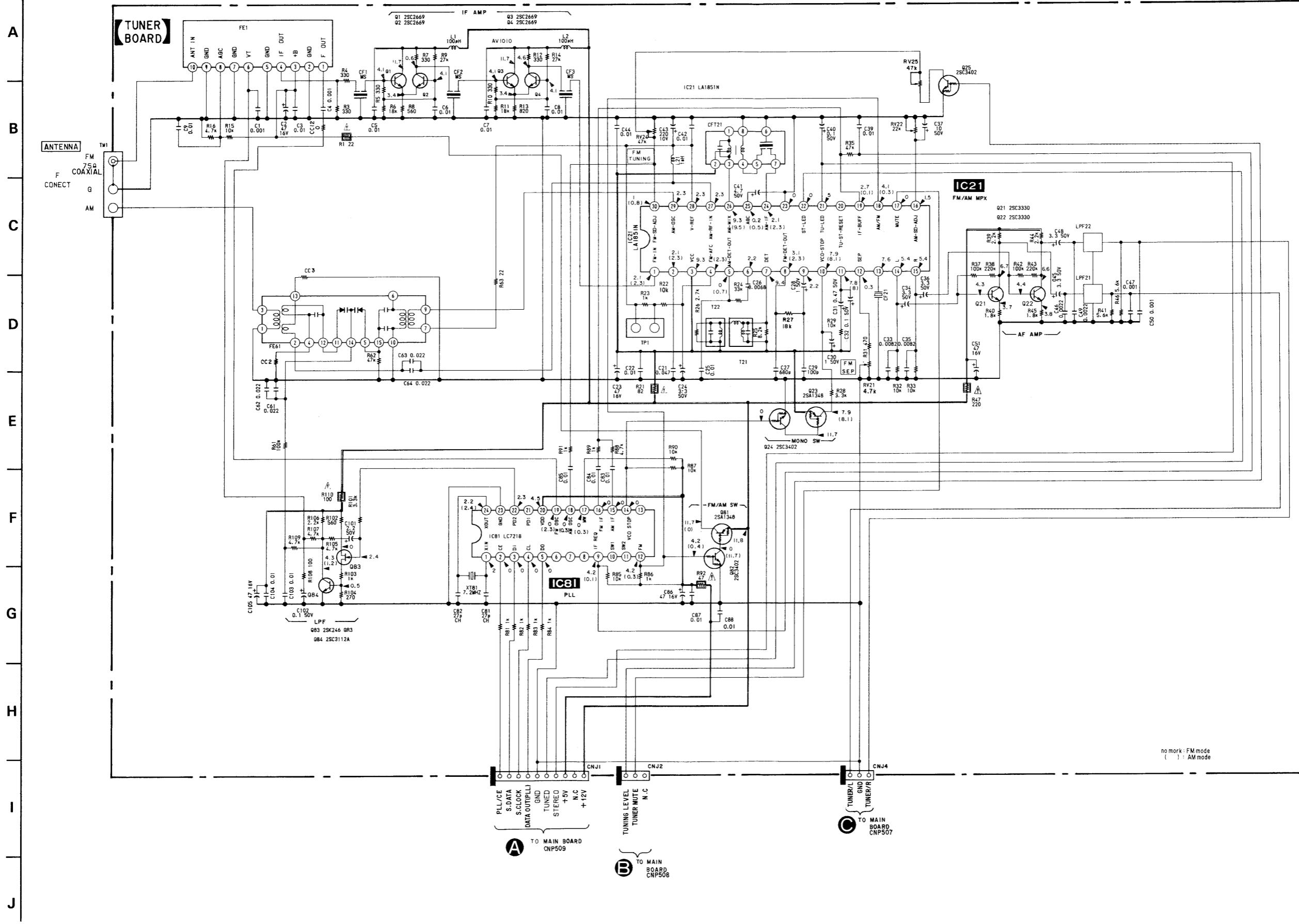
- Insert the cord to the connector fitting Pin ① of the cord in accordance with the white mark on the board at the connector as shown in the figure.
- In case of 3 pin cord, insert the cord fitting each color of the connector on Tuner Board and Main Board.



3-12. SCHEMATIC DIAGRAM -TUNER SECTION (STR-AV1020) -

• Refer to page 22 for note.

