

Service Manual

74 SC80/02B/02G

Stereo Control Amplifier

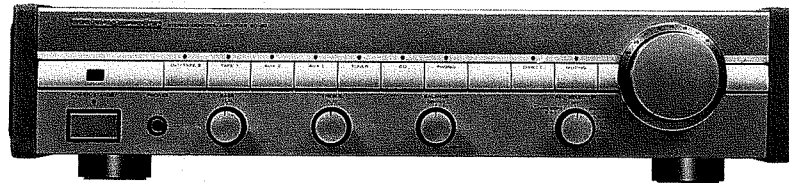


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marantz®

model SC-80

First issue: 1990

4822 725 50922

MARANTZ DESIGN AND SERVICE

Using superior design and selected high grade components, MARANTZ company has created the ultimate in stereo sound.

Only **original MARANTZ parts** can insure that your MARANTZ product will continue to perform to the specifications for which it is famous.

Parts for your MARANTZ equipment are generally available to our National Marantz Subsidiary or Agent.

ORDERING PARTS:

Parts can be ordered either by mail or by telex. In both cases, correct part number has to be specified. The following information must be supplied to eliminate delays in processing your order:

1. Complete address
2. Complete part numbers and quantities required
3. Description of parts
4. Model number for which part is required
5. Way of shipment
6. Signature: any order form or telex must be signed otherwise such part order will be considered as null and void.

PARTS ORDERING

Parts may be ordered at the following addresses:

AUSTRIA
HORNYPHON
Vertriebsgesellschaft GmbH
Wienerbergstrasse 1
A 1101 Wien
Austria
Telex: 132.332

FINLAND
MARANTZ
DIVISION OF OY PHILIPS Ab
Kaivokatu 8
00100 Helsinki
Finland
Telex: 124811

GREAT BRITAIN
MARANTZ AUDIO U.K. Ltd
Unit 15/16
Saxon Way Industrial Estate
Moor Lane
Harmondsworth UB7 OLW
Great Britain
Telex: 935196

SAUDI ARABIA
AL ALAMIAH ELECTRONICS
P.O.Box 5954
University Street
Riyadh 11432
Saudi Arabia
Telex: 401530

SWITZERLAND
MARANTZ
Technischer Service
Duenstrasse 3
3186 Dürdingen
Switzerland

BELGIUM
SVD DIVISION MARANTZ
Industrialaan 1
1720 Groot-Bijgaarden
Belgium
Telex: 24466

FRANCE
MARANTZ FRANCE
4 Rue Bernard Palissy
92600 Asnières
France
Telex: 611651

GREECE
SHERTON ELECTRONICS S.A.
P.O.Box 21025
Hippocrates Street 188
Athens 11471
Greece
Telex: 216.795

SOUTH AFRICA
MARANTZ
DIVISION OF PHILIPS S.A.
Main Road Martindale
P.O. Box: 58088
Newville 21114
South Africa

TURKEY
DOGRUOL Ltd.
I.M.C.
6 Blok N°6310
Unkapani
Istanbul
Turkey
Telex: 22085

CHILE
MARANTZ
DIVISION OF PHILIPS S.A.
AV. Santa Maria, 0760
Casilla 2687
Santiago
Telex: 240.239

GERMANY
MARANTZ GERMANY GmbH
Alexanderstrasse 1
2000 Hamburg
Germany

JAPAN
MARANTZ JAPAN, Inc.
35-1, 7-chome, Sagamiono
Sagamihara-shi, Kanagawa
Japan

SPAIN
PHONO S.A.
Ignacio Iglesias 10
Badalona (Barcelona)
Spain
Telex: 59355

MALTA
CACHIA & GALEA
Republic Street, 68D
Valetta
Telex: 1682

DENMARK
MARANTZ
DIVISION OF PHILIPS
SERVICE A/S
Prags Boulevard 80
Postbox 1919
DK-2300 København S
Denmark
Telex: 31201

THE NETHERLANDS
Elpro Marantz
Wint Hontlaan 28
3526 KV Utrecht
The Netherlands
Telex: 4748

KUWAIT
AL ALAMIAH ELECTRONICS
Ussama Building
Fahd al Saleem Street
P.O.Box 23781
Safat-Kuwait
Telex: 22694

SWEDEN
MARANTZ
DIVISION OF PHILIPS
Försäljning AB
Tegeluddsvägen 1
S-115 84 Stockholm
Sweden
Telex: 14060

PORTUGAL
MARANTZ
Divisao philips S.A. service
Ourela-carnaxide
2795 LinDA-A-VELHA
Telex: 43906

NORWAY
MARANTZ
DIVISION OF PHILIPS A/S
Sandstuveien 40
0680 Oslo 6
Norway
Telex: 72640

ITALY
MARANTZ ITALIANA S.P.A.
Via Chiese, 74
20126 Milano
Italy

TECHNICAL SPECIFICATIONS (DIN)

Frequency Response
PHONO (20 Hz-20 kHz) ±0.2 dB
High Level (20 Hz-20 kHz) ±0.2 dB

THD
1V output (20 Hz-20 kHz) 0.015%

S/N Ratio (ref. 0.5V output A-weighted)
PHONO (MC) (500 µV input) 75 dB
PHONO (MM) (5 mV input) 90 dB
High Level (0.5 V input) 95 dB

S/N Ratio Vol. max. (ref. 1V output A-weighted)
PHONO (MC) (0.22 mV input) 69 dB
PHONO (MM) (2.5 mV input) 88 dB
High Level (150 mV input) 115 dB

Input Sensitivity/Impedance
PHONO (MC Low) 0.22 mV/130 ohms
PHONO (MC High) 0.17 mV/1k ohms
PHONO (MM) 2.5 mV/47k ohms
High Level 150 mV/20k ohms

Phono Overload (1% THD, 1 kHz)
MC Low 12 mV
MM 160 mV

Output Level (ref./ max) 1 V/3 V
Muting Attenuation ∞

Power Consumption 15 W

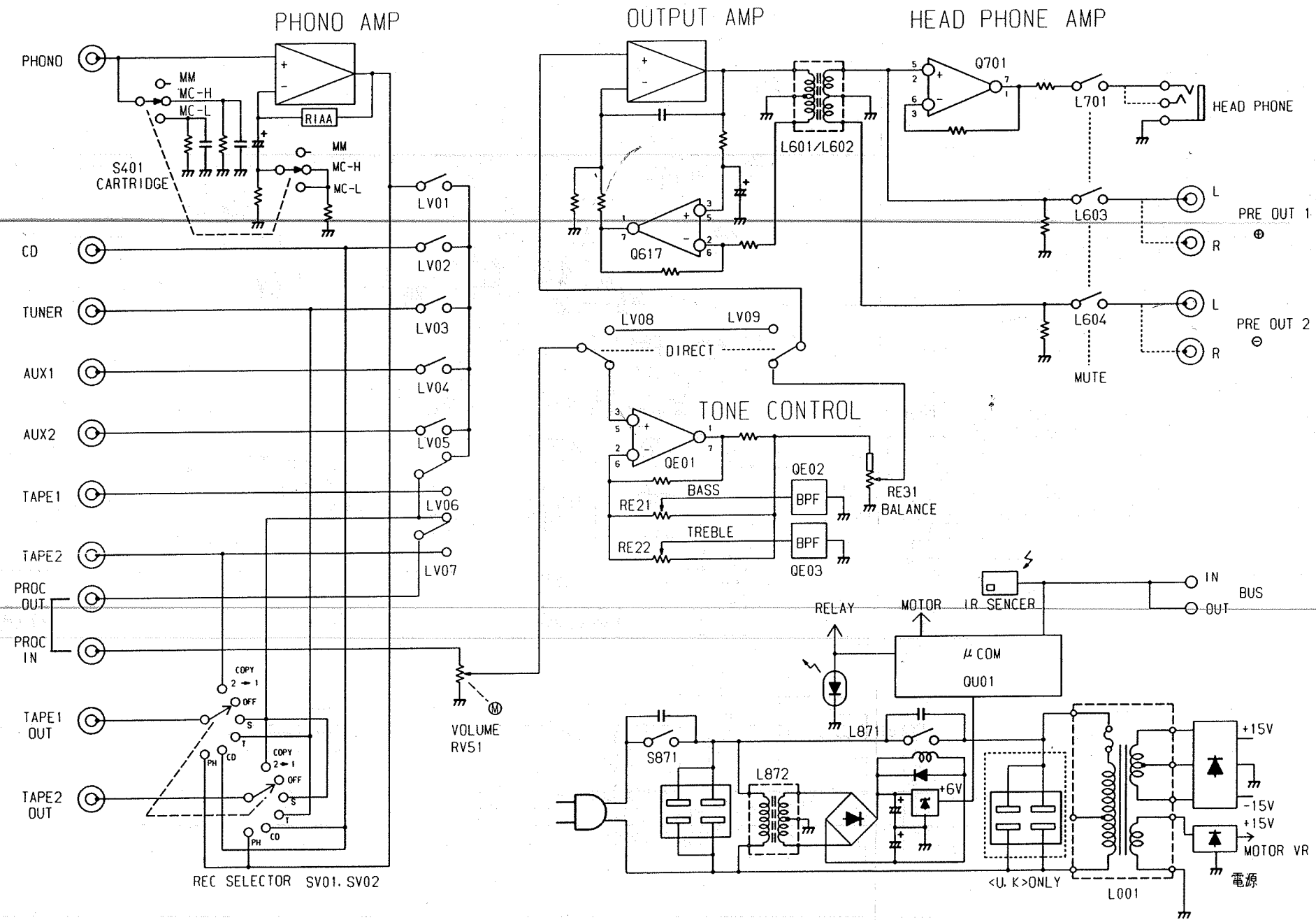
Dimensions
Panel Width 420 mm
Panel Height 86 mm
Depth 334 mm
Weight
Unit alone 5.6 kg

Specifications subject to change without prior notice.

All of the above locations are fully equipped to take care of your total service needs. Because various countries have differing configuration requirements, it is necessary that you contact the service facility in your particular country. In the event that there is no service location listed for your country, please, contact the nearest facility for the necessary assistance.

