

Service Manual

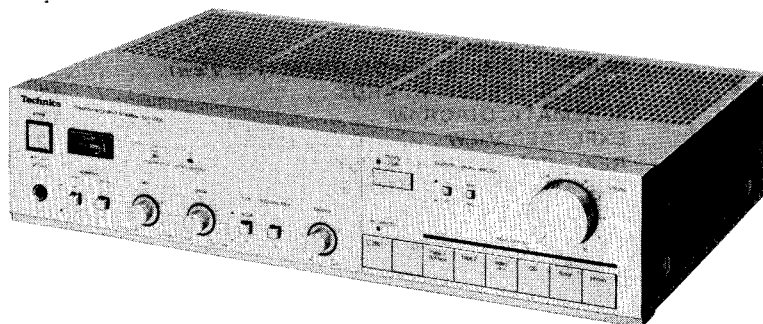
Amplifier

SU-V4X

Computer Drive New Class A
Stereo Integrated Amplifier

Color

(S) Silver type
(K) Black type



Color	Area
(S)(K)	[E] Scandinavia
(S)(K)	[EGA] . . . F.R. Germany
(S)(K)	[EK] United Kingdom
(S)	[EF] France
(S)(K)	[EH] Holland
(S)(K)	[EB] Belgium
(S)(K)	[Ei] Italy
(S)(K)	[XL] Australia
(S)(K)	[XA] Asia, Oceania, Africa, Middle Near East and Latin America
(S)(K)	[PA] Far East PX
(S)(K)	[PE] European Military

SPECIFICATIONS

(DIN 45 500)

■ AMPLIFIER SECTION

1 kHz continuous power output both channels driven	2×70 W (4Ω) 2×70 W (8Ω)
20 Hz~20 kHz continuous power output both channels driven	2×65 W (4Ω) 2×65 W (8Ω)
Total harmonic distortion rated power at 20 Hz~20 kHz	0.03% (4Ω) 0.004% (8Ω)
rated power at 1 kHz	0.007% (4Ω) 0.003% (8Ω)
half power at 20 Hz~20 kHz half power at 1 kHz	0.003% (8Ω) 0.001% (8Ω)
Intermodulation distortion rated power at 250 Hz: 8 kHz=4:1, 8Ω	0.03%
rated power at 60 Hz: 7 kHz=4:1, SMPTE, 8Ω	0.004%
Power bandwidth both channels driven, -3 dB	5 Hz~50 kHz (4Ω, 0.03%) 5 Hz~60 kHz (8Ω, 0.02%)
Residual hum and noise	0.9 mV
Damping factor	30 (4Ω), 60 (8Ω)
Input sensitivity and impedance	
PHONO MM	2.5 mV/47 kΩ
MC	170 μV/220Ω
TUNER, CD, VIDEO/AUX	150 mV/22 kΩ
TAPE 1/DA TAPE, TAPE 2	150 mV/22 kΩ

PHONO maximum input voltage (1 kHz, RMS)

MM	160 mV
MC	12 mV

S/N

rated power (4Ω)

PHONO MM	76 dB (IHF, A: 86 dB, input 2.5 mV)
MC	64 dB (IHF, A: 68 dB, input 250 μV)

TUNER, CD, VIDEO/AUX, TAPE 1/DA TAPE, TAPE 2	91 dB (IHF, A: 102 dB)
---	------------------------

Frequency response

PHONO	RIAA standard curve ±0.8 dB (30 Hz~15 kHz)
-------	---

TUNER, CD, VIDEO/AUX, TAPE 1/DA TAPE, TAPE 2	5 Hz~120 Hz (-3 dB) +0, -0.2 dB (20 Hz~20 kHz)
---	---

Tone controls

BASS	50 Hz, +10 dB~-10 dB
------	----------------------

TREBLE	20 kHz, +10 dB~-10 dB
--------	-----------------------

Muting

Subsonic filter	30 Hz -6 dB/oct.
-----------------	------------------

Loudness control (volume at -30 dB)	5 Hz, +9 dB
-------------------------------------	-------------

Output voltage

REC OUT	150 mV
---------	--------

Channel balance, VIDEO/AUX 250 Hz~6,300 Hz	±1 dB
--	-------

Channel separation, VIDEO/AUX 1 kHz	60 dB
-------------------------------------	-------

Headphones output level and impedance	50 mV/330Ω
---------------------------------------	------------

Load impedance

MAIN or REMOTE	4Ω~16Ω
----------------	--------

MAIN and REMOTE	8Ω~16Ω
-----------------	--------

Technics

Panasonic Tokyo
Matsushita Electric Industrial Co., Ltd.
1-2, 1-chome, Shibakoen, Minato-ku, Tokyo 105 Japan

Matsushita Electric Trading Co., Ltd.
P.O. Box 288, Cental Osaka Japan

SU-V4X

■ GENERAL

Power consumption	390 W
Power supply	
For United Kingdom	AC 50 Hz/60 Hz, 110 V/120 V/220 V/240 V
For continental Europe	AC 50 Hz/60 Hz, 220 V
For others	AC 50 Hz/60 Hz, 110 V/120 V/220 V/240 V
Dimensions (W×H×D)	430×97×290 mm (16-15/16"×3-27/32"×11-7/16")
Weight	6.7 kg (14.8 lb.)

Note:

Total harmonic distortion is measured by the digital spectrum analyzer (H.P. 3045 system).

Specifications are subject to change without notice for further improvement.

■ CONTENTS

	Page		Page
SAFETY PRECAUTION	2	BLOCK DIAGRAM	9, 10
LOCATION OF CONTROLS	3	WIRING CONNECTION DIAGRAM (Top View)	11, 12
PROTECTION CIRCUITRY	4	PRINTED CIRCUIT BOARDS	13 ~ 15
BEFORE REPAIR AND ADJUSTMENT	4 ~ 6	SCHEMATIC DIAGRAM	16 ~ 20
TERMINAL GUIDE OF TRANSISTORS, DIODES AND IC'S	6	EXPLODED VIEW	21, 22
FUNCTION OF TERMINAL (ICQ control IC21: MN1404STE)	7	REPLACEMENT PARTS LIST	23
FUNCTION OF TERMINAL (Analog function control IC401: SVIUPD7506C043)	8	RESISTORS & CAPACITORS	24

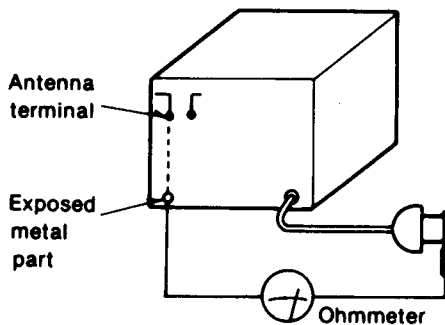
■ SAFETY PRECAUTION

1. Before servicing, unplug the power cord to prevent an electric shock.
2. When replacing parts, use only manufacturer's recommended components for safety.
3. Check the condition of the power cord. Replace if wear or damage is evident.
4. After servicing, be sure to restore the lead dress, insulation barriers, insulation papers, shields, etc.
5. Before returning the serviced equipment to the customer, be sure to make the following insulation resistance test to prevent the customer from being exposed to a shock hazard.

● INSULATION RESISTANCE TEST

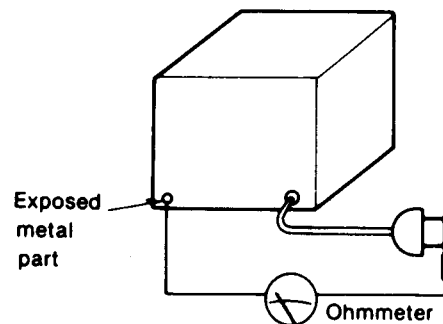
1. Unplug the power cord and short the two prongs of the plug with a jumper wire.
2. Turn on the power switch.
3. Measure the resistance value with ohmmeter between the jumpered AC plug and each exposed metal cabinet part, such as screwheads antenna, control shafts, handle brackets, etc. Equipment with antenna terminals should read between $3M\Omega$ and $5.2M\Omega$ to all exposed parts. (Fig. A) Equipment without antenna terminals should read approximately infinity to all exposed parts. (Fig. B)

Note: Some exposed parts may be isolated from the chassis by design. These will read infinity.



(Fig. A)

Resistance = $3M\Omega$ — $5.2M\Omega$

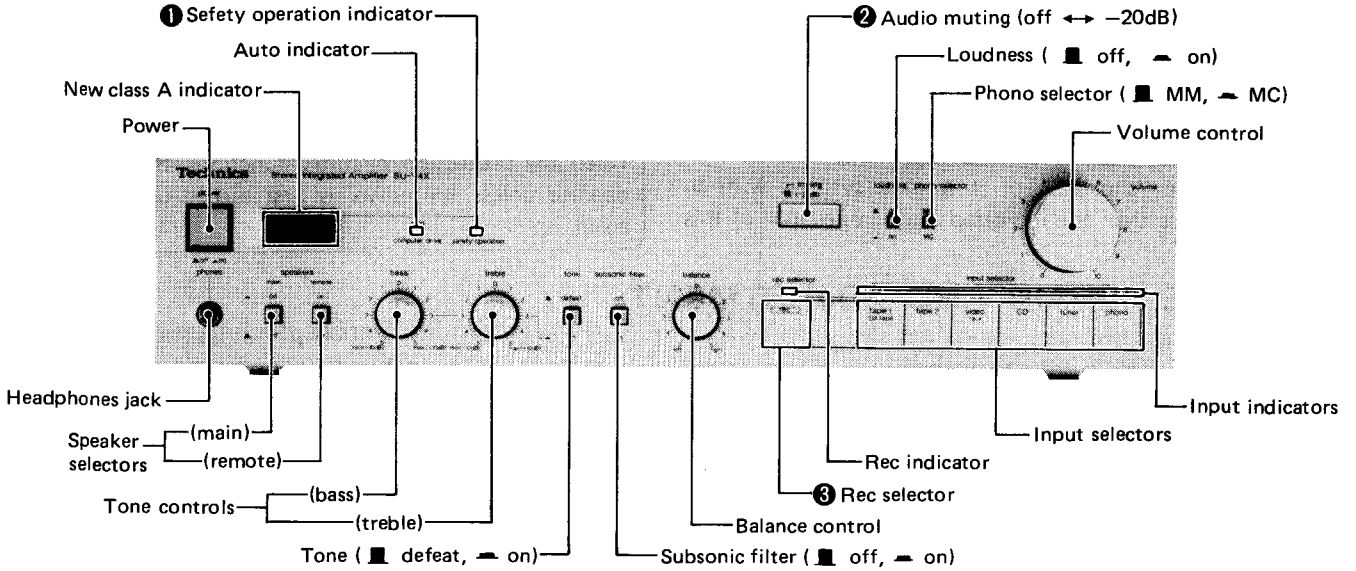


(Fig. B)

Resistance = Approx ∞

4. If the measurement is outside the specified limits, there is a possibility of a shock hazard. The equipment should be repaired and rechecked before it is returned to the customer.

LOCATION OF CONTROLS



1 Safety operation indicator

When the power is switched on, this indicator flashes on and off for about 5 seconds, and then illuminates steadily when the unit is in the operation condition. If an abnormal condition in the circuitry is detected, such as DC voltage appearing in the output, or a short-circuit of the positive (+) and negative (-) cords from the speaker terminals, the protection circuit functions and this indicator flashes rapidly. If this occurs, switch the power off, find the cause of the trouble and correct it, and then switch the power on once again.

2 Audio muting

Set to the "-20 dB" position when a disc is being changed or to temporarily reduce the volume level. (The indicator will be illuminated.) In addition, the volume level can be adjusted more precisely if this switch is set to the "-20 dB" position for listening at a low volume level.

3 Rec selector

This button can be used to select another program source to listen to while recording from one tape to another tape or while recording from some other program source.

When this button is pressed, the recording mode indicator flashes, and, when one of the selectors is pressed, this indicator illuminates.

If the indicator flashes, the flashing can be stopped by pressing this switch once again.

When the recording mode indicator is not illuminated:

If one of the selectors is pressed, the sound source to be listened to and the recording sound source will both be switched at the same time.

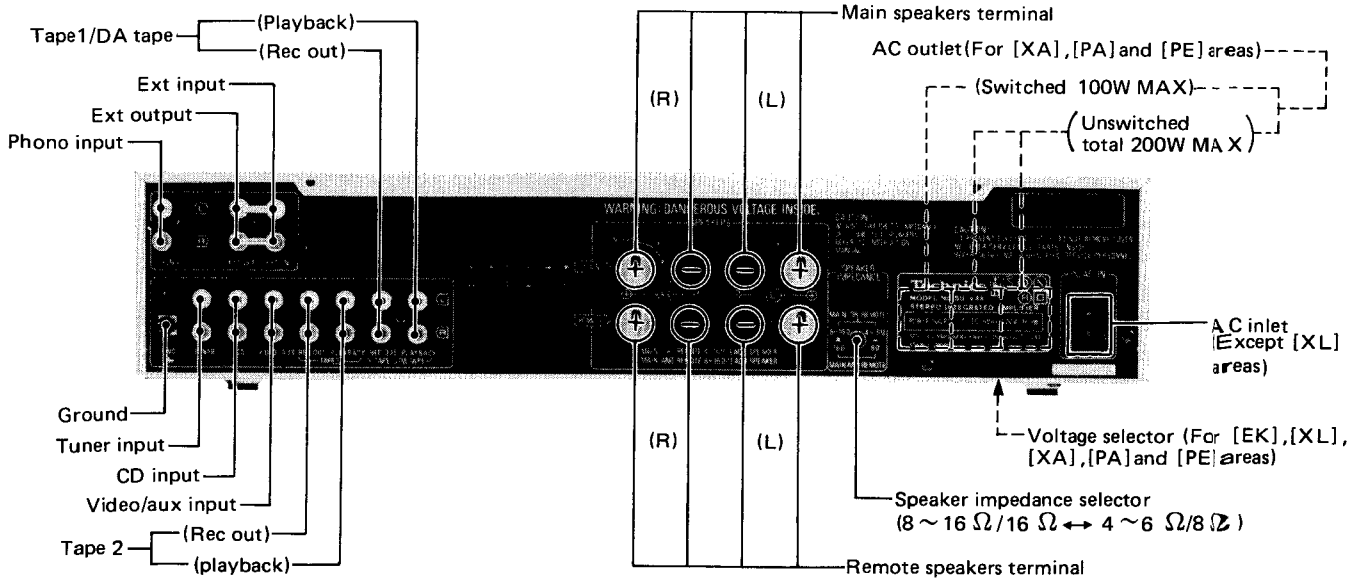
Note, however, that only the sound source to be listened to will be switched, and the tape can be monitored during recording, if the "tape 1/DA tape" or "tape 2" selectors are pressed.

