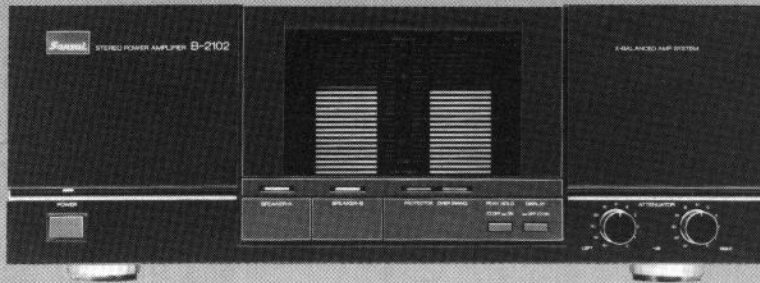


SERVICE MANUAL

STEREO POWER AMPLIFIER

SANSUI B-2102



CAUTION

1. Parts identified by the \triangle symbol on the schematic diagram and the parts list are critical for safety. Use only replacement parts that have critical characteristics recommended by the manufacturer.
2. Make leakage-current or resistance measurements to determine that exposed parts are acceptably insulated from the supply circuit before returning the appliance to the customer.

•SPECIFICATIONS

Power output

Min. RMS, both channels driven, from 20 to 20,000 Hz, with no more than 0.003% total harmonic distortion.

200 watts per channel into 8 ohms

Load impedance..... 4 to 16 ohms

Total harmonic distortion

..... less than 0.003% at or below rated min. RMS power output

Intermodulation distortion

(60 Hz: 7 kHz=4:1, SMPTE method)

..... less than 0.003% at rated power output

Frequency response (at 1 watt)

..... DC to 300,000 Hz, +0 dB, -3.0 dB

Input sensitivity and impedance (at 1 kHz)

..... 1 V/5.6 kohms

Signal to noise ratio (short-circuit, A-network)

..... 115 dB

Power requirements

Power voltage..... 120/220/240V (50/60 Hz)
For U.S.A. & Canada

..... 120V (60 Hz)
Power consumption..... 650 watts 750 VA Rated
950 watts Maximum

Dimensions

..... 430 mm (16-15/16") W

..... 160 mm (6-5/16") H

..... 412 mm (16-1/4") D

Weight

..... 17.7 kg (39.0 lbs) net

..... 19.5 kg (43.0 lbs) packed

* Design and specifications subject to changes without notice for improvements.

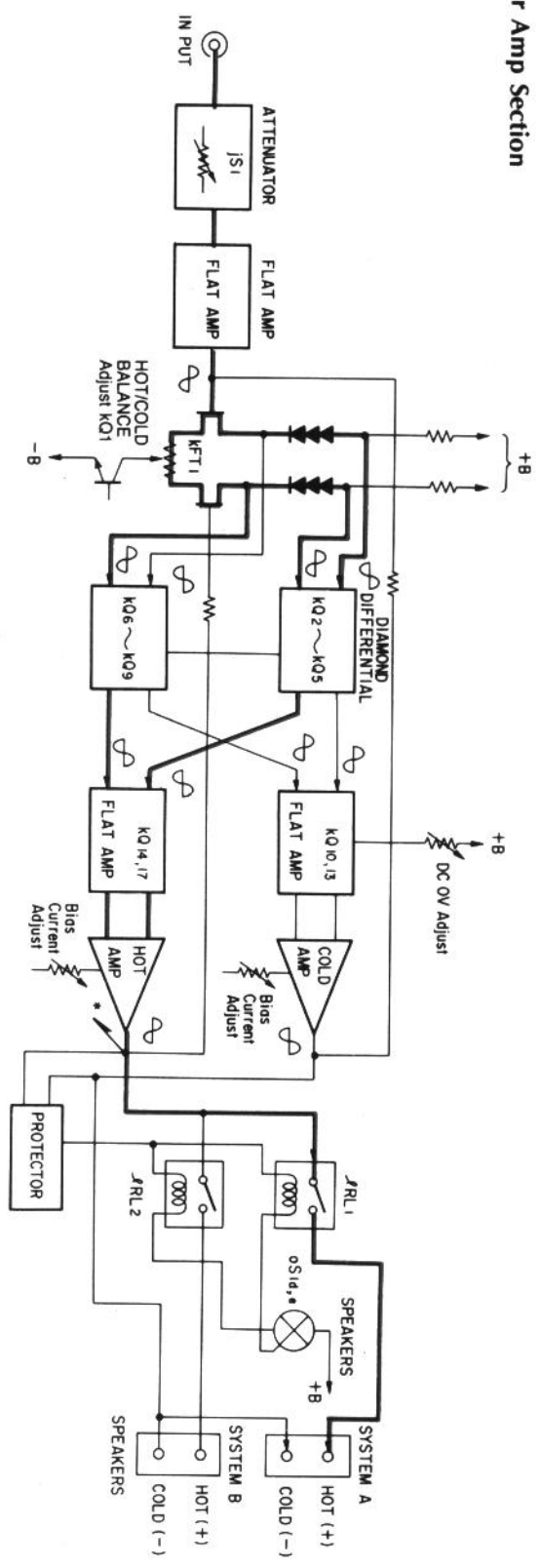
* Due to local laws and regulations, this unit sold in some areas are not equipped with variable voltage selectors.

