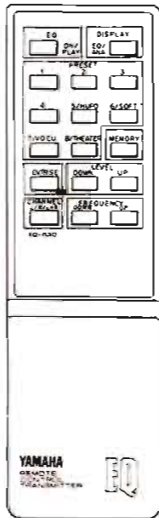


STEREO GRAPHIC EQUALIZER EQ-630

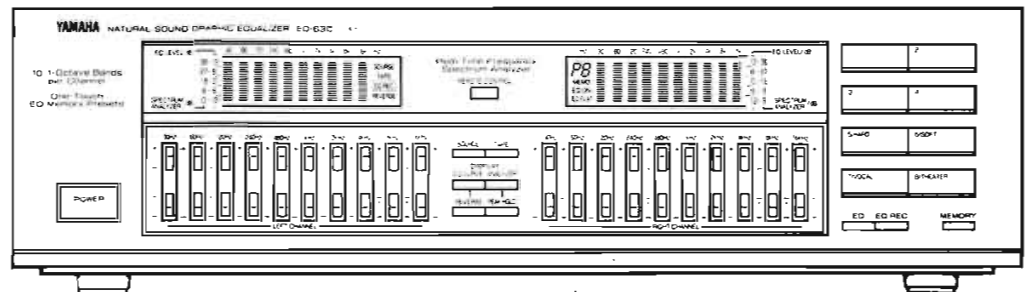
SERVICE MANUAL

EQ-630

FRONT PANEL



Remote Control Transmitter



IMPORTANT NOTICE

This manual has been provided for the use of authorized Yamaha Retailers and their service personnel. It has been assumed that basic service procedures inherent to the industry, and more specifically Yamaha Products, are already known and understood by the users, and have therefore not been restated.

WARNING: Failure to follow appropriate service and safety procedures when servicing this product may result in personal injury, destruction of expensive components and failure of the product to perform as specified. For these reasons, we advise all Yamaha product owners that all service required should be performed by an authorized Yamaha Retailer or the appointed service representative.

IMPORTANT: The presentation or sale of this manual to any individual or firm does not constitute authorization, certification, recognition of any applicable technical capabilities, or establish a principle-agent relationship of any form.

The data provided is believed to be accurate and applicable to the unit(s) indicated on the cover. The research, engineering, and service departments of Yamaha are continually striving to improve Yamaha products. Modifications are, therefore, inevitable and specifications are subject to change without notice or obligation to retrofit. Should any discrepancy appear to exist, please contact the distributor's Service Division.

WARNING: Static discharges can destroy expensive components. Discharge any static electricity your body may have accumulated by grounding yourself to the ground buss in the unit (heavy gauge black wires connect to this buss).

IMPORTANT: Turn the unit OFF during disassembly and parts replacement. Recheck all work before you apply power to the unit.

CONTENTS


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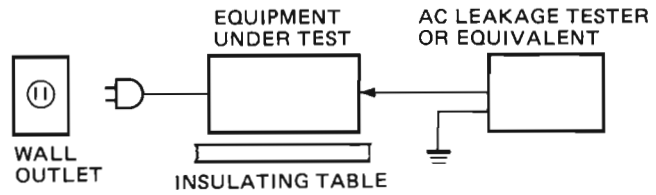
100263

YAMAHA

YAMAHA CORPORATION HAMAMATSU, JAPAN
3.7k-142 © Printed in Japan '89.5

■ TO SERVICE PERSONNEL

1. Critical Components Information.
Components having special characteristics are marked  and must be replaced with parts having specifications equal to those originally installed.
2. Leakage Current Measurement (For 120V Model Only).
When service has been completed, it is imperative that you verify that all exposed conductive surfaces are properly insulated from supply circuits.
 - Meter impedance should be equivalent to 1500 ohm shunted by 0.15μF.
 - Leakage current must not exceed 0.5mA.
 - Be sure to test for leakage with the AC plug in both polarities.



■ SPECIFICATIONS

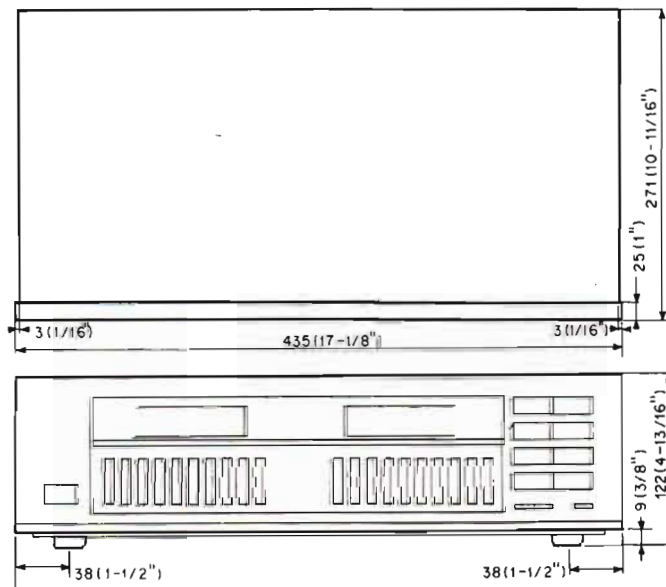
| | |
|---|---|
| Max. Output Voltage (1 kHz, 0.1% T.H.D) | 7V |
| Rated Output Voltage | 1V |
| Max. Input Voltage (1 kHz) | 7V |
| Rated Input Voltage | 1V |
| Input Impedance | 47 k-ohms |
| Frequency Response | 10 Hz — 50 kHz, -1 dB |
| Center Frequencies | 30 Hz, 60 Hz, 120 Hz, 240 Hz, 480 Hz, 1 kHz, 2 kHz, 4 kHz, 8 kHz, 16 kHz |
| Equalizer Control Range | ±12 dB |
| Signal-to-Noise Ratio (IHF A Network) At 1V output | 105 dB/1V |
| Total Harmonic Distortion (20 Hz ~ 20 kHz, 1V output) | Less than 0.006% |

| | |
|----------------------------------|--|
| Power Requirements | |
| General model | 110/120/220/240V, 50/60 Hz |
| Europe model | 220V, 50 Hz |
| Australia and U.K. models | 240V, 50 Hz |
| U.S.A. and Canada models | 120V, 60 Hz |
| Power Consumption | 10W |
| Dimensions (W x H x D) | 435 x 122 x 271 mm (17-1/8" x 4-13/16" x 10-11/16") |
| Weight | 3.5 kg (7 lbs. 11 oz.) |
| Accessories | Pin plug cords (2) Remote control transmitter (1) Dry battery size "AA" (R06) type (2) Power cord (1) |

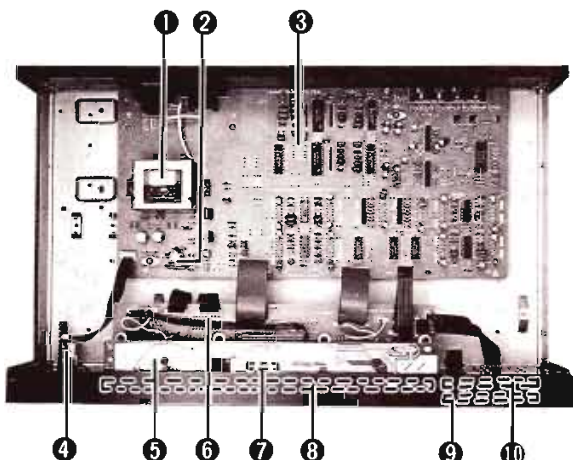
* Specifications subject to change without notice.

- (U) U.S.A. model (B) British model
 (C) Canadian model (G) European model
 (A) Australian model (R) General model

■ DIMENSIONS



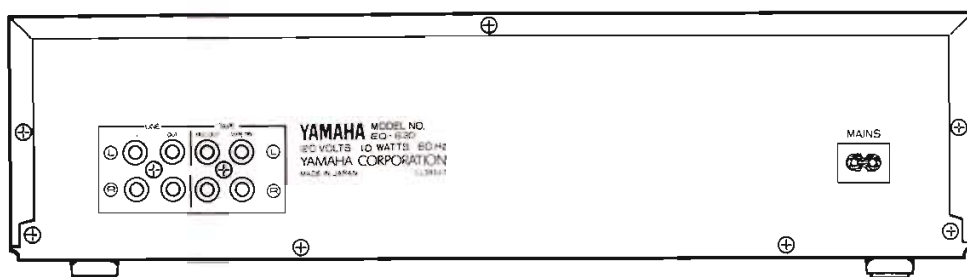
INTERNAL VIEW



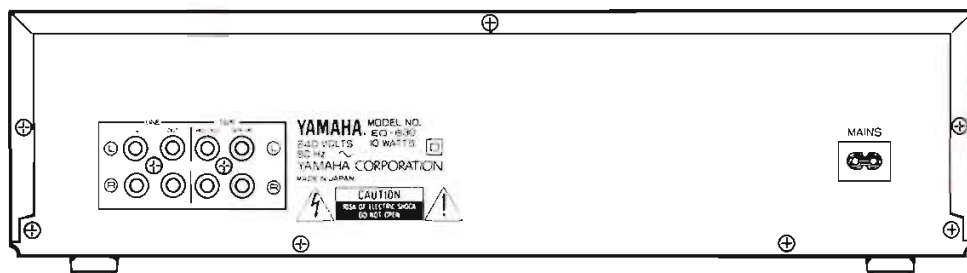
- ① Power Transformer
- ② Lithium Battery (Memory)
- ③ Main Circuit Board
- ④ Panel Circuit Board (7)
- ⑤ Panel Circuit Board (2)
- ⑥ Panel Circuit Board (1)
- ⑦ Panel Circuit Board (6)
- ⑧ Panel Circuit Board (3)
- ⑨ Panel Circuit Board (5) :Bottom Side
- ⑩ Panel Circuit Board (4) :Top Side

REAR PANELS

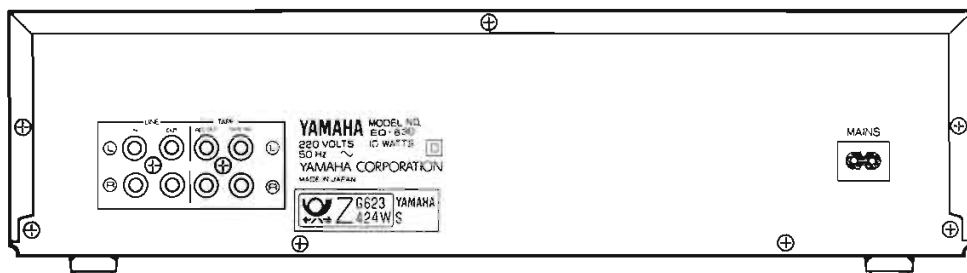
- U, C models



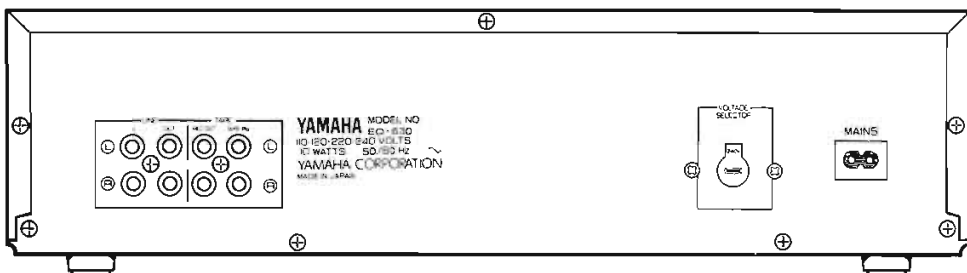
- A, B models



- G model



- R model



■ LITHIUM BATTERY

This product uses a lithium battery for memory back-up.

WARNING: Lithium batteries are dangerous because they can be exploded by improper handling. Observe the following precautions when handling or replacing lithium batteries.

- Leave lithium battery replacement to qualified service personnel.
- Always replace with batteries of the same type.
- When installing on the PC board, solder using the connection terminals provided on the battery cells. Never solder directly to the cells. Perform the soldering as quickly as possible.
- Never reverse the battery polarities when installing.
- Do not short the batteries.
- Do not attempt to recharge these batteries.
- Do not disassemble the batteries.
- Never heat batteries or throw them into fire.

English

WARNING!

Lithium batteries. Explosion danger.
Change of batteries must only be done by qualified personnel and as described in the service manual.

Danish

ADVARSEL!

Lithiumbatterier. Eksplosionsfare.
Udskiftning må kun foretages af en sagkyndig og som beskrevet i servicemanualen.

Swedish

LITUMBATTERI.

Bör endast bytas av servicepersonal.
Explosionsfara vid felaktig hantering.

Finnish

VAROITUS!

Lithiumparisto. Räjähdyksvaara.
Pariston saa vaihtaa ainoastaan alan ammattimies.

■ DISASSEMBLY PROCEDURES (Remove parts in disassembly order as numbered)

1. Removal of Top Cover

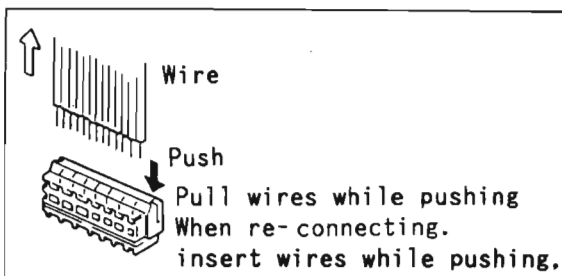
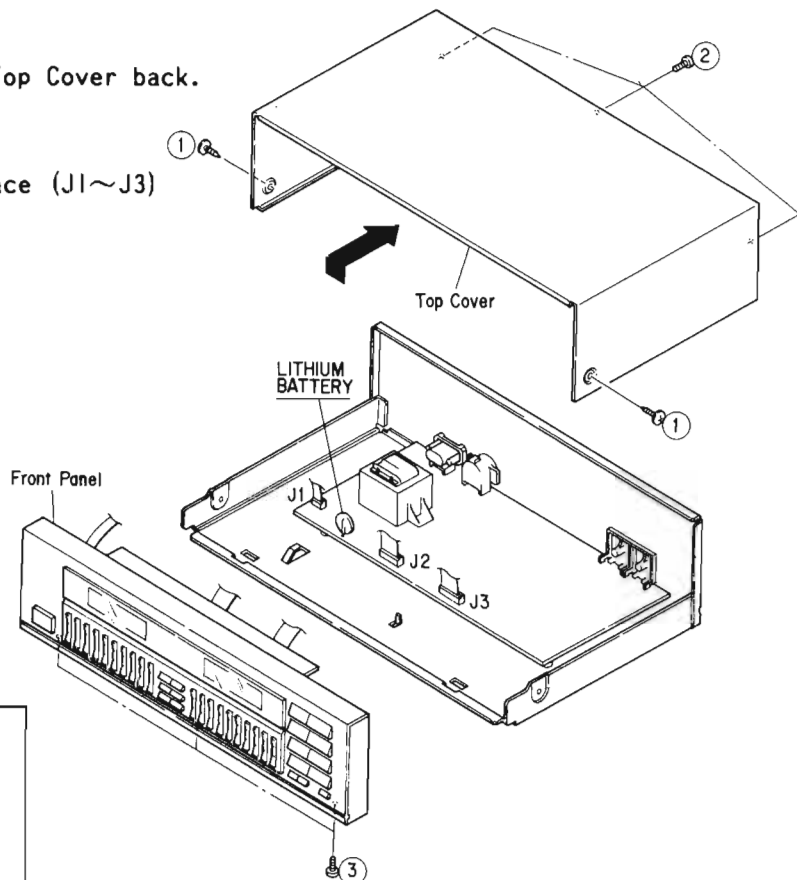
- Remove 2 screws ① in Fig.1
- Remove 3 screws ② and slide the Top Cover back.

2. Removal of Front Panel

- Remove 3 screws ③ in Fig.1
- Remove connectors located at 3 place (J1~J3) and pull the Front Panel forward.

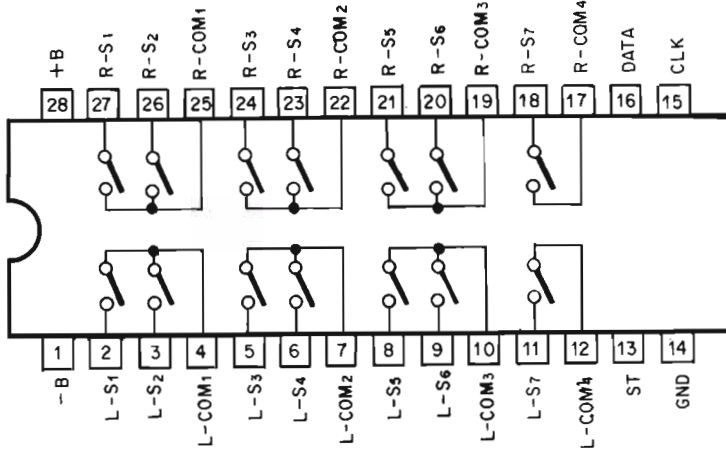
● LITHIUM BATTERY REPLACEMENT

Note) Due to the danger of explosion it is only allowed to use a battery of the same type and manufacturer when it has to be shifted.

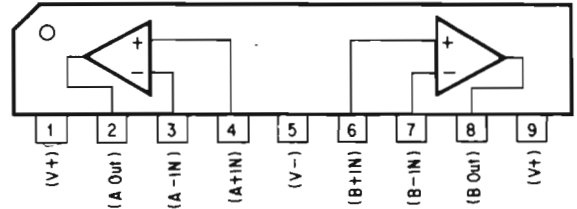


■ IC BLOCK

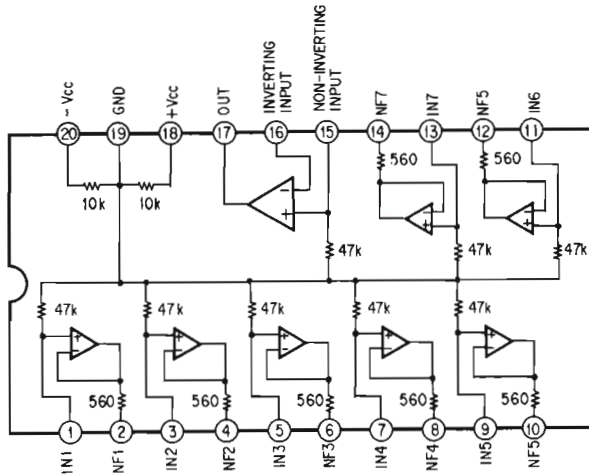
IC1 : TC9162N (Analog Switch Array)



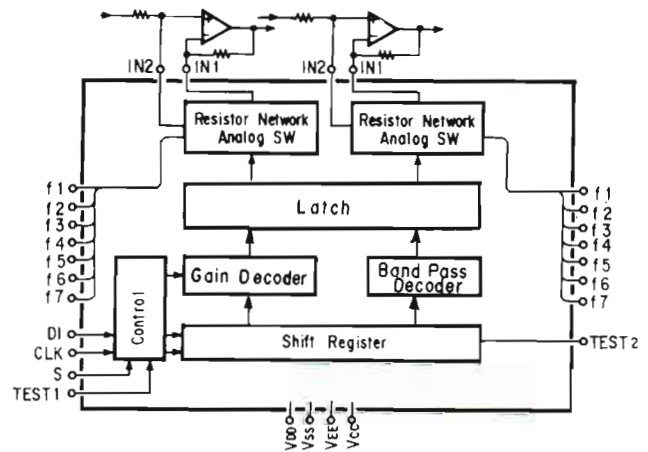
IC2,8~10 : NJM4558SD (Operational Amplifier)



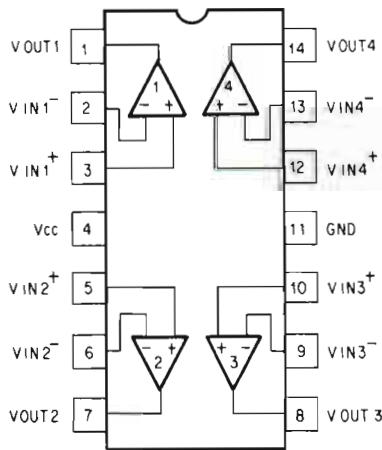
IC3,4,7 : AN7337 (Hi-Fi 7-Band G.E IC)



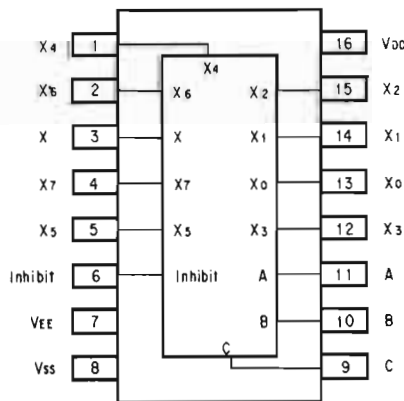
IC5,6 : NJU7305L (Graphic Equalizer Electronic variable resistor)



IC11 ~14 : LA6324N (Quad Ope-Amp)



IC15 ~17 : MN4051BD (8-channel Analog Multiplexer Demultiplexer)

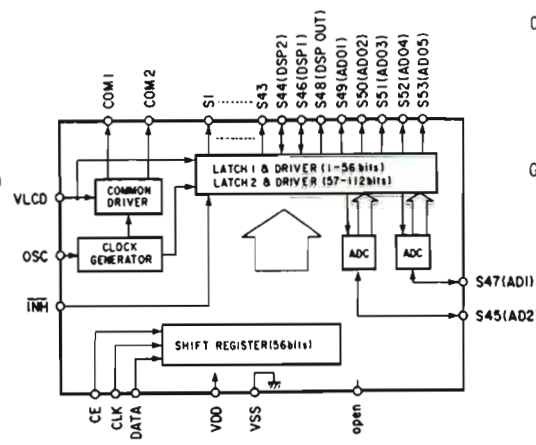
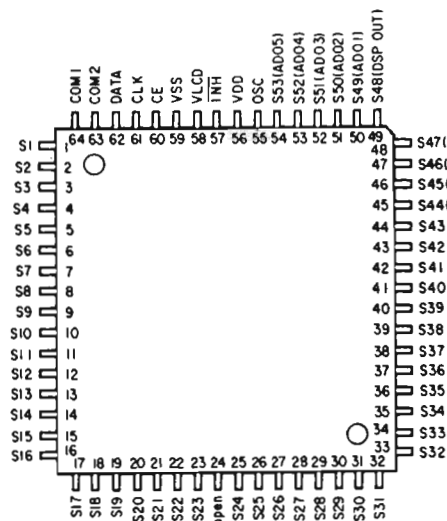


FUNCTION TABLE

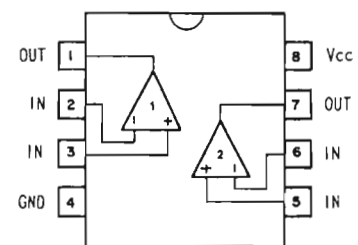
| Control Input | | | ON SW. |
|---------------|---|---|----------------|
| C | B | A | |
| 0 | 0 | 0 | X ₀ |
| 0 | 0 | 1 | X ₁ |
| 0 | 1 | 0 | X ₂ |
| 0 | 1 | 1 | X ₃ |
| 1 | 0 | 0 | X ₄ |
| 1 | 0 | 1 | X ₅ |
| 1 | 1 | 0 | X ₆ |
| 1 | 1 | 1 | X ₇ |
| X | X | X | - |

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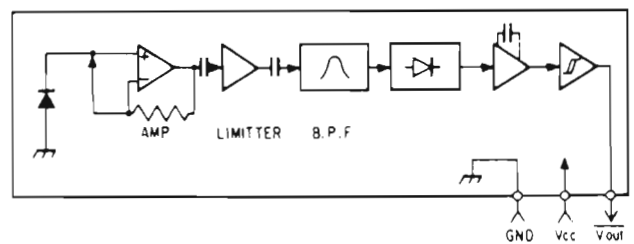
IC402 ~404 : LC7582B
(LCD Driver)



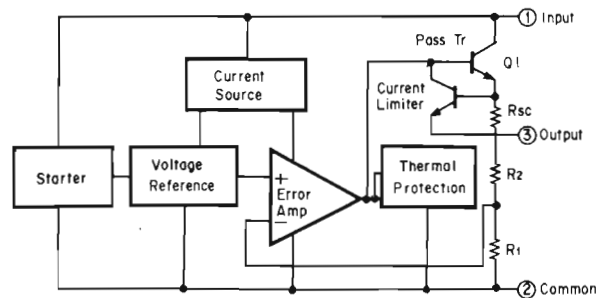
IC405 : μ PC393



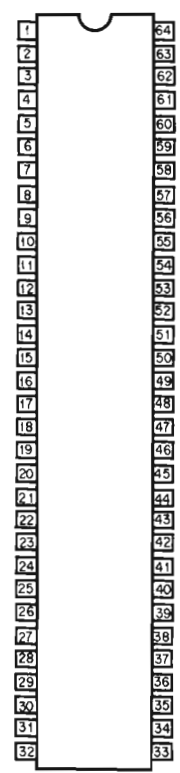
IC406 : GPIU521X
(Remote Control Receptor Unit)



IC18 : AN78N05
(3-Terminal Voltage Regulator)



IC401 : HD61408DS
(4-Bit ICHIP MC)