When the recording mode indicator is flashing:

If one of the selectors is pressed, only the recording sound source will be switched.

When the recording mode indicator is illuminated:

If one of the selectors is pressed, only the sound source to be listened to will be switched.



- The power supply for this unit varies depending upon the areas. Also, the parts used for power supply are different.
- * [EK, XL, XA, PA and PE] areas are provided with voltage selector.
- * 220V (50/60Hz) for Continental Europe.
- * Phono input capacitance is about 150pF.

PROTECTION CIRCUITRY

The protection circuitry may have operated if either of the following conditions is noticed:

- No sound is heard when the power is turned on.
- Sound stops during a performance.

The function of this circuitry is to prevent circuitry damage if, for example, the positive and negative speaker connection wires are "shorted", or if speaker systems with an impedance less than the indicated rated impedance of this unit are used.

If this occurs, follow the procedure outlines below:

1. Turn off the power.
2. Determine the cause of the problem and correct it.
3. Turn on the power once again after one minute.

Note

When the protection circuitry functions, the unit will not operate unless the power is first turned off and then on again.

BEFORE REPAIR AND ADJUSTMENT

1. Turn off the power supply and short-circuit of power supply capacitors (C701, C702 10000 μ F) at resistance (about 10 Ω ,5W) in order to discharge the charged voltage. Do not short between C701, C702 by screwdriver. It may damage the component.
2. Before turning on the power supply after completion of repair, slowly apply the primary voltage by using a power supply voltage controller to make sure that the consumed current is free of abnormality. The consumed current at 60Hz/50Hz in no signal mode is shown below with respect to supply voltage 110V/120V/220V/240V.

Power supply voltage		AC110V	AC120V	AC220V	AC240V
Consumed current	50Hz	220 ~ 440mA	210 ~ 430mA	110 ~ 220mA	100 ~ 210mA
	60Hz	—	240 ~ 480mA	—	—

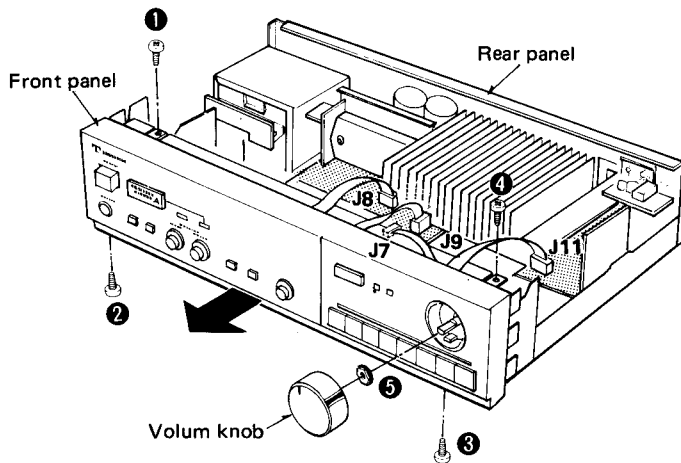
DISASSEMBLY INSTRUCTIONS

Ref. No. 1	How to remove the cabinet	
Procedure 1	<ul style="list-style-type: none"> • Remove the 4 setscrews (① ~ ④) 	
Ref. No. 2	How to remove the bottom board	<ul style="list-style-type: none"> • Remove the 4 setscrews. (③ ~ ⑥)
Procedure 1 → 2	<ul style="list-style-type: none"> • Remove the 2 setscrews (① , ②) 	

Ref. No. 3
How to remove the front panel

Procedure
1 → 3

1. Remove the 4 setscrews. (① ~ ④)
2. Remove the volume knob.
3. Remove the 1 nut. (⑤)
4. Pull out the 4 connectors. (J7 ~ J9, J11)

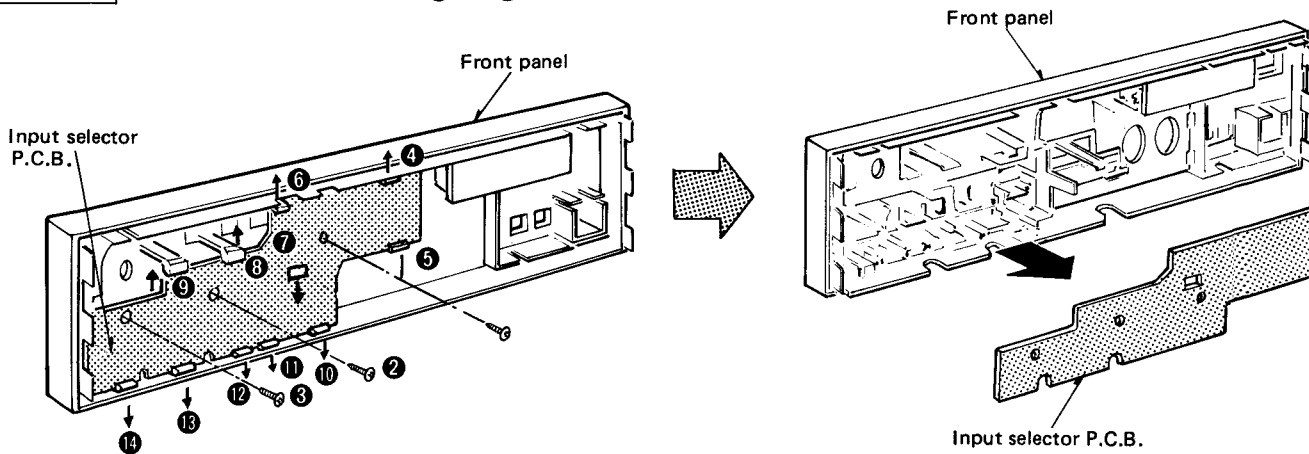


Ref. No. 4
How to remove the input selector P.C.B.

Procedure
1 → 3 → 4

1. Remove the 3 setscrews. (① ~ ③)
2. Release the 11 claws. (④ ~ ⑭)

● Remove the input selector P.C.B.

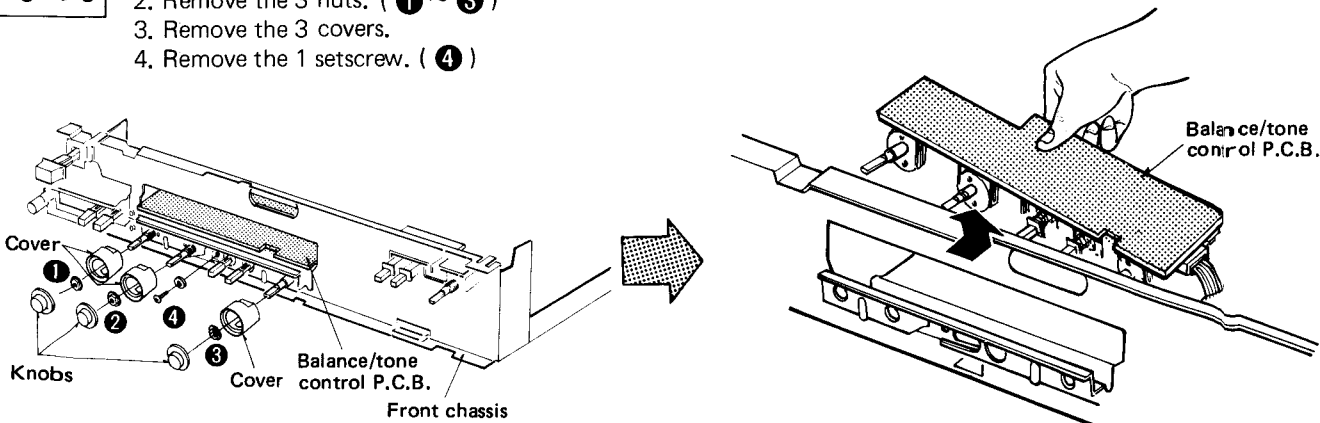


Ref. No. 5
How to remove the balance/ tone control P.C.B.

Procedure
1 → 3 → 5

1. Remove the 3 knobs.
2. Remove the 3 nuts. (① ~ ③)
3. Remove the 3 covers.
4. Remove the 1 setscrew. (④)

● Remove the balance/ tone control P.C.B.



Ref. No. 6	How to remove the power IC
Procedure 1 → 2 → 3 → 5 → 6	<ol style="list-style-type: none"> 1. Unsolder the power IC. 2. Remove the 2 setscrews (① , ②)

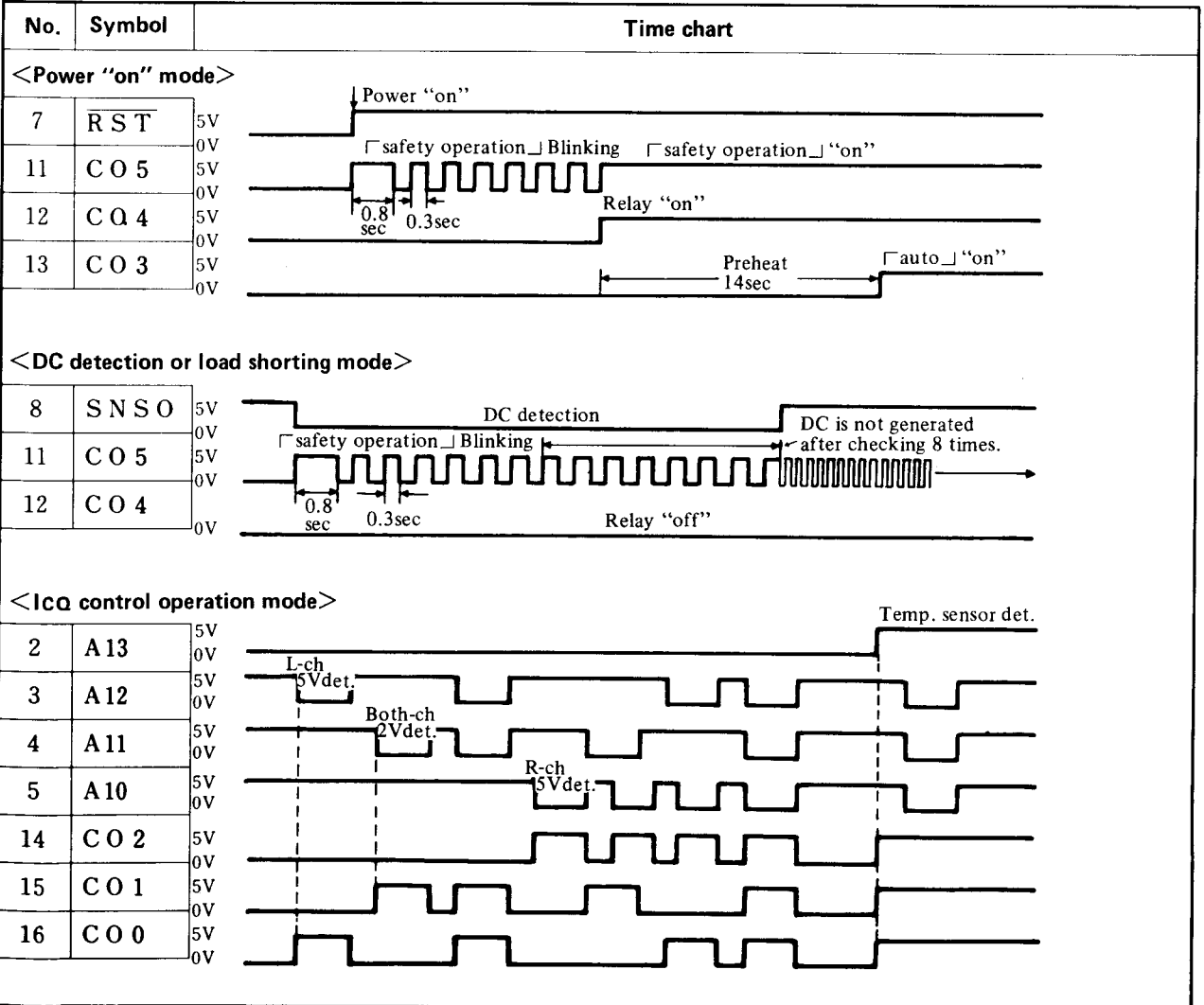
When mounting the power amplifier IC, apply silicon compound (SZZ0L15) to the rear side of power amplifier IC.

