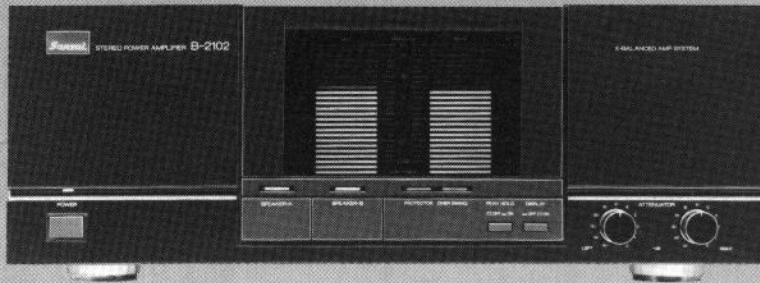


# SERVICE MANUAL

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.

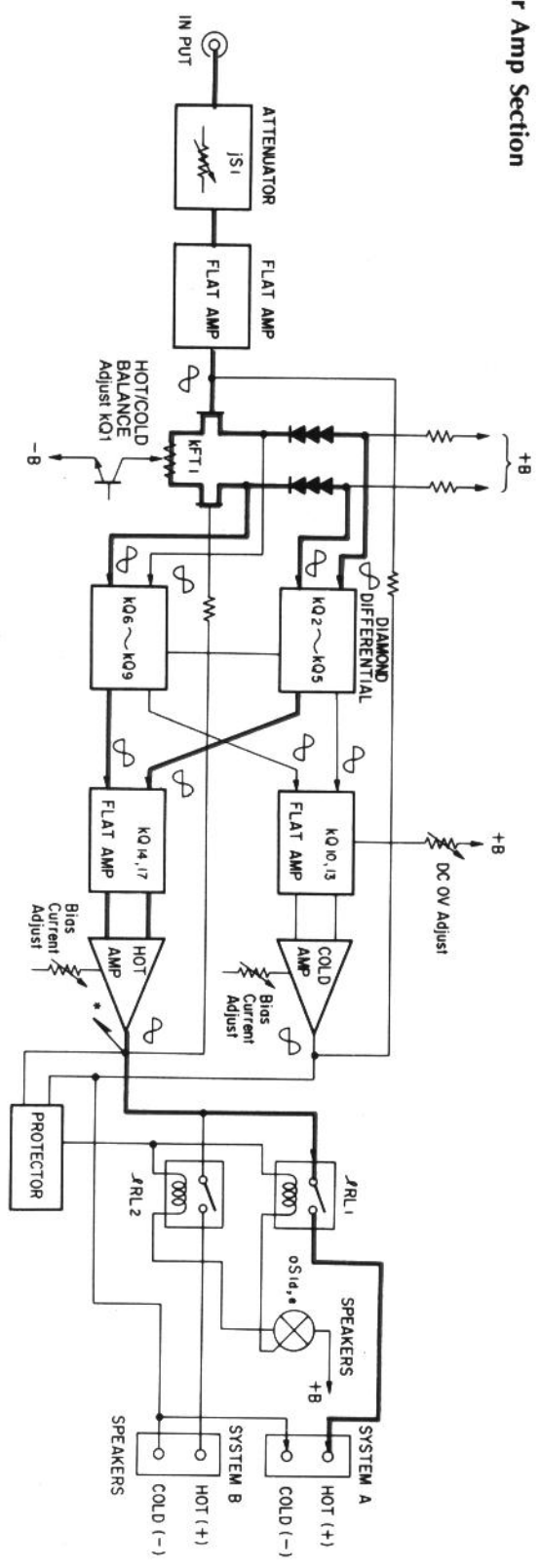
\* Due to local laws and regulations, this unit sold in some areas are not equipped with variable voltage selectors.

*Sansui*

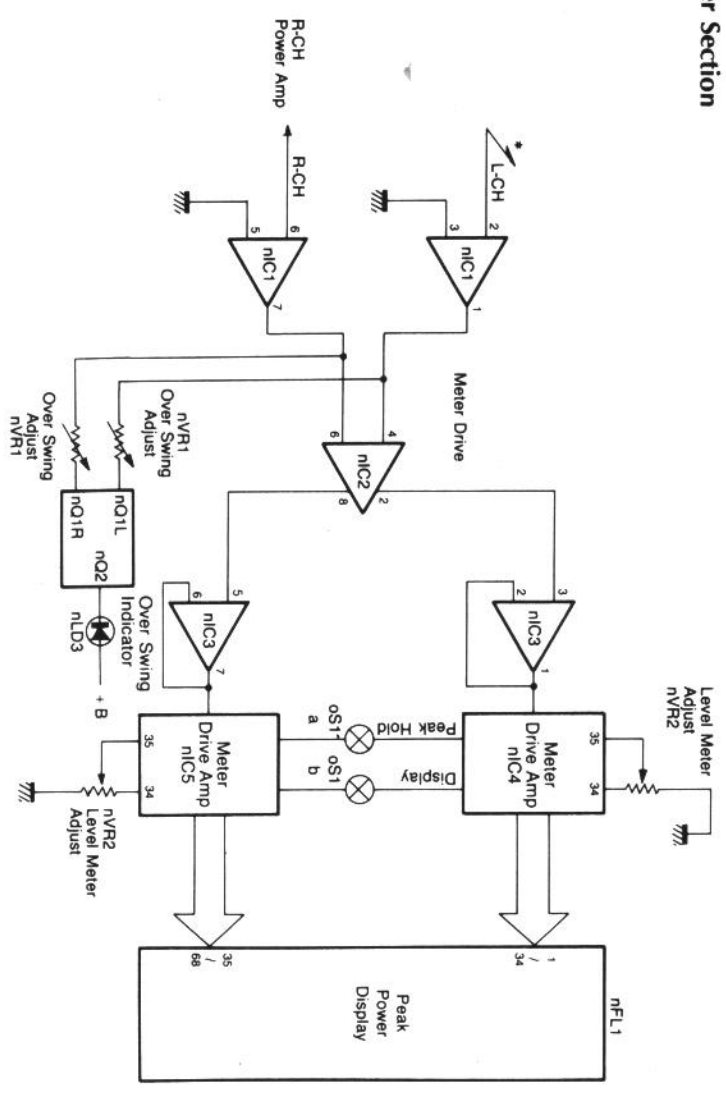
SANSUI ELECTRIC CO., LTD.

