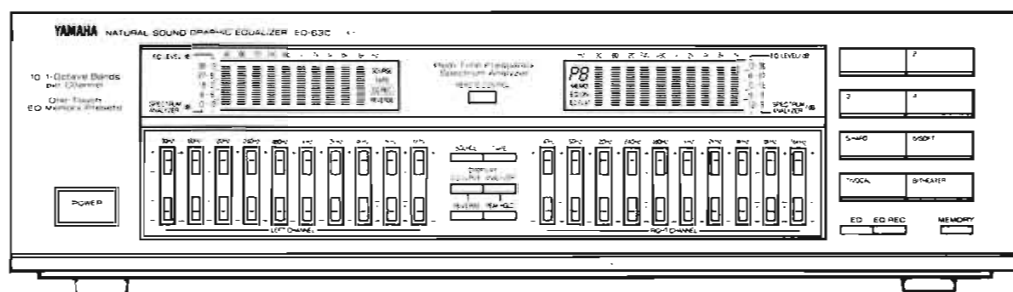


STEREO GRAPHIC EQUALIZER EQ-630

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

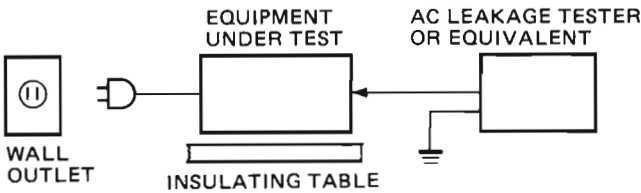
YAMAHA

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

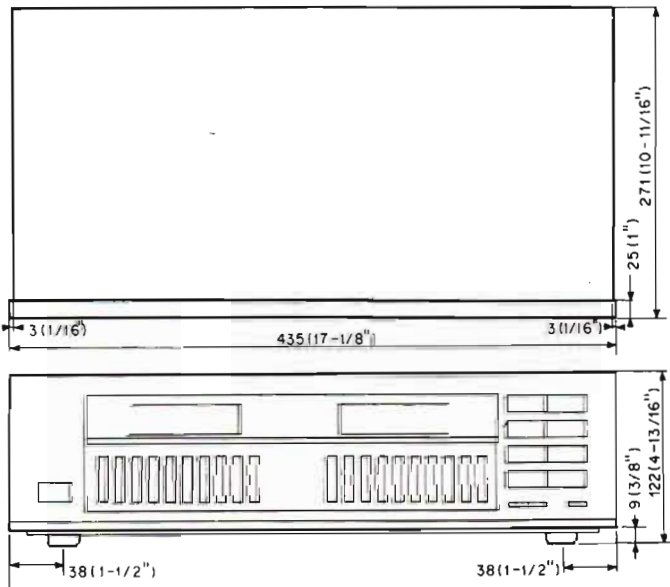
Max. Output Voltage	
(1 kHz, 0.1% T.H.D)	7V
Rated Output Voltage	1V
Max. Input Voltage	
(1 kHz)	7V
Rated Input Voltage	1V
Input Impedance	47 k-ohms
Frequency Response	10 Hz — 50 kHz, -1 dB
Center Frequencies	30 Hz, 60 Hz, 120 Hz, 240 Hz, 480 Hz, 1 kHz, 2 kHz, 4 kHz, 8 kHz, 16 kHz
Equalizer Control Range	±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)

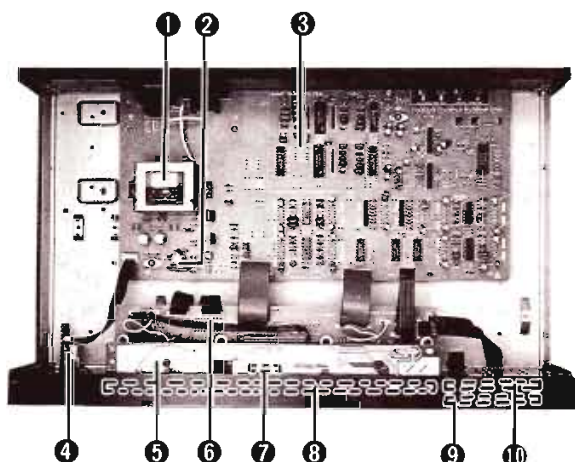
* Specifications subject to change without notice.

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

■ DIMENSIONS



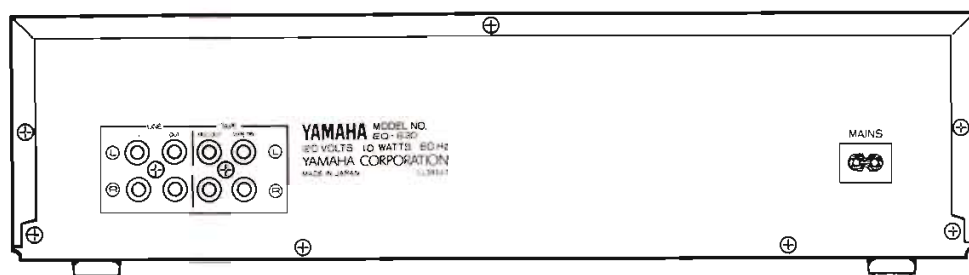
INTERNAL VIEW



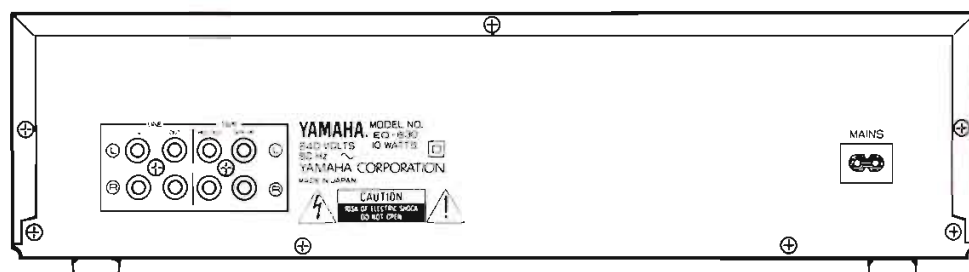
- ① Power Transformer
- ② Lithium Battery (Memory)
- ③ Main Circuit Board
- ④ Panel Circuit Board (7)
- ⑤ Panel Circuit Board (2)
- ⑥ Panel Circuit Board (1)
- ⑦ Panel Circuit Board (6)
- ⑧ Panel Circuit Board (3)
- ⑨ Panel Circuit Board (5) :Bottom Side
- ⑩ Panel Circuit Board (4) :Top Side

REAR PANELS

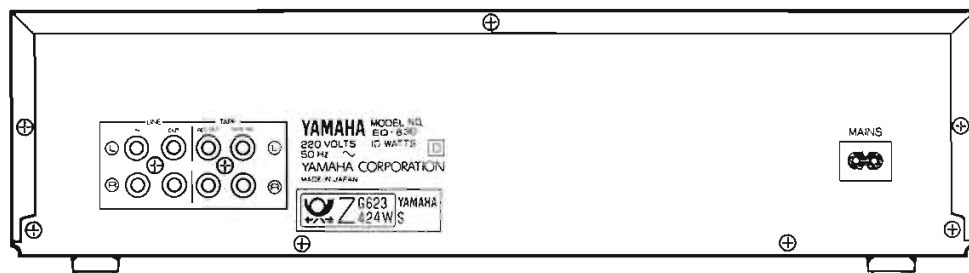
- U, C models



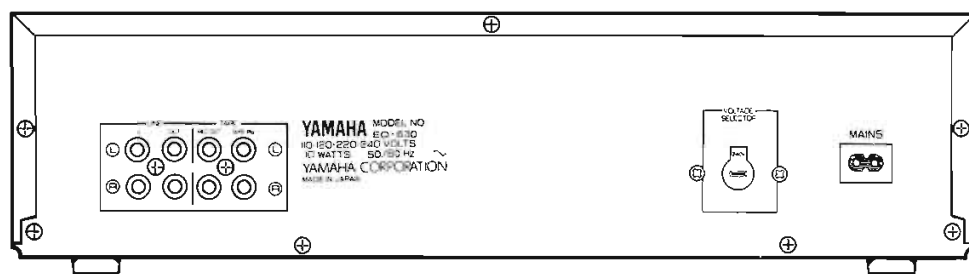
- A, B models



- 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

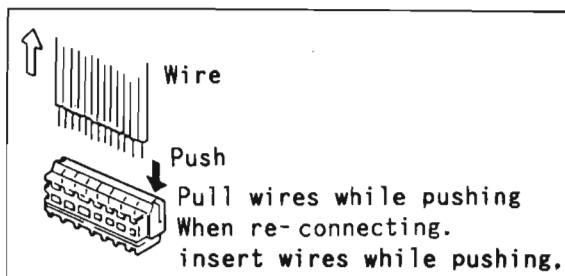
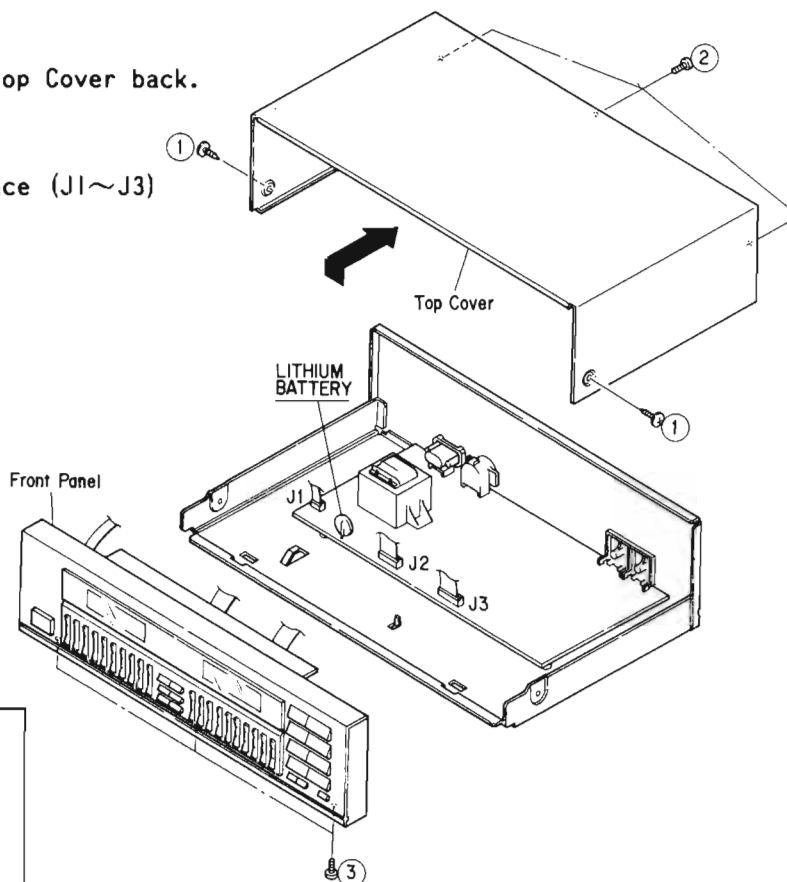
- Remove 2 screws ① in Fig.1
- Remove 3 screws ② and slide the Top Cover back.