Sansui

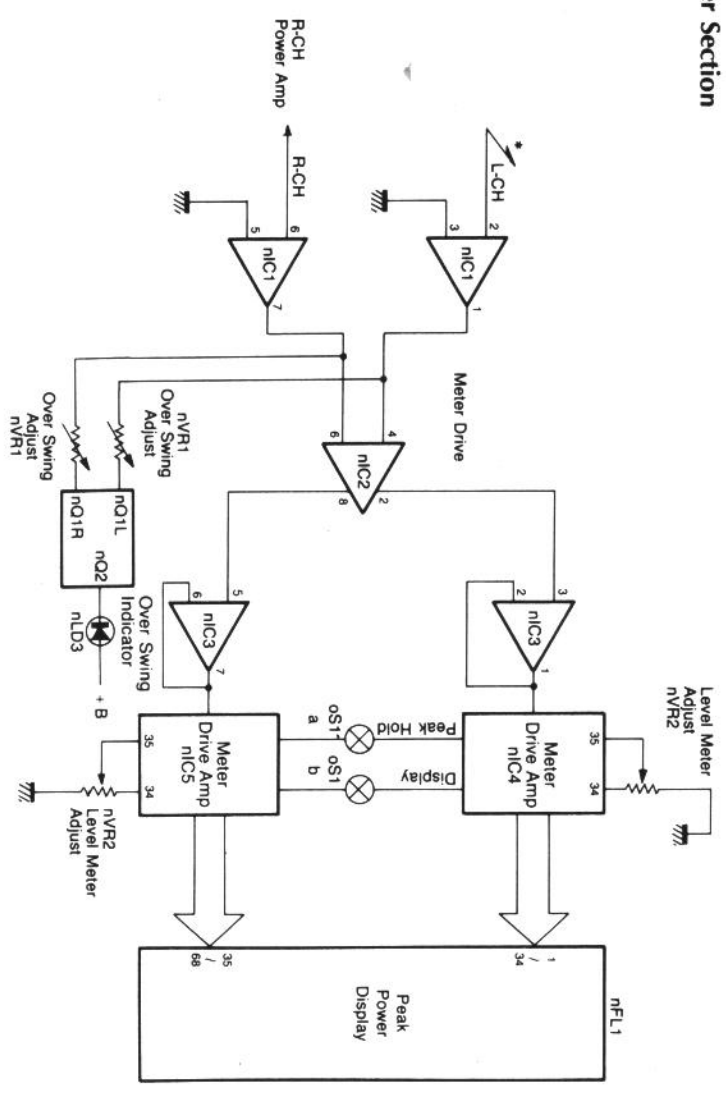
SANSUI ELECTRIC CO., LTD.

