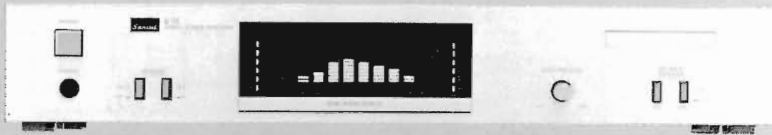


# SERVICE MANUAL

STEREO POWER AMPLIFIER

## SANSUI B-55



### ● SPECIFICATIONS

#### Power output

Min. RMS, both channels driven, from 20 to 20,000 Hz,  
with no more than 0.03 % total harmonic distortion  
30 watts per channel into 8 ohms

Load impedance . . . . . 8 ohms

#### Total harmonic distortion

. . . . . less than 0.03 % at or below  
rated min. RMS power output

#### Frequency response (at 1 watt)

. . . . . 5 to 70,000 Hz  
+0 dB, -2 dB

Input sensitivity and impedance (1 kHz, for rated power  
output) . . . . . 1 V/47 kilohms

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

. . . . . 120 dB

#### Power requirements

Power voltage . . . . . 120/220/240 V  
(50/60 Hz)

For U.S.A. & Canada

. . . . . 120 V (60 Hz)

Power consumption . 130 watts 160 VA Rated  
185 watts Maximum

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

74 mm (2-15/16") H

234 mm (9-7/32") D

Weight . . . . . 4.2 kg (9.2 lbs.) net

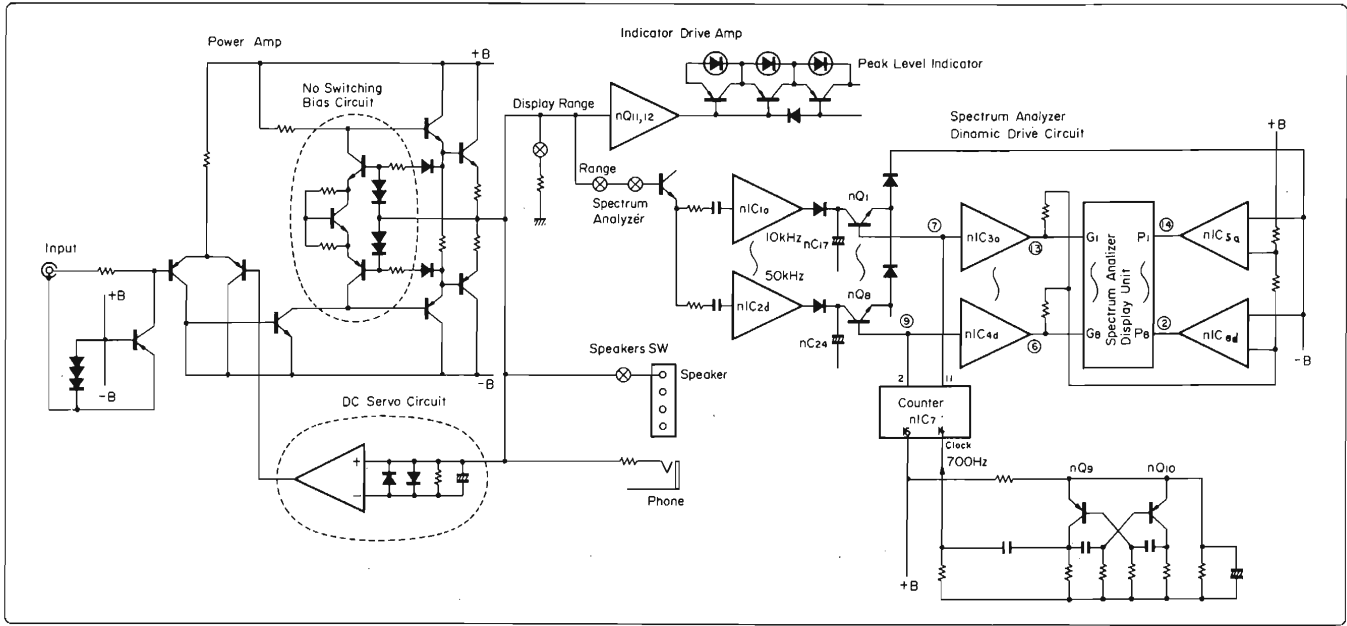
4.7 kg (10.4 lbs.) packed

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

*Sansui*

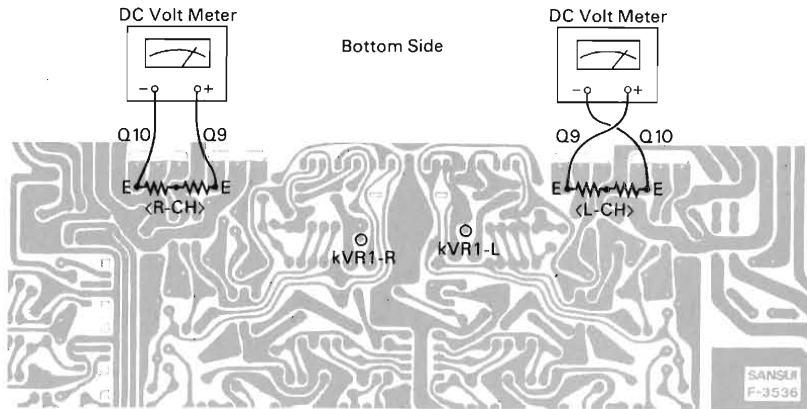
SANSUI ELECTRIC CO., LTD.