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.

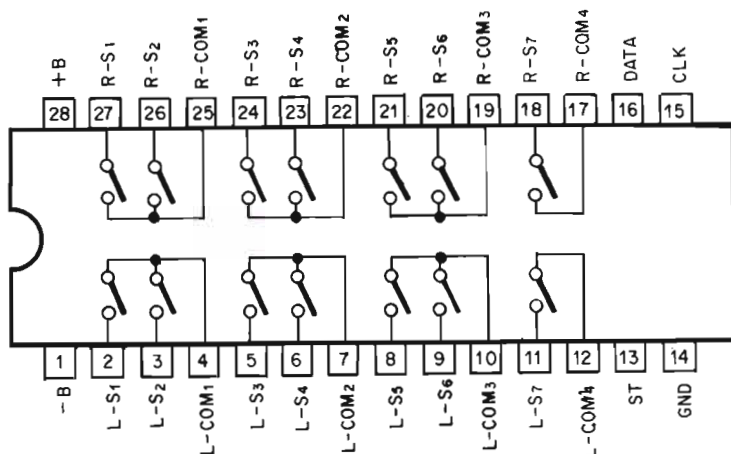
● LITHIUM BATTERY REPLACEMENT

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.

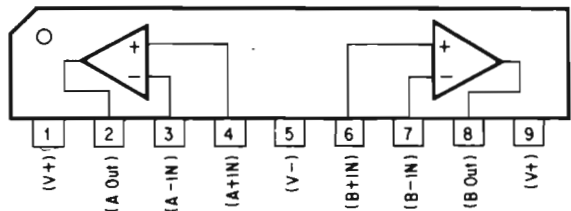


■ IC BLOCK

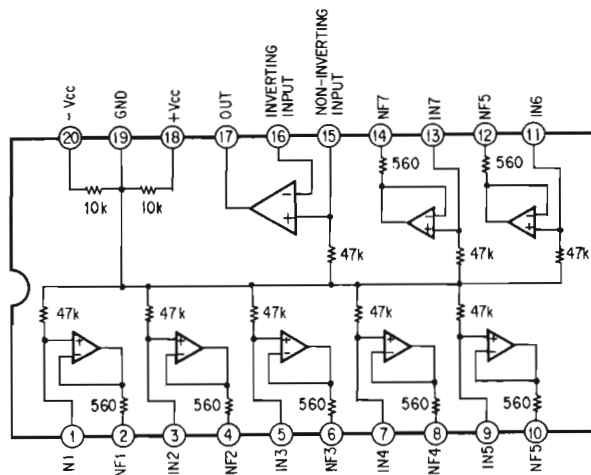
IC1 : TC9162N (Analog Switch Array)



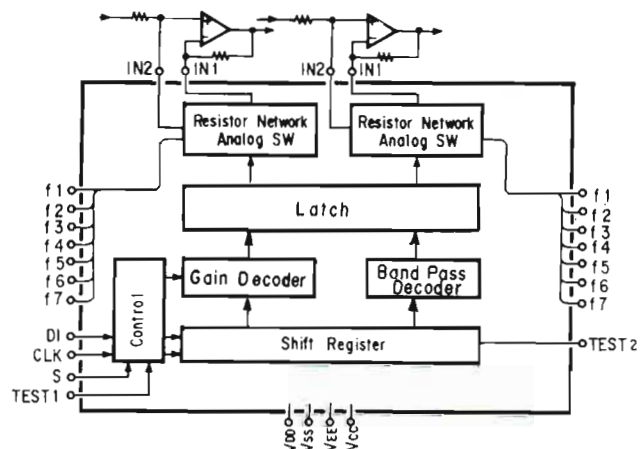
IC2,8~10 : NJM4558SD
(Operational Amplifier)



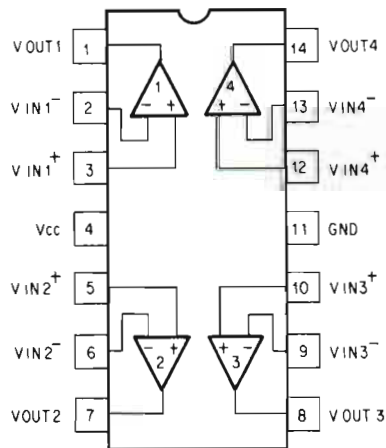
IC3,4,7 : AN7337
(Hi-Fi 7-Band G.E IC)



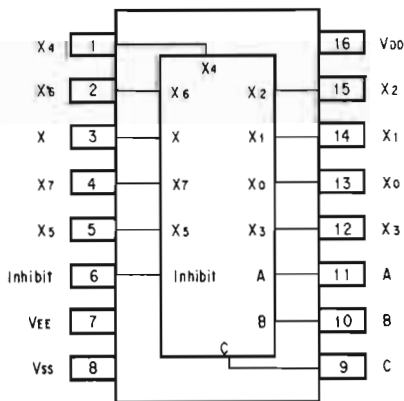
IC5,6 : NJU7305L
(Graphic Equalizer Electronic
variable resistor)



IC11 ~14 : LA6324N
(Quad Ope-Amp)