1. BLOCK DIAGRAM

•Power Amp Section



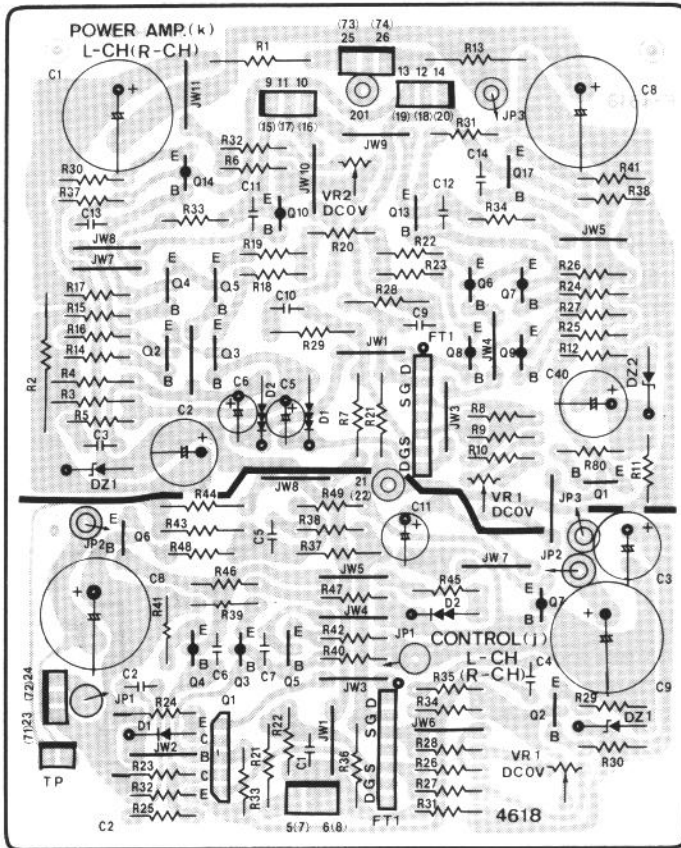
•Peak Power Meter Section



2. PARTS LOCATION ON BOARD

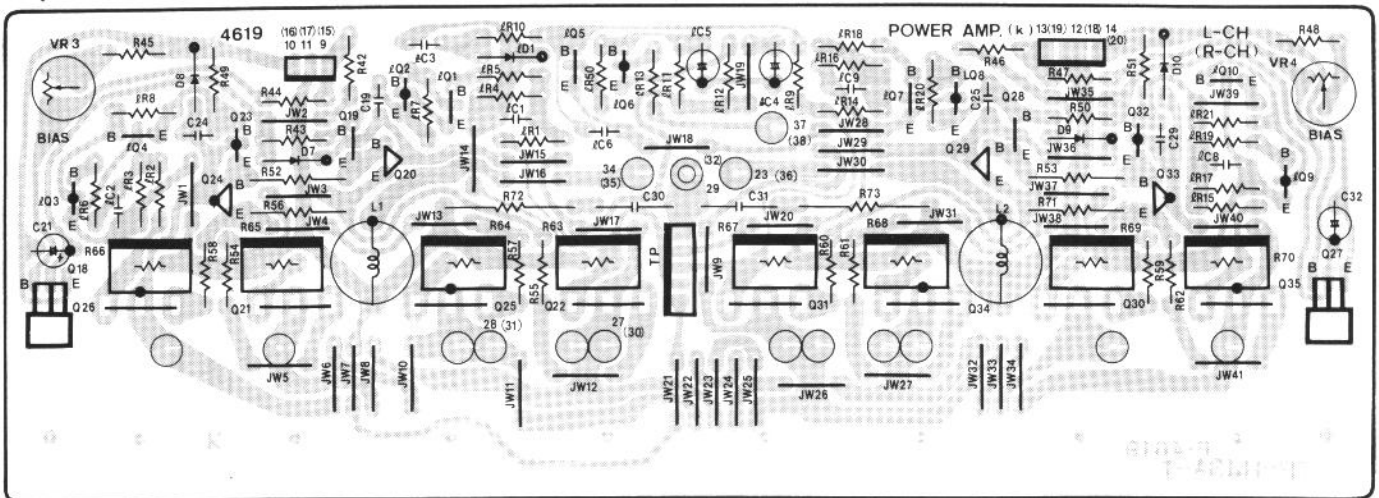
2-1. F-4618 Drive Amp Board

Component Side



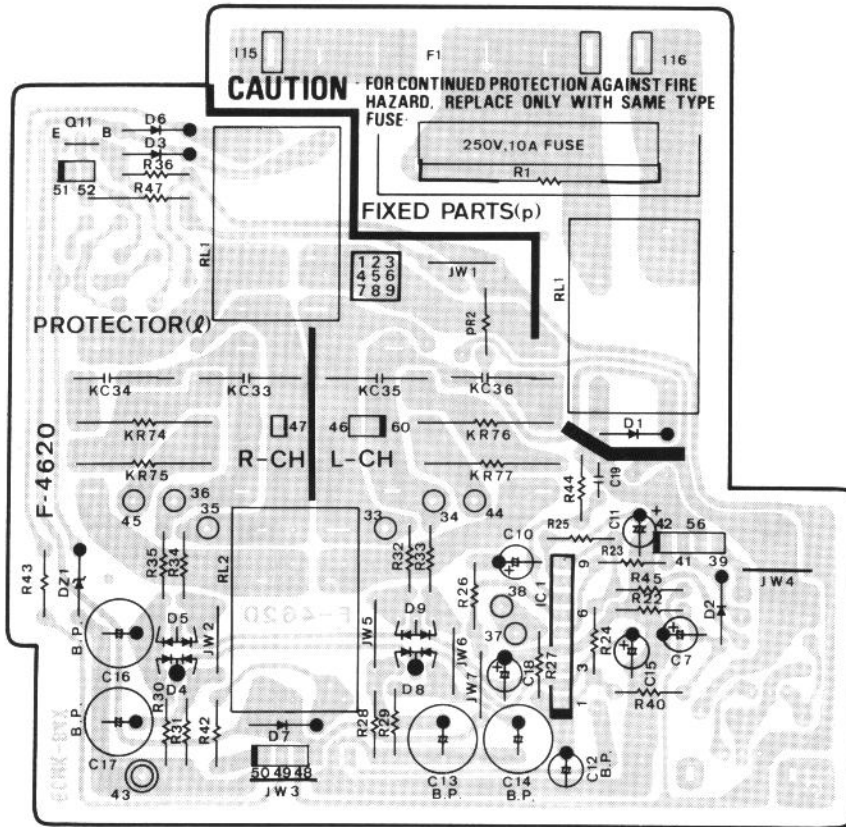
2-2. F-4619 Power Amp Board

Component Side



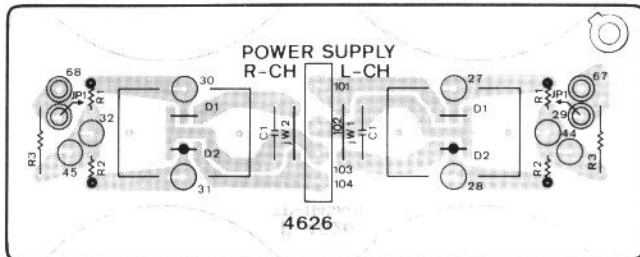
2-3. F-4620 Protector Board

Component Side



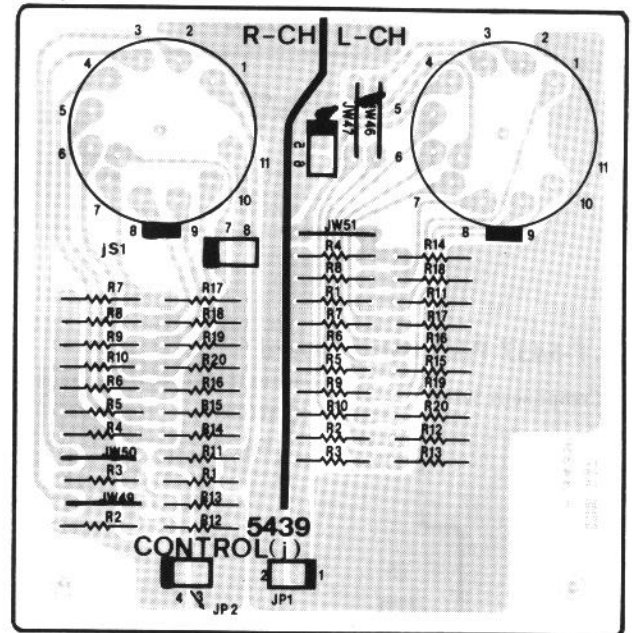
2-4. F-4626 Power Supply Board

Component Side



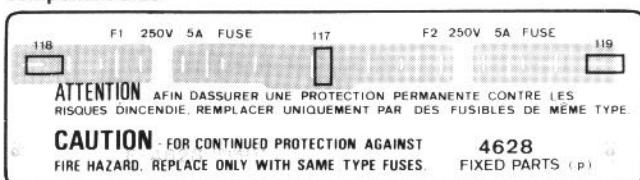
2-6. F-5439 Control Board

Component Side



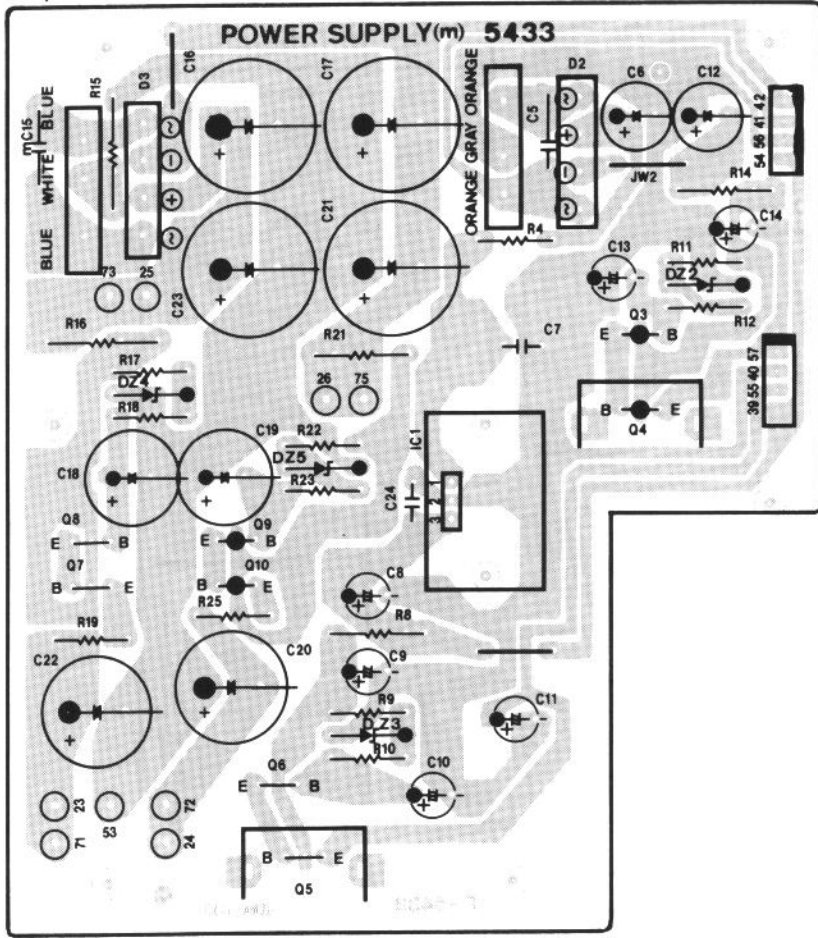
2-5. F-4628 AC Fuse Board

Component Side



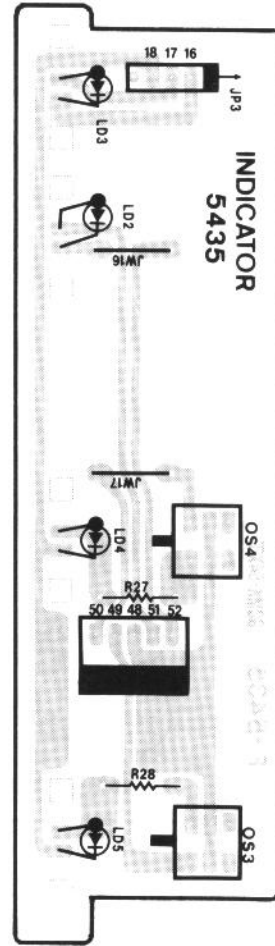
2-7. F-5433 Power Supply Board

Component Side



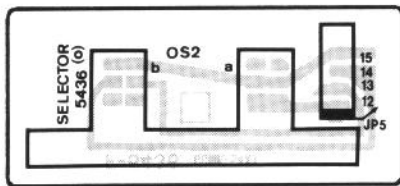
2-8. F-5435 Speaker Switch Board

Component Side



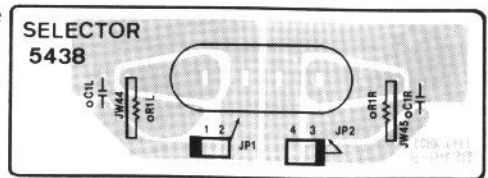
2-9. F-5436 Display Switch Board

Component Side



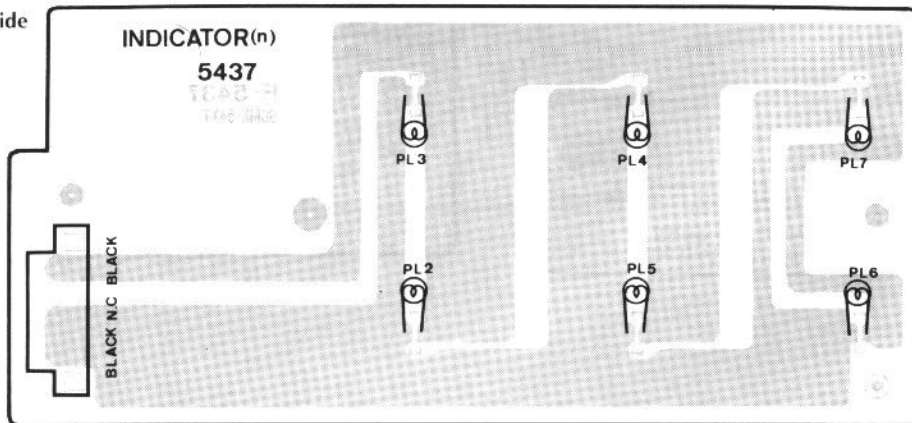
2-10. F-5438 Input Terminal Board

Component Side



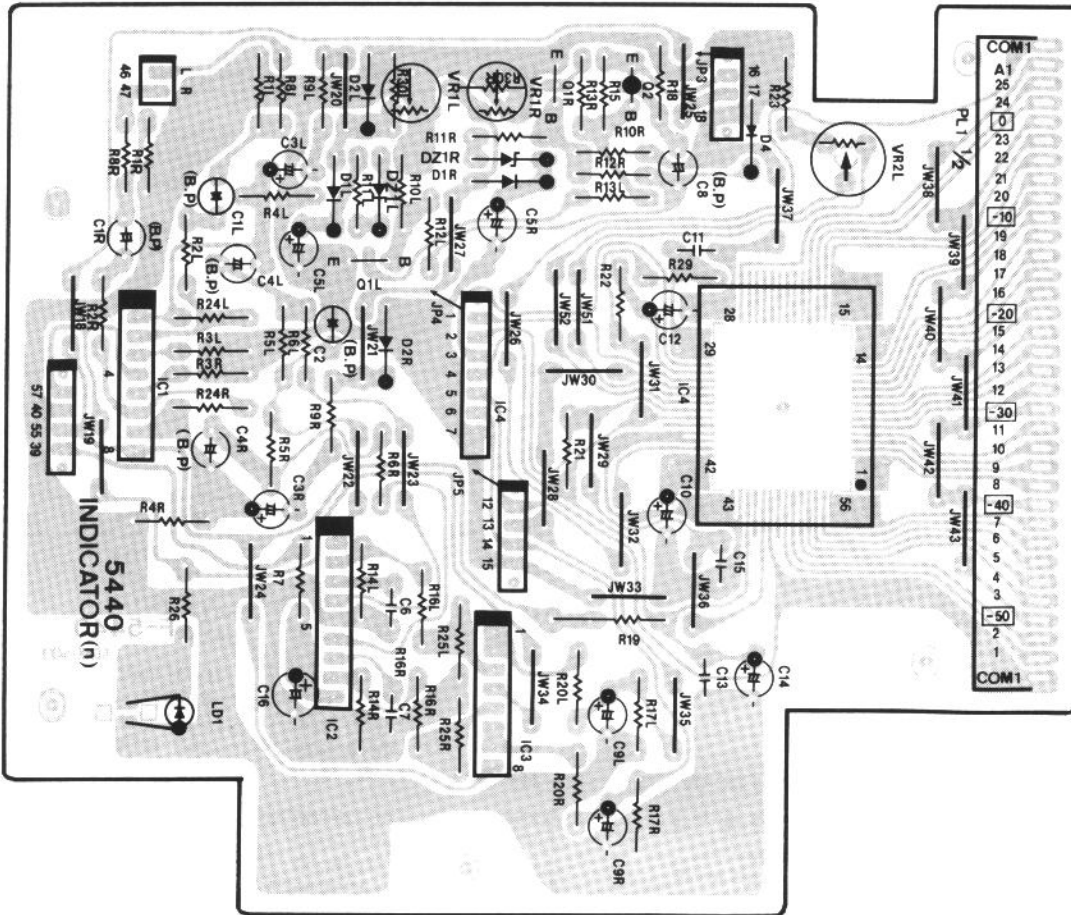
2-11. F-5437 Pilot Lamp Board

Component Side



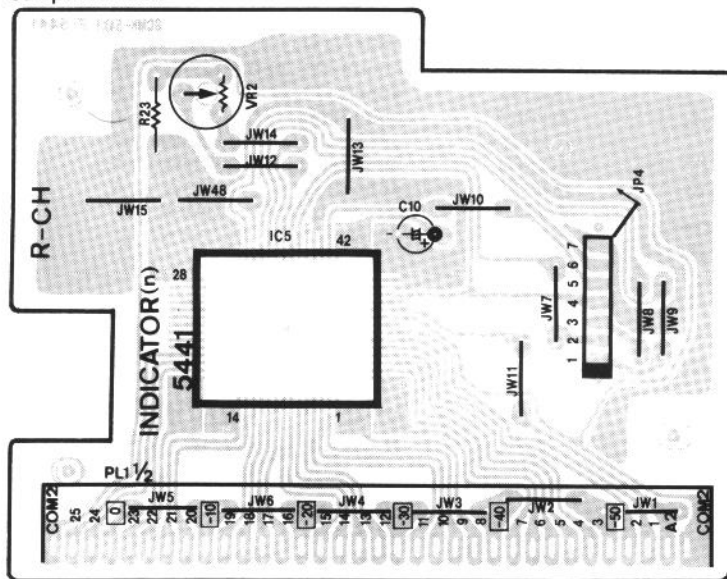
2-12. F-5440 L-ch Indicator Board

Component Side



2-13. F-5441 R-ch Indicator Board