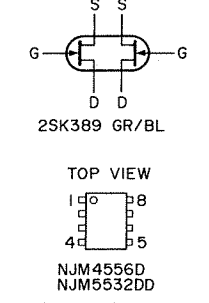
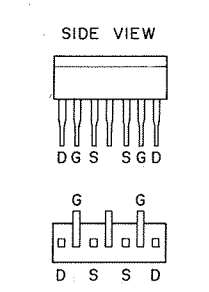
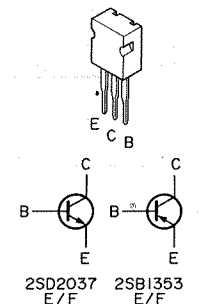
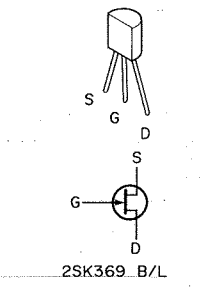
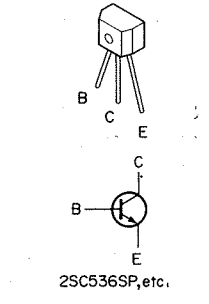
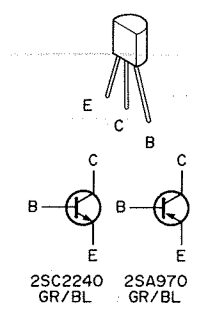
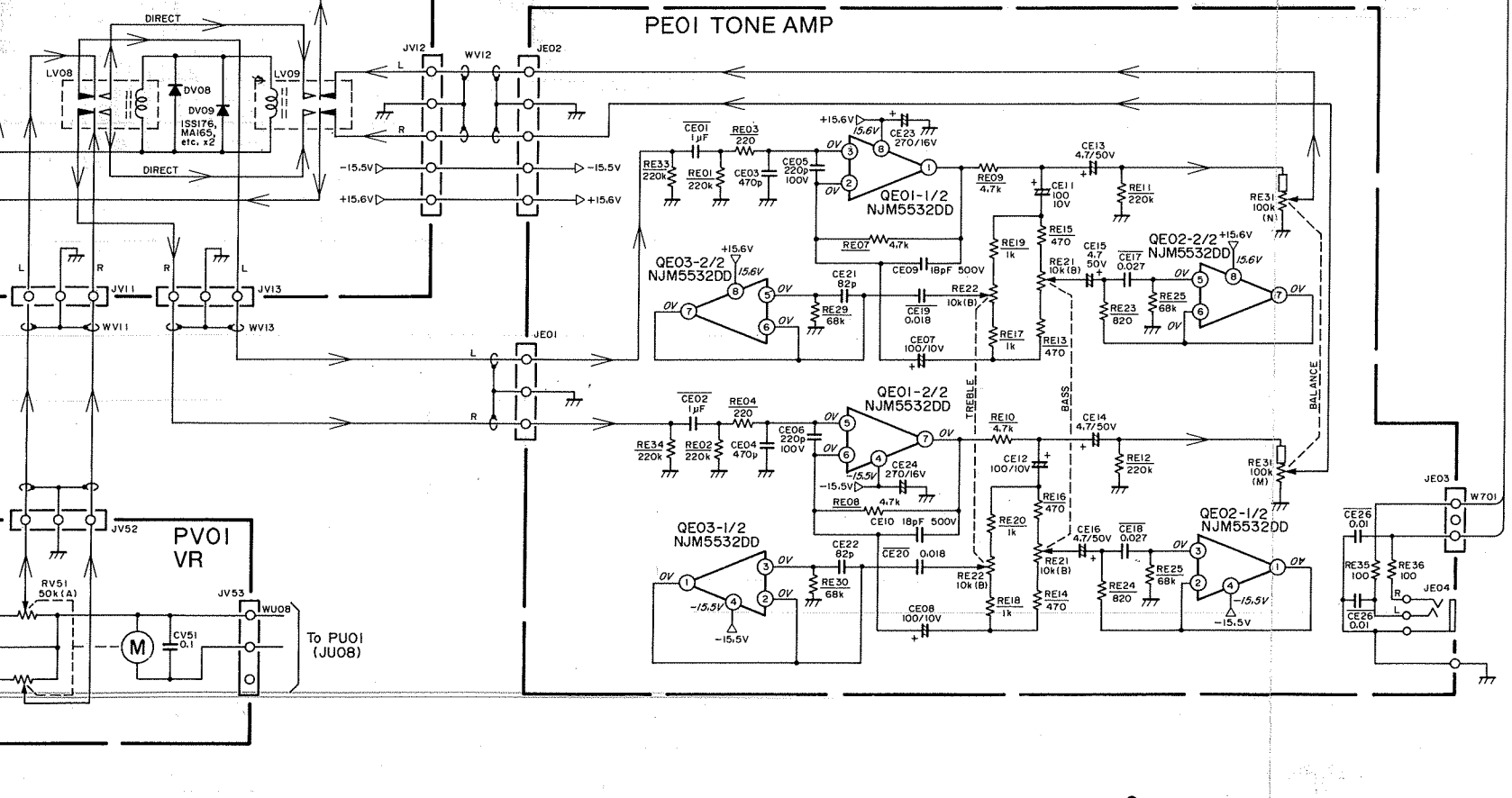
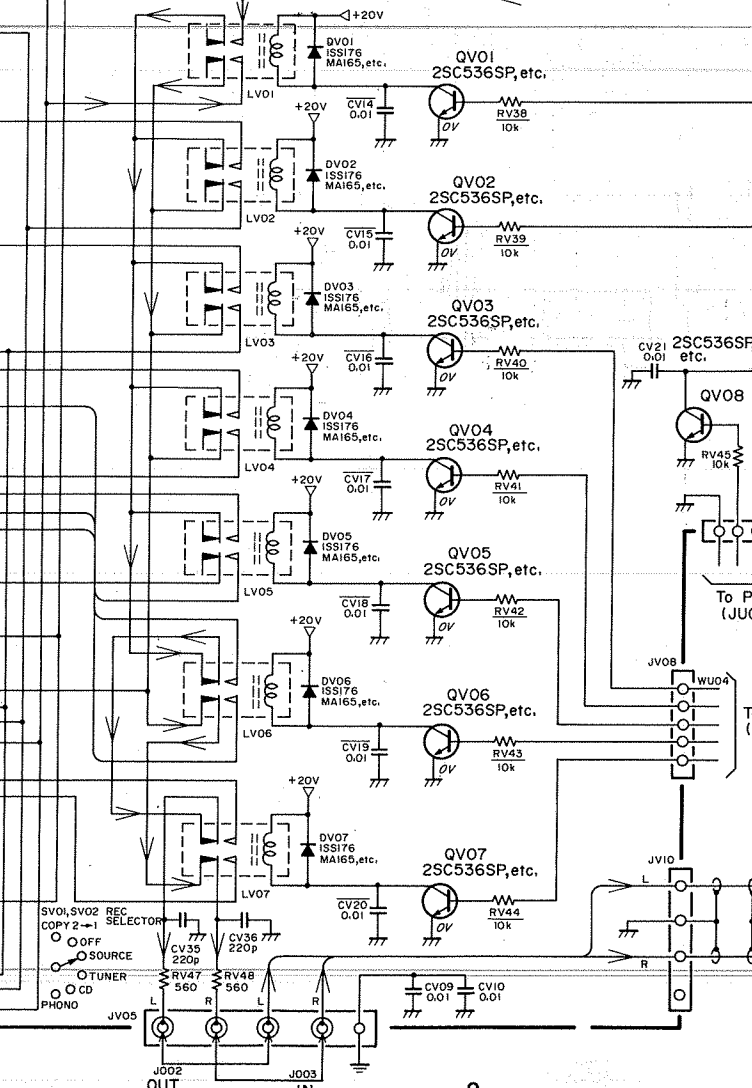
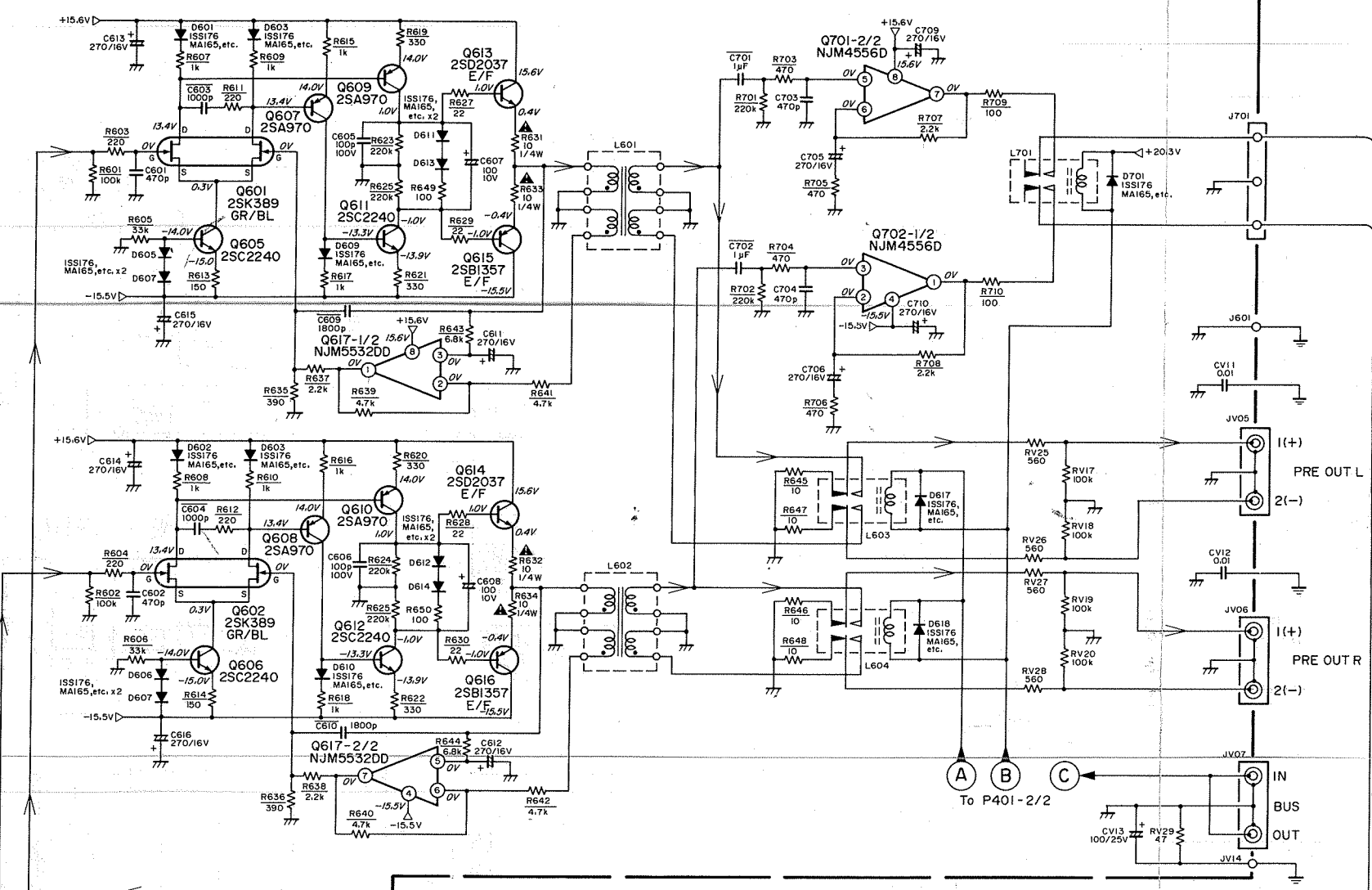
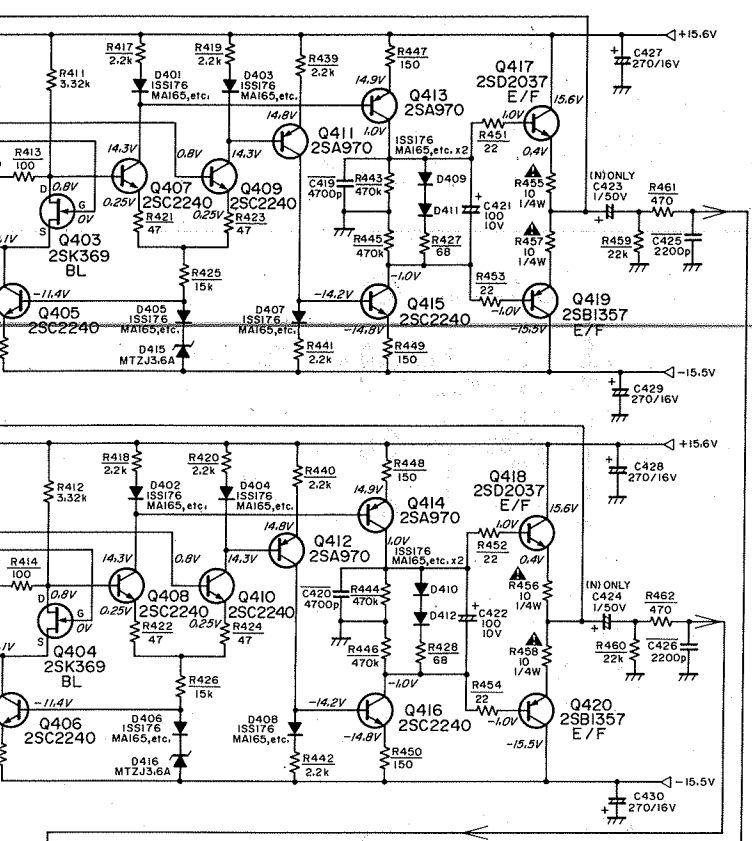
In case of difficulties, do not hesitate to contact the Technical Department at abovementioned address.

