

SERVICE MANUAL

PREAMPLIFIER **SANSUI CA-3000**



Sansui

SANSUI ELECTRIC CO., LTD.

This service manual is designed for service engineers to repair, adjust, maintain and order the replacement parts of the CA-3000 correctly. When ordering the parts, use the stock number and parts name specifically referring to the Parts Locations & Parts Lists. For general usage and maintenance of the unit, please refer to the Operating Instructions attached with the unit.

TABLE OF CONTENTS

Section	Title	Page
1.	SPECIFICATIONS	2
2.	BLOCK DIAGRAM	2
3.	ADJUSTMENTS	3
3-1.	Regulated Power Supply Adjustment	3
3-2.	Level Meter Adjustments	3
4.	TROUBLESHOOTING CHART	4
4-1.	Operation Block Diagram	4
4-2.	Troubleshooting on Each Section	5
5.	PARTS LOCATIONS AND PARTS LISTS	6
5-1.	F-2493 Power Supply Circuit Board	6
5-2.	F-2494 Regulated Power Supply Circuit Board (High Voltage)	7
	F-2494 Regulated Power Supply Circuit Board (Low Voltage)	7
5-3.	F-2486 Equalizer Circuit Board	8
5-4.	F-2491 Headphone Amplifier Circuit Board	8
5-5.	F-2487 Volume & Muting Circuit Board	9
5-6.	F-2495 Tone Amplifier Circuit Board	9
5-7.	F-2488 Tone Control Circuit Board	10
5-8.	F-2489 Input Capacitance Circuit Board	10
5-9.	F-2492 Meter Circuit Board	11
5-10.	F-2490 High-Low Filter Circuit Board	12
5-11.	F-2484 Meter Lamp Circuit Board	12
5-12.	F-2485 Input Circuit Board	13
5-13.	Figures	14
5-14.	Other Parts	15
5-15.	Other Parts (Front Side)	16
6.	SCHEMATIC DIAGRAM <No. 1>	18
6-1.	Connection Diagram	17
6-2.	Input Circuit Board	17
	<No. 2>	18
7.	PACKING LIST	19
8.	ACCESSORY PARTS LIST	19

1. SPECIFICATIONS

OUTPUT VOLTAGE

- OUTPUT1.3V (rated)
(Maximum output level: 8V with no more than 0.1% total harmonic distortion)
- TAPE REC-1, 2, 3 (Pin jacks).....130mV
- TAPE-2 REC/PLAY (DIN socket) ..30mV

TOTAL HARMONIC DISTORTION

-less than 0.03% at or below rated min. output

INTERMODULATION DISTORTION (70Hz: 7,000Hz=4: 1 SMPTE method)

-less than 0.03%

FREQUENCY RESPONSE (at rated output)

-10Hz to 100kHz ± 0.5 dB -1.0 dB

RIAA CURVE DEVIATION (PHONO)

-+0.2dB, -0.2dB (30Hz to 15kHz)

INPUT SENSITIVITY AND IMPEDANCE

- (1 kHz for rated output)
- PHONO-11.5mV, 3mV, 6mV/30k Ω , 50k Ω , 100k Ω
- PHONO-21.5mV, 3mV, 6mV/50k Ω
- (Maximum input capability: 1V at 1 kHz, less than 0.1% distortion and PHONO SENSITIVITY switch at 6mV)

- AUX130mV/50k Ω
- TUNER130mV/50k Ω
- TAPE PLAY-1, 2, 3 (Pin jacks)130mV/50k Ω
- TAPE-2 REC/PLAY (DIN socket) ..130mV

CHANNEL SEPARATION (at rated output, 1 kHz)

- PHONO-1, 2better than 60dB
- AUXbetter than 60dB
- TUNERbetter than 60dB
- TAPE PLAY-1, 2, 3better than 60dB

HUM AND NOISE (IHF)

- PHONO-1, 2better than 70dB
- AUXbetter than 90dB
- TUNERbetter than 90dB
- TAPE PLAY-1, 2, 3better than 90dB

CONTROLS

- BASS ± 10 dB (50Hz with TONE SELECTOR at 400Hz)
- TONE SELECTOR (turn-over frequencies)100Hz, 200Hz, 400Hz
- MIDRANGE ± 5 dB (1 kHz)
- TREBLE ± 10 dB (20kHz with TONE SELECTOR at 2kHz)
- TONE SELECTOR (turn-over frequencies)2kHz, 4kHz, 8kHz
- LOW FILTER-3dB (20Hz), 12dB/oct. -3dB (20Hz), 12dB/oct.
- HIGH FILTER-3dB (7kHz), 60dB/oct. -3dB (12kHz), 12dB/oct.

POWER REQUIREMENTS

- POWER VOLTAGE.....100, 120, 220, 240, 50/60Hz 120V (Usable 110-130V), 60Hz (for U.S.A. & Canada only)

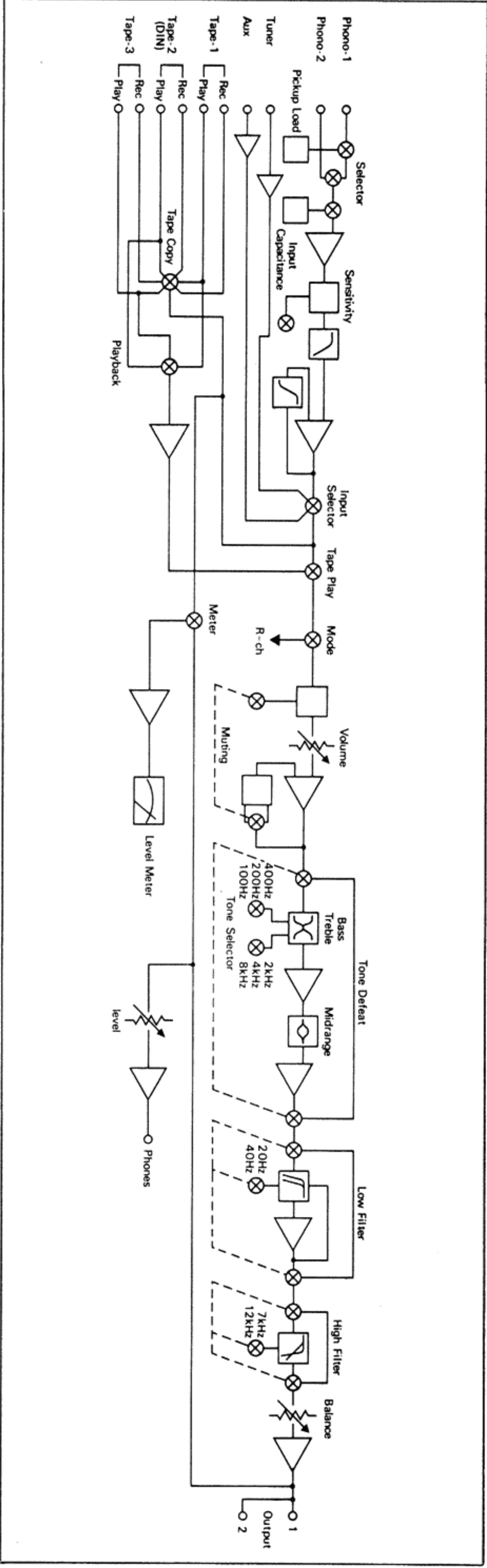
POWER CONSUMPTION..50 Watts

- DIMENSIONS460mm (18 $\frac{1}{8}$ ") W 178mm (7 $\frac{1}{8}$ ") H 373mm (14 $\frac{11}{16}$ ") D

- WEIGHT13.3 kg (29.3 lbs) net 15.3 kg (33.7 lbs) packed

* Design and specification subject to change without notice for improvements.

2. BLOCK DIAGRAM



3. ADJUSTMENTS

3-1. Regulated Power Supply Adjustments (Fig. 3-3)

STEP	SUBJECT	EQUIPMENT	MEASURE OUTPUT	ADJUST	ADJUST FOR
1	F-2494 for Low Voltage R-CH ①	DC Volt Meter	Terminal of 03 on F-2494	VR01 on F-2494	−24.5V
2	F-2494 for Low Voltage L-CH ②	Same as above	Same as above	Same as above	−24.5V
3	F-2494 ③ •for High Voltage	Same as above	Same as above	Same as above	−49.5V

3-2. Level Meter Adjustments (Fig. 3-1, 3-2, 3-3)

- Note: 1. Room Temperature.....25±10°C
2. Input SelectorAUX
3. Meter Position0dB
4. InputAUX
5. Input SignalSine Curve (1kHz)
6. For adjustment, run the unit for more than 5 minutes after the power is switched on.

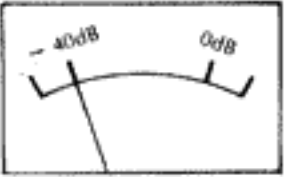
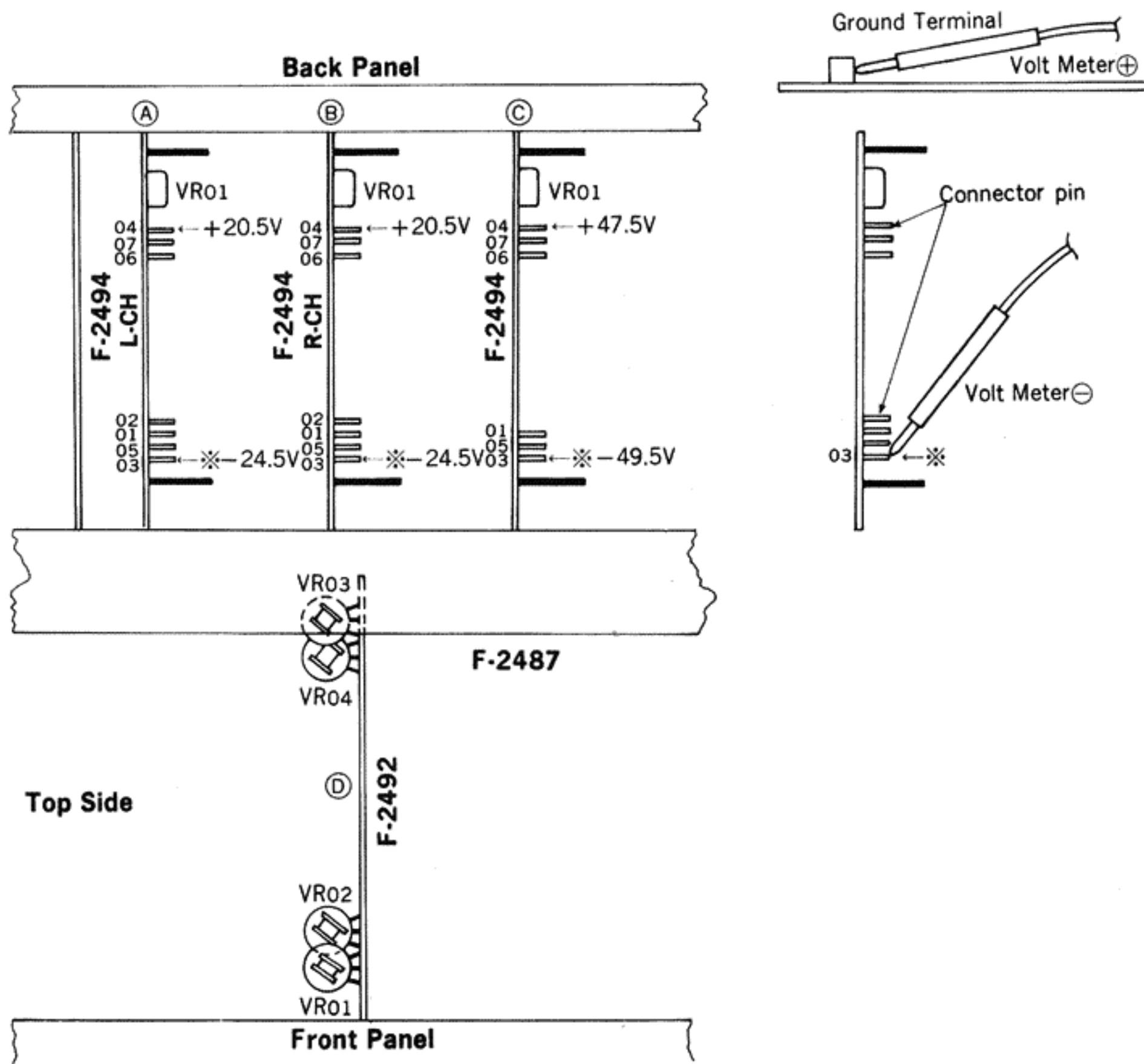
STEP	SUBJECT	INPUT LEVEL	ADJUST	METER POSITION
1	Input level Adjustments	130mV (0dB)	F-2492 ④ R-CH.....VR04 L-CH.....VR03	0dB  Fig. 3-1
2	Same as above	1.3mV (−40dB)	F-2492 ④ R-CH.....VR02 L-CH.....VR01	−40dB  Fig. 3-2

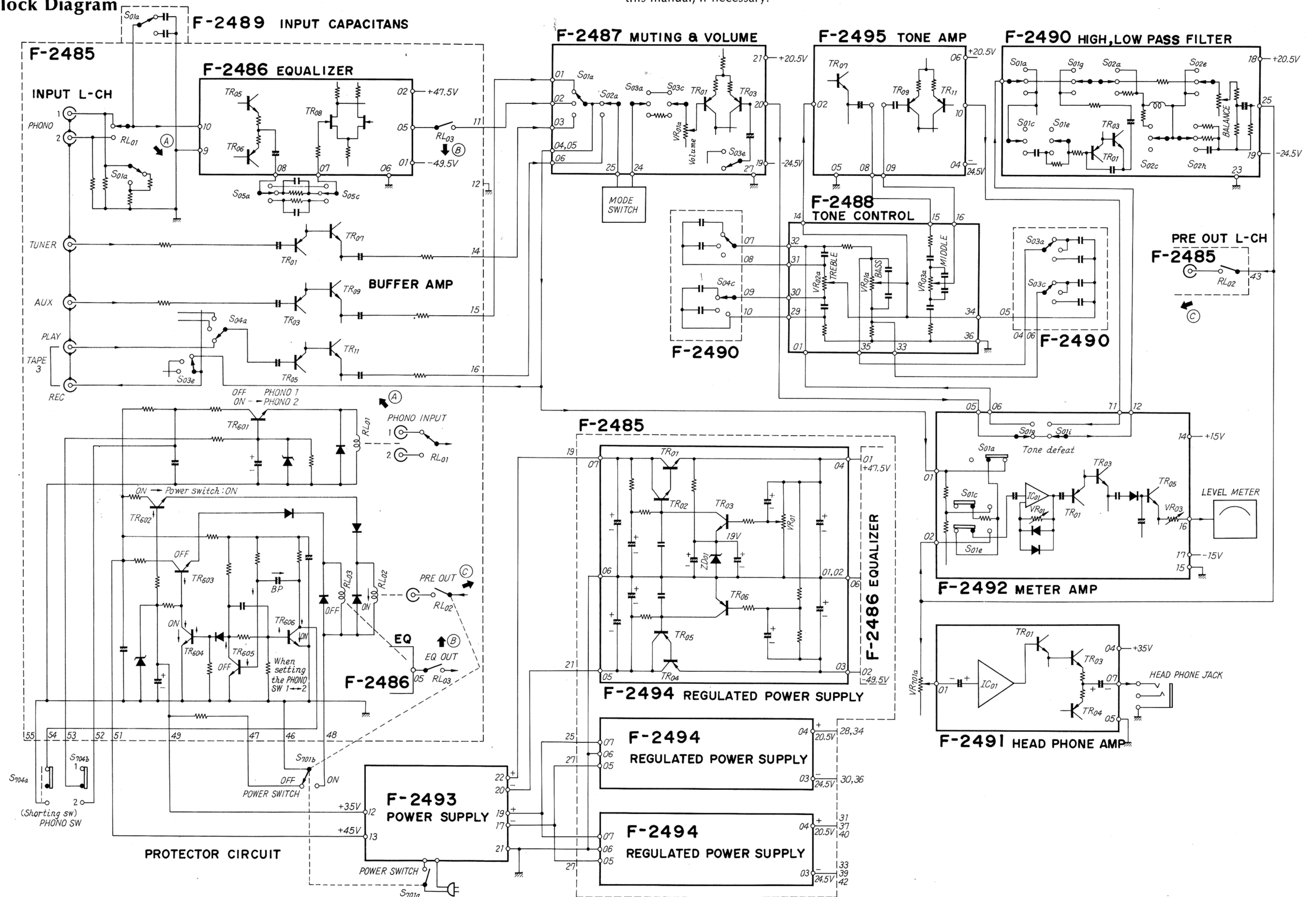
Fig. 3-3



4. TROUBLESHOOTING CHART

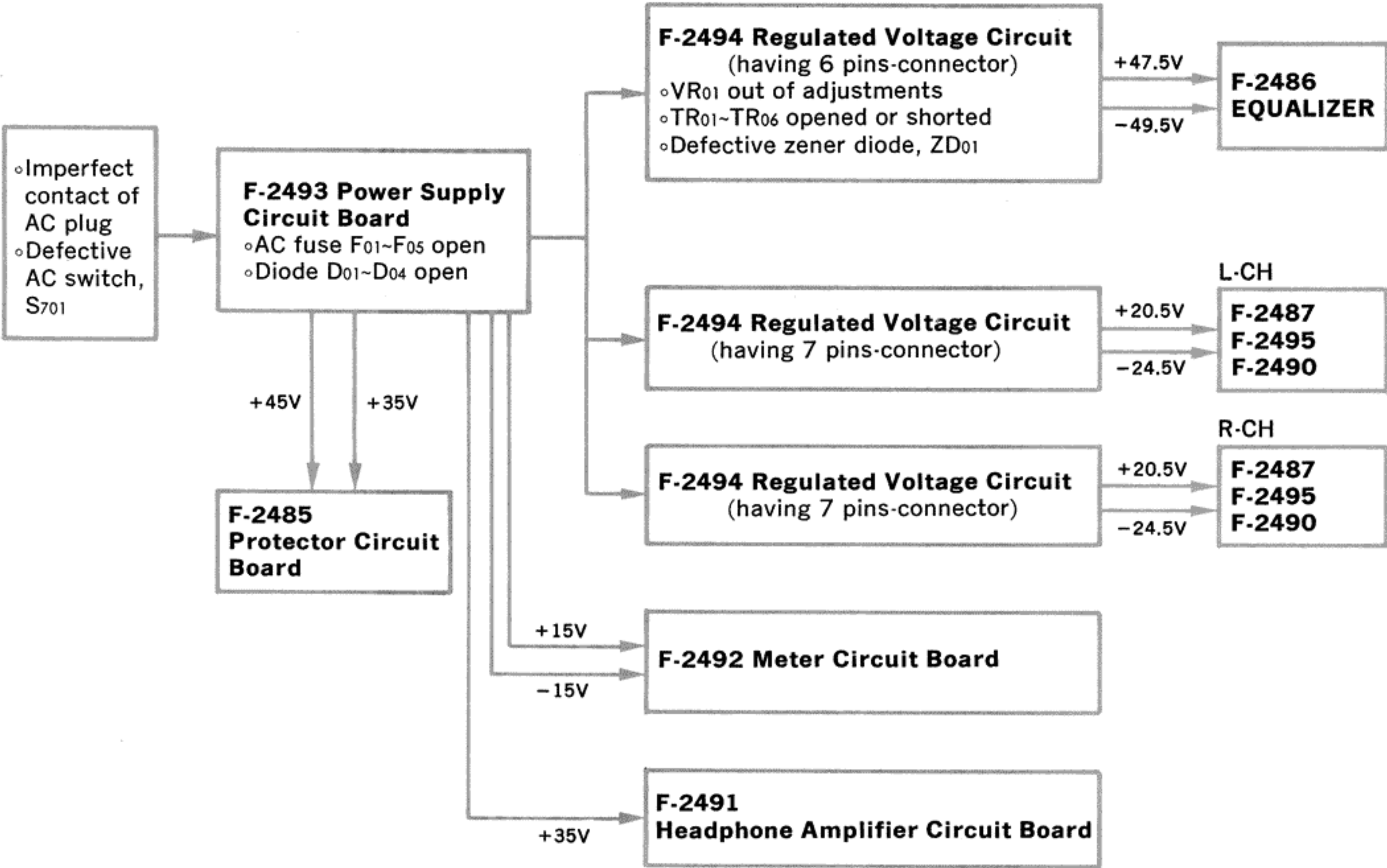
4-1. Operation Block Diagram

The operation of each section is outlined in the block diagram shown below. Please utilize the diagram together with "Troubleshooting on Each Section" in this manual, if necessary.