# 1. BLOCK DIAGRAM

## •Power Amp Section



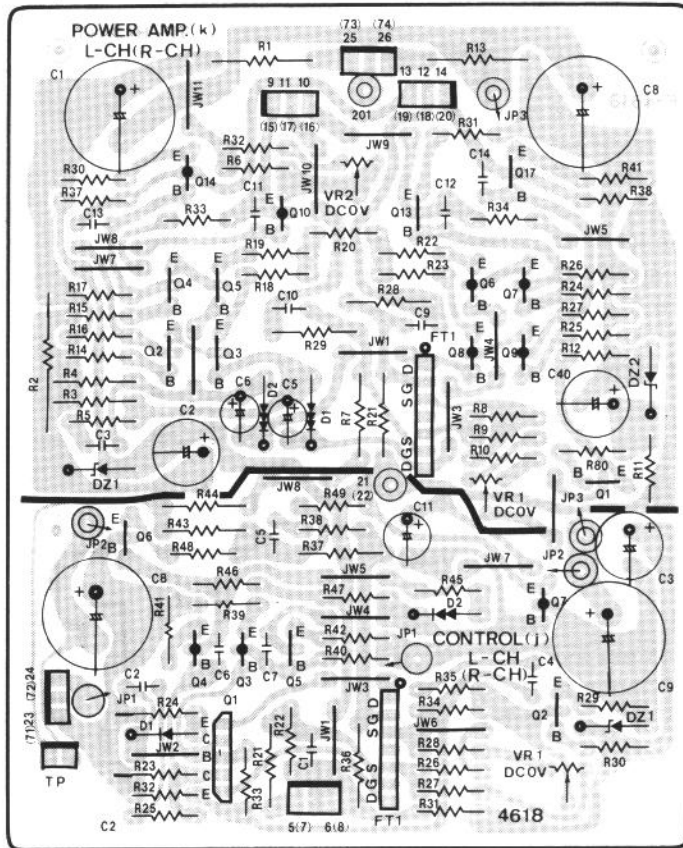
## •Peak Power Meter Section



## 2. PARTS LOCATION ON BOARD

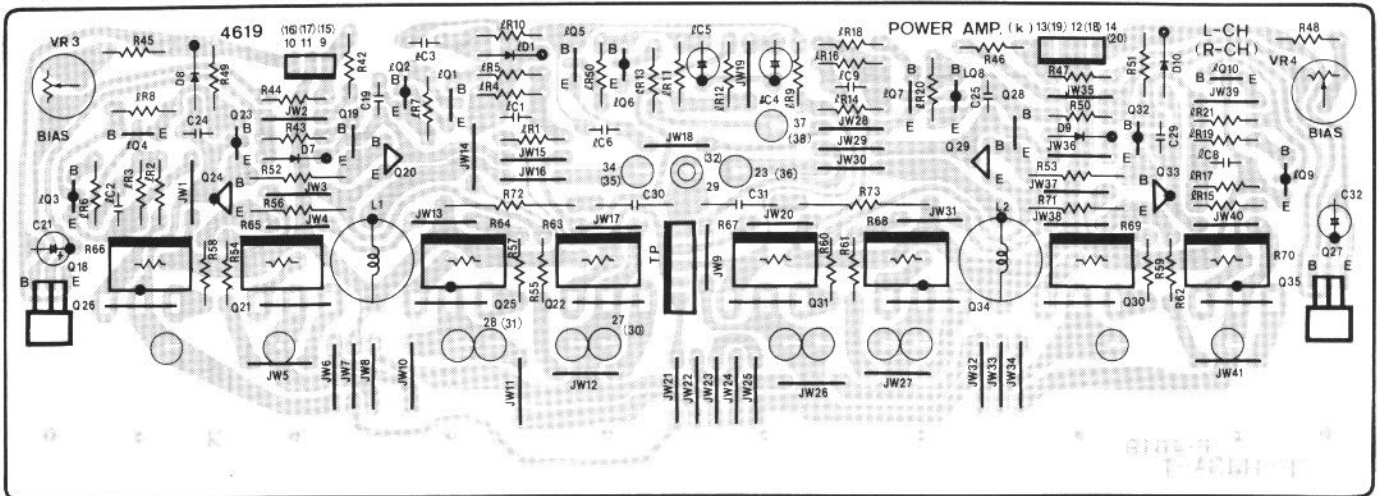
### 2-1. F-4618 Drive Amp Board

Component Side



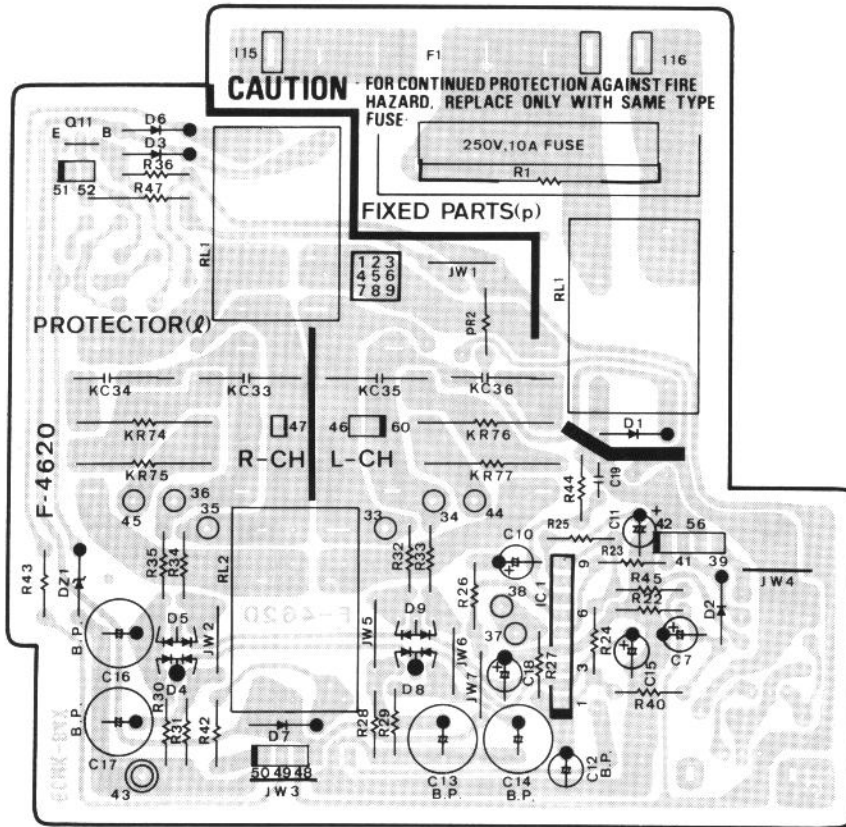
### 2-2. F-4619 Power Amp Board

Component Side



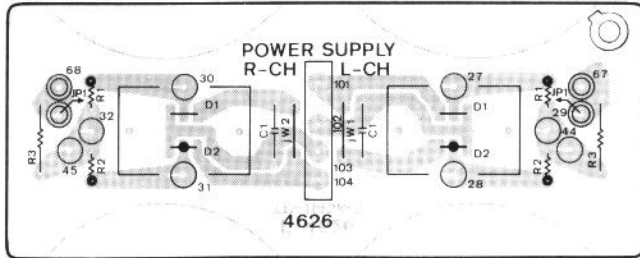
### 2-3. F-4620 Protector Board

Component Side



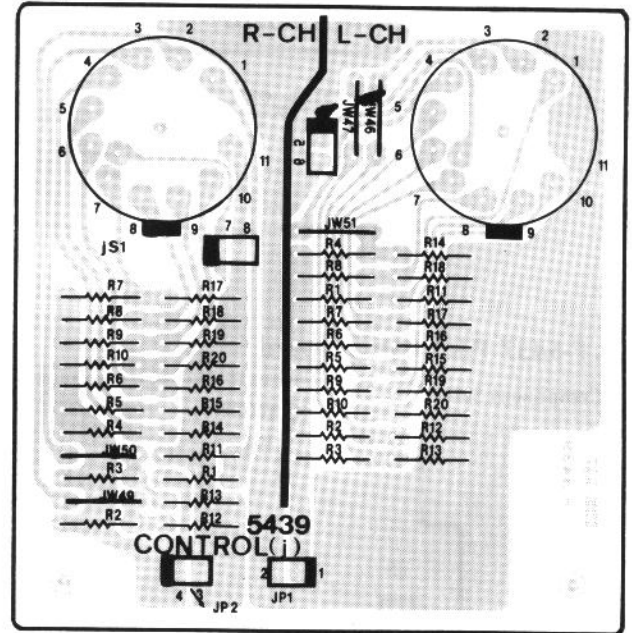
### 2-4. F-4626 Power Supply Board

Component Side



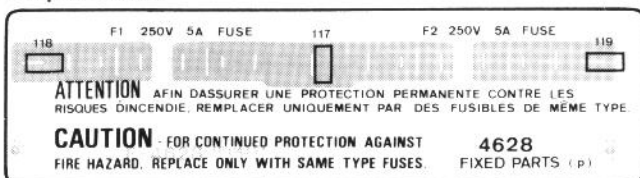
### 2-6. F-5439 Control Board

Component Side



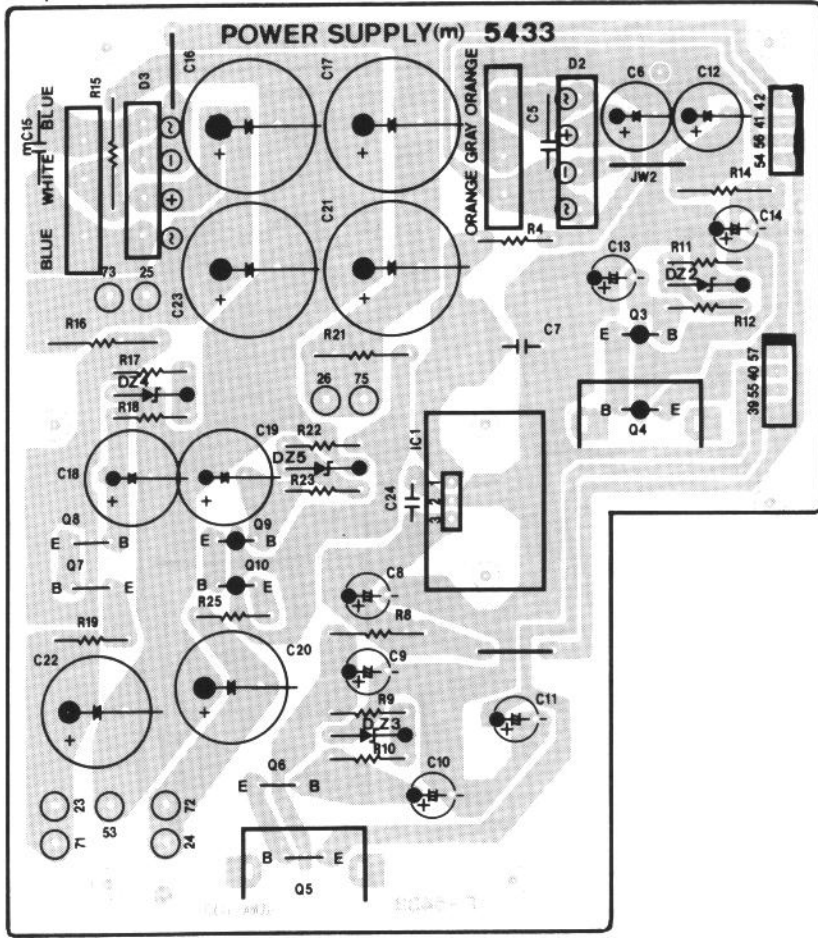
### 2-5. F-4628 AC Fuse Board

Component Side



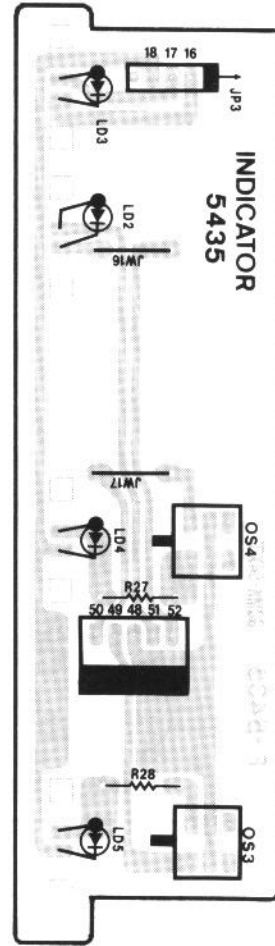
2-7. F-5433 Power Supply Board

Component Side