Component Side



5. ADJUSTMENTS

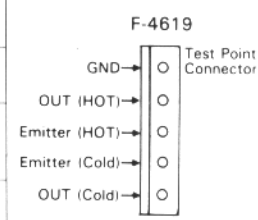
- Notes: 1. Room Temperature 18°C ~ 28°C (65°F ~ 83°F)
 2. For this adjustment, run the unit for more than 20 minutes after the power is switched ON.
 3. Load None

5-1. F-4618 Flat Amp. Board Adjustment (See Top View on page 12)

STEP	SUBJECT	MEASURE OUTPUT	ADJUST	ADJUST FOR	REMARKS
1.	Center DC 0V Adj. <L-CH>	DC Voltage between Test Point & GND of F-4618 L-CH.	jVR1 (F-4618)	DC 0V ± 5 mV	•Attenuator Switch MIN
2.	Center DC 0V Adj. <R-CH>	DC Voltage between Test Point & GND of F-4618 R-CH.	jVR1 (F-4618)	DC 0V ± 5 mV	

5-2. F-4618/F-4619 Driver & Power Amp. Board Adjustment (See Top View on page 12)

STEP	SUBJECT	MEASURE OUTPUT	ADJUST	ADJUST FOR	REMARKS
1.	Hot/Cold Balance Adj. <L-CH>	DC Voltage between Test Point OUT (HOT) and OUT (COLD) of F-4619 <L-CH>	kVR1 (F-4618) L-CH	DC 0V ± 5 mV	•Attenuator Switch MIN •After adjustment step 4, repeat step 1, 2.
2.	Hot/Cold Balance Adj. <R-CH>	DC Voltage between Test Point OUT (HOT) and OUT (COLD) of F-4619 <R-CH>	kVR1 (F-4618) R-CH	DC 0V ± 5 mV	
3.	Center DC 0V Adj. <L-CH>	DC Voltage between Test Point OUT (HOT) and GND of F-4619 <L-CH>	kVR2 (F-4618) L-CH	DC 0V ± 5 mV	