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



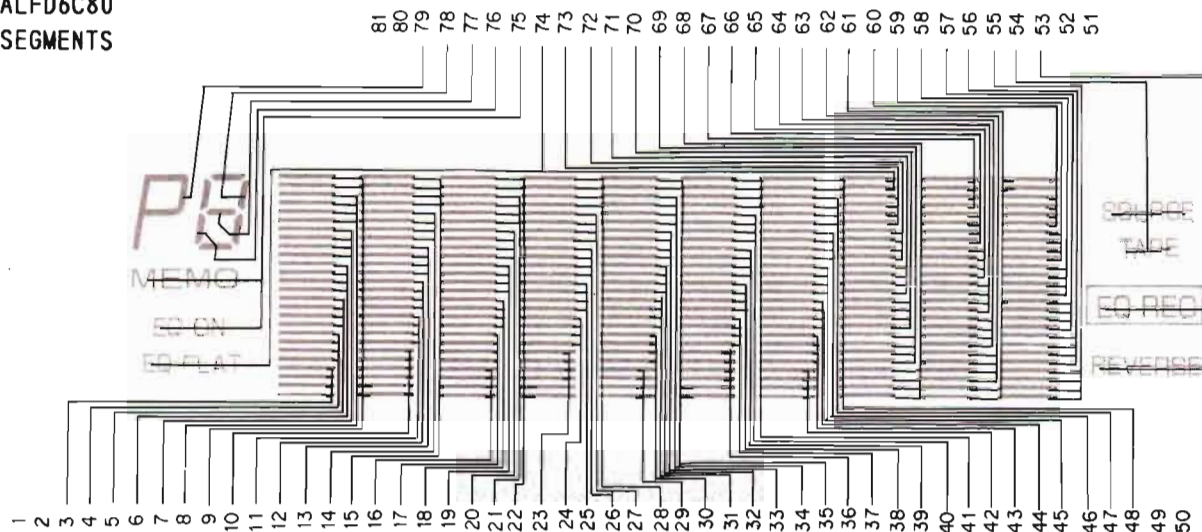
FUNCTION TABLE

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	-

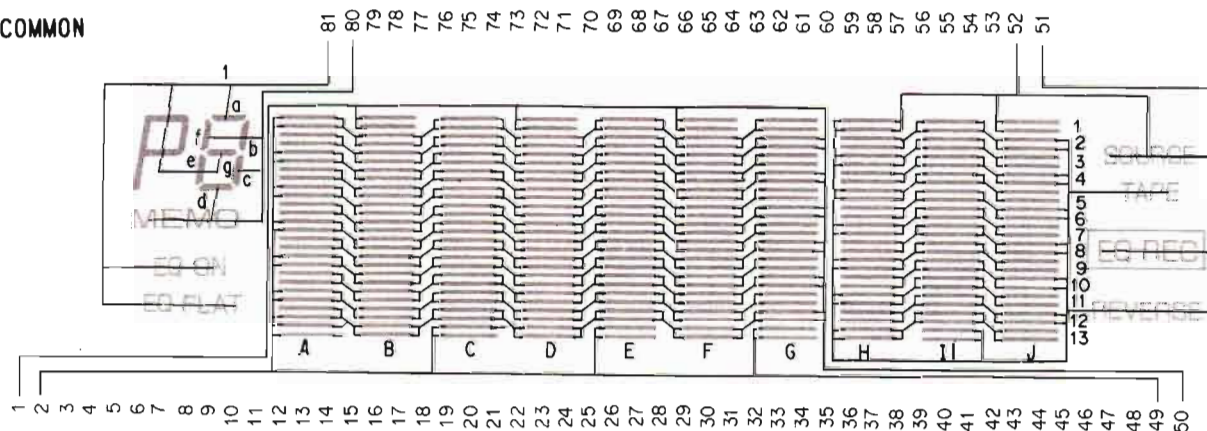
■ DISPLAY Pin Connection

LCD : PSALFD6C80

SEGMENTS

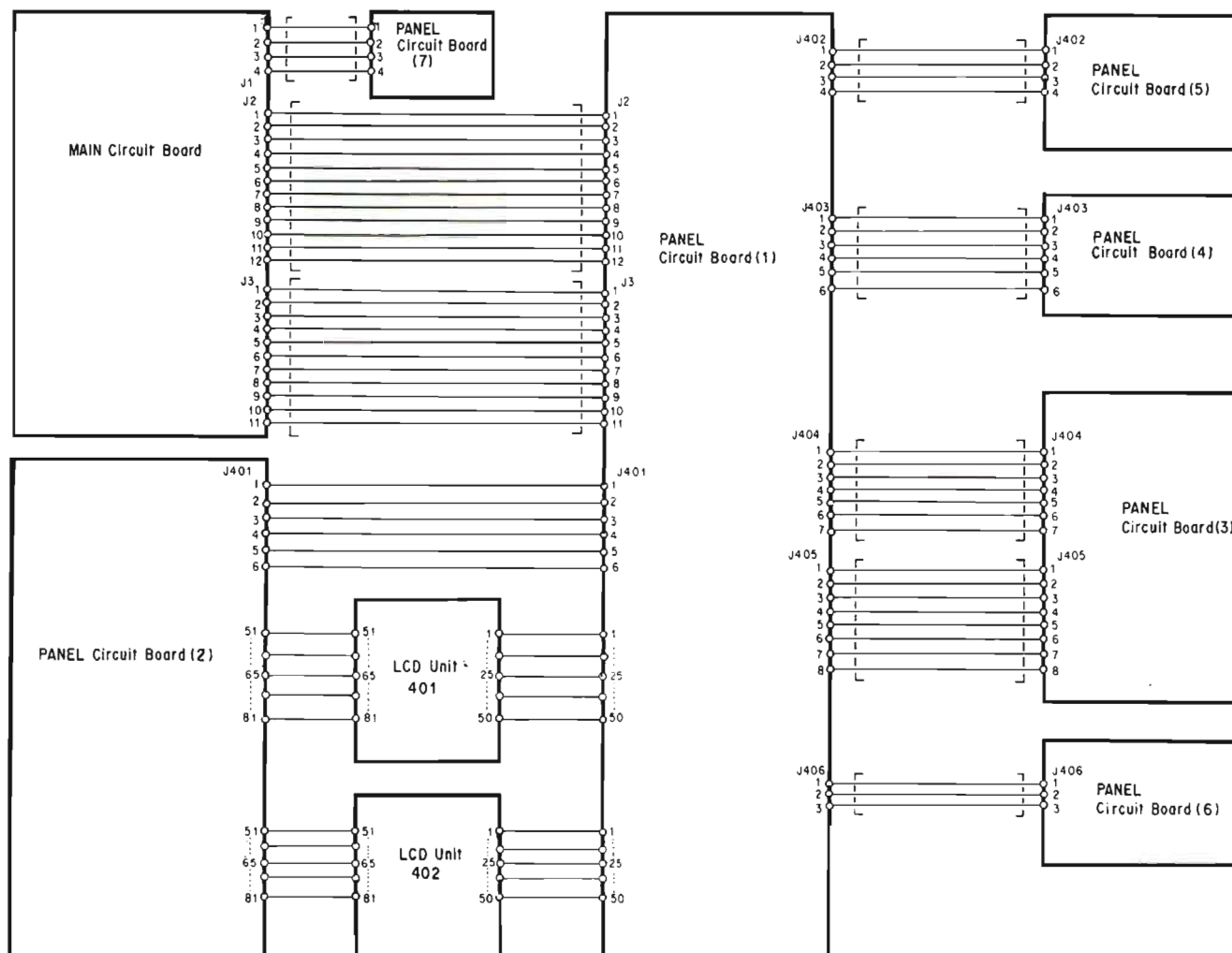


COMMON



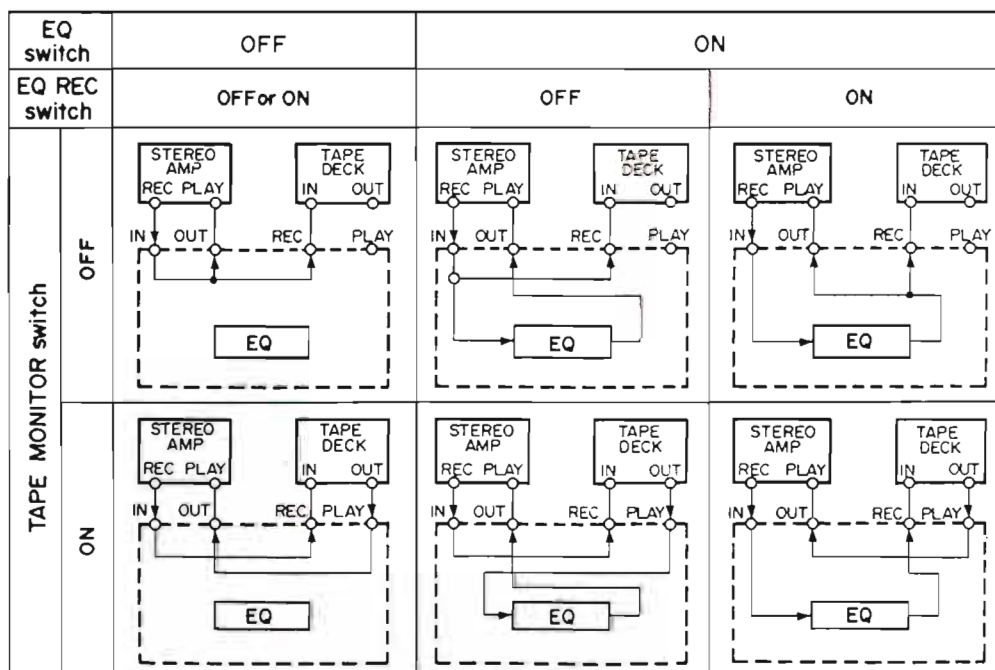
No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
COM 1	-	COM	A13	A11	A9	A7	A5	A3	A1	B12	B10	B8	B6	B4	B2	C13	C11	C9	C7	C5	C3	C1	D12	D10	D8	D6	D4	D2
COM 2	COM	-	A12	A10	A8	A6	A4	A2	B13	B11	B9	B7	B5	B3	B1	C12	C10	C8	C6	C4	C2	D13	D11	D9	D7	D5	D3	D1
COM 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
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