■ TERMINAL GUIDE OF TRANSISTORS, DIODES AND IC'S

<table border="1"> <tr><td>MN4069UB</td><td>14pin</td></tr> <tr><td>M53242P</td><td></td></tr> <tr><td>MN1404STE</td><td>16pin</td></tr> <tr><td>AN7062</td><td>18pin</td></tr> <tr><td>TC9163N</td><td></td></tr> <tr><td>UPD7506C043</td><td>28pin</td></tr> <tr><td>TC9164N</td><td></td></tr> </table>	MN4069UB	14pin	M53242P		MN1404STE	16pin	AN7062	18pin	TC9163N		UPD7506C043	28pin	TC9164N			AN78M05	2SC1815, 2SA1015 2SC2631, 2SA1123 2SA1112, 2SC3112	SVINJ4559DDM AN6553F
MN4069UB	14pin																	
M53242P																		
MN1404STE	16pin																	
AN7062	18pin																	
TC9163N																		
UPD7506C043	28pin																	
TC9164N																		
SVI2004A	2SK170, 2SK301	2SC2592	2SK246	UN4211, UN4212														
MA162A	MA1160H	MA165, MA167 0A90	SVDAY5533K-M SVDPR5533K															
LN346GP LN446YP	SVDSR1K2 SVDS3V20	SVDMZ424																

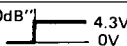


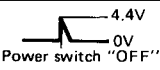
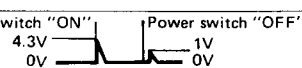
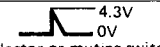
FUNCTION OF TERMINAL (ICQ control IC21: MN1404STE)

No.	Symbol	Name of block	Description of terminal
1	VSS	Power supply input terminal	Grounded. (0V)
2	A13	Input port A	Temperature detection circuit. When 60°C (140°F) sensor of power amplifier operates, "H" is put in causing the outputs of terminals 14 ~ 16 to go "H".
3	A12		When effective output 5V signal sensor of L-ch power amplifier operates, "L" is put in causing the output of terminal 14 to go "H".
4	A11		When effective output 2V signal sensors of both-ch power amplifiers operate, "L" is put in causing the output of terminal 15 to go "H".
5	A10		When effective output 5V signal sensor of R-ch power amplifier operates, "L" is put in causing the output of terminal 16 to go "H".
6	TST	Test input terminal	Terminal for testing LSI. (Ground)
7	RST	Reset input terminal	All outputs are cleared or reset with input at "L". (It is connected to power supply circuit)
8	SNSO	Sensor input terminal	When overload detection circuit of power amplifier output operates, "L" is put in causing the output of terminal 12 to go "L".
9	VDD	Power supply input terminal	Apply 5V.
10	OSC	OSC input terminal	Clock signal (about 415kHz) can be obtained by internal oscillation circuit.
11	CO5	Output port C	When protection circuit operates, "H" and "L" outputs are repeated and "safety operation" indicator blinks.
12	CO4		Output relay and meter relay turn ON with "H" output.
13	CO3		Indicator "auto" lights up at "H".
14	CO2		ICQ control signal is emitted from A input port (temp. sensor, signal sensor). ("H" output)
15	CO1		
16	CO0		

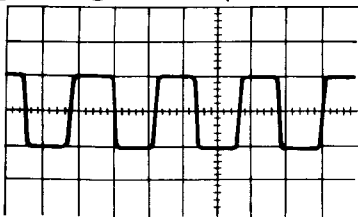


FUNCTION OF TERMINAL (Analog function control IC401:

UPD7506C043)

Pin. No.	Symbol	Input/Output	Active	Description of terminal
1	P43	Output	H	Indicator "muting" light up at "H". Muting "-20dB" 
2	x 2	—	—	Not used in this unit.
3	P03/x 1	Input	—	It detects the level of pin ⑤. Push (once) the "rec selector" 
4	P20/PSTB	Output	H	Clock output port for analog switch. Clock signal output to IC201 pin ⑮ and IC202 pin ⑮ during data transmission. [Refer to A]
5	P21/PTOUT	Output	H	Indicator "rec selector" light up at "H". Push (once) the "rec selector" 
6	P22	Output	H	Data output for analog switch. Data signal output to IC201 pin ⑯ and IC202 pin ⑯. [Refer to A]
7	P23	Output	H	Strobe output port for analog switch. Strobe signal output to IC201 pin ⑬ and IC202 pin ⑬ during data transmission. [Refer to A]
8	P60	Output	H	Rec side indicator 3-bit output. Rec indicator drive signal output to IC403 pins ⑬ ~ ⑮. [Refer to B]
9	P61			
10	P62			
11	P63	Input	H	Stop mode sensing input. With high pulse signal input, the stop command is executed and the mode is shifted to standby. 
12	CL1	—	—	External clock oscillation frequency (400KHz) input port. [Refer to C]
13	CL2	—	—	Not used in this unit.
14	V _{DD}	—	—	Power supply input terminal. (Apply 4.3V)
15	RESET	Input	H	Input terminal for reset signal. 
16	P10	Input	H	Input terminal for key return signal from external key matrix. [Refer to D]
17	P11			
18	P12			
19	P13			
20	P50			
21	P51	Output	H	Output terminal for key scan signal for external key matrix. (Output voltage is 4.3V)
22	P52			
23	P53	Output	H	Muting signal output during input switch or Rec switch operation. 
24	P00	Input	—	Mode shifting port. H = Function 1 mode L = Function 2 mode The input of this unit is "H" (4.9V) because the mode used is Function 1.
25	P40	Output	H	Input side indicator 3-bit output. Input indicator drive signal to IC402 pins ⑬ ~ ⑮. [Refer to E]
26	P41			
27	P42			
28	V _{SS}	—	—	Ground terminal.

C IC401 ⑫ 2V DIV/1 μSEC



- ① Push the rec selector switch. ("rec indicator" blinking)
- ② Push the each input selector switch.

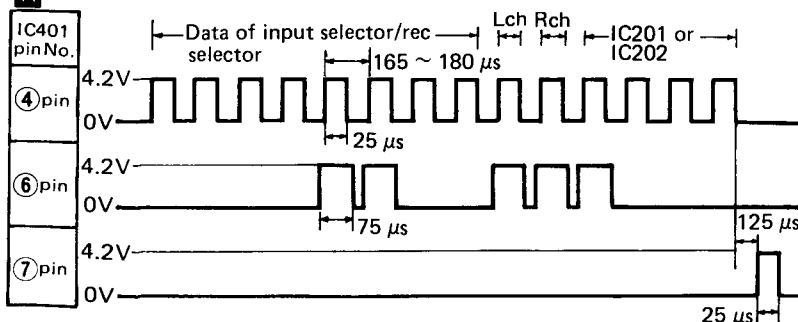
B L = 0V, H = 4.3V

Pin No. of IC401	⑧	⑨	⑩
Input selector			
phono	L	H	L
tuner	H	L	L
CD	L	H	L
video/aux	H	H	L
tape 2	H	L	H
tape 1/AD tape	L	L	H


D L = 0V, H = 4.3V

Pin No. of IC401	⑬	⑭	⑮	⑯
Input selector				
phono	L	L	L	H
tuner	L	L	H	L
CD	L	H	L	L
video/aux	H	L	L	L
tape 2	L	L	H	L
tape 1/DA tape	L	L	L	H
rec selector	H	L	L	L

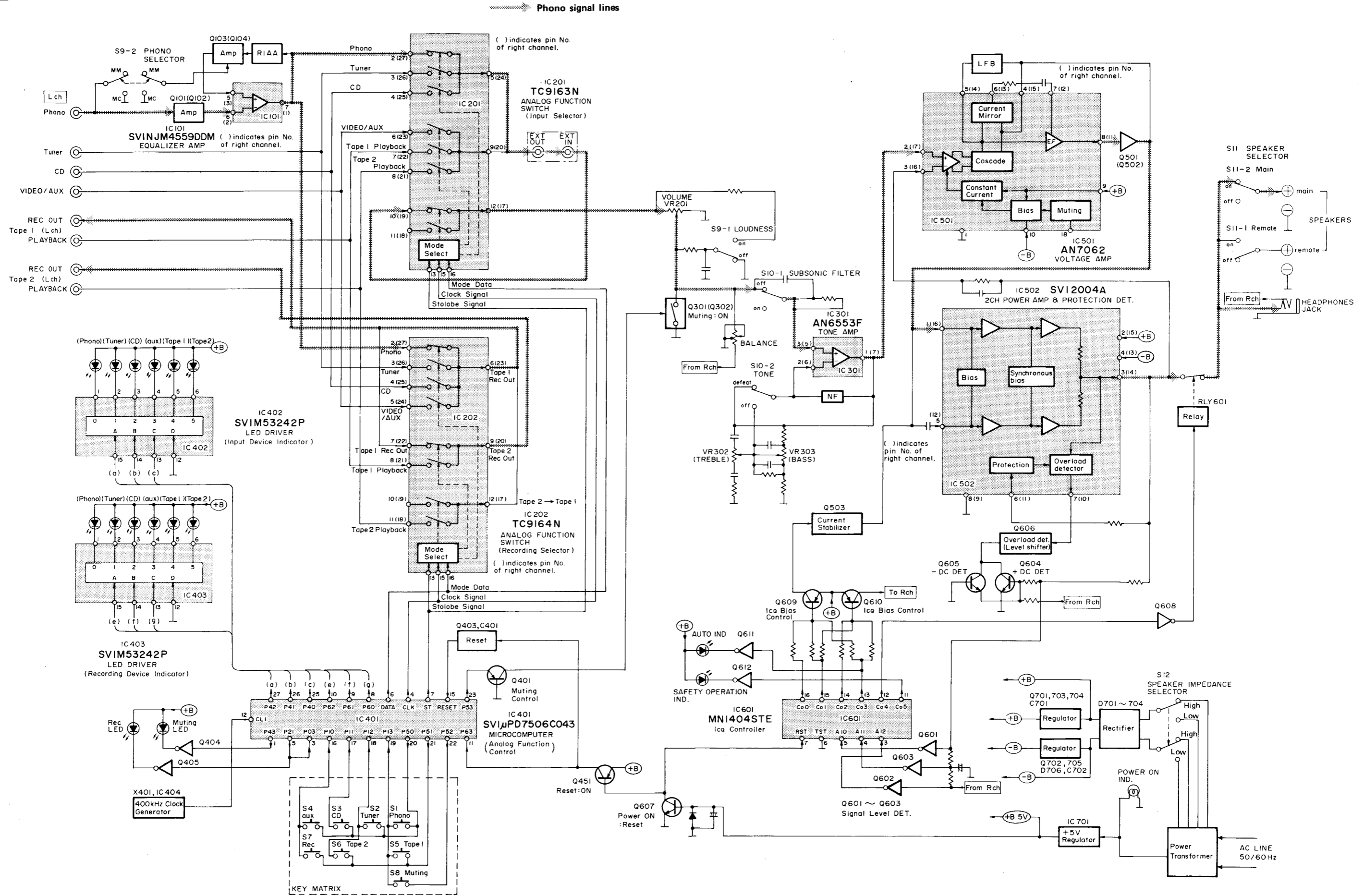
A



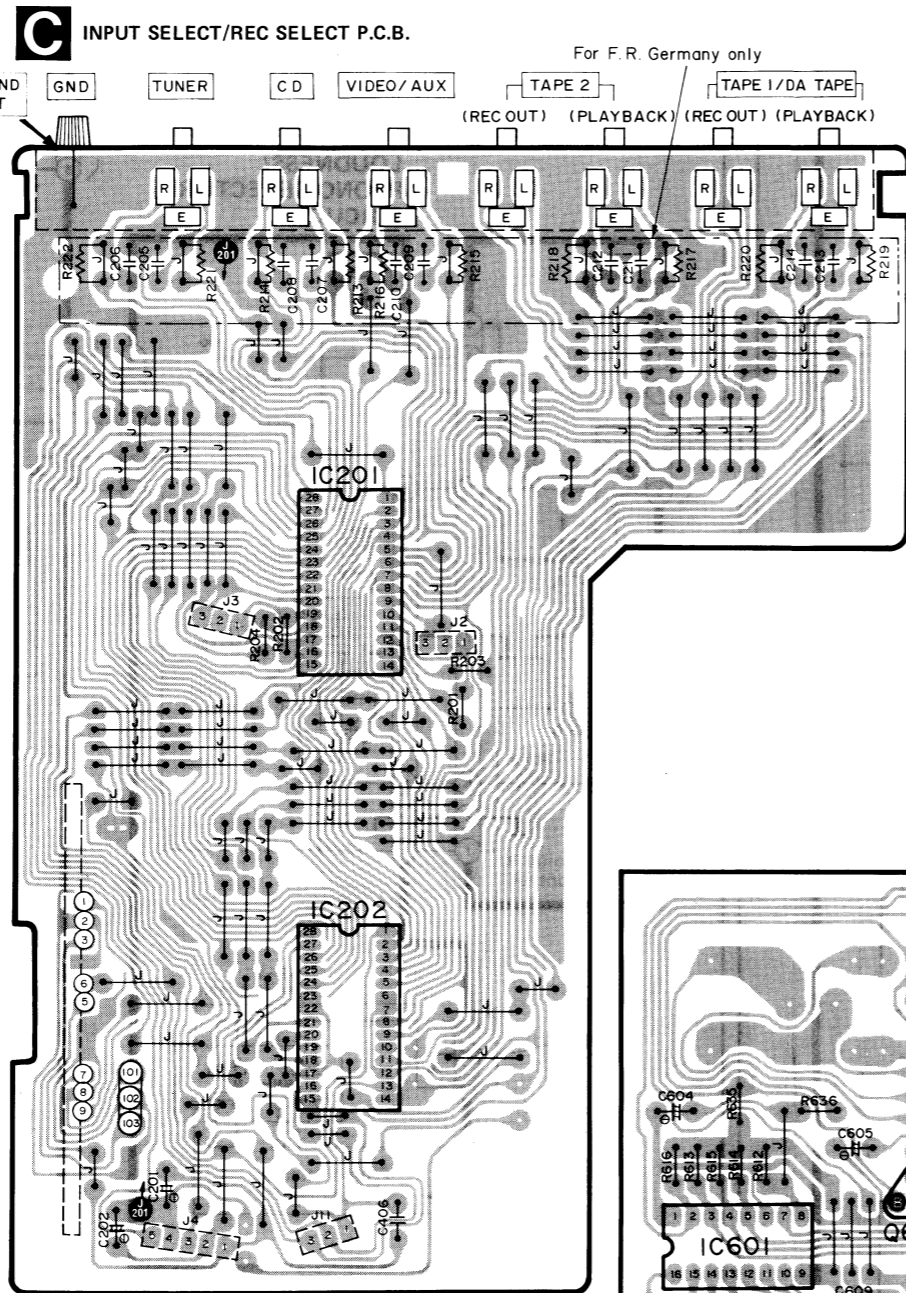
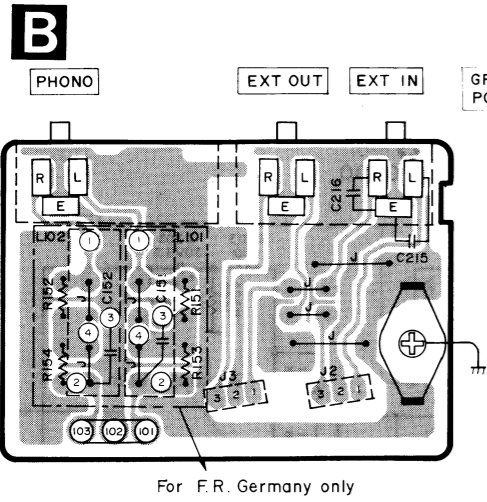
E

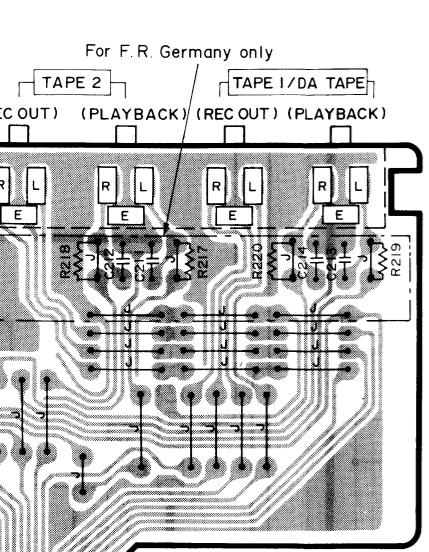
Pin No. of IC401	⑲	⑳	㉑
Input selector			
phono	L	L	L
tuner	H	L	L
CD	L	H	L
video/aux	H	H	L
tape 2	H	L	H
tape 1/DA tape	L	L	H
rec selector	L	L	L
muting	L		L