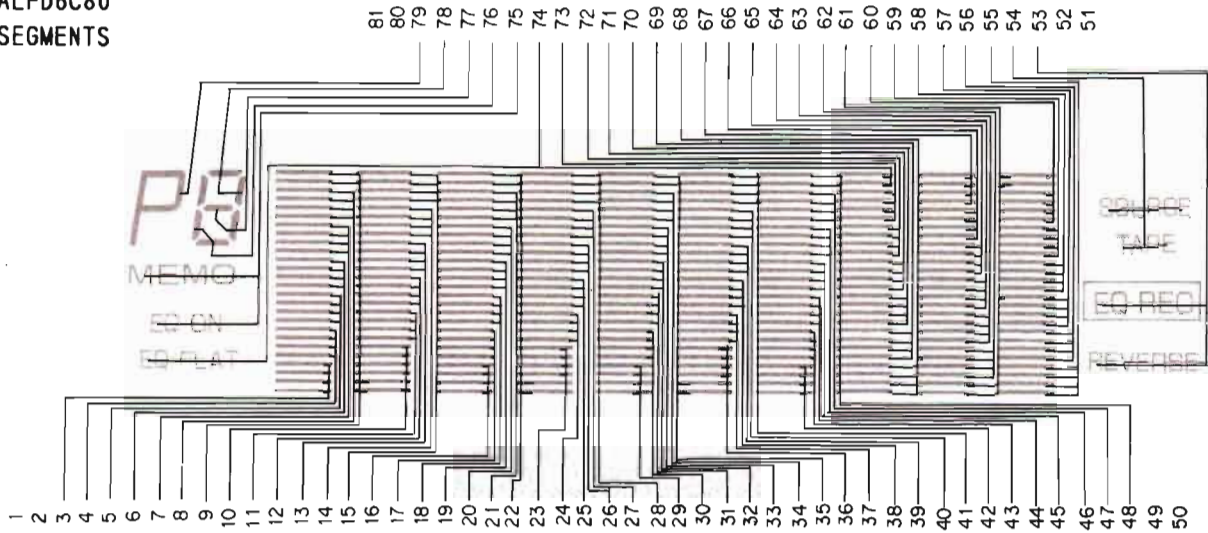


| Function | I/O | Pin Name | Pin No. | Pin No. | Pin Name | I/O | Function |
|--------------------------|-----|----------|---------|---------|----------|-----|----------------------|
| MULTIPLEXER CS Rch | i | D11 | 11 | 64 | D10 | i | Electronic VR Rch CS |
| NC | | D12 | 2 | 63 | D9 | i | Electronic VR Lch CS |
| MULTIPLEXER CS L&Rch | i | D13 | 3 | 62 | D8 | i | Electronic VR DATA |
| MULTIPLEXER CS Lch | i | D14 | 4 | 61 | D7 | i | LC7582 INH1 |
| Electronic VR CLK | i | D15 | 5 | 60 | D6 | i | LC7582 DATA |
| MULTIPLEXER DATA A | i | R00 | 6 | 59 | D5 | i | LC7582 CLK |
| MULTIPLEXER DATA B | i | R01 | 7 | 58 | D4 | i | LC7582 CE (Rch) |
| MULTIPLEXER DATA C | i | R02 | 8 | 57 | D3 | i | LC7582 CE (L & Rch) |
| NC | | R03 | 9 | 56 | D2 | i | LC7582 CE (Lch) |
| TC9162 CLK | i | R10 | 10 | 55 | D1 | i | Key Output f1 |
| TC9162 DATA | i | R11 | 11 | 54 | D0 | i | Key Output f2 |
| TC9162 STB | i | R12 | 12 | 53 | GND | i | GND |
| NC | | R13 | 13 | 52 | OSC 2 | i | OSC |
| NC | | R20 | 14 | 51 | OSC 1 | i | OSC |
| NC | | R21 | 15 | 50 | TEST | i | 5V |
| NC | | R22 | 16 | 49 | RESET | i | RESET |
| NC | | R23 | 17 | 48 | R93 | i | GND |
| A/D IN | i | RA0 | 18 | 47 | R92 | i | KEY Input (Function) |
| GND | i | RA1/Vdis | 19 | 46 | R91 | i | KEY Input Lch UP |
| Power OFF (Second) | i | R30 | 20 | 45 | R90 | i | KEY Input Lch DOWN |
| Muting | i | R31 | 21 | 44 | R83 | o | KEY Output f3 |
| Power OFF (Primary):INT0 | i | R32/INT0 | 22 | 43 | R82 | o | KEY Output f4 |
| Remote Control Input | i | R33/INT1 | 23 | 42 | R81 | o | KEY Output f5 |
| 8-bit A/D 0 (LSB) | i | R50 | 24 | 41 | R80 | o | KEY Output f6 |
| 8-bit A/D 1 | i | R51 | 25 | 40 | R73 | o | KEY Output f7 |
| 8-bit A/D 2 | i | R52 | 26 | 39 | R72 | o | KEY Output f8 |
| 8-bit A/D 3 | i | R53 | 27 | 38 | R71 | o | KEY Output f9 |
| 8-bit A/D 4 | o | R60 | 28 | 37 | R70 | o | KEY Output f10 |
| 8-bit A/D 5 | o | R61 | 29 | 36 | R43 | i | GND |
| 8-bit A/D 6 | o | R62 | 30 | 35 | R42/S0 | i | KEY Input (Function) |
| 8-bit A/D 7 (MSB) | o | R63 | 31 | 34 | R41/S1 | i | KEY Input Rch UP |
| 5V | i | Vcc | 32 | 33 | R40/SCK | i | KEY Input Rch DOWN |

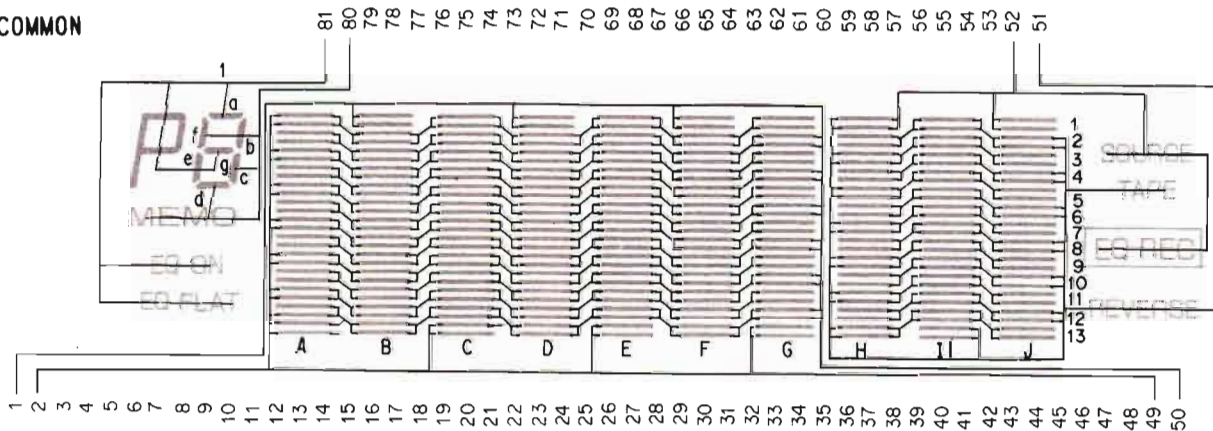
Note) I... High Voltage Input
O... High Voltage Output
i... Standard Input
o... Standard Output

■ DISPLAY Pin Connection

LCD : PSALFD6C80
SEGMENTS

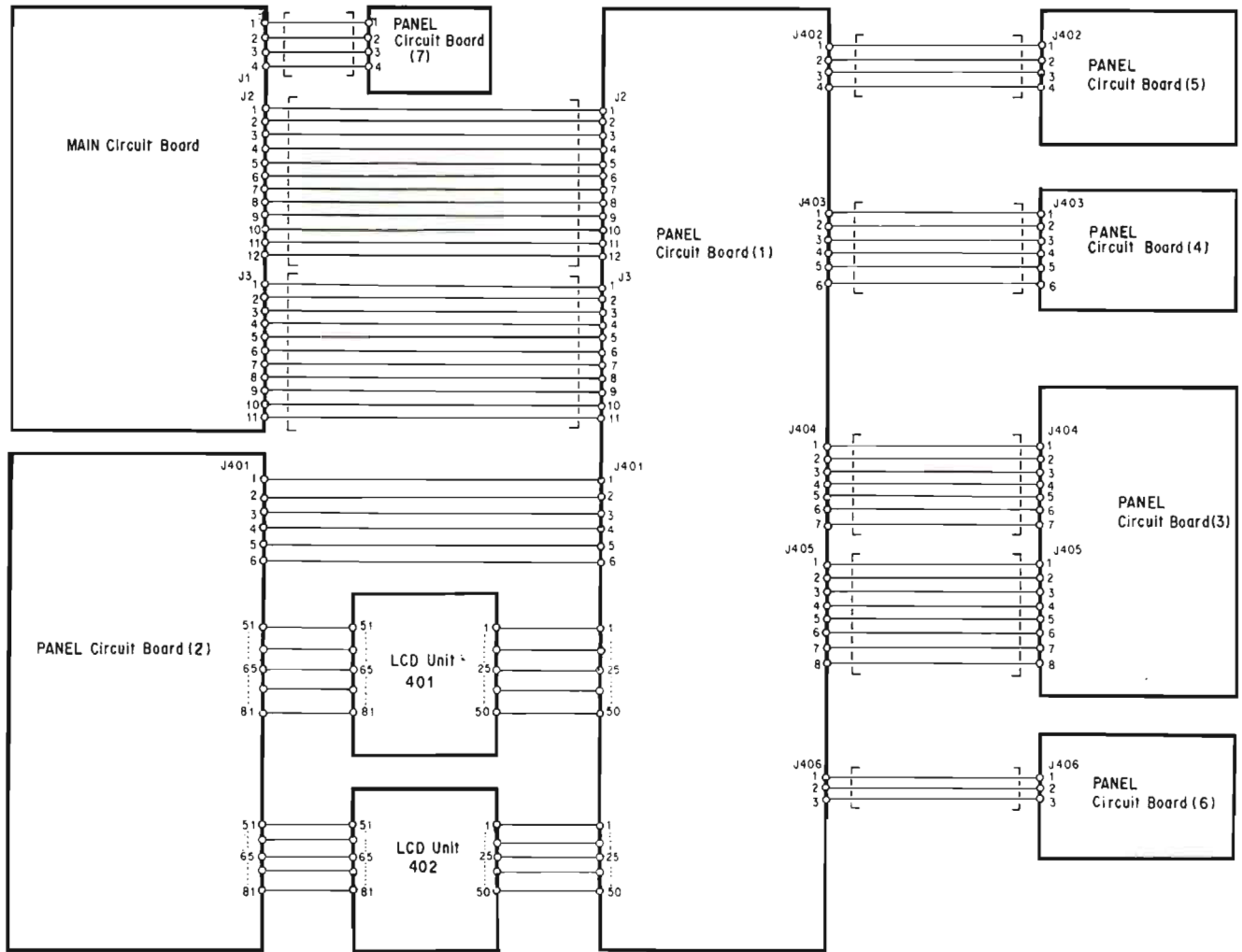


COMMON



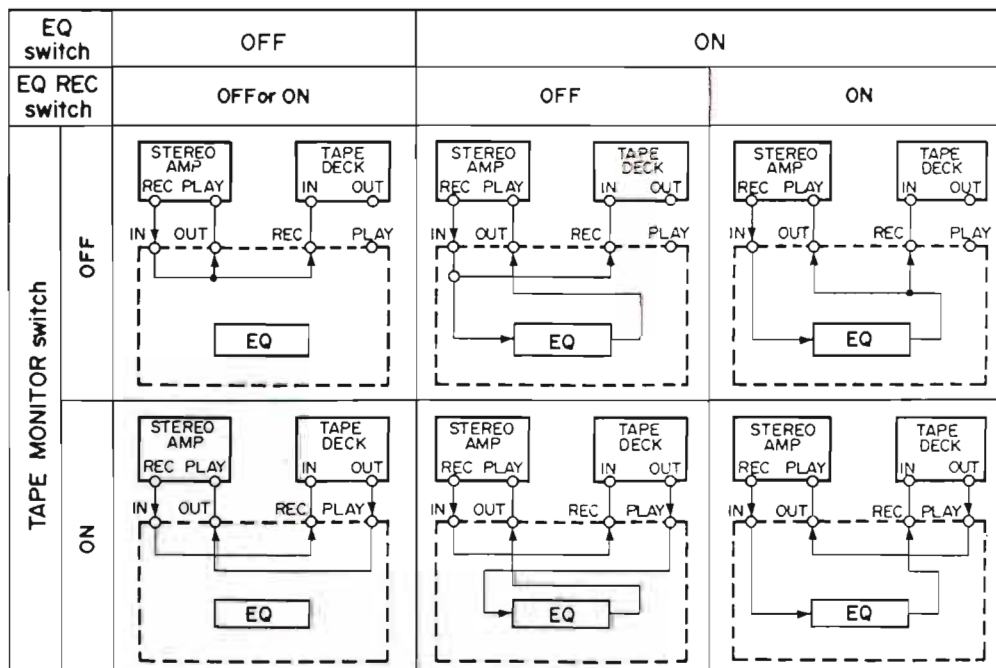
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|---------|-------|-----|-----|-----|---------|--------|--------|-----|-----|----|
| No. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 |
| COM 1 | - | COM | A13 | A11 | A9 | A7 | A5 | A3 | A1 | B12 | B10 | B8 | B6 | B4 | B2 | C13 | C11 | C9 | C7 | C5 | C3 | C1 | D12 | D10 | D8 | D6 | D4 | D2 |
| COM 2 | COM | - | A12 | A10 | A8 | A6 | A4 | A2 | B13 | B11 | B9 | B7 | B5 | B3 | B1 | C12 | C10 | C8 | C6 | C4 | C2 | D13 | D11 | D9 | D7 | D5 | D3 | D1 |
| COM 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| COM 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| No. | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 | 55 | 56 |
| COM 1 | E13 | E11 | E9 | E7 | E5 | E3 | E1 | F12 | F10 | F8 | F6 | F4 | F2 | G13 | G11 | G9 | G7 | G5 | G3 | G1 | COM | - | - | - | - | - | - | - |
| COM 2 | E12 | E10 | E8 | E6 | E4 | E2 | F13 | F11 | F9 | F7 | F5 | F3 | F1 | G12 | G10 | G8 | G6 | G4 | G2 | - | - | COM | - | - | - | - | - | - |
| COM 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | COM | EQ REC | SOURCE | J13 | J11 | - |
| COM 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | COM | REVERSE | TAPE | J12 | J10 | - | - |
| No. | 57 | 58 | 59 | 60 | 61 | 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 | 71 | 72 | 73 | 74 | 75 | 76 | 77 | 78 | 79 | 80 | 81 | - | - | |
| COM 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| COM 2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| COM 3 | J9 | J7 | J5 | J3 | J1 | I12 | I10 | I8 | I6 | I4 | I2 | H13 | H11 | H9 | H7 | H5 | H3 | H1 | MEMO | I'd | Ic | Ib | If | COM | - | - | - | |
| COM 4 | J8 | J6 | J4 | J2 | I13 | I11 | I9 | I7 | I5 | I3 | I1 | H12 | H10 | H8 | H6 | H4 | H2 | EQ FLAT | EQ ON | Ie | Ig | Ia | P | - | COM | - | - | |

■ WIRING

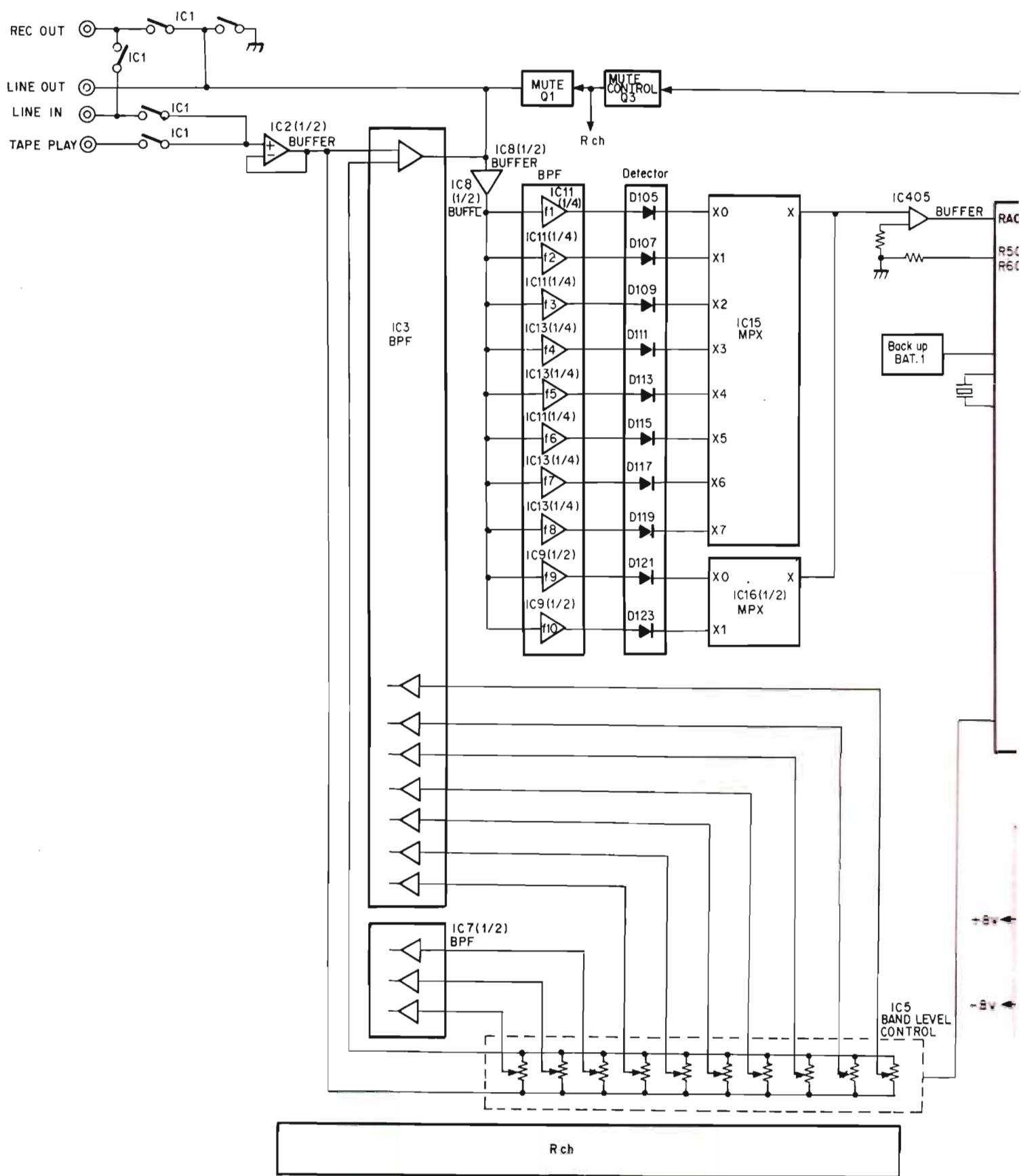


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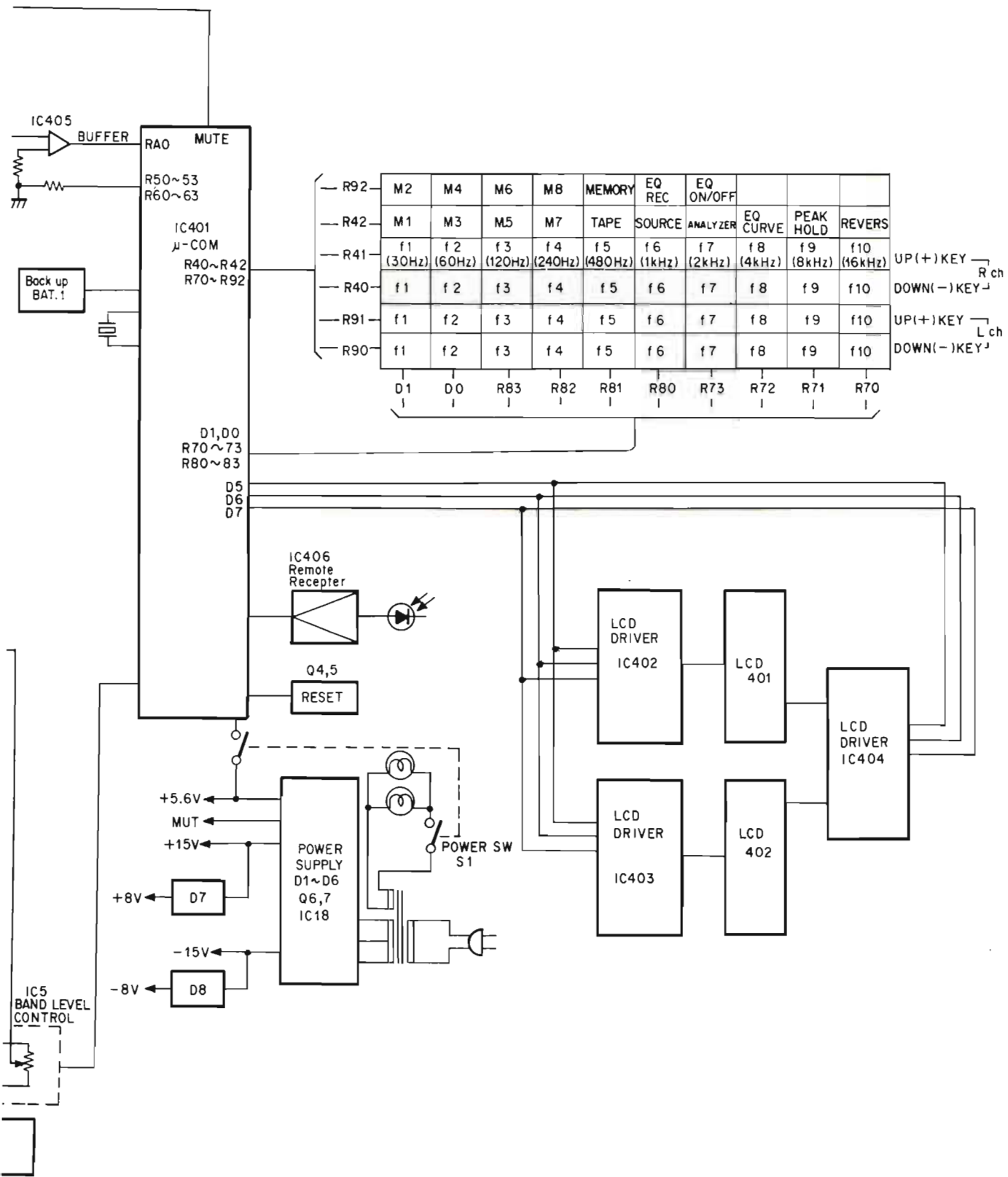
■ DESCRIPTION OF OPERATIONS
(Relationship of Switches)