4.	Center DC 0V Adj. <R-CH>	DC Voltage between Test Point OUT (HOT) and GND of F-4619 <R-CH>	kVR2 (F-4618) R-CH	DC 0V ± 5 mV	
5.	Bias Current Adj. <Hot Side Amp. of L-CH>	DC Voltage between Test Point OUT (HOT) and Emitter (HOT) of F-4619 <L-CH>	kVR3 (F-4619) L-CH	DC 6.6 mV (30 mA) ± 2 mV	
6.	Bias Current Adj. <Cold Side Amp. of L-CH>	DC Voltage between Test Point OUT (COLD) and Emitter (COLD) of F-4619 <L-CH>	kVR4 (F-4619) L-CH	DC 6.6 mV (30 mA) ± 2 mV	
7.	Bias Current Adj. <Hot Side Amp. of R-CH>	DC Voltage between Test Point OUT (HOT) and Emitter (HOT) of F-4619 <R-CH>	kVR3 (F-4619) R-CH	DC 6.6 mV (30 mA) ± 2 mV	
8.	Bias Current Adj. <Cold Side Amp. of R-CH>	DC Voltage between Test Point OUT (COLD) and Emitter (COLD) of F-4619 <R-CH>	kVR4 (F-4619) R-CH	DC 6.6 mV (30 mA) ± 2 mV	



5-3. Level Meter Display Adjustment (See Top View on page 12)

Note: Attenuator MAX

SUBJECT	FEED SIGNAL		MEASURE OUTPUT	ADJUST	ADJUST FOR	REMARKS
	FROM	TO				
0 dB Level Adjustment L-CH & R-CH	O.S.C. output 1 kHz so as to obtain 40V (200W) between Speaker Terminals HOT & COLD L-CH & R-CH	INPUT Terminal L-CH & R-CH	Peak Power Display L-CH & R-CH	nVR2 (F-5440) L-CH and nVR2 (F-5441) R-CH	Display Level 0 dB	•Remove the front panel for adjustment of nVR1 & nVR2