BLOCK DIAGRAM

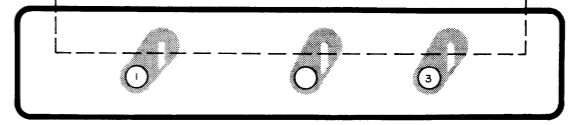
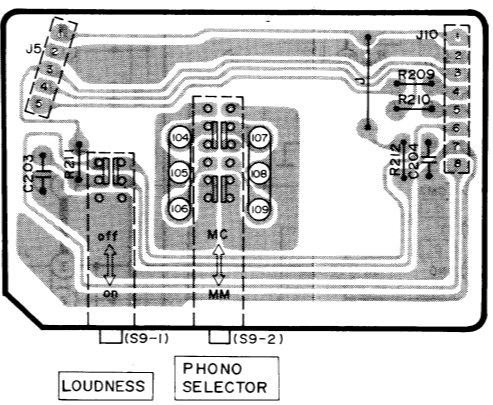
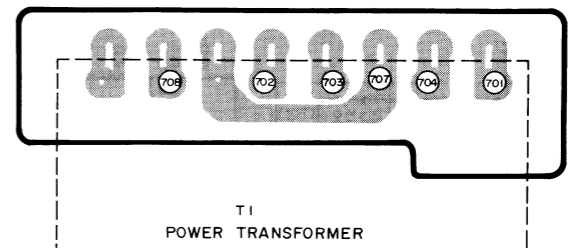
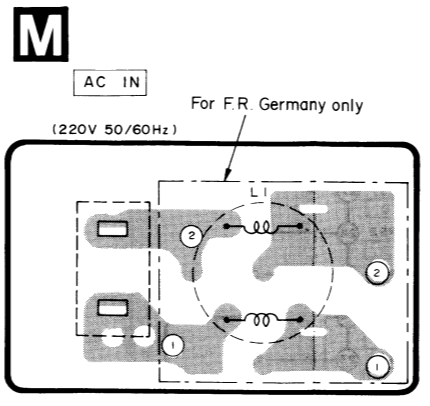
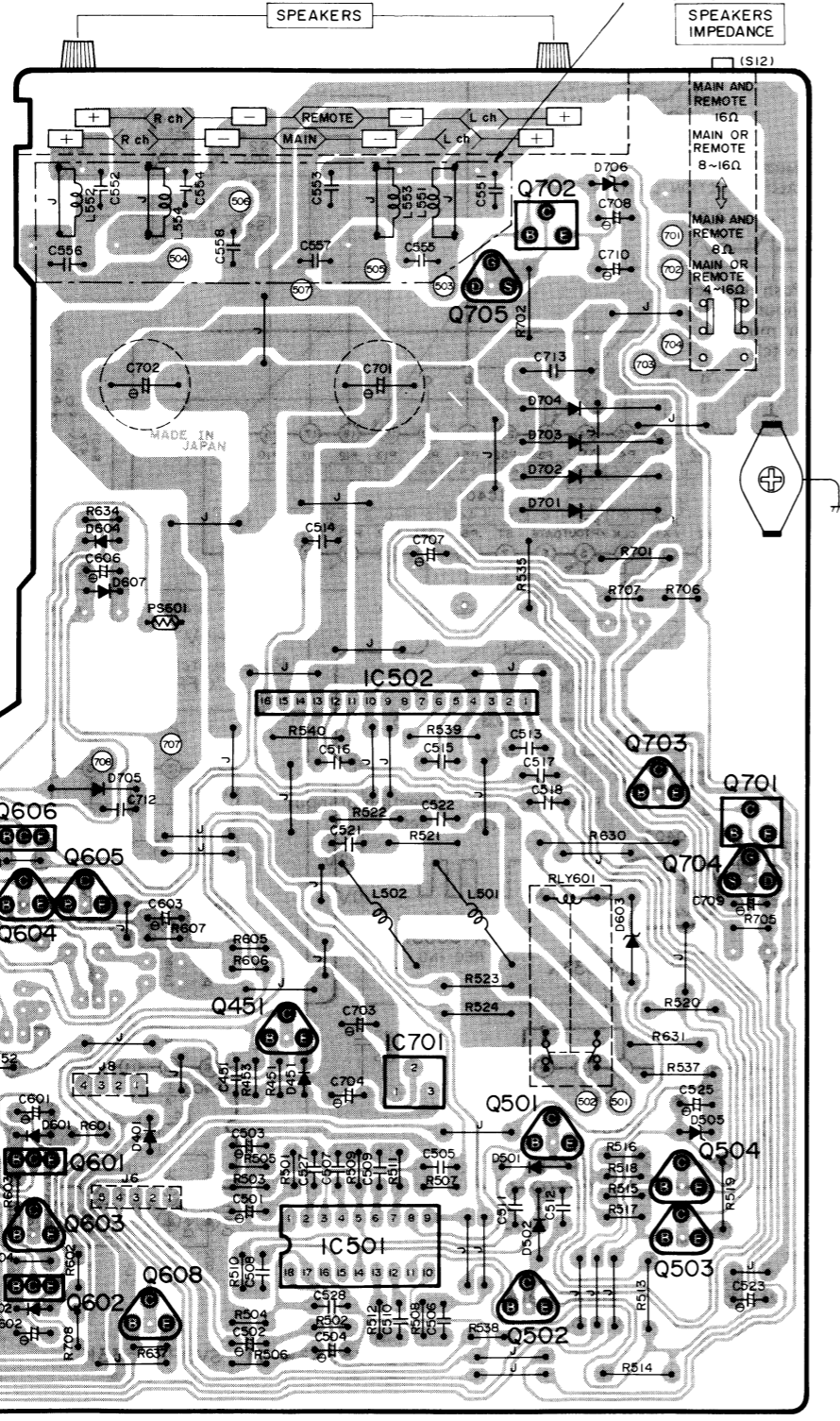


PRINTED CIRCUIT BOARDS

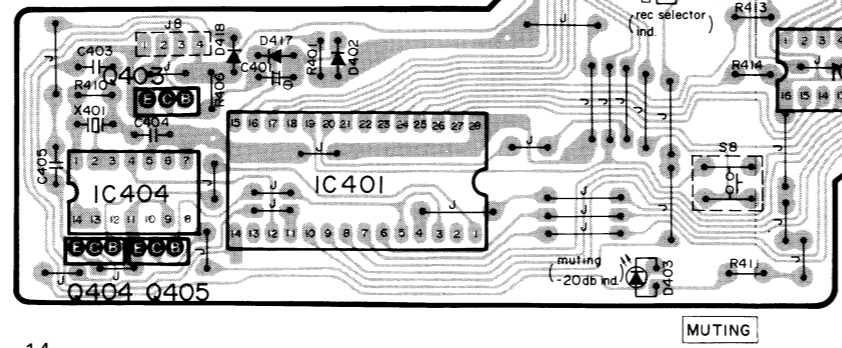
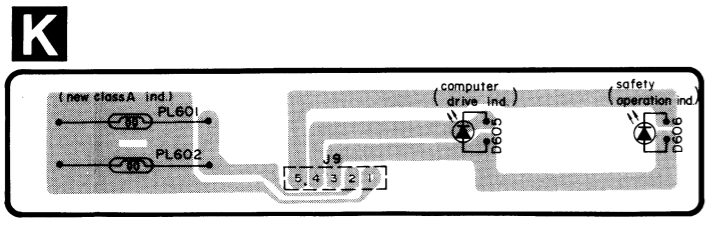
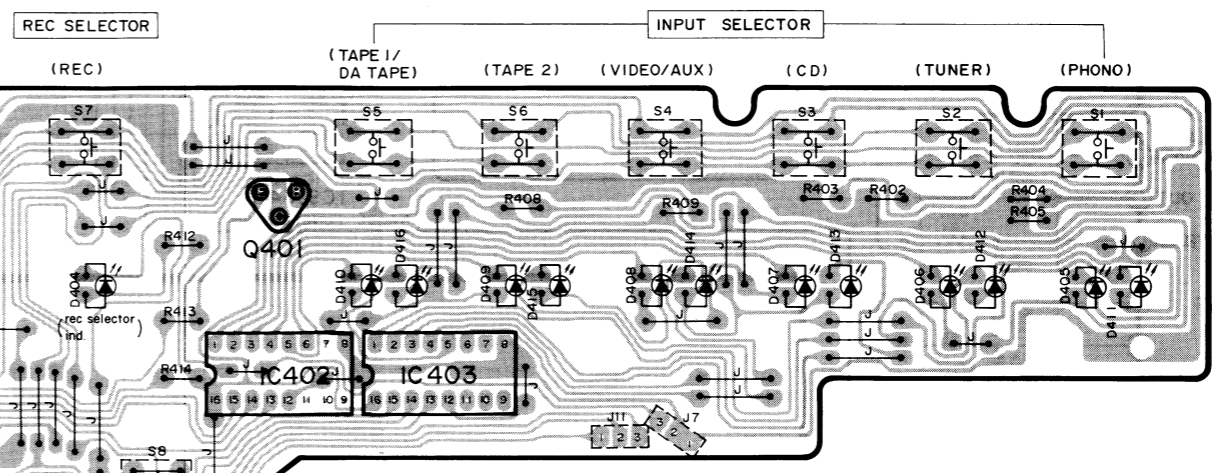
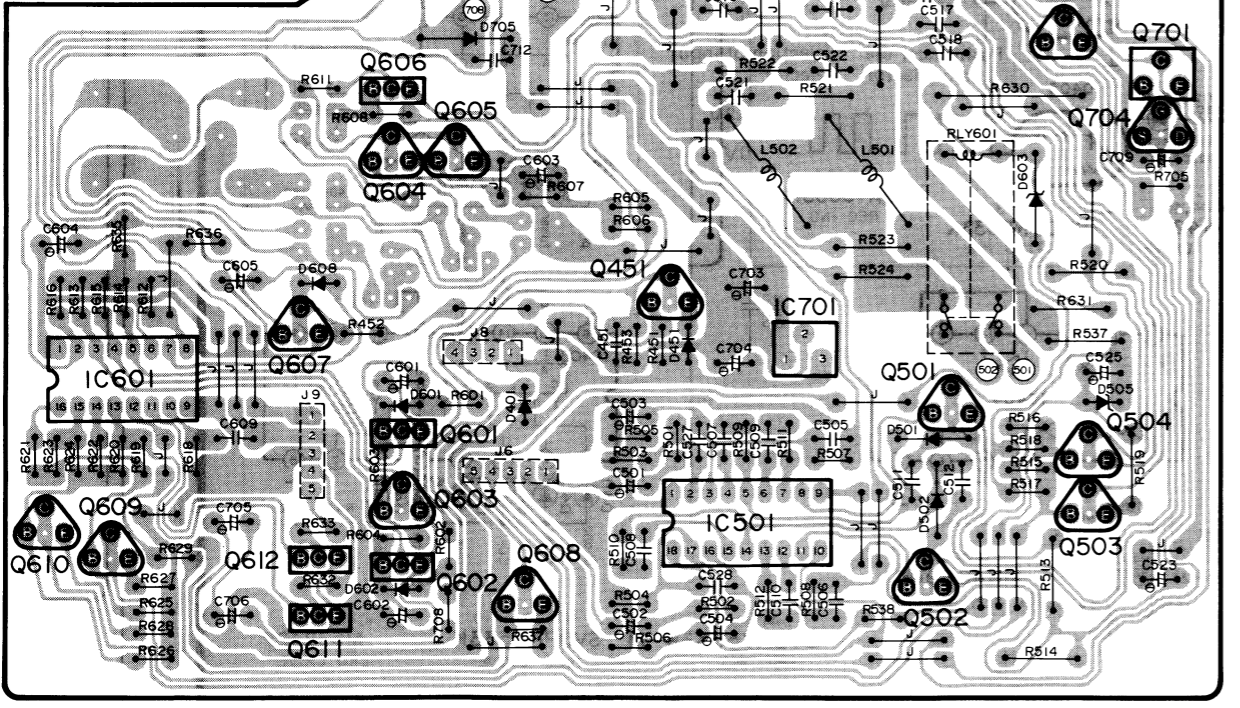
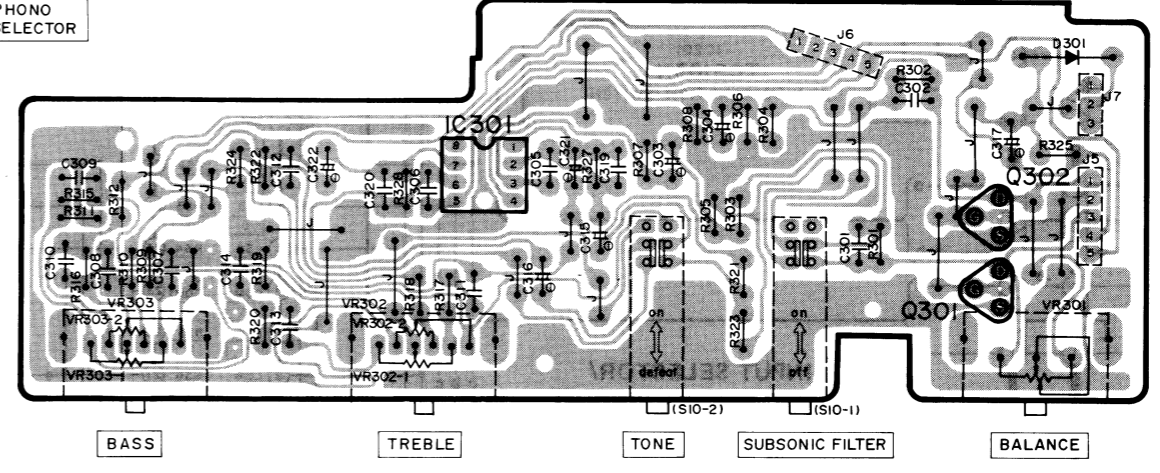
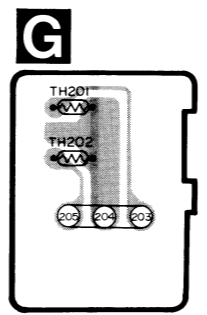