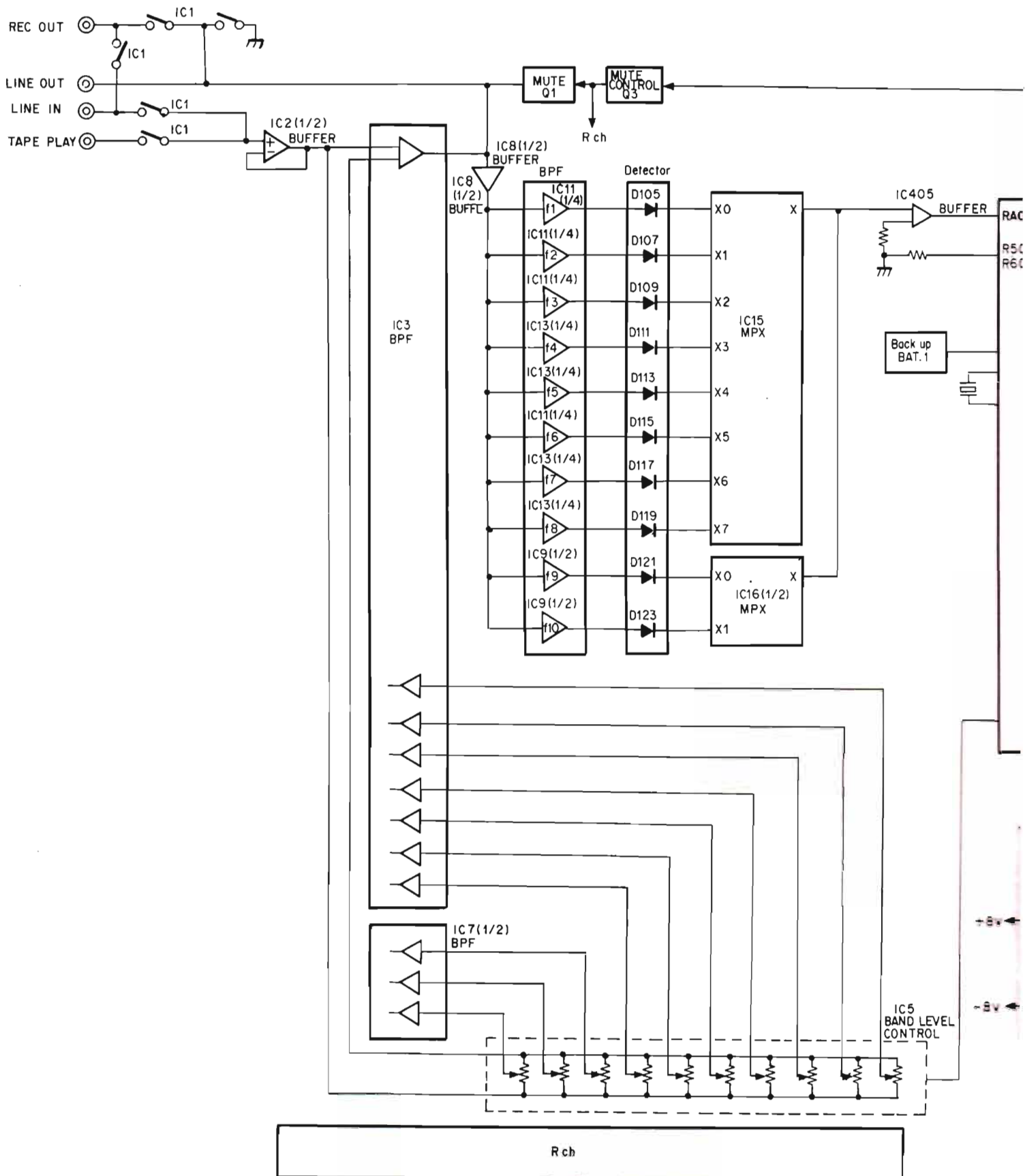


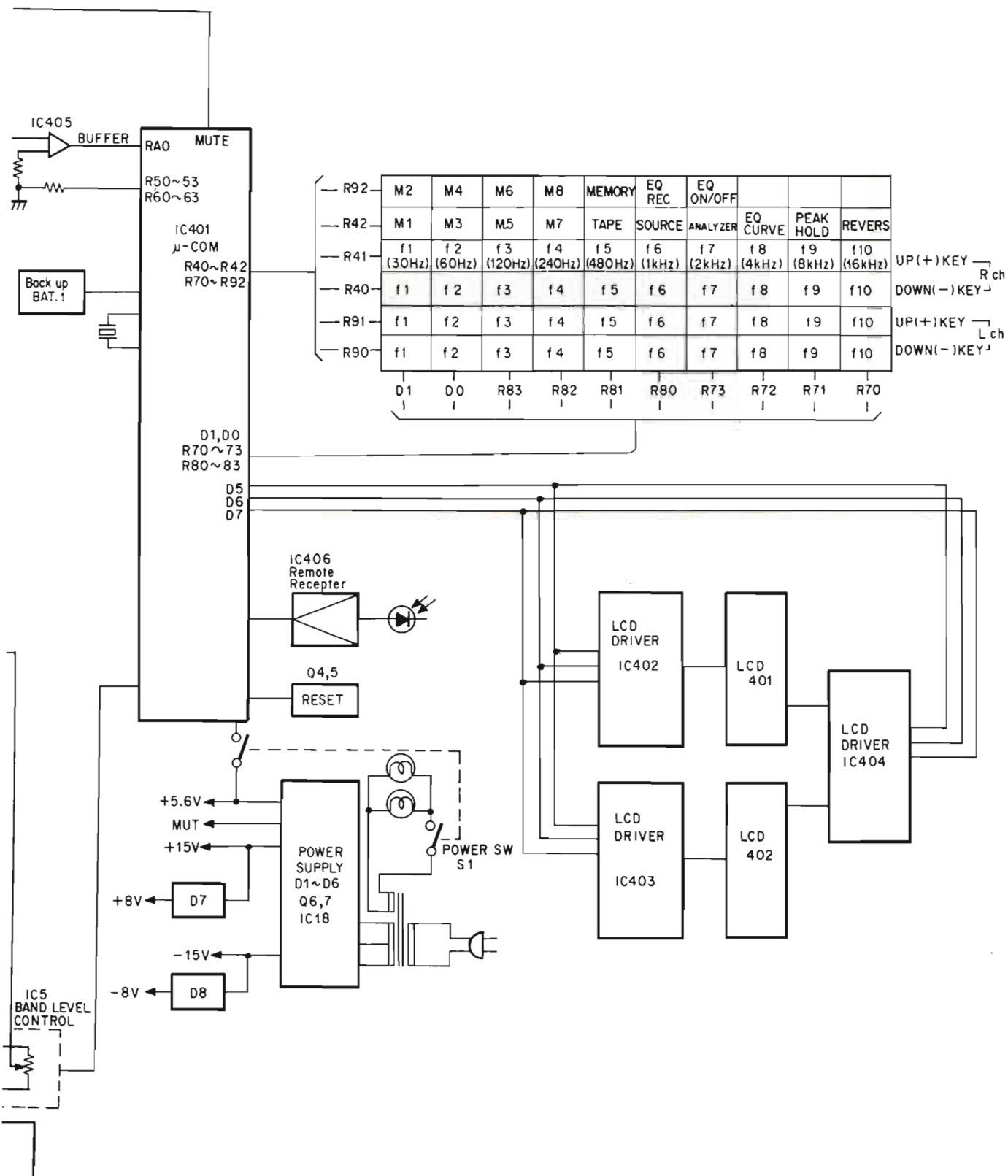
DESCRIPTION OF OPERATIONS

(Relationship of Switches)

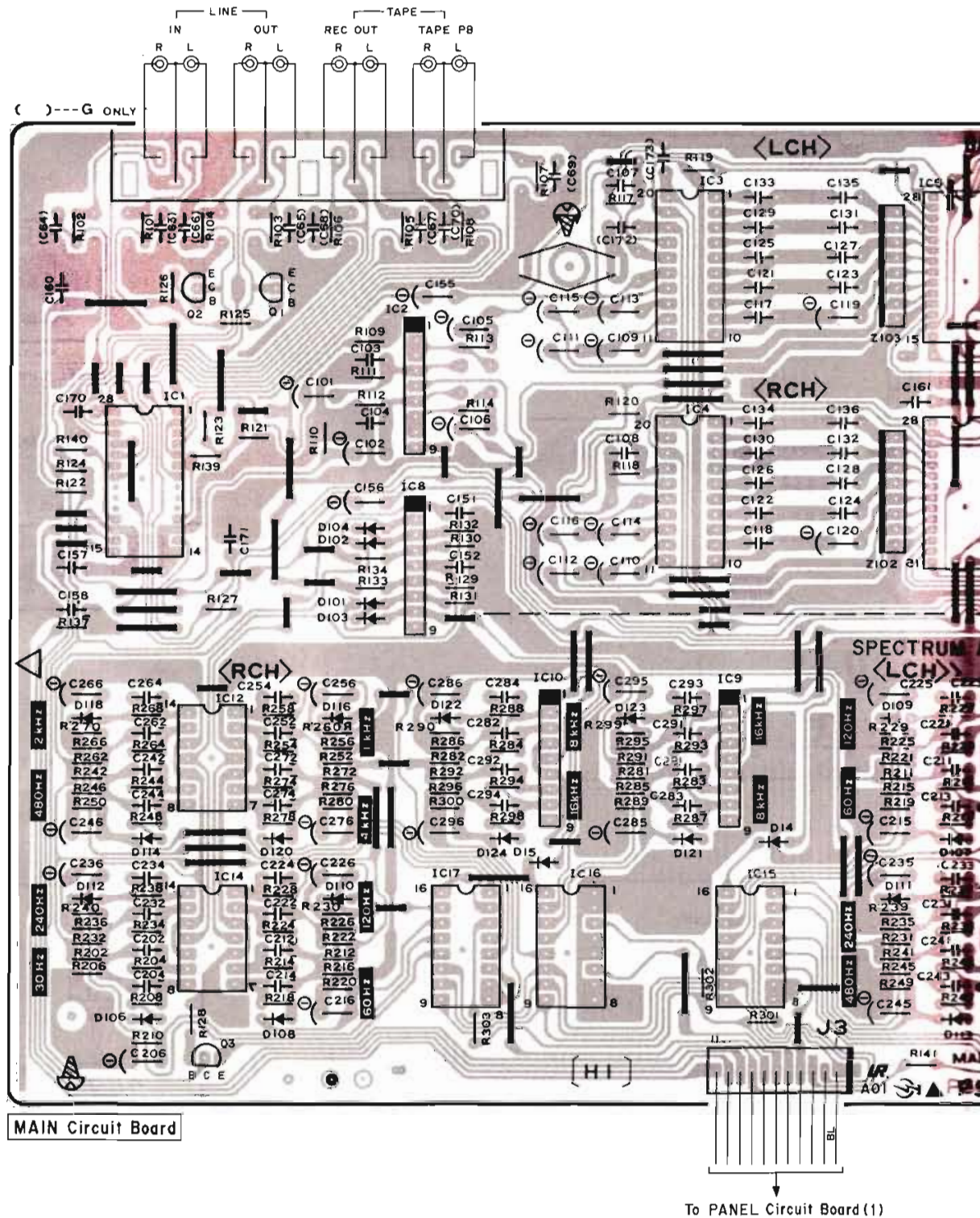


BLOCK DIAGRAM



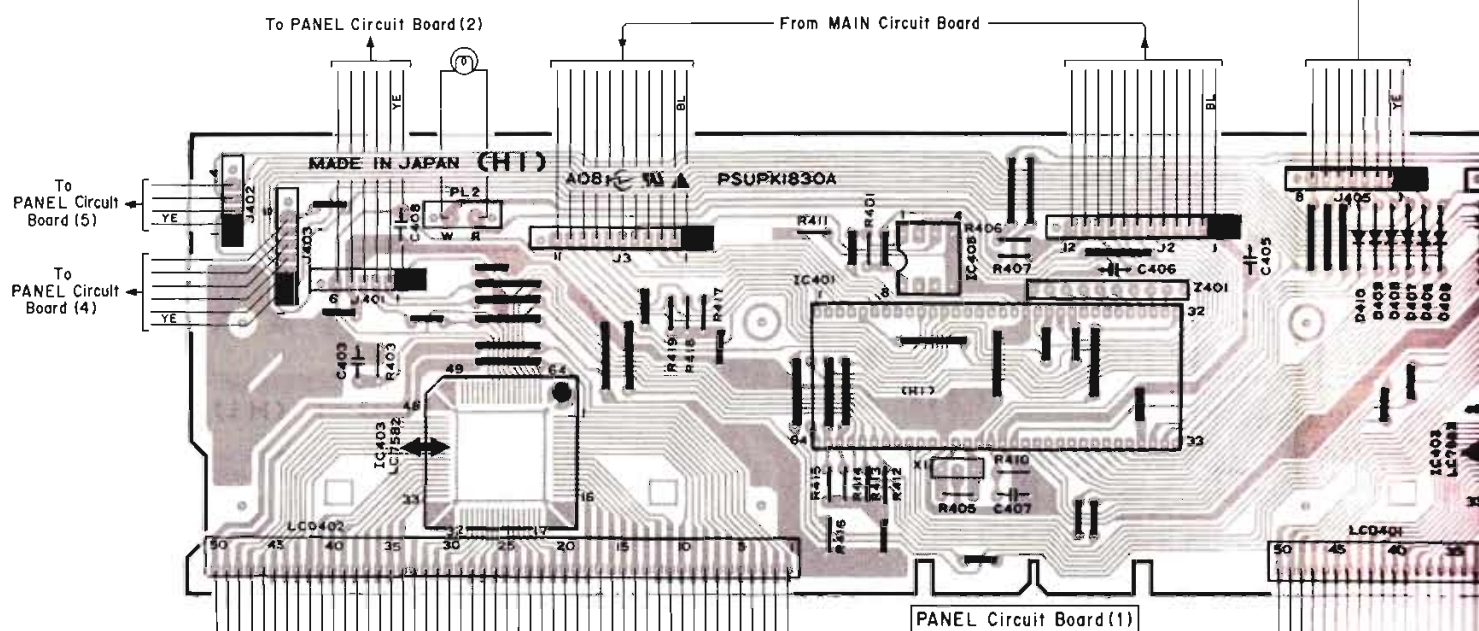
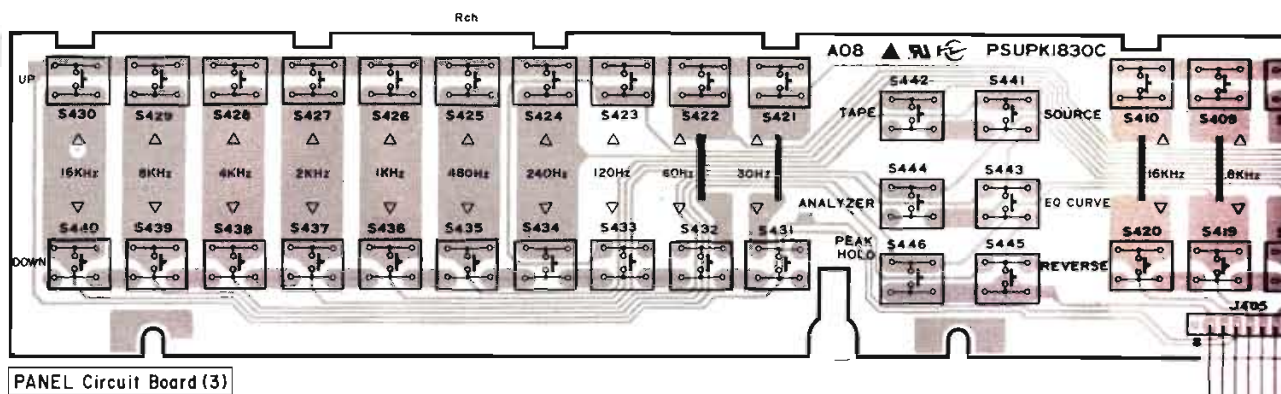