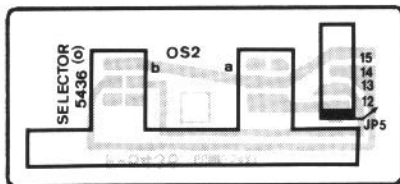
2-8. F-5435 Speaker Switch Board

Component Side



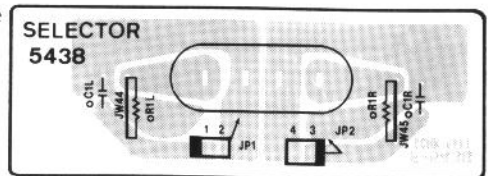
2-9. F-5436 Display Switch Board

Component Side



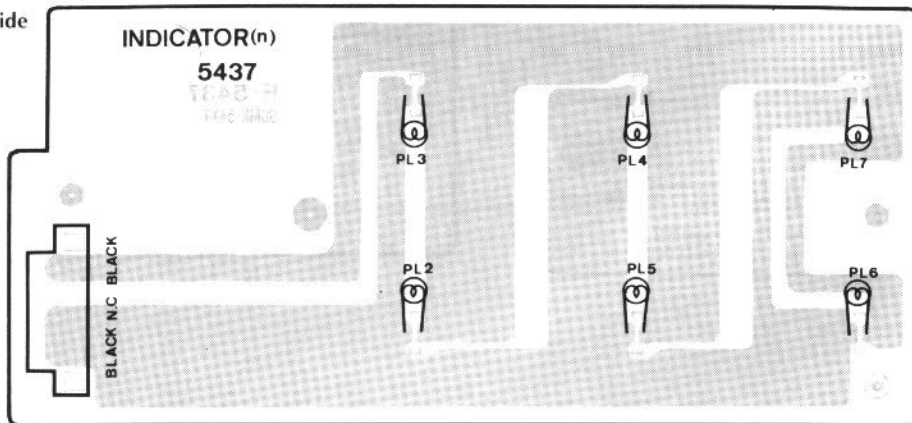
2-10. F-5438 Input Terminal Board

Component Side



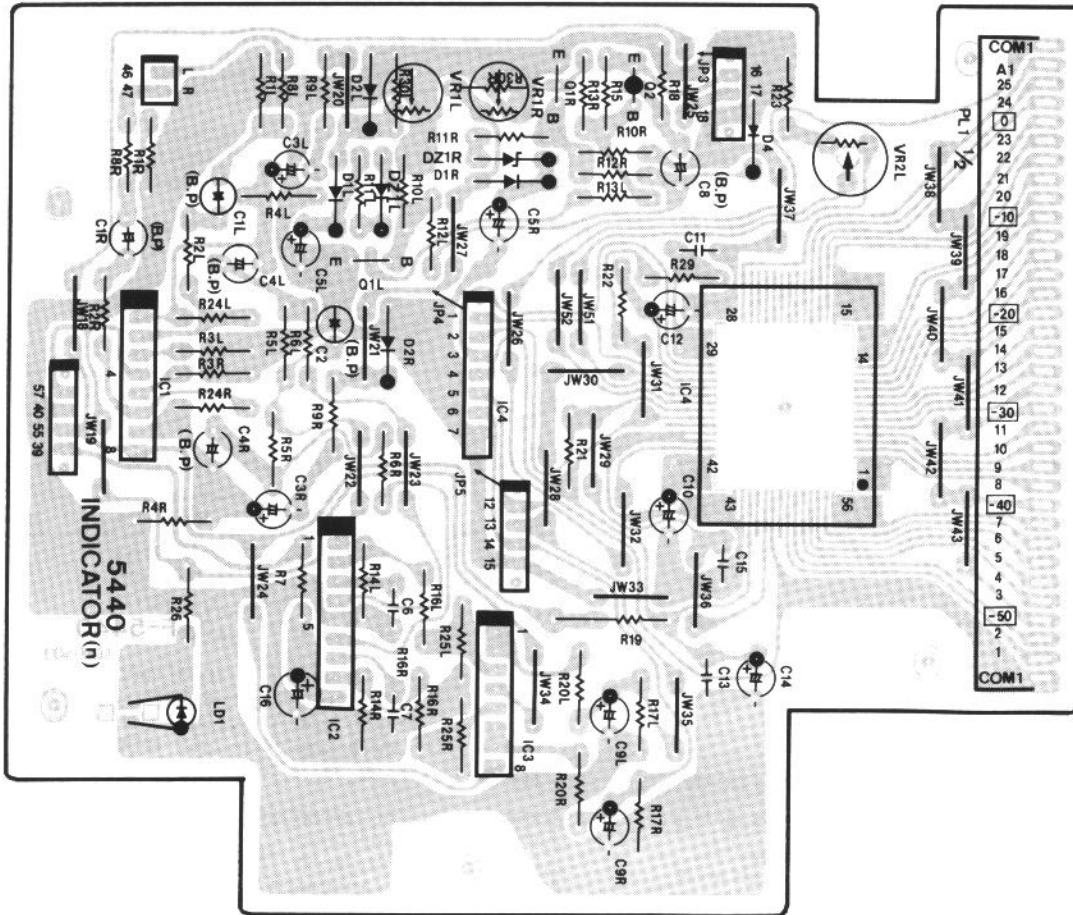
2-11. F-5437 Pilot Lamp Board

Component Side



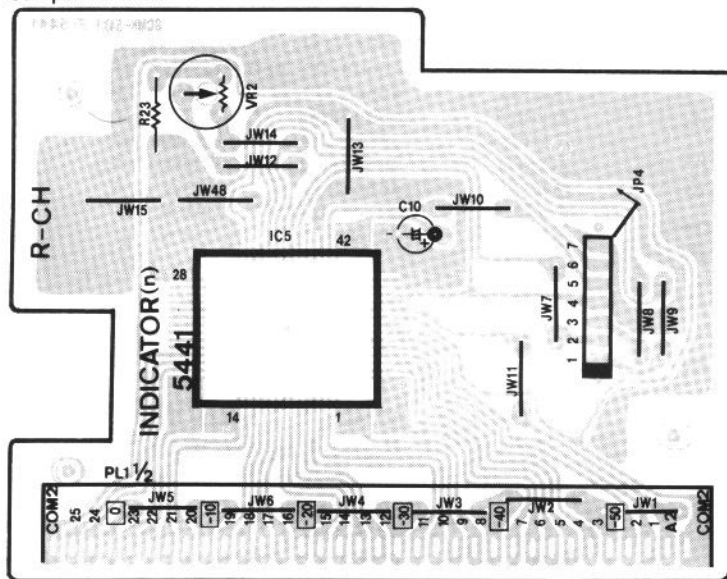
2-12. F-5440 L-ch Indicator Board

Component Side



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

Component Side



## 5. ADJUSTMENTS

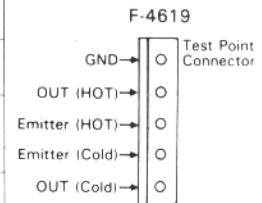
- Notes: 1. Room Temperature ..... 18°C ~ 28°C (65°F ~ 83°F)  
 2. For this adjustment, run the unit for more than 20 minutes after the power is switched ON.  
 3. Load ..... None