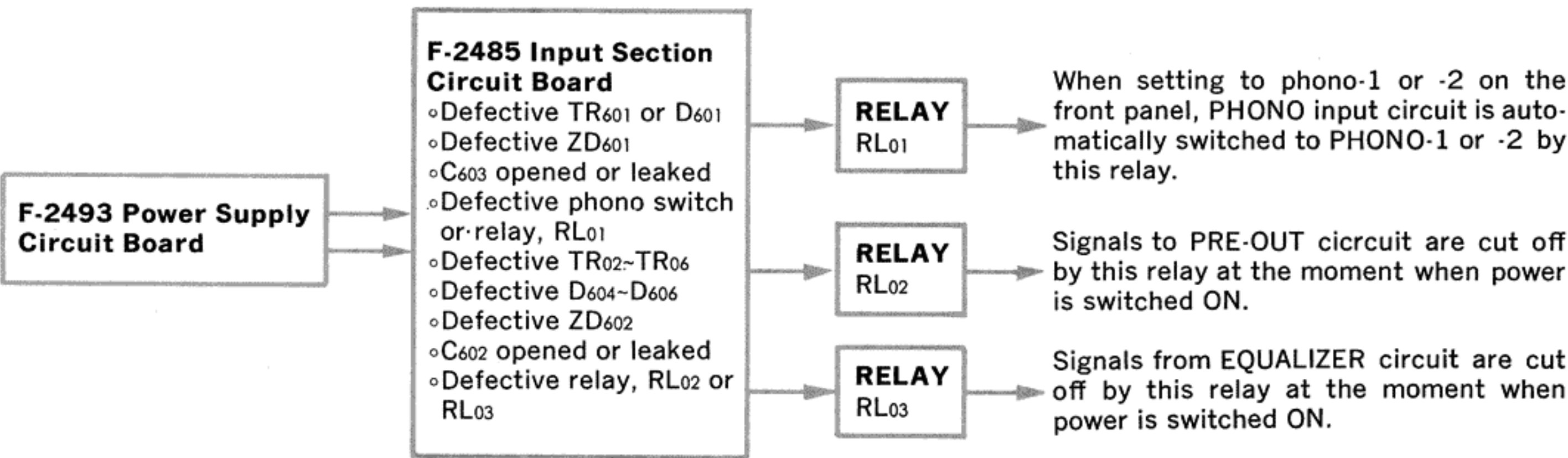


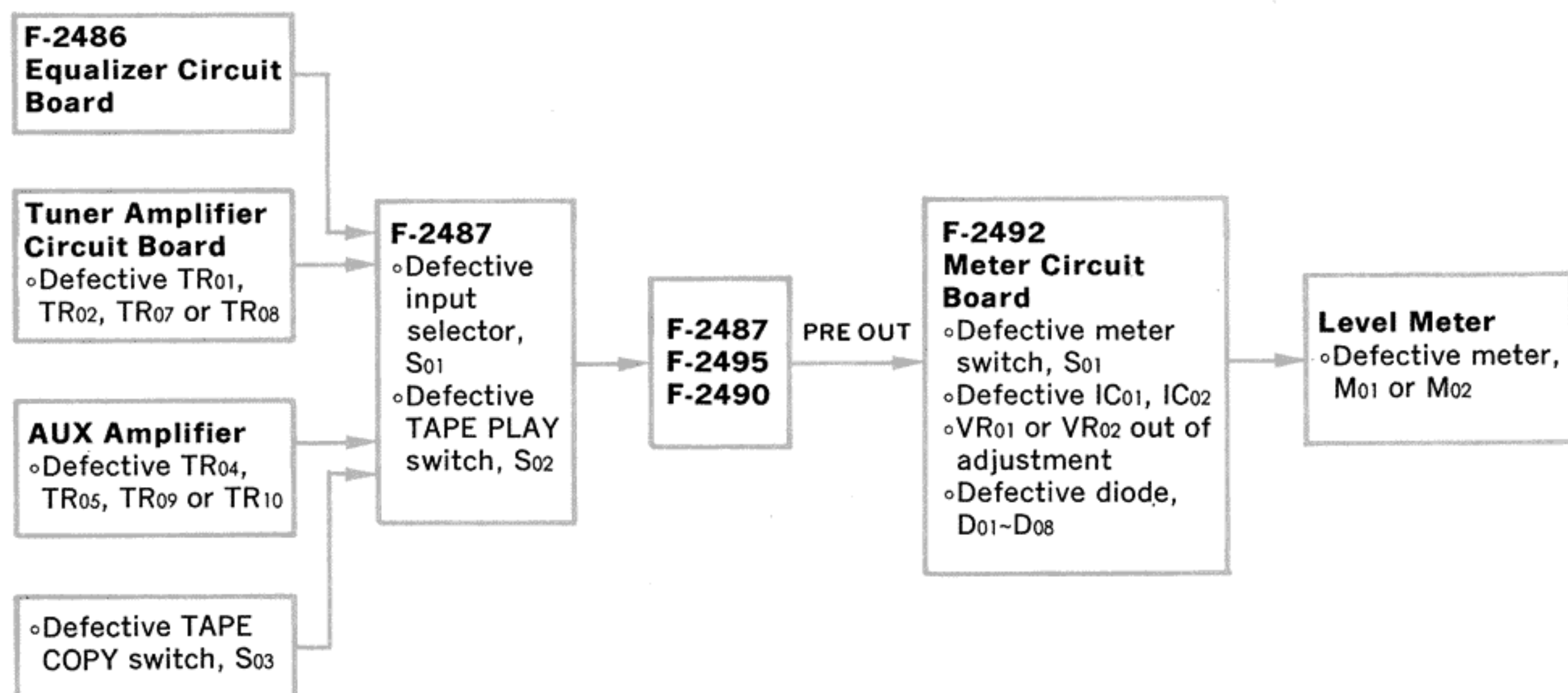
4-2. Troubleshooting on Each Section

A) Troubles on Power Supply Circuit



B) Troubles on Protector Circuit

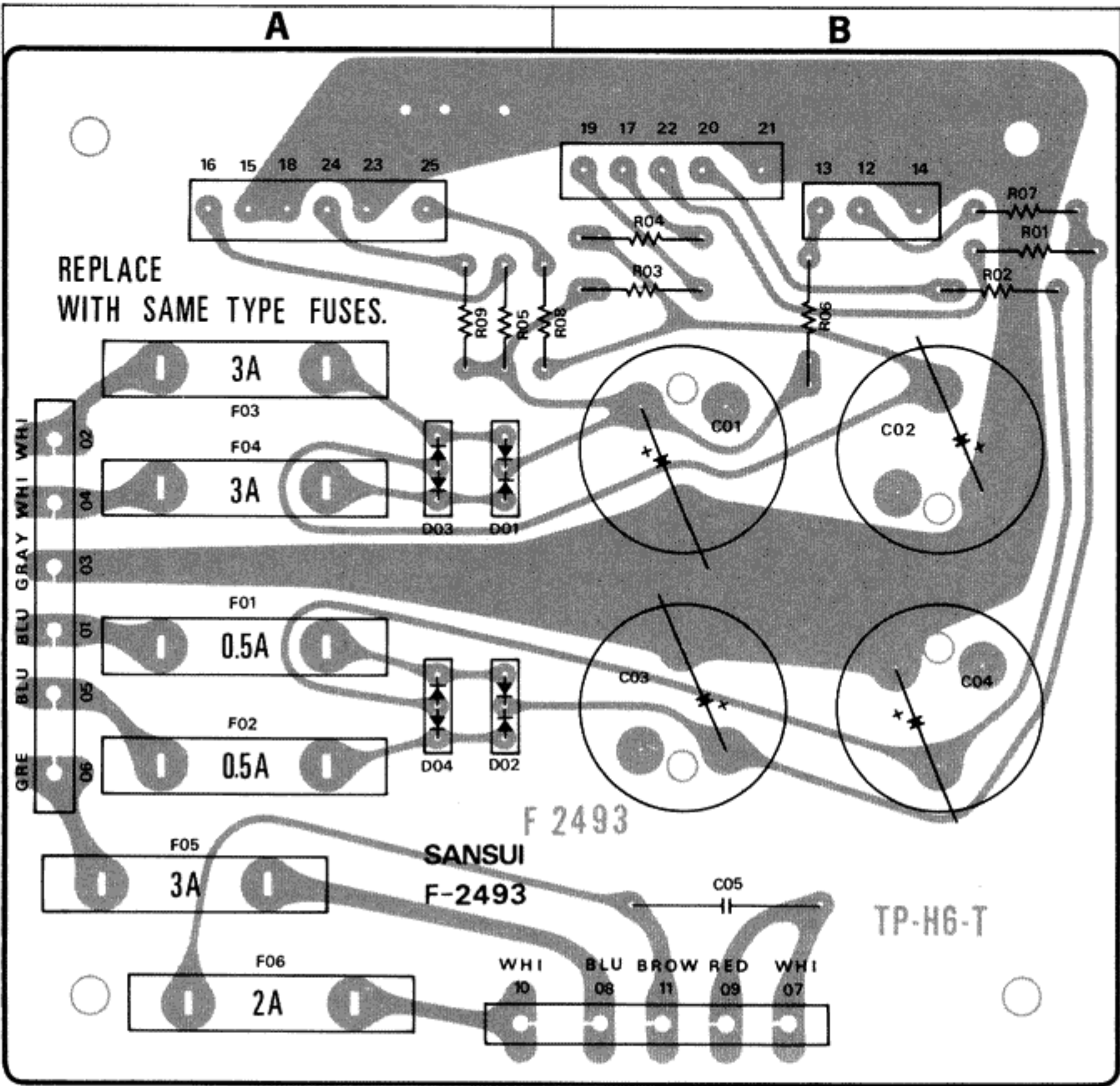




5. PARTS LOCATIONS AND PARTS LISTS

5-1. F-2493 Power Supply Circuit Board (Stock No. 7501071 Complete Circuit Board F-2493)

Conductor Side



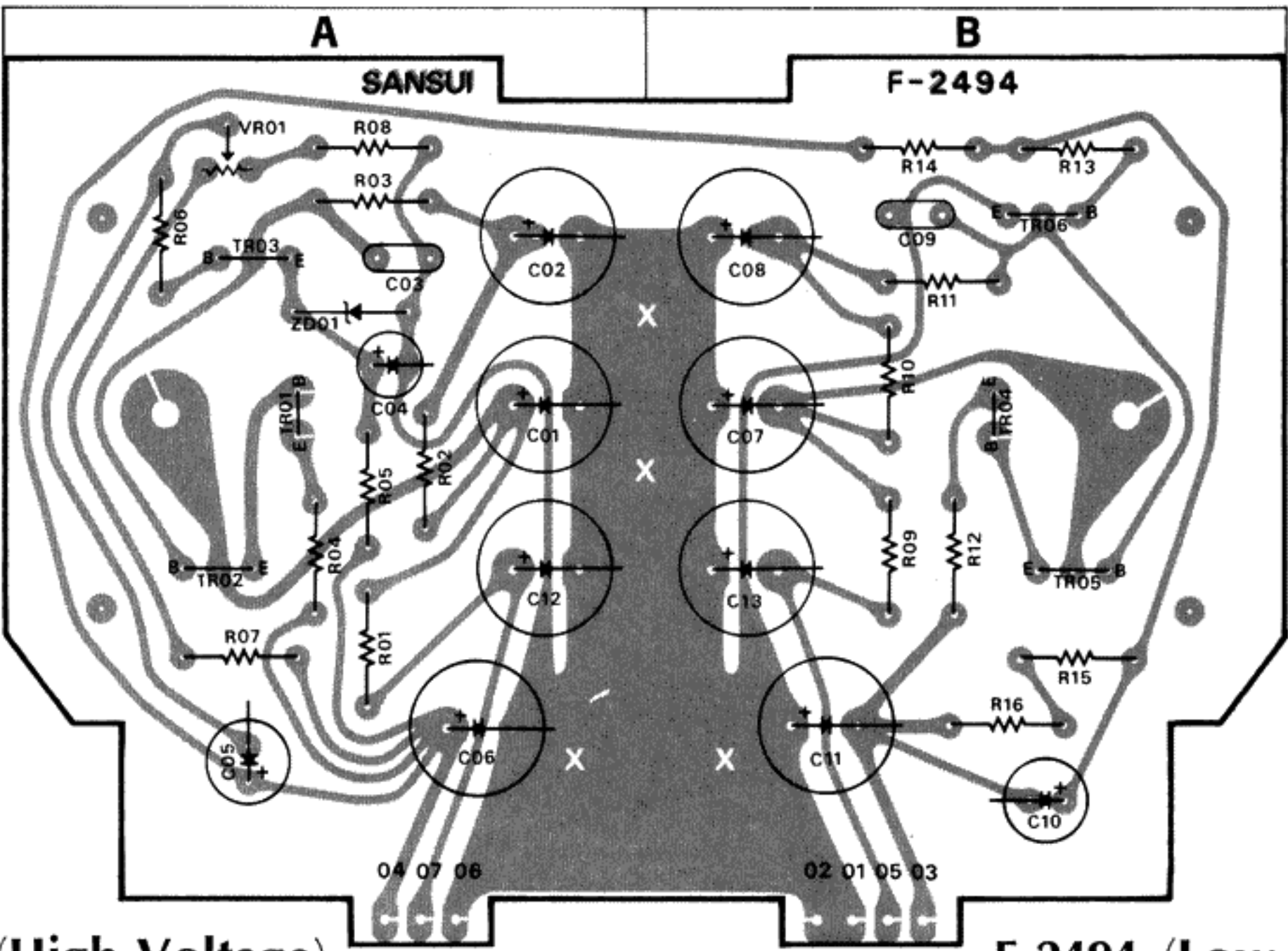
Parts List

Parts No.	Stock No.	Description	Position
D01, 02	{ 0310530 0311420	1S1850 C08P-2-R	A
D03, 04	{ 0310540 0311430	1S1850R C08P-2-R	
C01, 02	0549206	1000μF 63V E.C.	B
C03, 04	0549401	470μF 100V E.C.	B
C05	0605477	0.047μF 250V M.C.	B
R01	0103101	100Ω	B
R02	0103101	100Ω	B
R03	0103680	68Ω	B
R04	0103680	68Ω	B
R05	0201270	27Ω 1 W M.R.	A
R06	0103101	100Ω 1/2 W C.R.	B
R07	0107823	82kΩ 1/4 W C.R.	B
R08	0201391	390Ω	A
R09	0201391	390Ω 1 W M.R.	A
F01, 02	0431210	250V 0.5A	A
F03, 04	0431260	250V 3.0A	A
F05	0431260	250V 3.0A	A
F06	0430850	250V 2.0A	A
	2310151	P Type Fuse Holder T-1	
	2410570	Pin Ass'y D type	
	2410580	Pin Ass'y D type	
	2410600	Pin Ass'y D type	

5-2. F-2494 Regulated Power Supply Circuit Board (High Voltage) (Stock No. 7501081)

F-2494 Regulated Power Supply Circuit Board (Low Voltage) (Stock No. 7501091)

Conductor Side



Parts List F-2494 (High Voltage)

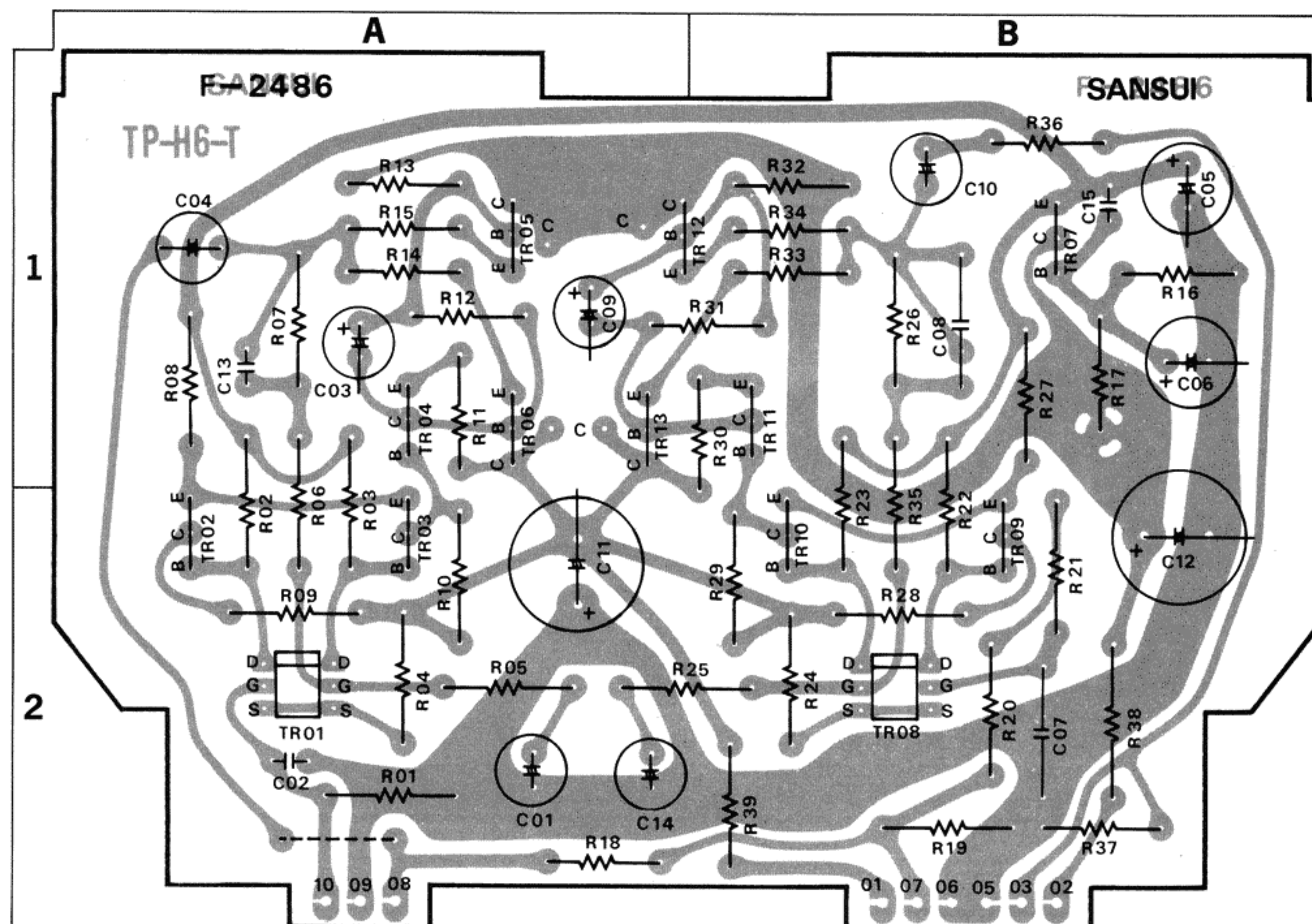
Parts No.	Stock No.	Description	Position
TR01	0308500, 1	2SD357 (C, D)	} Transistor A A B B B
TR02	0306270~2	2SC1708 (F, G, H)	
TR03	0306070, 1	2SC1313 (F, G)	
TR04	0303330, 1	2SB527 (C, D)	
TR05	0300710~2	2SA847 (F, G, H)	
TR06	0300470, 1	2SA726 (F, G)	
ZD01	{0315370	RD-19A (L)	} Transistor A
	{0315380	RD-19A (M)	
C01	0519402	100μF	} 100V E.C. A
C02	0519402	100μF	
C03	0660471	470 pF 50V C.C.	
C04	0519001	10μF 25V E.C.	A
C05	0519108	10μF	} 50V E.C. A
C06	0515221	220μF	
C07	0519402	100μF	} 100V E.C. B
C08	0519402	100μF	
C09	0660471	470 pF 50V C.C.	
C10	0519108	10μF	} 50V E.C. B
C11	0515221	220μF	
R01	0103121	120Ω ½W C.R.	A
R02	0107822	8.2kΩ	} ¼W C.R. A A A A A A B B B B B B
R03	0107123	12kΩ	
R04	0107560	56Ω	
R05	0107682	6.8kΩ	
R06	0107332	3.3kΩ	
R07	0107123	8.2kΩ	
R08	0107822	12kΩ	
R10	0107822	8.2kΩ	
R11	0107123	12kΩ	
R12	0107560	56Ω	
R13	0107332	3.3kΩ	
R14	0107273	27kΩ	
R15	0107472	4.7kΩ	
R16	0107562	5.6KΩ	
VR01	1035350	4.7kΩ (B) Volume	A
	0103121	120Ω ½W C.R.	
	2410760	3P Pin Ass'y C type	