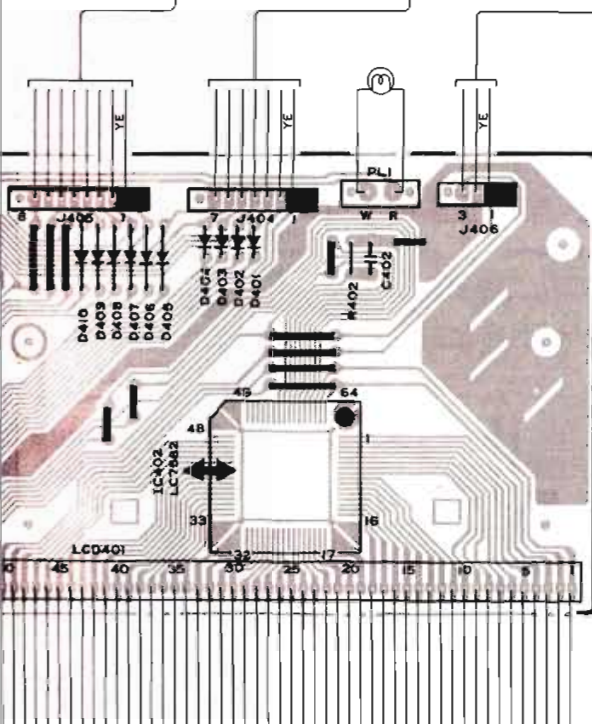
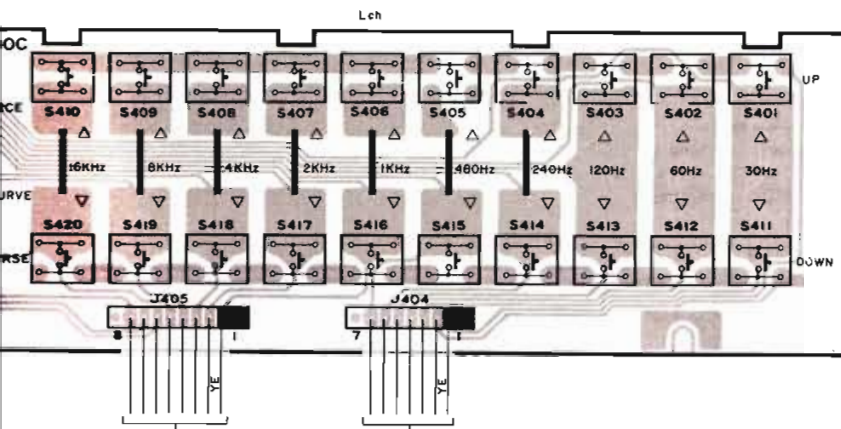
■ PRINTED CIRCUIT BOARD (Pattern Side) (Note) 文字面 : Component Side



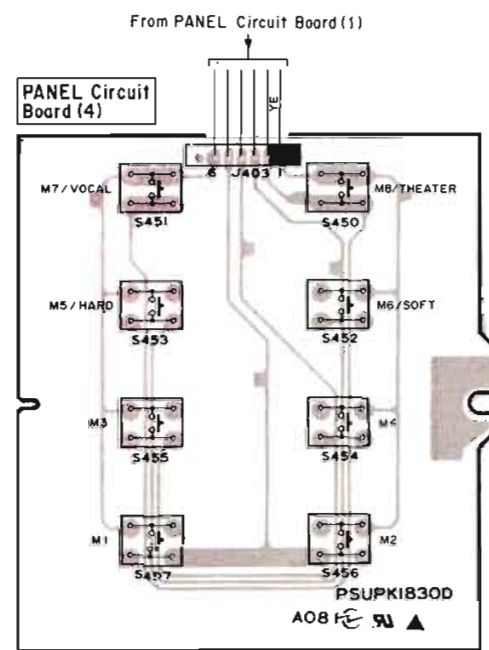
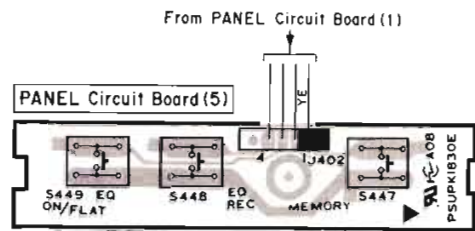
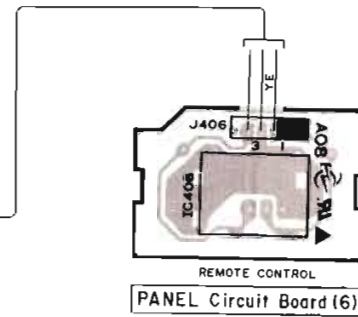
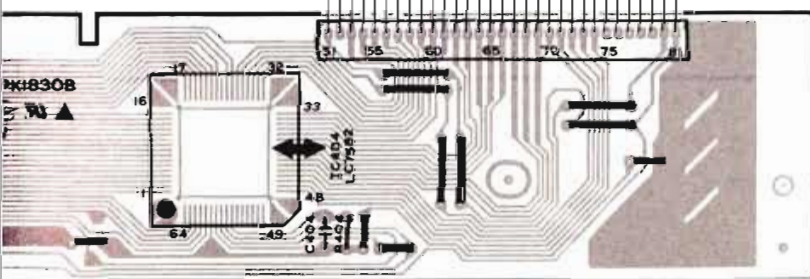
EQ-630

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





LCD (Lch)



5

6

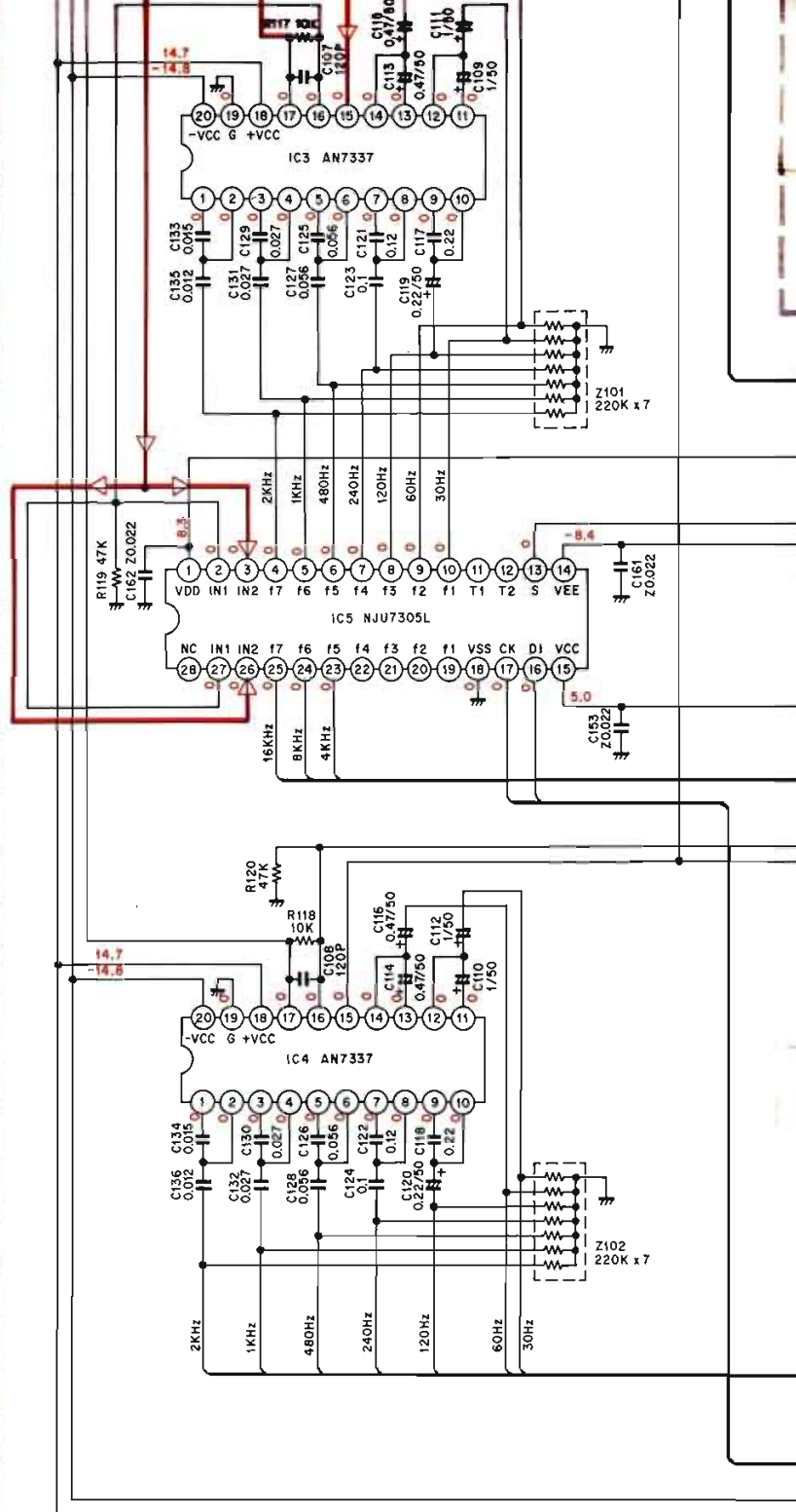
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8

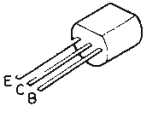
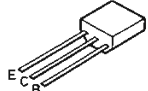
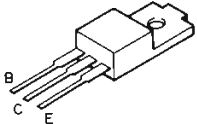
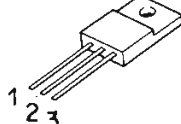
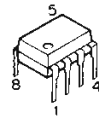
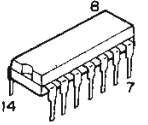
9

10

IC5,6	LA6324N
IC11~14	NJU4051BP
IC15~17	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

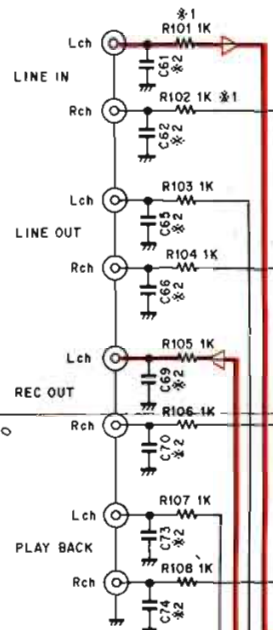


■ PIN CONNECTION DIAGRAM OF TRANSISTORS, DIODE AND ICs.