1 2 3 4 5 6 7 8 9 10 11 12 13 14

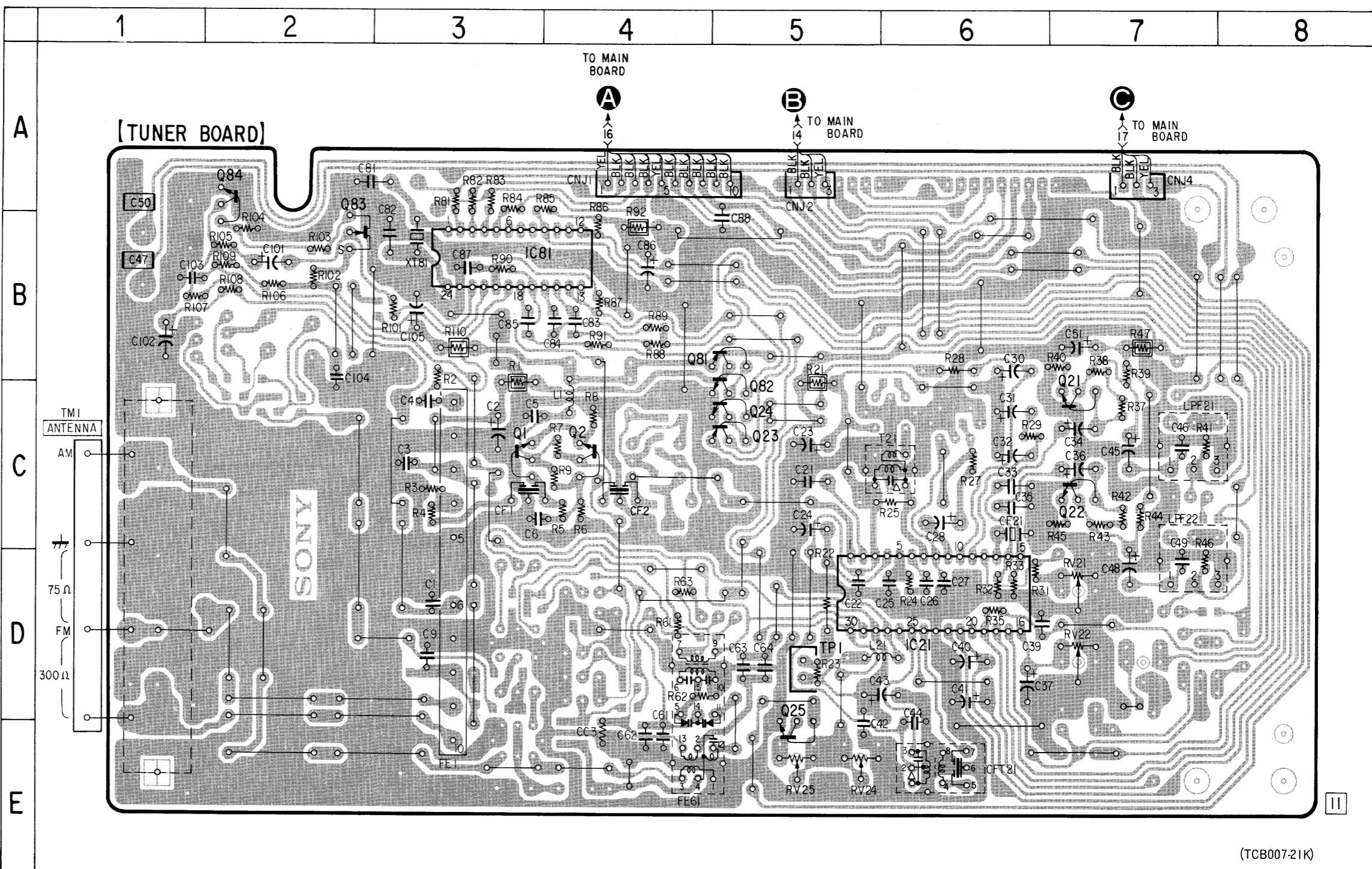


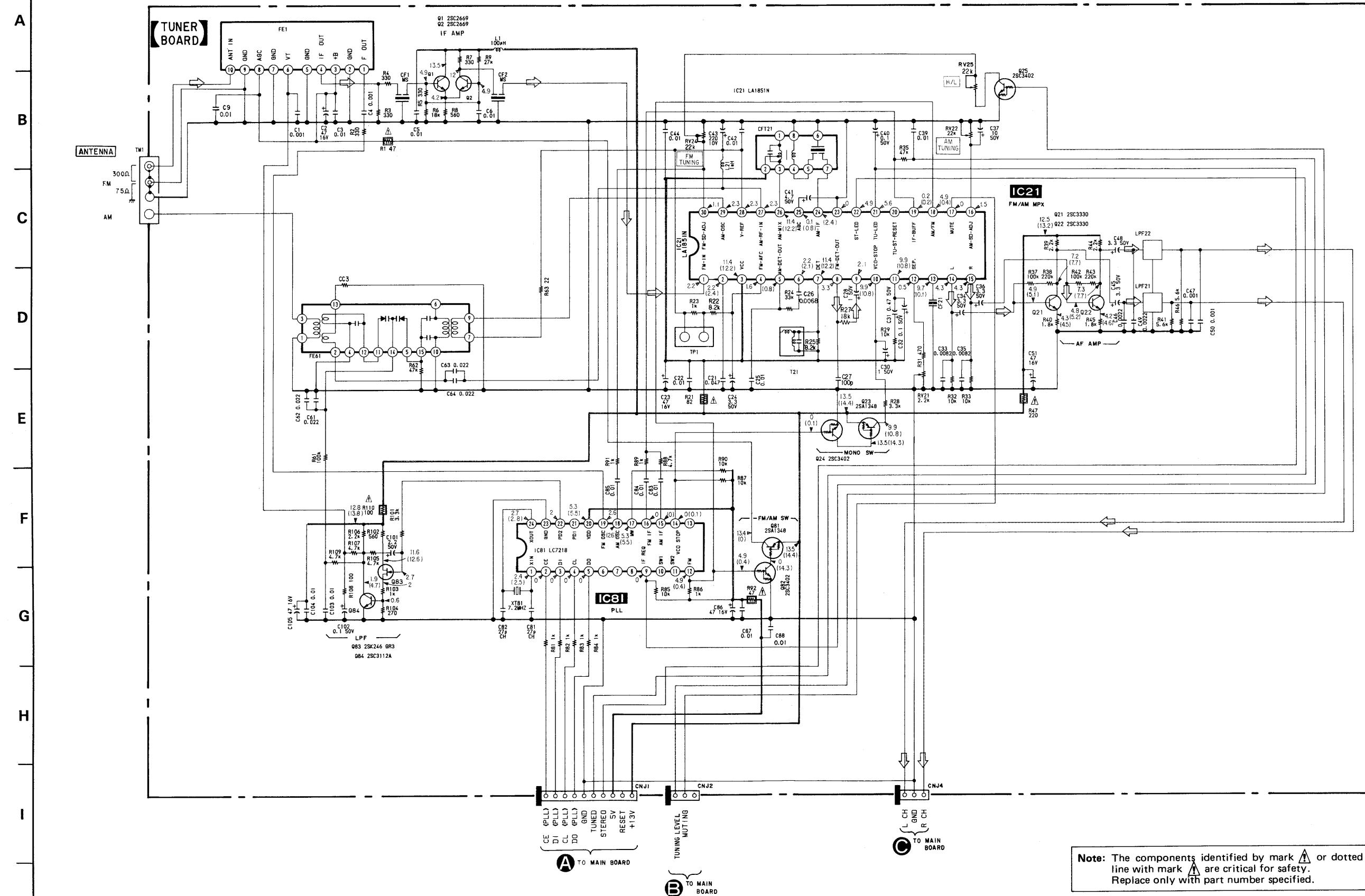
• Semiconductor Location

Ref. No.	Location
IC21	D-6
IC81	B-3
Q1	C-3
Q2	C-4
Q21	C-7
Q22	D-7
Q23	C-5
Q24	C-5
Q25	D-5
Q81	B-5
Q82	C-5
Q83	B-2
Q84	A-2

3-13. PRINTED WIRING BOARDS -TUNER SECTION (STR-AV920) -

• Refer to page 12 for Semiconductor Lead Layouts.

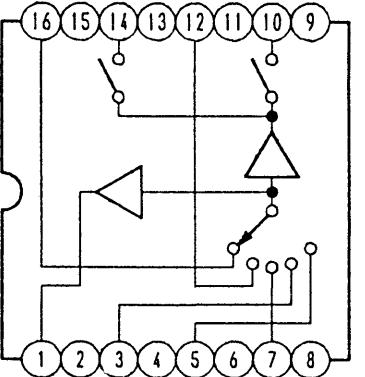




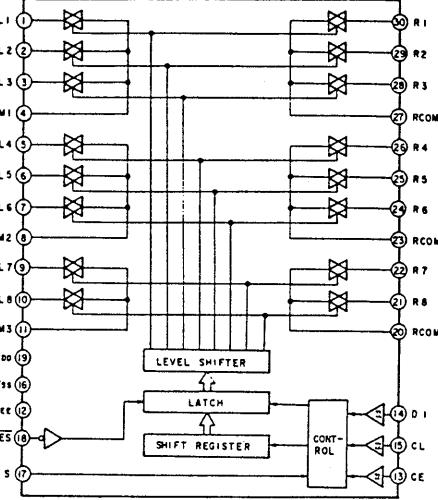
Note: The components identified by mark \triangle or dotted line with mark \triangle are critical for safety. Replace only with part number specified.