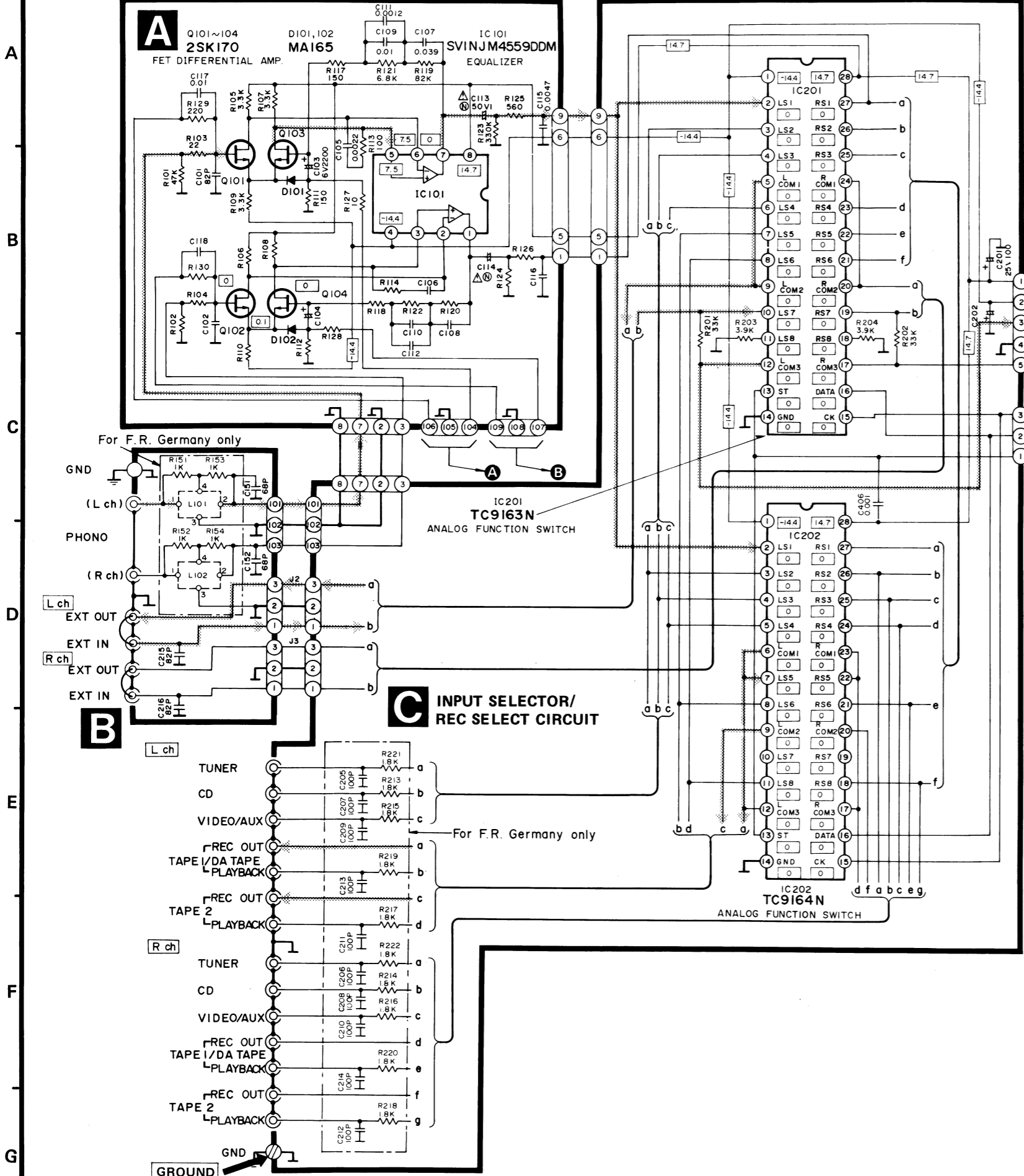
I VOLTAGE AMP./IC CONTROL/POWER AMP. OVERLOAD DET./POWER SUPPLY P.C.B.



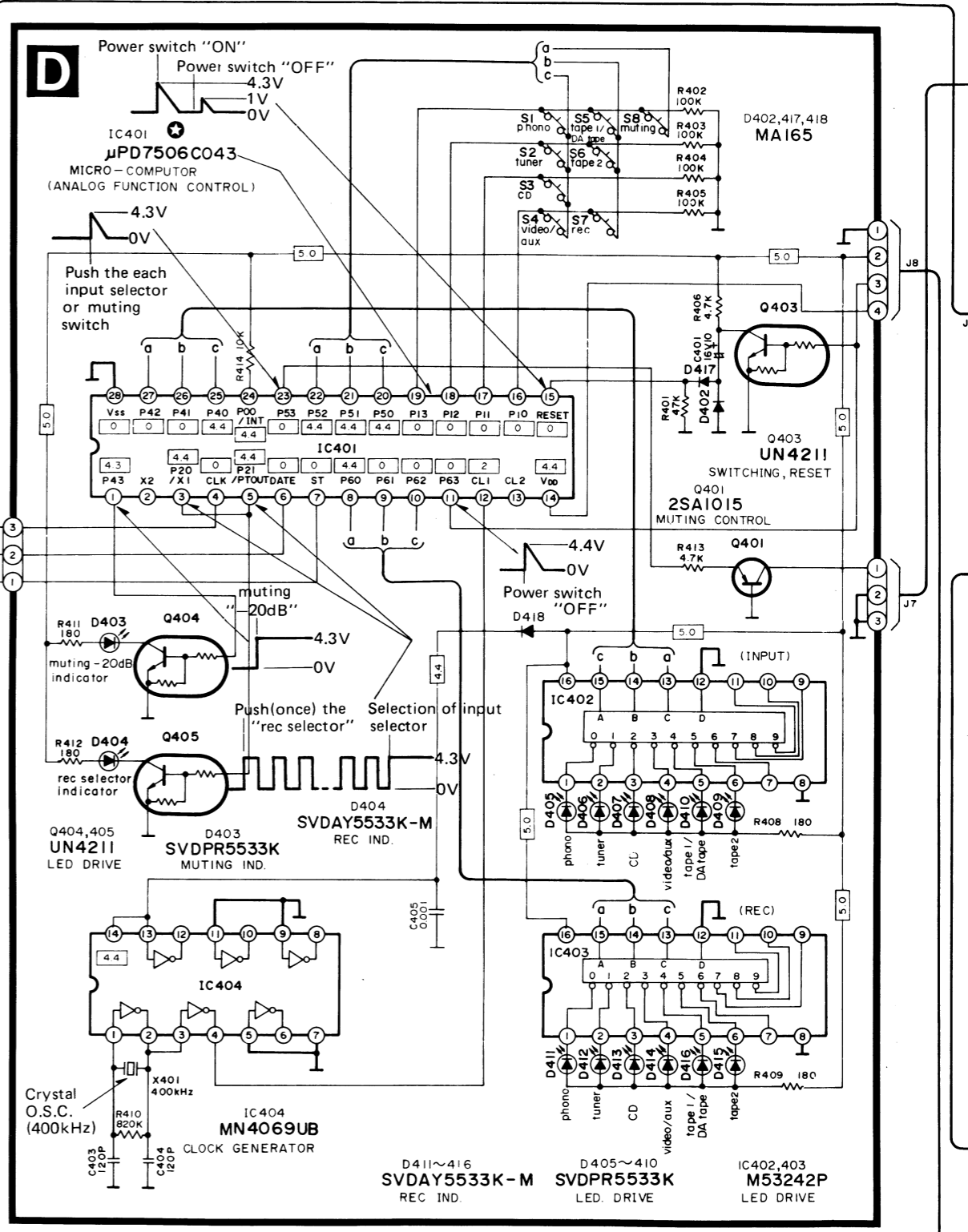
H TONE AMP./SUBSONIC FILTER/TONE SELECTOR/TONE CONTROL/MUTING P.C.B.



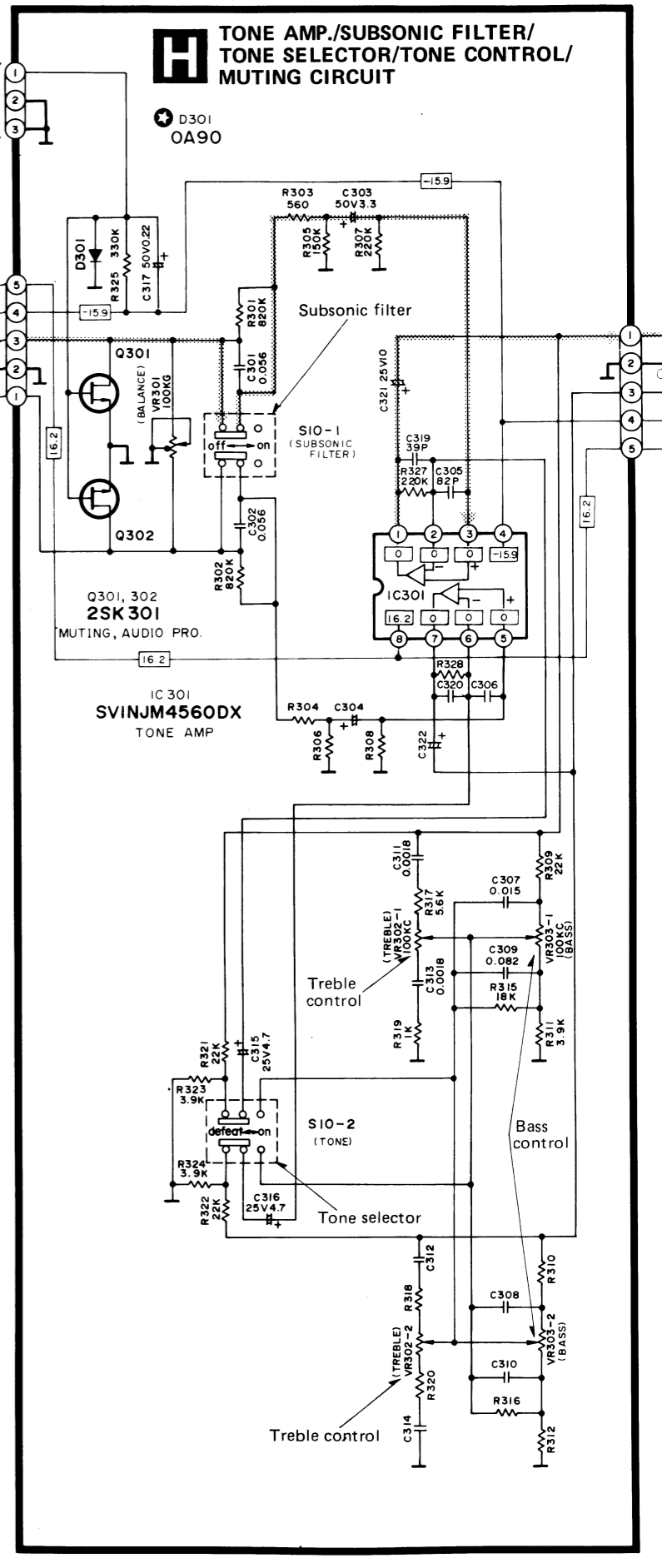
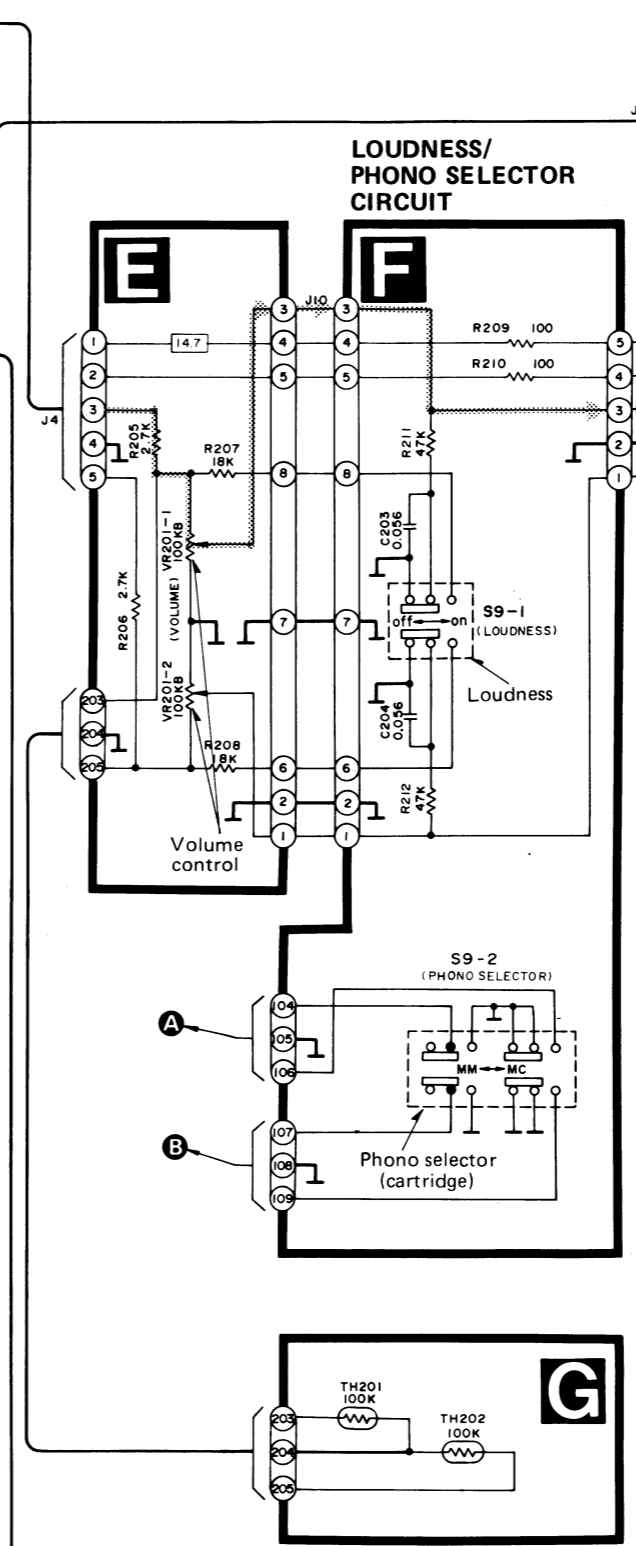
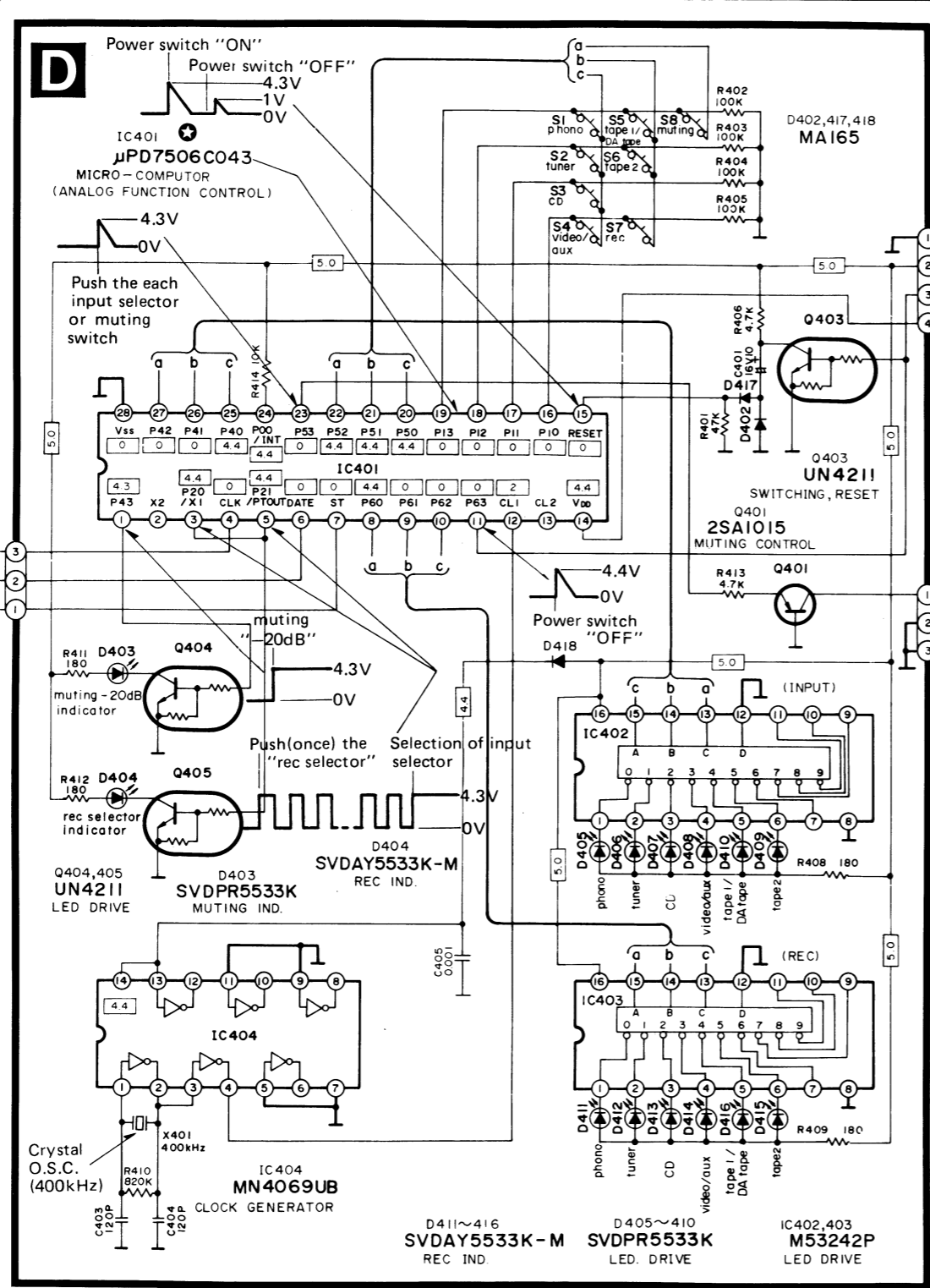
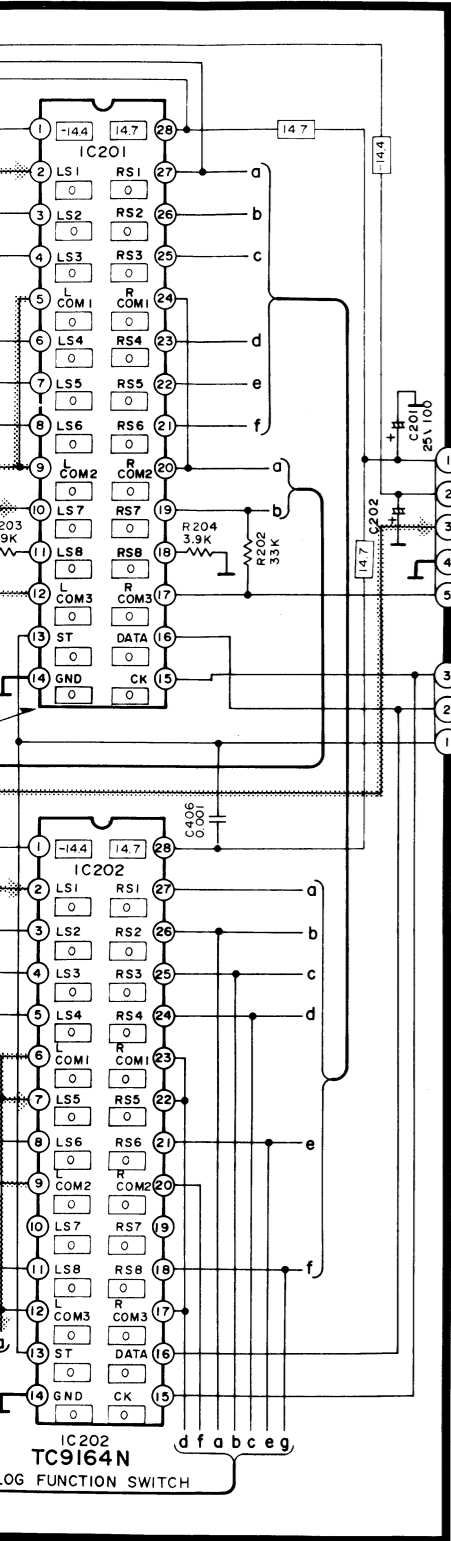
DIFFERENTIAL AMP./ EQUALIZER CIRCUIT