1. BLOCK DIAGRAM



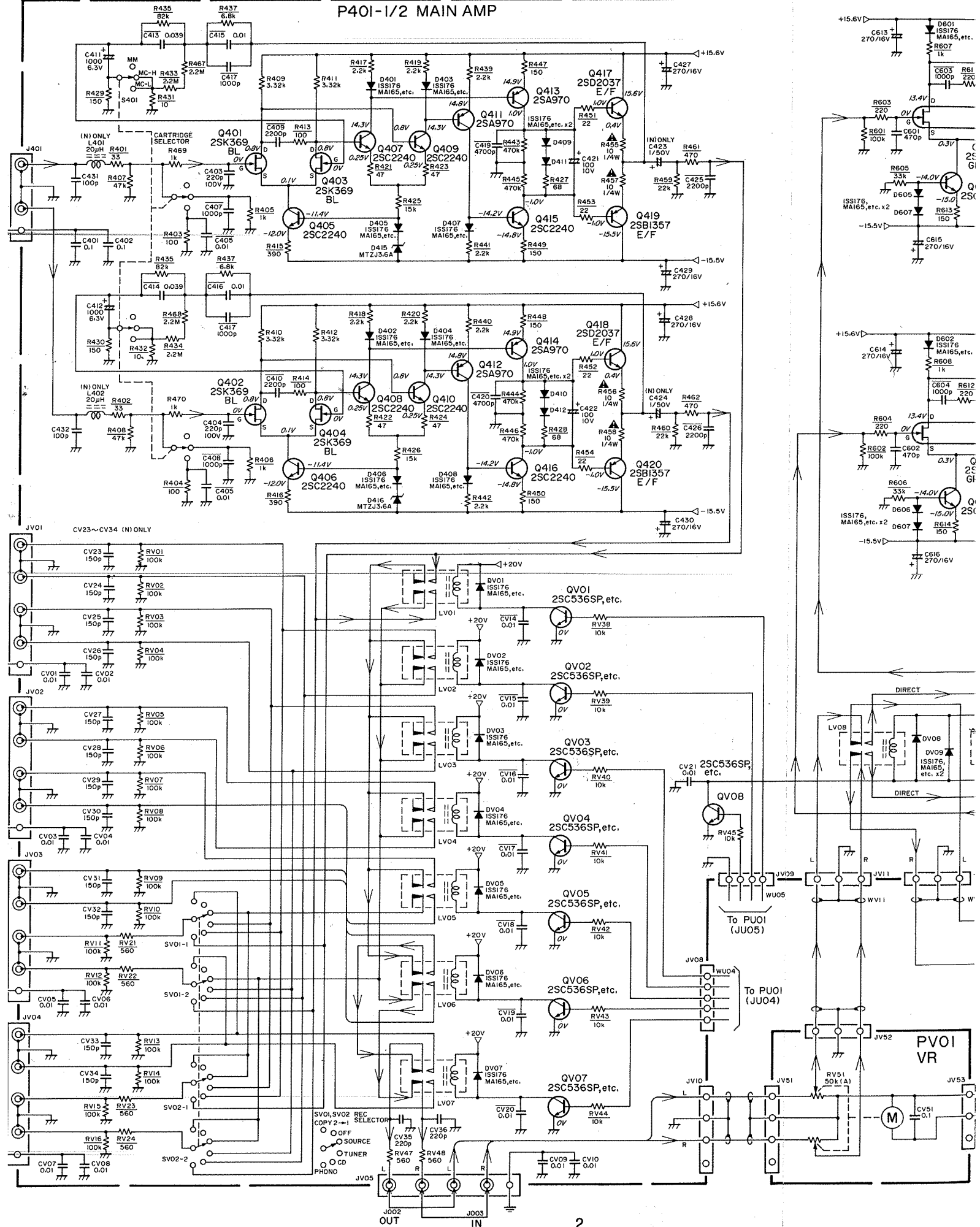
ND PARTS LOCATION (Pattern Side)

P401-1/2 MAIN AMP



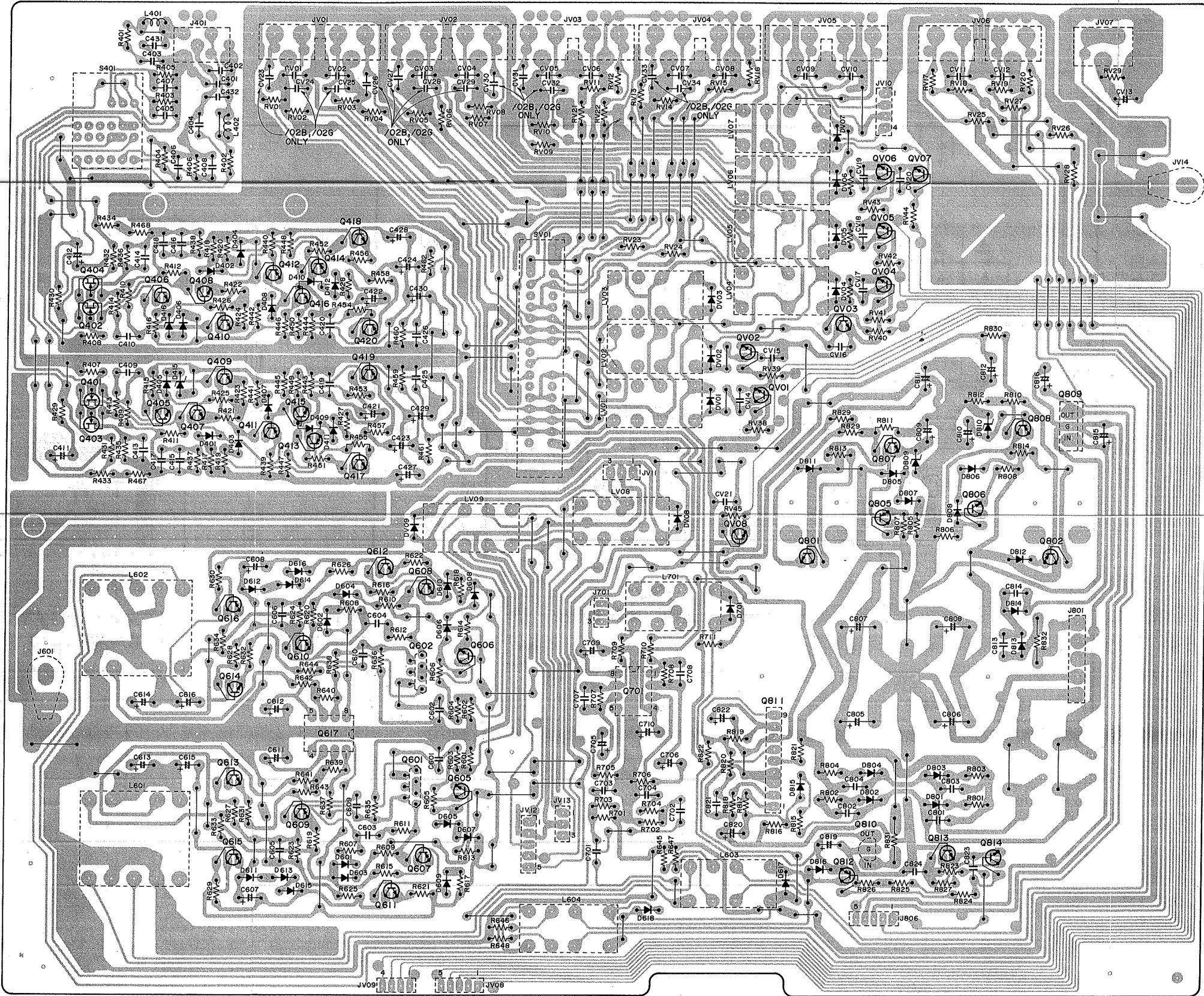
2. SCHEMATIC DIAGRAM AND PARTS LOCATION (Pattern Side)