# 1. BLOCK DIAGRAM



\* Since the Non Switching Bias Circuit employed in B-55 is similar to that of AU-D7 and the Spectrum Analyzer Circuit employed in B-55 is similar to that of B-77, the explanation of these circuit is omitted from this manual, therefore please refer to the page 1, 2, on service manual of AU-D7 and page 2, on service manual of B-77.

# 2. BIAS CURRENT ADJUSTMENT (Refer to figure below)



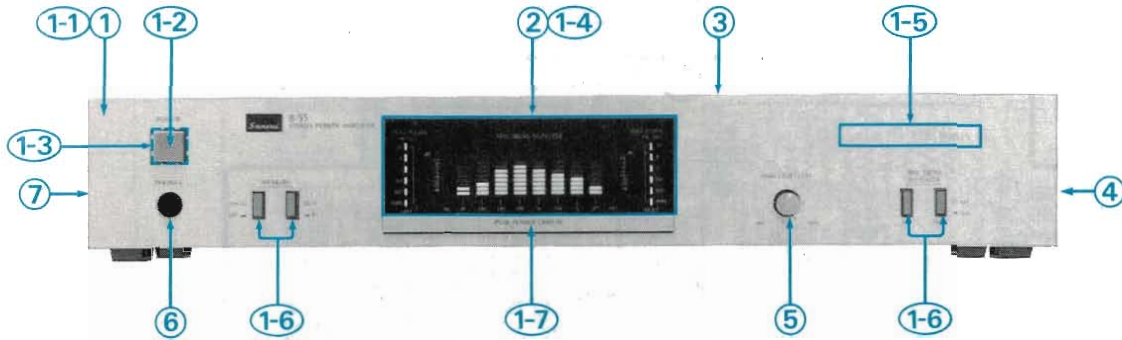
**Note:**

1. Room Temperature . . . . . 18°C ~ 38°C
2. For adjustment, run the unit for more than 3 minutes after the power is switched on.
3. Before turning ON power switch, turn kVR1 on F-3536 fully counterwise.

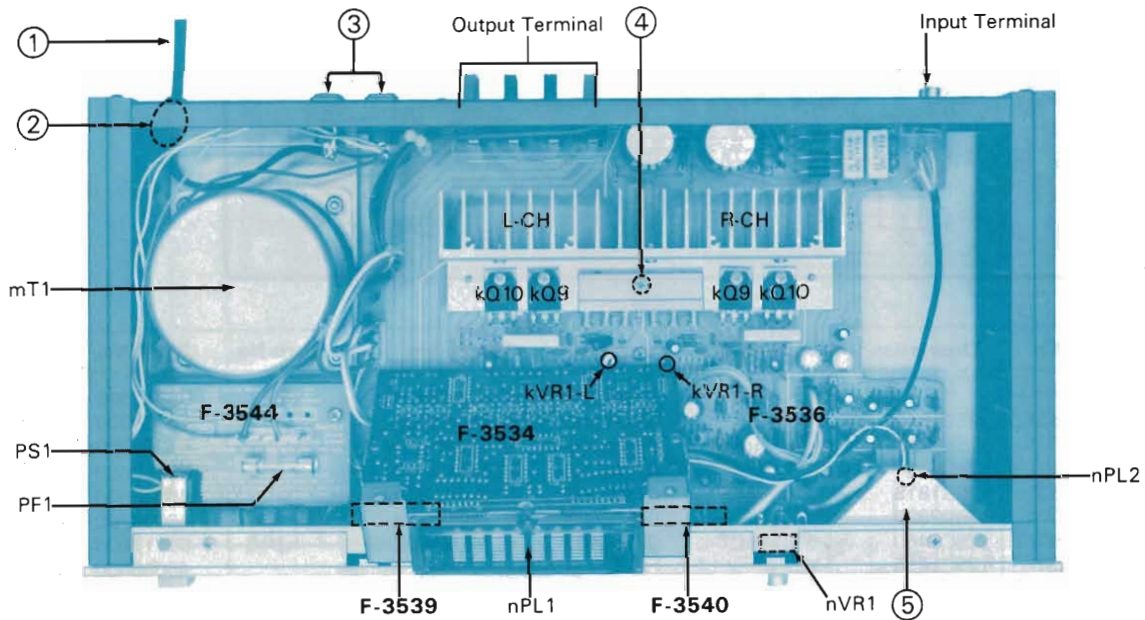
STEP	SUBJECT	MEASURE OUTPUT	ADJUST	ADJUST FOR	REMARKS
1.	L-CH	Connect DC volt meter between emitters of kQ <sub>9</sub> , kQ <sub>10</sub> on F-3536	kVR1 (L-CH) F-3536	DC 3 mV	This bias current adjustment converts current value into voltage by ohms law.
2.	R-CH	Same as above	kVR1 (R-CH) F-3536	DC 3 mV	