F-2494 (Low Voltage)

Parts No.	Stock No.	Description	Position	
TR01	0308510, 1	2SD356 (C, D)	A	
TR02	0306070, 1	2SC1313 (F, G)	A	
TR03	0306070, 1	2SC1313 (F, G)	A	
TR04	0303340, 1	2SB526 (C, D)	B	
TR05	0300470, 1	2SA726 (F, G)	B	
TR06	0300470, 1	2SA726 (F, G)	B	
ZD01	{0315290	RD-13A (L)	Diode	A
	{0315300	RD-13A (M)		
C01	0515221	220 μ F	50V E.C.	A
C02	0515470	47 μ F		A
C03	0660471	470 pF	50V C.C.	
C04	0519001	10 μ F	25V E.C.	A
C05	0519001	10 μ F		A
C06	0513331	330 μ F		A
C07	0515221	220 μ F	50V E.C.	B
C08	0515470	47 μ F		B
C09	0660471	470 pF	50V C.C.	
C10	0519001	10 μ F	25V E.C.	B
C11	0513331	330 μ F		B
R01	0103121	120 Ω	1/4 W C.R.	A
R02	0107822	8.2k Ω		A
R03	0107273	27k Ω		A
R04	0107220	22 Ω		A
R05	0107272	2.7k Ω		A
R06	0107222	2.2k Ω		A
R07	0107472	4.7k Ω		A
R08	0107822	8.2k Ω		A
R09	0103121	120 Ω		B
R10	0107822	8.2k Ω		B
R11	0107273	27k Ω		B
R12	0107220	22 Ω		B
R13	0107222	2.2k Ω		B
R14	0107153	15k Ω		B
R15	0107222	2.2k Ω		B
R16	0107123	12k Ω		B
VR01	1035350	4.7k Ω (B) Volume		A
	2410760	3P Pin Ass'y C type		
	2410770	4P Pin Ass'y C type		

5-3. F-2486 Equalizer Circuit Board (Stock No. 9550701 Complete Circuit Board F-2486)

Conductor Side



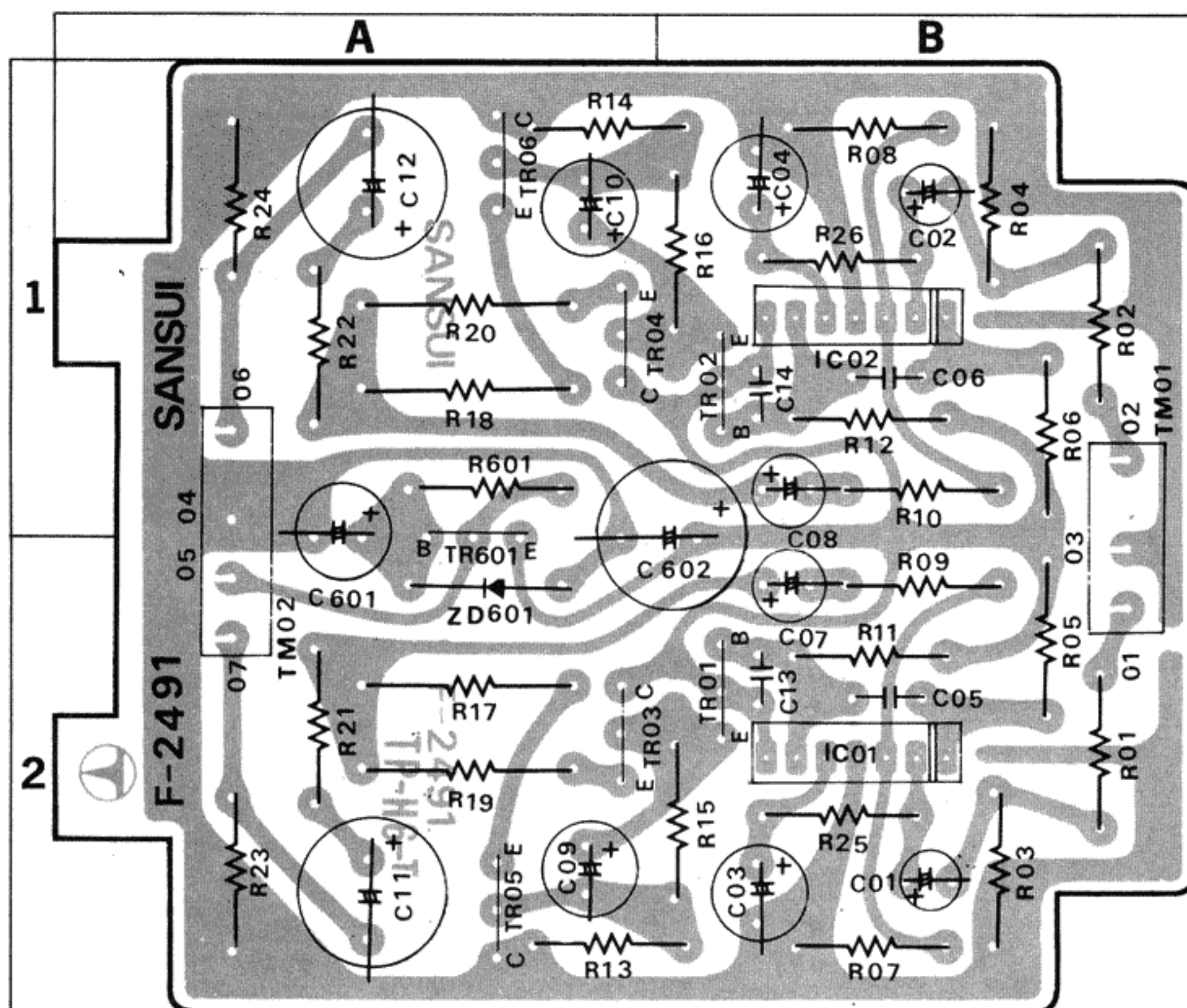
Parts List

Parts No.	Stock No.	Description	Position
TR01	0370220	2SK58 IC	2 A
TR02	0300710~2	2SA847 (F, G, H)	2 A
TR03	0300710~2	2SA847 (F, G, H)	2 A
TR04	0306270~2	2SC1708 (F, G, H)	1 A
TR05	0305901, 2	2SC1124 (2, 3)	1 A
TR06	0300401, 2	2SA706 (2, 3)	1 A
TR07	0306070~2	2SC1313 (F, G, H)	1 B
TR08	0360260	2SK58 IC	2 B
TR09	0300710~2	2SA847 (F, G, H)	2 B
TR10	0300710~2	2SA847 (F, G, H)	2 B
TR11	0306270~2	2SC1708 (F, G, H)	1 B
TR12	0305901	2SC1124 (2, 3)	1 A
TR13	0300401, 2	2SA706 (2, 3)	1 A
C02	0660100	10 pF 50V C.C.	2 A
C03	0510470	47 μF 6.3V E.C.	1 A
C04	0535109	1 μF 50V E.C.	1 A
C05	0514101	100 μF 35V E.C.	1 B
C06	0515330	33 μF 50V E.C.	1 B
C07	0630106	1000 pF } 50V P.C.	2 B
C08	0630476	4700 pF }	1 B
C09	0510470	47 μF 6.3V E.C.	1 A
C10	0535479	4.7 μF }	1 B
C11	0515221	220 μF } 50V E.C.	2 A
C12	0515221	220 μF }	1, 2 B

Parts No.	Stock No.	Description	Position
R01	0231104	100kΩ	2 A
R02	0231393	39kΩ	1, 2 A
R03	0231393	39kΩ	1, 2 A
R04	0231563	56kΩ	2 A
R05	0231123	12kΩ	2 A
R06	0231682	6.8kΩ	1, 2 A
R07	0231823	82kΩ	1 A
R08	0231393	39kΩ	1 A
R09	0231473	47kΩ	2 A
R10	0231123	12kΩ	2 A
R11	0107102	1kΩ	1 A
R12	0107122	1.2kΩ	1 A
R13	0107273	27kΩ	1 A
R14	0107121	120Ω	1 A
R15	0107121	120Ω	1 A
R16	0107333	33kΩ	1 B
R17	0107223	22kΩ	1 B
R18	0107124	120kΩ	2 A
R19	0231104	100kΩ	2 B
R20	0231683	68kΩ	2 B
R21	0231562	5.6kΩ	2 B
R22	0231393	39kΩ	1, 2 B
R23	0231393	39kΩ	1, 2 B
R24	0231563	56kΩ	2 B
R25	0231682	6.8kΩ	2 A, B
R26	0231684	680kΩ	1 B

5-4. F-2491 Headphone Amplifier Circuit Board (Stock No. 7592441 Complete Circuit Board F-2491)

Conductor Side



Parts List

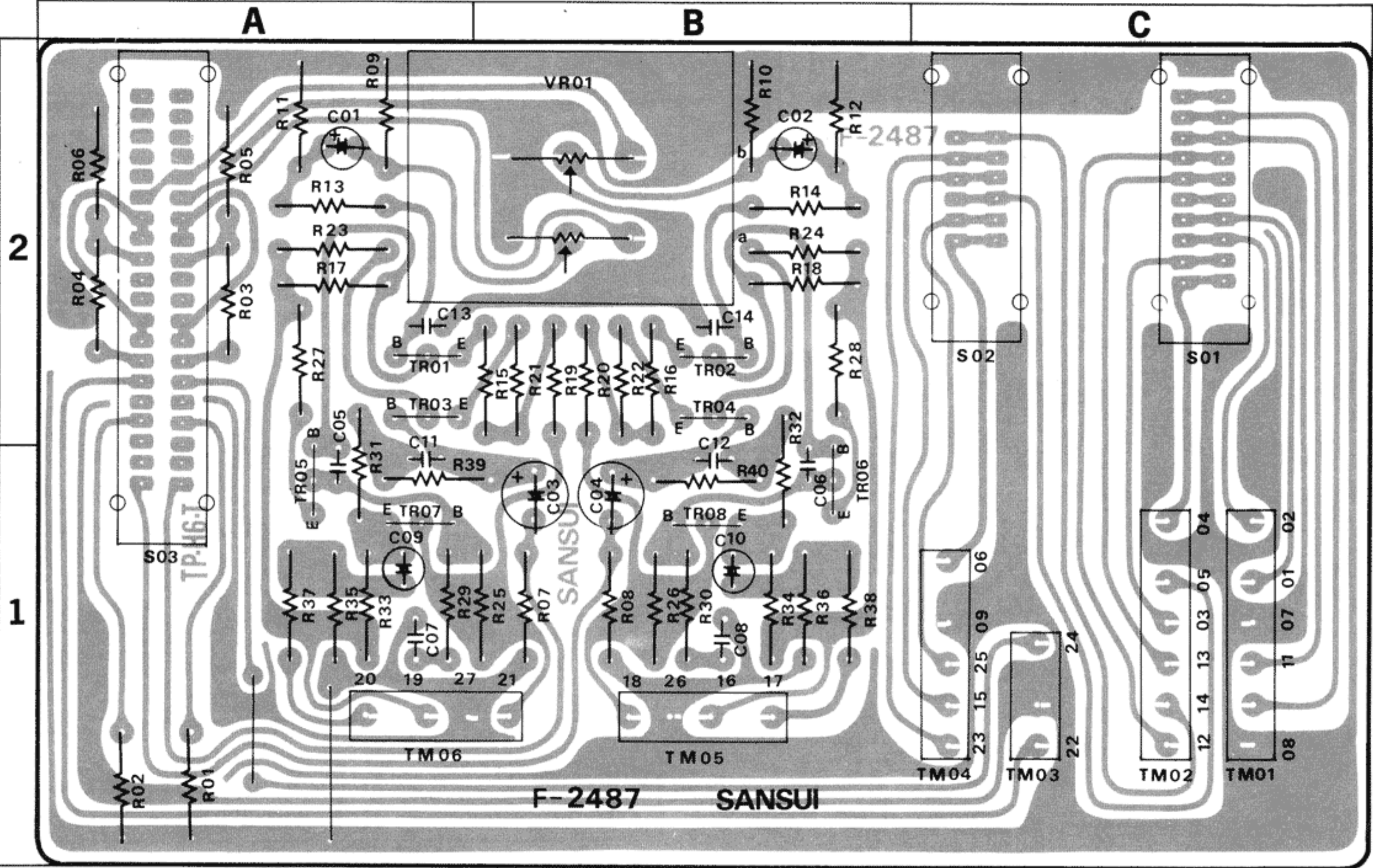
Parts No.	Stock No.	Description	Position
R27	0231393	39k Ω	1 B
R28	0231473	47k Ω	2 B
R29	0231123	12k Ω	2 B
R30	0107102	1k Ω	1 B
R31	0107122	1.2k Ω	1 A, B
R32	0107273	27k Ω	1 B
R33	0107121	120 Ω	1 B
R34	0107121	120 Ω	1 B
R35	0231683	68k Ω	1, 2 B
R36	0107561	560 Ω	1 B
R37	0107124	120k Ω	2 B
R38	0107479	4.7 Ω	2 B
R39	0107479	4.7 Ω	2 B
	2410760	3P Pin Ass'y C type	
	2410780	6P Pin Ass'y C type	

Parts No.	Stock No.	Description	Position
TR01, 02	0306070, 1	2SC1313 (F, G)	2 A. 1 B
TR03, 04	0300381, 2	2SA706-2 (2, 3)	2 A. 1 A
TR05, 06	0305901, 2	2SC1124 (2, 3)	2 A. 1 A
TR601	0308450, 1	2SD356 (C, D)	1 A
IC01, 02	0360190	IC	2 B. 1 B
ZD601	0316600	RD36E (C) Diode	2 A
C01, 02	0515109	1 μ F 50V E.C.	2 A. 1 B
C03, 04	0510101	100 μ F 6.3V E.C.	2 A. 1 B
C05, 06	0660100	10pF 50V C.C.	2 A. 1 B
C07, 08	0513100	10 μ F 25V E.C.	2 B. 1 B
C09, 10	0510101	100 μ F 6.3V E.C.	2 A. 1 A
C11, 12	0513221	220 μ F 25V E.C.	2 A. 1 A
C13, 14	0660100	10pF 50V C.C.	2 B. 1 B
C601	0515330	33 μ F	1, 2 A
C602	0515101	100 μ F	1, 2 A B
R01, 02	0107104	100k Ω	2 B. 1 B
R03, 04	0107103	10k Ω	2 B. 1 B
R05, 06	0107394	390k Ω	2 B. 1 B
R07, 08	0107122	1.2k Ω	2 B. 1 B
R09, 10	0107273	27k Ω	2 B. 1 B
R11, 12	0107273	27k Ω	2 B. 1 B
R13, 14	0107152	1.5k Ω	2 A. 1 A
R15, 16	0107101	100 Ω	2 B. 1 B
R17, 18	0104330	33 Ω	2 A. 1 A
R19, 20	0104330	33 Ω	2 A. 1 A
R21, 22	0103100	10 Ω	2 A. 1 A
R23, 24	0103331	330 Ω	2 A. 1 A
R25, 26	0107154	150k Ω	2 B. 1 B
R601	0107332	3.3k Ω	1 A
VR01	1015150	50k Ω Volume	
	2410580	3P Pin Ass'y D type	
	2410590	4P Pin Ass'y D type	

5-5. F-2487 Volume & Muting Circuit Board

(Stock No. 7592421 Complete Circuit Board F-2487)