P401-1/2 MAIN AMP

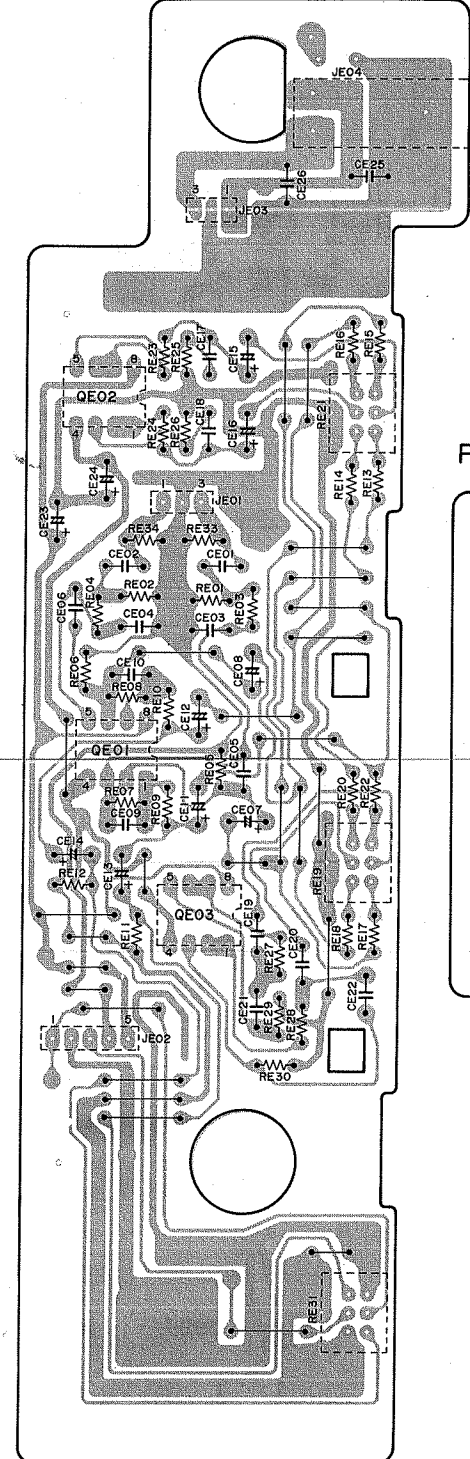


Q401~Q404 Q405~Q410 Q411~Q420 Q608 Q602 Q606 QV02 QV01 QV03 Q805 Q807 QV04~QV07 Q808 Q809
 Q613~Q616 Q610 Q609 Q617 Q612 Q611 Q601 Q607 Q605 QV08 Q811 Q801 Q810 Q812~Q814 Q806 Q802

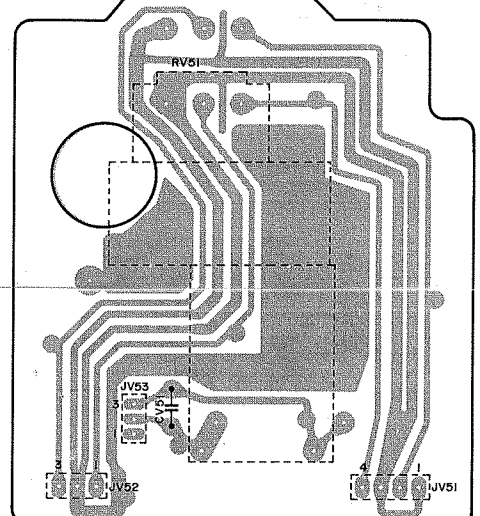
P401

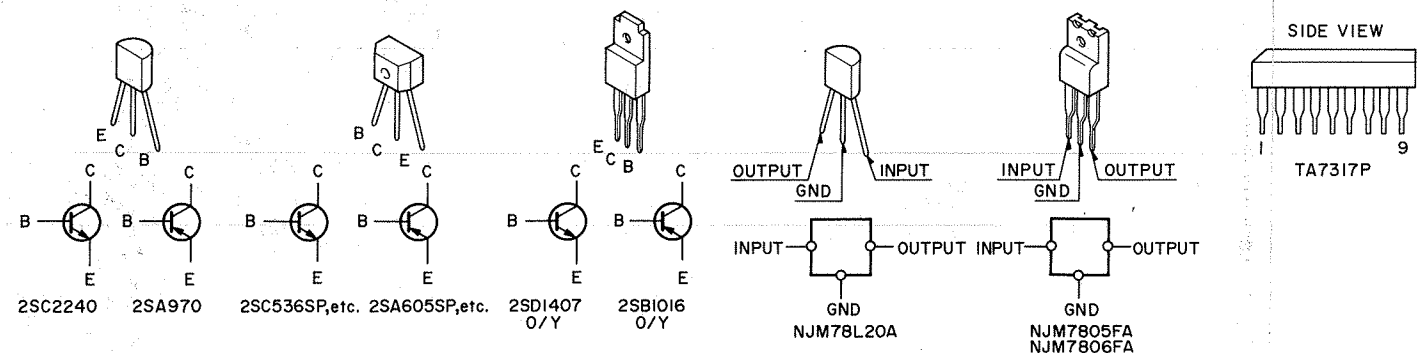
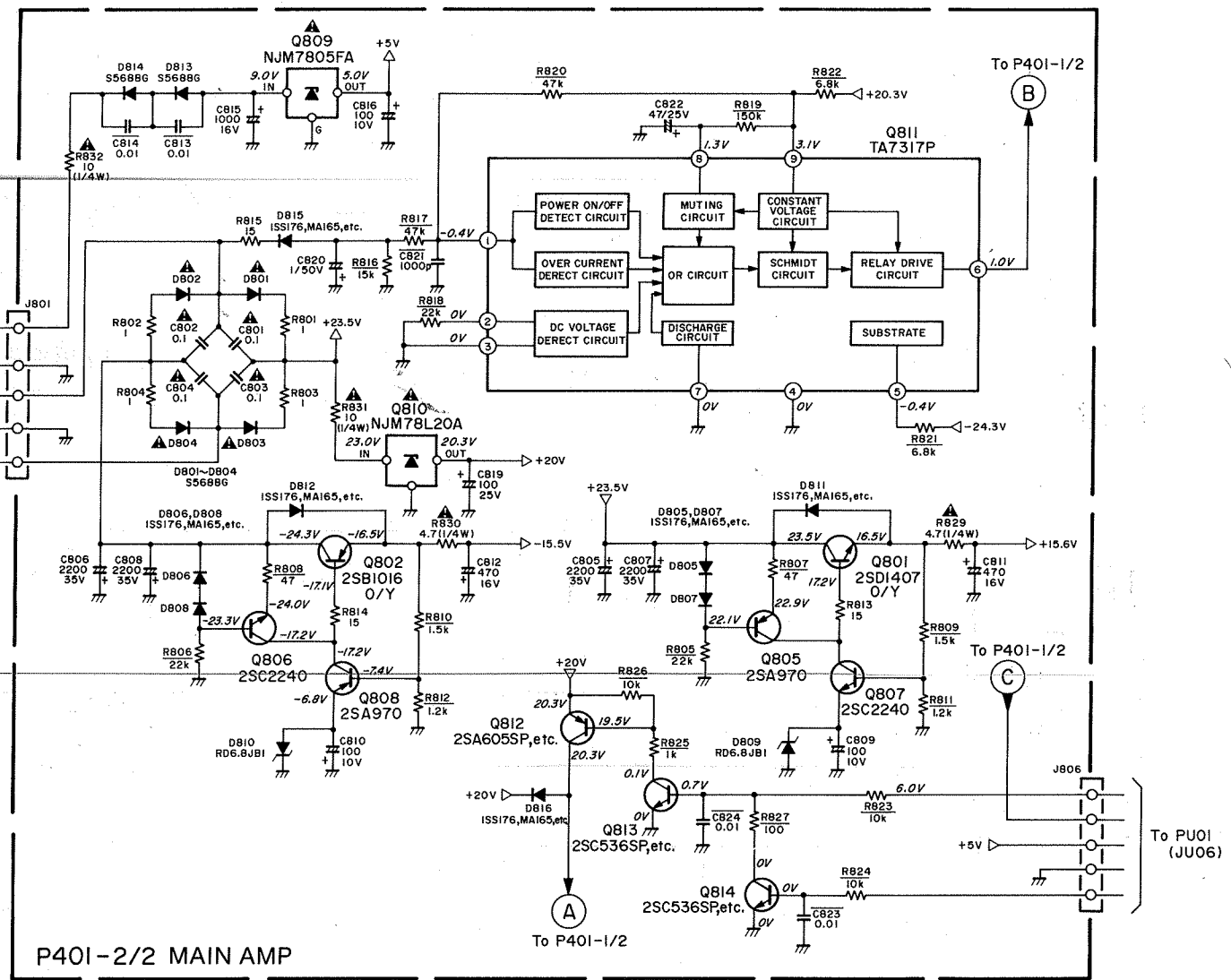
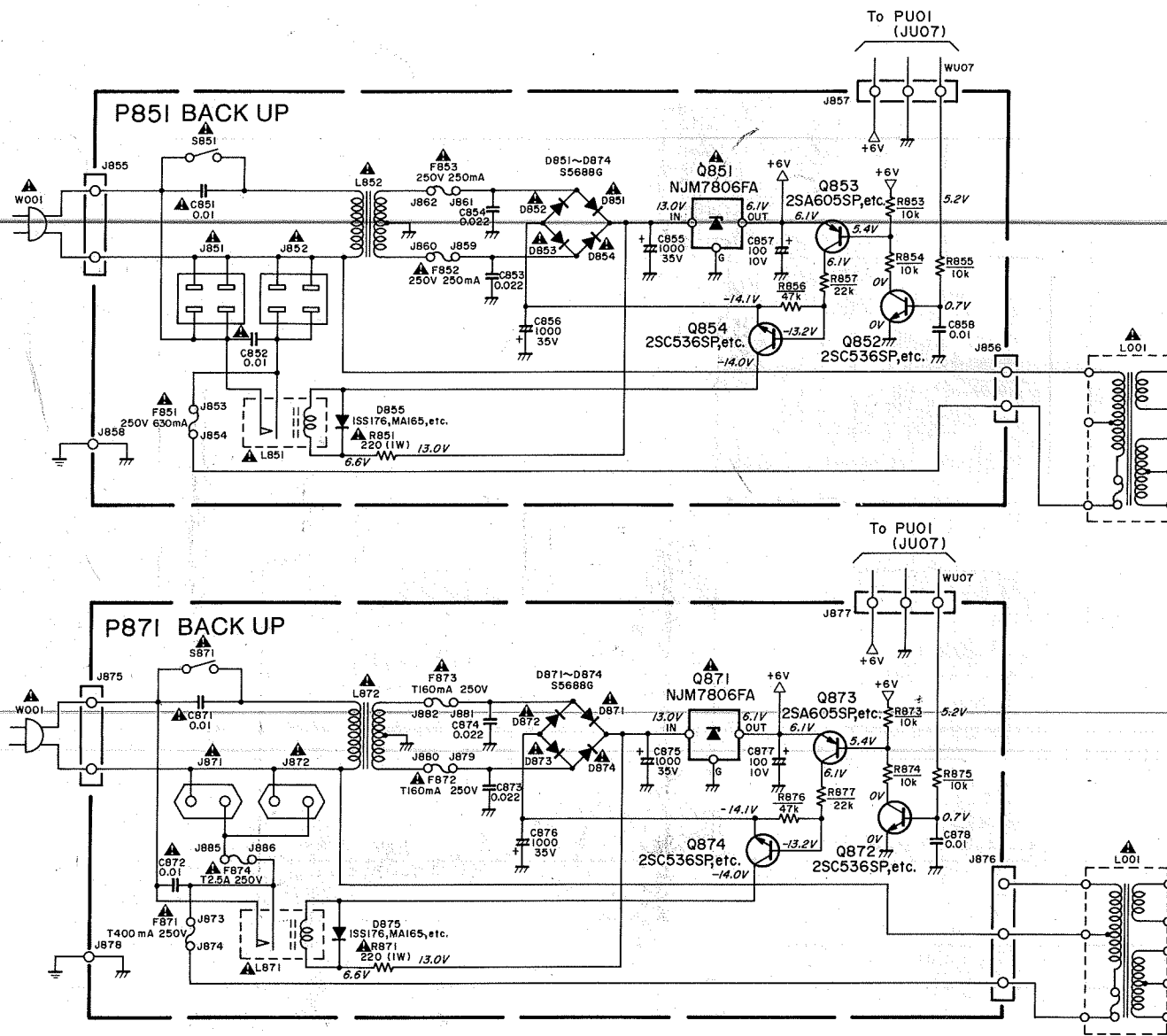