5-4. Over Swing Indicator Adjustment

Note: Load 8Ω

SUBJECT	FEED SIGNAL		MEASURE OUTPUT	ADJUST	ADJUST FOR	REMARKS
	FROM	TO				
Over Swing Indicator Adj.	O.S.C. output 1 kHz so as to obtain 45V between Speaker Terminals HOT & COLD L-CH & R-CH	INPUT Terminal L-CH & R-CH	Over Swing Indicator (nLD3)	1.ATT Volume L-ch—Max R-ch—Min 2.ATT Volume L-ch—Min R-ch—Max	nVR1, L-ch (F-5440) nVR1, R-ch (F-5440)	Over Swing Indicator (nLD3) is flicked

A

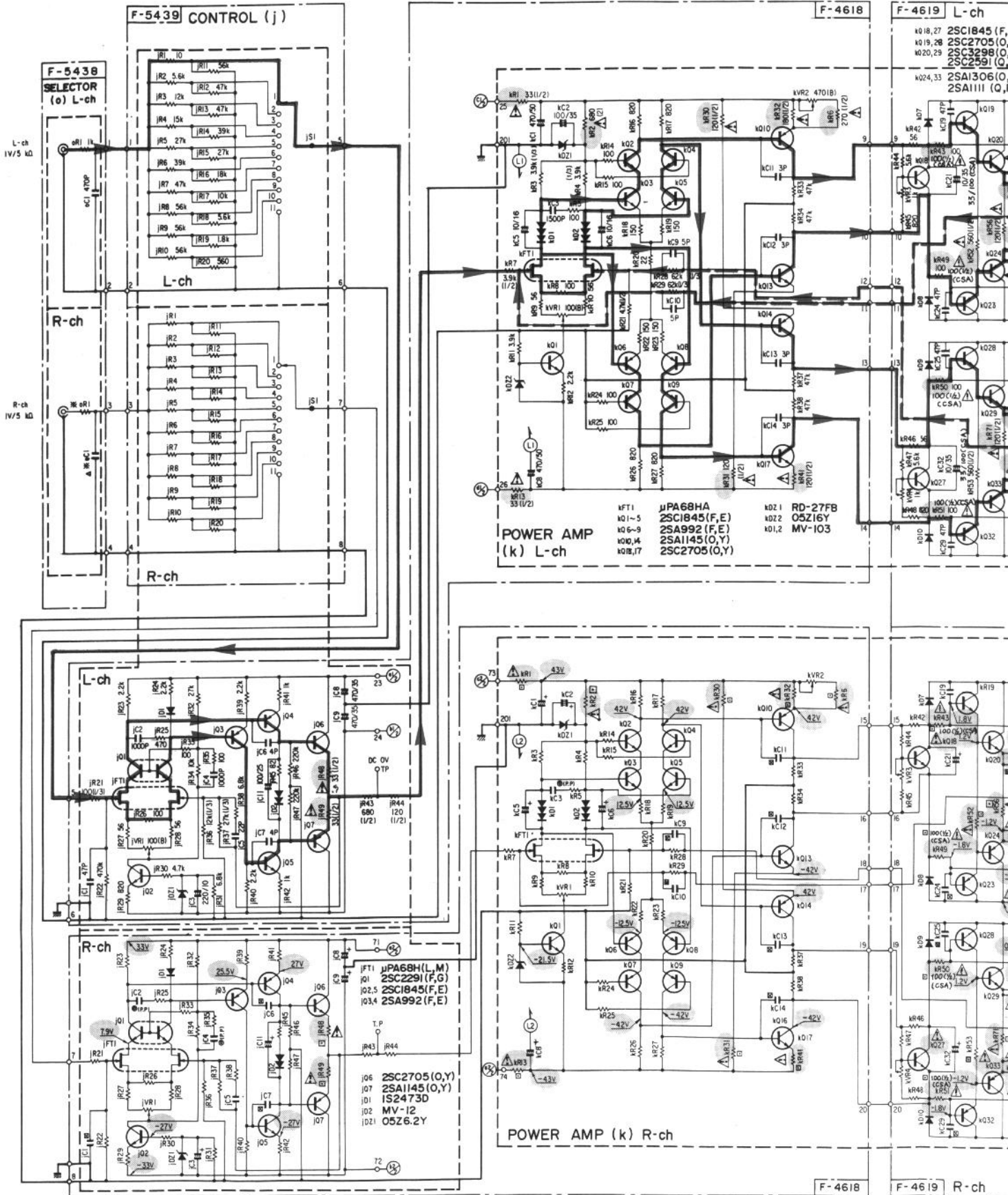
B

C

D

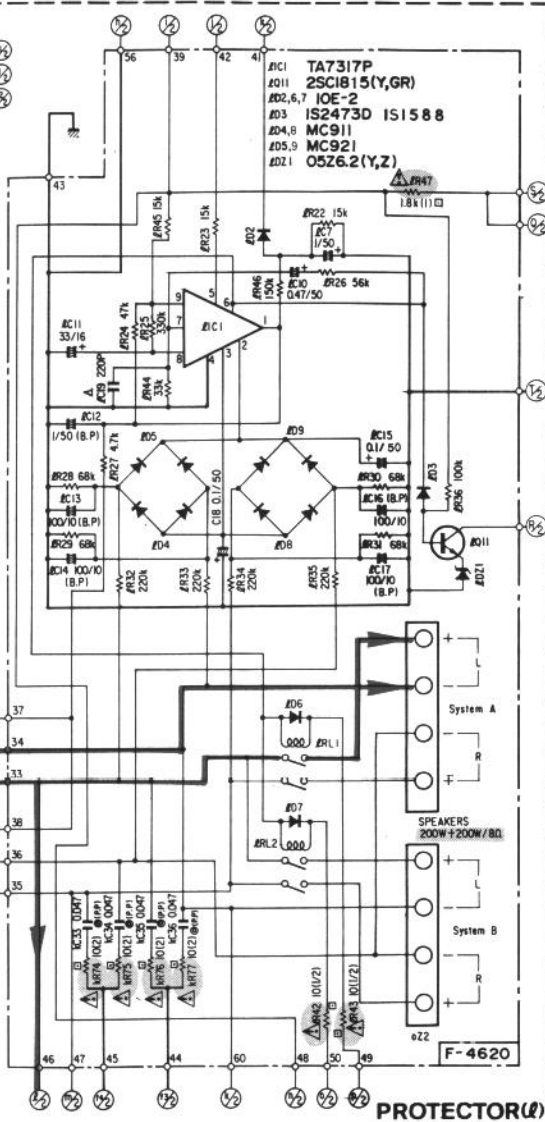
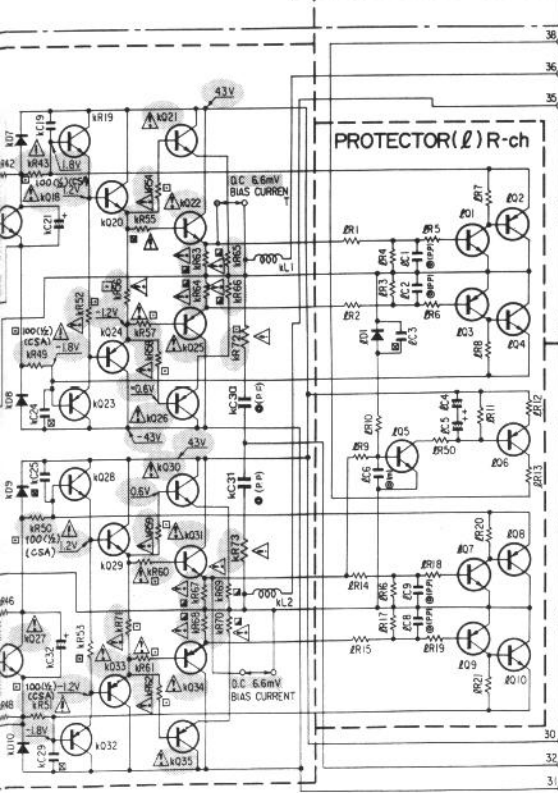
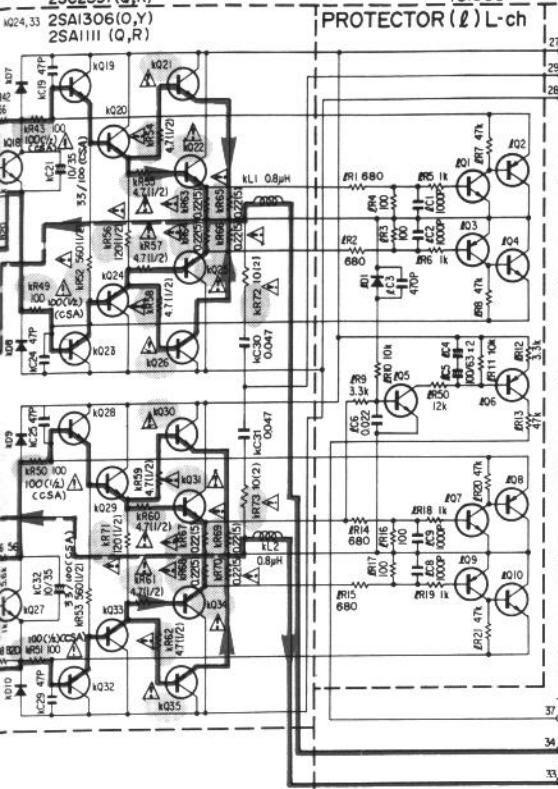
7. SCHEMATIC DIAGRAM

7-1. Power Amp Section



* Design and specifications subject to change without notice for improvement.
 * 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.

4619 L-ch	K021, 22, 30, 31	25C3519 (O,P,Y)	#01, 4, 5, 7, 10	25C2603 (F,G)
K018, 27	K025, 26, 34, 35	25AI386 (O,P,Y)	#02, 3, 6, 8, 9	25AI115 (E,F)