### 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

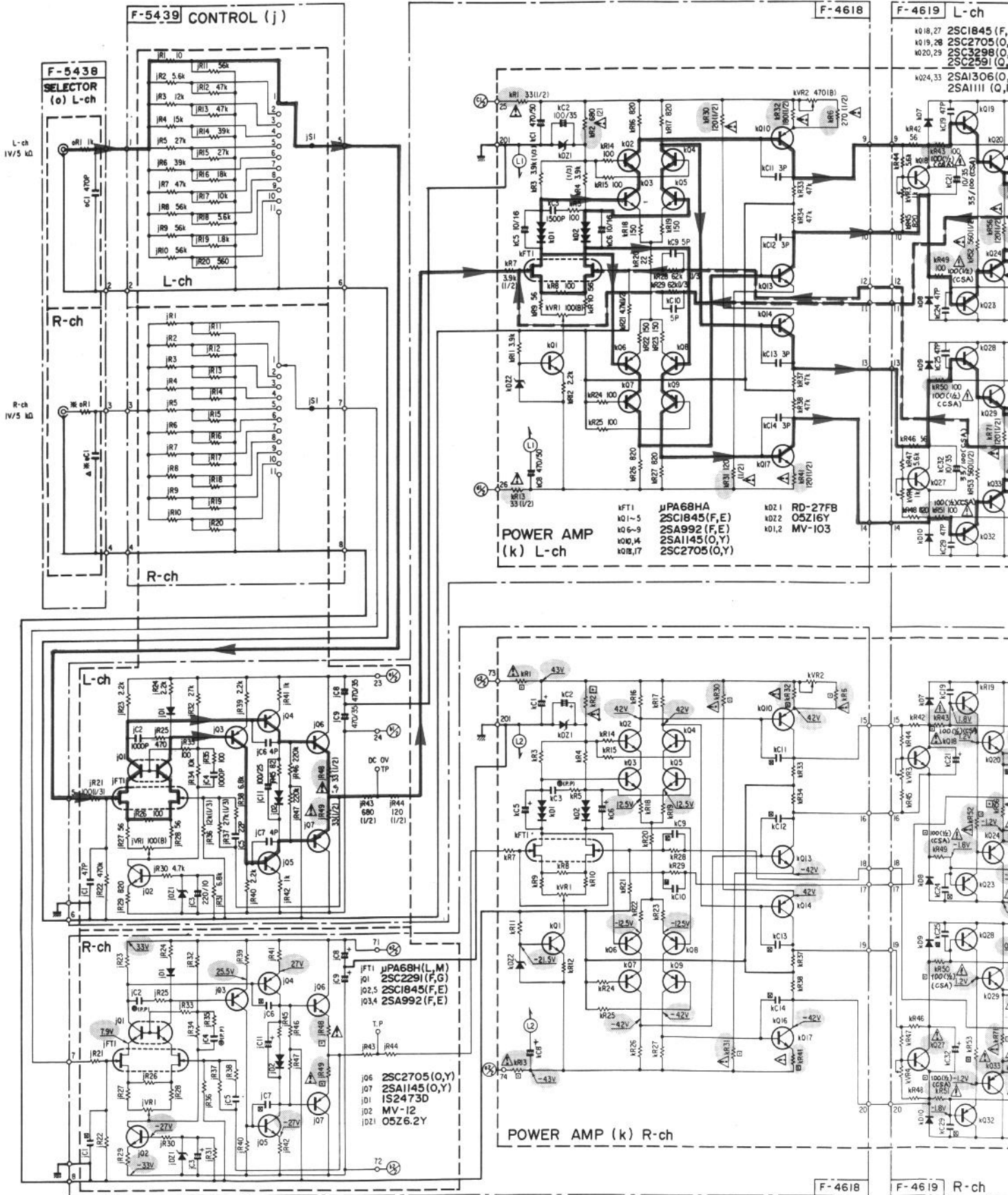
B

C

D

# 7. SCHEMATIC DIAGRAM

## 7-1. Power Amp Section

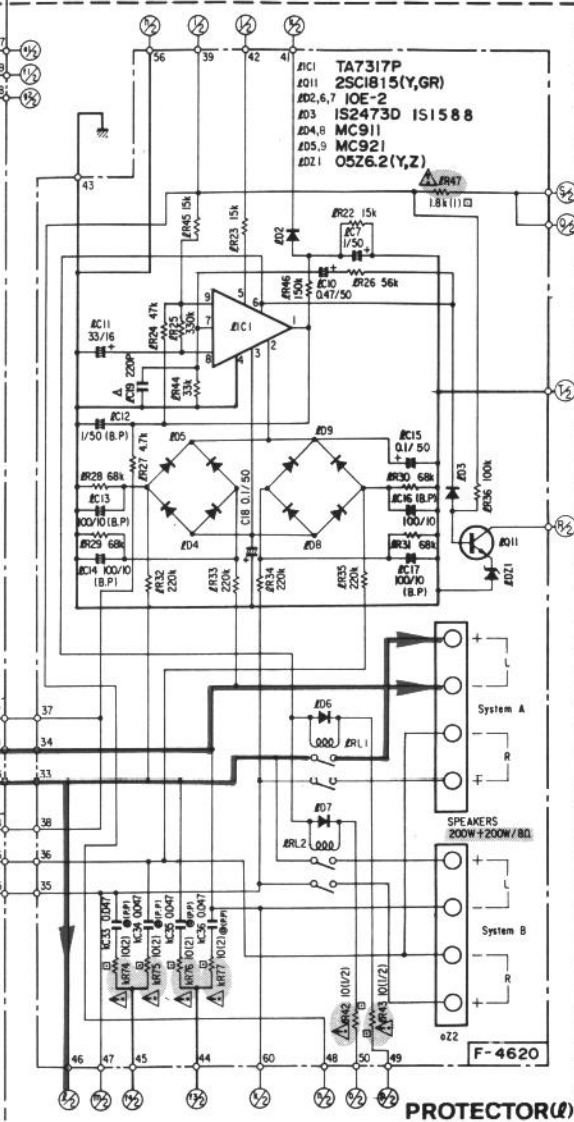
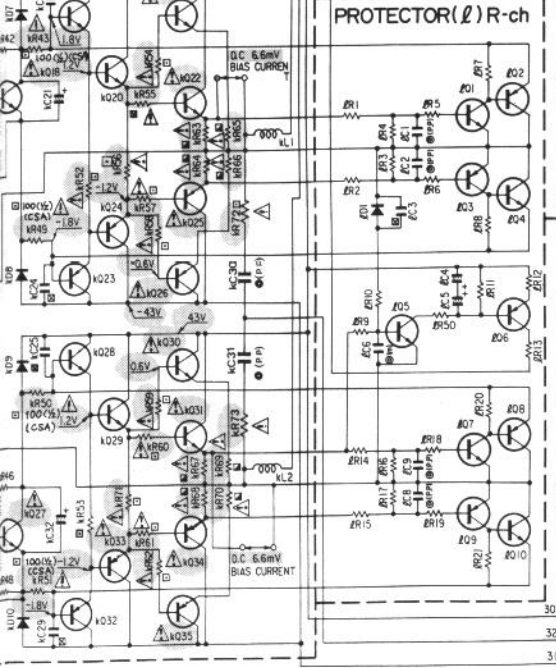
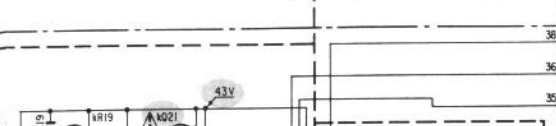
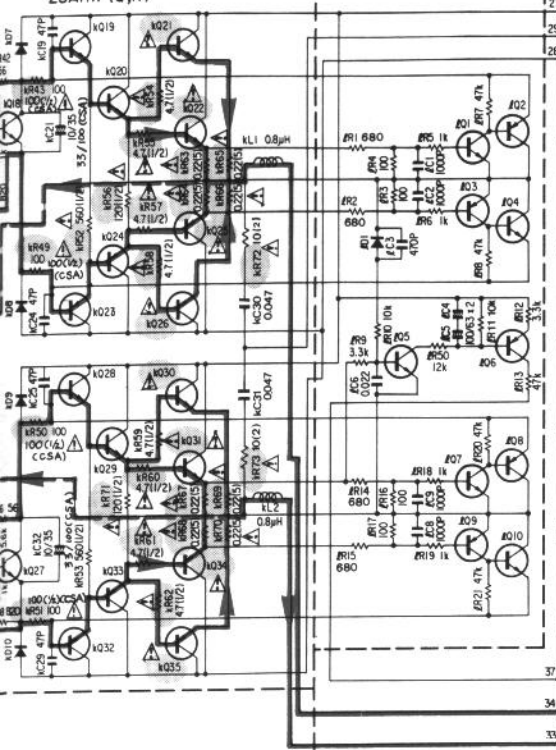




\* Design and specifications subject to change without notice for improvement.  
 \* La présentation et les spécifications sont susceptibles d'être modifiées sans préavis par suites d'améliorations éventuelles.  
 \* Änderungen, die dem technischen Fortschritt dienen, bleiben vorbehalten.