MICRO COMPUTER (FUNCTION CONTROL)/INPUT SELECT SWITCH/REC SWITCH/LED DRIVE/CLOCK GENERATOR CIRCUIT



MICRO COMPUTER(FUNCTION CONTROL)/INPUT SELECT SWITCH/REC SWITCH/
LED DRIVE/CLOCK GENERATOR CIRCUIT



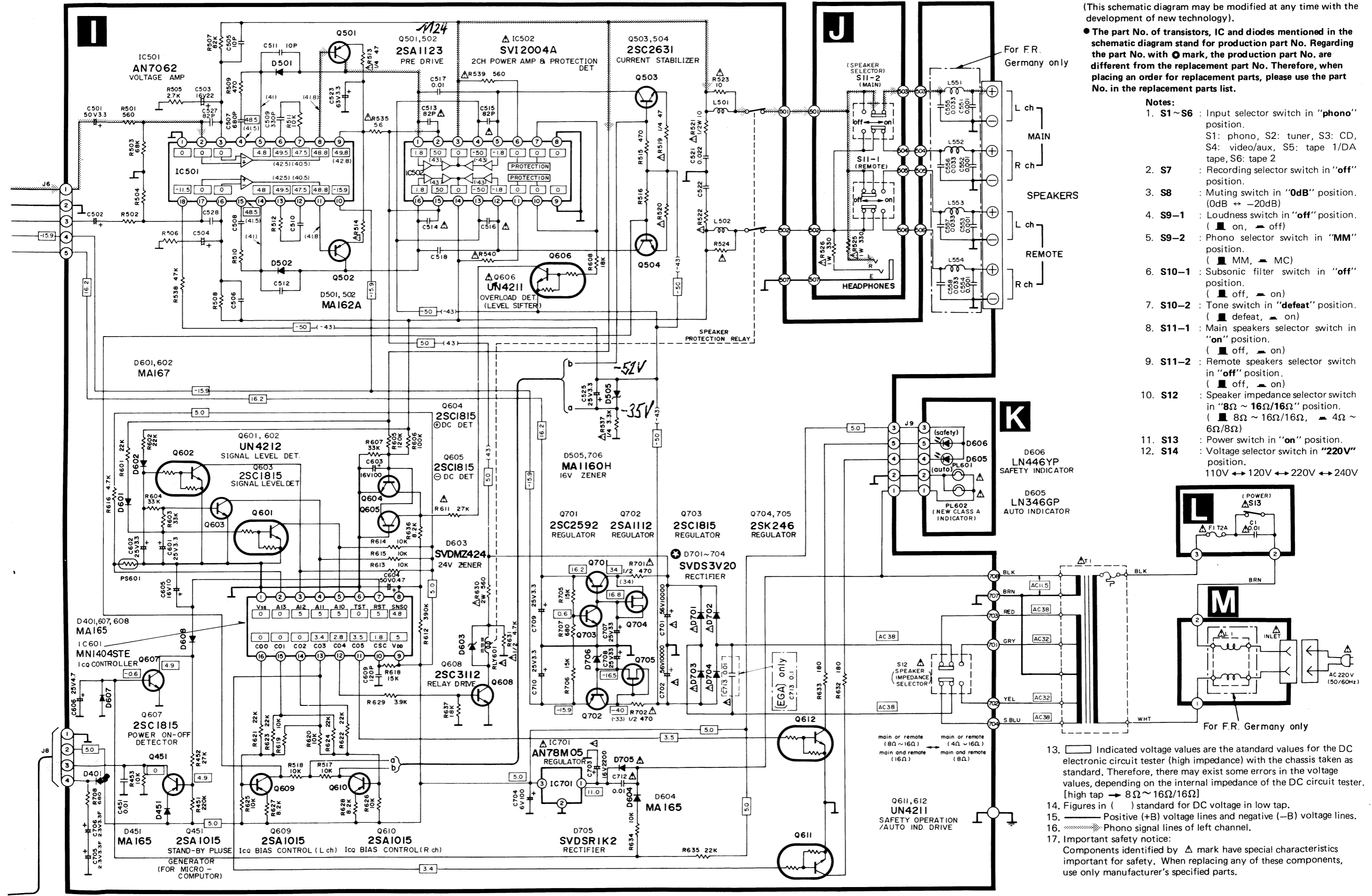
SCHEMATIC DIAGRAM

(This schematic diagram may be modified at any time with the development of new technology).

● The part No. of transistors, IC and diodes mentioned in the schematic diagram stand for production part No. Regarding the part No. with ◉ mark, the production part No. are different from the replacement part No. Therefore, when placing an order for replacement parts, please use the part No. in the replacement parts list.

Notes:

- S1~S6 : Input selector switch in "phono" position.
S1: phono, S2: tuner, S3: CD, S4: video/aux, S5: tape 1/DA tape, S6: tape 2
- S7 : Recording selector switch in "off" position.
- S8 : Muting switch in "0dB" position. (0dB ↔ -20dB)
- S9-1 : Loudness switch in "off" position. (■ on, ▲ off)
- S9-2 : Phono selector switch in "MM" position. (■ MM, ▲ MC)
- S10-1 : Subsonic filter switch in "off" position. (■ off, ▲ on)
- S10-2 : Tone switch in "defeat" position. (■ defeat, ▲ on)
- S11-1 : Main speakers selector switch in "on" position. (■ off, ▲ on)
- S11-2 : Remote speakers selector switch in "off" position. (■ off, ▲ on)
- S12 : Speaker impedance selector switch in "8Ω ~ 16Ω/16Ω" position. (■ 8Ω ~ 16Ω/16Ω, ▲ 4Ω ~ 6Ω/8Ω)
- S13 : Power switch in "on" position.
- S14 : Voltage selector switch in "220V" position. 110V ↔ 120V ↔ 220V ↔ 240V



- 19 - VOLTAGE AMP./ICQ CONTROL/ POWER AMP./OVERLOAD DET./POWER SUPPLY CIRCUIT

- 20 -

- Indicated voltage values are the standard values for the DC electronic circuit tester (high impedance) with the chassis taken as standard. Therefore, there may exist some errors in the voltage values, depending on the internal impedance of the DC circuit tester. [high tap → 8Ω ~ 16Ω/16Ω]
- Figures in () standard for DC voltage in low tap.
- Positive (+B) voltage lines and negative (-B) voltage lines.
- Phono signal lines of left channel.
- Important safety notice:
Components identified by ◉ mark have special characteristics important for safety. When replacing any of these components, use only manufacturer's specified parts.

REPLACEMENT PARTS LIST

Notes:

- Part numbers are indicated on most mechanical parts. Please use this part number for parts orders.
- Important safety notice: Components identified by Δ mark have special characteristics important for safety. When replacing any of these components use only manufacturer's specified parts.
- The "S" mark is service standard parts and may differ from production parts.
- \otimes -marked parts are used for black only, while \circ -marked parts are for silver type only.
- Part other than \otimes - and \circ -marked are used for both black and silver type.
- Bracketed indications in Ref. No. columns specify the area. Parts without these indications can be used for all areas.
- The parenthesized numbers in the column of description stand for the quantity per set.