K019, 28	K07 - K	IS2091	#01	IS2473D
K020, 29		25AI145 (O,Y)		IS1588
K024, 33		25AI306 (O,Y)		
		25AI111 (O,R)		

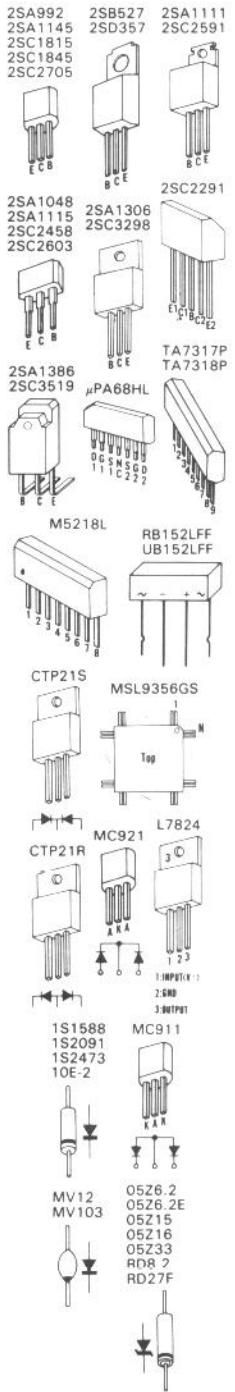


SYMBOL OF FUNCTION

- (o) SELECTOR
 - (j) CONTROL
 - (k) POWER AMP
 - (L) PROTECTOR
- SYMBOL
- △ Ceramic
 - Film
 - ▢ Poly Propylene
 - ▣ Mylar
 - ▤ Non-Inflammable Resistor
 - ▥ Cement Resistor
 - ▧ Non-Inductive Cement Resistor
 - ⚠ is Safety Part.
- Use only replacement parts recommended by the manufacturer.

- SWITCH
- S1 ATTENUATOR
- RESISTORS
- Are in ohms, 1/4 Watts, ± 5% tolerance
 Unless otherwise noted: k: K, M: M, Ω: Ω
- CAPACITORS
- Are in μF, Unless otherwise noted: P: pF
- Electric Capacitor:
- Capacitance (pF) / Volt (V)
- * FTZ ONLY
- FTZ
- Under method 17M6
 DIN45 305 Part 301,302
- OUTPUT REFERENCE
- 130mw / ΩQ (0dB)
 AF Signal Generator 850mV
 Attenuator position -30dB

Each D.C. Voltage shows the normal value in volts of no input signal.