4619 L-ch	K021, 22, 30, 31	25C3519 (O,P,Y)	#01, 4, 5, 7, 10	25C2603 (F,G)
K018, 27	25C1845 (F,E)	K025, 26, 34, 35	25AI386 (O,P,Y)	#02, 3, 6, 8, 9
K019, 28	25C2705 (O,Y)	K07 - K	IS2091	25AI115 (E,F)
K020, 29	25C3298 (O,Y)	K023, 32	25AI145 (O,Y)	#01
	25C2591 (Q,R)			IS2473D
				IS1588

K024, 33	25AI306 (O,Y)			
	25AI111 (Q,R)			

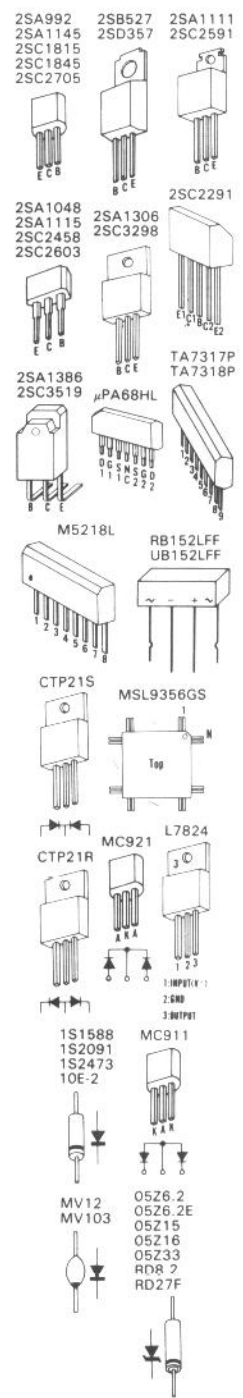


SYMBOL OF FUNCTION

- (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.

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

- 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



1

2

3

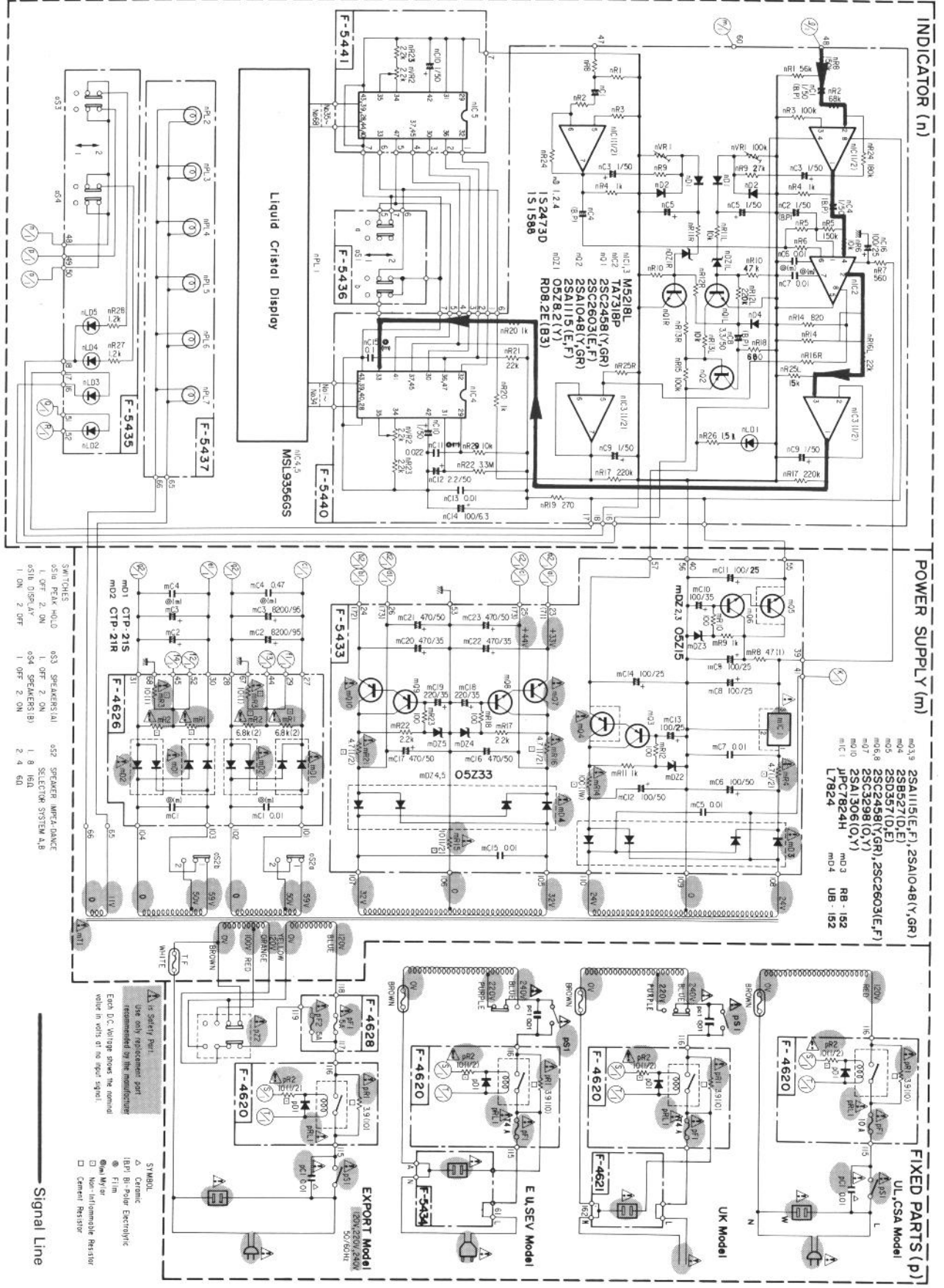
4

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

### 3. PARTS LIST OF BOARD

#### 3-1. F-4618 Drive Amp Board (Stock No. 00985601)

Parts No.	Stock No.	Description
<b>•Transistor</b>		
jQ1	03068801	2SC2291
jQ2	46581701	2SC1845
jQ3	46581601	2SA992
jQ4	46581601	2SA992
jQ5	46581701	2SC1845
jQ6	46728301	2SC2705
jQ7	46728201	2SA1145
<b>•FET</b>		
jFT1	48583300 or 48583301	$\mu$ PA68HA-L $\mu$ PA68HA-M
<b>•Diode</b>		
jD1	03117600 or 46086000	1S2473T77 1S1588TP-3
jD2	03401500	Varistor MV12
<b>•Zener Diode</b>		
jDZ1	46111800	05Z6.2-Y
jR43	46004500	680 $\Omega$ 1/2W C.R.
jR44	46002700	120 $\Omega$ 1/2W C.R.
$\Delta$ jR48	00134100	33 $\Omega$ 1/2W N.I.R.
$\Delta$ jR49	00134100	33 $\Omega$ 1/2W N.I.R.
jC2	46661700	1000pF 100V F.C.
jC4	46661700	1000pF 100V F.C.
jVR1	10335700	100 $\Omega$ (B) S.V.R., Center DC 0V
<b>•Transistor</b>		
kQ1	46581701	2SC1845
kQ2	46581701	2SC1845
kQ3	46581701	2SC1845
kQ4	46581701	2SC1845
kQ5	46581701	2SC1845
kQ6	46581601	2SA992
kQ7	46581601	2SA992
kQ8	46581601	2SA992
kQ9	46581601	2SA992
kQ10	46728201	2SA1145
kQ13	46728301	2SC2705
kQ14	46728201	2SA1145
kQ17	46728301	2SC2705
<b>•FET</b>		
kFT1	48583300 or 48583301	$\mu$ PA68HA-L $\mu$ PA68HA-M
kD1	03401700	Varistor MV103
kD2	03401700	Varistor MV103
<b>•Zener Diode</b>		
kDZ1	03171900	RD27F
kDZ2	46114800	05Z16-Y
$\Delta$ kR1	00134100	33 $\Omega$ 1/2W N.I.R.
$\Delta$ kR2	00191400	680 $\Omega$ 2W N.I.R.
$\Delta$ kR6	00133600	270k $\Omega$ 1/2W N.I.R.
kR7	46006300	3.9k $\Omega$ 1/2W C.R.
$\Delta$ kR13	00134100	33 $\Omega$ 1/2W N.I.R.
kR21	46006500	4.7k $\Omega$ 1/2W C.R.
$\Delta$ kR30	00131500	120 $\Omega$ 1/2W N.I.R.
$\Delta$ kR31	00131500	120 $\Omega$ 1/2W N.I.R.
$\Delta$ kR32	00131500	120 $\Omega$ 1/2W N.I.R.
$\Delta$ kR41	00131500	120 $\Omega$ 1/2W N.I.R.
kC3	46662100	1500pF 100V F.C.
kVR1	10335700	100 $\Omega$ (B) S.V.R., Hot/Cold Balance
kVR2	10336100	470 $\Omega$ (B) S.V.R., DC 0V