3-15. IC BLOCK DIAGRAMS

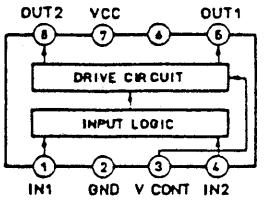
IC251 BA7625



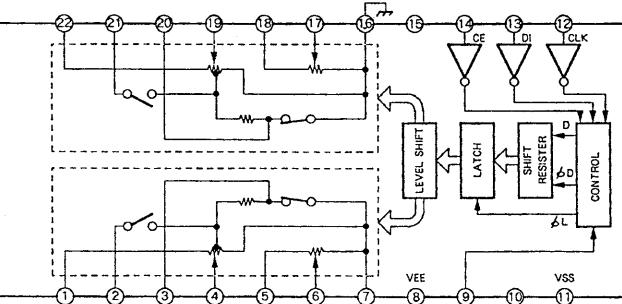
IC606, 607 LC7822



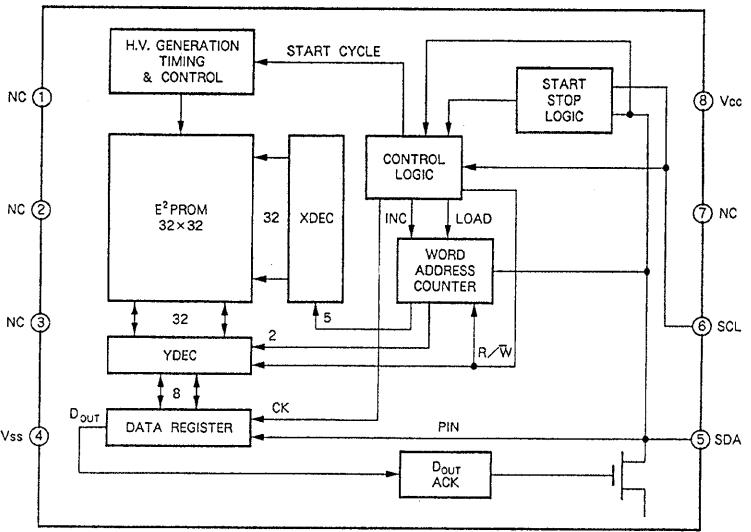
IC501 LB1639



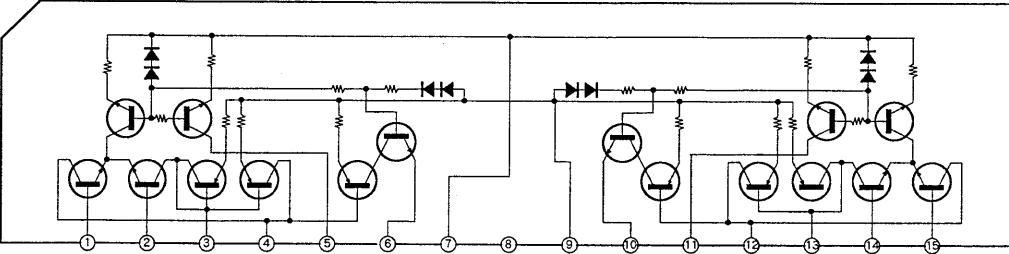
IC504 LC7535



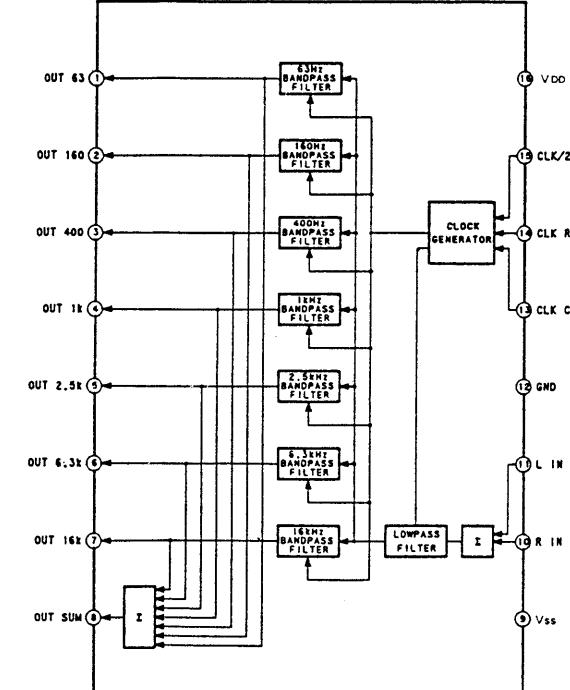
IC508 X24C01



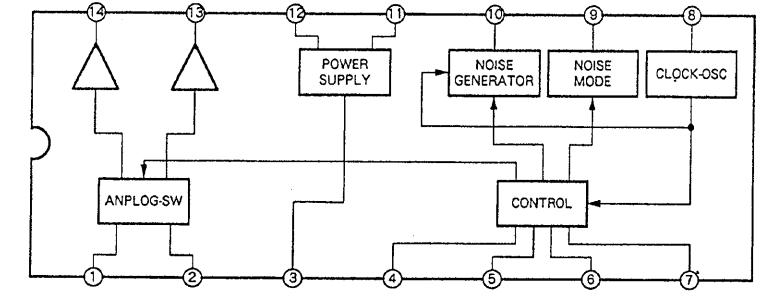
IC701 STK-3122-3



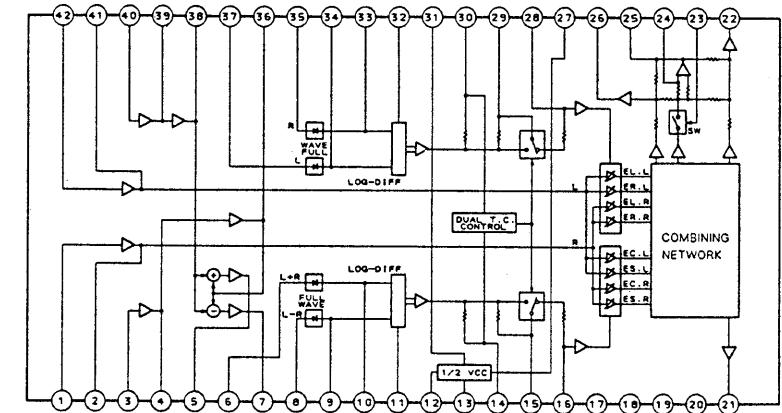
IC506 XR1091



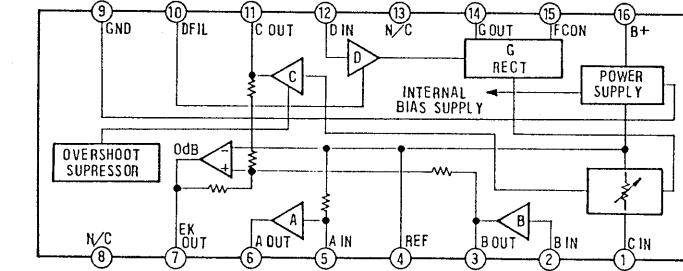
IC304 LA2775



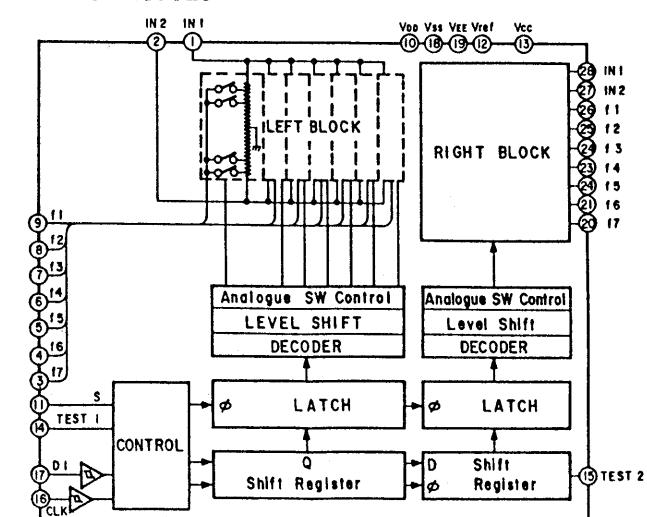
IC305 LA2770



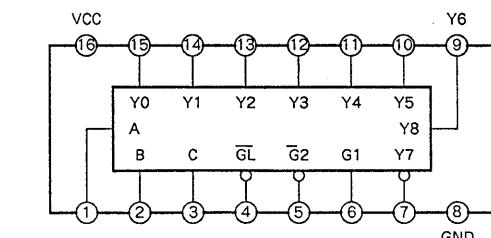
IC310 NE646N



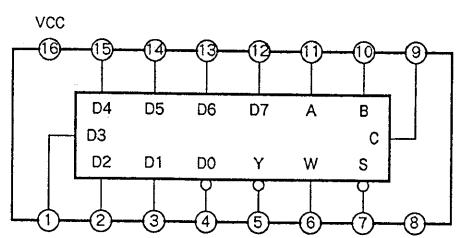
IC410 LC7520



IC204 74HC237



IC205 74HC151



SECTION 4