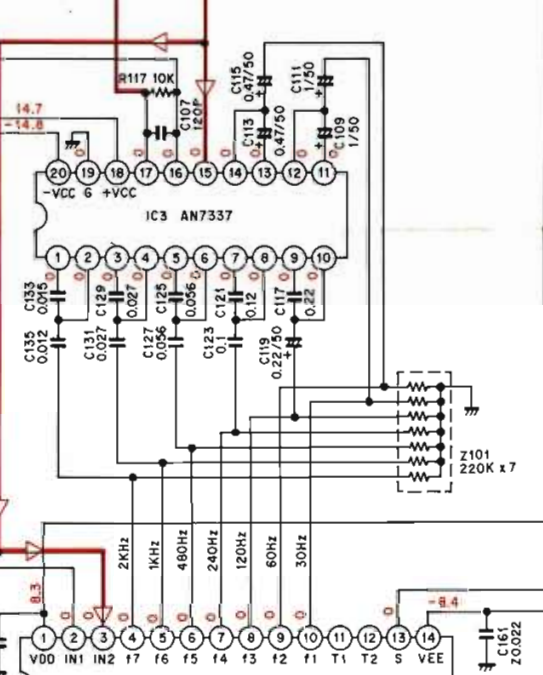
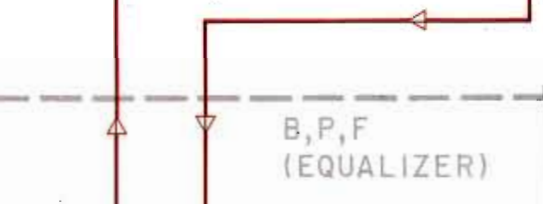
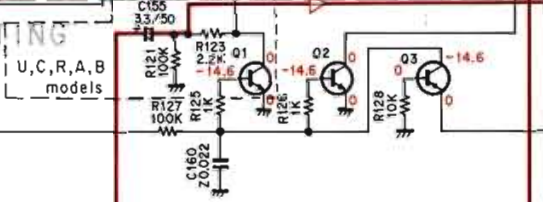
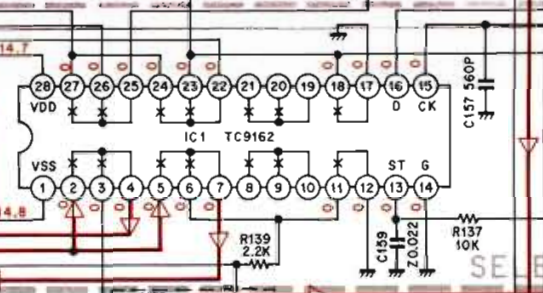
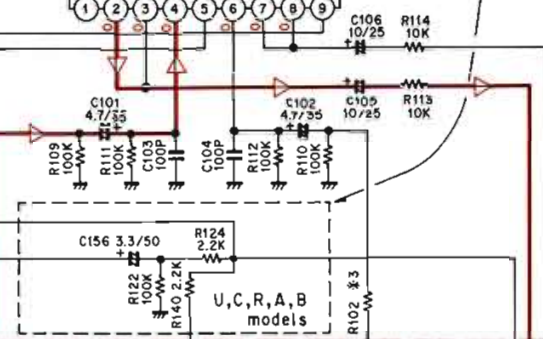
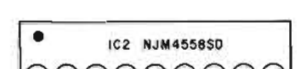
 2SC2878A	 2SA1309 2SC3311 UN4215 (DTA114)	 2SD2012 2SB1375	 AN78N05	 uPC393	 LA6324N	 MN4051B
---	--	--	---	---	--	--

SCHEMATIC DIAGRAM

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

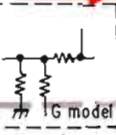


BUFFER

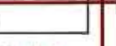


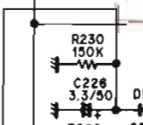
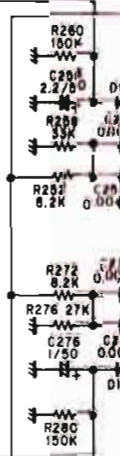
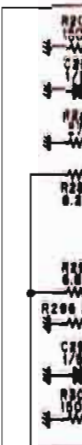
- IC 1 TC9162
- IC 2, 8, 9, 10 NJM4558SD or AN6555 or TA75559S-1
- IC 3, 4, 7 AN7337
- IC 5, 6 NJU7305
- IC 11 ~ 14 LA6324N
- IC 15 ~ 17 NJU4051BP or MN4051B or HD14051BP or BU4051B
- IC 18 HA17805 or uPC78M05H or AN78N05
- Q 1, 2 2SC2878 or 2SD1915ST
- Q 3 2SA933 or 2SA1309
- Q 4 2SC1740 or 2SC3311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

LINE IN
SPEAKER



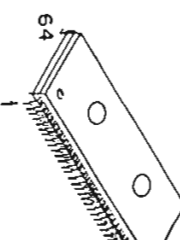
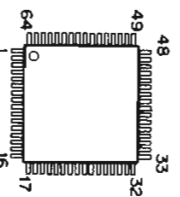
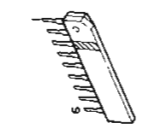
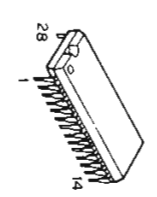
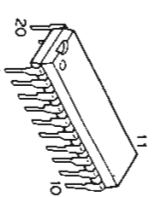
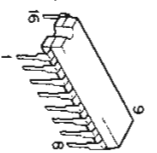
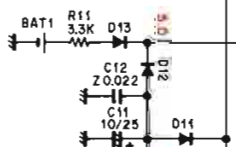
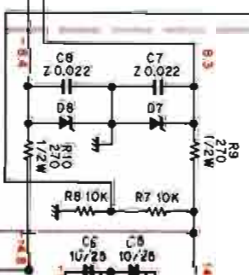
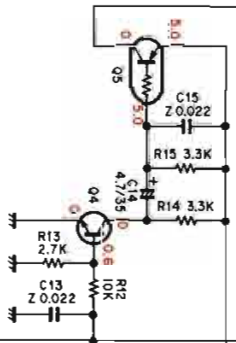
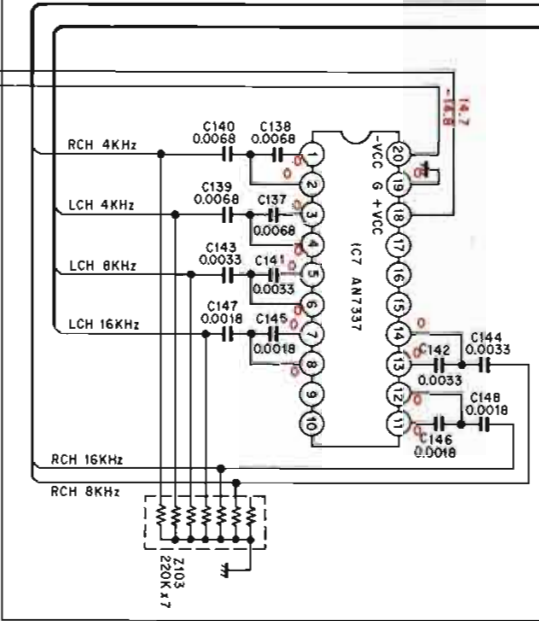
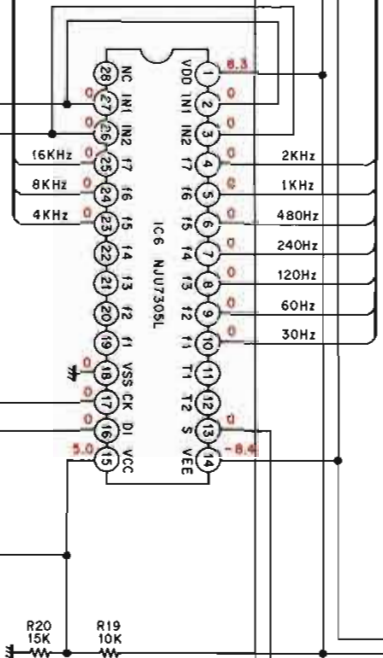
SELECTOR