■ BLOCK DIAGRAM

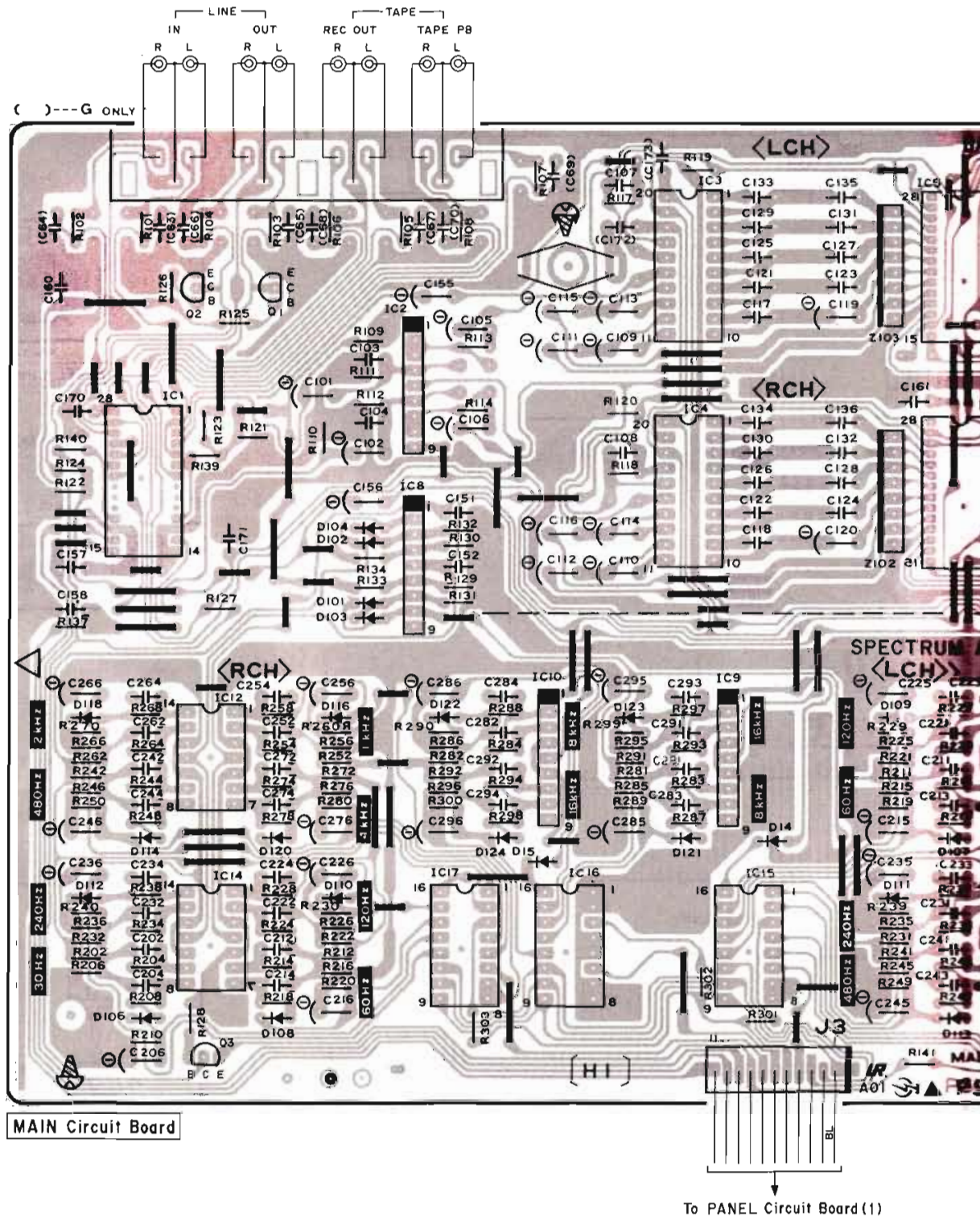


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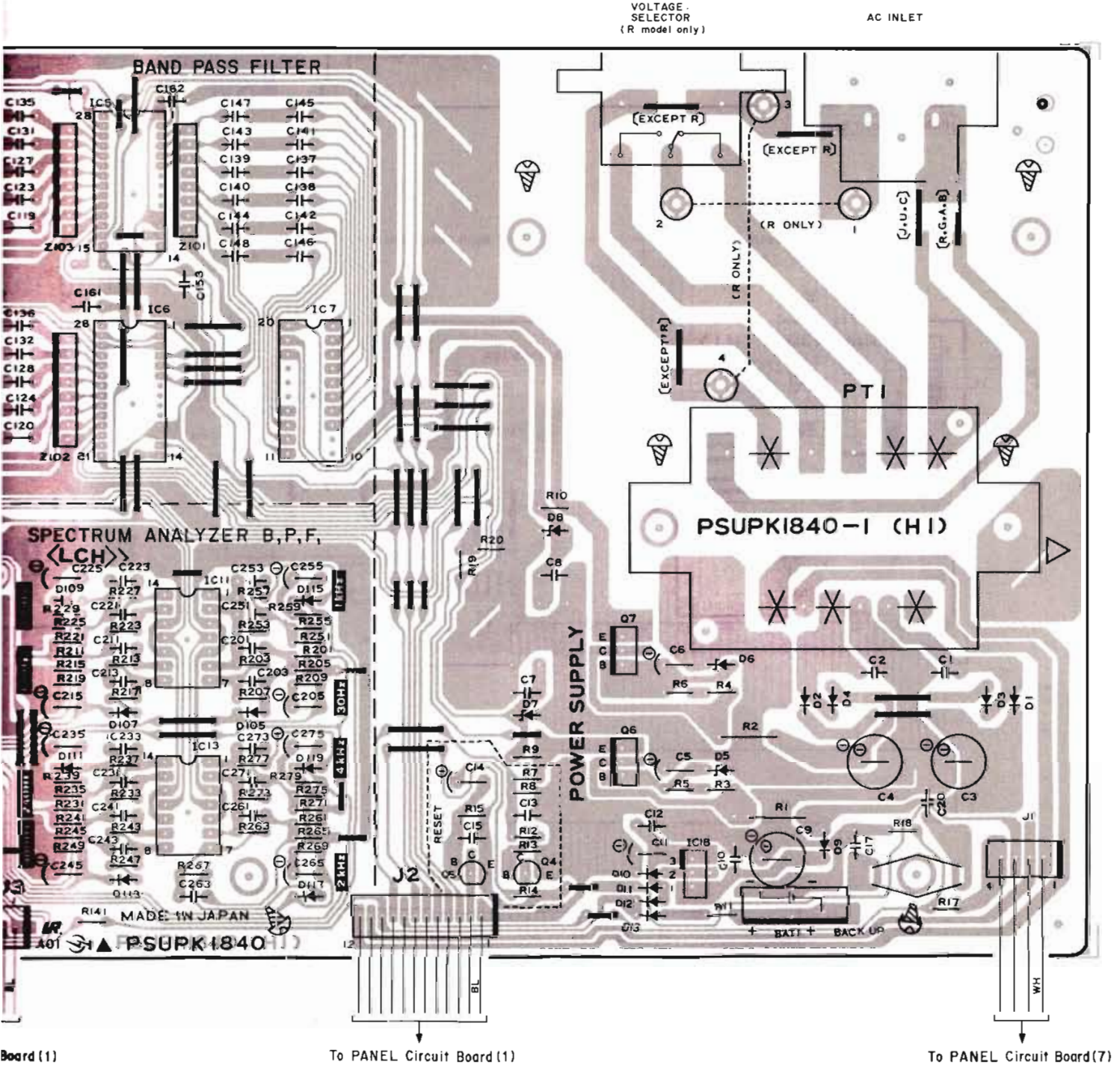


PRINTED CIRCUIT BOARD (Pattern Side) (Note) 文字面 : Component Side

1
2
3
4
5
6
7



Side



Board (1)

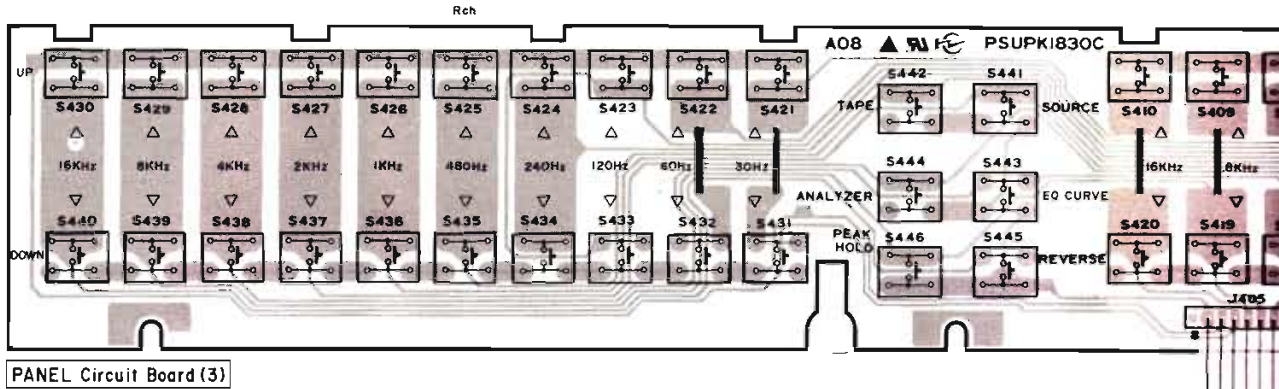
To PANEL Circuit Board (1)

To PANEL Circuit Board (7)

EQ-630

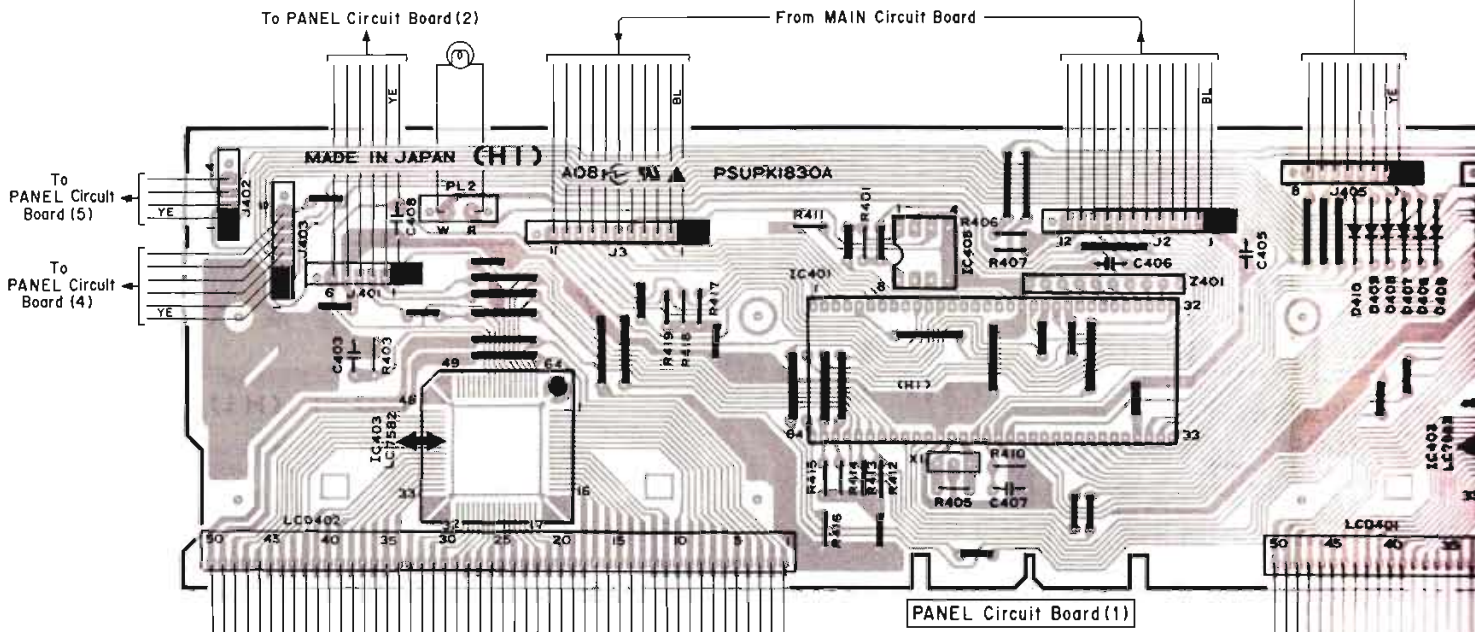
PRINTED CIRCUIT BOARD (Pattern Side) (Note) 文字面 : Component Side

1



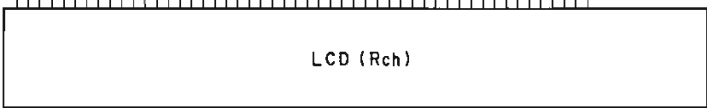
2

3

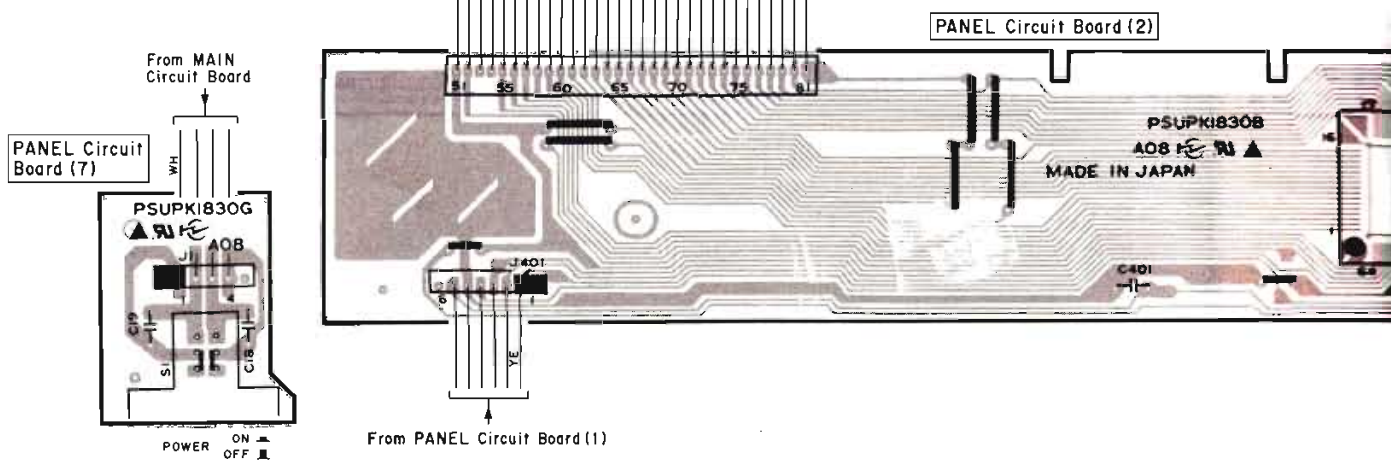


4

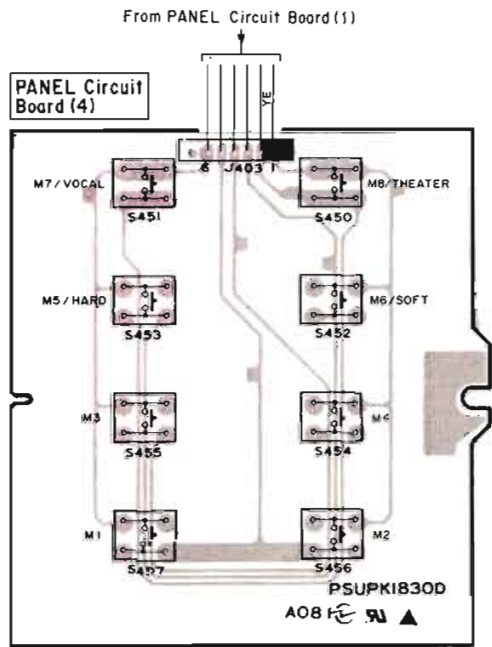
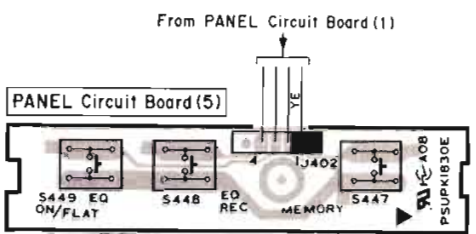
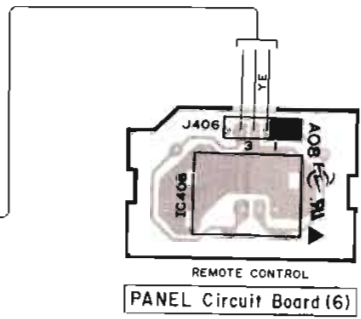
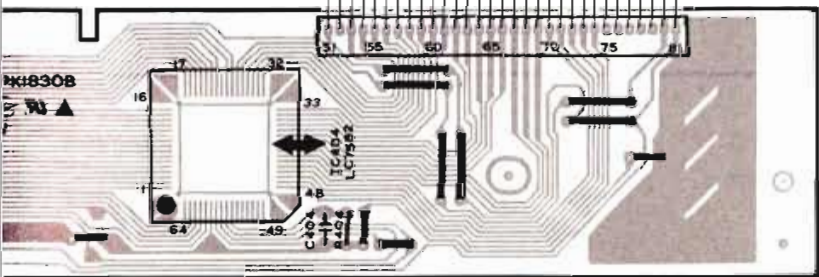
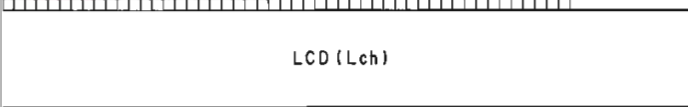
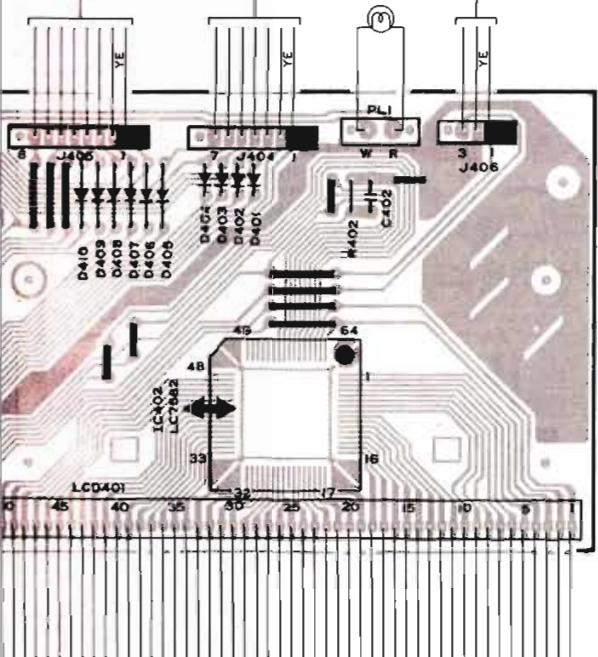
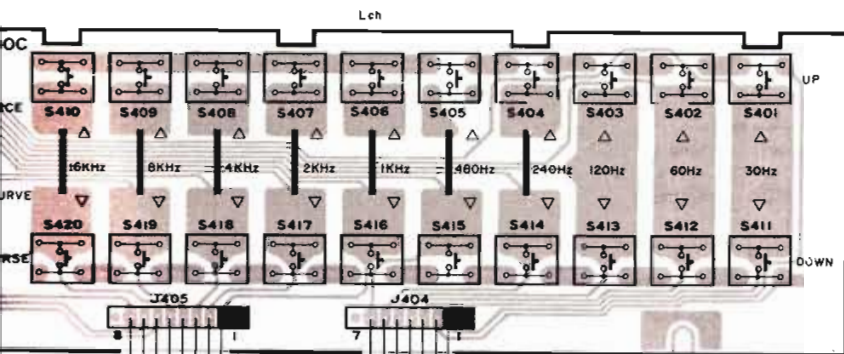
5



6



7



5

6

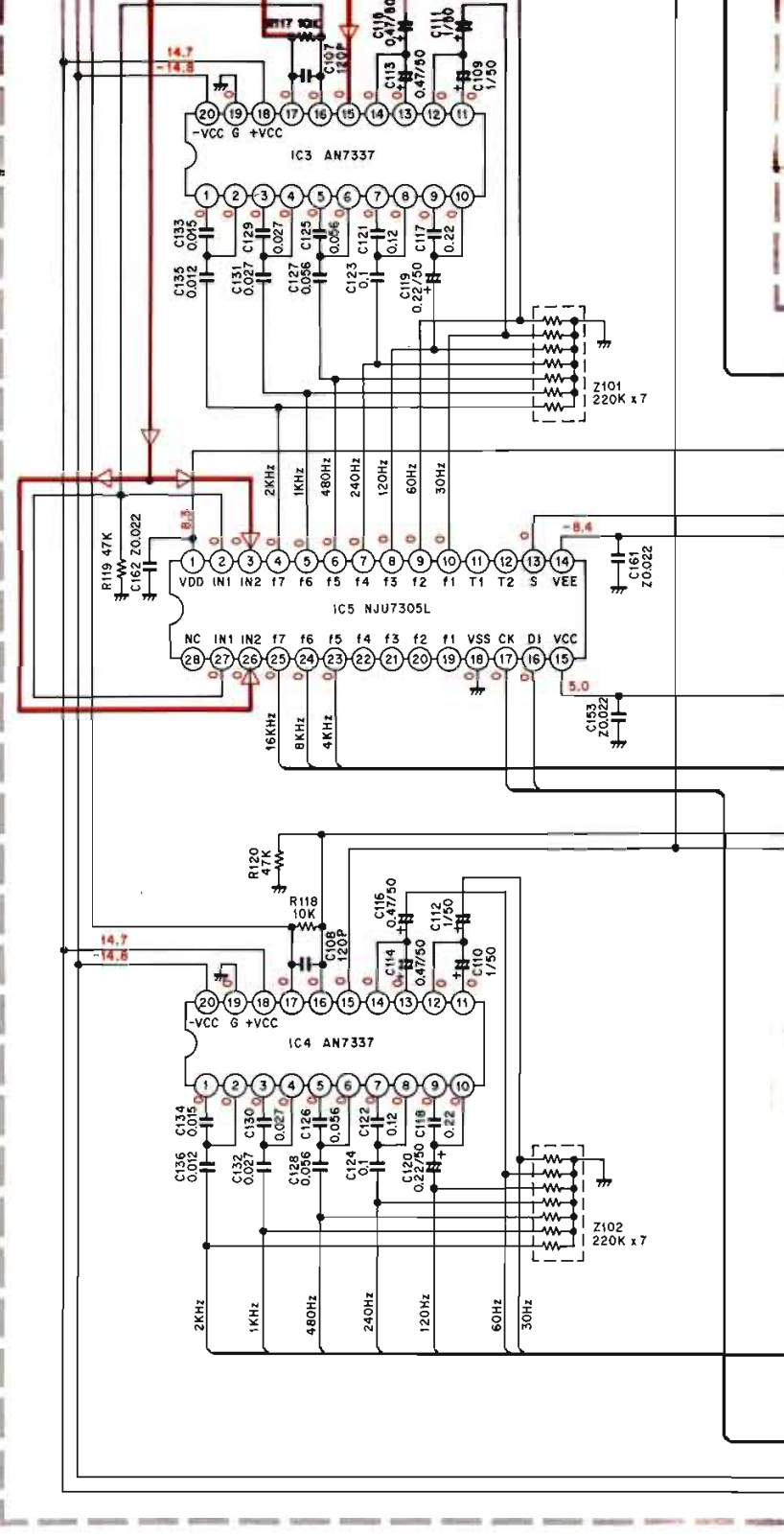
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8

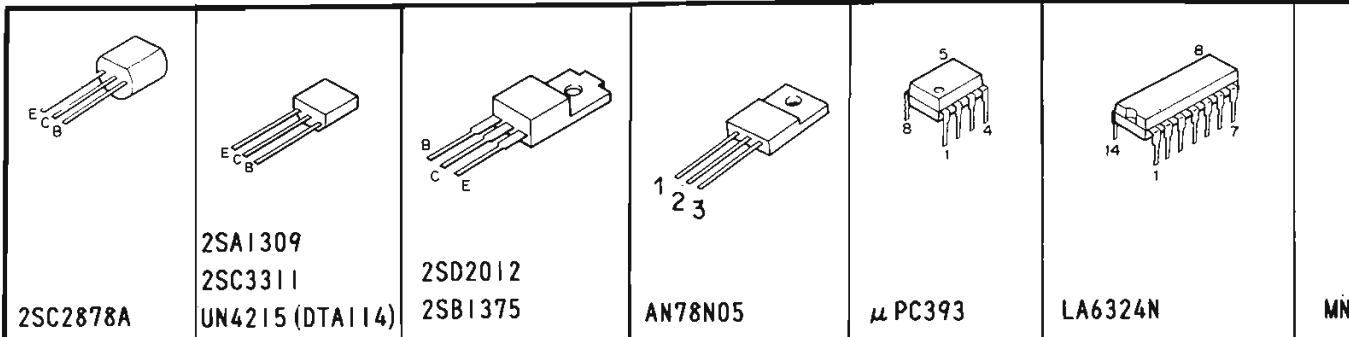
9

10

- IC5,6 NUJ7305
- IC11~14 LA6324N
- IC15~17 NUJ4051BP
or MN4051B
or HD14051BP
or BU4051B
- IC18 HA17805
or uPC78M05H
or AN78N05
- Q1,2 2SC2878
or 2SD1915ST
- Q3 2SA933
or 2SA1309
- Q4 2SC1740
or 2SC3311
- Q5 DTA114TSTP
or UN4115
- Q6 2SD2012
or 2SD1762
- Q7 2SB1375
or 2SB1185
- D1~4,9 RLIN4003-N02
- D5,6 HZS15-3TD
or MA4150M
- D7,8 HZS9A2TD
or MA4082M
- D10~15, 101~124 ISS119-04
or ISS178
- BAT 1 SUMM2CC200
or CR2032/1VC

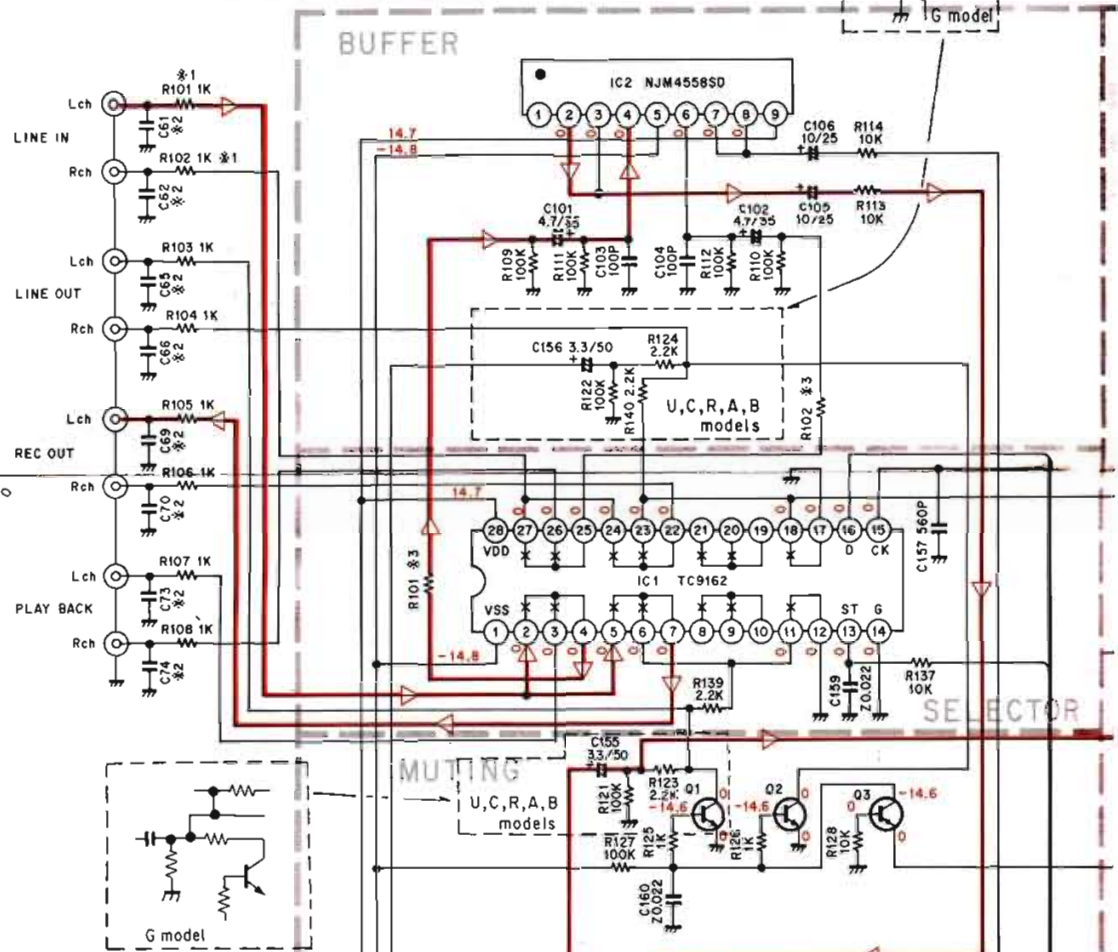


■ PIN CONNECTION DIAGRAM OF TRANSISTORS, DIODE AND ICs.