EXPLODED VIEWS

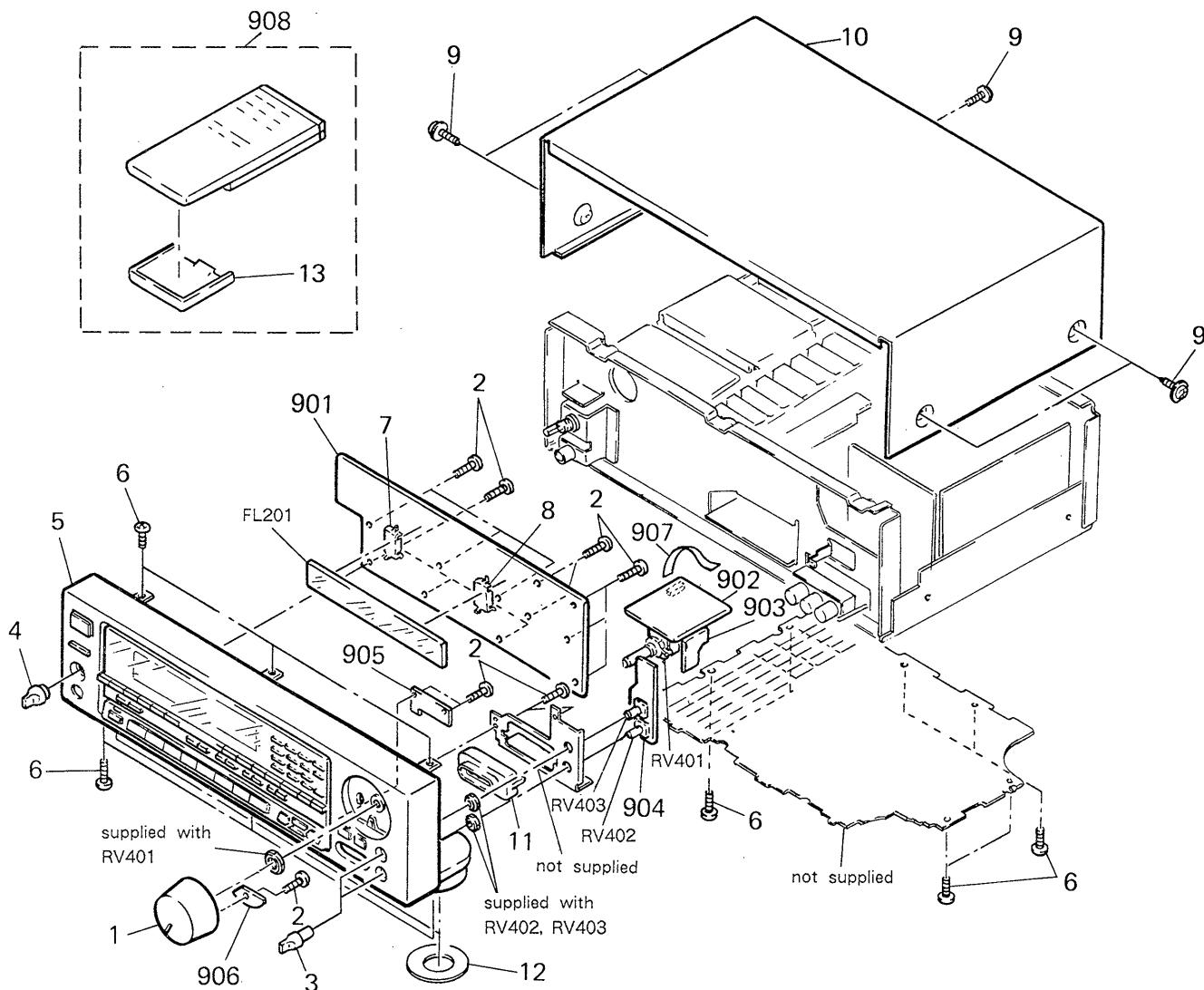
NOTE:

- The mechanical parts with no reference number in the exploded views are not supplied.
- The construction parts of an assembled part are indicated with a collation number in the remark column.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

- Due to standardization, parts with part number suffix -XX and -X may be different from the parts specified in the components used on the set.
- Color Indication of Appearance Parts
Example:
(RED)...KNOB, BALANCE (WHITE)
↑ ↑
Cabinet's Color Parts' Color

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

Les composants identifiés par une marque  sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