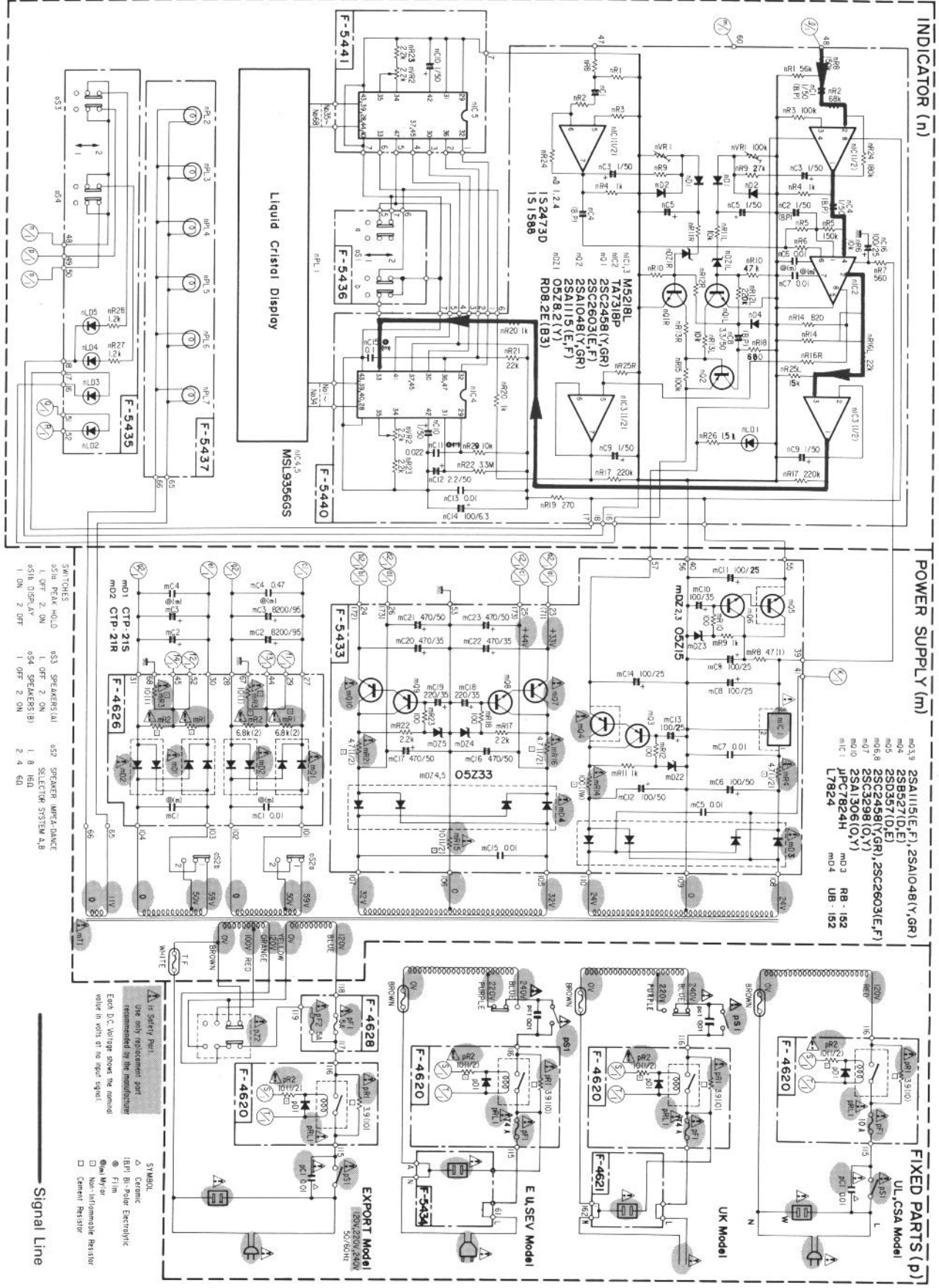


1
2
3
4
5

A B C D

7-2. Peak Power Meter Section

*Design and specifications subject to change without notice for improvement.
 *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.



1

2

3

4

5

- SWITCHES
- S51a PEAK-HOLD 1. OFF 2. ON
 - S51b DISPLAY 1. ON 2. OFF
 - S63 SPEAKERS (A) 1. OFF 2. ON
 - S64 SPEAKERS (B) 1. OFF 2. ON
- SELECTOR SYSTEM 4,B
- 2 4 6D

Signal Line

▲ Safety Part: Use only replacement part recommended by the manufacturer. Each DC Voltage shows the nominal value in volt or no input signal.

- SYMBOL
- ▲ Ceramic
 - △ Bi-Polar Electrolytic
 - ⊗ Film
 - ⊙ Mylar
 - Non-Inductance Resistor
 - Current Resistor

- FIXED PARTS (p)**
- mD3 9 2SA1105(E,F) 2SA1048(Y,GR)
 - mD4 2SB927(D,E)
 - mD5 2SC2458(Y,GR) 2SC2603(E,F)
 - mD6 2SC2998(O,N)
 - mD7 2SA1506(O,N)
 - mD8 2SA10824H
 - mD4 3 RB-152 UB-152
 - mC1 100/25
 - mC2 8200/95
 - mC3 100/25
 - mC4 100/25
 - mC5 0.01
 - mC6 100/50
 - mC7 0.01
 - mC8 100/25
 - mC9 100/25
 - mC10 100/50
 - mC11 100/25
 - mC12 100/50
 - mC13 100/50
 - mC14 100/25
 - mC15 0.01
 - mC16 470/50
 - mC17 470/50
 - mC18 470/50
 - mC19 220/35
 - mC20 470/35
 - mC21 470/50
 - mC22 470/35
 - mC23 470/50
 - mC24 2.2k
 - mC25 2.2k
 - mC26 2.2k
 - mC27 2.2k
 - mC28 2.2k
 - mC29 2.2k
 - mC30 2.2k
 - mC31 2.2k
 - mC32 2.2k
 - mC33 2.2k
 - mC34 2.2k
 - mC35 2.2k
 - mC36 2.2k
 - mC37 2.2k
 - mC38 2.2k
 - mC39 2.2k
 - mC40 2.2k
 - mC41 2.2k
 - mC42 2.2k
 - mC43 2.2k
 - mC44 2.2k
 - mC45 2.2k
 - mC46 2.2k
 - mC47 2.2k
 - mC48 2.2k
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 - mC81 2.2k
 - mC82 2.2k
 - mC83 2.2k
 - mC84 2.2k
 - mC85 2.2k
 - mC86 2.2k
 - mC87 2.2k
 - mC88 2.2k
 - mC89 2.2k
 - mC90 2.2k
 - mC91 2.2k
 - mC92 2.2k
 - mC93 2.2k
 - mC94 2.2k
 - mC95 2.2k
 - mC96 2.2k
 - mC97 2.2k
 - mC98 2.2k
 - mC99 2.2k
 - mC100 2.2k