#### 3-2. F-4619 Power Amp Board (Stock No. 00985701 = XX-V,EU,UK,SEV/Stock No. 00985703 = CSA)

Parts No.	Stock No.	Description
<b>•Transistor</b>		
$\Delta$ kQ18	03067401	2SC1845
kQ19	46728301	2SC2705
kQ20	46728901	2SC3298
	or 48158701	2SC2591
$\Delta$ kQ21	46729901	2SC3519
$\Delta$ kQ22	46729901	2SC3519
kQ23	46728201	2SA1145
kQ24	46728801	2SA1306
	or 48158601	2SA1111
$\Delta$ kQ25	46729801	2SA1386
$\Delta$ kQ26	46729801	2SA1386
$\Delta$ kQ27	03067401	2SC1845
kQ28	46728301	2SC2705
kQ29	46728901	2SC3298
	or 48158701	2SC2591
$\Delta$ kQ30	46729901	2SC3519
$\Delta$ kQ31	46729901	2SC3519
kQ32	46728201	2SA1145
$\Delta$ kQ33	46728801	2SA1306
$\Delta$	or 48158601	2SA1111
$\Delta$ kQ34	46729801	2SA1386
$\Delta$ kQ35	46729801	2SA1386
<b>•Diode</b>		
kD7	46727900	1S2091
kD8	46727900	1S2091
kD9	46727900	1S2091
kD10	46727900	1S2091
$\Delta$ kR43	46229000	100 $\Omega$ 1/2W N.I.R. <CSA only>
$\Delta$ kR49	46229000	100 $\Omega$ 1/2W N.I.R. <CSA only>
$\Delta$ kR52	00136000	560 $\Omega$ 1/2W N.I.R.
$\Delta$ kR54	00135800	4.7 $\Omega$ 1/2W N.I.R.
$\Delta$ kR55	00135800	4.7 $\Omega$ 1/2W N.I.R.
$\Delta$ kR56	00131500	120 $\Omega$ 1/2W N.I.R.
$\Delta$ kR57	00135800	4.7 $\Omega$ 1/2W N.I.R.
$\Delta$ kR58	00135800	4.7 $\Omega$ 1/2W N.I.R.
$\Delta$ kR59	00135800	4.7 $\Omega$ 1/2W N.I.R.
$\Delta$ kR60	00135800	4.7 $\Omega$ 1/2W N.I.R.
$\Delta$ kR61	00135800	4.7 $\Omega$ 1/2W N.I.R.
$\Delta$ kR62	00135800	4.7 $\Omega$ 1/2W N.I.R.
$\Delta$ kR63	46542800	0.22 $\Omega$ 5W Ce.R.
$\Delta$ kR64	46542800	0.22 $\Omega$ 5W Ce.R.
$\Delta$ kR65	46542800	0.22 $\Omega$ 5W Ce.R.
$\Delta$ kR66	46542800	0.22 $\Omega$ 5W Ce.R.
$\Delta$ kR67	46542800	0.22 $\Omega$ 5W Ce.R.
$\Delta$ kR68	46542800	0.22 $\Omega$ 5W Ce.R.
$\Delta$ kR69	46542800	0.22 $\Omega$ 5W Ce.R.
$\Delta$ kR70	46542800	0.22 $\Omega$ 5W Ce.R.
$\Delta$ kR72	00185500	10 $\Omega$ 2W N.I.R.
$\Delta$ kR73	00185500	10 $\Omega$ 2W N.I.R.
kC30	00411600	47000 $\mu$ F 400V P.C.
kC31	00411600	47000 $\mu$ F 400V P.C.
kL1	46851900	Inductor 0.8 $\mu$ H
kL2	46851900	Inductor 0.8 $\mu$ H
kVR3	10342100	1k $\Omega$ (B) S.V.R., Bias Adjust
kVR4	10342100	1k $\Omega$ (B) S.V.R., Bias Adjust
<b>•Transistor</b>		
IQ1	46367101	2SC2603
IQ2	46367001	2SA1115
IQ3	46367001	2SA1115
IQ4	46367101	2SC2603
IQ5	46367101	2SC2603
IQ6	46367001	2SA1115
IQ7	46367101	2SC2603

## &lt; F-4619 &gt;

Parts No.	Stock No.	Description
IQ8	46367001	2SA1115
IQ9	46367001	2SA1115
IQ10	46367101	2SC2603
<b>•Diode</b>		
ID1	03117600 or 46086000	1S2473T77 1S1588TP-3
IC1	46655600	1000pF 100V F.C.
IC2	46655600	1000pF 100V F.C.
IC3	46654800	470pF 100V F.C.
IC6	46283300	0.022 $\mu$ F 50V F.C.
IC8	46655600	1000pF 100V F.C.
IC9	46655600	1000pF 100V F.C.

**3-3. F-4620 Protector Board (Stock No. 00986101)**

Parts No.	Stock No.	Description
$\Delta$ kR74	00185500	10 $\Omega$ 2W N.I.R.
$\Delta$ kR75	00185500	10 $\Omega$ 2W N.I.R.
$\Delta$ kR76	00185500	10 $\Omega$ 2W N.I.R.
$\Delta$ kR77	00185500	10 $\Omega$ 2W N.I.R.
kC33	00411600	47000 $\mu$ F 400V P.C.
kC34	00411600	47000 $\mu$ F 400V P.C.
kC35	00411600	47000 $\mu$ F 400V P.C.
kC36	00411600	47000 $\mu$ F 400V P.C.
<b>•Transistor</b>		
IQ11	07194801	2SC1815
<b>•IC</b>		
IIC1	46207600	TA7317P
<b>•Diode</b>		
ID2	03117700	10E-2
ID3	03111800 or 07176400	1S1588 1S2473HS
ID4	46463700	MC911
ID5	46463900	MC921 (Chip)
ID6	03117700	10E-2
ID7	03117700	10E-2
ID8	46463700	MC911
ID9	46463900	MC921 (Chip)
<b>•Zener Diode</b>		
IDZ1	46101600 or 46101700	05Z6 2-Y 05Z6 2-Z
$\Delta$ IR42	00130800	10 $\Omega$ 1/2W N.I.R.
$\Delta$ IR43	00130800	10 $\Omega$ 1/2W N.I.R.
$\Delta$ IR47	46250800	1.8k $\Omega$ 1W N.I.R.
IC12	07129900	1 $\mu$ F 50V E.B.
IC13	08460800	100 $\mu$ F 10V E.B.
IC14	08460800	100 $\mu$ F 10V E.B.
IC16	08460800	100 $\mu$ F 10V E.B.
IC17	08460800	100 $\mu$ F 10V E.B.
IRL1	46446400	Relay, JC24V
IRL2	46446400	Relay, JC24V
oZ2	46739500	8P Terminal, Speaker
<b>•Diode</b>		
pD1	03117700	10E-2
pR1	46739900	3.9 $\Omega$ 10W Ce.R.
pRL1	46222200	Relay, 1M G4W

**3-4. F-4626 Power Supply Board**

Parts No.	Stock No.	Description
<b>•Diode</b>		
$\Delta$ mD1	46731500	CTP-21S
$\Delta$ mD2	46731400	CTP-21R
$\Delta$ mR1	00150600	6.8k $\Omega$ 2W N.I.R.
$\Delta$ mR2	00150600	6.8k $\Omega$ 2W N.I.R.
mC1	48527800	0.01 $\mu$ F 630V F.C.
mC2	48498300	8200 $\mu$ F 95V E.C.
mC3	48498300	8200 $\mu$ F 95V E.C.
mC4	46222800	0.22 $\mu$ F 100V F.C.

**3-5. F-4628 AC Fuse Board**

Parts No.	Stock No.	Description
$\Delta$ pF1	48721800	Fuse 5.0A <XX-V>
$\Delta$ pF2	48721800	Fuse 5.0A <XX-V>

**3-6. F-5439 Control Board**

Parts No.	Stock No.	Description
jS1	48498500	Rotary SW., ATTENUATOR

**3-7. F-5433 Power Supply Board (Stock No. 00993801)**

Parts No.	Stock No.	Description
<b>•Transistor</b>		
mQ3	07299601 or 46078701	2SA1115 2SA1048
$\Delta$ mQ4	03034401	2SB527
mQ5	03086101	2SD357
mQ6	07299701 or 46078801	2SC2603 2SC2458
$\Delta$ mQ7	46728901	2SC3298
mQ8	07299701 or 46078801	2SC2603 2SC2458
mQ9	07299601 or 46078701	2SA1115 2SA1048
$\Delta$ mQ10	46728801	2SA1306
<b>•IC</b>		
$\Delta$ mIC1	48355900	L7824
<b>•Diode</b>		
$\Delta$ mD1	46731500	CTP-21S
$\Delta$ mD2	46731400	CTP-21R
$\Delta$ mD3	03117000	RB152-LFF
$\Delta$ mD4	07193300	UB-152LFF
<b>•Zener Diode</b>		
mDZ2	46104200 or 46104300	05Z15-X 05Z15-Y
mDZ3	46104200 or 46104300	05Z15-X 05Z15-Y
mDZ4	46106600 or 46106700	05Z33-X 05Z33-Y
mDZ5	46106600 or 46106700	05Z33-X 05Z33-Y
$\Delta$ mR1	00150600	6.8k $\Omega$ 2W N.I.R.
$\Delta$ mR2	00150600	6.8k $\Omega$ 2W N.I.R.
$\Delta$ mR3	00179000	10 $\Omega$ 1W N.I.R.