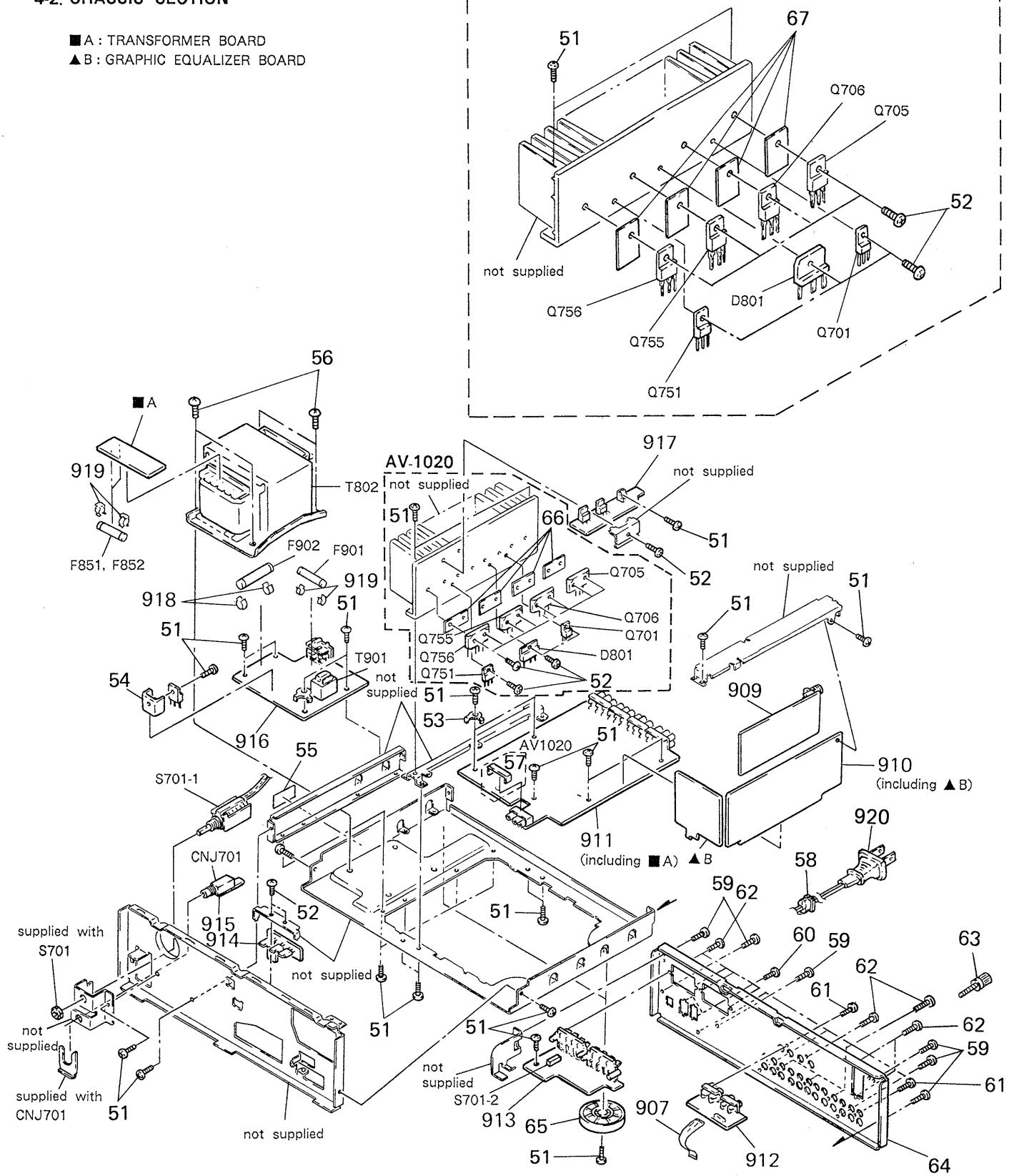
4-1. FRONT PANEL SECTION

No.	Part No.	Description	Remarks	No.	Part No.	Description	Remarks
1	4-929-288-01	KNOB (VOL 47)		901	*A-4334-755-A	(AV1020)...MOUNTED PCB, DISPLAY	
2	4-928-635-01	SCREW, +BV (2.6X8) TAPPING			*A-4334-785-A	(AV920)...MOUNTED PCB, DISPLAY	
3	4-925-014-01	KNOB (DIA.10)		902	*1-635-630-11	PC BOARD, VOLUME	
4	4-908-097-21	KNOB		903	*1-635-632-11	PC BOARD, VOLUME CONNECTOR	
5	X-4906-836-1	(AV920)...PANEL ASSY, FRONT		904	*1-635-629-11	PC BOARD, BALANCE VOLUME	
	X-4906-837-1	(AV1020)...PANEL ASSY, FRONT		905	*1-635-623-11	PC BOARD, MUTING	
6	7-682-548-04	SCREW +BVTT 3X8 (S)		906	*1-635-631-11	PC BOARD, VR LED	
7	*4-922-524-01	HOLDER (LEFT)		907	1-575-730-11	WIRE, FLAT TYPE (5 CORE)	
8	*4-922-523-01	HOLDER (RIGHT)		908	1-465-417-11	(AV1020)...REMOTE COMMANDER (RM-P301)	
9	3-704-366-01	SCREW (CASE) (M3X8)			1-465-422-11	(AV920)...REMOTE COMMANDER (RM-U201)	
10	*4-924-920-71	CASE		FL201	1-519-604-11	INDICATOR TUBE, FLUORESCENT	
11	4-938-120-01	(AV1020)...ESCUOTHEON (V3)		RV401	1-238-655-21	RES, VAR, CARBON 100KX4 (VOLUME)	
12	4-923-836-11	CUSHION		RV402	1-238-965-11	RES, VAR, CARBON 100K/100K(BALANCE L/R)	
13	4-925-079-01	COVER (6), BATTERY		RV403	1-238-964-11	RES, VAR, CARBON 100K (INPUT BALANCE)	