### 3. OTHER PARTS

#### 3-1. Front View



#### 3-2. Top View



Parts List <Front View>

Parts No.	Stock No.	Description
1	07769600	Front Panel Ass'y
1-1	07770000	Front Panel
1-2	53195000	Knob, power
1-3	59560800	Knob Guide, power
1-4	07768700	Front Glass
1-5	07768900	Badge Ass'y
1-6	07553900	Push Knob Ass'y
1-7	07768600	Dress Sash
2	07768500	Peak Power & Analyzer Scale
3	07769300	Bonnet
4	07763600	Side Panel, Right
5	07776200	Knob, Analyzer
6	46078100	Head Phone Jack
7	07763500	Side Panel, left

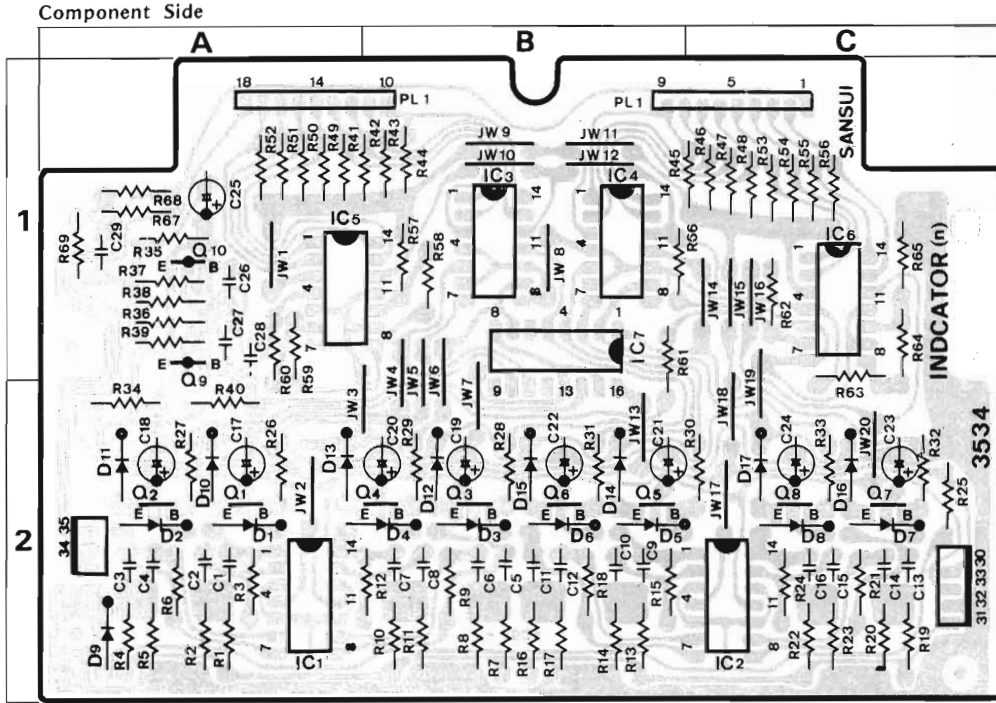
Parts List <Top View>

Parts No.	Stock No.	Description
nVR1	46118400	Variable Resistor 100kΩ (B), analyzer level
pF1	07188800	AC Fuse 3A (120V)
	07188500	AC Fuse 1.5A (220V)
mT1	15003801	Power Transformer
pS1	46087300	Power Switch
nPL1	07237800	FG64SA6, Spectrum Analyzer
1	38004700	Power Cord
2	39106000	Strain Relief
3	07189600	AC Outlet
4	07192000	Hexagon Space Screw
5	07769800	Badge Lighting Frame

# 4. PARTS LOCATION & PARTS LIST

## 4-1. F-3534 Spectrum Analyzer Circuit Board (Stock No. 00645301)

• Since some of capacitors and resistors are omitted from parts lists in this Service Manual, refer to the Common Parts List for capacitors & resistors which was appended previously to each Sansui Manual.