RESET

POWER SUPPLY



14051B

AN7337

TC9162N
NJU7305

NJM4558DS

LC7582B

HD614080S

E

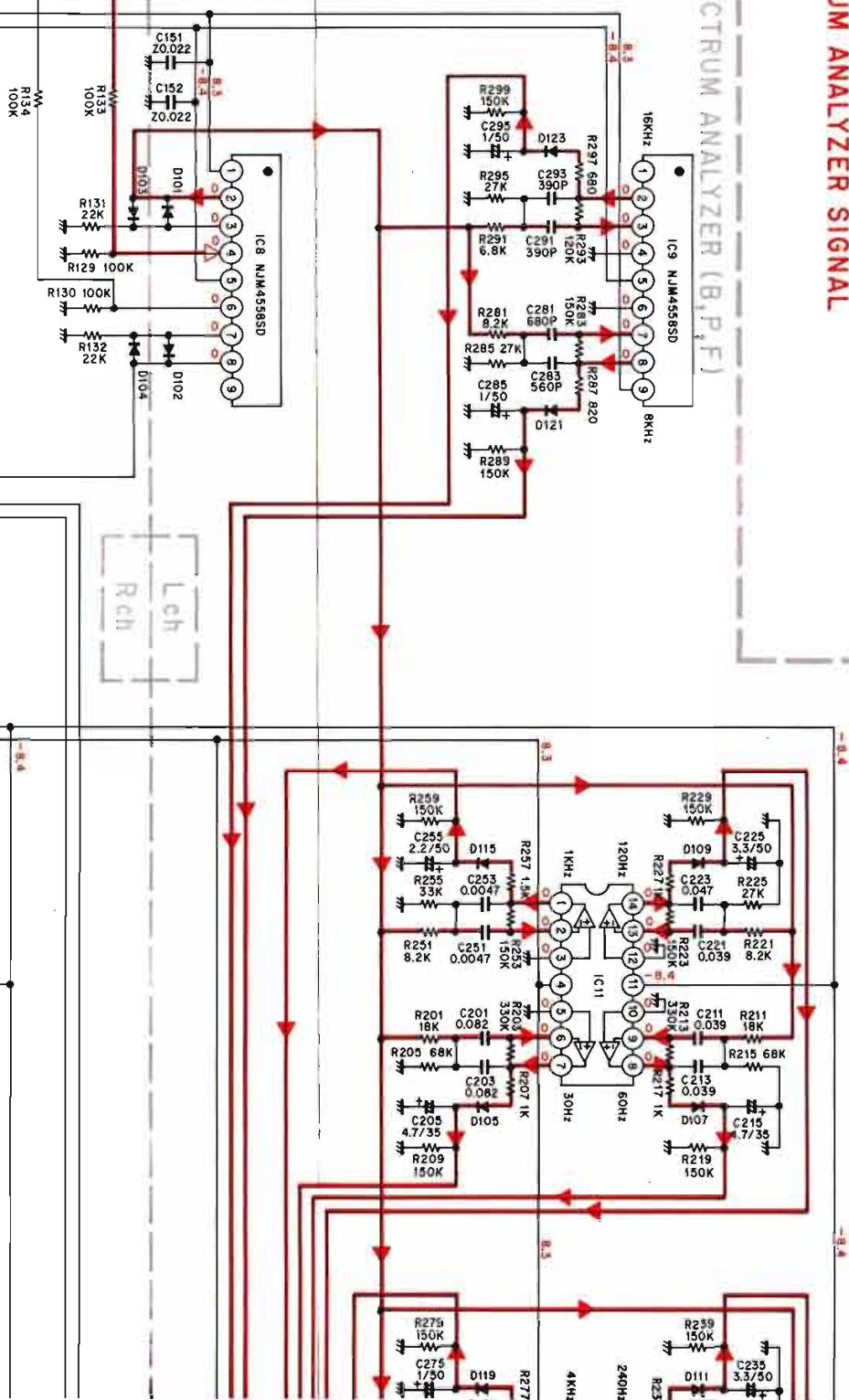
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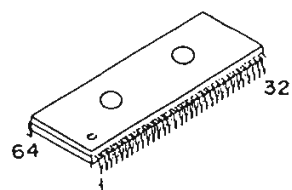
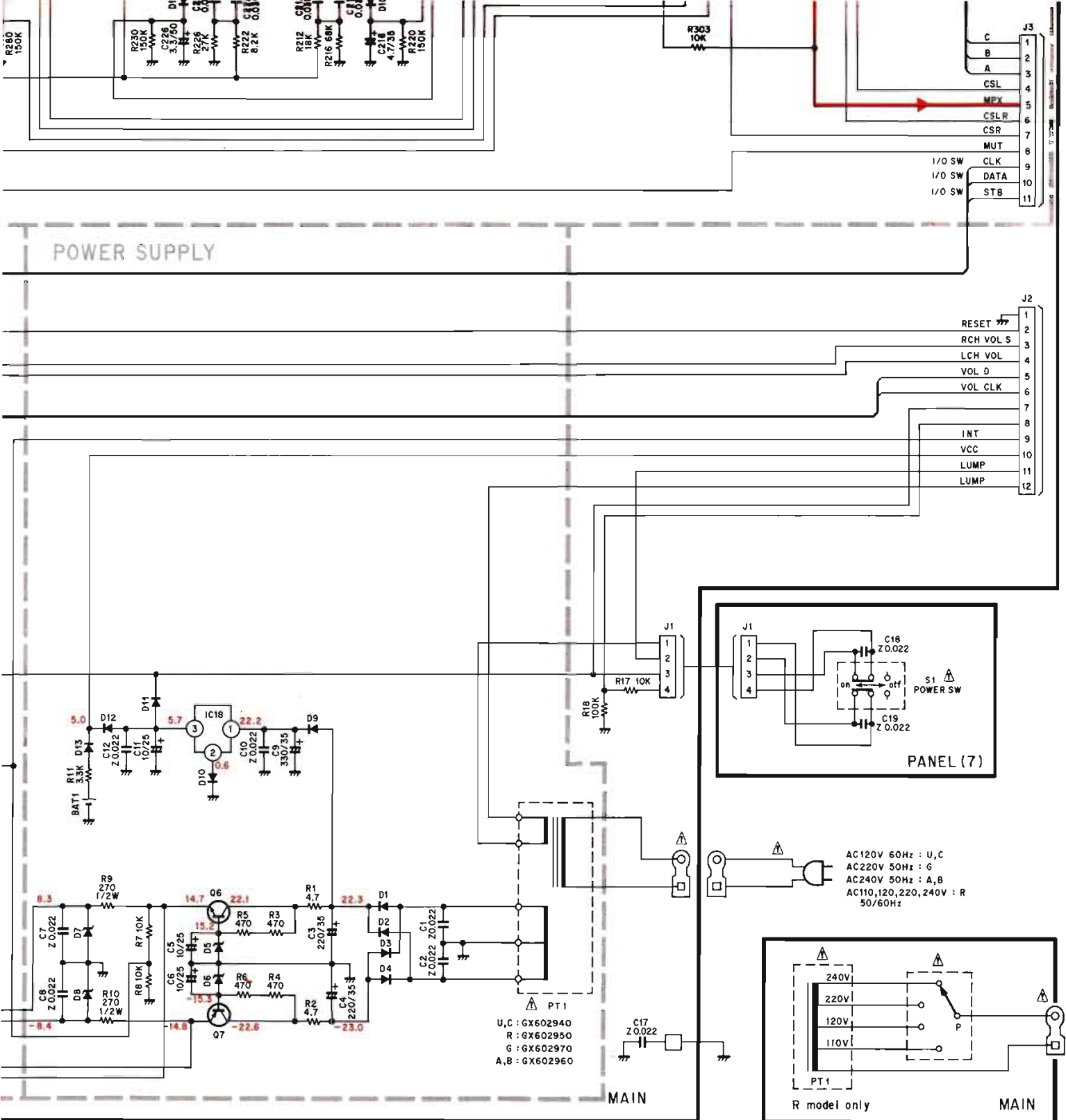
G

H

NE, EQUALIZING SIGNAL SPECTRUM ANALYZER SIGNAL

SPECTRUM ANALYZER (B,P,F)

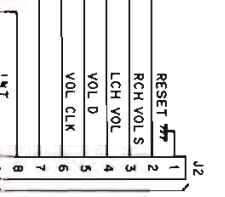
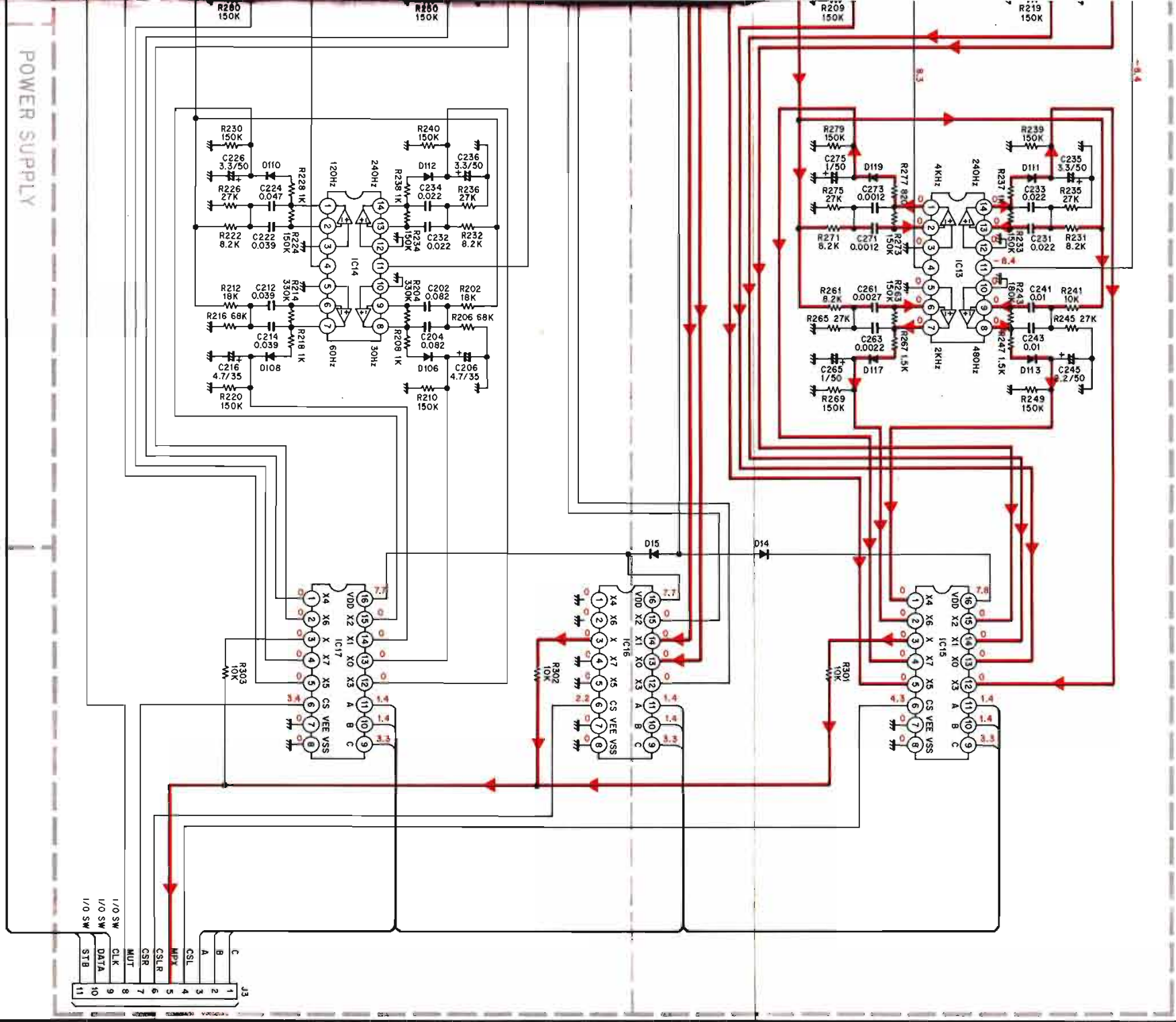