AV-920

4-2. CHASSIS SECTION

■ A : TRANSFORMER BOARD
 ▲ B : GRAPHIC EQUALIZER BOARD



No.	Part No.	Description	Remarks	No.	Part No.	Description	Remarks
51	7-682-548-04	SCREW +BVTT 3X8 (S)		912	*1-635-633-11	PC BOARD, VIDEO	
52	7-682-550-04	SCREW +BVTT 3X12 (S)		913	*1-635-627-11	PC BOARD, SP OUT	
53	*3-346-266-12	PLATE, GROUND		914	*1-635-625-11	PC BOARD, POWER IC	
54	*3-309-144-21	HEAT SINK		915	*1-635-628-11	PC BOARD, HP	
55	*3-701-946-28	(Canadian)...LABEL (6.3A 125V), FUSE		916	*1-635-626-11	PC BOARD, POWER	
56	7-682-561-04	SCREW +BVTT 4X8 (S)		917	*1-635-620-11	PC BOARD, REAR	
57	*4-925-056-01	(AV1020)...CASE, SHIELD		918	*1-533-185-11	HOLDER, FUSE	
58	*3-703-244-00	BUSHING (2104), CORD		919	1-533-213-31	HOLDER, FUSE	
59	7-682-548-09	SCREW +BVTT 3X8 (S)		920	A.1-575-105-11	CORD, POWER	
60	7-685-646-79	SCREW +BTP 3X8 TYPE2 N-S		CNJ701	1-507-796-71	JACK (HEADPHONES)	
61	7-621-849-00	SCREW, TAPPING		D801	8-719-302-37	DIODE RBV-602	
62	7-685-646-79	SCREW +BTP 3X8 TYPE2 N-S		F851	A.1-532-745-11	FUSE, GLASS TUBE (3.15A 125V)	
63	3-706-165-00	SCREW		F852	A.1-532-745-11	FUSE, GLASS TUBE (3.15A 125V)	
64	*4-931-994-01	(AV1020:US).....PANEL, BACK		F901	A.1-532-745-11	FUSE, GLASS TUBE (3.15A 125V)	
	*4-931-994-11	(AV1020:Canadian)....PANEL, BACK		F902	A.1-532-509-00	(Canadian)...FUSE, GLASS TUBE (6.3A 125V)	
	*4-931-994-31	(AV920:US).....PANEL, BACK		F902	A.1-532-510-00	(US).....FUSE, GLASS TUBE (8A 125V)	
	*4-931-994-41	(AV920:Canadian)....PANEL, BACK					
65	X-4885-950-1	FOOT ASSY		Q701	8-729-209-15	TRANSISTOR 2SD2012	
66	4-885-901-31	(AV1020)...SHEET, RADIATION		Q705	8-729-320-96	(AV1020)...TRANSISTOR 2SC2921-OPY	
67	4-911-232-01	(AV920)...SHEET, INSULATING		Q705	8-729-321-13	(AV920)....TRANSISTOR 2SC4388-0Y	
907	1-575-730-11	WIRE, FLAT TYPE (5 CORE)		Q706	8-729-320-73	(AV1020)...TRANSISTOR 2SA1215-0Y	
909	*A-4303-169-A	(AV1020)...MOUNTED PCB, TUNER(TCB007-2MJ)		Q706	8-729-321-18	(AV920)....TRANSISTOR 2SA1673-0Y	
	*A-4303-212-A	(AV920)....MOUNTED PCB, TUNER(TCB007-2LK)		Q751	8-729-209-15	TRANSISTOR 2SD2012	
910	*A-4334-754-A	(AV1020)...MOUNTED PCB, SURROUND		Q755	8-729-320-96	(AV1020)...TRANSISTOR 2SC2921-OPY	
	*A-4334-784-A	(AV920)....MOUNTED PCB, SURROUND		Q755	8-729-321-13	(AV920)....TRANSISTOR 2SC4388-0Y	
911	*A-4334-752-A	(AV1020:US).....MOUNTED PCB, MAIN		Q756	8-729-320-73	(AV1020)...TRANSISTOR 2SA1215-0Y	
	*A-4334-783-A	(AV920:US).....MOUNTED PCB, MAIN		Q756	8-729-321-18	(AV920)....TRANSISTOR 2SA1673-0Y	
	*A-4334-850-A	(AV1020:Canadian)....MOUNTED PCB, MAIN		S701-1	1-572-291-11	SWITCH, ROTARY SLIDE(SPEAKER A+B OFF A/B)	
	*A-4334-851-A	(AV920:Canadian)....MOUNTED PCB, MAIN		S701-2	1-572-322-11	SWITCH, SLIDE	
				T802	A.1-449-996-11	(AV920)....TRANSFORMER, POWER	
				T802	A.1-449-997-11	(AV1020)...TRANSFORMER, POWER	
				T901	A.1-448-517-21	TRANSFORMER, POWER	

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

Note:
Les composants identifiés par une marque ▲ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

Ref.No.	Part No.	Description		Ref.No.	Part No.	Description	
R1	A 1-249-401-11	(AV920)...CARBON(SMALL)	47 5% 1/4W F	R85	1-249-347-11	CARBON MELF	10K 5% 1/8W
R1	A 1-249-397-11	CARBON(SMALL)	22 5% 1/4W F	R86	1-249-335-11	CARBON MELF	1K 5% 1/8W
R2	1-249-329-11	CARBON MELF	330 5% 1/8W	R87	1-249-347-11	CARBON MELF	10K 5% 1/8W
R3	1-249-329-11	CARBON MELF	330 5% 1/8W	R88	1-249-343-11	CARBON MELF	4.7K 5% 1/8W
R4	1-249-329-11	CARBON MELF	330 5% 1/8W	R89	1-249-335-11	CARBON MELF	1K 5% 1/8W
R5	1-249-329-11	CARBON MELF	330 5% 1/8W	R90	1-249-347-11	CARBON MELF	10K 5% 1/8W
R6	1-249-350-11	CARBON MELF	18K 5% 1/8W	R91	1-249-335-11	CARBON MELF	1K 5% 1/8W
R7	1-249-329-11	CARBON MELF	330 5% 1/8W	R92	A 1-249-401-11	CARBON(SMALL)	47 5% 1/4W F
R8	1-249-332-11	CARBON MELF	560 5% 1/8W	R101	1-249-341-11	CARBON MELF	3.3K 5% 1/8W
R9	1-249-352-11	CARBON MELF	27K 5% 1/8W	R102	1-249-332-11	CARBON MELF	560 5% 1/8W
R10	1-249-329-11	(AV1020)...CARBON MELF	330 5% 1/8W	R103	1-249-335-11	CARBON MELF	1K 5% 1/8W
R11	1-249-350-11	(AV1020)...CARBON MELF	18K 5% 1/8W	R104	1-249-328-11	CARBON MELF	270 5% 1/8W
R12	1-249-329-11	(AV1020)...CARBON MELF	330 5% 1/8W	R105	1-249-343-11	CARBON MELF	4.7K 5% 1/8W
R13	1-249-334-11	(AV1020)...CARBON MELF	820 5% 1/8W	R106	1-249-339-11	CARBON MELF	2.2K 5% 1/8W
R14	1-249-352-11	(AV1020)...CARBON MELF	27K 5% 1/8W	R107	1-249-343-11	CARBON MELF	4.7K 5% 1/8W
R15	1-249-347-11	(AV1020)...CARBON MELF	10K 5% 1/8W	R108	1-249-323-11	CARBON MELF	100 5% 1/8W
R16	1-249-343-11	(AV1020)...CARBON MELF	4.7K 5% 1/8W	R109	1-249-343-11	CARBON MELF	4.7K 5% 1/8W
R21	A 1-249-404-00	CARBON(SMALL)	82 5% 1/4W F	R110	A 1-249-405-11	CARBON(SMALL)	100 5% 1/4W F
R22	1-249-428-11	(AV920)...CARBON(SMALL)	8.2K 5% 1/4W	RV21	1-238-013-11	(AV920)...RES, ADJ, CARBON	2.2K
R22	1-249-429-11	(AV1020)...CARBON(SMALL)	10K 5% 1/4W	RV21	1-238-015-11	(AV1020)...RES, ADJ, CARBON	4.7K
R23	1-249-335-11	CARBON MELF	1K 5% 1/8W	RV22	1-238-017-11	RES, ADJ, CARBON	22K
R24	1-249-353-11	CARBON MELF	33K 5% 1/8W	RV24	1-238-017-11	(AV920)...RES, ADJ, CARBON	22K
R25	1-249-428-11	CARBON(SMALL)	8.2K 5% 1/4W	RV24	1-238-019-11	(AV1020)...RES, ADJ, CARBON	47K
R26	1-249-340-11	(AV1020)...CARBON MELF	2.7K 5% 1/8W	RV25	1-238-017-11	(AV920)...RES, ADJ, CARBON	22K
R27	1-249-350-11	CARBON MELF	18K 5% 1/8W	RV25	1-238-019-11	(AV1020)...RES, ADJ, CARBON	47K
R28	1-249-423-11	CARBON(SMALL)	3.3K 5% 1/4W	T21	1-404-807-11	(AV920)...TRANSFORMER, DISCRIMINATOR	
R29	1-249-347-11	CARBON MELF	10K 5% 1/8W	T21	1-404-852-11	(AV1020)...COIL,DISCRIMINATOR(PRIMARY)	
R31	1-249-331-11	CARBON MELF	470 5% 1/8W	T22	1-404-851-11	(AV1020)...COIL,DISCRIMINATOR(SECONDARL)	
R32	1-249-347-11	CARBON MELF	10K 5% 1/8W	TM1	*1-536-708-00	(AV920)...TERMINAL BOARD, PUSH 4P	
R33	1-249-347-11	CARBON MELF	10K 5% 1/8W	TM1	*1-537-225-11	(AV1020)...TERMINAL BOARD (ANT (F) TYPE)	
R35	1-249-355-11	CARBON MELF	47K 5% 1/8W	TP1	*1-560-060-00	PIN, CONNECTOR 2P	
R37	1-249-359-11	CARBON MELF	100K 5% 1/8W	XT81	1-577-126-11	VIBRATOR, CRYSTAL	7.2MHz
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	A 1-249-409-11	CARBON(SMALL)	220 5% 1/4W F				
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	22 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				