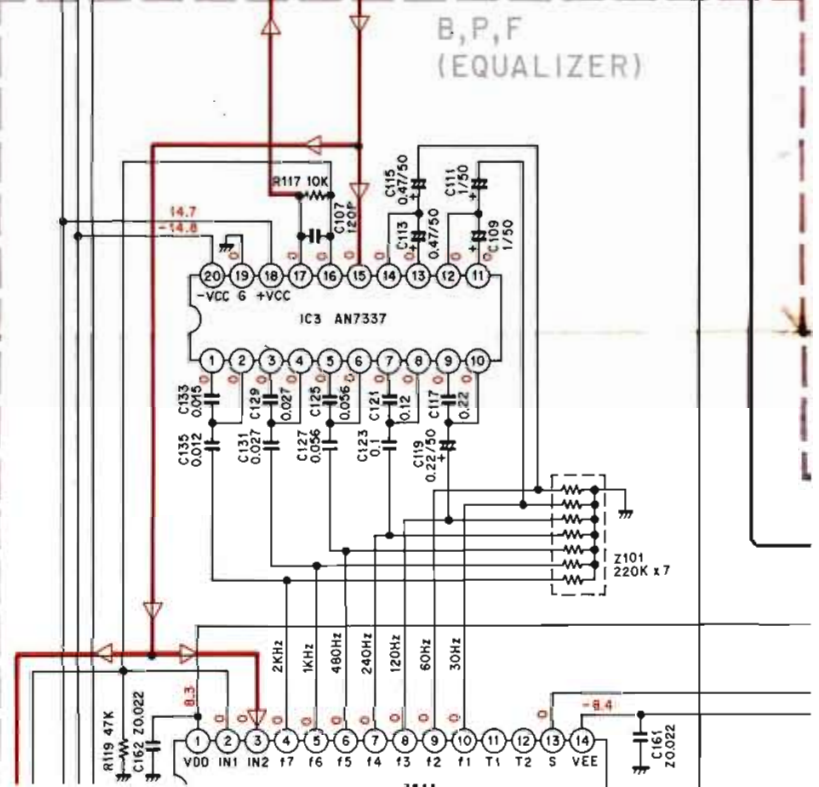


SCHEMATIC DIAGRAM

| | | U,C,R,A,B | G |
|-----|------------------------------|-----------|-------|
| * 1 | R101,102 | 1KΩ | SHORT |
| * 2 | C61,62,65,66, 69,70,73,74 | OPEN | 220pF |
| * 3 | R101,102 | SHORT | 1KΩ |

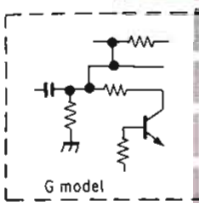
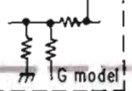


| | |
|----------------|---|
| IC 1 | TC9162 |
| IC 2, 8, 9, 10 | NJM4558SD or AN6555 or TA75559S-1 |
| IC 3, 4, 7 | AN7337 |
| IC 5, 6 | NJU7305 |
| IC 11 ~ 14 | LA6324N |
| IC 15 ~ 17 | NJU4051BP or MN4051B or HD14051BP or BU4051B |
| IC 18 | HA17805 or uPC78M05H or AN78N05 |
| Q1, 2 | 2SC2878 or 2SD1915ST |
| Q3 | 2SA933 or 2SA1309 |
| Q4 | 2SC1740 or 2SC3311 |
| Q5 | DTA114TSTP or UN4115 |
| Q6 | 2SD2012 or 2SD1762 |
| Q7 | 2SB1375 or 2SB1185 |
| D1 ~ 4, 9 | RLIN4003-N02 |
| D5, 6 | H7S15-3TD |



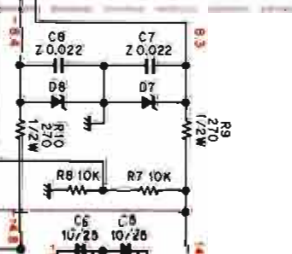
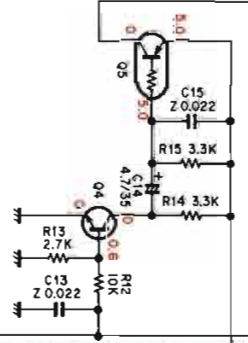
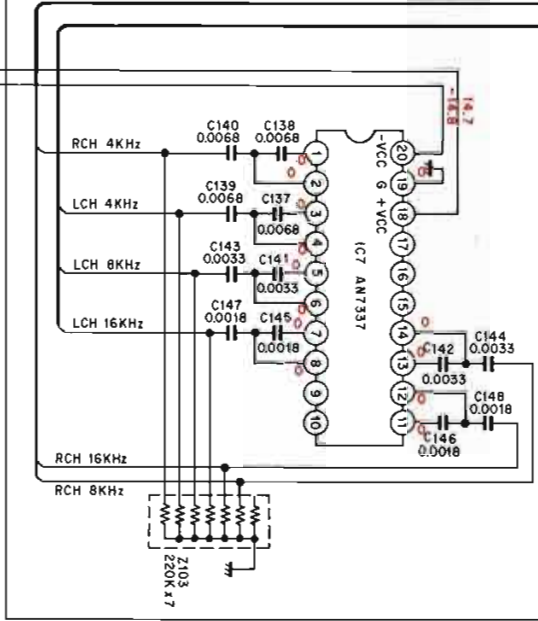
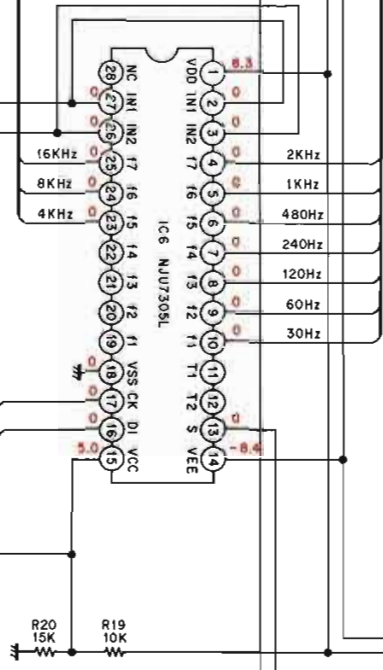
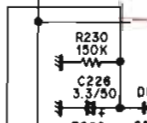
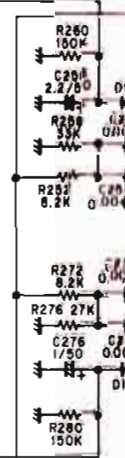
1
2
3
4
5
6

LINE
SPEAKER



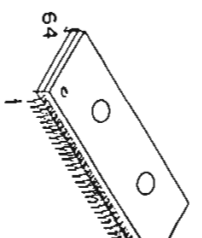
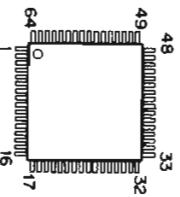
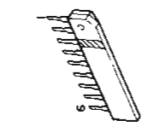
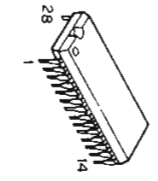
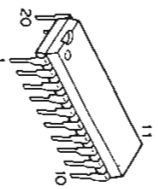
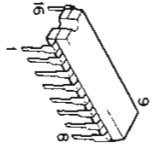
SELECTOR

B, P, F
(EQUALIZER)



RESET

POWER SUPPLY



14051B

AN7337

TC9162N
NJU7305

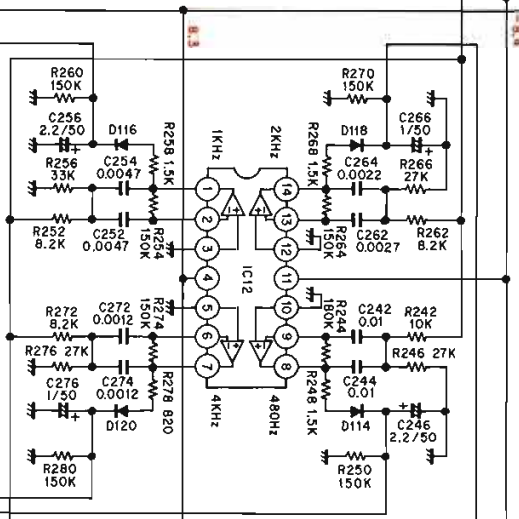
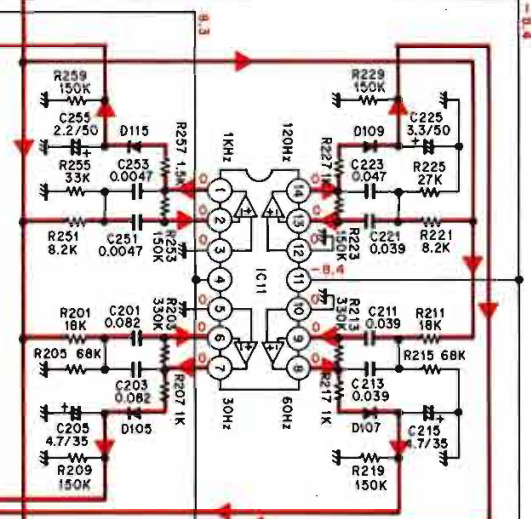
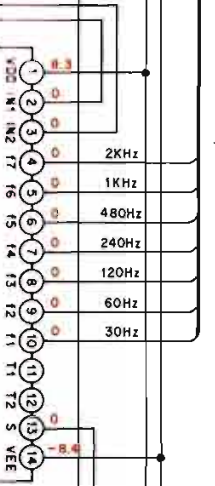
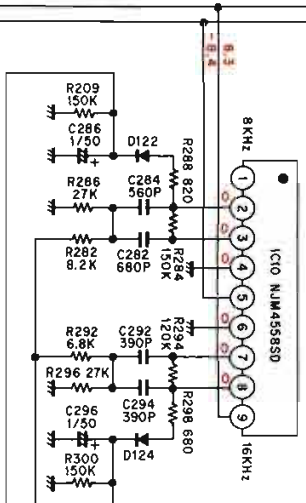
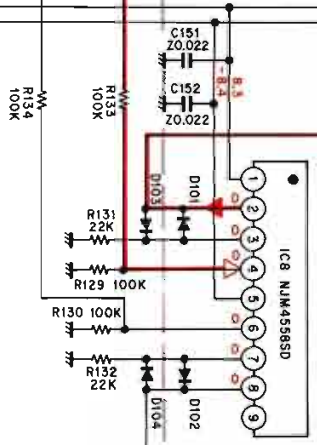
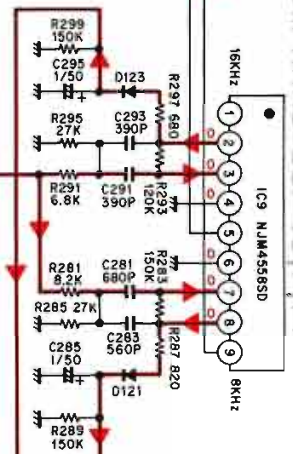
NJM4558DS

LC7582B

HD614080S

NE, EQUALIZING SIGNAL
SPECTRUM ANALYZER SIGNAL

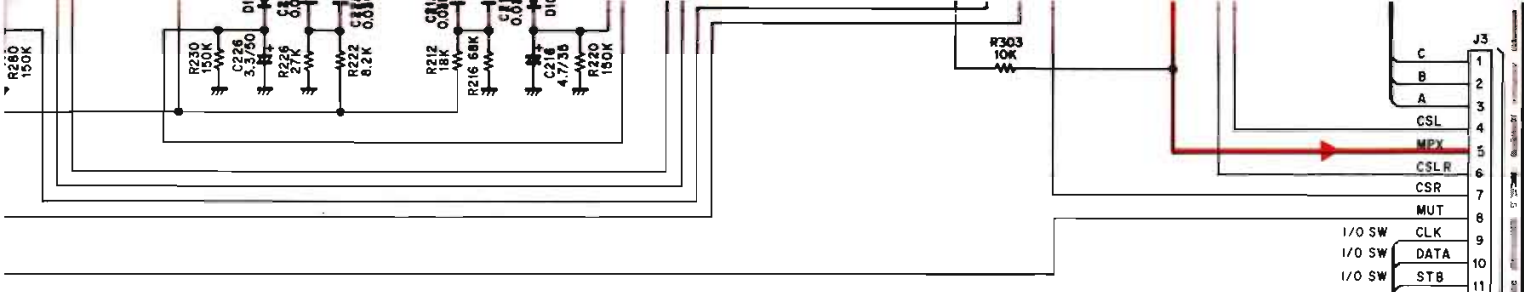
SPECTRUM ANALYZER (B,P,F)



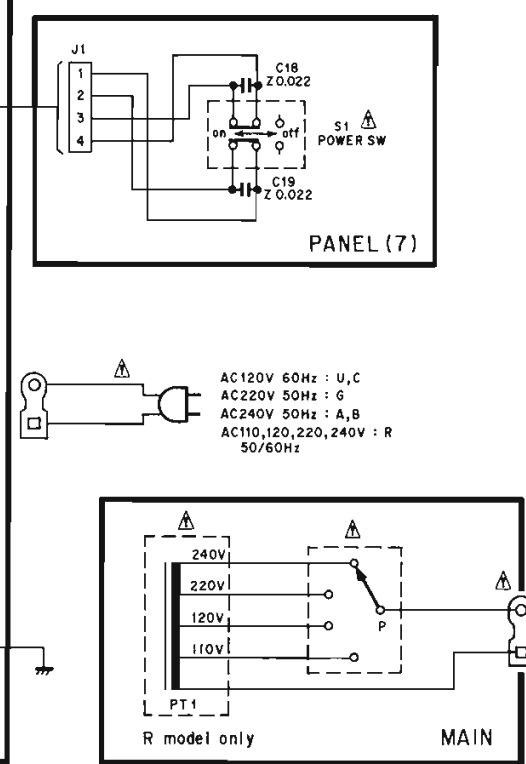
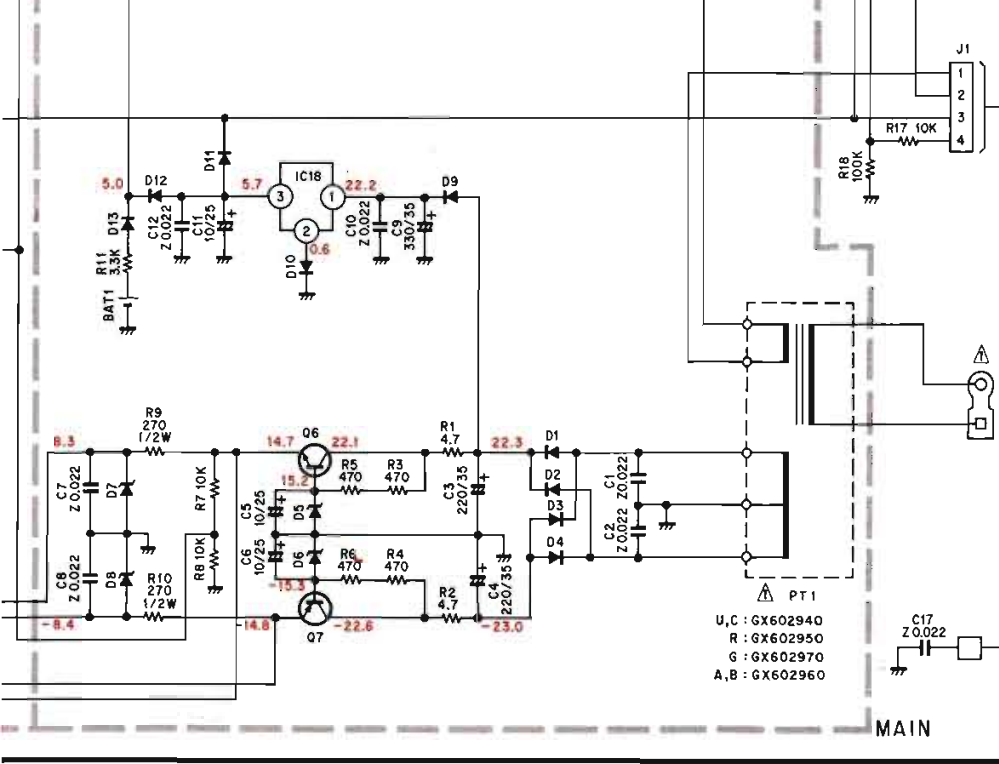
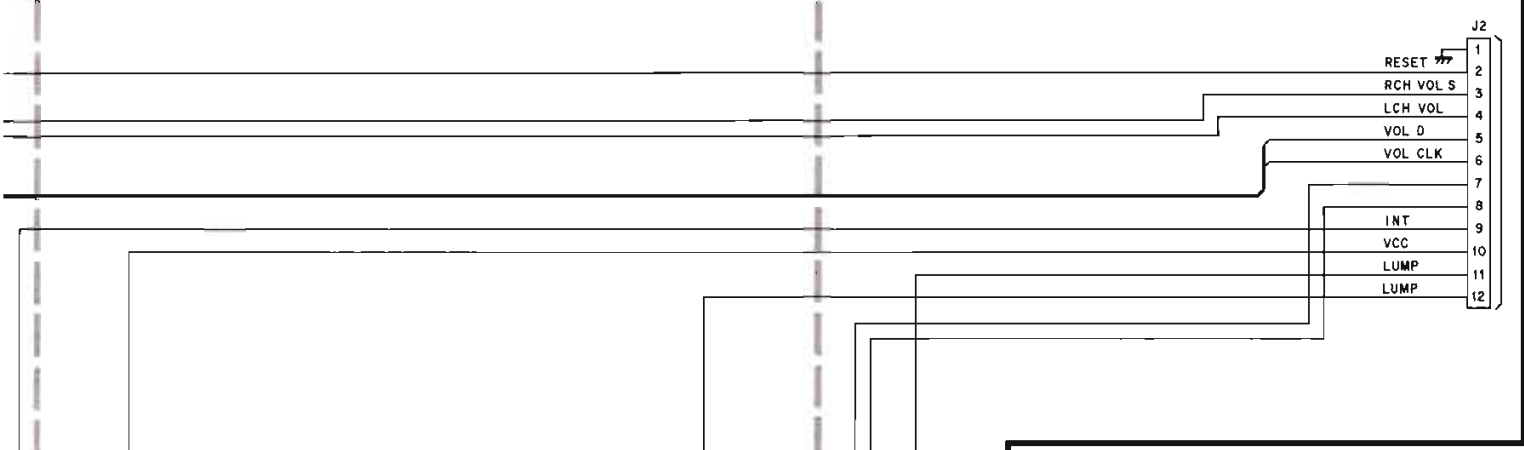
RESET

POWER SUPP

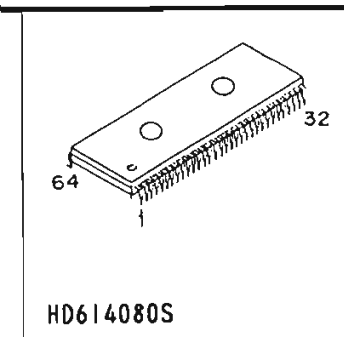
Lch
Rch



POWER SUPPLY



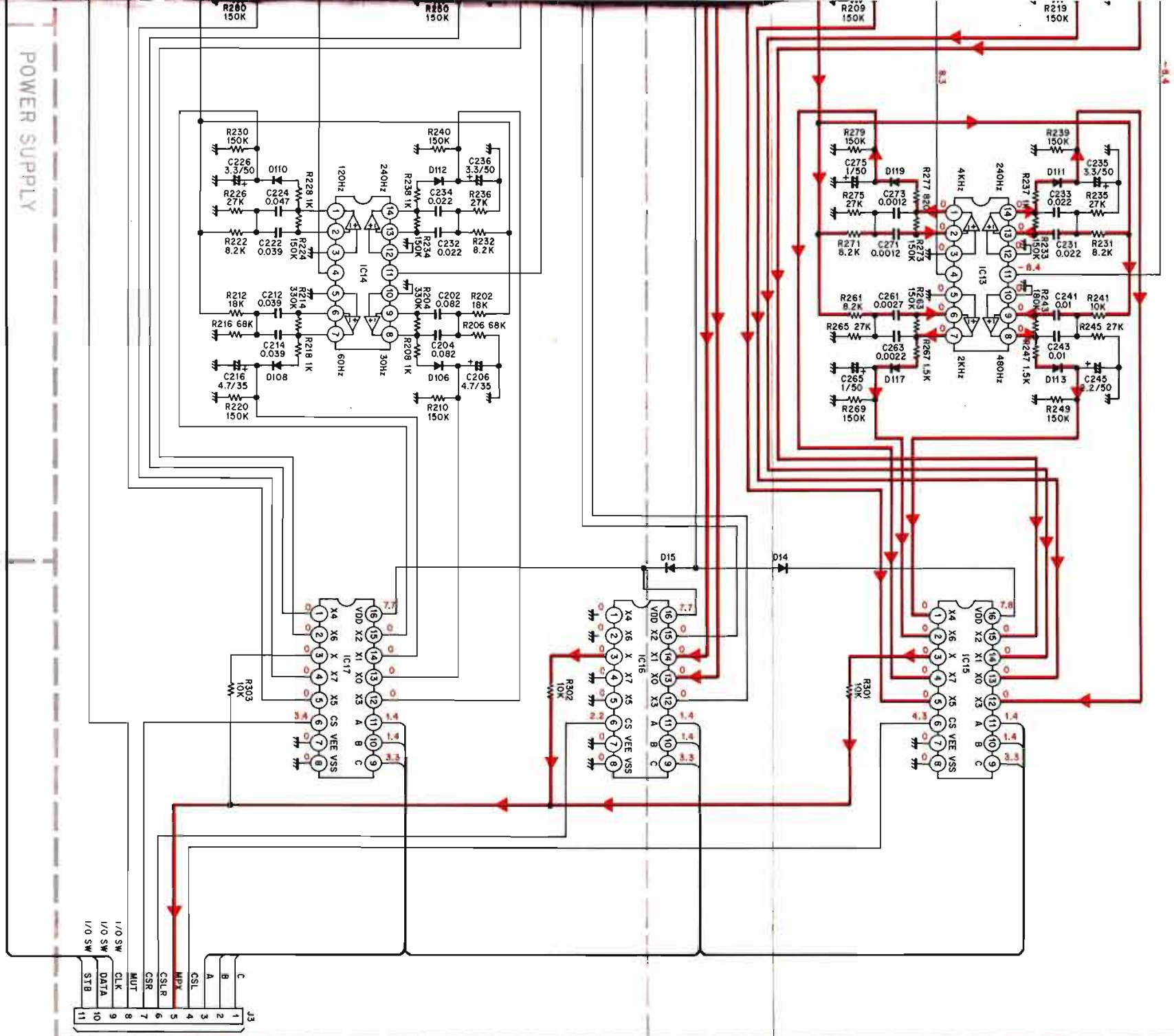
- U,C : GX602940
- R : GX602950
- G : GX602970
- A,B : GX602960



CAUTION

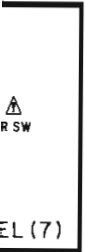
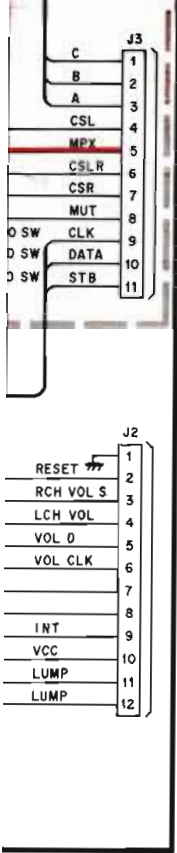
- Components having sp replaced with parts ha
- * All voltages are measur
- * Schematic diagram is s