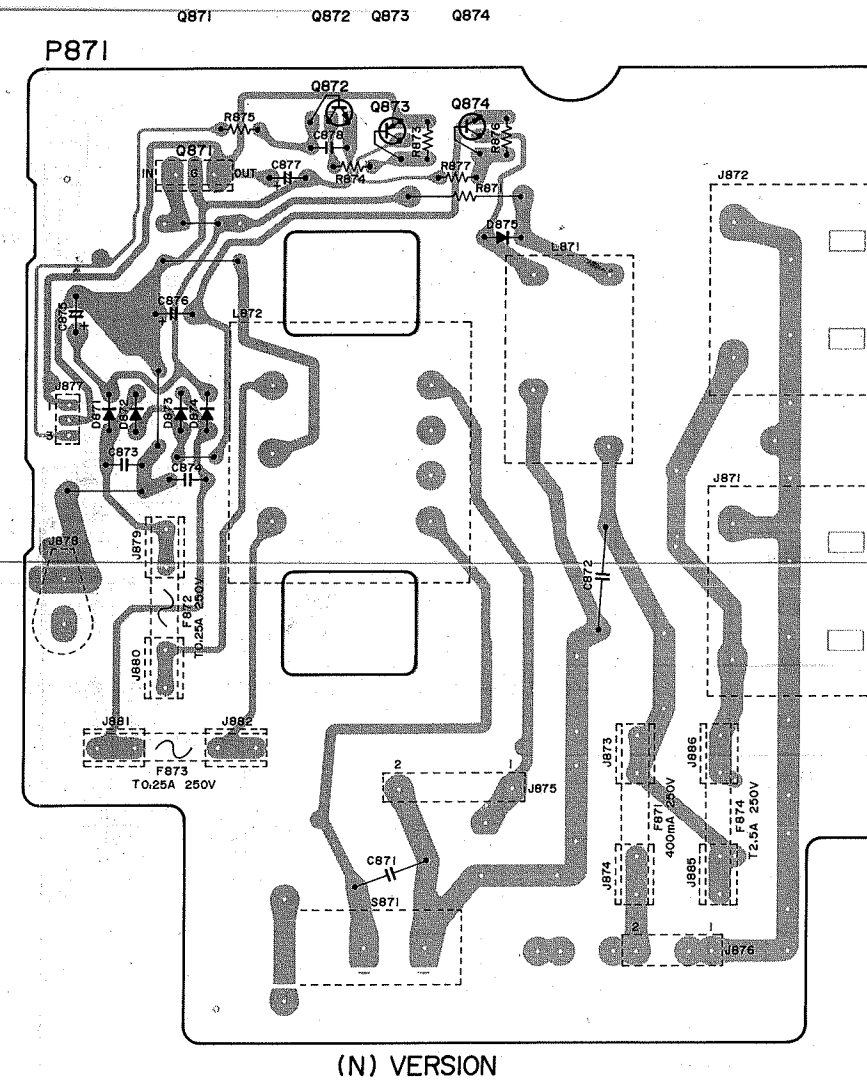
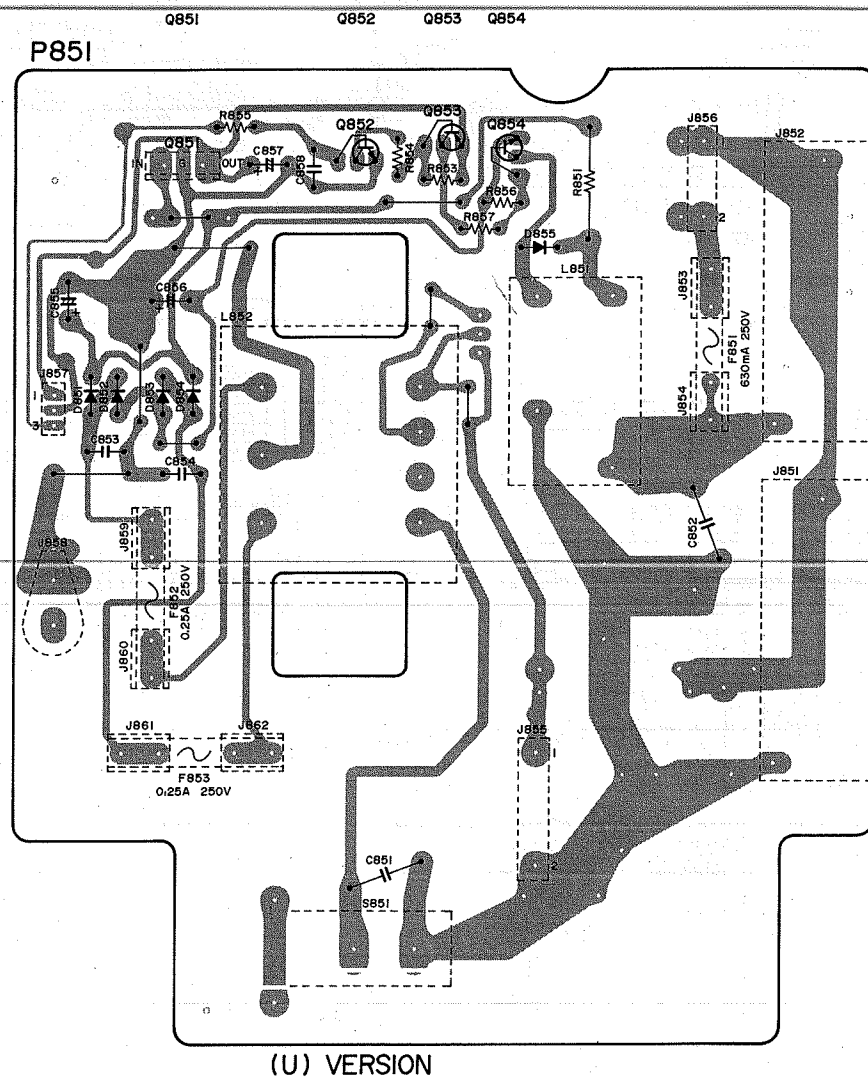
QE02 QE01 QE03
 PE01