Conductor Side

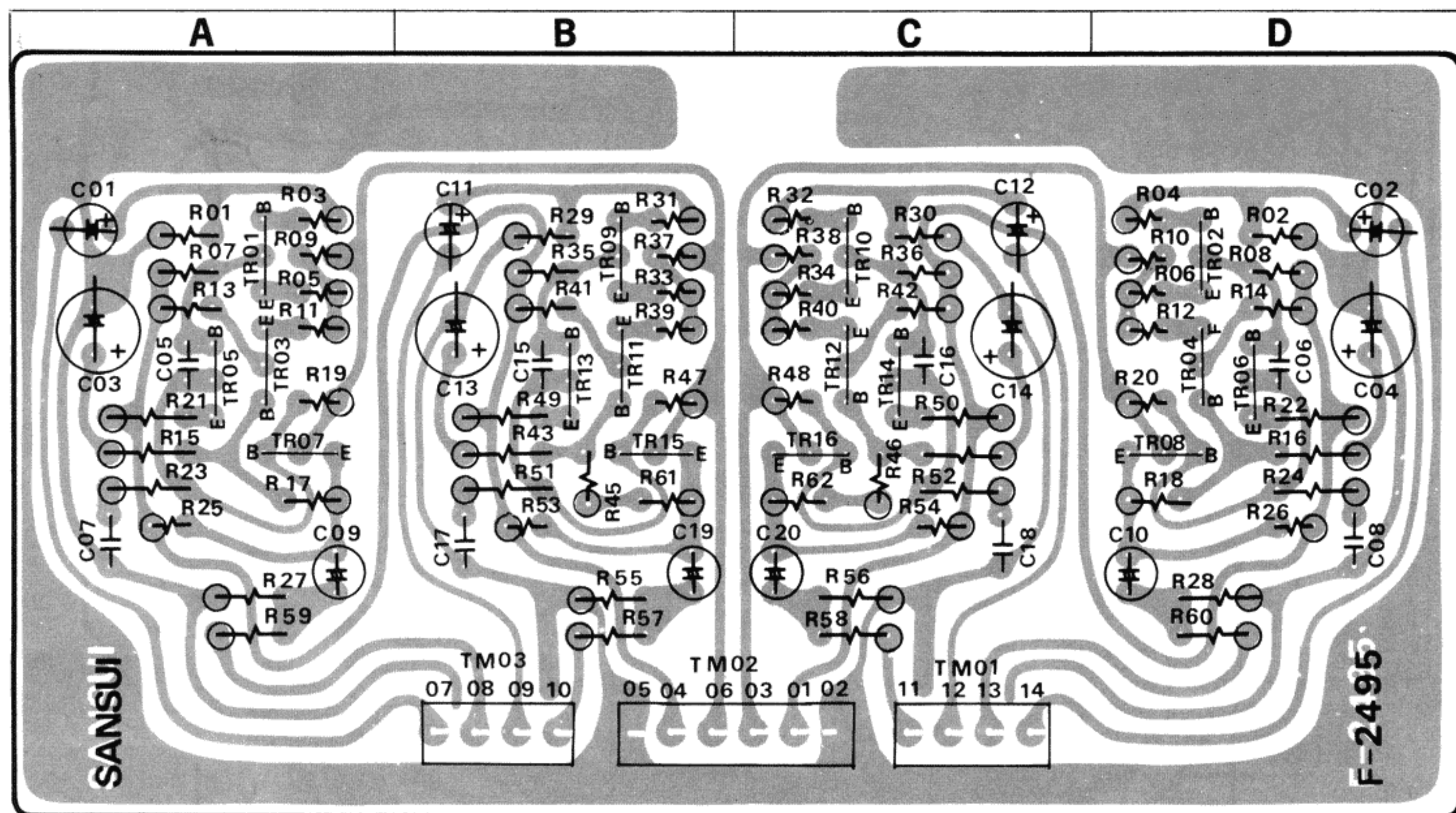


Parts List

Parts No.	Stock No.	Description	Position	Parts No.	Stock No.	Description	Position
TR01, 02	0300470, 1	2SA726 (F, G)	} Transistor	R21, 22	0107101	100Ω	1 B
TR03, 04	0300470, 1	3SA726 (F, G)		R23, 24	0107103	10kΩ	1 A. 1 B
TR05, 06	0306070, 1	2SC1313 (F, G)		R25, 26	0107333	33kΩ	2 B
TR07, 08	0306070, 1	2SC1313 (F, G)		R27, 28	0107102	1kΩ	1 A. 1 B
C01, 02	0519101	1μF 50V E.C.	1 A. 1 B	R29, 30	0107183	18kΩ	2 A. 2 B
C03, 04	0510470	47μF 6.3V E.C.	2 B	R31, 32	0107393	39kΩ	} 1/4 W G.R.
C05, 06	0660100	10pF	2 A. 2 B	R33, 34	0107392	3.9kΩ	
C07, 08	0660221	220pF	2 A. 2 B	R35, 36	0107104	100kΩ	
C09, 10	0533479	4.7μF 25V E.C.	2 A. 2 B	R37, 38	0107561	560Ω	
C11, 12	0660101	100pF	2 A. 2 B	R39, 40	0107123	12kΩ	2A,B,1A,B
C13, 14	0660470	47pF	1 A. 1 B	R41, 42	0107479	4.7Ω	
R01, 02	0107472	4.7kΩ	2 A	VR01	1090081	50kΩ × 2 Volume	1 A, B
R03, 04	0107103	10kΩ	1 A	S01	1170950	} Lever Switch	1 C
R05, 06	0107102	1kΩ	1 A	S02	1170880		1 C
R07, 08	0107123	12kΩ	2 B	S03	1170990		1, 2 A
R09, 10	0107224	220kΩ	} 1/4 W C.R.		2410570	5P Pin Ass'y D type	
R11, 12	0107222	2.2kΩ			2410580	3P Pin Ass'y D type	
R15, 16	0107101	100Ω			2410590	4P Pin Ass'y D type	
R17, 18	0107103	10kΩ			2410600	6P Pin Ass'y D type	
R19, 20	0107104	100kΩ	1 B				

5-6. F-2495 Tone Amplifier Circuit Board (Stock No. 7592461 Complete Circuit Board F-2495)

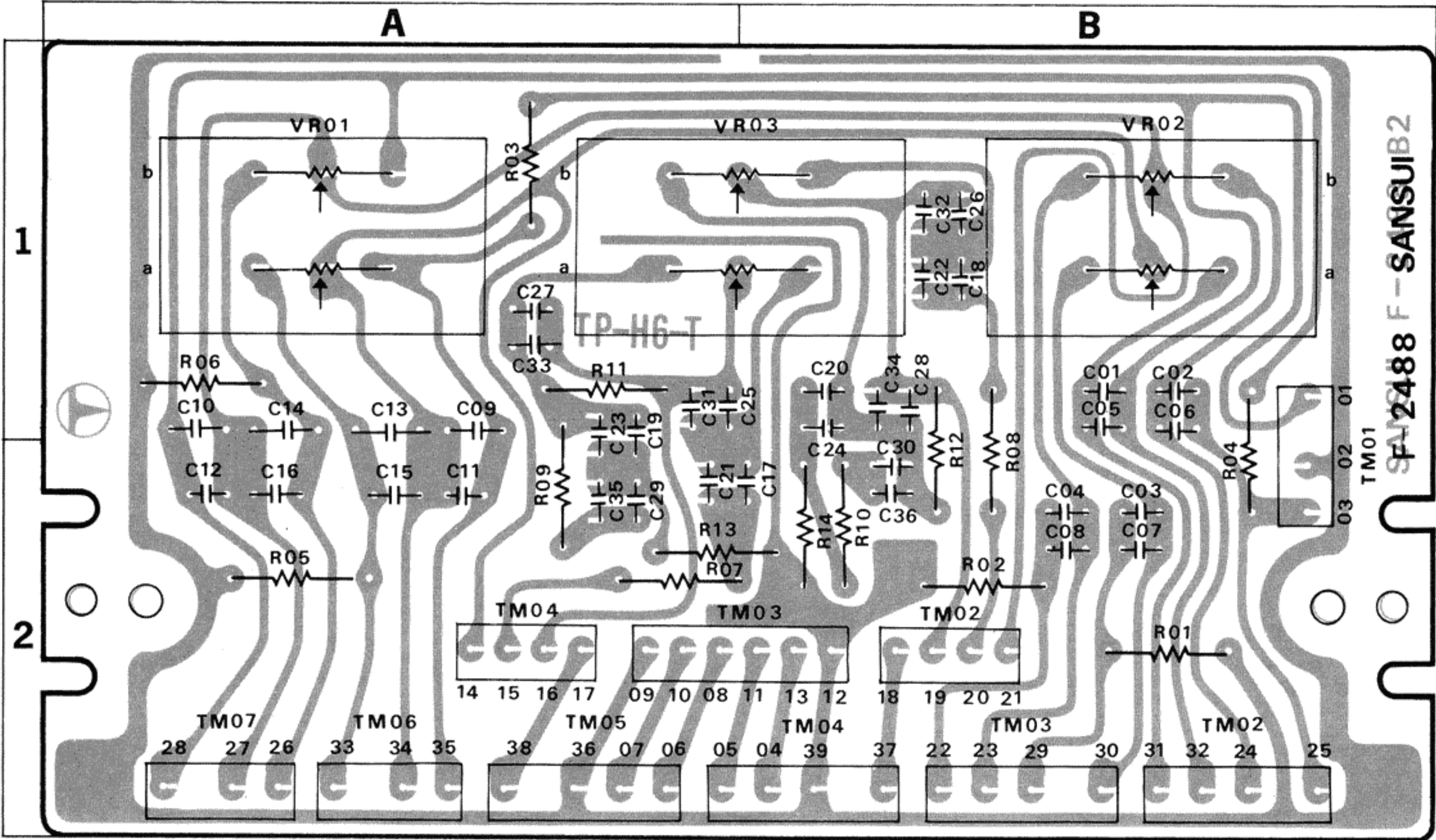
Conductor Side



Parts List

Parts No.	Stock No.	Description	Position	Parts No.	Stock No.	Description	Position
TR01, 02	0300470, 1	2SA726 (F, G)	A . D	R15, 16	0106472	4.7k Ω	A . D
TR03, 04	0300470, 1	2SA726 (F, G)	A . D	R17, 18	0106153	15k Ω	A . D
TR05, 06	0306070, 1	2SC1313 (F, G)	A . D	R19, 20	0107393	39k Ω	A . D
TR07, 08	0306070, 1	2SC1313 (F, G)	A . D	R21, 22	0106102	1k Ω	A . D
TR09, 10	0300470, 1	2SA726 (F, G)	B . C	R25, 26	0107392	3.9k Ω	A . D
TR11, 12	0300470, 1	2SA726 (F, G)	B . C	R27, 28	0106104	100k Ω	A . D
TR13, 14	0306070, 1	2SC1313 (F, G)	B . C	R29, 30	0106105	1M Ω	B . C
TR15, 16	0306070, 1	2SC1313 (F, G)	B . C	R31, 32	0106102	1k Ω	B . C
C01, 02	0519101	1 μ F 50V E.C.	A . D	R33, 34	0106101	100 Ω	B . C
C03, 04	0510470	47 μ F 6.3V E.C.	A . D	R35, 36	0106103	10k Ω	B . D
C05, 06	0660100	10pF 50V C.C.	A . D	R37, 38	0106104	100k Ω	B . D
C09, 10	0533339	3.3 μ F 25V E.C.	A . D	R39, 40	0106101	100 Ω	B . C
C11, 12	0519101	1 μ F 50V E.C.	B . C	R41, 42	0106103	10k Ω	B . C
C13, 14	0510470	47 μ F 6.3V E.C.	B . C	R43, 44	0106472	4.7k Ω	B . C
C15, 16	0660100	10pF 50V C.C.	B . C	R45, 46	0107222	2.2k Ω	B . C
C19, 20	0533339	3.3 μ F 25V E.C.	B . C	R47, 48	0107393	39k Ω	B . C
R01, 02	0106224	220k Ω	A . D	R49, 50	0106102	1k Ω	B . C
R03, 04	0106102	1k Ω	A . D	R53, 54	0107392	3.9k Ω	B . C
R05, 06	0106101	100 Ω	A . D	R55, 56	0106104	100k Ω	B . C
R07, 08	0106103	10k Ω	A . D	R57, 58	0106561	560 Ω	B . C
R09, 10	0106104	100k Ω	A . D	R59, 60	0106561	560 Ω	A . D
R11, 12	0106101	100 Ω	A . D	R61, 62	0107103	10k Ω	B . C
R13, 14	0106103	10k Ω	A . D		2420280	4P Connector A type	
					2420290	6P Connector A type	

5-7. F-2488 Tone Control Circuit Board (Stock No. 7561031 Complete Circuit Board F-2488)
Conductor Side

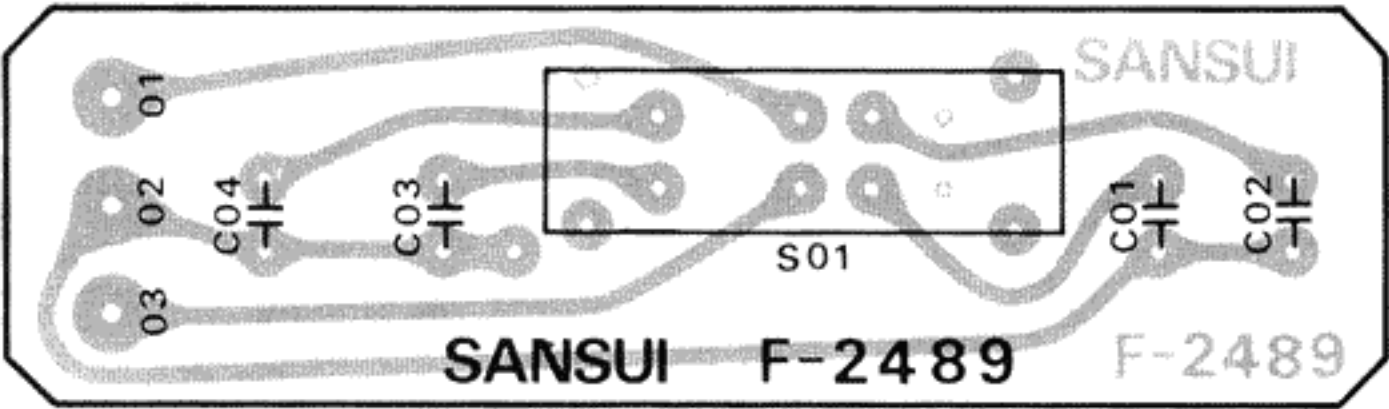


Parts List

Parts No.	Stock No.	Description	Position
C01, 02	0600226	0.0022 μ F	1 B
C03, 04	0600826	0.0082 μ F	2 B
C05, 05	0620221	220pF	1 B
C07, 08	0620391	390pF	2 B
C09, 10	0600477	0.047 μ F	1 A
C11, 12	0600156	0.0015 μ F	2 A
C13, 14	0600157	0.015 μ F	1 A
C15, 16	0600227	0.022 μ F	2 A
C17, 18	0600157	0.015 μ F	2 B, 1 B
C19, 20	0600277	0.027 μ F	1, 2A. 1B
C25, 26	0600566	0.0056 μ F	1 A. 1 B
C27, 28	0600157	0.015 μ F	1 A. 1 B
C29, 30	0600566	0.0056 μ F	2 B
R01, 02	0107561	560 Ω	2 B
R03, 04	0107822	8.2k Ω	1A. 1, 2A
R05, 06	0107272	2.7k Ω	2 A. 1 A
R07, 08	0107822	8.2k Ω	2A,B. 1,2B
R09, 10	0107563	56k Ω	1, 2 A. 2B
R11, 12	0107223	22k Ω	1 A. 1,2B
R13, 14	0107392	3.9k Ω	2A,B. 2 B
VR01	1090090	50k Ω $\times$ 2	1 A
VR02	1090110	50k Ω $\times$ 2	1 B
VR03	1090100	50k Ω $\times$ 2	1 A, B
2410580		3P Pin Ass'y D type	
2410590		4P Pin Ass'y D type	
2410720		4P Pin Ass'y A type	
4210860		6P Pin Ass'y B type	

5-8. F-2489 Input Capacitance Circuit Board (Stock No. 7593261 Complete Circuit Board F-2489)

Conductor Side

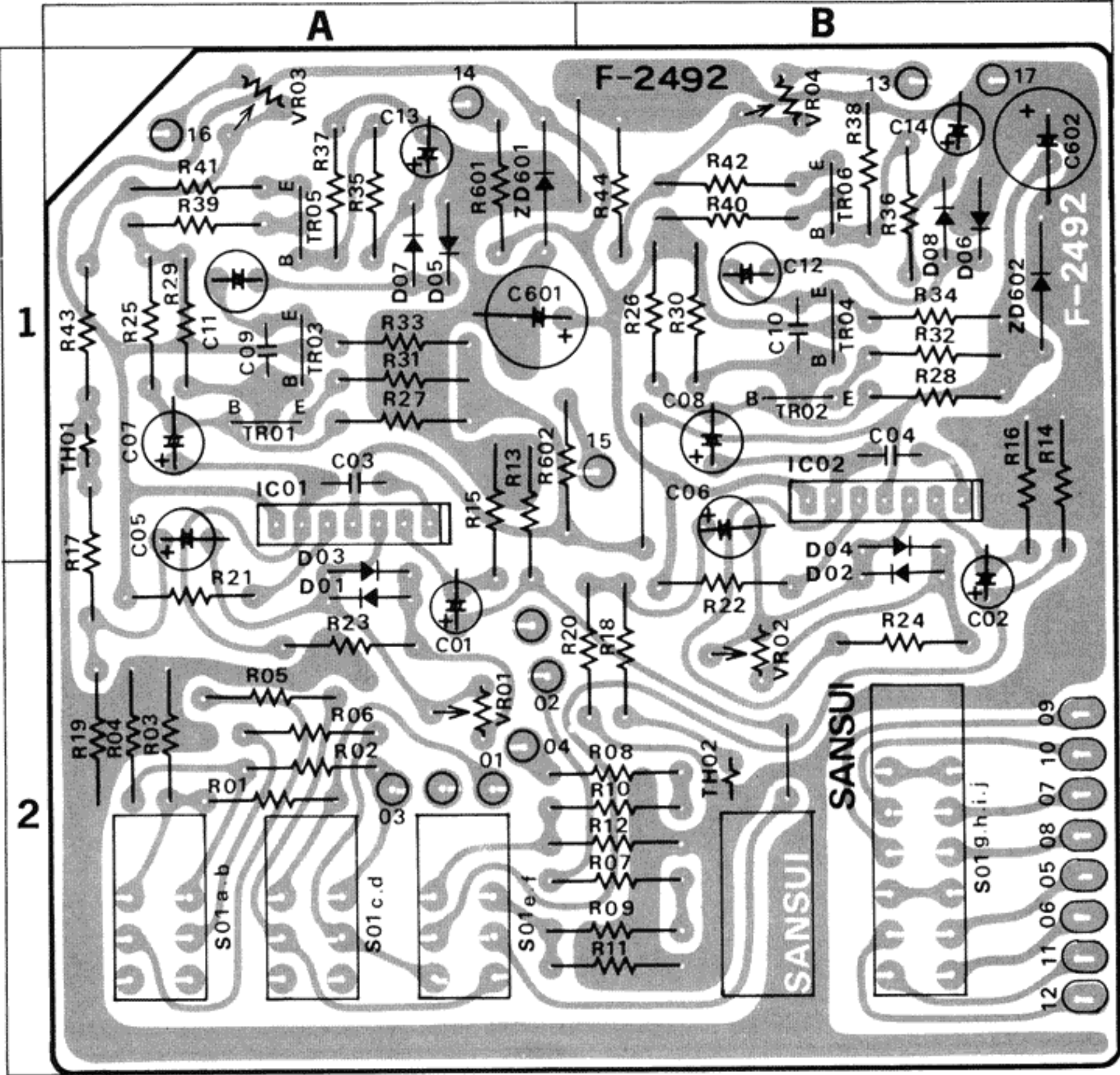


Parts List

Parts No.	Stock No.	Description
C01, 02	0620101	50V P.C.
C03, 04	0620201	200pF 50V P.C.
S01	1110290	Slide Switch