POWER SUPPLY

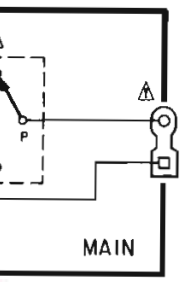


- 1 I/O SW
- 2 CLK
- 3 I/O SW
- 4 DATA
- 5 I/O SW
- 6 STB
- 7 CSR
- 8 MUT
- 9
- 10
- 11

- 1 RESET
- 2 RCH VOL S
- 3 LCH VOL
- 4 VOL D
- 5 VOL CLK
- 6
- 7
- 8

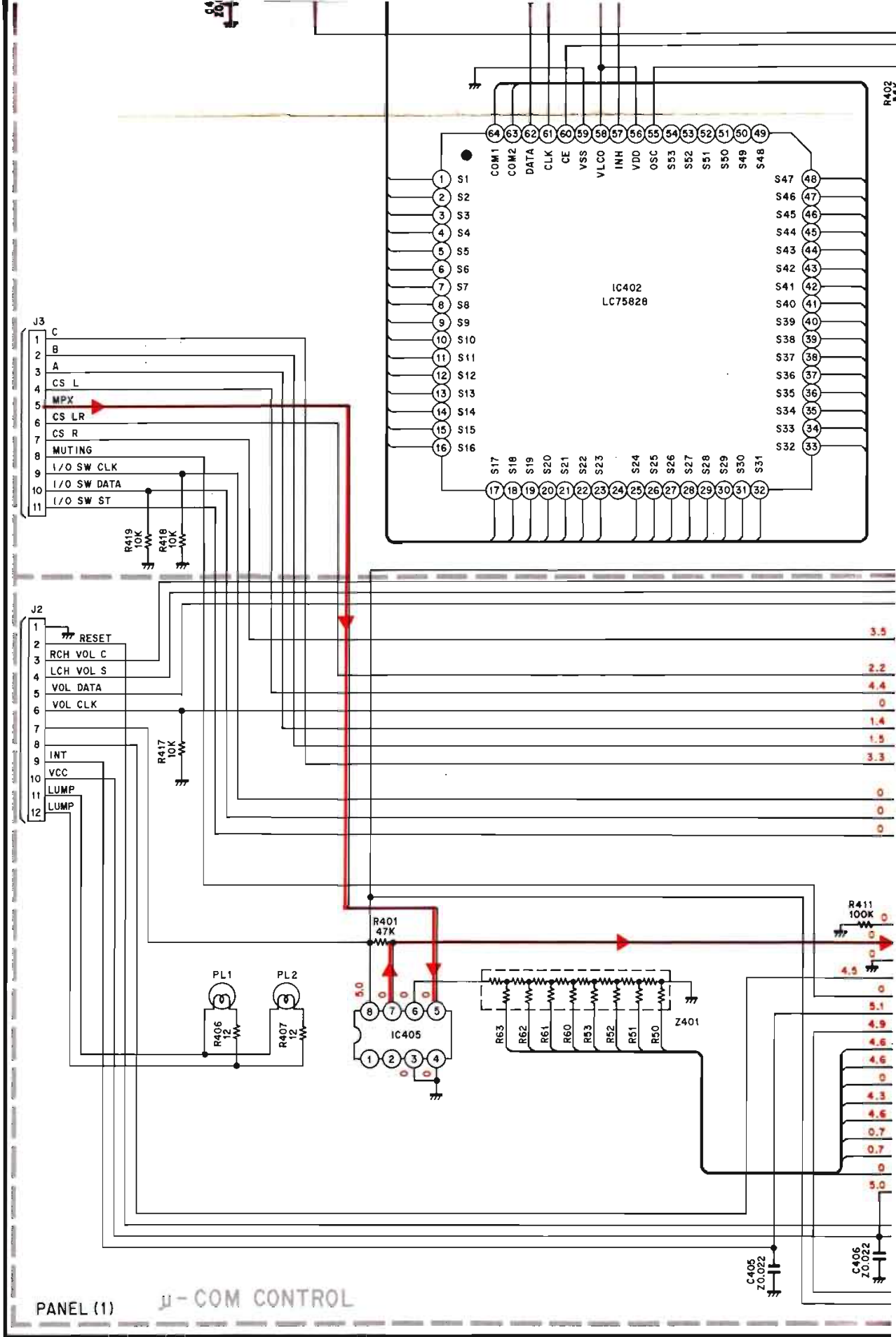


V : R



CAUTION
 Components having special characteristics are marked \triangle and must be replaced with parts having specifications equal to those originally installed.
 All voltages are measured with a 10M Ω /V DC electric volt meter.
 This schematic diagram is subject to change without notice.





PANEL (1) μ-COM CONTROL

A

B

C

D

EQ-630

SCHEMATIC DIAGRAM

1

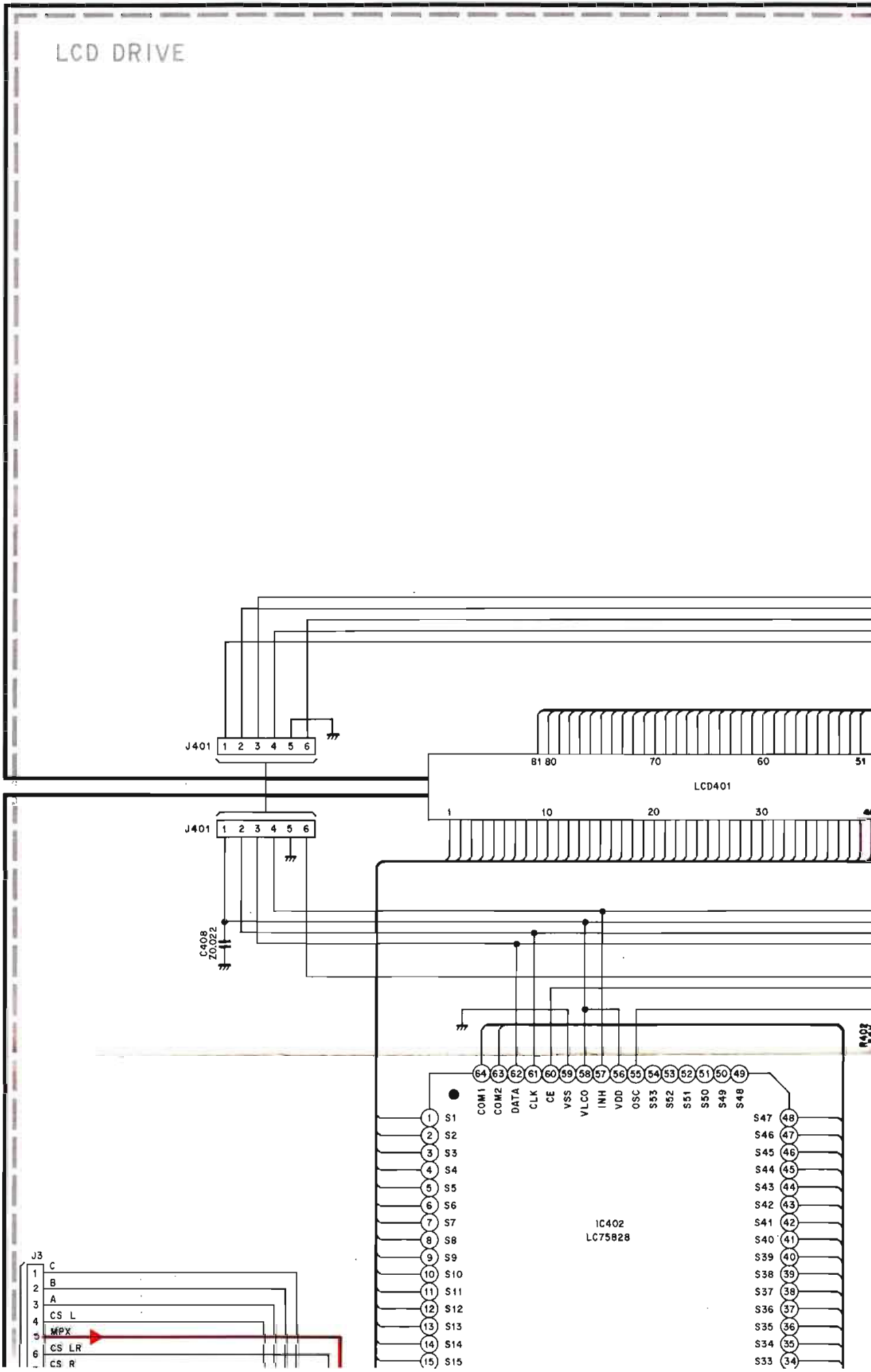
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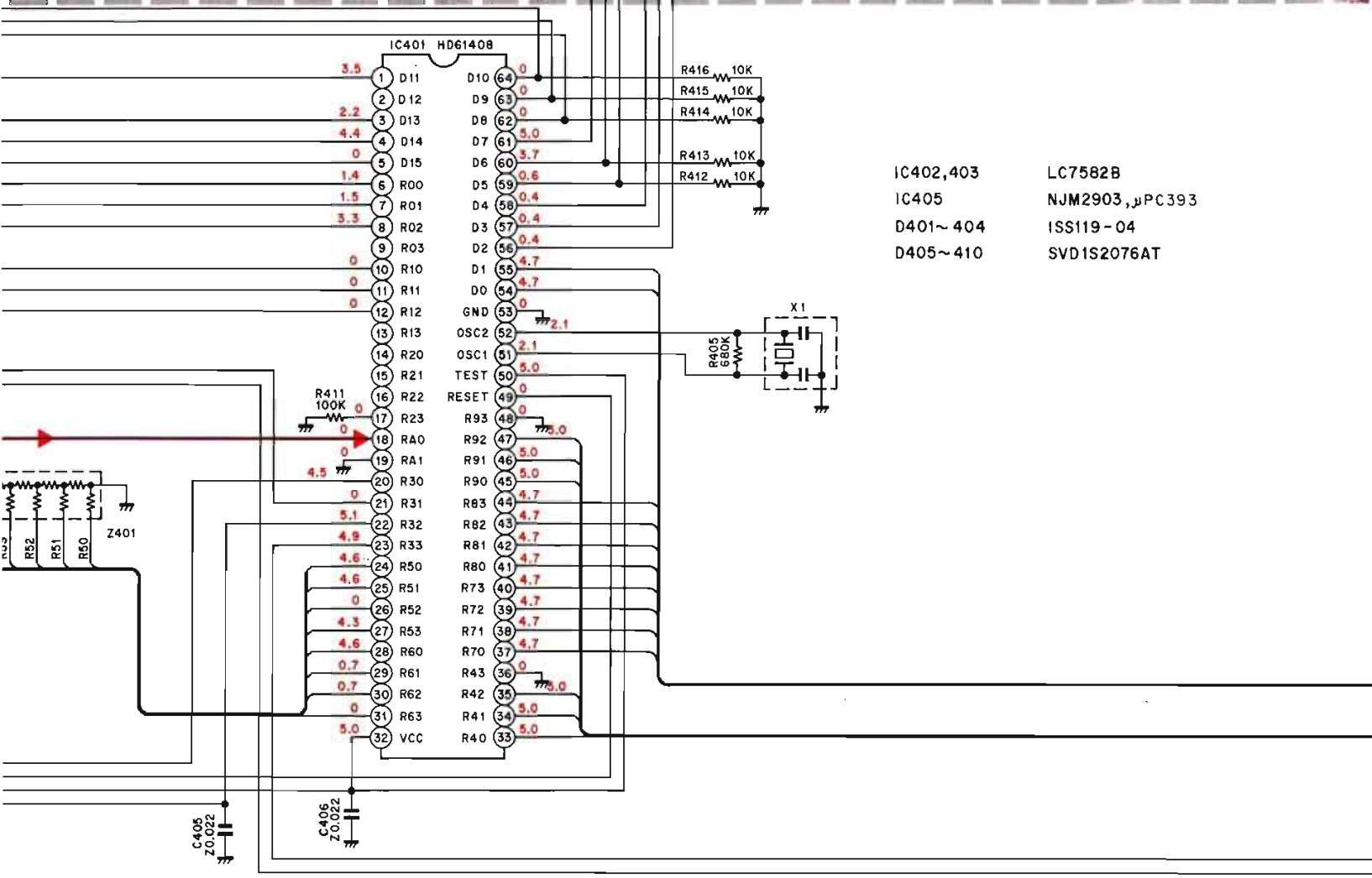
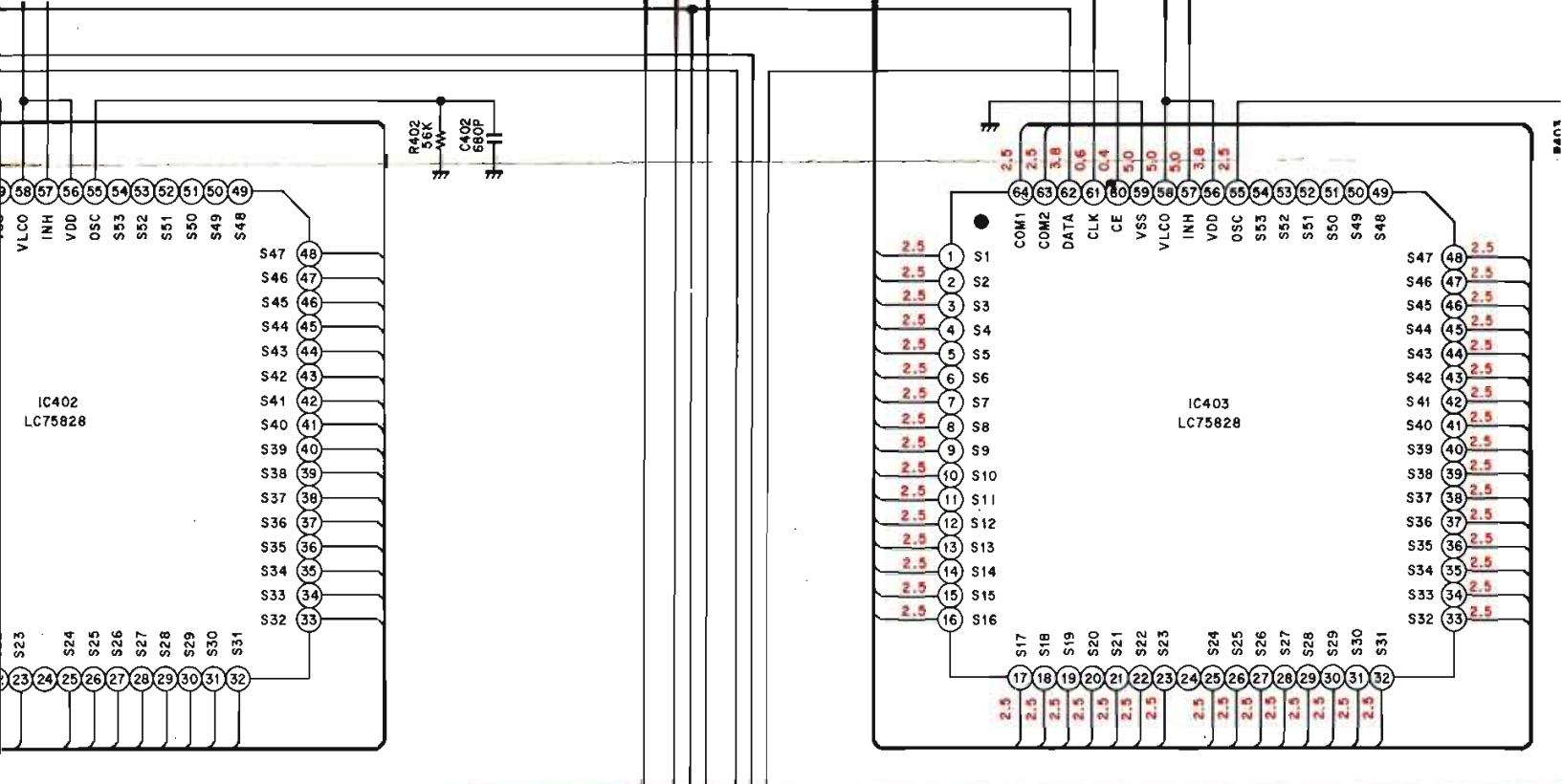
3

4

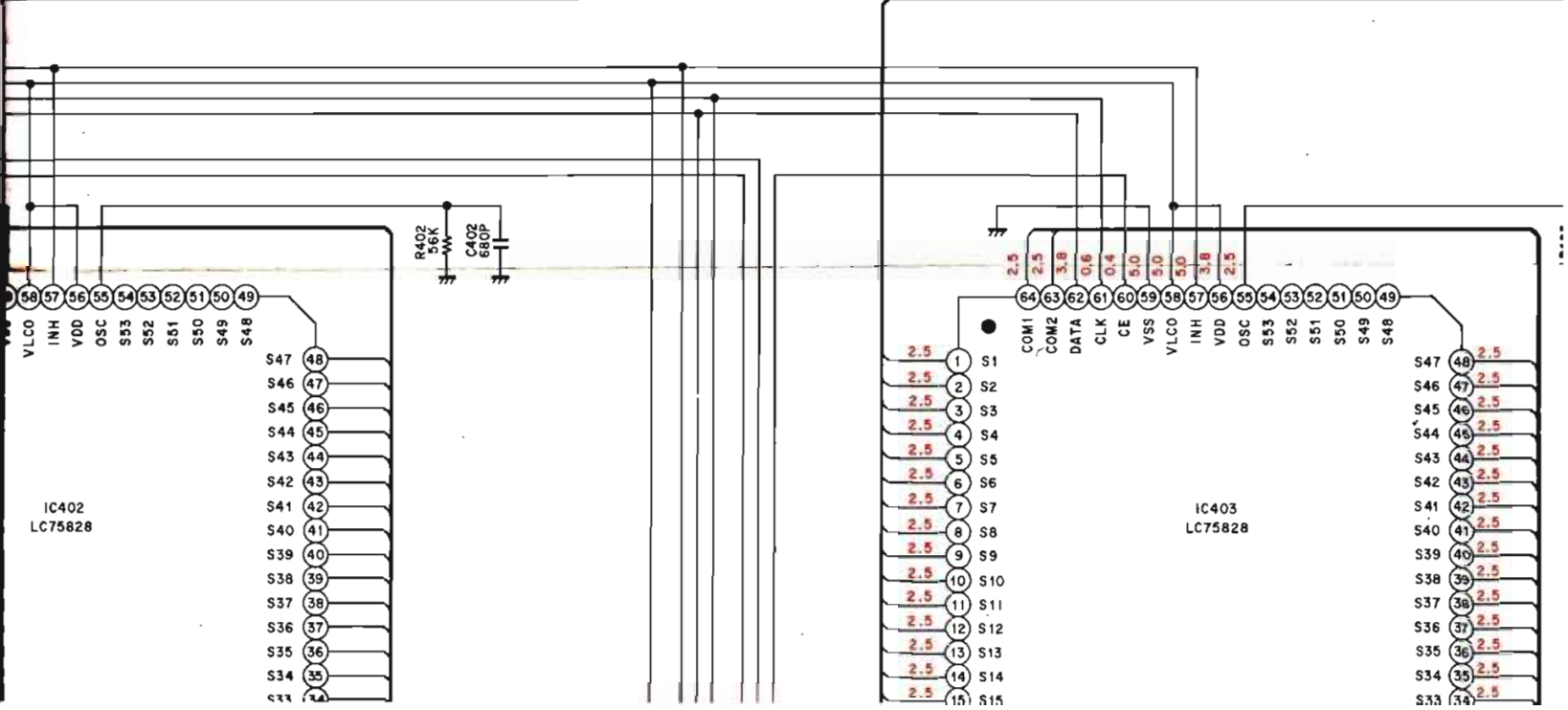
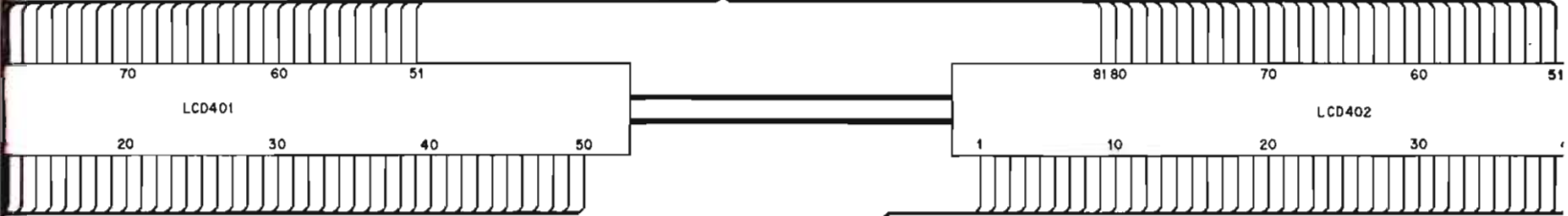
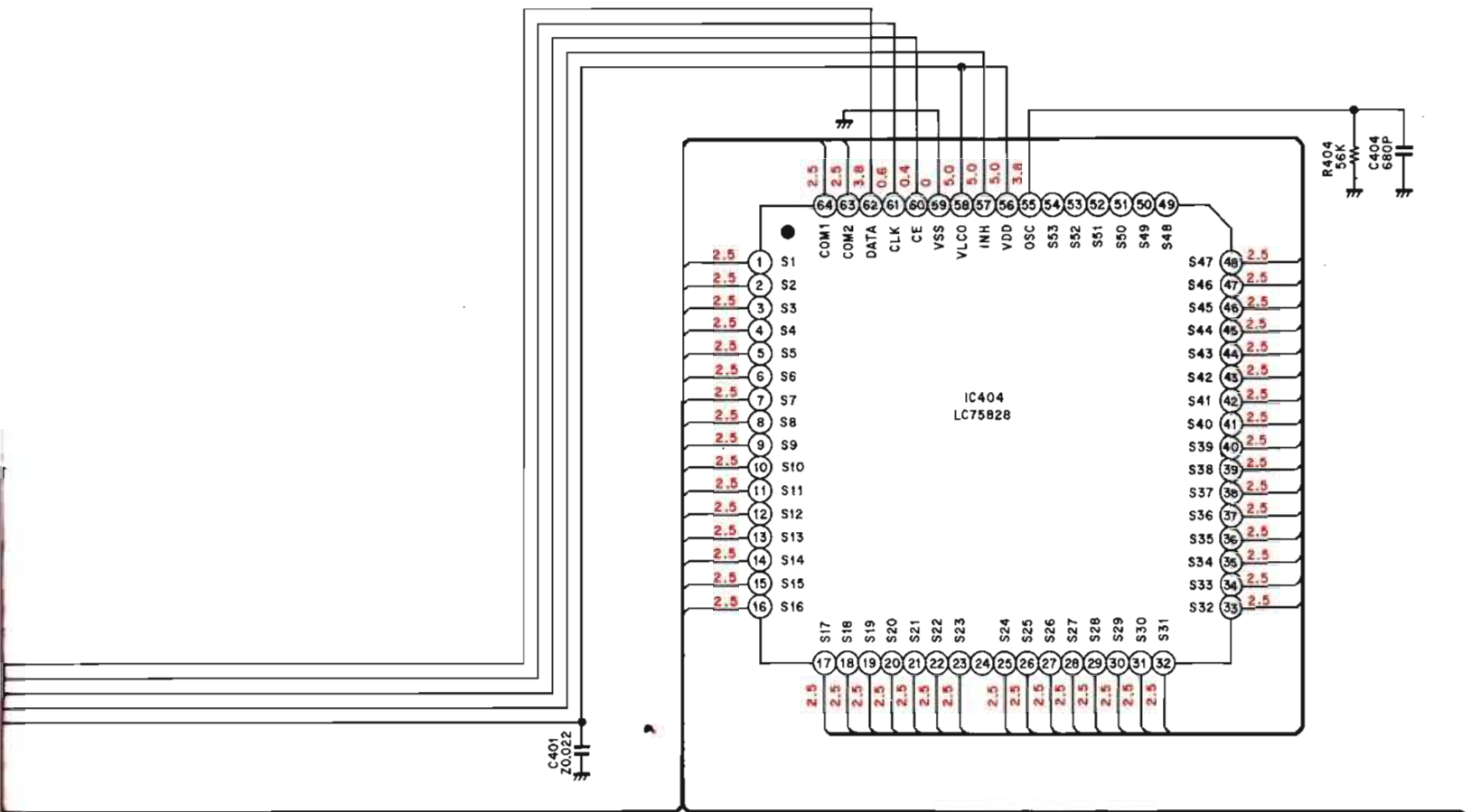
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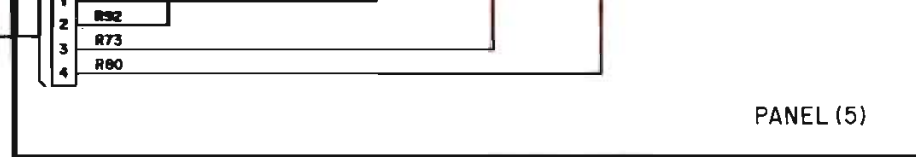
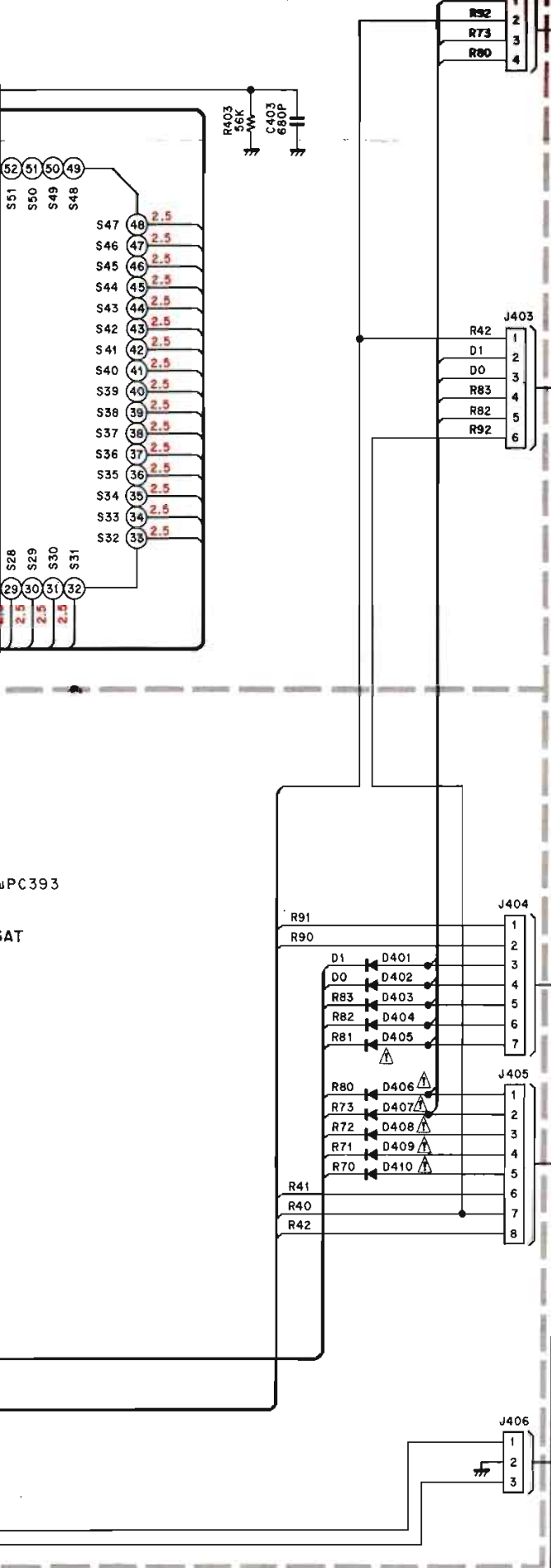
6