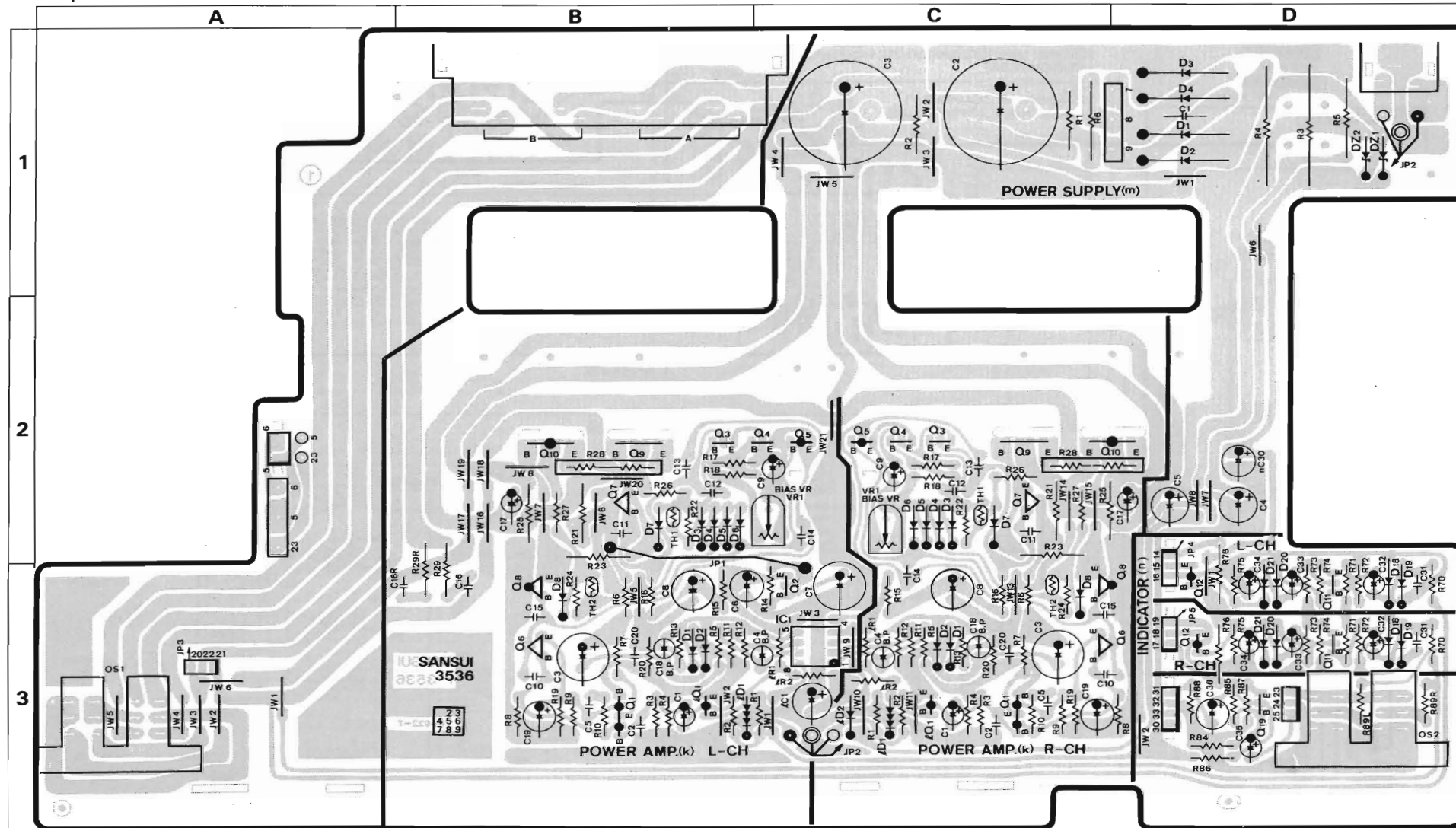


### Parts List

Parts No.	Stock No.	Description	Parts No.	Stock No.	Description	Parts No.	Stock No.	Description
•Transistor			nIC4	07205300	IC NJM2901N	nD11	03117600	1S2473D
nQ1	07194801	2SC1815		07246300	IC MB4204M		46086000	1S1588
	03068301	2SC2320	nIC5	07205300	IC NJM2901N		46092700	US1035
	03059501	2SC945		07246300	IC MB4204M	nD12	03117600	1S2473D
nQ2	07194801	2SC1815	nIC6	07205300	IC NJM2901N		46086000	1S1588
	03068301	2SC2320		07246300	IC MB4204M		46092700	US1035
	03059501	2SC945	nIC7	07246400	IC MSM4022RS	nD13	03117600	1S2473D
nQ3	07194801	2SC1815	•Diode				46086000	1S1588
	03068301	2SC2320	nD1	03117600	1S2473D	nD14	03117600	1S2473D
	03059501	2SC945		46086000	1S1588		46086000	1S1588
nQ4	07194801	2SC1815		46092700	US1035		46092700	US1035
	03068301	2SC2320	nD2	03117600	1S2473D	nD15	03117600	1S2473D
	03059501	2SC945		46086000	1S1588		46086000	1S1588
nQ5	07194801	2SC1815		46092700	US1035		46092700	US1035
	03068301	2SC2320	nD3	03117600	1S2473D	nD16	03117600	1S2473D
	03059501	2SC945		46086000	1S1588		46086000	1S1588
nQ6	07194801	2SC1815		46092700	US1035		46092700	US1035
	03068301	2SC2320	nD4	03117600	1S2473D	nD17	03117600	1S2473D
	03059501	2SC945		46086000	1S1588		46086000	1S1588
nQ7	07194801	2SC1815		46092700	US1035		46092700	US1035
	03068301	2SC2320	nD5	03117600	1S2473D	•Capacitor		
	03059501	2SC945		46086000	1S1588	nC1	07216800	68000pF 25V C.C.
nQ8	07194801	2SC1815		46092700	US1035	nC2	07216800	68000pF 25V C.C.
	03068301	2SC2320	nD6	03117600	1S2473D	nC3	07216400	33000pF 25V C.C.
	03059501	2SC945		46086000	1S1588	nC4	07216400	33000pF 25V C.C.
nQ9	07194701	2SA1015		46092700	US1035	nC5	07215900	12000pF 25V C.C.
	03012701	2SA999	nD7	03117600	1S2473D	nC6	07215900	12000pF 25V C.C.
	07197001	2SA733A		46086000	1S1588	nC7	07215600	6800pF 25V C.C.
nQ10	07194701	2SA1015		46092700	US1035	nC8	07215600	6800pF 25V C.C.
	03012701	2SA999	nD8	03117600	1S2473D	nC9	07215200	3300pF 25V C.C.
	07197001	2SA733A		46086000	1S1588	nC10	07215200	3300pF 25V C.C.
•IC				46092700	US1035	nC26	07215900	12000pF 25V C.C.
nIC1	07205200	IC NJM2902N	nD9	03117600	1S2473D	nC27	07215900	12000pF 25V C.C.
	07258300	IC MB3614M		46086000	1S1588	nC29	07216600	47000pF 25V C.C.
nIC2	07205200	IC NJM2902N	nD10	03117600	1S2473D			