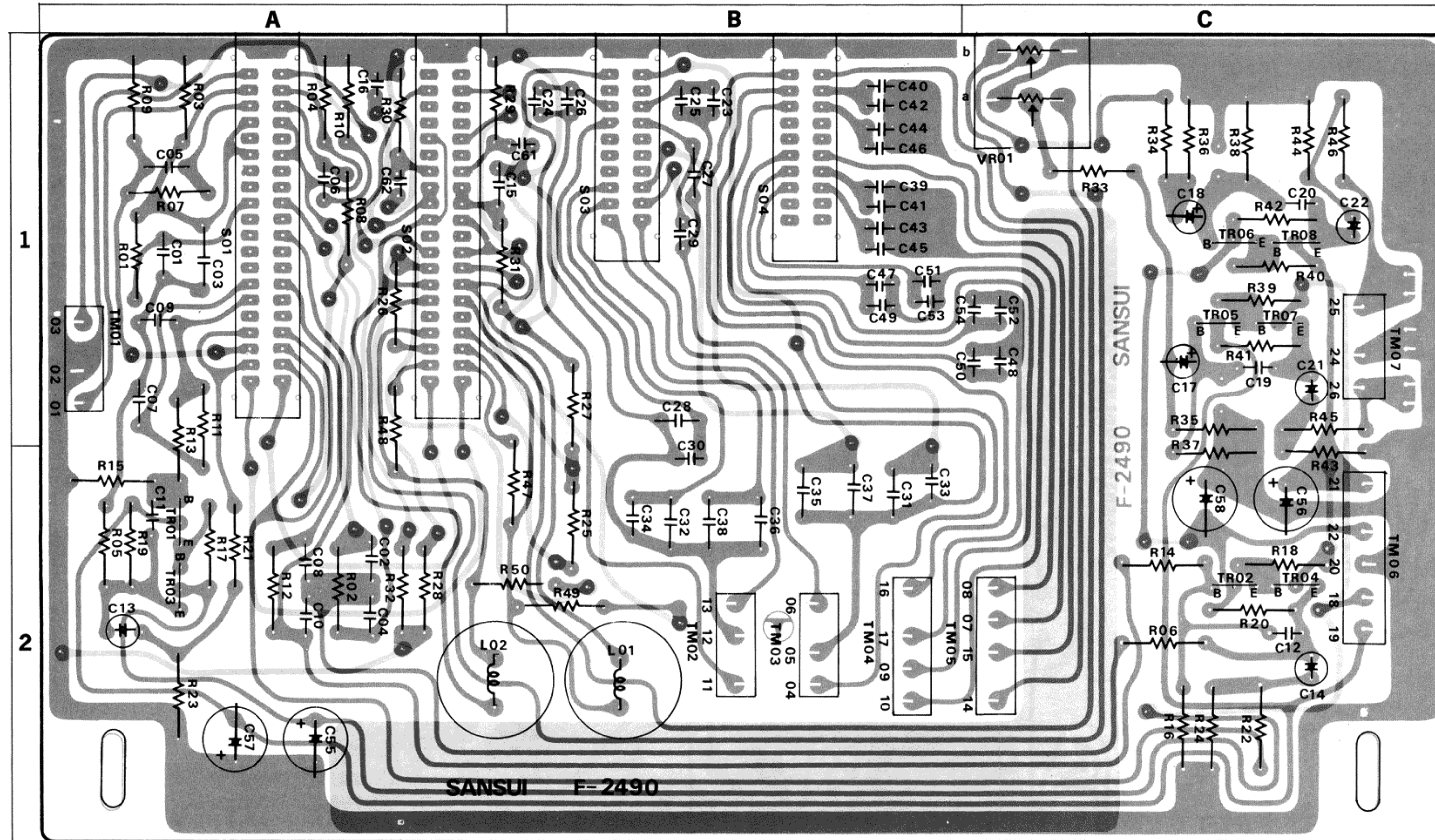
5-9. F-2492 Meter Circuit Board (Stock No. 7592451 Complete Circuit Board F-2492)

Conductor Side



5-10. F-2490 High-Low Filter Circuit Board (Stock No. 7592431 Complete Circuit Board F-2490)

Conductor Side

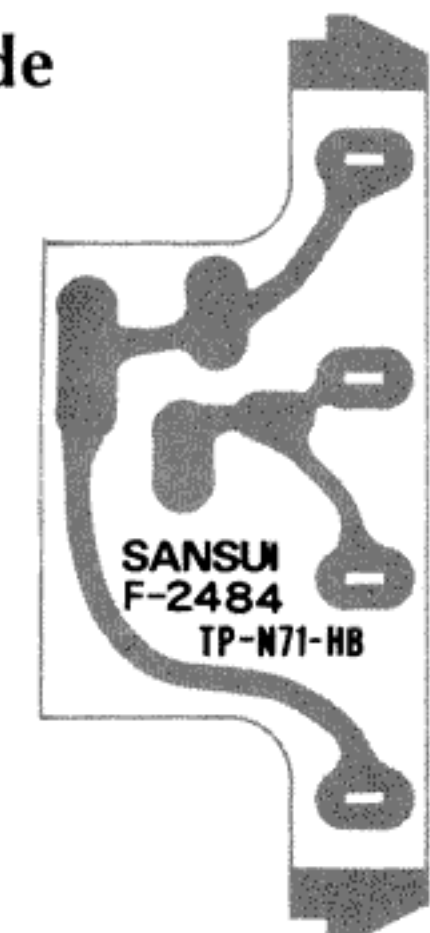


Parts No.	Stock No.	Description	Position
R11, 12	0107824	820k Ω	1, 2A, 2A
R13, 14	0107102	1k Ω	1, 2A, 2A
R15, 16	0107154	150k Ω	2A, 2C
R17, 18	0107183	18k Ω	2A, 2C
R19, 20	0107472	4.7k Ω	2A, 2C
R21, 22	0107561	560 Ω	2A, 2C
R23, 24	0107104	100k Ω	2A, 2C
R25, 26	0107479	4.7 Ω	2B, 1A
R27, 28	0107104	100k Ω	1B, 2A
R29, 30	0107473	47k Ω	1A
R31, 32	0107154	150k Ω	1A, 2A
R33, 34	0107102	1k Ω	1C
R35, 36	0107564	560k Ω	1C
R37, 38	0107124	120k Ω	2C, 1C
R39, 40	0107183	18k Ω	1C
R41, 42	0107472	4.7k Ω	1C
R43, 44	0107104	100k Ω	2C, 1C
R45, 46	0107561	560 Ω	1C
R47, 48	0107479	4.7 Ω	1, 2B, 1, 2A
R49, 50	0107473	47k Ω	2B, 1A, B
L01, 02	4900230	500 μ F Inductor	2B, 1A, B
VR01	1015160	50k Ω Volume	1C
S01	1170990	Lever Switch	1A
S02	1170990		1A
S03	1170950		1B
S04	1170950		1B
	2410570	5P Pin Ass'y D type	
	2410580	3P Pin Ass'y D type	
	2410590	4P Pin Ass'y D type	

5-11. F-2484 Meter Lamp Circuit Board

(Stock No. 7592401 Complete Circuit Board F-2484)

Conductor Side



Parts List

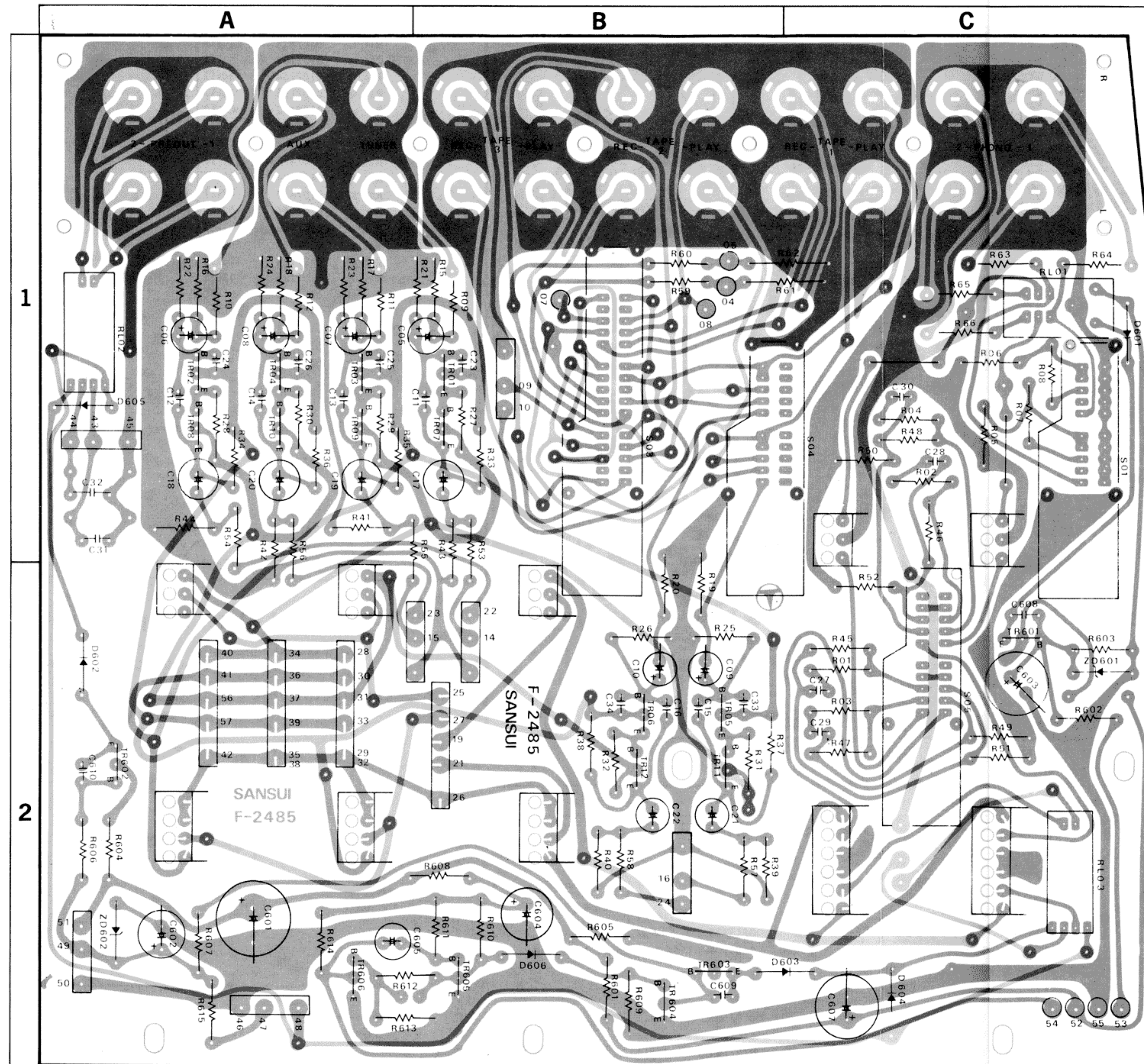
Parts No.	Stock No.	Description	Position
PL01, 02	0420040	7V 320MA Pilot lamp	
	2310051	P Type Fuse Holder	

Parts List

Parts No.	Stock No.	Description	Position
TR01, 02	0300470, 1	2SA726 (F, G)	2A, 2C
TR03, 04	0306070, 1	2SC1313(F, G)	2A, 2C
TR05, 06	0300470, 1	2SA726 (F, G)	1C
TR09, 10	0306070, 1	2SC1313(F, G)	
C01, 02	0600397	0.039 μ F	1A, 2A
C03, 04	0600477	0.047 μ F	1A, 2A
C07, 08	0600397	0.039 μ F	1A, 2A
C09, 10	0600477	0.047 μ F	1A, 2A
C11, 12	0660221	220 pF 50V C.C.	2A, 2C
C13, 14	0533479	4.7 μ F 25V E.C.	2A, 2C
C15, 16	0620221	220 pF 50V P.C.	1A
C17, 18	0519101	1 μ F 50V E.C.	1C
C19, 20	0660221	220 pF 50V C.C.	1C
C21, 22	0533100	10 μ F 25V E.C.	1C
C23, 24	0600156	0.0015 μ F	1B
C25, 26	0600477	0.047 μ F	1B
C27, 28	0600128	0.12 μ F	1B
C29, 30	0600227	0.022 μ F	1B, 2B
C31, 32	0600158	0.15 μ F	2B
C33, 34	0600277	0.027 μ F	2B
C35, 36	0600338	0.33 μ F	2B
C37, 38	0600188	0.18 μ F	2B
C39, 40	0600686	0.0068 μ F	1B
C41, 42	0620471	470 pF 50V P.C.	1B
C43, 44	0600226	0.0022 μ F 50V M.C.	1B
C45, 46	0620221	220 pF 50V P.C.	1B
C47, 48	0600227	0.022 μ F 50V M.C.	1B, 1C
C49, 50	0600396	0.0039 μ F	1B, 1C
C51, 52	0600826	0.0082 μ F	1B, 1C
C53, 54	0620431	430 pF 50V P.C.	1B, 1C
C55	0513470	47 μ F	2A
C56	0513470	47 μ F	2C
C57	0513470	47 μ F	2A
C58	0513470	47 μ F	2C
C61, 62	0600106	0.001 μ F 50V M.C.	1B, 1A
R01, 02	0107824	820k Ω	1A, 2A
R03, 04	0107824	820k Ω	1A, 2A
R05, 06	0107683	68k Ω	2A, 2C
R07, 08	0107479	4.7 Ω	1A
R09, 10	0107683	68k Ω	1A

5-12. F-2485 Input Circuit Board (Stock No. 7592411 Complete Circuit Board F-2485)

Conductor Side



Parts List

Parts No.	Stock No.	Description	Position
TR01, 02	0300470, 1	2SA726 (F, G)	1B.1A
TR03, 04	0300470, 1	2SA726 (F, G)	1A.1A
TR05, 06	0300470, 1	2SA726 (F, G)	2B.2B
TR07, 08	0306070, 1	2SC1313 (F, G)	1B.1A
TR09, 10	0306070, 1	2SC1313 (F, G)	1A.1A
TR11, 12	0306070, 1	2SC1313 (F, G)	2B.2B
TR601	0305930, 1	2SC1211 (C)	2C
TR602	0305930, 1	2SC1211 (C)	2A
TR603	0305930, 1	2SC1211 (C, D)	2B
TR604	0305951, 2	2SC945 (Q, P)	2B
TR605	0305951, 2	2SC945 (Q, P)	2B
TR606	0305951, 2	2SC945 (Q, P)	2A
D601	0310340	10D1	1C
D602	0310340	10D1	2A
D603	0310340	10D1	2B, C
D604	0310340	10D1	2C
D605	0310340	10D1	1A
D606	0311160	1S2473D	2B
ZD601	0316490	RD22E (B)	2C
ZD602	0316500	RD22E (C)	2C
ZD603	0316560	RD30E (C)	2A
ZD604	0316570	RD30E (B)	2A
C05, 06	0519101	1μF	1A, B.1A
C07, 08	0519101	1μF	1A
C09, 10	0519101	1μF	2B
C11, 12	0660221	220pF	1B.1A
C13, 14	0660221	220pF	1A
C15, 16	0660221	220pF	2B
C17, 18	0533479	4.7μF	1B.1B
C19, 20	0533479	4.7μF	1A
C21, 22	0533479	4.7μF	2B
C23, 24	0660680	68pF	1B.1A
C25, 26	0660680	68pF	1A
C27, 28	0620102	1000pF	2C.1C
C29, 30	0620331	330pF	2C.1C
C31, 32	0660471	470pF	1A
C33, 34	0660680	68pF	2B
C601	0515221	220μF 50V	2A
C602	0514101	100μF 35V	2A
C603	0513101	100μF 25V	2C
C604	0511331	330μF 10V	2B
C605	0530330	33μF 6.3V	2A
C606	0657102	1000pF 50V	2C
C607	0515101	100μF 50V	2C
R01, 02	0107124	120kΩ	2C.1C
R03, 04	0107184	180kΩ	2C.1C
R05, 06	0107473	47kΩ	1C
R07, 08	0107563	56kΩ	1C
R09, 10	0107222	2.2kΩ	1B.1A
R11, 12	0107222	2.2kΩ	1A
R13, 14	0107222	2.2kΩ	1A
R15, 16	0107564	560kΩ	1B.1A
R17, 18	0107564	560kΩ	1A
R19, 20	0107564	560kΩ	1, 2B
R21, 22	0107563	56kΩ	1B.1A
R23, 24	0107563	56kΩ	1A
R25, 26	0107563	56kΩ	2B
R27, 28	0107183	18kΩ	1B.1A

5-13. Figures Semiconductor

Parts No.	Stock No.	Description	Position
R29, 30	0107183	18kΩ	1 A
R31, 32	0107183	18kΩ	2 B
R33, 34	0107472	4.7kΩ	1 B . 1 A
R35, 36	0107472	4.7kΩ	1 A
R37, 38	0107472	4.7kΩ	2 B
R39, 40	0107104	100kΩ	2 B
R41, 42	0107104	100kΩ	1A. 1, 2A
R43, 44	0107104	100kΩ	1,2B. 1A
R45, 46	0107153	15kΩ	2 C . 1 C
R47, 48	0107223	22kΩ	2 C . 1 C
R49, 50	0107822	8.2kΩ	2 C . 1 C
R53, 54	0107681	680Ω	1,2B. 1 A
R55, 56	0107681	680Ω	1,2AB,1,2A
R57, 58	0107681	680Ω	2 B
R59, 60	0107334	330kΩ	1 B
R61, 62	0107104	100kΩ	1 B , C
R63, 64	0107222	2.2kΩ	1 A . 1 C
R65, 66	0107222	2.2kΩ	1 C
R601	0103471	470Ω	2 B
R602	0107222	2.2kΩ	2 C
R603	0107563	56kΩ	2 C
R604	0107471	470Ω	2 A
R605	0107471	470Ω	2 B
R606	0107332	3.3kΩ	2 A
R607	0107332	3.3kΩ	2 A
R608	0107183	18kΩ	2 B
R609	0107563	56kΩ	2 B
R610	0107222	2.2kΩ	2 B
R611	0107183	18kΩ	2 B
R612	0107682	6.8kΩ	2 A . B
R613	0107273	27kΩ	2 A . B
R614	0107222	2.2kΩ	2 A
R615	0201151	150Ω 1 W C.R.	2 A
RL01	1150330	Relay Switch	1 C
RL02	1150320	Relay Switch	1 A
S01	1190220	Switch	1, 2 C
S03	1190230		1, 2 B
S04	1190240		1, 2 B C
S05	1190220		2 C
	1150320		10mA 1600Ω
	2410570	5P Pin Ass'y D type	
	2410580	4P Pin Ass'y D type	
	2420320	3P Connector A type	
	2420330	4P Connector A type	
	2430260	S-Q3068-01 1P Jack (white)	
	2430270	S-Q3068-02 1P Jack (Red)	

Abbreviations

C.R. : Carbon Resistor	BP.E.C.: Bi-Polar Electrolytic Capacitor
S.R. : Solid Resistor	C.C. : Ceramic capacitor
Ce.R. : Cement Resistor	Mi.C. : Mica Capacitor
M.R. : Metallized Film Resistor	O.C. : Oil Capacitor
M.C. : Mylar Capacitor	P.C. : Polystyrene Capacitor
E.C. : Electrolytic Capacitor	T.C. : Tantalum Capacitor

SEMICONDUCTORS	COMPLETE CIRCUIT BOARD	SEMICONDUCTORS	COMPLETE CIRCUIT BOARD
2SC945	F-2485 F-2492	10D-1	F-2485
2SA726 2SA847 2SC1211 2SC1313 2SC1708	F-2495 F-2485 F-2487 F-2486 F-2494 F-2491 F-2490 F-2492	VD1212	F-2492
2SB526	F-2494	1S2473D	F-2485
2SB527 2SD356 2SD357	F-2494 F-2491	RD-13A RD-24E RD-30E RD-36E RD-15E	F-2494 F-2485 F-2491 F-2492
2SA706 2SC1124	F-2486 F-2491	1S1850(+) 1S1850R(-)	F-2493
BA312 TA7136P	F-2491 F-2492		
2SK58	F-2486		