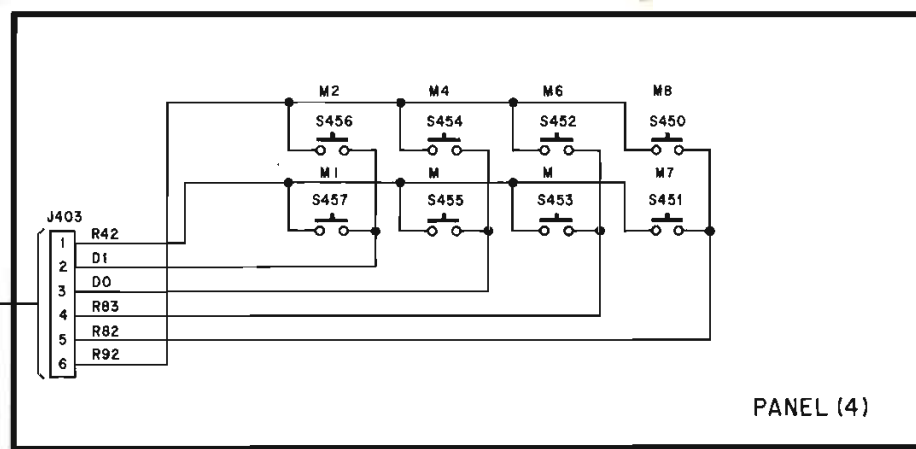


IC402,403 LC75828
 IC405 NJM2903, μPC393
 D401~404 ISS119-04
 D405~410 SVD1S2076AT

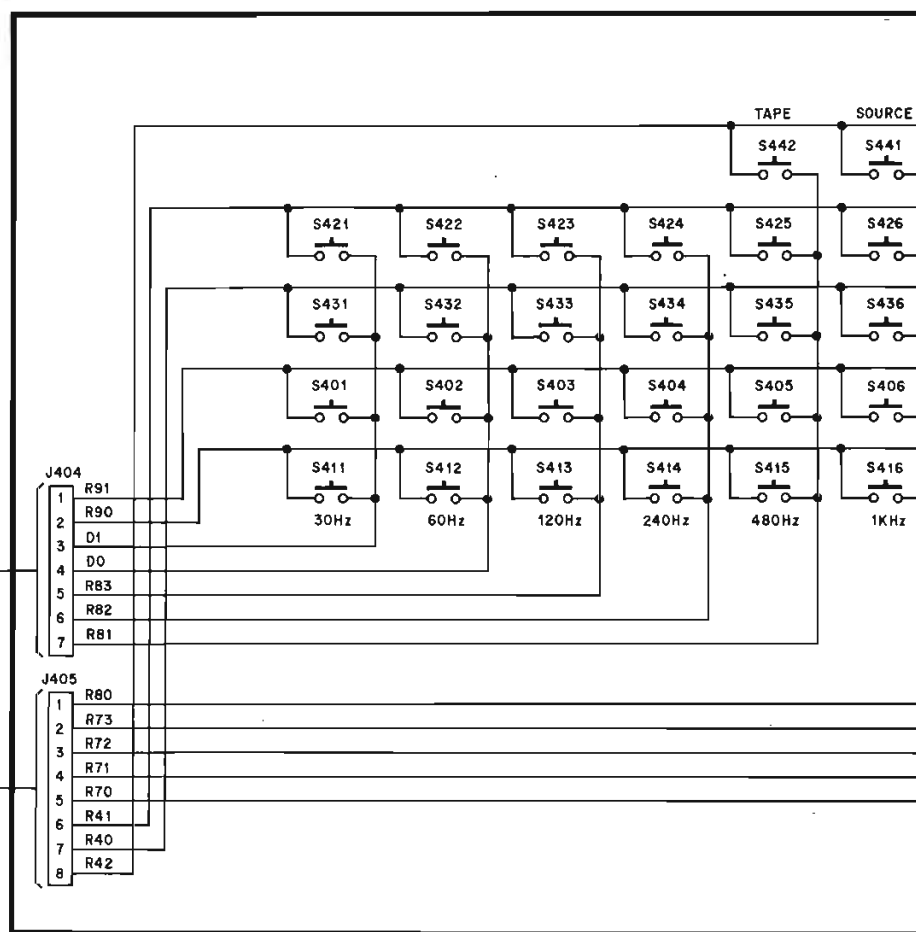




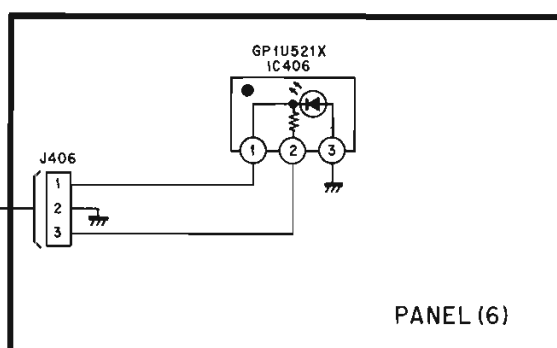
PANEL (5)



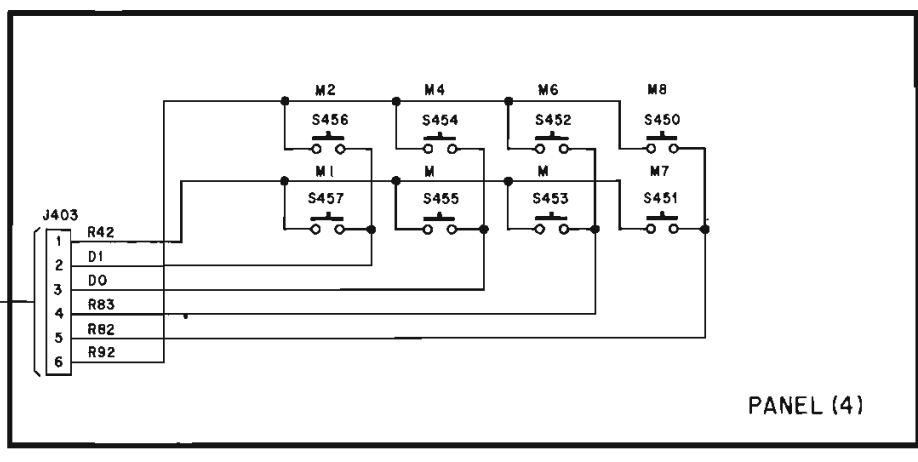
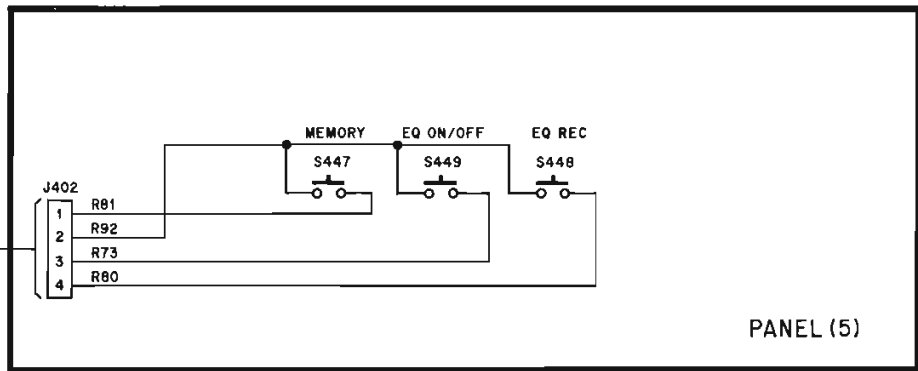
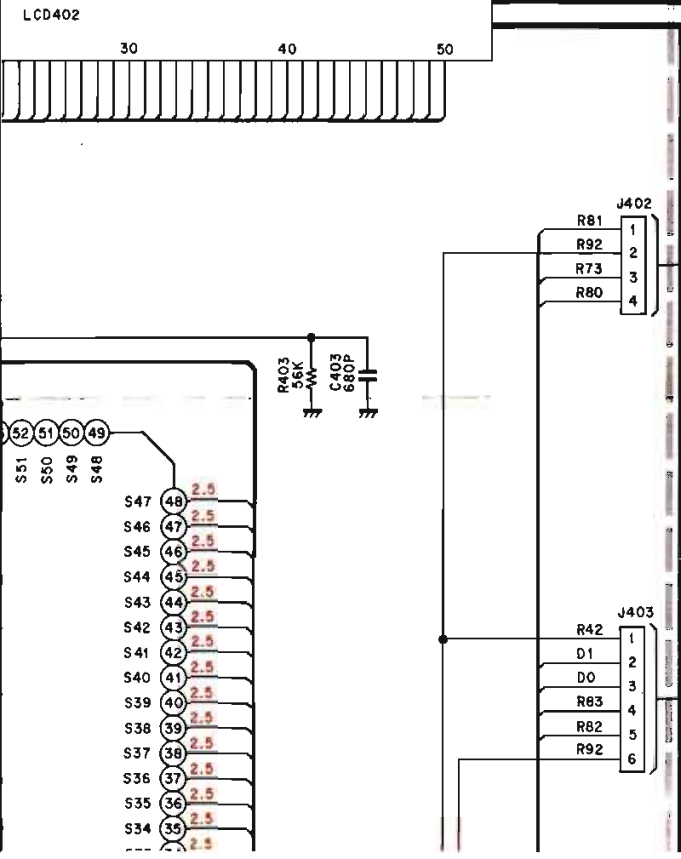
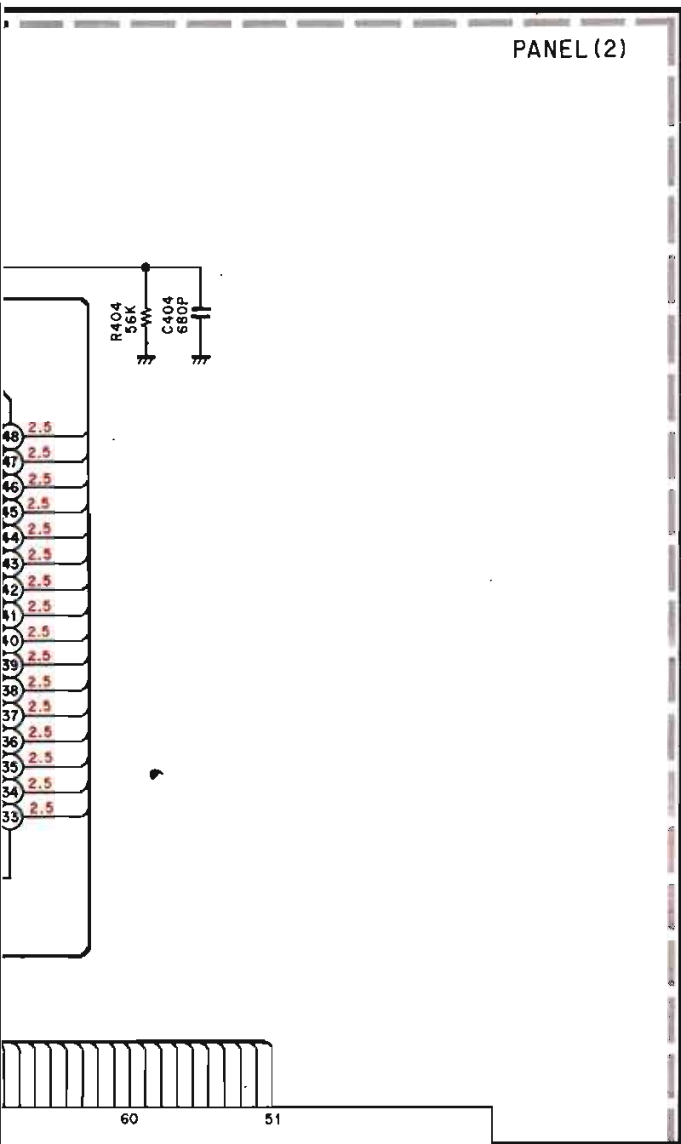
PANEL (4)



PANEL (6)

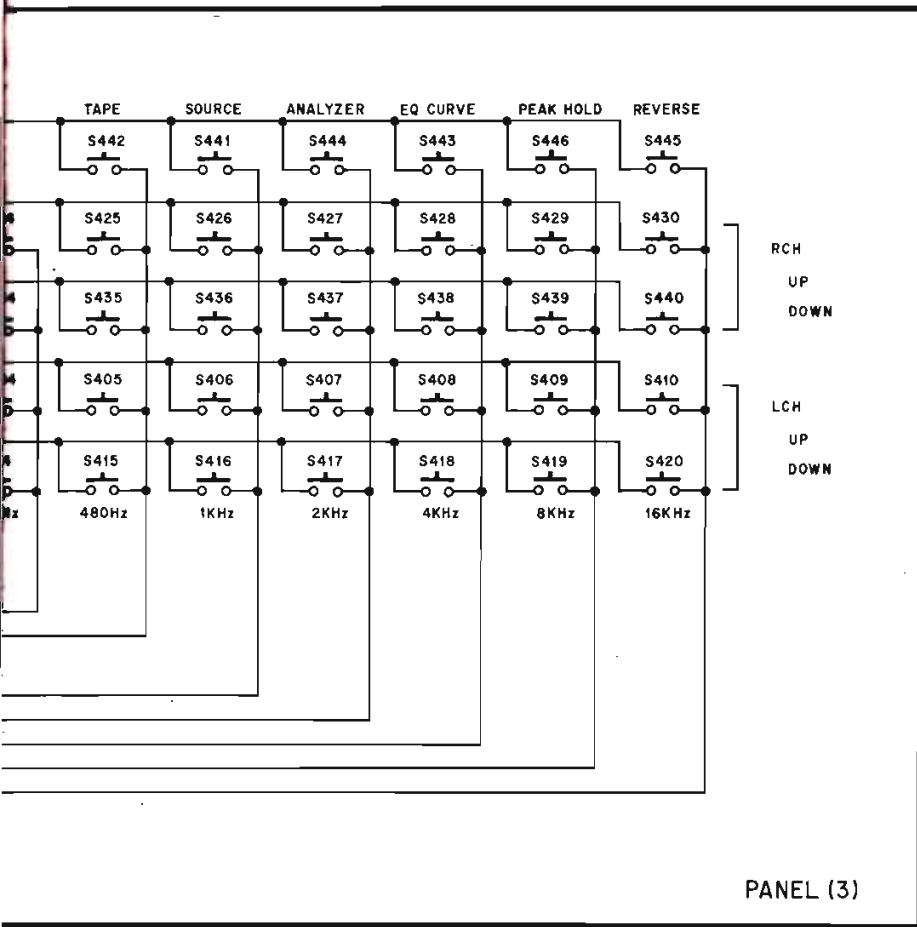


UPC393
AT



PANEL (5)

PANEL (4)



PANEL (3)

K

L

M

N

PANEL (5)


PANEL (4)



PARTS LIST

ELECTRICAL PARTS

■ WARNING

- Components having special characteristics are marked  and must be replaced with parts having specifications equal to those originally installed.
- Carbon resistors 1/4 W are not included in the ELECTRICAL PARTS list. For the parts No. of the carbon resistor, refer to the last Page.

| Ref. No. | Part No. | Description | 部品名 | Remarks/Markets | Common Model | ランク |
|----------|------------------------|------------------------------|---------------|--|--------------|--------------|
| ※ | NX 60 45 30 | Main Circuit Board | メ イン シ ー ト | U,C | | PSXPK414 |
| ※ | NX 60 45 40 | 〃 | 〃 | R | | PSXPK415 |
| ※ | NX 60 45 50 | 〃 | 〃 | A | | PSXPK416 |
| ※ | NX 60 45 60 | 〃 | 〃 | G | | PSXPK417 |
| ※ | NX 60 45 70 | 〃 | 〃 | B | | PSXPK420 |
| | FG 21 21 00 | Ceramic Cap. | セ ラ コ ン | C103,104 | | |
| | FG 21 21 20 | 〃 | 〃 | C107,108 | | |
| | FG 21 21 80 | 〃 | 〃 | C158 | | |
| | FG 21 22 20 | 〃 | 〃 | C61,62,65,66,69,70,73,74G | | |
| | FG 21 23 90 | 〃 | 〃 | C291~294 | | |
| | FG 11 25 60 | 〃 | 〃 | C157,283,284 | | |
| | FG 21 26 80 | 〃 | 〃 | C281,282 | | |
| | FG 24 42 20 | 〃 | 〃 | C1,2,7,8,10,12,13,15,17,151~153,160~162 | | |
| | Fi 22 42 20 | 〃 | 円筒型セラコン | C18,19 | | |
| | UJ 14 71 00 | Electrolytic Cap. | ケ ミ コ ン | C5,6,11,105,106 | | |
| | UJ 15 64 70 | 〃 | 〃 | C14,101,102,205,206,215,216 | | |
| | UJ 15 82 20 | 〃 | 〃 | C3,4 | | |
| | UJ 45 83 30 | 〃 | 〃 | C9 | | |
| | UJ 16 52 20 | 〃 | 〃 | C119,120 | | |
| | UJ 16 54 70 | 〃 | 〃 | C113~116 | | |
| | UJ 16 61 00 | 〃 | 〃 | C109~112,265,266,275,276,285,286,295,296 | | |
| | UJ 16 62 20 | 〃 | 〃 | C245,246,255,256 | | |
| | UJ 46 63 30 | 〃 | 〃 | C155,156,225,226,235,236 | | |
| | UA 25 31 80 | Mylar Cap. | マ イ ラ ー コ ン | C145~148 | | |
| | UA 25 33 30 | 〃 | 〃 | C141~144 | | |
| | UA 25 36 80 | 〃 | 〃 | C137~140 | | |
| | UA 25 41 00 | 〃 | 〃 | C123,124 | | |
| | UA 25 41 20 | 〃 | 〃 | C135,136 | | |
| | UA 25 41 50 | 〃 | 〃 | C133,134 | | |
| | UA 25 42 70 | 〃 | 〃 | C129~132 | | |
| | UA 25 45 60 | 〃 | 〃 | C125~128 | | |
| ※ | FX 60 42 70 | Semi Conductive Ceramic Cap. | 半 導 体 セ ラ コ ン | C271~274 | | ECFTD122KXL |
| | FS 78 32 20 | 〃 | 〃 | C263,264 | | |
| ※ | FX 60 42 60 | 〃 | 〃 | C261,262 | | ECFTD272KXL |
| | FX 60 11 60 | 〃 | 〃 | C251~254 | | ECFTD472KXL |
| | FS 68 41 00 | 〃 | 〃 | C241~244 | | |
| | FS 68 42 20 | 〃 | 〃 | C231~234 | | |
| | FS 68 43 90 | 〃 | 〃 | C211~214,221,222 | | |
| | FX 60 08 70 | 〃 | 〃 | C223,224 | | ECFTD473KXL |
| | FS 68 48 20 | 〃 | 〃 | C201~204 | | |
| | FX 60 35 60 | TF Cap. | TF コ ン | C121,122 | | ECVQ1H124JZ3 |
| ※ | FX 60 42 50 | 〃 | 〃 | C117,118 | | ECVQ1H274JZ |
| | HX 60 21 50 | Resistor Array | 集 合 抵 抗 | Z101~103 | | |
| | GX 60 29 40 | Power Transformer | 電 源 ト ラ ン ス | T1 U,C | | PSLTK5K23 △ |
| | GX 60 29 50 | 〃 | 〃 | T1 R | | PSLTK5K24 △ |
| ※ | GX 60 29 70 | 〃 | 〃 | T1 G | | PSLTK5K25 △ |
| | GX 60 29 60 | 〃 | 〃 | T1 A,B | | PSLTK5K26 △ |
| | iX 60 42 00 | Transistor | ト ラ ン ジ ス タ ー | Q1,2 | | |
| ※ | iX 61 38 70 | 〃 | 〃 | Q3 | | |

※ New Parts (新規部品)

| Ref. No. | Part No. | Description | 部品名 | Remarks/Markets | Common Model | ランク |
|----------|-------------|-------------------------|--------------|-----------------|----------------|-------------|
| ※ | iX 61 37 90 | Transistor | 2SC3311A(Q) | トランジスター | Q4 | |
| | iX 61 38 80 | // | UN4215 | // | Q5 | |
| | iX 61 28 70 | // | 2SD2012 | // | Q6 | |
| ※ | iX 61 38 90 | Transistor | 2SB1375 | トランジスター | Q7 | |
| ※ | iX 61 38 30 | IC | TC9162N | I C | IC1 | |
| | iX 61 37 00 | // | NJM4558SD | // | IC2,8~10 | |
| ※ | iX 61 38 40 | // | AN7337 | // | IC3,4,7 | |
| | iX 61 37 10 | // | NJU7305L | // | IC5,6 | |
| | iX 61 03 80 | // | LA6324N | // | IC11~14 | |
| | iX 60 93 20 | // | MN4051B | // | IC15~17 | |
| | XA 50 70 01 | // | AN78N05 | // | IC18 | |
| | iX 61 05 40 | Diode | IN4003 | ダイオード | D1~4,9 | |
| | iX 60 94 00 | // | MA4150M | // | D5,6 | |
| ※ | iX 61 39 00 | // | MA4082 | // | D7,8 | |
| | iX 61 05 30 | // | ISS178TPA7 | // | D10~15,101~124 | |
| | XX 69 40 20 | Resonator | | 発振器 | X1 | EFOFC4004A3 |
| ※ | JX 60 04 60 | Lamp | | ランプ | PL1,2 | XAMK4B |
| | PX 60 02 00 | Battery | SUMM2CC200 | リチウム電池 | BAT1 | |
| | KX 60 17 60 | Switch,Power | | 電源スイッチ | S1 | PSSHK90 |
| | KX 60 06 40 | Voltage Selector | | 電圧切換器 | S2 R | PSSRK26 |
| | | | | | | |
| ※ | NX 60 45 80 | | | パネルシート | Black | PSXPK418 |
| ※ | NX 60 45 20 | // | | // | Titan | PSXPK426 |
| ※ | FX 60 42 80 | Ceramic Cap. | 680pF 50V | 円筒型セラコン | C402~404 | EC8T1H681KB |
| | Fi 22 42 20 | // | 0.022μF 25V | // | C401,405~408 | |
| | HX 60 21 60 | Resistor Array | 7.9MΩ×10 | 集合抵抗 | Z401 | |
| ※ | iX 61 38 50 | IC | HD614080SD23 | I C | IC401 | |
| | iX 61 37 30 | // | LC7582B | // | IC402~404 | |
| | iX 61 37 50 | // | μPC393 | // | IC405 | |
| ※ | iX 61 38 60 | Remote Control Receptor | GPIU521X | // | IC406 | |
| | iX 61 05 30 | Diode | ISS178TPA7 | ダイオード | D401~404 | |
| ※ | iX 61 39 10 | // | SVD1S2076AT | // | D405~410 | |
| | PX 60 04 40 | LCD | PSAL8056MJP | L C D | LCD401,402 | Black |
| ※ | PX 60 06 00 | // | | // | // | Titan |
| | XX 69 40 60 | Switch | EVQQAC04B | スイッチ | S401~409 | |
| ※ | KX 60 17 70 | // | EVQPAE07K | // | S410~457 | |

※ New Parts (新規部品)