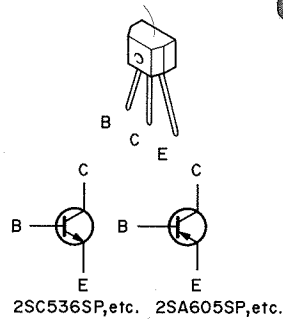
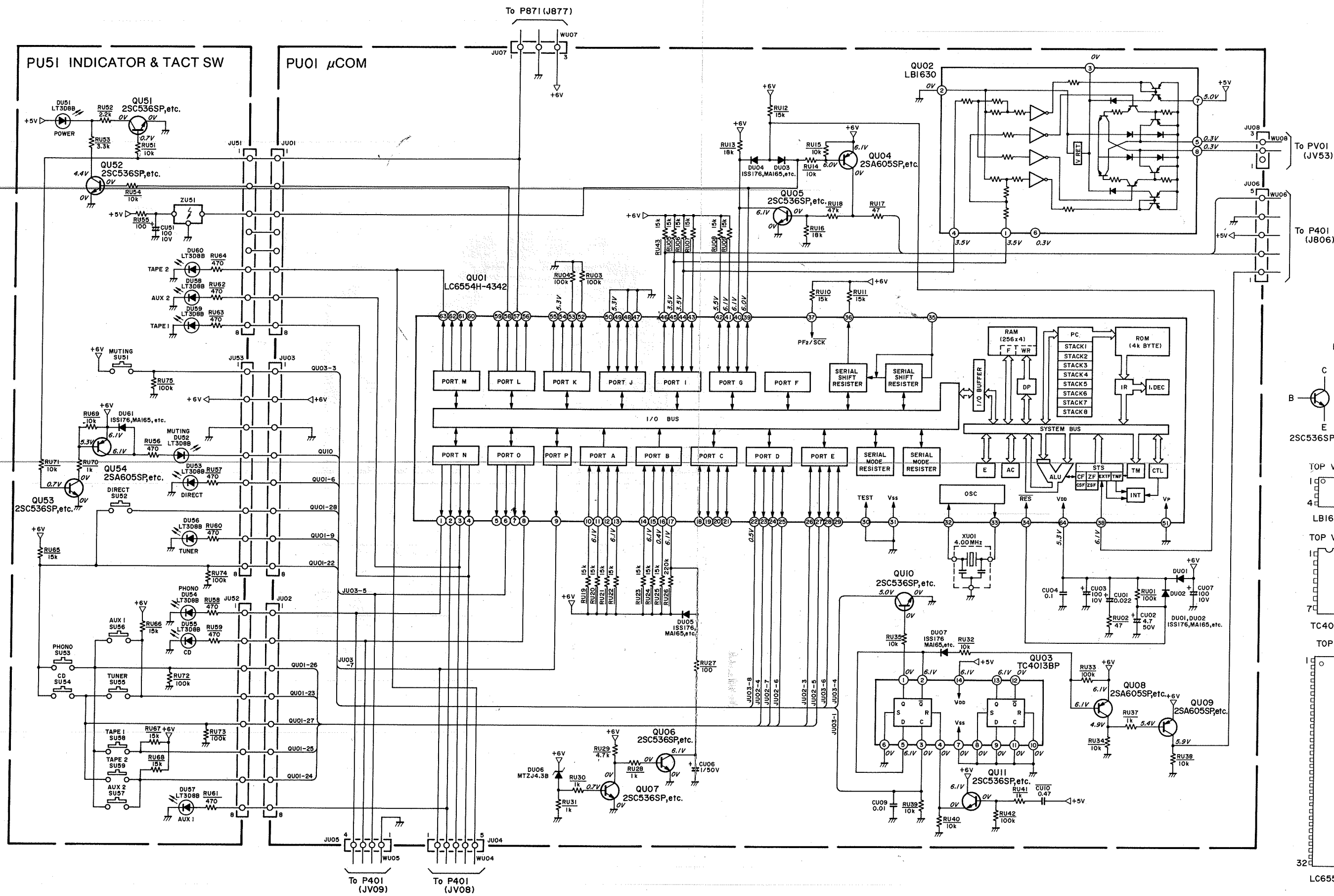


PV01

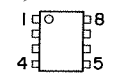






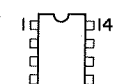


TOP VIEW



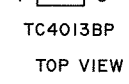
LBI630

TOP VIEW

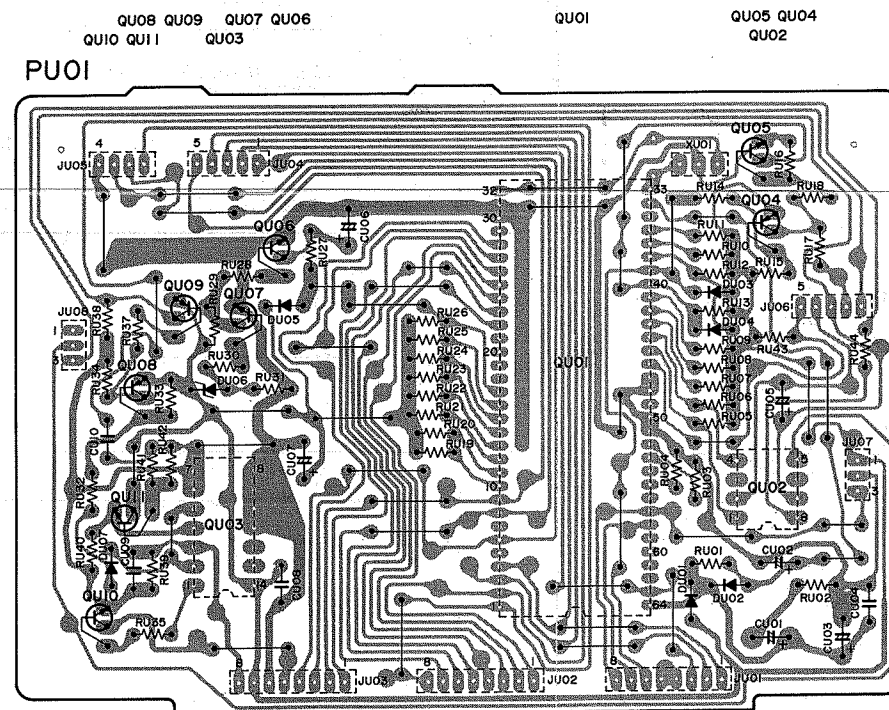
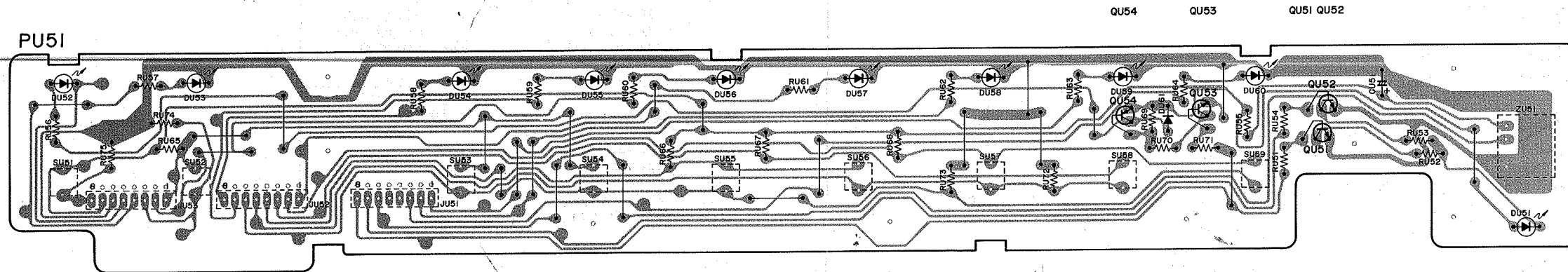


TC4013BP

TOP VIEW

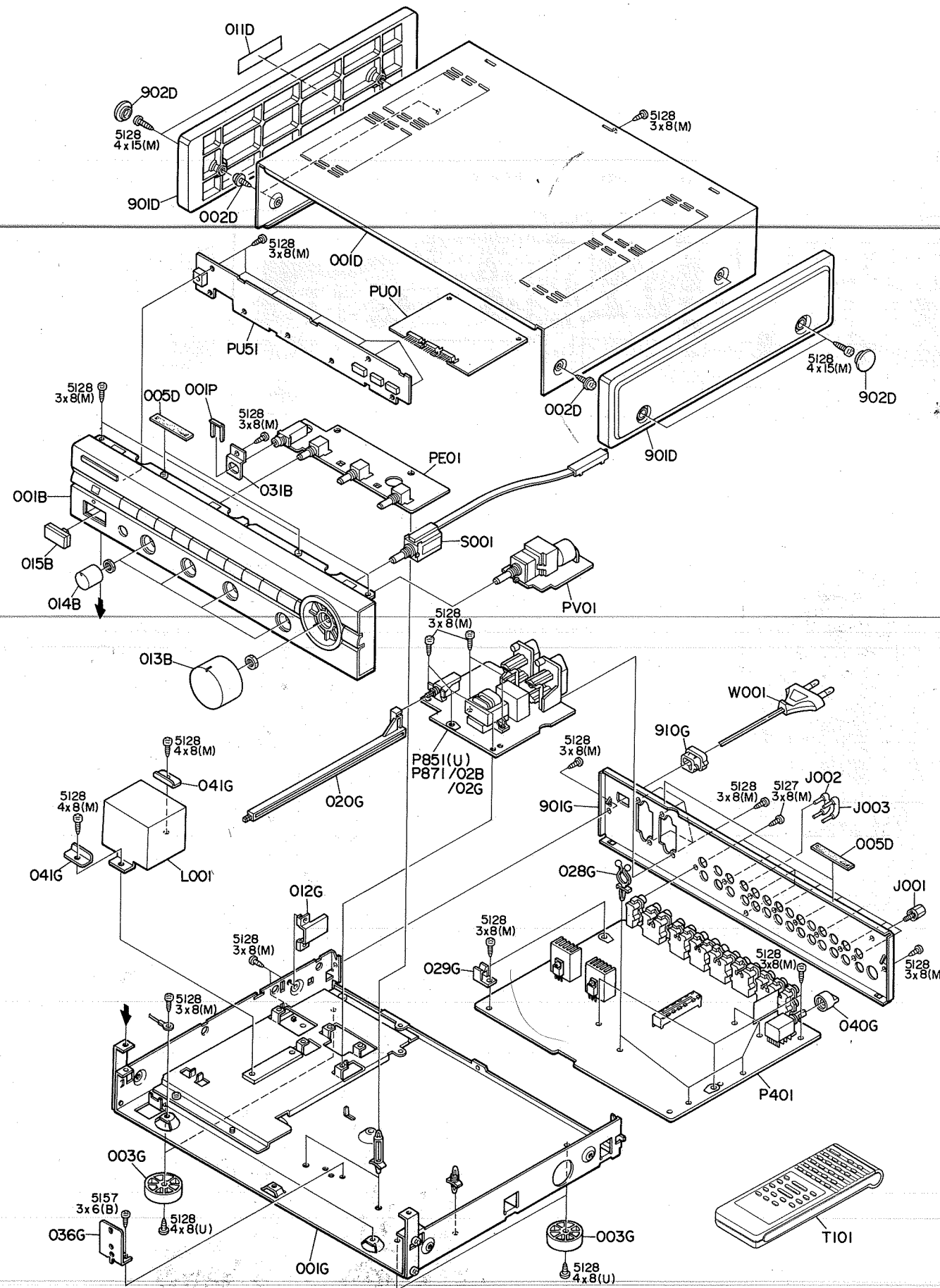


LC6554H-4342



etc.