	07258300	IC MB3614M		46086000	1S1588			
nIC3	07205300	IC NJM2901N		46092700	US1035			
	07246300	IC MB4204M		46092700	US1035			

4-2. F-3536 Power Amp. Circuit Board (Stock No. 00645501)

Component Side



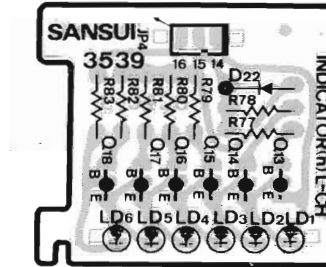
Parts List

Parts No.	Stock No.	Description	Parts No.	Stock No.	Description	Parts No.	Stock No.	Description	Parts No.	Stock No.	Description
•Transistor											
kQ1	03602901	2SA798	kD2	03117600	1S2473D	mD4	03115300	30D2	kR28	08310100	0.33 x 2 3W Ce.R.
kQ2	07194801	2SC1815		46086000	1S1588	nD18	07225500	1N60	kC4	08450900	4.7µF 16V E.B.
kQ3	03067401	2SC1845	kD3	03117600	1S2473D	nD19	03117600	1S2473D	kC18	08450100	10µF 6.3V E.B.
kQ4	03067401	2SC1845		46086000	1S1588		46086000	1S1588	kVR1	10370600	Semi Variable Resistor 5kΩ (B) Bias Current Adj.
kQ5	03010901	2SA992		46092700	US1035	nD20	03117600	1S2473D			
kQ6	03064001	2SC1904	kD4	03117600	1S2473D		46086000	1S1588	mC2	46117700	4700µF 50V E.C.
kQ7	03086101	2SD357		46086000	1S1588		46092700	US1035	mC3	46117700	4700µF 50V E.C.
kQ8	03034401	2SB527		46092700	US1035	nD21	03117600	1S2473D	nR76	00183800	560Ω 1W N.I.R.
kQ9	46117901	2SC2577LBR	kD5	03117600	1S2473D		46086000	1S1588	nC31	07215800	10000pF 25V C.C.
kQ10	46117801	2SA1102LBR		46086000	1S1588		46092700	US1035	oS1	46089900	Push Switch (Speakers)
IQ1	07194701	2SA1015	kD6	03117600	1S2473D	•IC			oS2	07209800	Push Switch (Analyzer)
	03012701	2SA999		46086000	1S1588	kIC1	03607700	NJM4558D	nPL2	07234400	Lamp 8V
	07197001	2SA733A		46092700	US1035	•Resistor				07249000	2P Input Terminal
nQ11	07194801	2SC1815	kD7	03117600	1S2473D	mR1	00182800	3.9kΩ 1W N.I.R.			
	03068301	2SC2320		46086000	1S1588	mR2	00182800	3.9kΩ 1W N.I.R.			
	03059501	2SC945		46092700	US1035	mR3	00107700	470Ω 5W Ce.R.			
nQ12	07194701	2SA1015	kD8	03117600	1S2473D	mR4	00107700	470Ω 5W Ce.R.			
	03012701	2SA999		46086000	1S1588	mR5	00189000	330Ω 2W N.I.R.			
	07197001	2SA733A		46092700	US1035	mR6	00186000	1Ω 2W N.I.R.			
nQ19	07194801	2SC1815	ID1	03401700	MV103	kTH1	03201500	Thermistor 112102-02			
	03068301	2SC2320	ID2	03117600	1S2473D	kTH2	03201500	Thermistor 112102-02			
	03059501	2SC945		46086000	1S1588						
•Diode				46092700	US1035						
kD1	03117600	1S2473D	mD1	03115300	30D2						
	46086000	1S1588	mD2	03115300	30D2						
	46092700	US1035	mD3	03115300	30D2						