EQ-630

EXPLODED VIEW

1

2

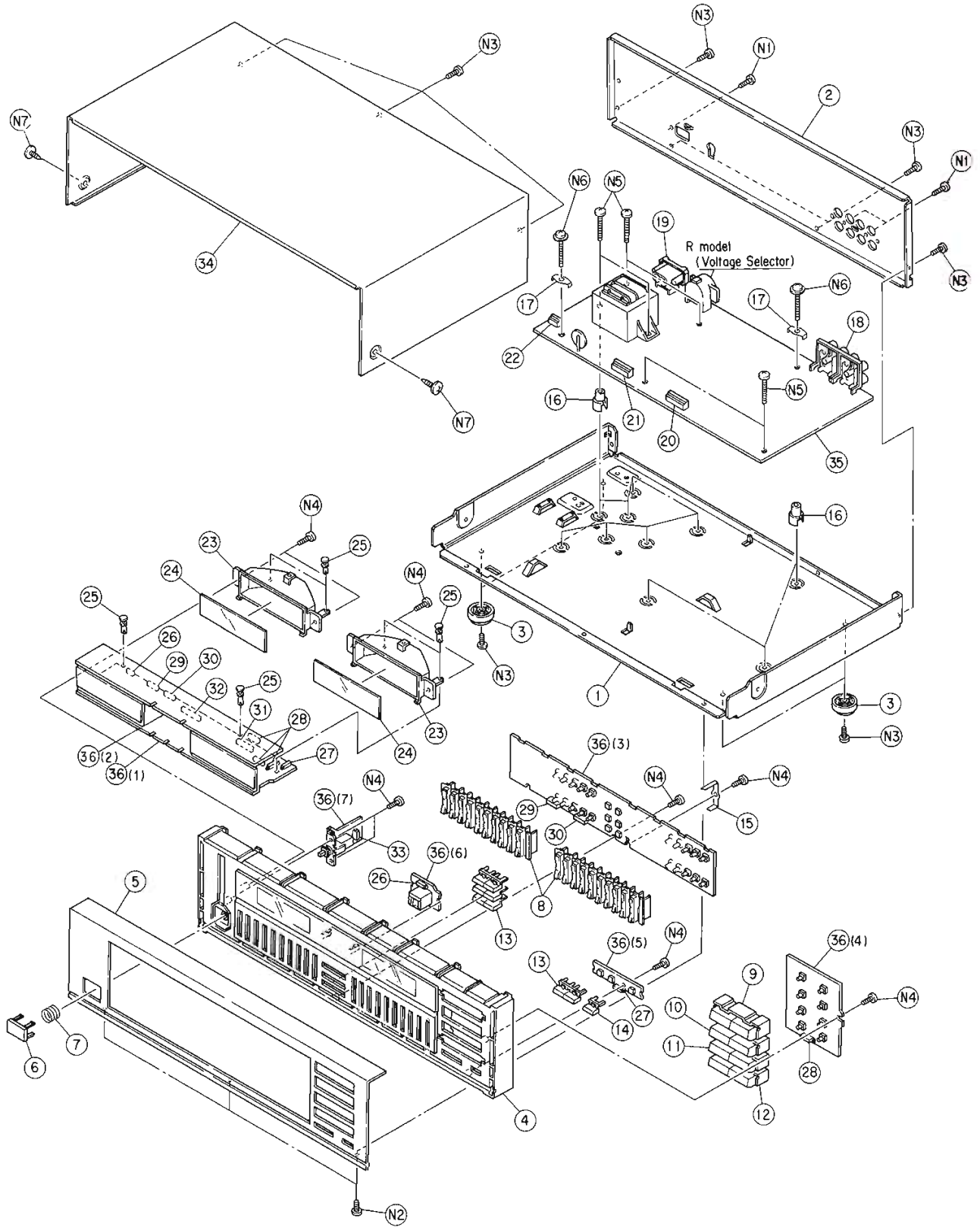
3

4

5

6

7



EXPLODED VIEW PARTS

| Ref. No. | Part No. | Description | 部品名 | Remarks/Markets | Common Model | ランク |
|----------|-------------|--------------------|-------------|-----------------|--------------|--------------|
| ※ 1 | AX 60 47 50 | Bottom Cover | ボトムカバー | | | SKUK162-3 |
| ※ 2 | AX 60 47 60 | Rear Panel | リヤパネル | R | | PSGPK550-1A |
| ※ // | AX 60 47 70 | // | // | U,C | | PSGPK550B |
| ※ // | AX 60 47 80 | // | // | A,B | | PSGPK550C |
| ※ // | AX 60 47 90 | // | // | G | | PSGPK550D |
| ※ 3 | XX 69 42 90 | Leg | 脚 | | | SKL227-5 |
| ※ 4 | NX 60 37 50 | Front Panel | フロントパネル | Black | | PSGEQ630-KJ |
| ※ // | NX 60 45 10 | // | // | Titan | | PSGWK540TA |
| ※ 5 | AX 60 48 00 | Front Grille | フロントブリル | Black | | PSGEQ630-KJ1 |
| ※ // | CX 60 93 50 | // | // | Titan | | PSGXEQ630-TU |
| ※ 6 | CB 63 51 30 | Button,Power | 電源ボタン | Black | | |
| ※ // | VF 60 47 00 | // | // | Titan | | |
| ※ 7 | XX 69 42 30 | Spring | バネ | | | PSUS33 |
| ※ 8 | CX 60 72 10 | Button | ボタン | UP/DOWN | Black | PSBCK85 |
| ※ // | CX 60 93 60 | // | // | | Titan | PSBCK85-1 |
| ※ 9 | CX 60 72 20 | Button(A),Preset | プリセットボタン(A) | Black | | PSBC55A |
| ※ // | CX 60 93 70 | // // | // | | Titan | PSBC55-1A |
| ※ 10 | CX 60 72 30 | // (B) // | // (B) | Black | | PSBC56A |
| ※ // | CX 60 93 80 | // // | // | | Titan | PSBC56-1A |
| ※ 11 | CX 60 72 40 | // (C) // | // (C) | Black | | PSBC57A |
| ※ // | CX 60 93 90 | // // | // | | Titan | PSBC57-1A |
| ※ 12 | CX 60 72 50 | // (D) // | // (D) | Black | | PSBC58A |
| ※ // | CX 60 94 00 | // // | // | | Titan | PSBC58-1A |
| ※ 13 | VD 37 04 00 | Knob,Function | ツマミ | Black | | |
| ※ // | VF 60 44 00 | // | // | | Titan | |
| ※ 14 | VD 37 07 00 | // | // | Black | | |
| ※ // | VF 60 43 00 | // | // | | Titan | |
| ※ 15 | XX 69 44 60 | Spring | バネ | | | PSUS34 |
| ※ 16 | CX 60 14 50 | Spacer | スペーサー | | | SHE187-K |
| ※ 17 | AX 60 48 20 | Terminal,Ground | アース端子 | | | SNE55-1 |
| ※ 18 | LX 60 20 80 | Jack | 入出力端子板 | | | SJF3057-13NA |
| ※ 19 | LX 60 19 80 | AC Inlet | AC インレット | | U.C.A | SJSD16 |
| ※ // | LX 60 20 00 | // | // | | R.G.B | SJS9236 |
| ※ 20 | LX 60 20 90 | Connector | コネクタ | 11P | | SJSD1105 |
| ※ 21 | LX 60 21 00 | // | // | 12P | | SJSD1205 |
| ※ 22 | XX 69 45 50 | // | // | 4P | | SJT30440LX-V |
| ※ 23 | CX 60 72 60 | Lamp Case | ランプケース | | | PSMPK9 |
| ※ 24 | CX 60 72 70 | Sheet | 拡散シート | | | PSDUK25 |
| ※ 25 | CX 60 72 80 | Holder | ナイラッチ | | | SHR415 |
| ※ 26 | LX 60 21 20 | Socket | ソケット | 3P | | SJSK90303DS |
| ※ 27 | LX 60 21 30 | // | // | 4P | | SJSK90403DS |
| ※ 28 | LX 60 20 20 | // | // | 6P | | SJSK90603DS |
| ※ 29 | LX 60 20 30 | // | // | 7P | | SJSK90703DS |
| ※ 30 | LX 60 20 70 | // | // | 8P | | SJSK90803DS |
| ※ 31 | LX 60 21 40 | // | // | 11P | | SJSK91103DS |
| ※ 32 | LX 60 21 50 | // | // | 12P | | SJSK91203DS |
| ※ 33 | XX 69 45 10 | // | // | 4P | | SJS50471DS |
| ※ 34 | AX 60 48 30 | Top Cover | トップカバー | Black | | SKCK150KY2 |
| ※ // | AX 60 59 90 | // | // | Titan | | SKCK150T |
| ※ 35 | NX 60 45 30 | Main Circuit Board | メインシート | | U,C | PSXPK414 |
| ※ // | NX 60 45 40 | // | // | | R | PSXPK415 |
| ※ // | NX 60 45 50 | // | // | | A | PSXPK416 |

※ New Parts (新規部品)

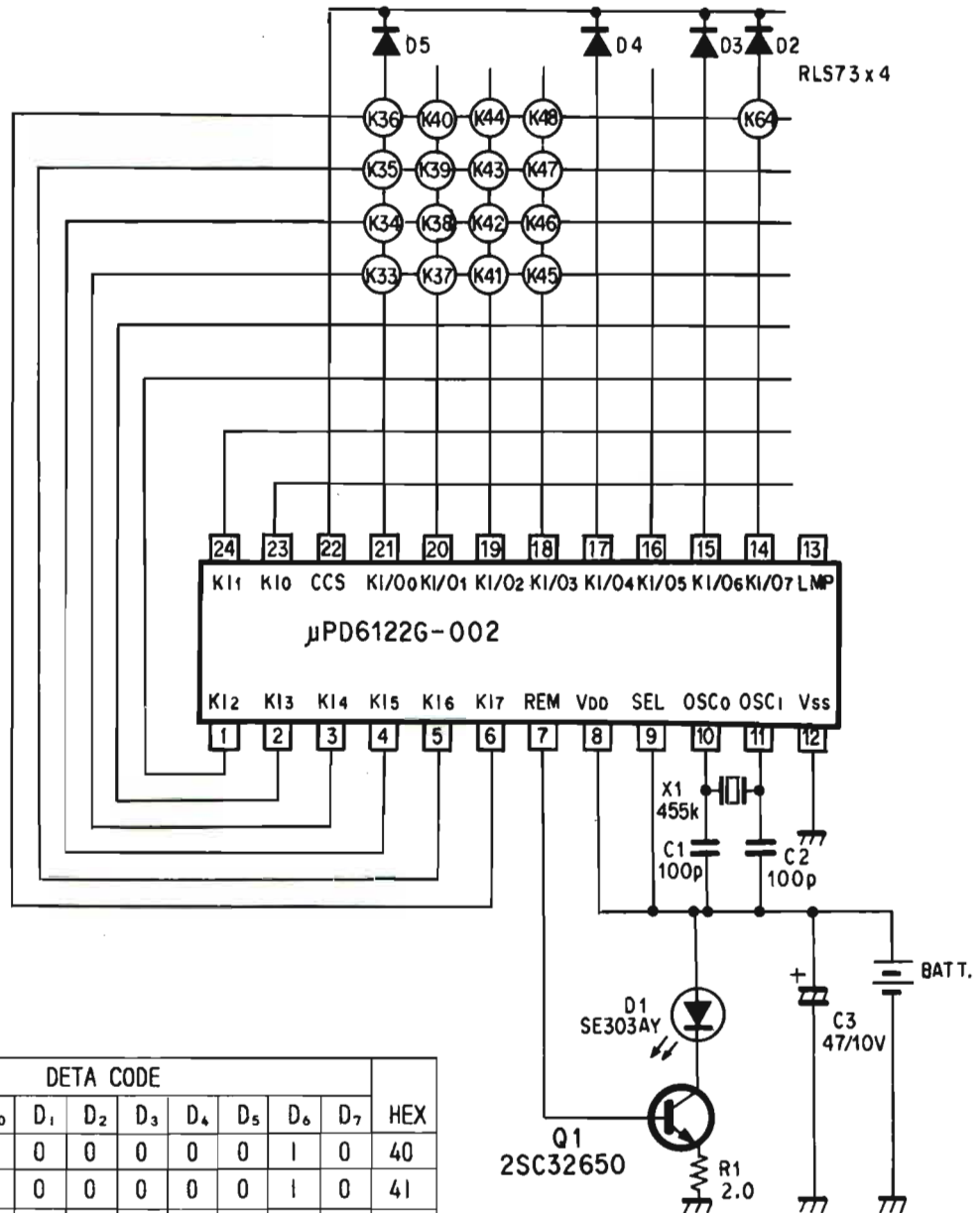
EQ-630

| Ref. No. | Part No. | | | | Description | 部 品 名 | | Remarks/Markets | Common Model | ランク |
|----------|----------|----|----|----|----------------------------|-------------|----------|-------------------|--------------|------------|
| ※ 35 | NX | 60 | 45 | 60 | Main Circuit Board | メ イ ン シ ー ト | | G | PSXPK417 | |
| ※ // | NX | 60 | 45 | 70 | // | // | | B | PSXPK420 | |
| ※ 36 | NX | 60 | 45 | 80 | Panel Circuit Board | パ ネ ル シ ー ト | | Black | PSXPK418 | |
| ※ // | NX | 60 | 45 | 20 | // | // | | Titan | PSXPK426 | |
| N1 | EX | 60 | 03 | 10 | Binding Head Tapping Screw | 3×8 | FCRM3-BI | バインドタッピングネジ(Pタイト) | | XTB3+8GFZ |
| N2 | Ei | 33 | 00 | 86 | Binding Head Tapping Screw | 3×8 | FCRM3-BI | バインドタッピングネジ | | XTB3+8JFZ1 |
| N3 | Ei | 33 | 00 | 86 | Binding Head Tapping Screw | 3×8 | FCRM3-BI | バインドタッピングネジ | PACK | XTB3+8JFZ |
| N4 | EK | 09 | 30 | 20 | // | 3×8 | ZMC2-Y | バインドタッピングネジ(Pタイト) | | XTB3+8G |
| N5 | EK | 03 | 00 | 40 | BW Head Tapping Screw | 3×20 | ZMC2-Y | BWヘッドタッピングネジ | | XTW3+20T |
| ※ N6 | AX | 60 | 54 | 20 | Special Screw | 3×20 | ZMC2-Y | ネ | | XTB3+20F1 |
| ※ N7 | AX | 60 | 59 | 80 | Special Screw | | | ネ | Black | SNE2129-I |
| ※ // | AX | 60 | 60 | 00 | // | | | // | Titan | SNEK2129 |
| | | | | | Accessories | | | 付 属 品 | | |
| | MX | 60 | 04 | 80 | AC Power Cord | | | 電 源 コ ー ド | G | SFDAC05E03 |
| | XX | 69 | 28 | 40 | // | | | // | B | SFDAC05G02 |
| | MX | 60 | 10 | 00 | // | | | // | C | SJA172 |
| | MX | 60 | 10 | 10 | // | | | // | A | SJA173 |
| | MX | 60 | 10 | 20 | // | | | // | U | SJA175-1T |
| ※ | MX | 60 | 10 | 40 | // | | | // | R | SJA185 |
| | MX | 60 | 09 | 80 | Output Cord | | | 出 力 コ ー ド | | SJPK2202 |
| ※ | PX | 60 | 05 | 90 | Remote Control Transmitter | | | リモントランスミッター | | PRAKKI |
| | | | | | Dry Cell | AA,R06 | | 単 3 乾 電 池 | | |

※ New Parts (新規部品)

EQ-630

REMOTE CONTROL TRANSMITTER



| KEY NO. | FUNCTION | DETA CODE | | | | | | | | HEX |
|---------|-----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|-----|
| | | D ₀ | D ₁ | D ₂ | D ₃ | D ₄ | D ₅ | D ₆ | D ₇ | |
| 33 | PRESET 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 40 |
| 34 | PRESET 2 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 41 |
| 35 | PRESET 3 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 42 |
| 36 | PRESET 4 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 43 |
| 37 | PRESET 5 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 44 |
| 38 | PRESET 6 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 45 |
| 39 | PRESET 7 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 46 |
| 40 | PRESET 8 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 47 |
| 41 | F. UP | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 48 |
| 42 | F. DOWN | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 49 |
| 43 | LEVEL UP | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 4A |
| 44 | LEVEL DOWN | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 4B |
| 45 | MEMORY | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 4C |
| 46 | EQ. ON/OFF | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 4D |
| 47 | DISPLAY EQ/ANA | 0 | 1 | 1 | 1 | 0 | 0 | 1 | 0 | 4E |
| 48 | CHANNEL L/R/L+R | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 0 | 4F |
| 64 | REVERSE | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 5F |

COSTOM CODE : D1 (HEX)

Parts List for Carbon Resistor

| Value | 1/4W Type Part No. | 1/6W Type Part No. | Value | 1/4W Type Part No. | 1/6W Type Part No. |
|--------|--------------------|--------------------|--------|--------------------|--------------------|
| 1.0 Ω | HJ353100 | HF853100 | 12K Ω | HJ357120 | HF857120 |
| 1.8 " | HJ353180 | * | 15 " | HJ357150 | HF857150 |
| 2.2 " | HJ353220 | HF853220 | 18 " | HJ357180 | HF857180 |
| 3.3 " | HJ353330 | HF853330 | 22 " | HJ357220 | HF857220 |
| 4.7 " | HJ353470 | HF853470 | 27 " | HJ357270 | HF857270 |
| 5.6 " | HJ353560 | HF853560 | 33 " | HJ357330 | HF857330 |
| 10 " | HJ354100 | HF854100 | 39 " | HJ357390 | HF857390 |
| 15 " | HJ354150 | HF854150 | 47 " | HJ357470 | HF857470 |
| 22 " | HJ354220 | HF854220 | 56 " | HJ357560 | HF857560 |
| 27 " | HJ354270 | HF854270 | 68 " | HJ357680 | HF857680 |
| 33 " | HJ354330 | HF854330 | 82 " | HJ357820 | HF857820 |
| 39 " | HJ354390 | HF854390 | 91 " | HJ357910 | HF857910 |
| 47 " | HJ354470 | HF854470 | 100 " | HJ358100 | HF858100 |
| 56 " | HJ354560 | HF854560 | 120 " | HJ358120 | HF858120 |
| 68 " | HJ354680 | HF854680 | 150 " | HJ358150 | HF858150 |
| 82 " | HJ354820 | HF854820 | 180 " | HJ358180 | HF858180 |
| 100 " | HJ355100 | HF855100 | 220 " | HJ358220 | HF858220 |
| 110 " | HJ355110 | HF855110 | 270 " | HJ358270 | HF858270 |
| 120 " | HJ355120 | HF855120 | 330 " | HJ358330 | HF858330 |
| 150 " | HJ355150 | HF855150 | 390 " | HJ358390 | HF858390 |
| 160 " | HJ355160 | * | 470 " | HJ358470 | HF858470 |
| 180 " | HJ355180 | HF855180 | 560 " | HJ358560 | HF858560 |
| 220 " | HJ355220 | HF855220 | 680 " | HJ358680 | HF858680 |
| 270 " | HJ355270 | HF855270 | 820 " | HJ358820 | HF858820 |
| 330 " | HJ355330 | HF855330 | 1.0M Ω | HJ359100 | HF859100 |
| 390 " | HJ355390 | HF855390 | 1.2 " | HJ359120 | * |
| 470 " | HJ355470 | HF855470 | 1.5 " | HJ359150 | HF859150 |
| 510 " | * | HF855510 | 1.8 " | HJ359180 | HF859180 |
| 560 " | HJ355560 | HF855560 | 2.2 " | HJ359220 | HF859220 |
| 680 " | HJ355680 | HF855680 | 3.3 " | HJ359330 | HF859330 |
| 820 " | HJ355820 | HF855820 | 3.9 " | HJ359390 | * |
| 910 " | HJ355910 | HF855910 | 4.7 " | HJ359470 | HF859470 |
| 1.0K Ω | HJ356100 | HF856100 | | | |
| 1.2 " | HJ356120 | HF856120 | | | |
| 1.5 " | HJ356150 | HF856150 | | | |
| 1.8 " | HJ356180 | HF856180 | | | |
| 2.0 " | HJ356200 | HF856200 | | | |
| 2.2 " | HJ356220 | HF856220 | | | |
| 2.4 " | HJ356240 | HF856240 | | | |
| 2.7 " | HJ356270 | HF856270 | | | |
| 3.0 " | HJ356300 | HF856300 | | | |
| 3.3 " | HJ356330 | HF856330 | | | |
| 3.6 " | HJ356360 | HF856360 | | | |
| 3.9 " | HJ356390 | HF856390 | | | |
| 4.7 " | HJ356470 | HF856470 | | | |
| 5.1 " | HJ356510 | HF856510 | | | |
| 5.6 " | HJ356560 | HF856560 | | | |
| 6.8 " | HJ356680 | HF856680 | | | |
| 8.2 " | HJ356820 | HF856820 | | | |
| 9.1 " | HJ356910 | HF856910 | | | |
| 10 " | HJ357100 | HF857100 | | | |

1/4W Type

HJ35○○○○○

1/6W Type

HF85○○○○○

EQ-630

YAMAHA

YAMAHA TECHNICAL BULLETIN

ELECTRONICS CORPORATION, USA

6722 ORANGETHORPE AVENUE, BUENA PARK, CALIFORNIA 90620 - MAIL ADDRESS: P.O. BOX 6660, BUENA PARK, CALIFORNIA 90622 - PHONE: (714) 522-9105

No.: 135H

Effective Date: September 27, 1989

MODEL: EQ-630/Ti STEREO GRAPHIC EQUALIZER

SERIAL NUMBERS AFFECTED: Units under Serial Number MA99-----
(released before September 26, 1989)*

FUNCTIONS AFFECTED: MEMORY BACK-UP BATTERY

TYPE OF CHANGE

MANDATORY OPTIONAL FOR INFO ONLY

(This modification is to be performed on all store-stock and customer-units not already modified by YAMAHA or an authorized YAMAHA Preferred Customer Service Center.)

SYMPTOM: When the AC-mains power is disconnected, the unit "forgets" any user-set equalization curves.

CAUSE: The 3 volt lithium memory back-up battery has failed due to excessive current-drain whenever the AC-mains power is disconnected.

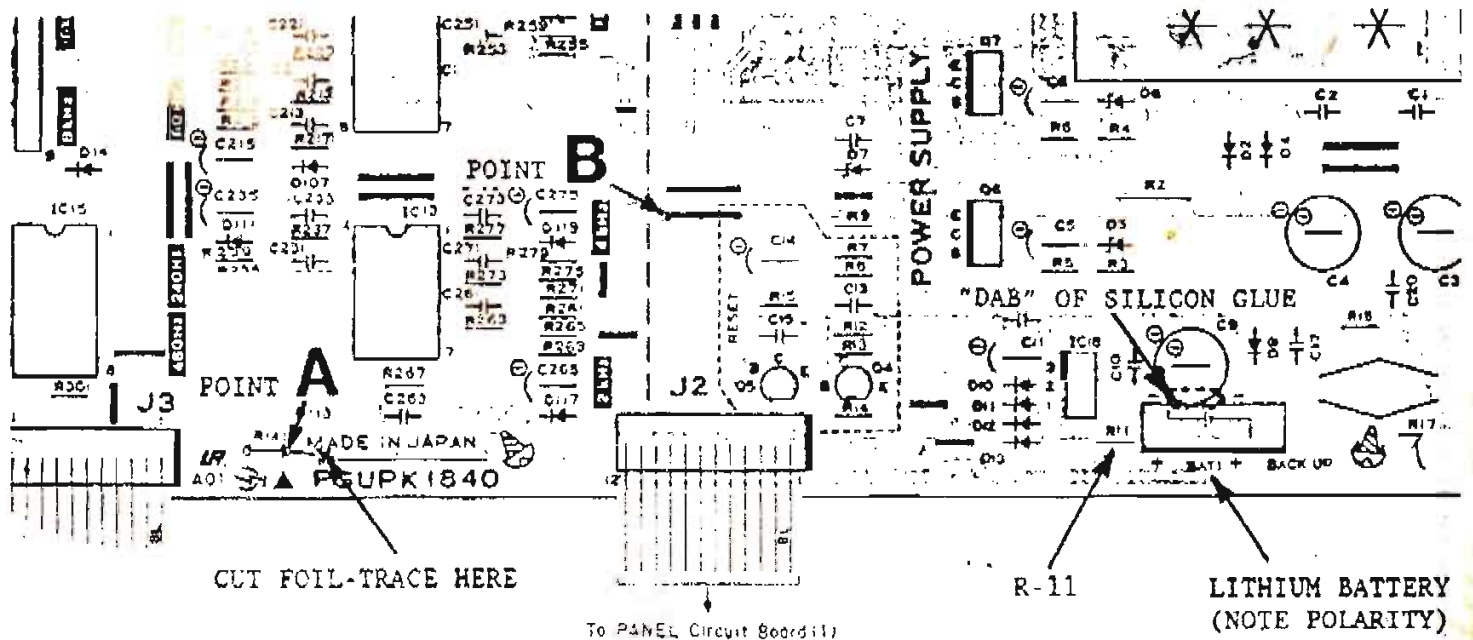
SOLUTION: Modify the memory back-up circuit to reduce current-draw, then remove and replace the lithium battery (as described on the reverse side of this bulletin).

***NOTE:** All units released after September 26, 1989, include this modification. Any units modified by YAMAHA before this date have a green mark next to the Serial Number and a gold Q.C. sticker on the carton-box.

(See reverse side for procedure to modify the memory back-up circuit and replace the lithium battery.)