Ref. No.	Part No.	Part Name & Description	Ref. No.	Part No.	Part Name & Description	Ref. No.	Part No.	Part Name & Description																																																																																																																																																									
INTEGRATED CIRCUITS			VARIABLE RESISTORS			<table border="1"> <thead> <tr> <th>Ref. No.</th> <th>Part No.</th> <th>Part Name & Description</th> </tr> </thead> <tbody> <tr> <td>6-1</td> <td>SUS767</td> <td>Spring</td> </tr> <tr> <td>6-2</td> <td>\circ SBC665</td> <td>Button, Input Selector (1)</td> </tr> <tr> <td>6-2</td> <td>\otimes LSBC665-1</td> <td>Button, Input Selector (1)</td> </tr> <tr> <td>7</td> <td>SMP380</td> <td>Case, L.E.D. (1)</td> </tr> <tr> <td>8</td> <td>SBC399T</td> <td>Button, Tone, Sub sonic Filter, Speakers (4)</td> </tr> <tr> <td>9</td> <td>SBX7701</td> <td>Spacer, Bass, Treble, Balance (3)</td> </tr> <tr> <td>10</td> <td>SBC627</td> <td>Button, Power Switch (1)</td> </tr> <tr> <td>11 [EK] only</td> <td>\circ SKCUV4X-SK</td> <td>Cabinet (Silver Type) (1)</td> </tr> <tr> <td>11 Other</td> <td>\circ SKC1670S1</td> <td>Cabinet (Silver Type) (1)</td> </tr> <tr> <td>11 [EK] only</td> <td>\otimes SKCUV4X-KK</td> <td>Cabinet (Black Type) (1)</td> </tr> <tr> <td>11 Other</td> <td>\otimes SKC1670BB1</td> <td>Cabinet (Black Type) (1)</td> </tr> <tr> <td>12</td> <td>SJT347</td> <td>Holder, Fuse (2)</td> </tr> <tr> <td>13</td> <td>SJJ71B</td> <td>Jack, Headphones (1)</td> </tr> <tr> <td>14 [EK, XL, XA, PA, PE]</td> <td>SMLUV4X-SK</td> <td>Bracket, Power Transformer (1)</td> </tr> <tr> <td>14 [E, EGA, EF, EH, EB, Ei]</td> <td>SMLUV4X-KM</td> <td>Bracket, Power Transformer (1)</td> </tr> <tr> <td>15</td> <td>SBC621</td> <td>Button, Loudness, Phono Selector (2)</td> </tr> <tr> <td>16 [XA, PA, PE]</td> <td>SKUUV4X-SX</td> <td>Button Board (1)</td> </tr> <tr> <td>16 Other</td> <td>SKUUV4X-SE</td> <td>Button Board (1)</td> </tr> <tr> <td>16-1</td> <td>[SHS2481</td> <td>Foot (2)</td> </tr> <tr> <td>17</td> <td>SJF3057-5N</td> <td>Terminal Board, Phono (1)</td> </tr> <tr> <td>18</td> <td>SJF3057N</td> <td>Terminal Board, Ext (1)</td> </tr> <tr> <td>19</td> <td>SJF3059N</td> <td>Terminal Board, In/Out (1)</td> </tr> <tr> <td>20</td> <td>SJF4815-1</td> <td>Terminal Board, Speaker (1)</td> </tr> <tr> <td>21 [EK, XL, XA, PA, PE] only</td> <td>SMK59</td> <td>Bracket (1)</td> </tr> <tr> <td>22</td> <td>SBC165</td> <td>Button, Impedance Selector (1)</td> </tr> <tr> <td>23 [EX, XL, XA, PA, PE] only</td> <td>SHR401-1</td> <td>Lock Pin (1)</td> </tr> <tr> <td>24 [XA, PA, PE] only</td> <td>Δ SJS9328B</td> <td>Socket, AC Outlet (1)</td> </tr> <tr> <td>25 [XA, PA, PE] only</td> <td>SJS9328A</td> <td>Socket Cover, AC Outlet (1)</td> </tr> <tr> <td>26 [XL] Δ except</td> <td>SJS9231B</td> <td>Socket, AC Inlet (1)</td> </tr> <tr> <td>27 [XL] except</td> <td>SJS9231A</td> <td>Socket Cover, AC Inlet (1)</td> </tr> <tr> <td>28 [EGA]</td> <td>SGPUV4X-SG</td> <td>Rear Panel (1)</td> </tr> <tr> <td>28 [EK]</td> <td>SGPUV4X-SK</td> <td>Rear Panel (1)</td> </tr> <tr> <td>28 [XL]</td> <td>SGPUV4X-SL</td> <td>Rear Panel (1)</td> </tr> <tr> <td>28 [XA, PA, PE]</td> <td>SGPUV4X-SX</td> <td>Rear Panel (1)</td> </tr> <tr> <td>28 [E, EF, EH, EB, Ei]</td> <td>SGPUV4X-SE</td> <td>Rear Panel (1)</td> </tr> <tr> <td>29</td> <td>SJP9205-2</td> <td>Short Pin (2)</td> </tr> <tr> <td>30 [EK] only</td> <td>SMX852</td> <td>Insulation Cover (1)</td> </tr> <tr> <td>31 [EK] only</td> <td>SHR401-1</td> <td>Lock Pin (1)</td> </tr> <tr> <td>32 [XL] only</td> <td>SHR127</td> <td>Bushing, AC Cord (1)</td> </tr> <tr> <td>33 [XL] only</td> <td>Δ RJA79ZAK</td> <td>Accord (1)</td> </tr> <tr> <td>34 [EK, XL, XA, PA, PE] only</td> <td>SJT347</td> <td>Holder, Fuse (2)</td> </tr> <tr> <td>35 [EK, XL, XA, PA, PE] only</td> <td>SMX842</td> <td>Insulation Cover (1)</td> </tr> <tr> <td>36</td> <td>SMX475-1</td> <td>Insulation Plate (1)</td> </tr> <tr> <td>37</td> <td>SHR301</td> <td>Clamper (5)</td> </tr> <tr> <td>38</td> <td>SJS5421</td> <td>Socket (4 Pin) (1)</td> </tr> <tr> <td>38</td> <td>SJS5519</td> <td>Socket (5 Pin) (1)</td> </tr> <tr> <td>39</td> <td>SJT3321</td> <td>Post (3 Pin) (1)</td> </tr> <tr> <td>39</td> <td>SJT3513</td> <td>Post (5 Pin) (2)</td> </tr> <tr> <td>40</td> <td>SJS3321</td> <td>Socket (3 Pin) (1)</td> </tr> <tr> <td>40</td> <td>SJS3513</td> <td>Socket (5 Pin) (2)</td> </tr> </tbody> </table>			Ref. No.	Part No.	Part Name & Description	6-1	SUS767	Spring	6-2	\circ SBC665	Button, Input Selector (1)	6-2	\otimes LSBC665-1	Button, Input Selector (1)	7	SMP380	Case, L.E.D. (1)	8	SBC399T	Button, Tone, Sub sonic Filter, Speakers (4)	9	SBX7701	Spacer, Bass, Treble, Balance (3)	10	SBC627	Button, Power Switch (1)	11 [EK] only	\circ SKCUV4X-SK	Cabinet (Silver Type) (1)	11 Other	\circ SKC1670S1	Cabinet (Silver Type) (1)	11 [EK] only	\otimes SKCUV4X-KK	Cabinet (Black Type) (1)	11 Other	\otimes SKC1670BB1	Cabinet (Black Type) (1)	12	SJT347	Holder, Fuse (2)	13	SJJ71B	Jack, Headphones (1)	14 [EK, XL, XA, PA, PE]	SMLUV4X-SK	Bracket, Power Transformer (1)	14 [E, EGA, EF, EH, EB, Ei]	SMLUV4X-KM	Bracket, Power Transformer (1)	15	SBC621	Button, Loudness, Phono Selector (2)	16 [XA, PA, PE]	SKUUV4X-SX	Button Board (1)	16 Other	SKUUV4X-SE	Button Board (1)	16-1	[SHS2481	Foot (2)	17	SJF3057-5N	Terminal Board, Phono (1)	18	SJF3057N	Terminal Board, Ext (1)	19	SJF3059N	Terminal Board, In/Out (1)	20	SJF4815-1	Terminal Board, Speaker (1)	21 [EK, XL, XA, PA, PE] only	SMK59	Bracket (1)	22	SBC165	Button, Impedance Selector (1)	23 [EX, XL, XA, PA, PE] only	SHR401-1	Lock Pin (1)	24 [XA, PA, PE] only	Δ SJS9328B	Socket, AC Outlet (1)	25 [XA, PA, PE] only	SJS9328A	Socket Cover, AC Outlet (1)	26 [XL] Δ except	SJS9231B	Socket, AC Inlet (1)	27 [XL] except	SJS9231A	Socket Cover, AC Inlet (1)	28 [EGA]	SGPUV4X-SG	Rear Panel (1)	28 [EK]	SGPUV4X-SK	Rear Panel (1)	28 [XL]	SGPUV4X-SL	Rear Panel (1)	28 [XA, PA, PE]	SGPUV4X-SX	Rear Panel (1)	28 [E, EF, EH, EB, Ei]	SGPUV4X-SE	Rear Panel (1)	29	SJP9205-2	Short Pin (2)	30 [EK] only	SMX852	Insulation Cover (1)	31 [EK] only	SHR401-1	Lock Pin (1)	32 [XL] only	SHR127	Bushing, AC Cord (1)	33 [XL] only	Δ RJA79ZAK	Accord (1)	34 [EK, XL, XA, PA, PE] only	SJT347	Holder, Fuse (2)	35 [EK, XL, XA, PA, PE] only	SMX842	Insulation Cover (1)	36	SMX475-1	Insulation Plate (1)	37	SHR301	Clamper (5)	38	SJS5421	Socket (4 Pin) (1)	38	SJS5519	Socket (5 Pin) (1)	39	SJT3321	Post (3 Pin) (1)	39	SJT3513	Post (5 Pin) (2)	40	SJS3321	Socket (3 Pin) (1)	40	SJS3513	Socket (5 Pin) (2)
Ref. No.	Part No.	Part Name & Description																																																																																																																																																															
6-1	SUS767	Spring																																																																																																																																																															
6-2	\circ SBC665	Button, Input Selector (1)																																																																																																																																																															
6-2	\otimes LSBC665-1	Button, Input Selector (1)																																																																																																																																																															
7	SMP380	Case, L.E.D. (1)																																																																																																																																																															
8	SBC399T	Button, Tone, Sub sonic Filter, Speakers (4)																																																																																																																																																															
9	SBX7701	Spacer, Bass, Treble, Balance (3)																																																																																																																																																															
10	SBC627	Button, Power Switch (1)																																																																																																																																																															
11 [EK] only	\circ SKCUV4X-SK	Cabinet (Silver Type) (1)																																																																																																																																																															
11 Other	\circ SKC1670S1	Cabinet (Silver Type) (1)																																																																																																																																																															
11 [EK] only	\otimes SKCUV4X-KK	Cabinet (Black Type) (1)																																																																																																																																																															
11 Other	\otimes SKC1670BB1	Cabinet (Black Type) (1)																																																																																																																																																															
12	SJT347	Holder, Fuse (2)																																																																																																																																																															
13	SJJ71B	Jack, Headphones (1)																																																																																																																																																															
14 [EK, XL, XA, PA, PE]	SMLUV4X-SK	Bracket, Power Transformer (1)																																																																																																																																																															
14 [E, EGA, EF, EH, EB, Ei]	SMLUV4X-KM	Bracket, Power Transformer (1)																																																																																																																																																															
15	SBC621	Button, Loudness, Phono Selector (2)																																																																																																																																																															
16 [XA, PA, PE]	SKUUV4X-SX	Button Board (1)																																																																																																																																																															
16 Other	SKUUV4X-SE	Button Board (1)																																																																																																																																																															
16-1	[SHS2481	Foot (2)																																																																																																																																																															
17	SJF3057-5N	Terminal Board, Phono (1)																																																																																																																																																															
18	SJF3057N	Terminal Board, Ext (1)																																																																																																																																																															
19	SJF3059N	Terminal Board, In/Out (1)																																																																																																																																																															
20	SJF4815-1	Terminal Board, Speaker (1)																																																																																																																																																															
21 [EK, XL, XA, PA, PE] only	SMK59	Bracket (1)																																																																																																																																																															
22	SBC165	Button, Impedance Selector (1)																																																																																																																																																															
23 [EX, XL, XA, PA, PE] only	SHR401-1	Lock Pin (1)																																																																																																																																																															
24 [XA, PA, PE] only	Δ SJS9328B	Socket, AC Outlet (1)																																																																																																																																																															
25 [XA, PA, PE] only	SJS9328A	Socket Cover, AC Outlet (1)																																																																																																																																																															
26 [XL] Δ except	SJS9231B	Socket, AC Inlet (1)																																																																																																																																																															
27 [XL] except	SJS9231A	Socket Cover, AC Inlet (1)																																																																																																																																																															
28 [EGA]	SGPUV4X-SG	Rear Panel (1)																																																																																																																																																															
28 [EK]	SGPUV4X-SK	Rear Panel (1)																																																																																																																																																															
28 [XL]	SGPUV4X-SL	Rear Panel (1)																																																																																																																																																															
28 [XA, PA, PE]	SGPUV4X-SX	Rear Panel (1)																																																																																																																																																															
28 [E, EF, EH, EB, Ei]	SGPUV4X-SE	Rear Panel (1)																																																																																																																																																															
29	SJP9205-2	Short Pin (2)																																																																																																																																																															
30 [EK] only	SMX852	Insulation Cover (1)																																																																																																																																																															
31 [EK] only	SHR401-1	Lock Pin (1)																																																																																																																																																															
32 [XL] only	SHR127	Bushing, AC Cord (1)																																																																																																																																																															
33 [XL] only	Δ RJA79ZAK	Accord (1)																																																																																																																																																															
34 [EK, XL, XA, PA, PE] only	SJT347	Holder, Fuse (2)																																																																																																																																																															
35 [EK, XL, XA, PA, PE] only	SMX842	Insulation Cover (1)																																																																																																																																																															
36	SMX475-1	Insulation Plate (1)																																																																																																																																																															
37	SHR301	Clamper (5)																																																																																																																																																															
38	SJS5421	Socket (4 Pin) (1)																																																																																																																																																															
38	SJS5519	Socket (5 Pin) (1)																																																																																																																																																															
39	SJT3321	Post (3 Pin) (1)																																																																																																																																																															
39	SJT3513	Post (5 Pin) (2)																																																																																																																																																															
40	SJS3321	Socket (3 Pin) (1)																																																																																																																																																															
40	SJS3513	Socket (5 Pin) (2)																																																																																																																																																															
IC101	SVINJ4559DDM	Equalizer	VR201	EWJKMA054B15	Volume Control, 100K Ω (B)																																																																																																																																																												
IC201	TC9163N	Analog Function Switch	VR301	EWHF5AF25G15	Balance Control, 100K Ω (G)																																																																																																																																																												
IC202	TC9164N	Analog Function Switch	VR302, 303	EWCXEA011C15	Tone Control, 100K Ω (C)																																																																																																																																																												
IC301	SVINJM4560DX	Tone Amp.	CRYSTAL																																																																																																																																																														
IC401	UPD7506C043	Micro-Computer	X401	SVFCSB400P-M																																																																																																																																																													
IC402, 403	M53242P	LED. Drive	THERMAL DETECTOR																																																																																																																																																														
IC404	MN4069UB	Clock Generator	PS601	SRPBG47101																																																																																																																																																													
IC501	AN7062	Voltage Amp.	THERMISTER																																																																																																																																																														
IC502	Δ SVI2004A	Power Amp.	TH201, 202	RRT104	100 Ω																																																																																																																																																												
IC601	MN1404STE	ICQ Controller	RELAY																																																																																																																																																														
IC701	Δ AN78M05	Regulator	RLY601	Δ SSY126	Speaker																																																																																																																																																												
TRANSISTORS			LAMPS																																																																																																																																																														
Q101~104	2SK170-GR	FET Differential Amp.	PL601, 602	Δ XAMR74S17	Power ON Ind.																																																																																																																																																												
Q301, 302	2SK301-S	Muting	FUSES																																																																																																																																																														
Q401, 451, 609, 610	2SA1015-Y	Muting Control, Stand-By Pluse Generator	F1 [E, EGA, EF, EH, EB, Ei] Δ	XBA2C20TRO	250V, T2A																																																																																																																																																												
Q403~405, 606, 611, 612	UN4211	ICQ Bias Control Switching, LED Drive	F1 [EK, XL, XA, PA, PE] Δ	XBA2C40TRO	250V, T4A																																																																																																																																																												
Q501, 502	2SA1123-R	Over Load Det., Safety Operation/ Auto Ind. Drive	F2 [EK, XL, XA, PA, PE] only Δ	XBA2C20TRO	250V, T2A																																																																																																																																																												
Q503, 504	2SC2631-R	Pre Drive	SWITCHES																																																																																																																																																														
Q601, 602	UN4212	Current Stabilizer	S1~8	SSG13	Input, Tape, Rec, Muting																																																																																																																																																												
Q603~605, 607, 703	2SC1815-Y	Signal Level Det., DC Det., Power ON-OFF Det., Regulator	S9	SSM2083	Tape, Muting, Loudness, Phono Selector																																																																																																																																																												
Q608	2SC3112	Regulator	S10	SSH2082	Subsonic Filter, Tone																																																																																																																																																												
Q701	2SC2592-R	Relay Drive	S11	SSH2081	Speaker Selector																																																																																																																																																												
Q702	2SA1112-R	Regulator	S12	Δ SSH1152	Speaker Impedance Selector																																																																																																																																																												
Q704, 705	2SK246-Y	Regulator	S13	Δ SSH1057-1	Power Source																																																																																																																																																												
DIODES			S14 [EK, XL, XA, PA, PE] only Δ	ESE37219	Voltage Selector																																																																																																																																																												
D101, 102, 401, 402, 417, 418, 451, 604, 607, 608	MA165	Switching	CABINET and CHASSIS PARTS																																																																																																																																																														
D403	SVDPR5533K	L. E. D. (Muting Input)	1	SBN1125	Knob, Volume (1)																																																																																																																																																												
D404	SVDAY5533K-M	L. E. D. (REC)	2	SBN1153	Knob, Bass Treble, Balance (3)																																																																																																																																																												
D301	20A90	Switching	3 [PA, PE] only \circ	SGWUV4X-SP	Front Panel, Ass'y (Silver Type) (1)																																																																																																																																																												
D501, 502	\circ MA162A	Switching	3 Other \circ	SGWUV4X-SE	Front Panel, Ass'y (Silver Type) (1)																																																																																																																																																												
D505, 706	MA4160	Zener, 16V	3	\otimes SGWUV4X-KM	Front Panel Ass'y, (Black Type) (1)																																																																																																																																																												
D601, 602	MA167	Switching	4	\circ SGXUV4X-SE	Ornament (Silver Type) (1)																																																																																																																																																												
D603	SVDMM2424B	Zener, 24V	4	\otimes SGXUV4X-KM	Ornament (Black Type) (1)																																																																																																																																																												
D605	LN346GP	L. E. D. (Auto Operation)	5	\circ SBC668	Button, Muting (Silver Type) (1)																																																																																																																																																												
D606	LN446YP	L. E. D. (Safety Operation)	5	\otimes SBC668-1	Button, Muting (Black Type) (1)																																																																																																																																																												
D701~704	\circ Δ SVDS3V40	Rectifier	6	\circ SGXUV4X-SE1	Ornament (Silver Type) (1)																																																																																																																																																												
D705	\circ Δ SVDSR1K2	Rectifier	6	\otimes SGXUV4X-KM1	Ornament (Black Type) (1)																																																																																																																																																												
COIL and TRANSFORMER																																																																																																																																																																	
L1 [EGA] only	SLQZ650MH49	Choke																																																																																																																																																															
L101, 102	SLM1Z33	L.P.F.																																																																																																																																																															
[EGA] only																																																																																																																																																																	
L501, 502	SLQY18G-10	Choke																																																																																																																																																															
L551, 552	SLQY07G-30	Choke																																																																																																																																																															
[EGA] only																																																																																																																																																																	
L553, 554	SLQY07G-30	Choke																																																																																																																																																															
[EGA] only																																																																																																																																																																	
T1 [E, EGA, EF, EH, EB, Ei] Δ	SLT5N441	Power Transformer																																																																																																																																																															
T1 [EK, XL, XA, PA, PE] Δ	SLT5N442	Power Transformer																																																																																																																																																															