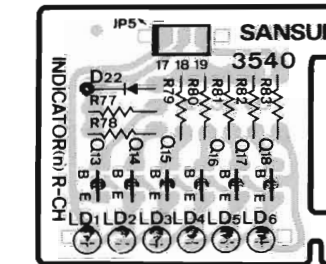
4-3. F-3539 & F-3540 Peak Level Indicator Circuit Board

(Stock No. 00645801 = F-3539/00645901 = F-3540)

Component Side <F-3539>



Component Side <F-3540>



Parts List <F-3539/F-3540>

Parts No	Stock No.	Description
•Transistor		
nQ13	03012501	2SA786
	07299601	2SA1115
nQ14	03012501	2SA786
	07299601	2SA1115
nQ15	03012501	2SA786
	07299601	2SA1115
nQ16	03012501	2SA786
	07299601	2SA1115
nQ17	03012501	2SA786
	07299601	2SA1115
nQ18	03012501	2SA786
	07299601	2SA1115
•Diode		
nD22	03117600	1S2473D
	46086000	1S1588
	46092700	US1035
nLD1	46095200	TLR123 LED
nLD2	46095200	TLR123 LED
nLD3	46095200	TLR123 LED
nLD4	46095200	TLR123 LED
nLD5	46095200	TLR123 LED
nLD6	46095200	TLR123 LED
	07769100	6P LED Holder

• Abbreviations

C.R. . . . Carbon Resistor	E.L. . . . Low Leak Electrolytic Capacitor
S.R. . . . Solid Resistor	E.B. . . . Bi-Polar Electrolytic Capacitor
Ce.R. . . . Cement Resistor	E.BL. . . . Low Leak Bi-Polar Electrolytic Capacitor
M.R. . . . Metal Film Resistor	Ta.C. . . . Tantalum Capacitor
F.R. . . . Fusing Resistor	F.C. . . . Film Capacitor
N.I.R. . . . Non-Inflammable Resistor	M.P. . . . Metallized Paper Capacitor
C.C. . . . Ceramic Capacitor	P.C. . . . Polystyrene Capacitor
C.T. . . . Ceramic Capacitor, Temperature Compensation	G.C. . . . Gimmic Capacitor
E.C. . . . Electrolytic Capacitor	