Connector & Pin Ass'y

Connector

A type (3~10 pins)	B type (2~6 pins)	Stock No.
		2 Pins 2420250 3 Pins 2420220 4 Pins 2420230 5 Pins 2420210 6 Pins 2420240

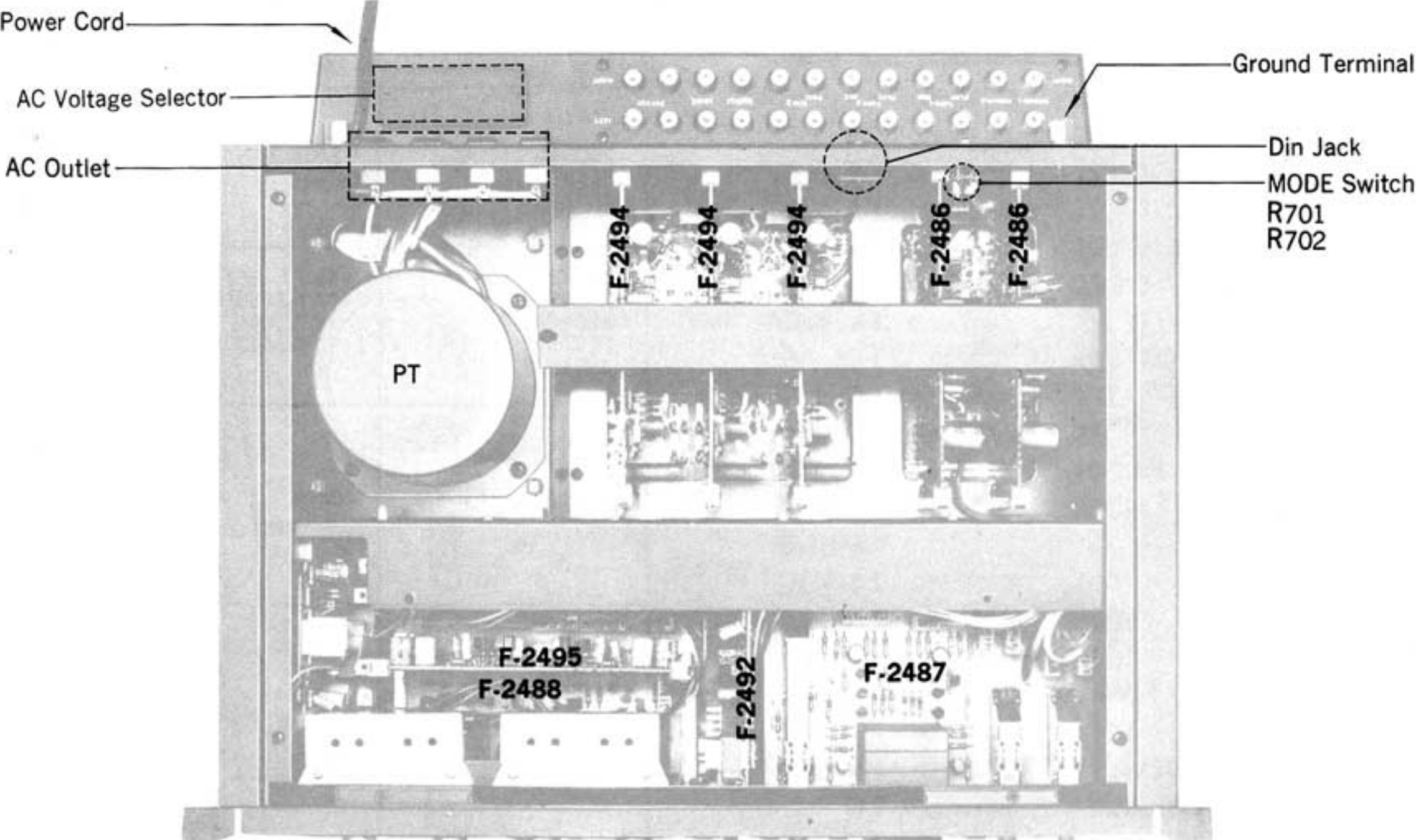
NOTE: Since stock number of female connectors (type B) with wires are not shown in each parts list of Complete circuit board, please refer to the above parts list when ordering the connector.

Pin Ass'y

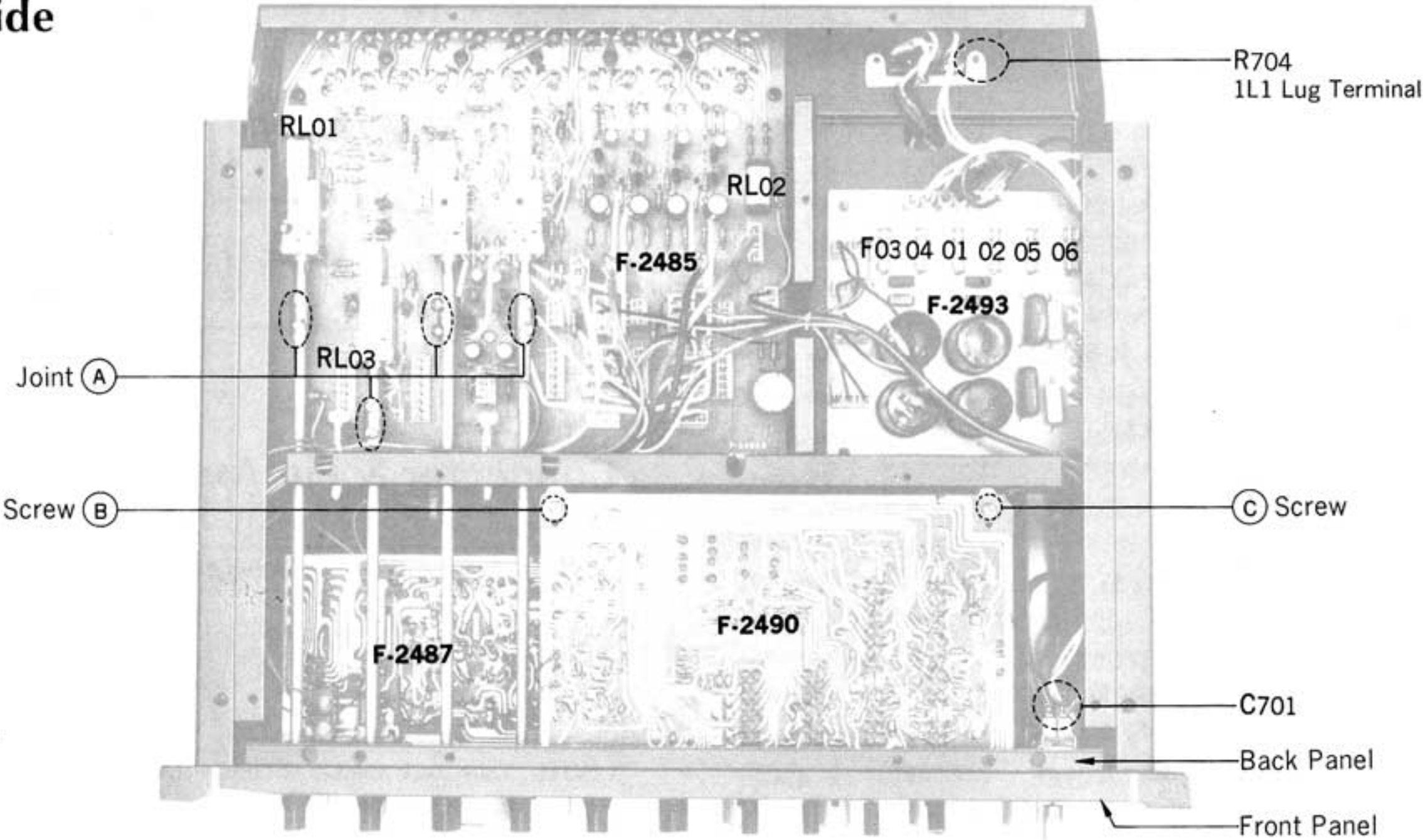
A type (3~10 pins)	B type (3~10 pins)	C type (3~10 pins)
D type (2~6 pins)	E type (2~6 pins)	F type (2~6 pins)

5-14. Other Parts

Top Side



Bottom Side



Other Parts List

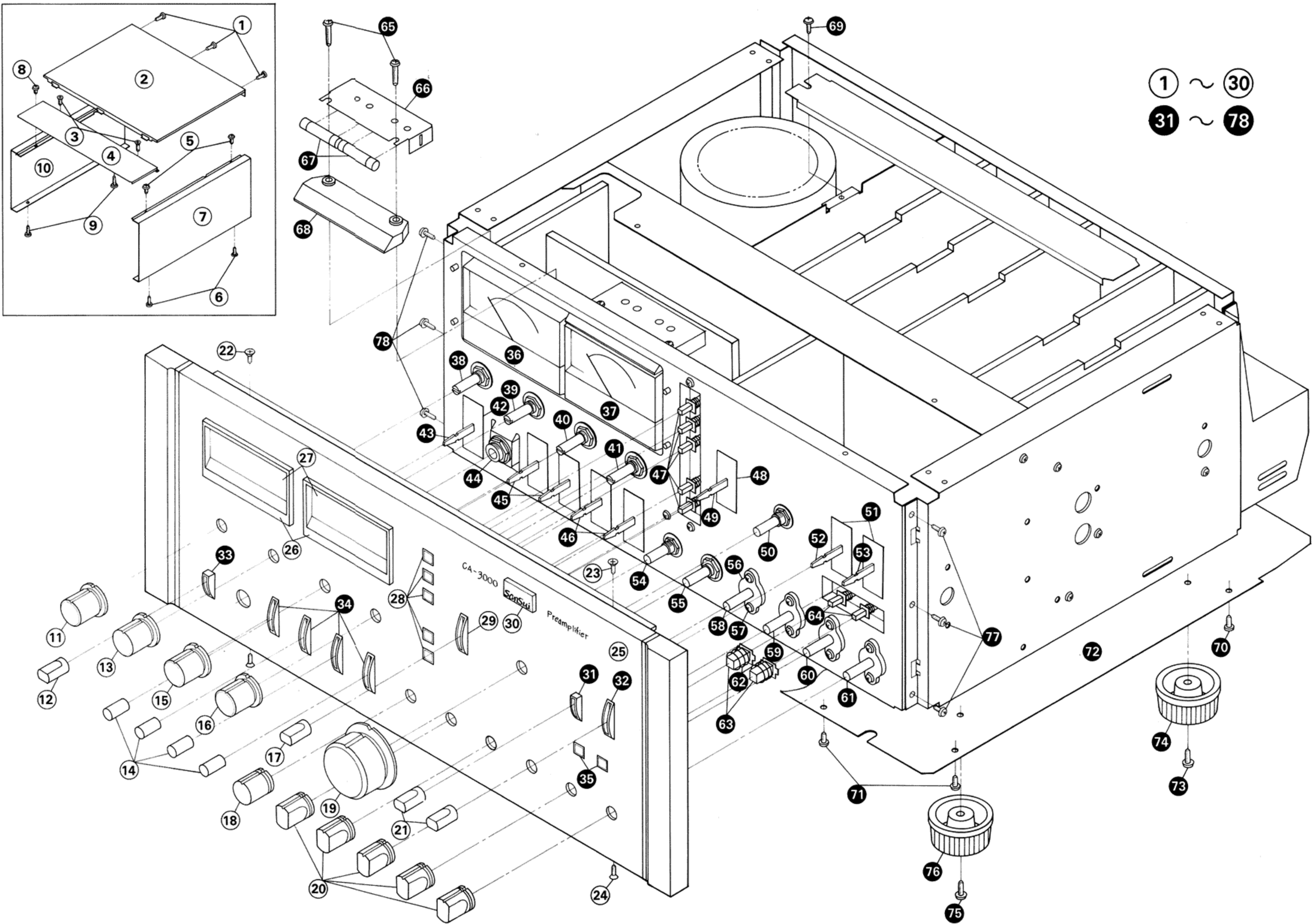
Parts No.	Stock No.	Description
PT01	4002250	Power Transformer
CO701-702	2450060	AC Outlet
	2230051	Ground Terminal
	3800250	Power Cord
	2090040	Din Jack
C701	0659801	0.01μF 1.4kV C.C.
R701, 702	0107153	15kΩ ¼W C.R.
R704	0152339	3.3Ω 2W Ce.R.
	2110011	1L1 Lug Terminal
	2410091	Voltage Selector Plug
	2410130	Voltage Selector Socket
	5268600	Voltage Selector Cover

- * Removal of Back plate
- Back plate will be easily pulled out without removing Front Panel Ass’y as stated below.
- 1) Remove two bonnets (1), (2) (refer to Exploded View, parts No ②, ④).
 - 2) Remove both panels ⑦ and ⑩ (See Exploded View).
 - 3) Remove screws, ⑦⑦, ⑦⑧ for installing Back Panel and both side chassis.
 - 4) Loosen tow screws on joint ① each (see above pic ture from bottom view)
 - 5) Loosen screws ① ② for installing the printed circuit board on chassis, then pull it toward the front panel. (See the picture)
 - 6) Pull out the Back Panel toward the Front Panel.

5-15. Other Parts (Front Side)

Parts List

Parts No.	Stock No.	Description
1	5109222	Binding Head Tapping Screw, M3×8
2	5006420	Bonnet (2)
3	5109222	Binding Head Tapping Screw, M3×8
4	5006400	Bonnet (1)
5	5109222	Binding Head Tapping Screw, M3×8
6	5109222	Binding Head Tapping Screw, M3×8
7	5309800	Dress Panel, Right
8	5109222	Binding Head Tapping Screw, M3×8
9	5109222	Binding Head Tapping Screw, M3×8
10	5309790	Dress Panel, Left
11	5318250	B-6 Type Knob, Headphone Level VR
12	5326510	E-2 Type Knob, Power SW
13	5318250	B-6 Type Knob, Bass VR
14	5326520	E-3 Type Knob, Filter & Tone Selector
15	5318250	B-6 Type Knob, Midrange VR
16	5318250	B-6 Type Knob, Treble VR
17	5326510	E-2 Type Knob, Muting SW
18	5318270	D-6 Type Knob, Balance VR
19	5318230	Z-5 Type Knob, Volume
20	5318280	F-6 Type Knob
21	5326510	E-2 Type Knob
22	5166610	Flat Countersunk Head Screw, M3×6
23	5166610	Flat Countersunk Head Screw, M3×6
24	5166610	Flat Countersunk Head Screw, M3×6
25	7007080	Front Panel Ass'y
26	5309760	Meter Hood
27	5446250	Meter Glass
28	5286720	Knob Guide
29	5286740	Lever Guide (2)
30	5336580	Sansui Mark
31	5286730	Lever Guide (1)
32	5286740	Lever Guide (2)
33	5286730	Lever Guide (1)
34	5286740	Lever Guide (2)
35	5286720	Knob Guide
36	4300480	Level Meter
37	4300480	Level Meter
38	1015150	Headphone Level Volume
39	1090090	Bass Volume 50kΩ×2
40	1090100	Midrange Volume 50kΩ×2
41	1090110	Treble Volume 50kΩ×2
42	5047470	Masking, Lever Switch
43	1170330	Power Switch
44	2430190	Headphone Jack
45	1170990	Lever Switch, Low & High Filter
46	1170950	Tone Selector SW
47	1131080	Push Switch, Meter & Tone Selector
48	5047470	Masking, Lever Switch
49	1170990	Muting Switch
50	1090080	Volume
51	5047470	Masking, Lever Switch
52	1170940	Tape Play Switch
53	1170950	Input Selector Switch
54	1015160	Balance Volume 50kΩ
55	1101680	Mode Switch, F-1-3-5
56	5269321	Shaft Retainer
57	5109222	Binding Head Tapping Screw, M3×8
58	1190230	Tape Copy Switch
59	1190240	Play Back Switch
60	1190220	Sensitivity Switch
61	1190220	Pickup Load Switch

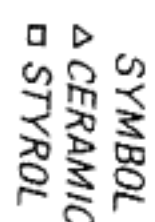


Parts No.	Stock No.	Description
62	6906480	Spring, Push Knob
63	5326530	Push Knob
64	1131070	Phono Switch
65	5101149	Binding Head Screw, M3×16
66	5286780	Illumination Cover
67	0420040	Meter Lamp, 7V 320MA

Parts No.	Stock No.	Description
68	5442640	Illumination Plate
69	5109222	Binding Head Tapping Screw, M3×8
70	5109222	Binding Head Tapping Screw, M3×8
71	5109222	Binding Head Tapping Screw, M3×8
72	5058390	Bottom Plate
73	5101163	Binding Head Screw, M4×10

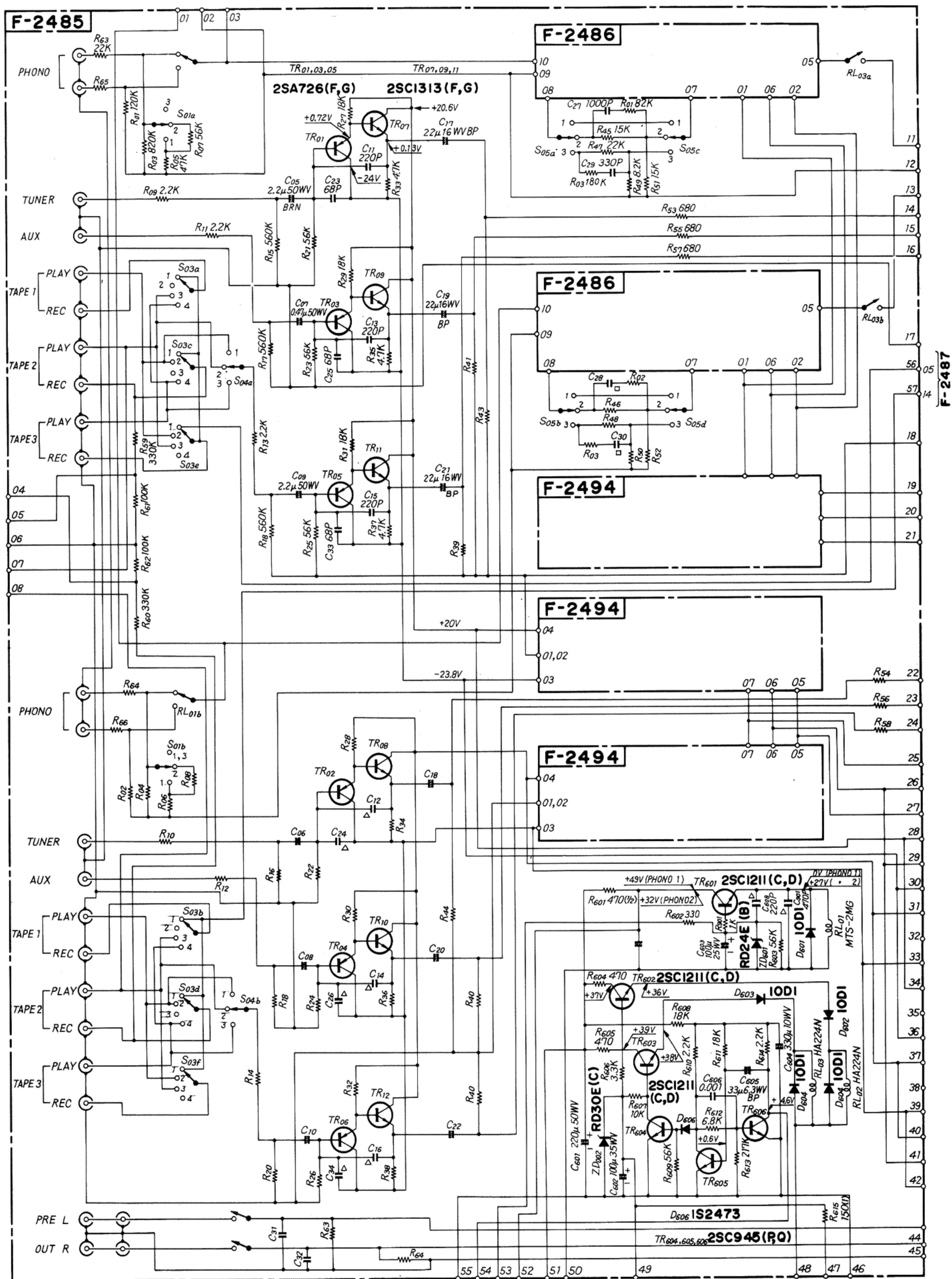
Parts No.	Stock No.	Description
74	5517050	Leg
75	5101163	Binding Head Screw, M4×10
76	5517050	Leg
77	5109221	Binding Head Tapping Screw, M3×6
78	5109221	Binding Head Tapping Screw, M3×8

6-1. Connection Diagram



6-2. Input Circuit Board

* La présentation et les spécifications sont susceptibles d'être modifiées sans préavis par suites d'améliorations éventuelles.
 * Änderungen, die dem technischen Fortschritt dienen, bleiben vorbehalten.
 * Design and specifications subject to change without notice for improvement.