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

Note:
Les composants identifiés par une marque A sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

• EXCEPT FOR TUNER BOARD

Ref. No.	Part No.	Description	Ref. No.	Part No.	Description
901	*A-4334-755-A	(AV1020)...MOUNTED PCB, DISPLAY	C254	1-124-472-11	ELECT 470MF 20% 10V
	*A-4334-785-A	(AV920)...MOUNTED PCB, DISPLAY	C256	1-124-477-11	ELECT 47MF 20% 25V
			C257	1-124-927-11	(AV1020)...ELECT 4.7MF 20% 50V
902	*1-635-630-11	PC BOARD, VOLUME	C301	1-123-875-11	ELECT 10MF 20% 50V
903	*1-635-632-11	PC BOARD, VOLUME CONNECTOR	C302	1-162-215-31	CERAMIC 47PF 5% 50V
904	*1-635-629-11	PC BOARD, BALANCE VOLUME	C303	1-123-875-11	ELECT 10MF 20% 50V
905	*1-635-623-11	PC BOARD, MUTING	C304	1-123-875-11	(AV1020)...ELECT 10MF 20% 50V
906	*1-635-631-11	PC BOARD, VR LED	C305	1-123-875-11	(AV1020)...ELECT 10MF 20% 50V
907	21-575-730-11	WIRE, FLAT TYPE (5 CORE)	C309	1-136-165-00	(AV1020)...FILM 0.1MF 5% 50V
908	1-465-417-11	(AV1020)...REMOTE COMMANDER (RM-P301)	C310	1-136-165-00	(AV1020)...FILM 0.1MF 5% 50V
	1-465-422-11	(AV920)...REMOTE COMMANDER (RM-U201)	C311	1-136-171-00	(AV1020)...FILM 0.33MF 5% 50V
909	*A-4303-169-A	(AV1020)...MOUNTED PCB, TUNER (TCB007-2MJ)	C312	1-162-292-31	(AV1020)...CERAMIC 680PF 10% 50V
	*A-4303-212-A	(AV920)...MOUNTED PCB, TUNER (TCB007-2LK)	C313	1-136-171-00	(AV1020)...FILM 0.33MF 5% 50V
910	*A-4334-754-A	(AV1020)...MOUNTED PCB, SURROUND	C314	1-124-927-11	(AV1020)...ELECT 4.7MF 20% 50V
	*A-4334-784-A	(AV920)...MOUNTED PCB, SURROUND	C315	1-124-927-11	(AV1020)...ELECT 4.7MF 20% 50V
911	*A-4334-752-A	(AV1020:US)...MOUNTED PCB, MAIN	C316	1-130-481-00	(AV1020)...MYLAR 0.0068MF 5% 50V
	*A-4334-783-A	(AV920:US)...MOUNTED PCB, MAIN	C317	1-124-477-11	(AV1020)...ELECT 47MF 20% 25V
	*A-4334-850-A	(AV1020:Canadian)...MOUNTED PCB, MAIN	C318	1-124-464-11	(AV1020)...ELECT 0.22MF 20% 50V
	*A-4334-851-A	(AV920:Canadian)...MOUNTED PCB, MAIN	C319	1-124-927-11	(AV1020)...ELECT 4.7MF 20% 50V
912	*1-635-633-11	PC BOARD, VIDEO	C320	1-124-464-11	(AV1020)...ELECT 0.22MF 20% 50V
913	*1-635-627-11	PC BOARD, SP OUT	C321	1-124-477-11	(AV1020)...ELECT 47MF 20% 25V
914	*1-635-625-11	PC BOARD, POWER IC	C322	1-123-875-11	(AV1020)...ELECT 10MF 20% 50V
915	*1-635-628-11	PC BOARD, HP	C323	1-124-902-00	(AV1020)...ELECT 0.47MF 20% 50V
916	*1-635-626-11	PC BOARD, POWER	C324	1-123-875-11	(AV1020)...ELECT 10MF 20% 50V
917	*1-635-620-11	PC BOARD, REAR	C326	1-123-875-11	ELECT 10MF 20% 50V
918	*1-533-185-11	HOLDER, FUSE	C327	1-123-875-11	ELECT 10MF 20% 50V
919	1-533-213-31	HOLDER, FUSE	C328	1-162-215-31	CERAMIC 47PF 5% 50V
920	A.1-575-105-11	CORD, POWER	C329	1-162-282-31	CERAMIC 100PF 10% 50V
BP901	*1-535-140-00	BASE POST 22MM (10MM PITCH) 3P	C330	1-124-927-11	ELECT 4.7MF 20% 50V
C201	1-164-097-11	CERAMIC 0.022MF 50V	C331	1-124-477-11	(AV1020)...ELECT 47MF 20% 25V
C202	1-164-097-11	CERAMIC 0.022MF 50V	C332	1-162-302-11	(AV1020)...CERAMIC 2200PF 5% 16V
C203	1-164-097-11	CERAMIC 0.022MF 50V	C333	1-161-379-00	(AV1020)...CERAMIC 0.01MF 30% 16V
			C334	1-161-379-00	(AV1020)...CERAMIC 0.01MF 30% 16V
C204	1-124-477-11	ELECT 47MF 20% 25V	C335	1-161-379-00	(AV1020)...CERAMIC 0.01MF 30% 16V
C205	1-164-097-11	CERAMIC 0.022MF 50V	C336	1-162-282-31	CERAMIC 100PF 10% 50V
C206	1-164-097-11	CERAMIC 0.022MF 50V	C337	1-124-927-11	ELECT 4.7MF 20% 50V
C207	1-123-875-11	ELECT 10MF 20% 50V	C338	1-124-927-11	(AV1020)...ELECT 4.7MF 20% 50V
C208	1-164-093-11	CERAMIC 0.0047MF 10% 25V	C339	1-162-282-31	CERAMIC 100PF 10% 50V
C209	1-123-875-11	ELECT 10MF 20% 50V	C340	1-124-927-11	ELECT 4.7MF 20% 50V
C210	1-164-097-11	CERAMIC 0.022MF 50V	C341	1-124-477-11	ELECT 47MF 20% 25V
C211	1-164-097-11	CERAMIC 0.022MF 50V	C342	1-164-159-11	CERAMIC 0.1MF 50V
C214	1-164-093-11	CERAMIC 0.0047MF 10% 25V	C343	1-130-471-00	MYLAR 0.001MF 5% 50V
C251	1-124-927-11	ELECT 4.7MF 20% 50V	C344	1-130-476-00	MYLAR 0.0027MF 5% 50V
C252	1-124-927-11	ELECT 4.7MF 20% 50V	C345	1-136-165-00	FILM 0.1MF 5% 50V
C253	1-124-472-11	ELECT 470MF 20% 10V	C346	1-124-477-11	ELECT 47MF 20% 25V