## &lt; F-5433 &gt;

Parts No.	Stock No.	Description
△mR4	46227400	4.7Ω 1/2W N.I.R.
△mR14	46249300	100Ω 1W N.I.R.
△mR15	46227800	10Ω 1/2W N.I.R.
△mR16	46227400	4.7Ω 1/2W N.I.R.
△mR21	46227400	4.7Ω 1/2W N.I.R.
mC5	48527800	0.01μF 630V F.C.
mC15	48527800	0.01μF 630V F.C.

## 3-8. F-5435 Speaker Switch Board

Parts No.	Stock No.	Description
•LED		
nLD2	48172100	BR3447S, PROTECTOR
nLD3	48172100	BR3447S, OVERSWING
nLD4	48572700	AA3427S, SPEAKER-B
nLD5	48572700	AA3427S, SPEAKER-A
oS3	48169400	Push SW., SPEAKER-A
oS4	48169400	Push SW., SPEAKER-B

## 3-9. F-5436 Display Switch Board

Parts No.	Stock No.	Description
oS1	48498600	Push SW., PEAK HOLD/DISPLAY

## 3-10. F-5438 Input Terminal Board

Parts No.	Stock No.	Description
oS1	22006100	2P Terminal, INPUT

## 3-11. F-5437 Lamp Board

Parts No.	Stock No.	Description
nPL2	48583000	12V 75mA Pilot Lamp
nPL3	48583000	12V 75mA Pilot Lamp
nPL4	48583000	12V 75mA Pilot Lamp
nPL5	48583000	12V 75mA Pilot Lamp
nPL6	48583000	12V 75mA Pilot Lamp
nPL7	48583000	12V 75mA Pilot Lamp

## 3-12. F-5440 Indicator Board (Stock No. 00986801)

Parts No.	Stock No.	Description
•Transistor		
nQ1	46367101	2SC2603
	or 46367301	2SC2458
nQ2	46367001	2SA1115
	or 46367201	2SA1048
•IC		
nIC1	46078900	M5218L
nIC2	03610000	TA7318P
nIC3	46078900	M5218L
nIC4	48126200	MSL9356GS
•Diode		
nD1	03117600	1S2473T77
	or 46086000	1S1588TP-3
nD2	03117600	1S2473T77
	or 46086000	1S1588TP-3
nD4	03117600	1S2473T77
	or 46086000	1S1588TP-3
•Zener Diode		
nDZ1	46112700	05Z8.2-Y
	or 46826300	RD8.2E-B3
•LED		
nLD1	03193700	SEL1110S, POWER
nC1	48103400	1μF 50V E.B.
nC2	48103400	1μF 50V E.B.
nC4	48103400	1μF 50V E.B.
nC6	46282900	0.01μF 50V F.C.
nC7	46282900	0.01μF 50V F.C.
nC8	48103600	3.3μF 50V E.B.
nC11	46283300	0.022μF 50V F.C.
nC13	46282900	0.01μF 50V F.C.
nC15	46284100	0.1μF 50V F.C.
nVR1	10343300	100kΩ (B) S.V.R., 0dB Level
nVR2	10342300	2.2kΩ (B) S.V.R., Over Swing Level (L-CH)

## 3-13. F-5441 Indicator Board

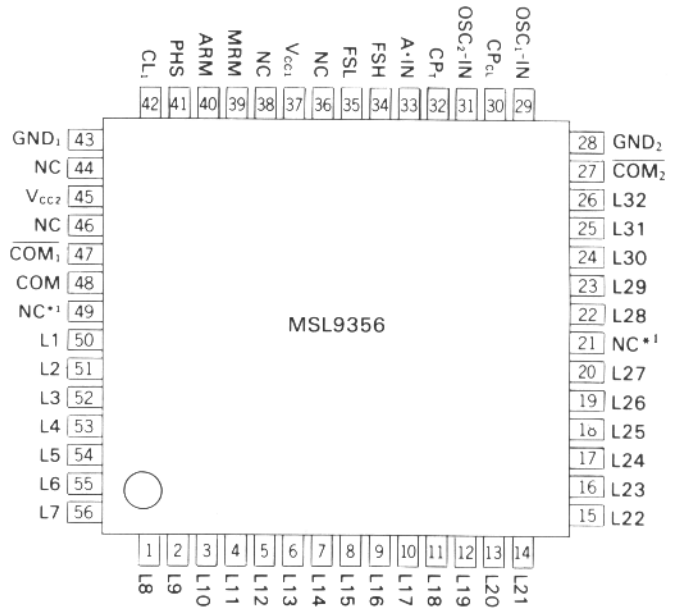
Parts No.	Stock No.	Description
•IC		
nIC5	48126200	MSL9356GS
nVR2	10342300	2.2kΩ (B) S.V.R., Over Swing Level (R-CH)

# 4. INTERIOR BLOCK DIAGRAM & TERMINAL FUNCTION OF IC

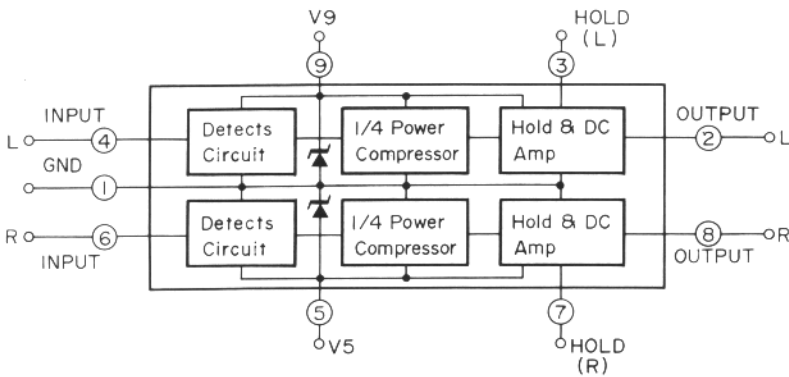
•MSL9356

(Terminal Function of Meter Drive IC MSL9356)

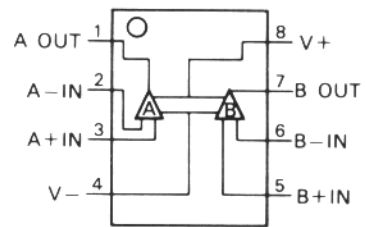
Symbol	Terminal Function
GND <sub>1</sub>	GND for All Circuit Except Clock OSC
GND <sub>2</sub>	GND for Clock OSC Circuit
L <sub>1</sub> ~ 32	Bar Segment Output Terminal
OSC <sub>1</sub> -IN	C•R Terminal for Clock OSC
CP <sub>CL</sub>	Clock Signal Input/Output Terminal
OSC <sub>2</sub> -IN	C•R Terminal for Peak Hold Reset Pulse OSC
CP <sub>T</sub>	Peak Hold Reset Pulse Input/Output Terminal
A•IN	Analog Signal Input Terminal
FSH	Reference Voltage Output Terminal for Full Scale Adjustment
FSL	Setting Voltage Input Terminal for Full Scale
MRM	Mode Signal Input Terminal for Peak Hold Manual Reset
ARM	Mode Signal Input Terminal for Peak Hold Automatic Reset
PHS	Select Signal Input Terminal for Peak Hold Function
CL <sub>1</sub>	C Terminal for Initial Clear
COM <sub>1</sub> •COM <sub>2</sub>	Phase Reversed Common Signal Output Terminal for Display Other Than Bar Segment
COM	Common Signal Output Terminal for Bar Segment



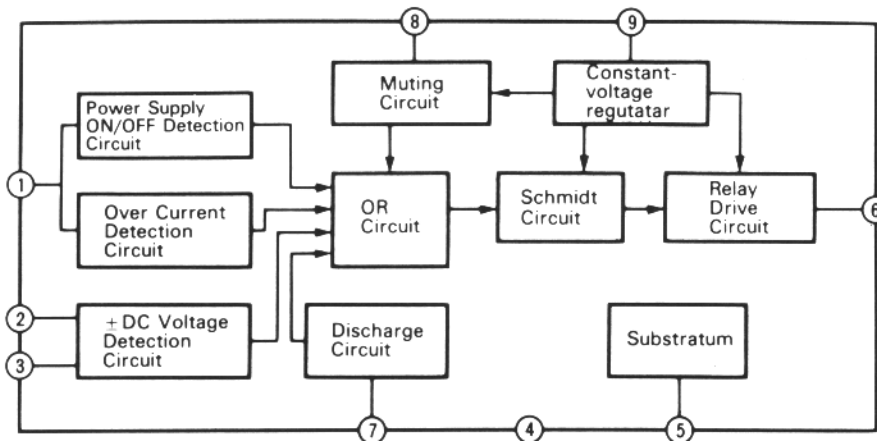
•TA7318P (Meter Drive IC)



•M5218 (Operation Amp)