# 6. INTERIOR BLOCK DIAGRAM OF IC

• **MSM4022RS**

Fig. 1

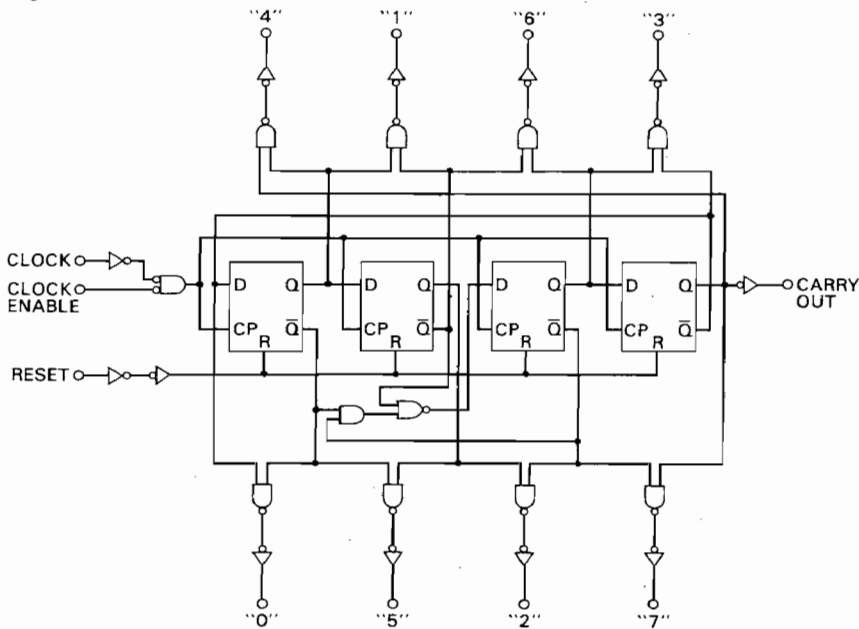


Fig. 2

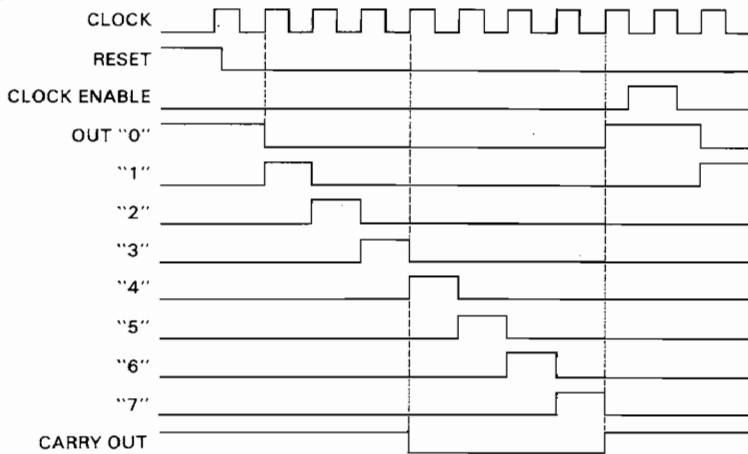
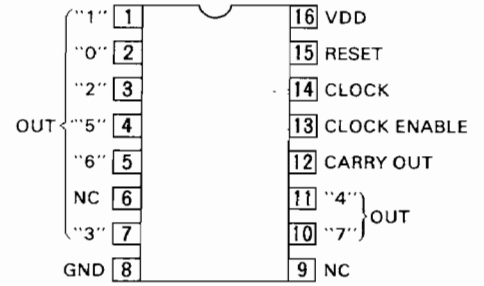
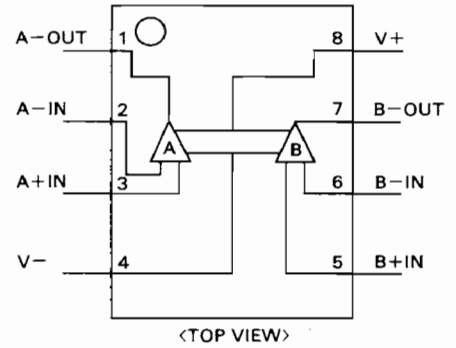


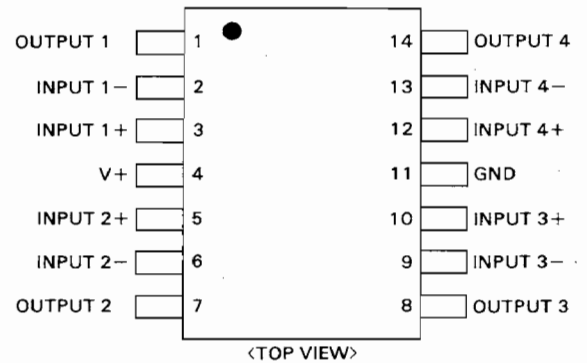
Fig. 3



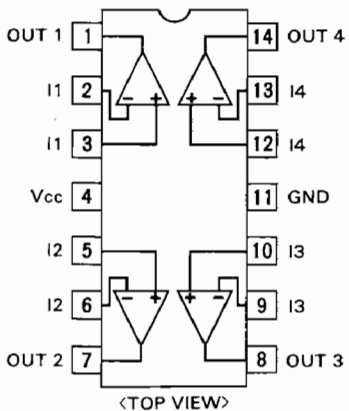
• **NJM4558D**



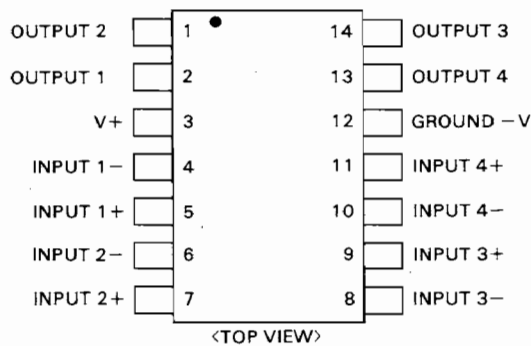
• **NJM2902N**



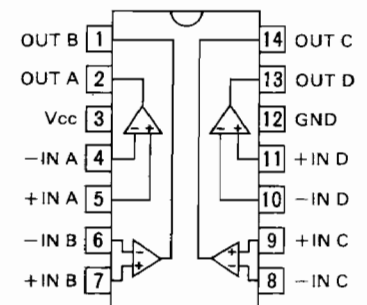
• **MB3614M**



• **MJM2901N**

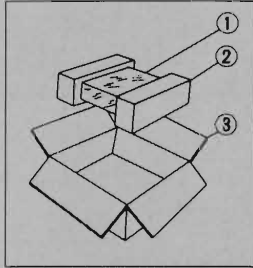


• **MB4204M**



## 7. PACKING LIST

Parts No.	Stock No.	Description
1	07599500	Vinyl Cover
2	07585700	Styrofoam Packing
3	07775400	Carton Case