3. EXPLODED VIEW AND PARTS LIST



REF. DESIG.	PART NO.	DESCRIPTION
001B	4822 447 50128 4822 447 50133 4822 447 50134	Front Panel Assembly (BLK) /02B Front Panel Assembly (GLD) /02G Front Panel Assembly (BLK) [U]
013B	4822 413 41542 4822 413 41544	Knob, Volume (GLD) /02G Knob, Volume (BLK) [U], /02B
014B	4822 411 10051 4822 413 31551	Knob, Tone (GLD) /02G Knob, Tone (BLK) [U], /02B
015B	4822 410 60194 4822 410 60358	Button, Power (BLK) [U], /02B Button, Power (GLD) /02G
002D	4822 501 11008	B.T. Screw (W/W) B4 x 8 [U], /02B
901D		Side Panel (GLD) /02G
902D	4822 444 60607	Cap, Side (GLD) /02G
003G	4822 462 41402 4822 462 41477	Leg, Silver [U] Leg, Gold /02B/02G
020G	4822 402 50237	Link, Power, Switch
040G	4822 413 31647	Knob, Cartridge Selector
910G	4822 532 60948	Bushing, AC Cord
J002	4822 264 10111	Shote Plug
J003	4822 264 10111	Shote Plug
▲ L001	4822 146 21584 4822 146 21587	Power Transformer /02B/02G Power Transformer [U]
S001	4822 273 10218	Rotary Switch, Band Selector
T101	4822 218 10376 4822 218 10377	Unit K, Remocon /02B/02G Unit K, Remocon [U]
001T	4822 736 20992 4822 736 20995	User Manual /02B/92G User Manual [U]

4. ELECTRICAL PARTS LIST

ASSIGNMENT OF COMMON PARTS CODES.

RESISTOR

- R***:** (1) GD05 --- 140, Carbon film fixed resistor, $\pm 5\%$, 1/4W
R*:** (2) GD05 --- 160, Carbon film fixed resistor, $\pm 5\%$, 1/6W

① — Resistance value

Examples

① Resistance value

0.1 Ω ...001	10 Ω ...100	1k Ω ...102	100k Ω ...104
0.5 Ω ...005	18 Ω ...180	2.7k Ω ...272	680k Ω ...684
1 Ω ...010	100 Ω ...101	10k Ω ...103	1M Ω ...105
6.8 Ω ...068	390 Ω ...391	22k Ω ...223	4.7M Ω ...475

(Note) Please distinguish 1/4W from 1/6W by the shape of parts used actually.

C***: CERAMIC CAP.

- (1) DD1 --- 370, Ceramic condenser
 Disc type
 Temp. coeff. P350 ~ N1000, 50V
- ① ②
- Capacity value
 Tolerance

Examples

- ① Tolerance (Capacity deviation)
- $\pm 0.25\text{pF} \dots 0$
 - $\pm 0.5\text{pF} \dots 1$
 - $\pm 5\% \dots 5$

* Tolerance of COMMON PARTS handled here are as follows:

- 0.5pF ~ 5pF ... $\pm 0.25\text{pF}$
 - 6pF ~ 10pF ... $\pm 0.5\text{pF}$
 - 12pF ~ 560pF ... $\pm 5\%$
- ② Capacity value
- | | | |
|-------------|------------|-------------|
| 0.5pF...005 | 3pF...030 | 100pF...101 |
| 1pF...010 | 10pF...100 | 220pF...221 |
| 1.5pF...015 | 47pF...470 | 560pF...561 |

C***: CERAMIC CAP.

- (1) DK16 --- 300, High dielectric constant ceramic condenser
 Disc type
 Temp. chara. 2B4, 50V
- ①
- Capacity value

Example

- ② Capacity value
- | | | |
|-------------|--------------|---------------|
| 100pF...101 | 1000pF...102 | 10000pF...103 |
| 470pF...471 | 2200pF...222 | |

C***: ELECTROLY CAP. (---), FILM CAP. (---)

- (1) EA --- 10, Electrolytic condenser
 One-way lead type, Tolerance $\pm 20\%$
- ① ②
- Dielectric strength
 Capacity value

Examples

- ① Capacity value
- | | | |
|---------------------------|--------------------------|---------------------------|
| 0.1 μF ...104 | 4.7 μF ...475 | 100 μF ...107 |
| 0.33 μF ...334 | 10 μF ...106 | 330 μF ...337 |
| 1 μF ...105 | 22 μF ...226 | 1100 μF ...108 |
| | | 2200 μF ...228 |

- ② Working voltage
- | | |
|------------|-----------|
| 6.3V...006 | 25V...025 |
| 10V...010 | 35V...035 |
| 16V...016 | 50V...050 |

- (2) DF15 --- 350, Plastic film condenser
 One-way type, Mylar $\pm 5\%$ 50V
- ①
- Capacity value

Examples

- ① Capacity value
- | | |
|--------------------------------------|----------------------------|
| 0.001 μF (1000pF) ... 102 | 0.1 μF ... 104 |
| 0.0018 μF ... 182 | 0.56 μF ... 564 |
| 0.01 μF ... 103 | 1 μF ... 105 |
| 0.015 μF ... 153 | |

REF. DESIG.	PART NO.	DESCRIPTION
		PE01-TONE AMP CIRCUIT BOARD
		PE01-CAPACITORS
CE03	4822 121 42327	Film 470pF $\pm 5\%$
CE04	4822 121 42327	Film 470pF $\pm 5\%$
CE05	4822 121 42344	Film 220pF $\pm 5\%$
CE06	4822 121 42344	Film 220pF $\pm 5\%$
CE07	4822 124 23516	Elect 100 μF 10V
CE08	4822 124 23516	Elect 100 μF 10V
CE09	4822 121 43811	Mica 18pF $\pm 5\%$
CE10	4822 121 43811	Mica 18pF $\pm 5\%$
CE11	4822 124 23516	Elect 100 μF 10V
CE12	4822 124 23516	Elect 100 μF 10V
CE13		
CE16	4822 124 23521	Elect 4.7 μF 35V
CE21		Ceramic 82pF $\pm 5\%$
CE22		Ceramic 82pF $\pm 5\%$
CE23	4822 124 23519	Elect 270 μF 16V
CE24	4822 124 23519	Elect 270 μF 16V
		PE01-RESISTORS
RE21	4822 101 30735	10K Ω (B)x2, Variable
RE22	4822 101 30735	10K Ω (B)x2, Variable
RE31	4822 100 30138	100K Ω (MN)x2, Variable
		PE01-SEMICONDUCTORS
QE01	4822 209 63174	IC NJM5532DD
QE02	4822 209 83631	IC NMJ4558DD
QE03	4822 209 83631	IC NJM4558DD
		PE01-MISCELLANEOUS
JE04	4822 267 31274	Jack, Phones
		PU01-μ COM CIRCUIT BOARD
		PU01-CAPACITORS
CU01	4822 124 23295	Big Elect 0.022 μF 5V
CU02	4822 124 22274	Elect 4.7 μF 50V
CU03	4822 124 90353	Elect 100 μF 10V
CU04	4822 122 40617	Ceramic 0.1 μF +80% -20%
CU05	4822 124 90353	Elect 100 μF 10V
CU06	4822 124 41543	Elect 1 μF 50V
CU07	4822 124 90353	Elect 100 μF 10V
CU08	4822 122 32486	Ceramic 0.01 μF +80% -20%
CU09	4822 122 32486	Ceramic 0.01 μF +80% -20%
		PU01-SEMICONDUCTORS
DU01		Diode 1SS176, etc.
DU05	4822 130 33305	Zener MTZJ4.3B
DU06	4822 130 31554	Diode 1SS176, etc.
DU07	4822 130 33305	Diode 1SS176, etc.
QU01	4822 209 62424	Microprocessor LC6554H-4342
QU02	4822 209 73287	IC LB1630
QU03	4822 209 80618	IC TC4013BP
QU04	4822 130 42715	Transistor 2SA608SP, etc.
QU05	4822 130 42298	Transistor 2SC536SP, etc.
QU06	4822 130 42298	Transistor 2SC536SP, etc.
QU07	4822 130 42298	Transistor 2SC536SP, etc.
QU08	4822 130 42715	Transistor 2SA608SP, etc.
QU09	4822 130 42715	Transistor 2SA608SP, etc.
QU10	4822 130 42298	Transistor 2SC536SP, etc.
QU11	4822 130 42298	Transistor 2SC536SP, etc.
		PU01-MISCELLANEOUS
XU01	4822 242 72223	Ceramic Vibrator 4.00MHz

REF. DESIG.	PART NO.	DESCRIPTION
CU51	4822 124 90353	Elect Cap. 100μF 10V
DU51	4822 130 80326	L.E.D. LT3D8B
DU60	4822 130 33305	Diode 1SS176, etc.
QU51	4822 130 42298	Transistor 2SC536SP, etc.
QU52	4822 130 42298	Transistor 2SC536SP, etc.
QU53	4822 130 42298	Transistor 2SC536SP, etc.
QU54	4822 130 42715	Transistor 2SA608SP, etc.
SU51	4822 276 12455	Push Switch Tact
SU59		
ZU51		Photo Unit, IR Sensor
CV51	4822 122 40617	Ceramic Cap. 0.1μF +80% -20%
RV51	4822 101 30736	Variable Resistor 50KΩ(A), Motor
CV01	4822 122 32486	Ceramic 0.01μF +80% -20%
CV12	4822 124 41535	Elect 100μF 25V
CV13	4822 124 41535	Elect 100μF 25V
CV23	4822 122 31626	Ceramic 100pF ±5% /02B/02G
CV34	4822 122 31626	Ceramic 100pF ±5% /02B/02G
C401	4822 122 40617	Ceramic 0.1μF +80% -20%
C402	4822 122 40617	Ceramic 0.1μF +80% -20%
C403	4822 121 42344	Film 220pF ±5%
C404	4822 121 42344	Film 220pF ±5%
C411	4822 124 23517	Elect 1000μF 6.3V
C412	4822 124 23517	Elect 1000μF 6.3V
C421	4822 124 23516	Elect 100μF 10V
C422	4822 124 23516	Elect 100μF 10V
C423	4822 124 41543	Elect 1μF 50V /02B/02G
C423	4822 124 23521	Elect 4.7μF 35V [U]
C424	4822 124 41543	Elect 1μF 50V /02B/02G
C424	4822 124 23521	Elect 4.7μF 35V [U]
C427	4822 124 23519	Elect 270μF 16V
C430	5322 122 31626	Ceramic 100pF ±5% /02B/02G
C431	5322 122 31626	Ceramic 100pF ±5% /02B/02G
C432	5322 122 31626	Ceramic 100pF ±5% /02B/02G
C601	4822 121 42327	Film 470pF ±5%
C602	4822 121 42327	Film 470pF ±5%
C605	4822 121 42712	Film 100pF ±5%
C606	4822 121 42712	Film 100pF ±5%
C607	4822 124 23516	Elect 100μF 10V
C608	4822 124 23516	Elect 100μF 10V
C611	4822 124 23519	Elect 270μF 16V
C616		