Note:	Note:
The components identified by mark or dotted line with mark are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

STR-AV920/AV1020

SONY
SERVICE MANUAL

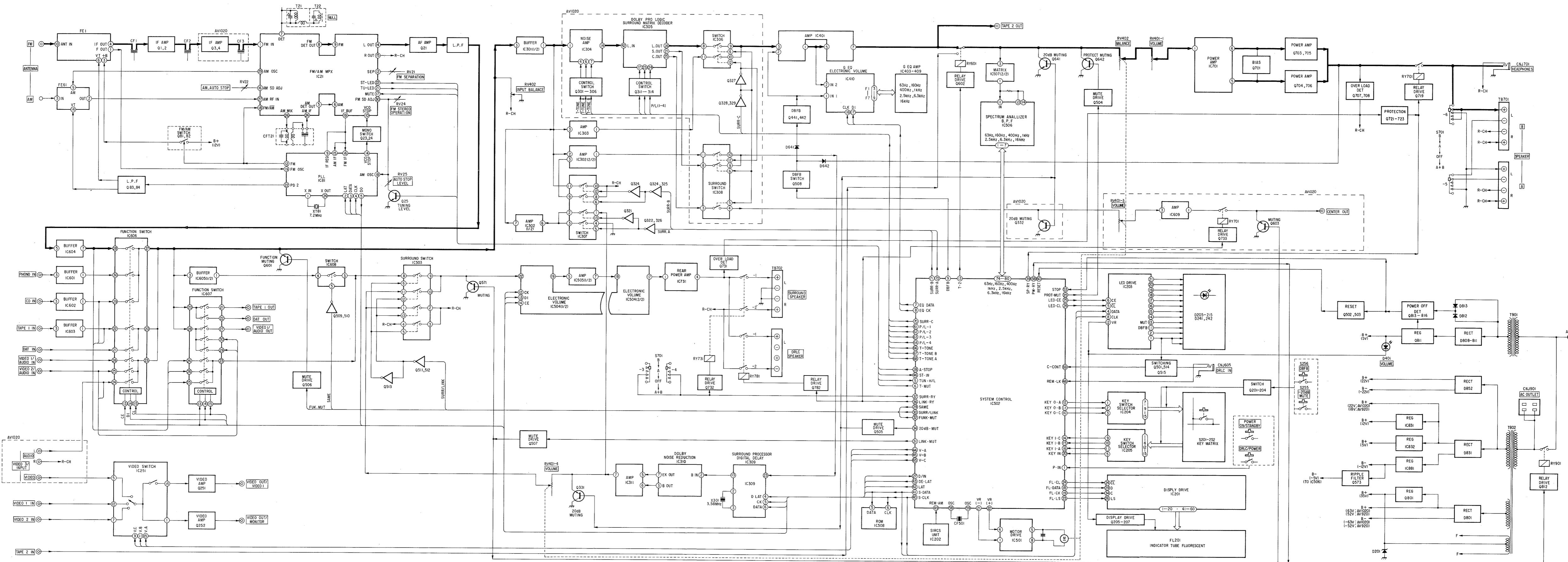
US Model
Canadian Model

SUPPLEMENT-1

File this Supplement with the Service Manual.

Block Diagram

BLOCK DIAGRAM



STR-AV920/AV1020

SONY SERVICE MANUAL

US Model
Canadian Model

CORRECTION-1

File this Correction with the Service Manual.

: corrected portion

Page	Incorrect	Correct												
20	<p>3.4. SCHEMATIC DIAGRAM</p> <p>[MAIN BOARD]</p>	<p>[MAIN BOARD]</p>												
21														
17	<p>3.3. PRINTED WIRING BOARDS</p> <p>[MAIN BOARD]</p>	<p>[MAIN BOARD]</p>												
63	<p>5. ELECTRICAL PARTS LIST</p> <table border="1"> <thead> <tr> <th>Ref. No.</th> <th>Parts No.</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>Q721</td> <td>8-729-140-84</td> <td>TRANSISTOR 2SA1841-PAFAEA</td> </tr> </tbody> </table>	Ref. No.	Parts No.	Description	Q721	8-729-140-84	TRANSISTOR 2SA1841-PAFAEA	<table border="1"> <thead> <tr> <th>Ref. No.</th> <th>Parts No.</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>Q721</td> <td>8-729-140-84</td> <td>TRANSISTOR 2SC1841-PAFAEA</td> </tr> </tbody> </table>	Ref. No.	Parts No.	Description	Q721	8-729-140-84	TRANSISTOR 2SC1841-PAFAEA
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