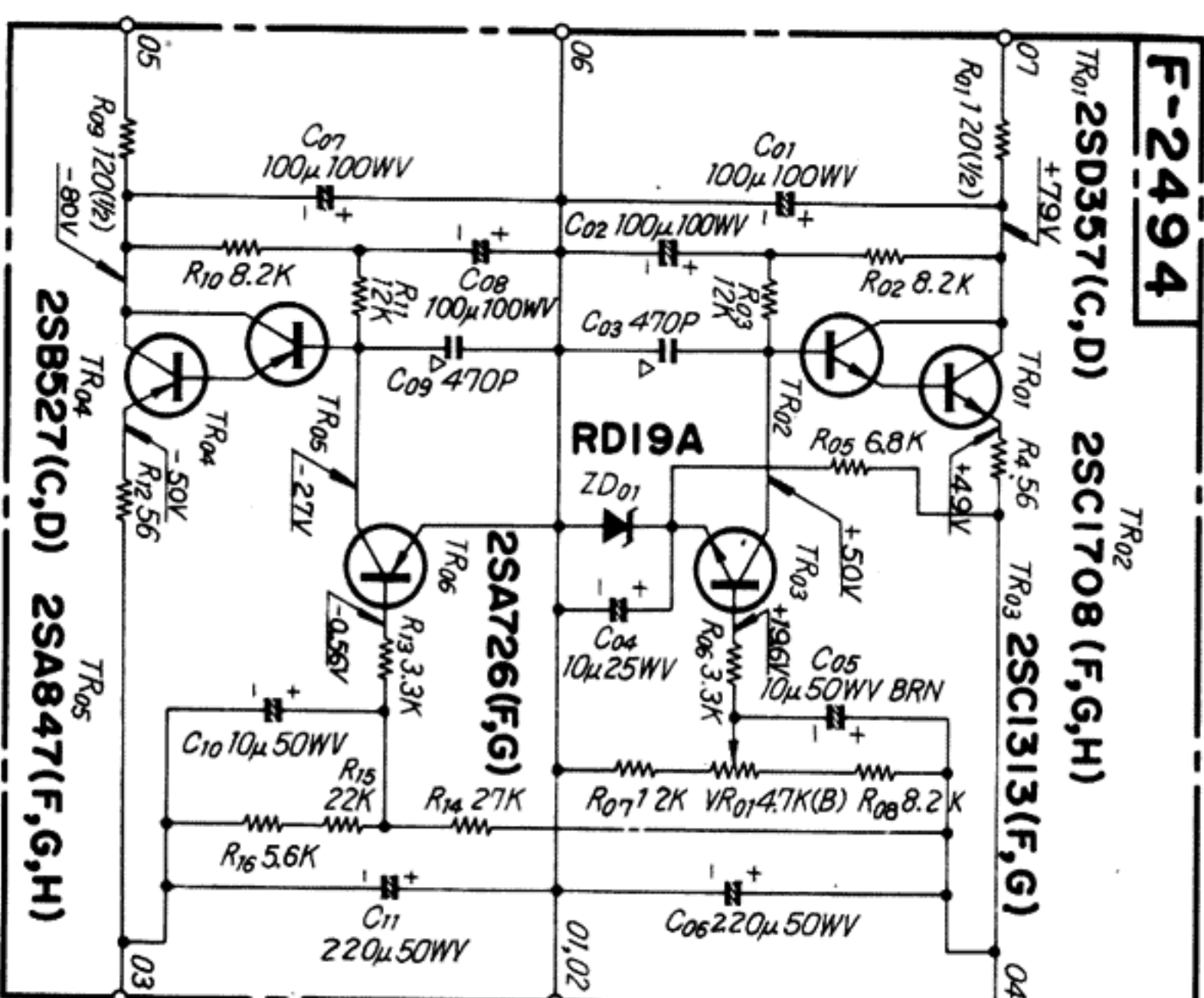
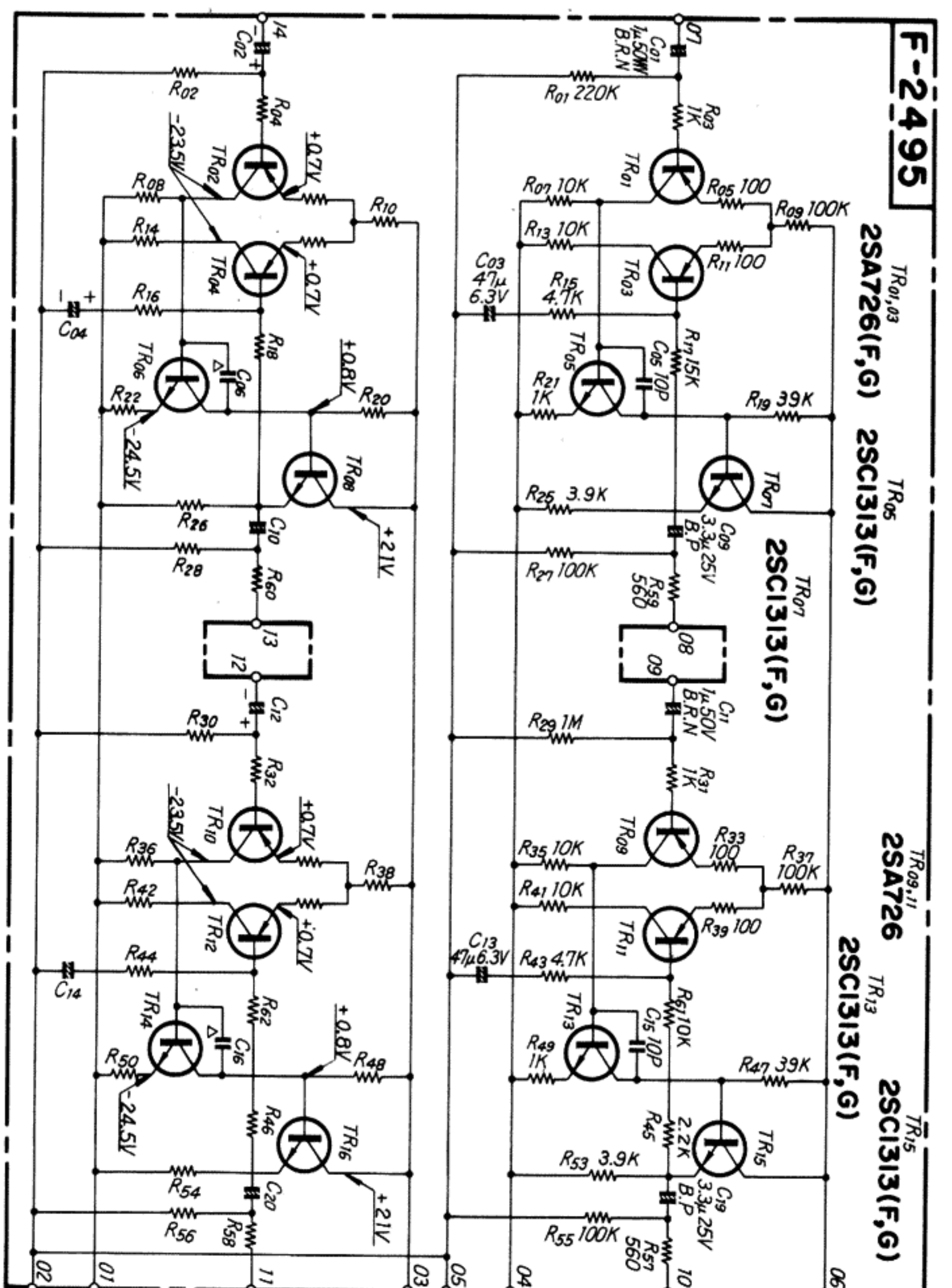
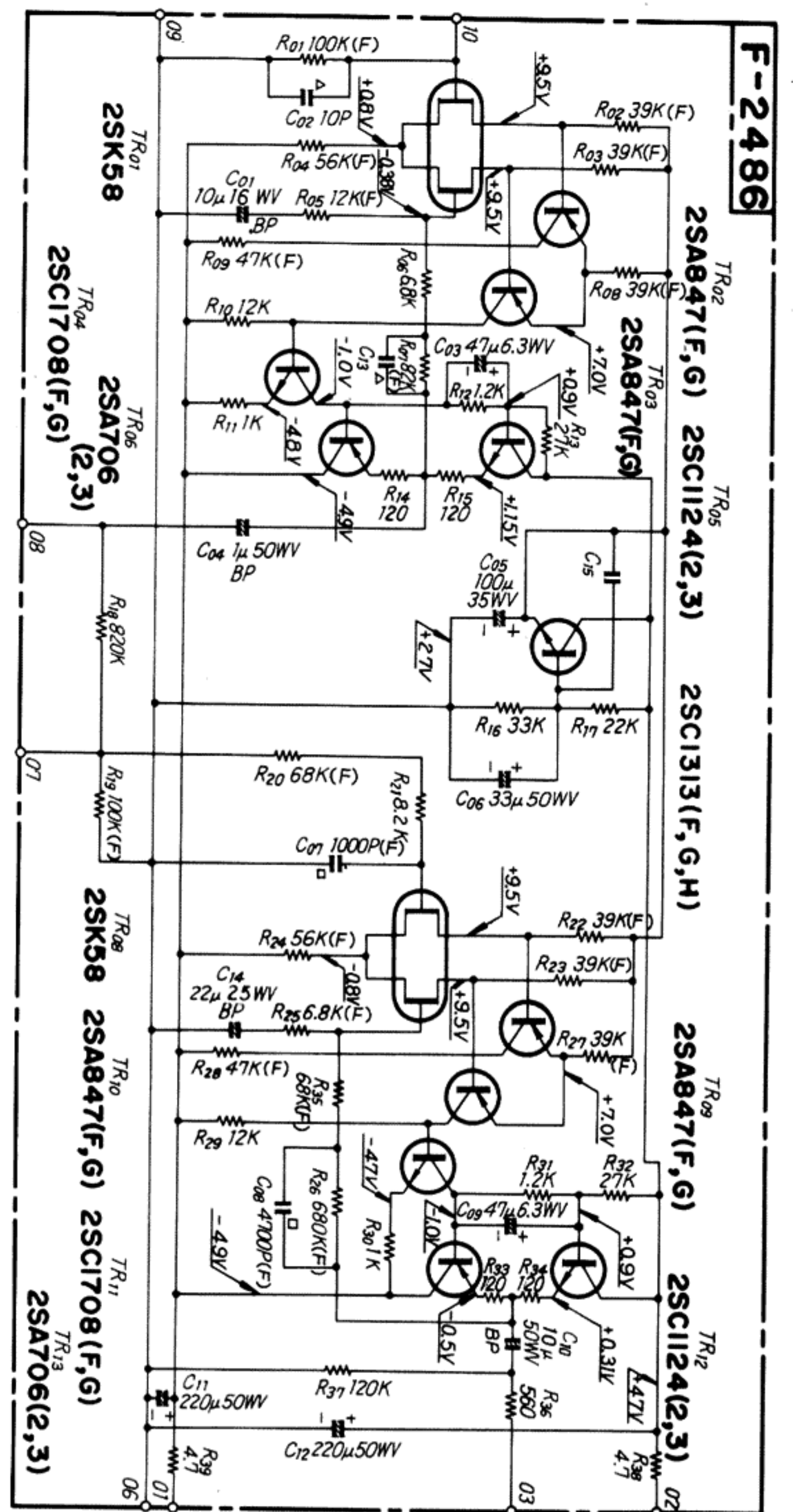