RESISTORS & CAPACITORS

- Notes:**
- Part numbers are indicated on most mechanical parts. Please use this part number for parts orders.
 - Important safety notice: Components identified by Δ mark have special characteristics important for safety. When replacing any of these components use only manufacturer's specified parts.
 - The "S" mark is service standard parts and may differ from production parts.
 - The unit of resistance is Ω . (ohm). K = 1000 Ω , M = 1000k Ω .
 - The unit of capacitance is μF . (microfarad). P = 10⁻⁶ μF .

Resistor Type	Wattage	Tolerance	Capacitor Type	Voltage		Tolerance
				ECEA Type	Other	
ERD : Carbon	S2 : 1/4W	J : $\pm 5\%$	ECEA : Electrolytic	0J : 6.3V	1H : 50V	K : $\pm 10\%$
ERG : Metal Oxide	25 : 1/4W	G : $\pm 5\%$	ECCD : Ceramic	1C : 16V	KC : 400V AC	Z : +80%, -20%
	2 : 2W		ECKD : Ceramic	1E : 25V	2H : 500V	P : +100%, -0%
	S1 : 1/2W		ECQM : Polyester	1H : 50V		M : $\pm 20\%$
			ECET : Electrolytic	1J : 63V		
			ECEA...N : Non Polar Electrolytic			
			EECW : Liquid electrolyte double layer capacitor			

RESISTORS

Ref. No.	Part No.	Value	Ref. No.	Part No.	Value	Ref. No.	Part No.	Value	Ref. No.	Part No.	Value
R101, 102	ERDS2TJ473	47K	R215, 216	ERDS2TJ182	1.8K	R413	ERDS2TJ472	4.7K	R607	ERDS2TJ333	33K
R103, 104	ERDS2TJ220	22	[EGA] only			R414	ERDS2TJ103	10K	R608	ERDS2TJ183	18K
R105, 106	ERDS2TJ332	3.3K	R217, 218	ERDS2TJ182	1.8K	R451	ERDS2TJ224	220K	R611	Δ ERDS2TJ273	27K
R107, 108	ERDS2TJ332	3.3K	[EGA] only						R612	ERDS2TJ394	390K
R109, 110	ERDS2TJ332	3.3K	R219, 220	ERDS2TJ182	1.8K	R452	ERDS2TJ273	27K	R613, 614	ERDS2TJ103	10K
R111, 112	ERDS2TJ151	150	[EGA] only			R453	ERDS2TJ103	10K	R615	ERDS2TJ103	10K
R113, 114	ERDS2TJ101	100	R221, 222	ERDS2TJ182	1.8K	R501, 502	ERDS2TJ561	560	R616	ERDS2TJ472	4.7K
R117, 118	ERDS2TJ151	150	[EGA] only			R503, 504	Δ ERDS2TJ823	82K	R618	ERDS2TJ153	15K
R119, 120	ERDS2TJ823	82K	R301, 302	ERDS2TJ824	820K	R505, 506	ERDS2TJ272	2.7K	R619, 620	ERDS2TJ103	10K
R121, 122	ERDS2TJ682	6.8K	R303, 304	ERDS2TJ561	560	R507, 508	ERDS2TJ823	82K	R621, 622	ERDS2TJ223	22K
			R305, 306	ERDS2TJ154	150K	R509, 510	ERDS2TJ471	470	R623, 624	ERDS2TJ223	22K
			R307, 308	ERDS2TJ224	220K	R511, 512	ERDS2TJ103	10K	R625, 626	ERDS2TJ103	10K
R123, 124	ERDS2TJ334	330K	R309, 310	ERDS2TJ223	22K	R513, 514	Δ ERD25FJ470	47	R627, 628	ERDS2TJ822	8.2K
R125, 126	ERDS2TJ561	560	R311, 312	ERDS2TJ392	3.9K	R515, 516	ERDS2TJ471	470			
R127, 128	ERDS2TJ100	10	R315, 316	ERDS2TJ183	18K	R517, 518	ERDS2TJ103	10K	R629	ERDS2TJ392	3.9K
R129, 130	ERDS2TJ221	220	R317, 318	ERDS2TJ562	5.6K	R519, 520	Δ ERD25FJ470	47	R630	Δ ERG2ANJ561	560
R151, 152	ERDS2TJ102	1K	R319, 320	ERDS2TJ102	1K	R521, 522	Δ ERDS1FJ100	10	R631	Δ ERDS1FJ472	4.7K
[EGA] only			R321, 322	ERDS2TJ223	22K				R632, 633	ERDS2TJ181	180
R153, 154	ERDS2TJ102	1K	R323, 324	ERDS2TJ392	3.9K	R523, 524	Δ ERD25FJ100	10	R634	ERDS2TJ103	10K
[EGA] only			R325	ERDS2TJ334	330K	R525, 526	ERG1ANJ331	330	R635	ERDS2TJ223	22K
			R327, 328	ERDS2TJ224	220K	R535	Δ ERD25FJ5R6	5.6	R636	ERDS2TJ822	8.2K
R201, 202	ERDS2TJ333	33K	R401	ERDS2TJ473	47K	R537	Δ ERD25FJ332	3.3K	R637	ERDS2TJ183	18K
R203, 204	ERDS2TJ392	3.9K	R402, 403	ERDS2TJ104	100K	R538	ERDS2TJ473	47K	R701, 702	Δ ERDS1FJ471	470
R205, 206	ERDS2TJ272	2.7K	R404, 405	ERDS2TJ104	100K	R539, 540	Δ ERD25FJ561	560	R705, 706	ERDS2TJ153	15K
R207, 208	ERDS2TJ183	18K	R406	ERDS2TJ472	4.7K	R601, 602	ERDS2TJ223	22K			
R209, 210	ERDS2TJ101	100	R408, 409	ERDS2TJ181	180	R603, 604	ERDS2TJ333	33K	R707, 708	ERDS2TJ681	680
R211, 212	ERDS2TJ473	47K	R410	ERDS2TJ824	820K	R605	ERDS2TJ124	120K			
R213, 214	ERDS2TJ182	1.8K	R411, 412	ERDS2TJ181	180	R606	ERDS2TJ104	100K			
[EGA] only											

CAPACITORS

Ref. No.	Part No.	Value	Ref. No.	Part No.	Value	Ref. No.	Part No.	Value	Ref. No.	Part No.	Value	
C1	Δ ECKDKC103PF	0.01	C211, 212	Δ ECCD1H101K	100P	C451	Δ ECKD1H103ZF	0.01	C557, 558	ECQM1H333KV	0.033	
C101, 102	Δ ECCD1H820K	82P	[EGA] only			C501, 502	ECEA1HU3R3	3.3	[EGA] only			
C103, 104	ECEA0JU222	2200	C213, 214	Δ ECCD1H101K	100P	C503, 504	Δ ECEA1CU220	22	C601, 602	ECEA1EU3R3	3.3	
C105, 106	Δ ECKD1H222ZF	0.0022	[EGA] only			C505, 506	Δ ECCD1H100KC	10P	C603	ECEA1CU101	100	
C107, 108	Δ ECQM1H393KV	0.039	C215, 216	Δ ECCD1H820K	82P	C507, 508	Δ ECKD1H681KB	680P	C604	ECEA1HUR47	0.47	
C109, 110	ECQM1H103KV	0.01	[EGA] only			C509, 510	Δ ECKD1H331KB	330P	C605	ECEA1CU100	10	
C111, 112	ECQM1H122KV	0.0012	C301, 302	ECQM1H563KV	0.056	C511, 512	Δ ECCD2H100K	10P	C606	ECEA1EU4R7	4.7	
C113, 114	Δ ECEA1HN010S	1	C303, 304	ECEA1HU3R3	3.3	C513, 514	Δ ECCD2H820K	82P	C609	Δ ECCD1H121K	120P	
C115, 116	ECQM1H472JZ	4700	C305, 306	Δ ECCD1H820K	82P	C515, 516	Δ ECCD2H820K	82P	C701, 702	Δ ECETS56V103U	10000	
C117, 118	Δ ECKD1H103ZF	0.01	C307, 308	ECQM1H153KV	0.015	C517, 518	Δ ECKD1H103MD	0.01	C703	Δ ECEA1CU222	2200	
			C309, 310	ECQM1H823JZ	0.082	C521, 522	Δ ECKD1H223ZF	0.022	C704	ECEA0JU101	100	
C151, 152	Δ ECCD1H680K	68P	C311, 312	ECQM1H182JZ	0.0018	C523	ECEA1JU3R3	3.3	C705, 706	EECW2R3A3R3	3.3F	
[EGA] only			C313, 314	ECQM1H183KV	0.018				C707, 708	ECEA1EU330	33	
			C315, 316	ECEA1EU4R7	4.7				C709, 710	ECEA1EU3R3	3.3	
C201, 202	ECEA1EU101	100	C317	ECEA1HUR22	0.22	C525	ECEA1EU3R3	3.3				
C203, 204	ECQM1H563KV	0.056	C319, 320	Δ ECCD1H390K	39P	C527, 528	Δ ECCD1H820K	82P				
C205, 206	Δ ECCD1H101K	100P	C321, 322	ECEA1EU100	10	C551, 552	Δ ECKD1H102MD	0.001				
[EGA] only			C401	ECEA1CU100	10	[EGA] only			C712	Δ ECKD1H103ZF	0.01	
C207, 208	Δ ECCD1H101K	100P				C553, 554	Δ ECKD1H102MD	0.001	C713	[EGA] only	ECQE10104V	0.1
[EGA] only						[EGA] only			C713 [EGA]	Δ ECKD2H103PE	0.01	
C209, 210	Δ ECCD1H101K	100P	C403, 404	Δ ECCD1H121K	120P	C555, 556	ECQM1H333KV	0.033	except			
[EGA] only			C405, 406	Δ ECKD1H102ZF	0.001							