REF. DESIG.	PART NO.	DESCRIPTION
C703	4822 121 42327	Film 470pF ±5%
C704	4822 121 42327	Film 470pF ±5%
C705	4822 124 23519	Elect 270μF 16V
C706	4822 124 23519	Elect 270μF 16V
C707		Mica 18pF ±5%
C708		Mica 18pF ±5%
C709	4822 124 23519	Elect 270μF 16V
C710	4822 121 23519	Elect 270μF 16V
▲ C801	4822 122 40617	Ceramic 0.1μF +80% -20%
▲ C804		
C805	4822 124 23518	Elect 2200μF 35V
C808		
C809	4822 124 23516	Elect 100μF 10V
C810	4822 124 23516	Elect 100μF 10V
C811	4822 124 23522	Elect 470μF 16V
C812	4822 124 23522	Elect 470μF 16V
C815	4822 124 22722	Elect 1000μF 16V
C816	4822 124 23516	Elect 100μF 10V
C819	4822 124 41535	Elect 100μF 25V
C820	4822 124 41543	Elect 1μF 50V
C822	4822 124 22698	Elect 47μF 25V
R409		3.32KΩ ±10% 1/6W
R412		
▲ R455		15Ω ±5% 1/6W
▲ R458		
▲ R631		15Ω ±5% 1/6W
▲ R634		
R801		1Ω ±5% 1/6W
R804		
R813		15Ω ±5% 1/6W
R814		15Ω ±5% 1/6W
R815		4.7Ω ±5% 1/6W
▲ R829	4822 111 90967	4.7Ω ±5% 1/4W, Fuse
▲ R830	4822 111 90967	4.7Ω ±5% 1/4W, Fuse
▲ R831	4822 115 90166	10Ω ±2% 1/4W, Fuse
▲ R832	4822 115 90166	10Ω ±2% 1/4W, Fuse
DV01	4822 130 33305	Diode 1SS176, etc.
DV09		
D401	4822 130 33305	Diode 1SS176, etc.
D414		
D601	4822 130 33305	Diode 1SS176, etc.
D618	4822 130 33305	Diode 1SS176, etc.
D701	4822 130 33305	Diode 1SS176, etc.
▲ D801	4822 130 80839	Diode S5688G
▲ D804		
D805	4822 130 33305	Diode 1SS176, etc.
D808	4822 130 82363	Zener RD6.8JB1
D809	4822 130 82363	Zener RD6.8JB1
D810	4822 130 33305	Diode 1SS176, etc.
D811	4822 130 33305	Diode 1SS176, etc.
D812	4822 130 33305	Diode 1SS176, etc.

REF. DESIG.	PART NO.	DESCRIPTION
D813	4822 130 80839	Diode S5688G
D814	4822 130 80839	Diode S5688G
D815	4822 130 33305	Diode 1SS176, etc.
D816	4822 130 33305	Diode 1SS176, etc.
QV01	4822 130 42298	Transistor 2SC536SP, etc.
QV08		
Q401	4822 130 42839	F.E.T. 2SK369BL
Q404		
Q405	4822 130 43233	Transistor 2SC2240(GR, BL)
Q410		
Q411	4822 130 42951	Transistor 2SA970(GR, BL)
Q414		
Q415	4822 130 43233	Transistor 2SC2240(GR, BL)
Q416	4822 130 43233	Transistor 2SC2240(GR, BL)
Q417	4822 130 61179	Transistor 2SD2037(E, F)
Q418	4822 130 61179	Transistor 2SD2037(E, F)
Q419	4822 130 61176	Transistor 2SB1357(E, F)
Q420	4822 130 61176	Transistor 2SB1357(E, F)
Q601	4822 130 42843	F.E.T. 2SK389(GR, BL)
Q602	4822 130 42843	F.E.T. 2SK389(GR, BL)
Q605	4822 130 43233	Transistor 2SC2240(GR, BL)
Q606	4822 130 43233	Transistor 2SC2240(GR, BL)
Q607	4822 130 42951	Transistor 2SA970(GR, BL)
Q608	4822 130 42951	Transistor 2SA970(GR, BL)
Q609	4822 130 42951	Transistor 2SA970(GR, BL)
Q610	4822 130 42951	Transistor 2SA970(GR, BL)
Q611	4822 130 43233	Transistor 2SC2240(GR, BL)
Q612	4822 130 43233	Transistor 2SC2240(GR, BL)
Q613	4822 130 61179	Transistor 2SD2037(E, F)
Q614	4822 130 61179	Transistor 2SD2037(E, F)
Q615	4822 130 61176	Transistor 2SB1357(E, F)
Q616	4822 130 61176	Transistor 2SB1357(E, F)
Q617		IC NJM5532DD
Q701	4822 209 83654	IC NJM4556D
Q801	4822 130 43311	Transistor 2SC3298(O, Y)
Q802	4822 130 43023	Transistor 2SA1306(O, Y)
Q805	4822 130 42951	Transistor 2SA970(GR, BL)
Q806	4822 130 43233	Transistor 2SC2240(GR, BL)
Q807	4822 130 43233	Transistor 2SC2240(GR, BL)
Q808	4822 130 42951	Transistor 2SA970(GR, BL)
▲ Q809	4822 209 71903	IC NJM7805FA
▲ Q810	4822 209 63339	IC NJM78L20A
Q811	4822 209 83312	IC TA7317P
Q812	4822 130 42715	Transistor 2SA608SP, etc.
Q813	4822 130 42298	Transistor 2SC536SP, etc.
Q814	4822 130 42298	Transistor 2SC536SP, etc.
JV01	4822 265 30587	Terminal, 4P RCA Pin
JV06		
JV07	4822 266 30274	Terminal, 2P RCA Pin
J401	4822 266 30282	Terminal, 2P RCA Pin
LV01	4822 280 20464	Relay
LV09		

REF. DESIG.	PART NO.	DESCRIPTION
L401	4822 158 60606	Choke Coil, 20μH /02B/02G
L402	4822 158 60606	Choke Coil, 20μH /02B/02G
L601	4822 140 10411	Output Transformer
L602	4822 140 10411	Output Transformer
L603	4822 280 20464	Relay
L604	4822 280 20464	Relay
L701	4822 280 20464	Relay
SV01	4822 277 21116	Slide Switch
S401		Rotary Switch, MM/MC
▲ C851		Ceramic 0.01μF +80% -20%
▲ C852	4822 121 43732	Film 0.01μF ±20%
C853	4822 122 40491	Ceramic 0.022μF +80% -20%
C854	4822 122 40491	Ceramic 0.022μF +80% -20%
C855	4822 124 90356	Elect 1000μF 35V
C856	4822 124 90356	Elect 1000μF 35V
C857	4822 124 90353	Elect 100μF 10V
C858	4822 122 32486	Ceramic 0.01μF +80% -20%
▲ R851	4822 116 60246	220Ω ±5% 1W
▲ D851	4822 130 80839	Diode S5688G
▲ D854		
▲ D855	4822 130 33305	Diode 1SS176, etc.
▲ Q851	4822 209 61533	IC NJM7806FA
Q852	4822 130 42298	Transistor 2SC536SP, etc.
Q853	4822 130 42715	Transistor 2SA608SP, etc.
Q854	4822 130 42298	Transistor 2SC536SP, etc.
▲ F851		Fuse 630mA 250V
▲ F852	4822 253 30355	Fuse 0.25A 250V
▲ F853	4822 253 30355	Fuse 0.25A 250V
▲ J851		Jack, AC Outlet
▲ J852		Jack, AC Outlet
▲ L851		Relay
▲ L852	4822 146 21577	Power Transformer
▲ S851	4822 276 12925	Push Switch
▲ C871		Ceramic 0.01μF +80% -20%
▲ C872	4822 121 43732	Film 0.01μF ±20%
C873	4822 122 40491	Ceramic 0.022μF +80% -20%
C874	4822 122 40491	Ceramic 0.022μF +80% -20%
C875	4822 124 90356	Elect 1000μF 35V
C876	4822 124 90356	Elect 1000μF 35V
C877	4822 124 90353	Elect 100μF 10V
C878	4822 122 32486	Ceramic 0.01μF +80% -20%
▲ R871	4822 116 60246	220Ω ±5% 1W

REF. DESIG.	PART NO.	DESCRIPTION
P871-SEMICONDUCTORS		
▲ D871 ?	4822 130 80839	Diode S5688G
▲ D874		
▲ D875	4822 130 33305	Diode 1SS176, etc.
▲ Q871	4822 209 61533	IC NJM7806FA
Q872	4822 130 42298	Transistor 2SC536SP, etc.
Q873	4822 130 42715	Transistor 2SA608SP, etc.
Q874	4822 130 42298	Transistor 2SC536SP, etc.
P871-MISCELLANEOUS		
▲ F871		Fuse 400mA 250V
▲ F872	4822 253 30209	Fuse T250mA 250V
▲ F873	4822 253 30209	Fuse T250mA 250V
▲ F874	4822 253 40166	Fuse T2.5A 250V
▲ J871	4822 267 31194	Jack, AC Outlet
▲ J872	4822 267 31194	Jack, AC Outlet
▲ L871	4822 280 20459	Relay
▲ L872	4822 146 21569	Power Transformer
▲ S871	4822 276 12925	Push Switch

NOTE ON SAFETY:

Symbol ▲ Fire or electrical shock hazard. Only original parts should be used to replace any part marked with symbol ▲. Any other component substitution (other than original type), may increase risk of fire or electrical shock hazard.