MEMORY BACK-UP BATTERY MODIFICATION PROCEDURE

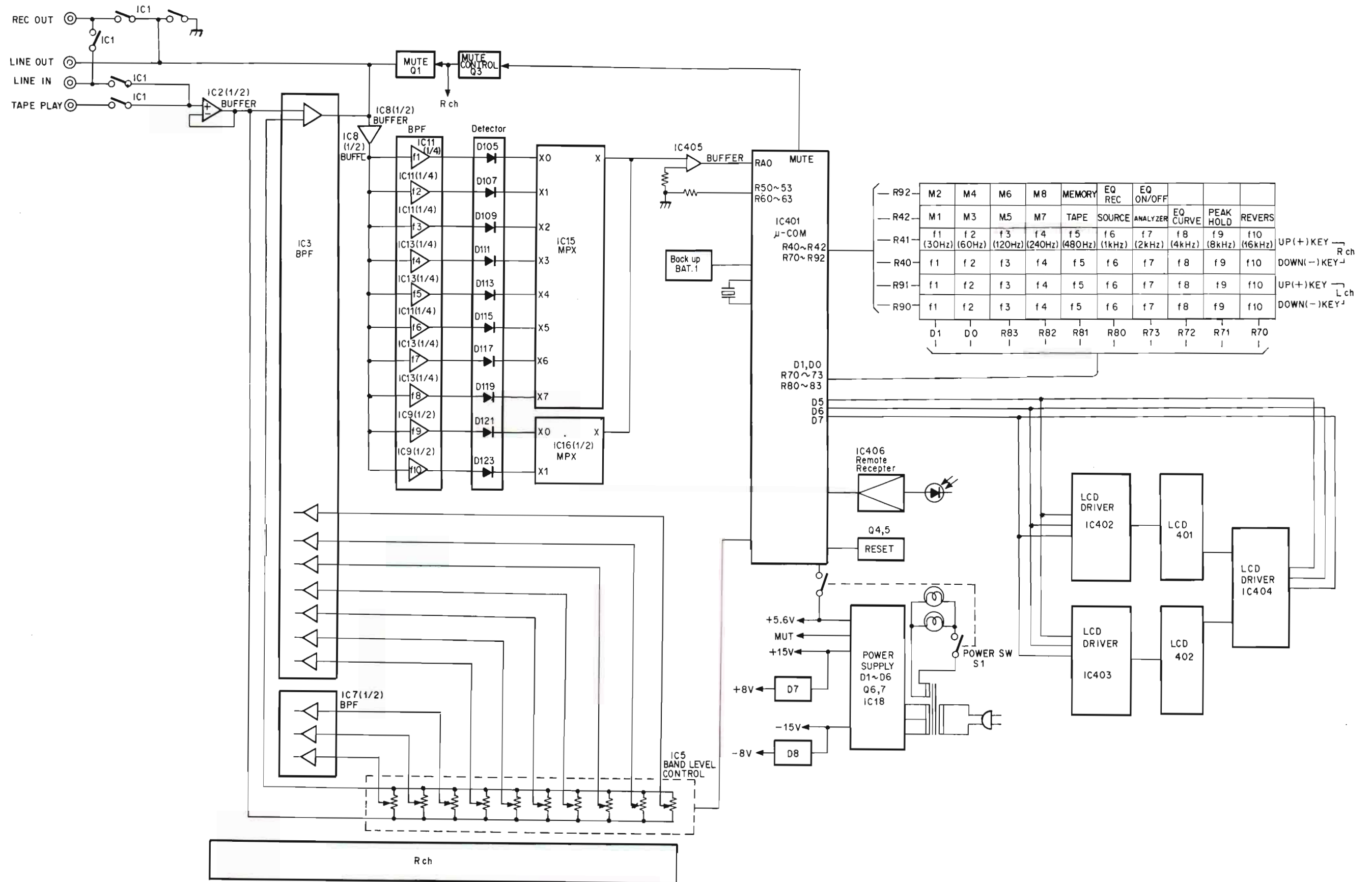
1. With the unit unplugged, remove 5 cabinet screws and lift off top cover. Remove 3 screws securing the LINE and TAPE connectors and the AC INLET to the rear panel. Remove 7 screws securing the MAIN CIRCUIT BOARD to the chassis' bottom panel. (NOTE: the 2 printed circuit board GROUND LUGS use shoulder-type machine-thread screws; the other 5 screws are self-tapping.)
2. Lift the MAIN CIRCUIT BOARD for access to its foil side (use care to protect the front panel's top edge). Cut the foil-trace near R-141, just above the "P" in "PSUPK1840" (the PCB identification number) at the junction of R-141 and D-12, and replace "BAT1" with a new Lithium Battery, P/N PX600200, as shown below:



3. Reinstall the MAIN CIRCUIT BOARD by installing the 3 screws which secure the LINE and TAPE connectors and AC INLET to the rear panel, then the shoulder-type machine-thread screws at the 2 printed circuit board GROUNDING LUGS, and the remaining 5 self-tapping screws.
4. Solder a 3 inch, approx. 18 gauge, insulated jumper-wire between R-141 and D-11 (between points "A" and "B" on the above diagram) on the component-side of the MAIN PRINTED CIRCUIT BOARD. Apply a "dab" of silicon glue (Radio Shack part number 64-2314 or equivalent) at the end of the jumper-wire near R-141. Apply another "dab" of silicon glue between BAT1 and C-9 (the 330 μ Fd./35V capacitor adjacent to the new Lithium Battery).
5. With the unit still unplugged, use at least a 3 1/2 digit D.V.M. with a minimum of 10Meg ohms input resistance to confirm ...
 - a. The voltage-drop across the two ends of R-11 (the 3.3K ohm resistor near BAT1) is approx. 0.01 milli-Volts (equivalent to 0.003 μ Amp), and
 - b. The voltage measured from either end of R-11 to chassis-ground is approx. 3.2 Volts.
6. Reinstall the top cover, apply AC-mains power and verify normal operation to complete this procedure.

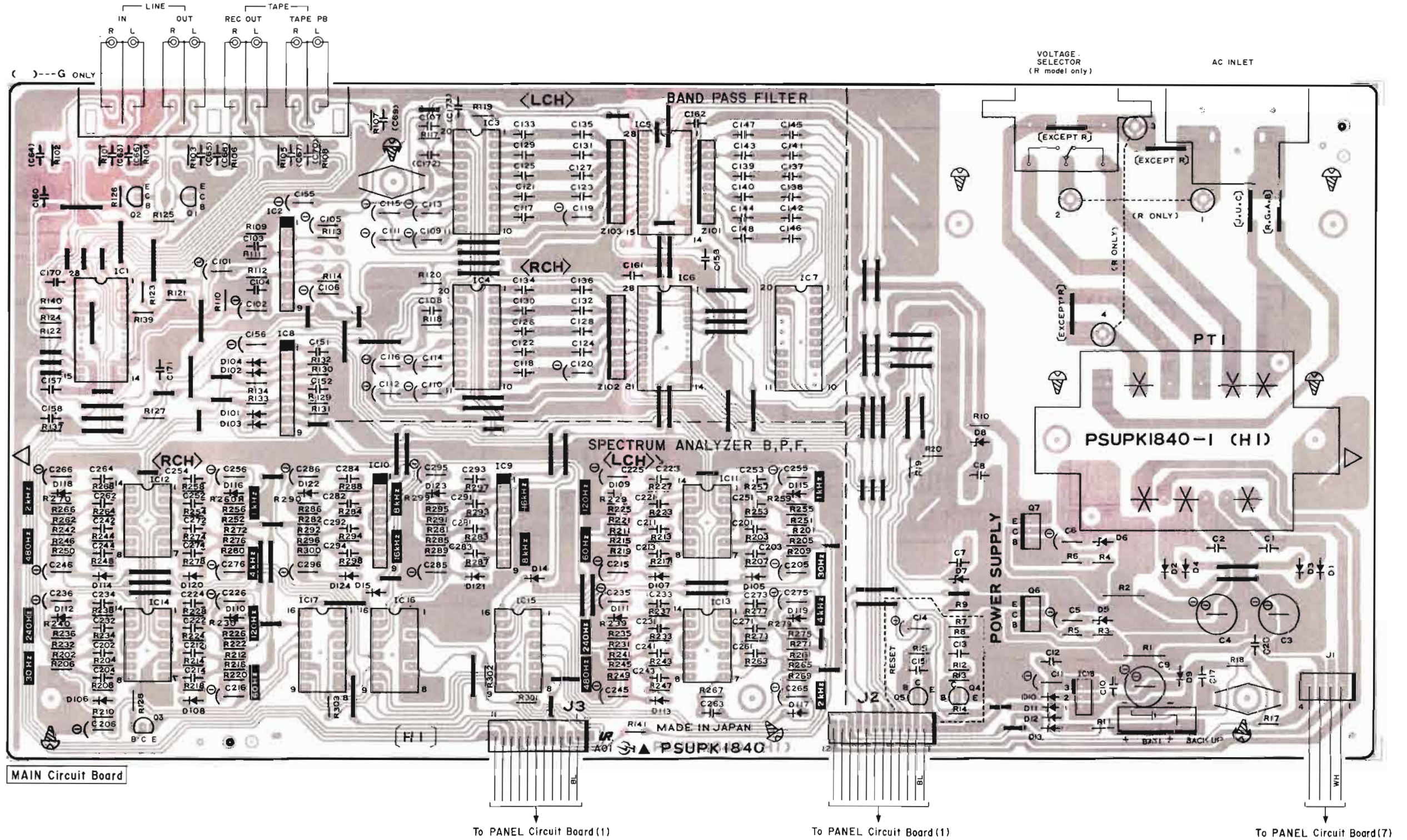
■ BLOCK DIAGRAM

EQ-630



| | | | | | | | | | | | | | | |
|-----|-----------|-----------|------------|------------|------------|-----------|-----------|-----------|-----------|-------------|------------|------|--|--|
| R92 | M2 | M4 | M6 | M8 | MEMORY | EQ REC | EQ ON/OFF | | | | | | | |
| R42 | M1 | M3 | M5 | M7 | TAPE | SOURCE | ANALYZER | EQ CURVE | PEAK HOLD | REVERS | | | | |
| R41 | f1 (30Hz) | f2 (60Hz) | f3 (120Hz) | f4 (240Hz) | f5 (480Hz) | f6 (1kHz) | f7 (2kHz) | f8 (4kHz) | f9 (8kHz) | f10 (16kHz) | UP(+)KEY | R ch | | |
| R40 | f1 | f2 | f3 | f4 | f5 | f6 | f7 | f8 | f9 | f10 | DOWN(-)KEY | | | |
| R91 | f1 | f2 | f3 | f4 | f5 | f6 | f7 | f8 | f9 | f10 | UP(+)KEY | L ch | | |
| R90 | f1 | f2 | f3 | f4 | f5 | f6 | f7 | f8 | f9 | f10 | DOWN(-)KEY | | | |
| | D1 | D0 | R83 | R82 | R81 | R80 | R73 | R72 | R71 | R70 | | | | |

PRINTED CIRCUIT BOARD (Pattern Side) (Note) 文字面 : Component Side



MAIN Circuit Board

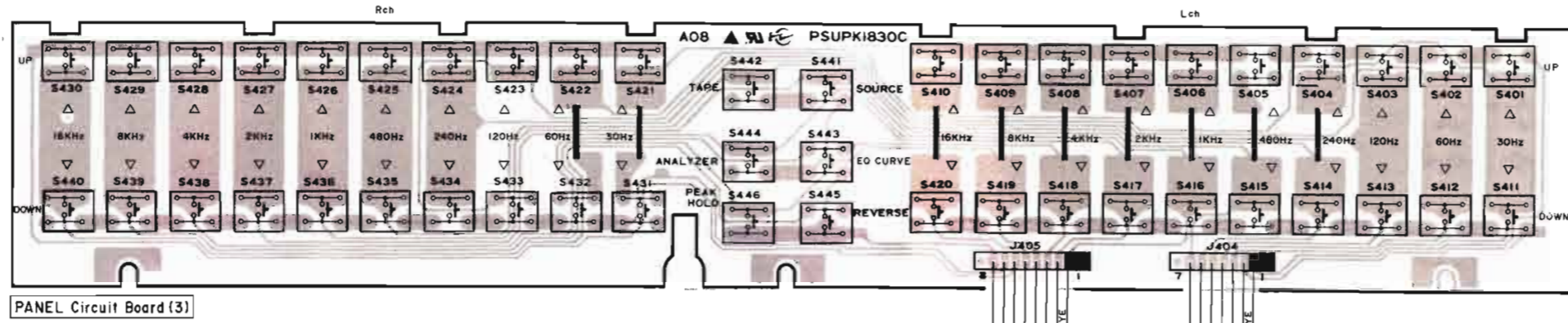
To PANEL Circuit Board (1)

To PANEL Circuit Board (1)

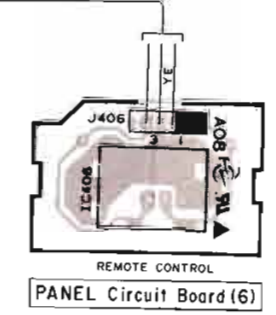
To PANEL Circuit Board (7)

EQ-630

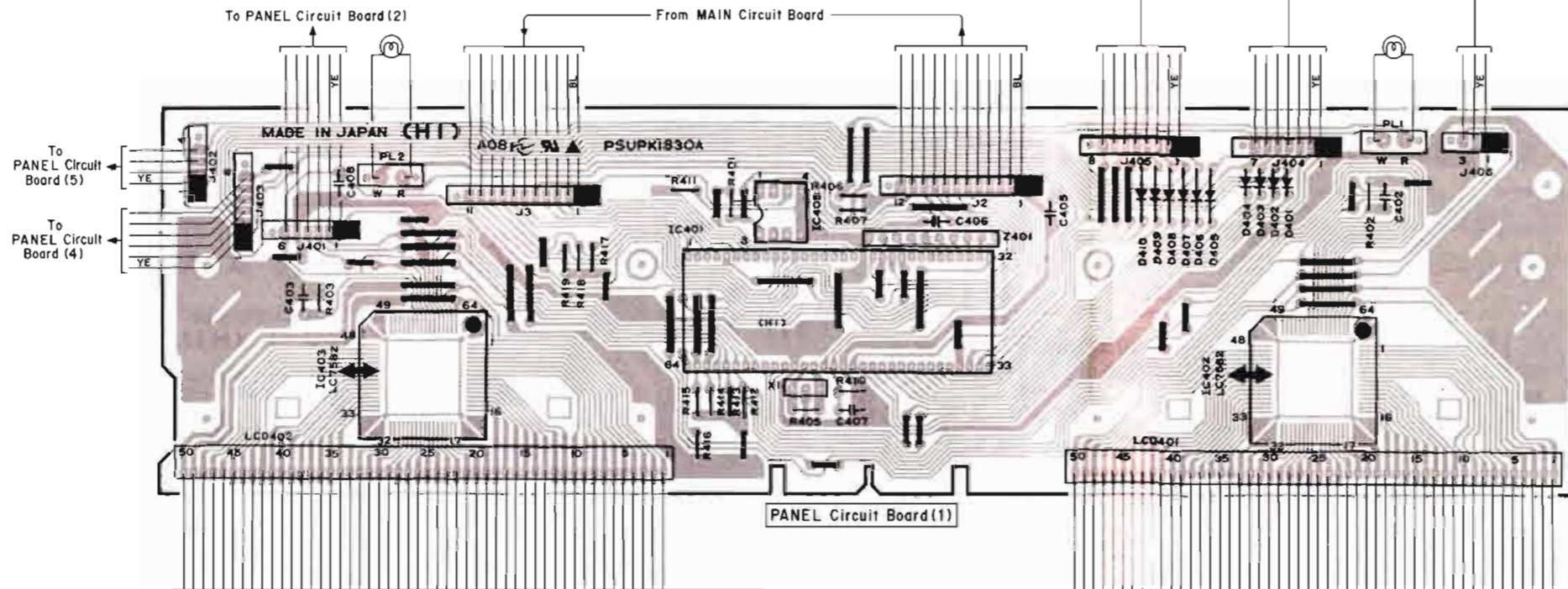
PRINTED CIRCUIT BOARD (Pattern Side) (Note) 文字面 : Component Side



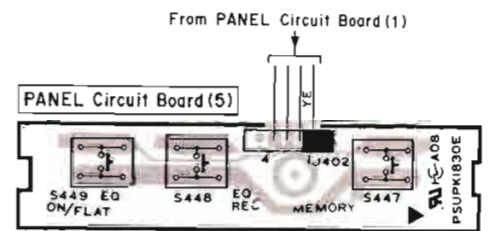
PANEL Circuit Board (3)



PANEL Circuit Board (6)



PANEL Circuit Board (1)

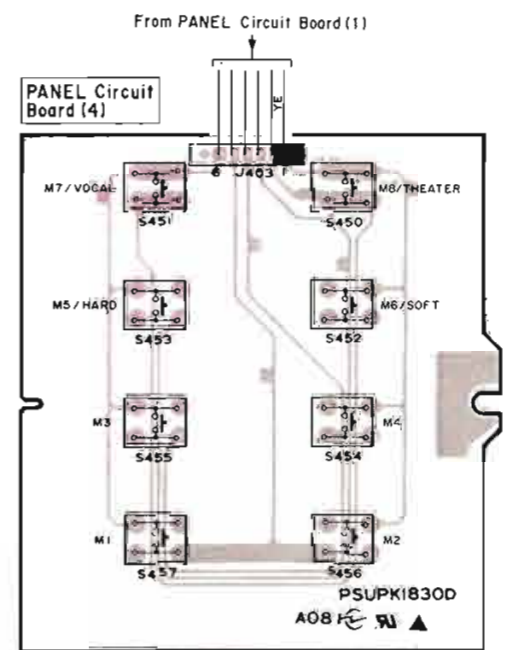


PANEL Circuit Board (5)

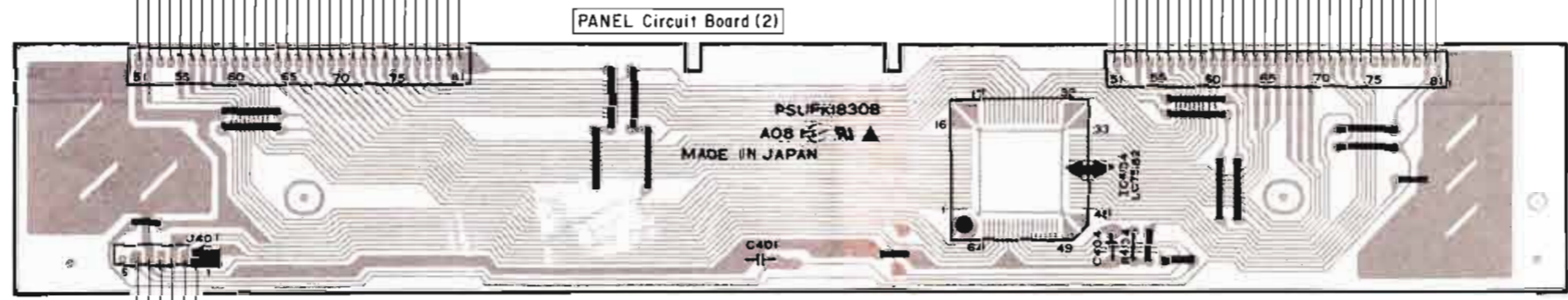


LCD (Rch)

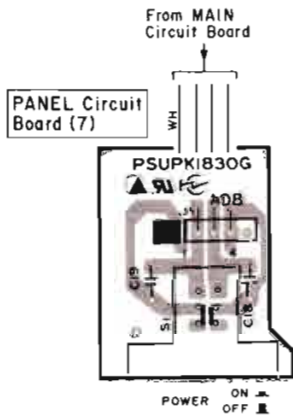
LCD (Lch)



PANEL Circuit Board (4)



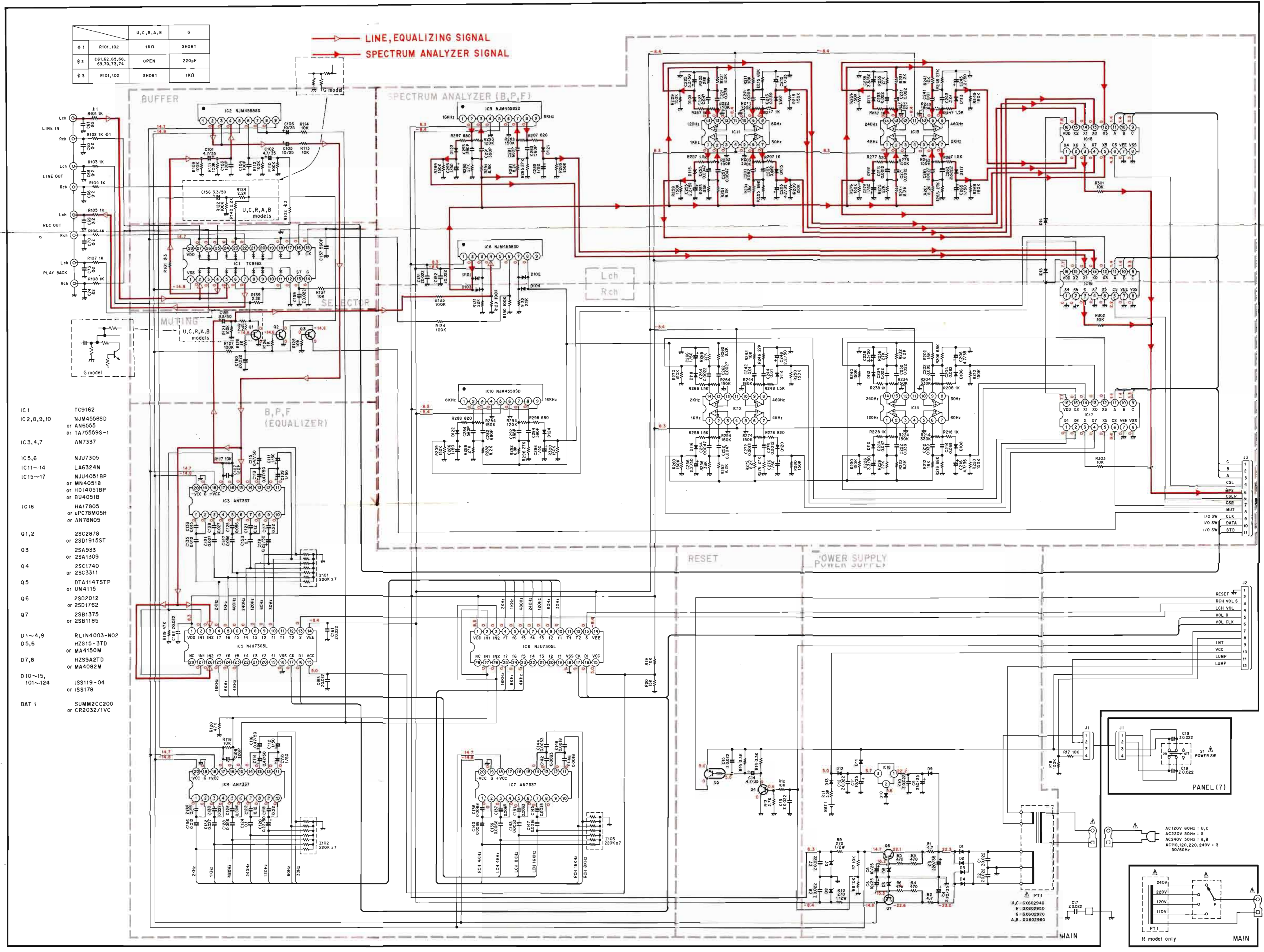
PANEL Circuit Board (2)



PANEL Circuit Board (7)

From PANEL Circuit Board (1)

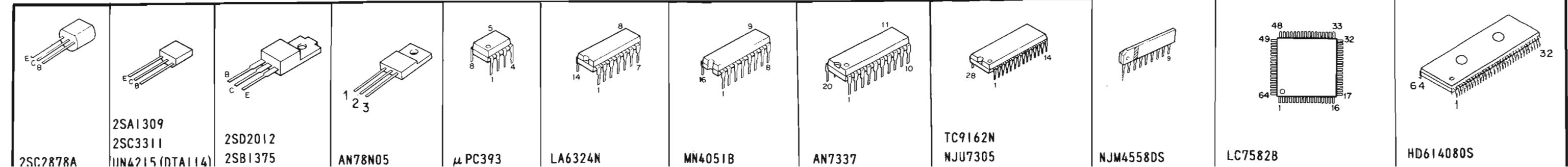
SCHEMATIC DIAGRAM



| | U,C,R,A,B | G | |
|----|------------------------------|-------|-------|
| #1 | R101,102 | 1KΩ | SHORT |
| #2 | C61,62,65,66, 68,70,73,74 | OPEN | 220pF |
| #3 | R101,102 | SHORT | 1KΩ |

- IC1 TC9162
- IC2,8,9,10 NJM4558SD or AN6555 or TA7559S-1
- IC3,4,7 AN7337
- IC5,6 NJU7305
- IC11~14 LA6324N
- IC15~17 NJ4051BP or MN4051B or HD14051BP or BU4051B
- IC18 HA17805 or μPC78M05H or AN78N05
- Q1,2 2SC2878 or 2SD1915ST
- Q3 2SA933 or 2SA1309
- Q4 2SC1740 or 2SC3311
- Q5 DTA114TSP or UN4115
- Q6 2SD2012 or 2SD1762
- Q7 2SB1375 or 2SB1185
- D1~4,9 RL1N4003-N02
- D5,6 HZS15-3TD or MA4150M
- D7,8 HZS9A2TD or MA4082M
- D10~15, 101~124 ISS119-04 or ISS176
- BAT 1 SUMM2CC200 or CR2032/1VC

PIN CONNECTION DIAGRAM OF TRANSISTORS, DIODE AND ICs.



CAUTION

- Components having special characteristics are marked Δ and must be replaced with parts having specifications equal to those originally installed.
- All voltages are measured with a 10MΩ/V DC electric volt meter.
- Schematic diagram is subject to change without notice.