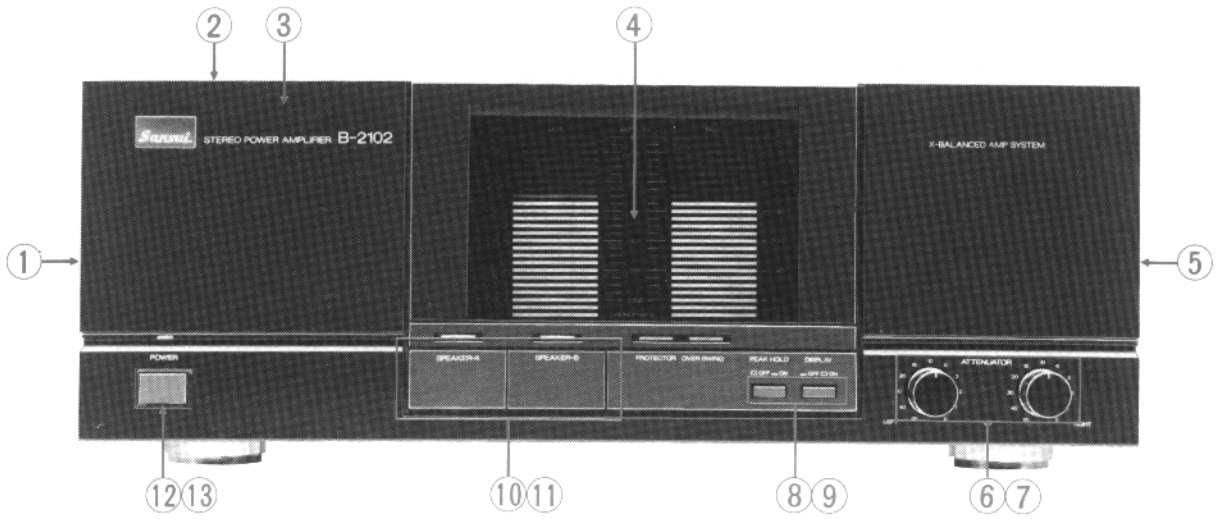


•TA7317P (Protector IC)

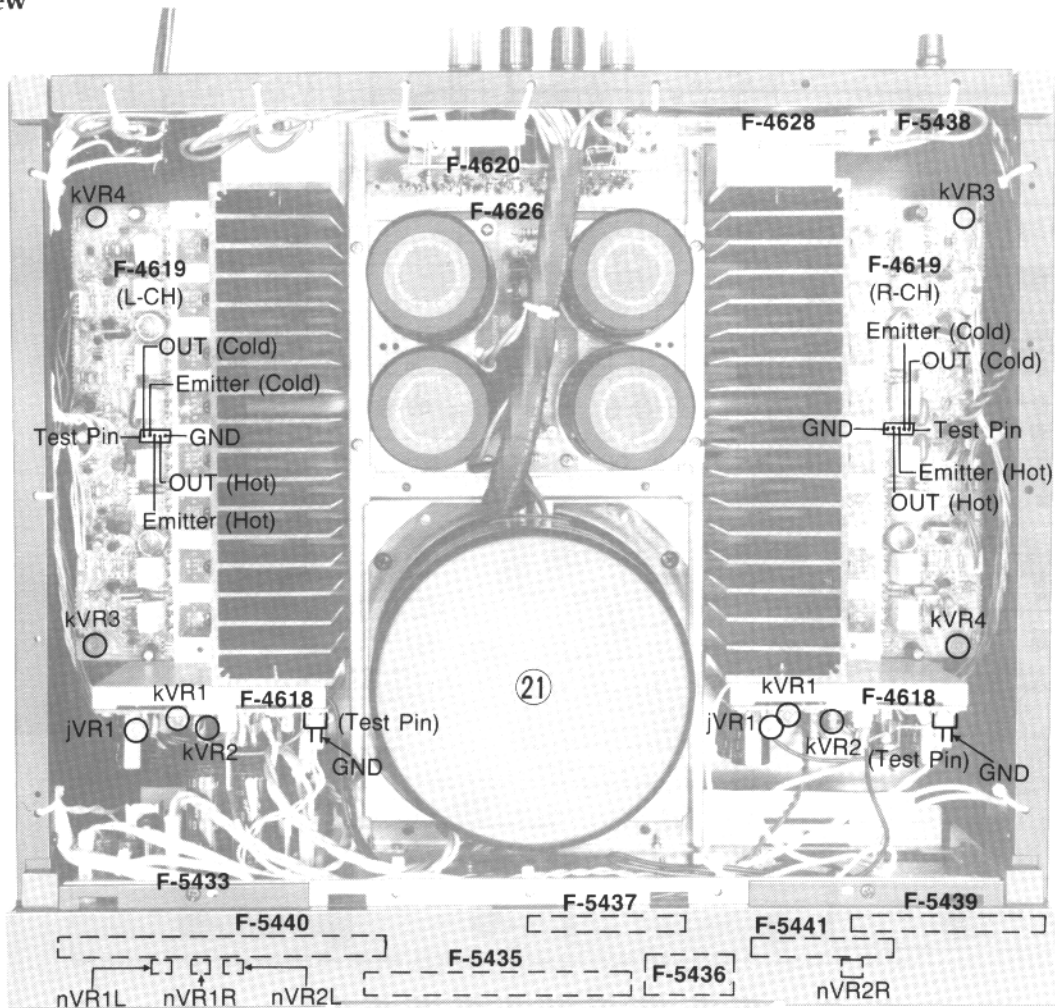


# 6. OTHER PARTS

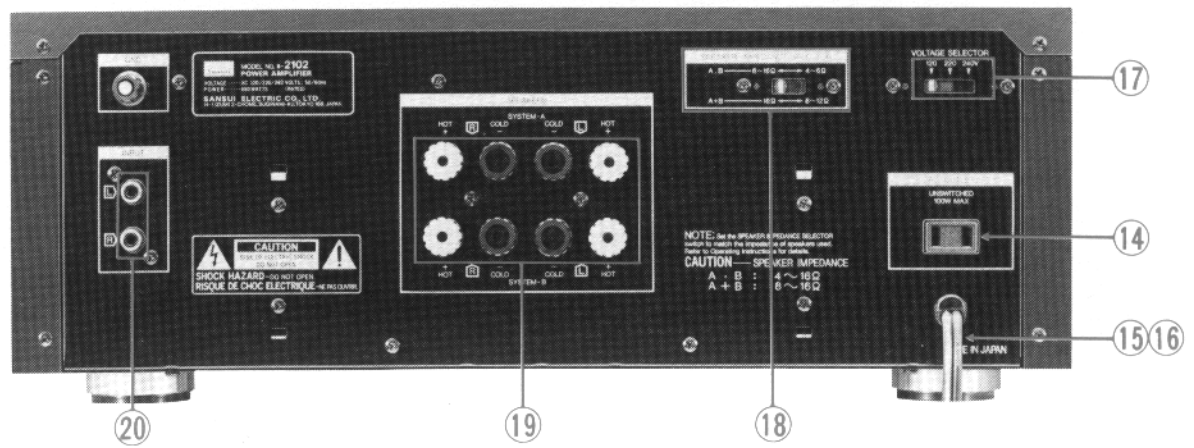
## 6-1. Front View



## 6-2. Top View



## 6-3. Rear View



## Parts List &lt; Front, Top &amp; Rear View &gt;

Parts No.	Stock No.	Description	Parts No.	Stock No.	Description
1	27210200	Side Panel Ass'y (L)	△ 15	38004900	Power Supply Cord <XX-V>
2	27224200	Front Panel Ass'y	△	46128900	Power Supply Cord <EU>
3	27210700	Bonnet <XX, UL, CSA>	△	48188100	Power Supply Cord-Polarized <XX-V, UL, CSA>
	27210600	Bonnet <EU, UK>	△	38004300	Power Supply Cord <UK>
4	48498400	Power Meter	△	48306700	Power Supply Cord <SEV>
5	27210300	Side Panel Ass'y (R)	16	39104900	Strain Relief
6	27209600	Knob ATTENUATOR	△ 17	48062100	Slide SW., VOLTAGE SELECTOR <XX-V>
7	48498500	Rotary SW., ATTENUATOR	△	07204700	Slide SW., VOLTAGE SELECTOR <EU, UK, SEV>
8	27103200	Push Knob, PEAK HOLD, DISPLAY	18	46739400	Slide SW., SPEAKER INPEDANCE <XX-V, EU, UK, SEV>
9	48498600	Push SW., PEAK HOLD, DISPLAY		46736600	Slide SW., SPEAKER INPEDANCE <UL, CSA>
10	27220000	Knob Spring	19	46739500	8P Speaker, Terminal
11	48169400	Push SW., SPEAKERS A, B	20	22006100	2P Terminal, OUTPUT
12	47633700	Push Knob, POWER	△ 21	15025901	Power Transformer <XX-V>
△ 13	46612900	Push SW., POWER	△	15025902	Power Transformer <UL, CSA>
△ 14	46364900	AC OUTLETS <XX-V>	△	15025905	Power Transformer <EU, UK, SEV>
△	46161000	AC OUTLETS <EU>			
△	48184000	AC OUTLETS-Polarized <XX-V, UL, CSA>			
△	46364800	AC OUTLETS <UK>			