## 8. ACCESSORY

Stock No.	Description
46093400	Operating Instruction

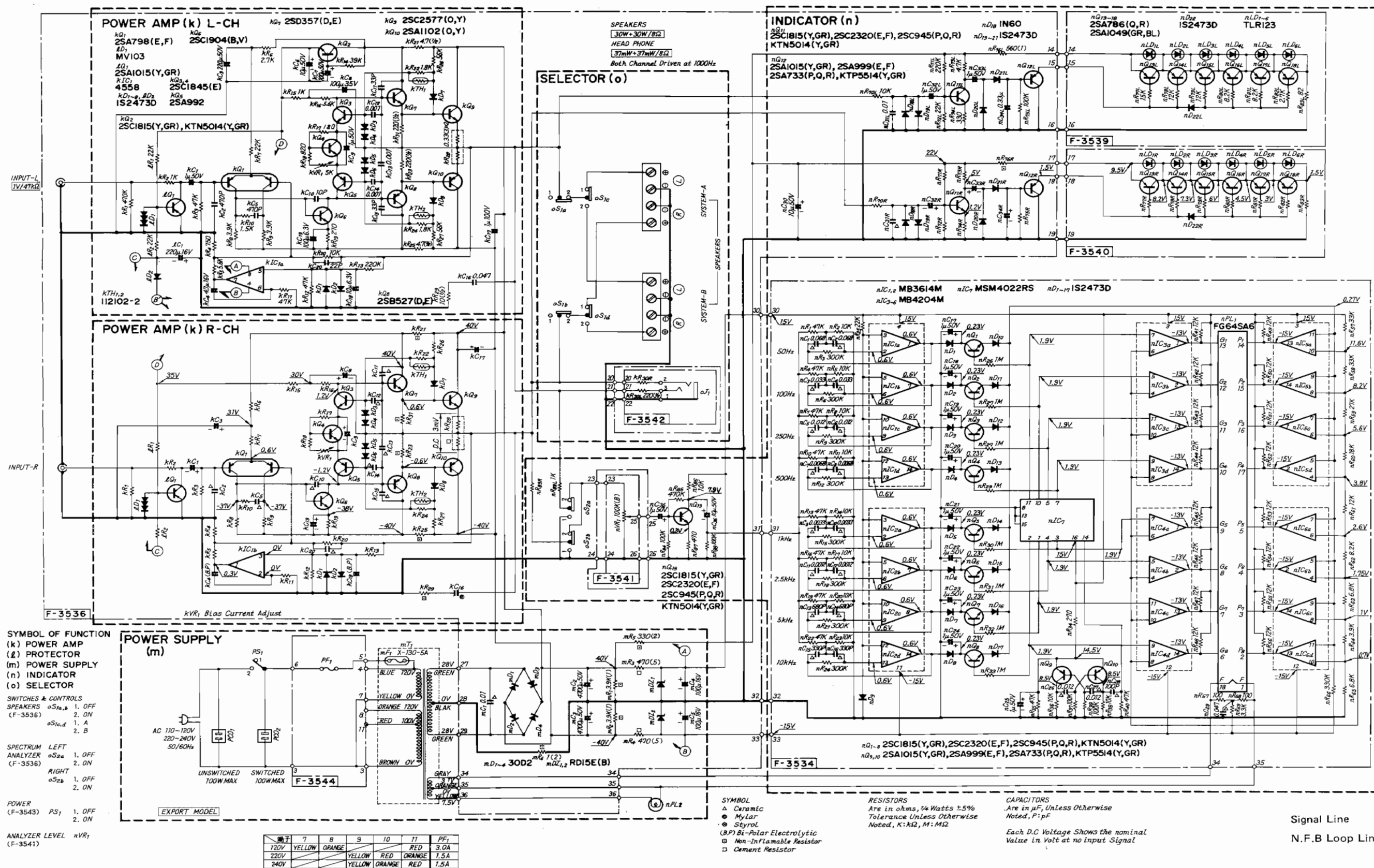
*Sansui*

SANSUI ELECTRIC COMPANY LTD.:  
 SANSUI ELECTRONICS CORPORATION:  
 SANSUI ELECTRONICS (U.K.) LTD.:  
 SANSUI ELECTRONICS G.M.B.H.:

14-1, Izumi 2-chome, Suginami-ku, Tokyo 168 Japan PHONE:(03) 323-1111/TELEX:232-2076  
 1250 Valley Brook Ave. Lyndhurst, N.J. 07071 U.S.A.  
 333 West Alondra Blvd. Gardena, California 90247 U.S.A.  
 3036 Koapaka St. Honolulu, Hawaii 96819 U.S.A.  
 Unit 10A, Lyon Industrial Estate, Rockware Avenue, Greenford, Middx UB6, OAA, England  
 Arabella center, 6 Frankfurt AM Main, Lyoner Strasse 44-48, West Germany



# 5. SCHEMATIC DIAGRAM



2  
3  
4  
5