S01 PICKUP LOAD
 3 : 100K
 2 : 50K
 1 : 30K

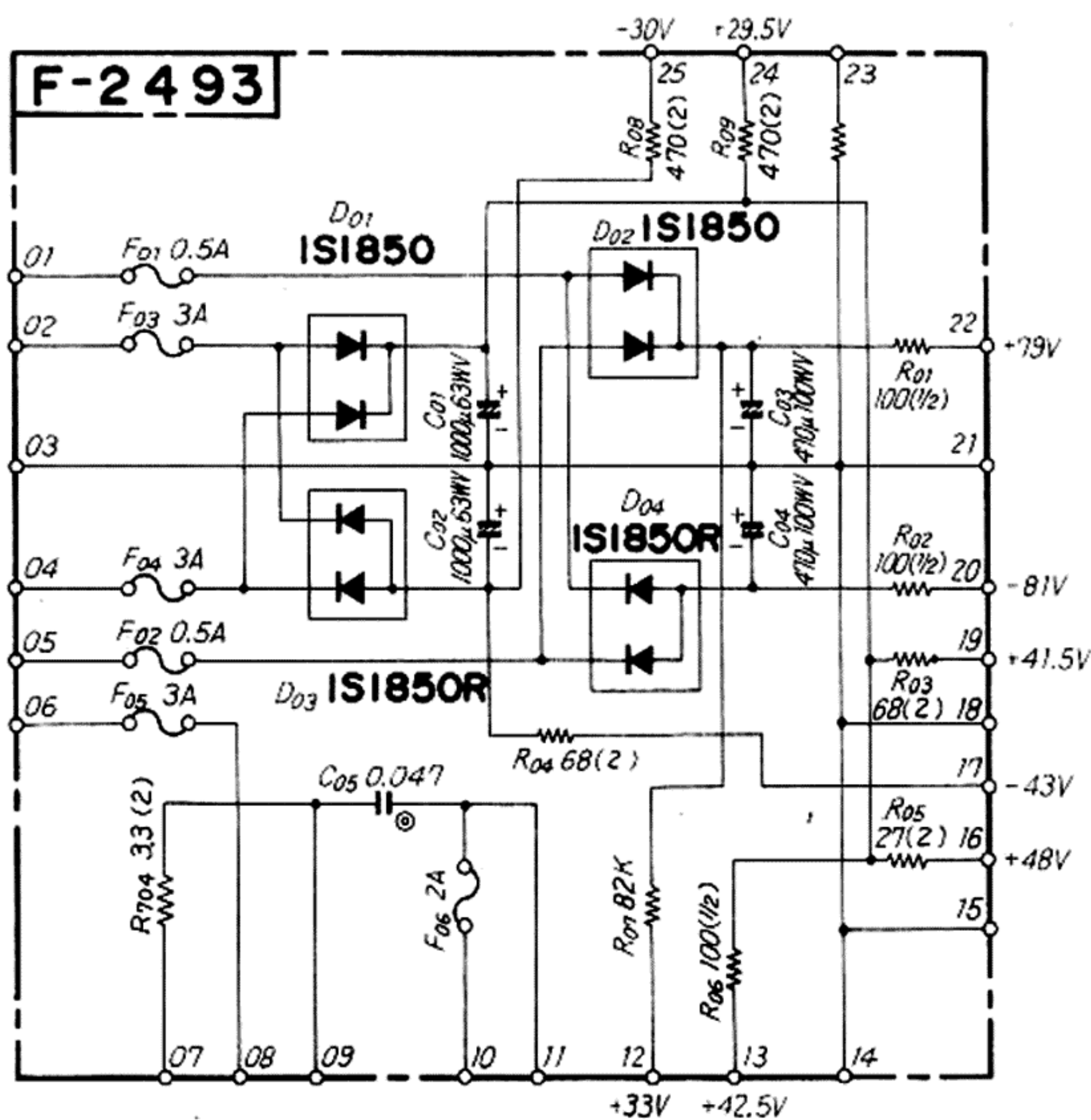
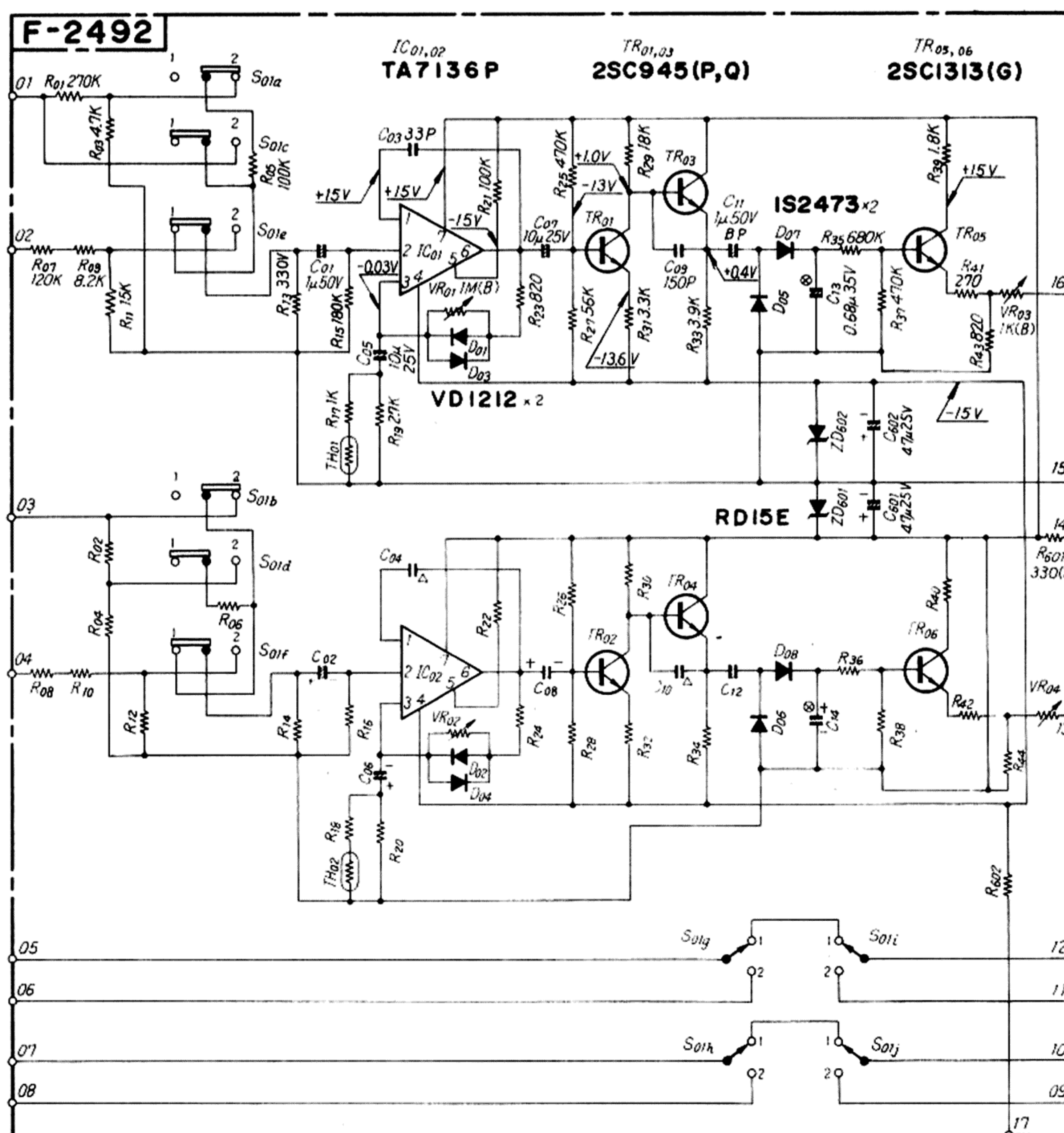
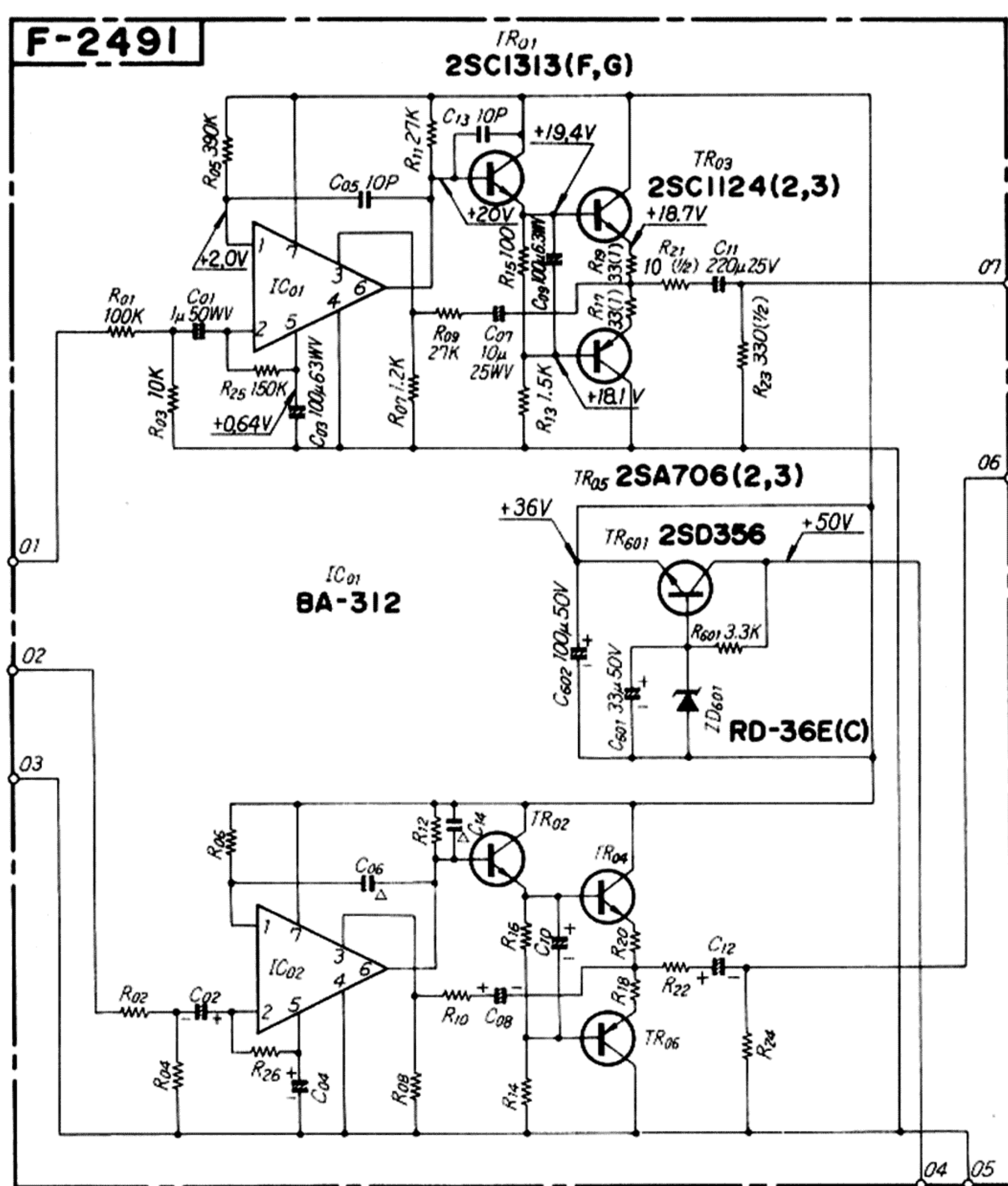
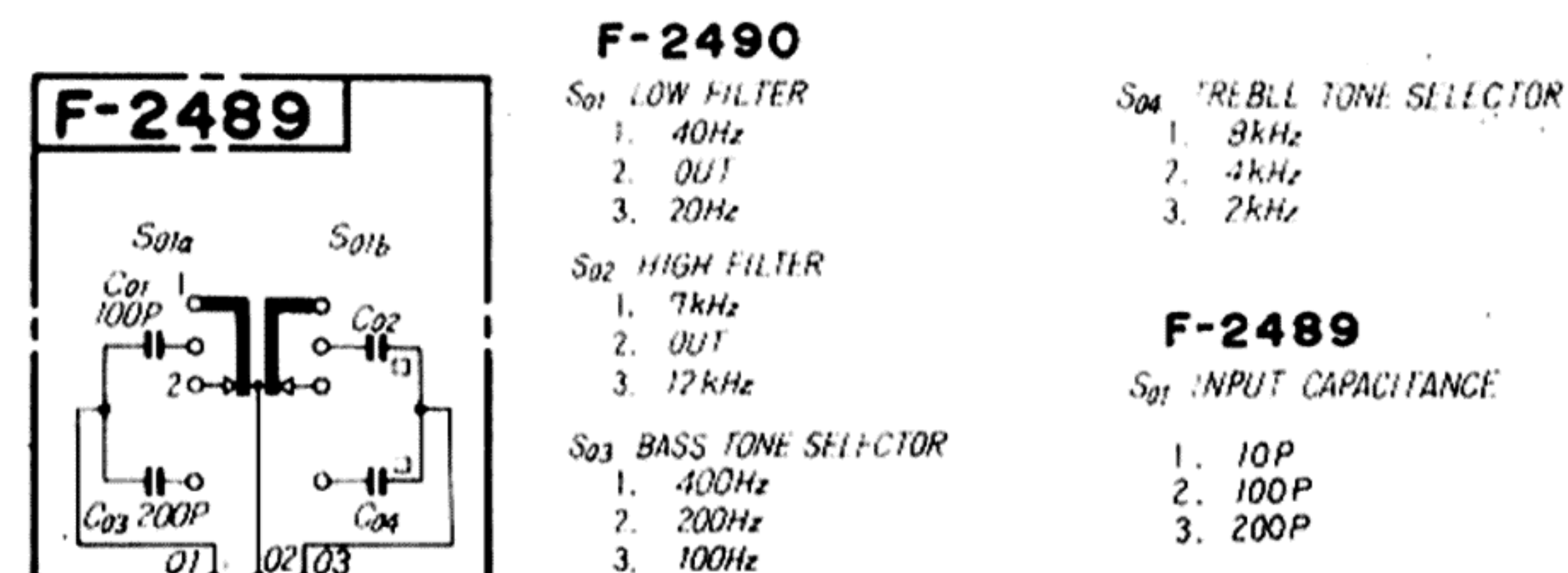
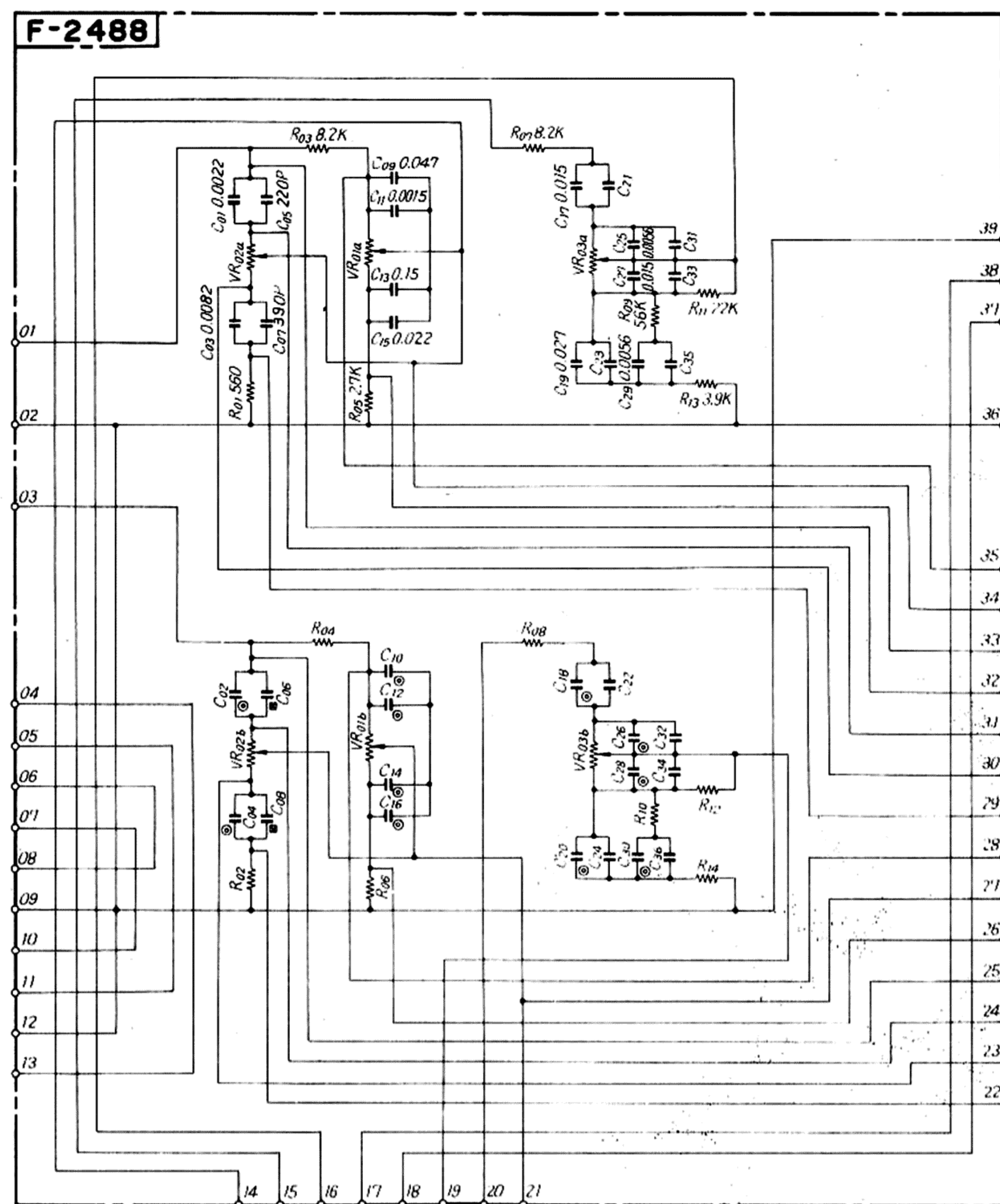
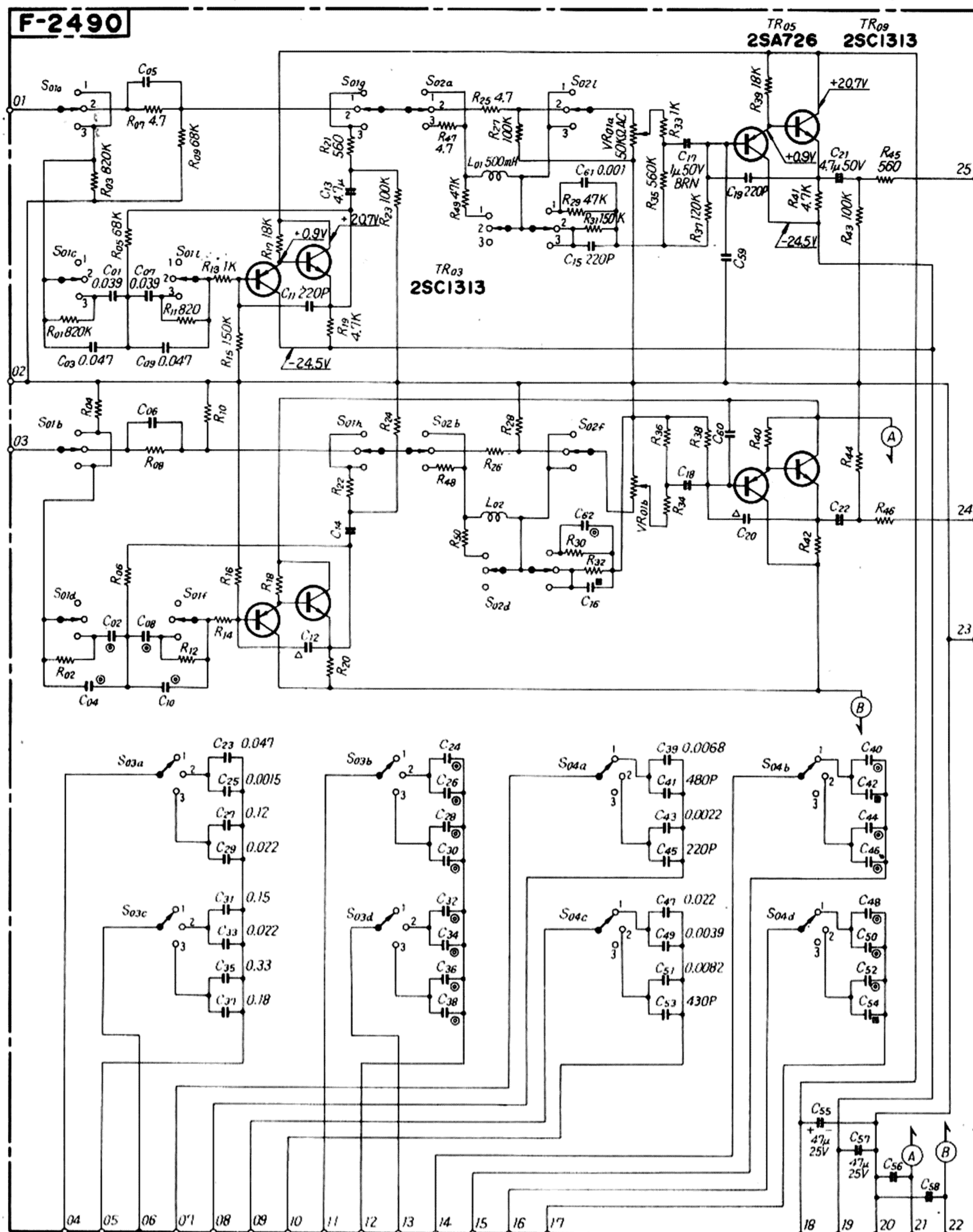
S03 COPY SOURCE
 1 : 1
 2 : 2
 3 : 3
 4 : 4

S04 PLAY BACK
 1 : TAPE 1
 2 : TAPE 2
 3 : TAPE 3

S05 SENSITIVITY
 1 : 1.5mV
 2 : 3mV
 3 : 6mV



* La présentation et les spécifications sont susceptibles d'être modifiées sans préavis par suites d'améliorations éventuelles.
 * Änderungen, die dem technischen Fortschritt dienen, bleiben vorbehalten.
 * Design and specifications subject to change without notice for improvement.



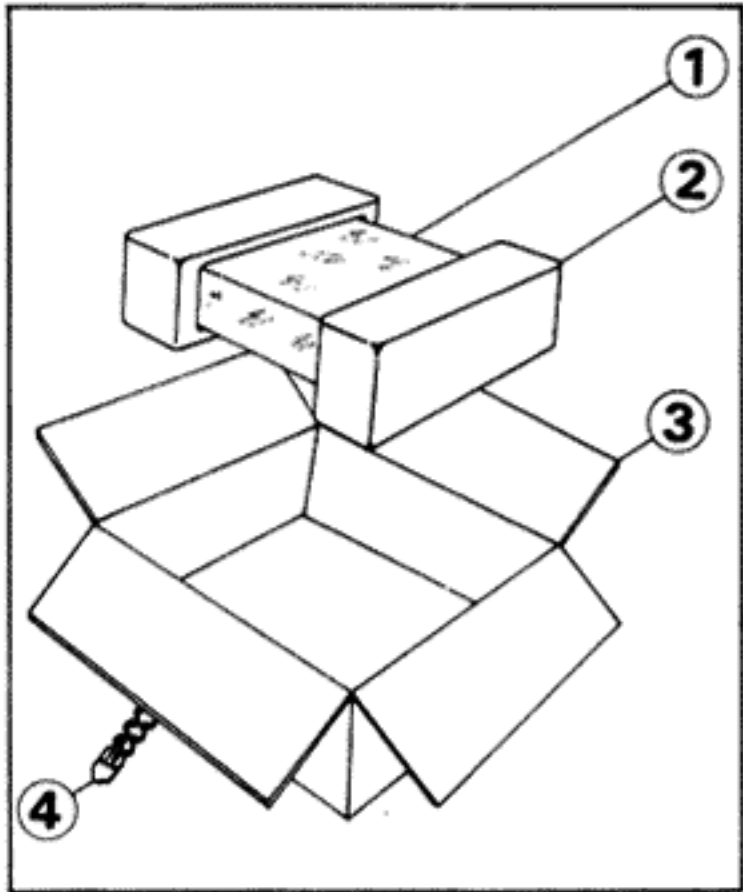
$\begin{cases} R_{13} & \text{K}2 \\ R_{15} & \text{K}2 \end{cases}$

$\begin{cases} S_{01a-f} & \text{METER 切换} \\ a. & -40dB \\ b. & 0dB \\ c. & \text{OUTPUT} \end{cases}$

$\begin{cases} S_{01g-j} & \text{TONE 切换} \\ 1. & \text{DEFEAT} \\ 2. & \text{IN} \end{cases}$

7. PACKING LIST

Parts No.	Stock No.	Description
1	9116051	Vinyl Cover
2	9027880	Stylofoam Packing
3	9008300	Carton Case
4	5996080	Curl Stopper



8. ACCESSORY PARTS LIST

Stock No.	Description
9208890	Operating Instructions
3810180	Pin Plug Cord MJB-3
5066250	Input Terminal Cover
2410560	Short Pin Plug
9238770	Schematic Diagram



SANSUI ELECTRIC CO., LTD.

14-1, 2-chome, Izumi, Suginami-ku, Tokyo 168, Japan.
TELEPHONE: (03) 323-1111 / TELEX: 232-2076