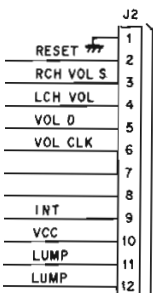
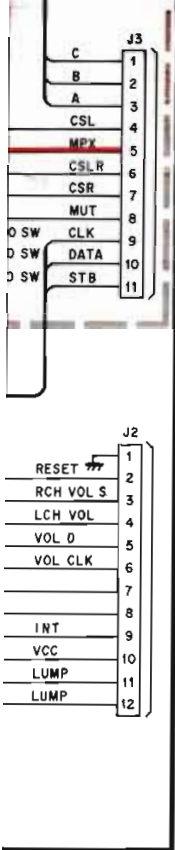


HD614080S

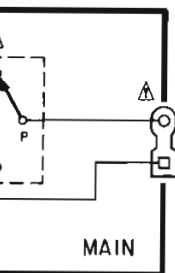
CAUTION

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





V : R



UTION

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

L

M

N

EQ-630



5

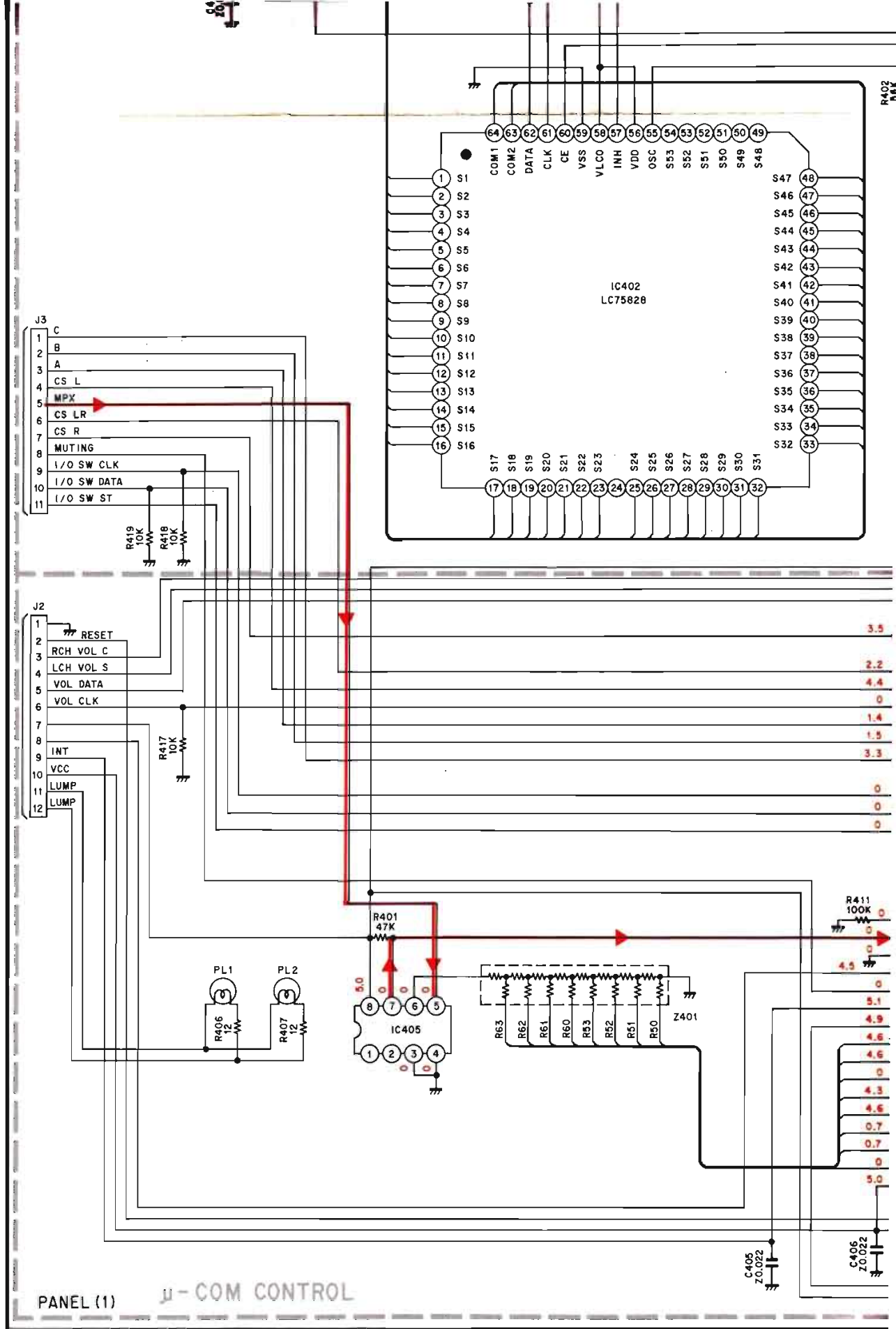
6

7

8

9

10



A

B

C

D

EQ-630

■ SCHEMATIC DIAGRAM

LCD DRIVE

J401

J401

C408
20.022

B1 80

70

60

51

LCD401

1

10

20

30

40

64

63

62

61

60

59

58

57

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55

54

53

52

51

50

49

COM1
COM2

DATA

CLK

CE

VSS

VLC0

INH

VDD

OSC

S53

S52

S51

S50

S49

S48

IC402
LC75828

J3

1

2

3

4

5

6

C

B

A

CS L

MPX

CS LR

CS R

S1

S2

S3

S4

S5

S6

S7

S8

S9

S10

S11

S12

S13

S14

S15

S47

S46

S45

S44

S43

S42

S41

S40

S39

S38

S37

S36

S35

S34

S33

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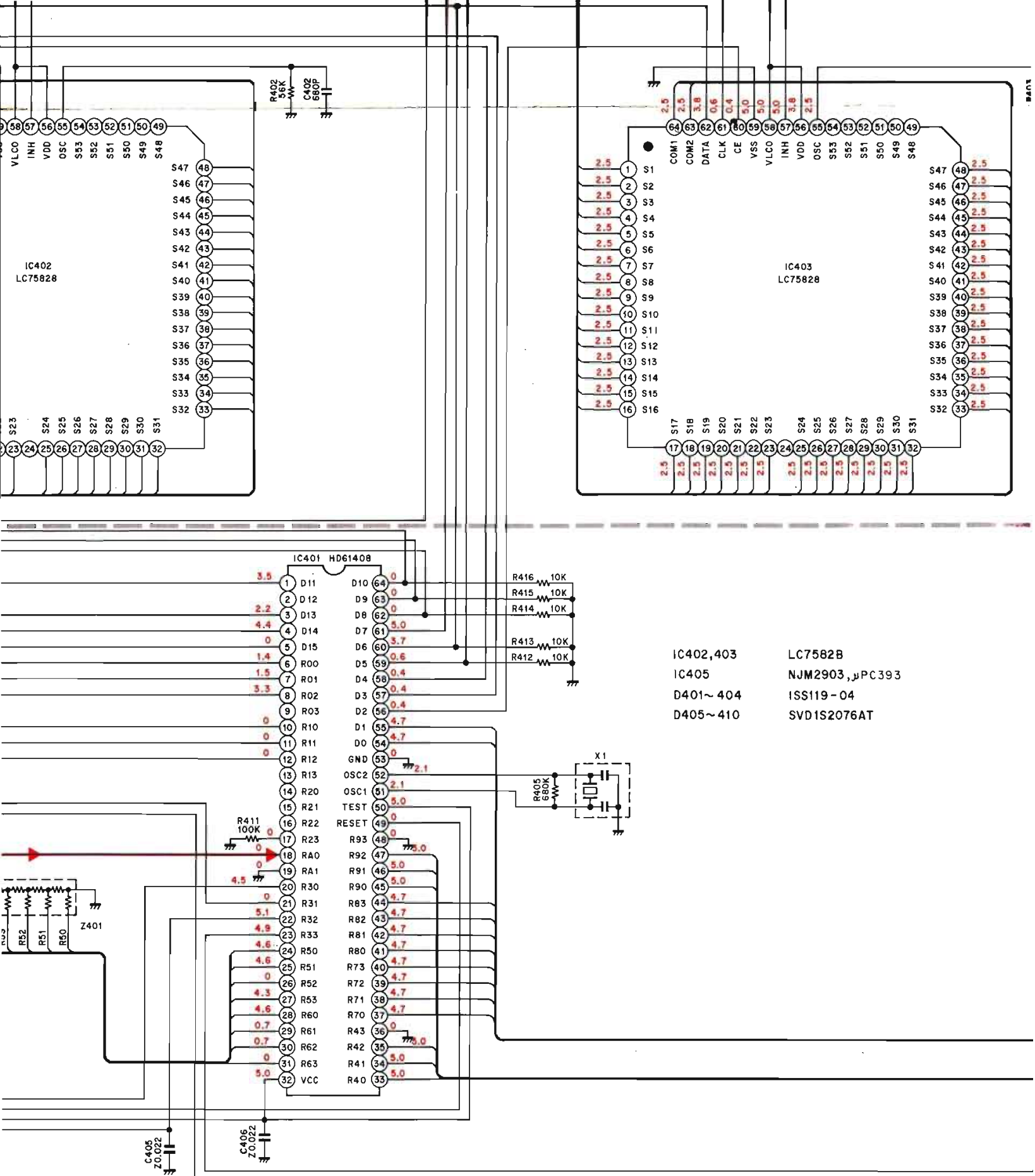
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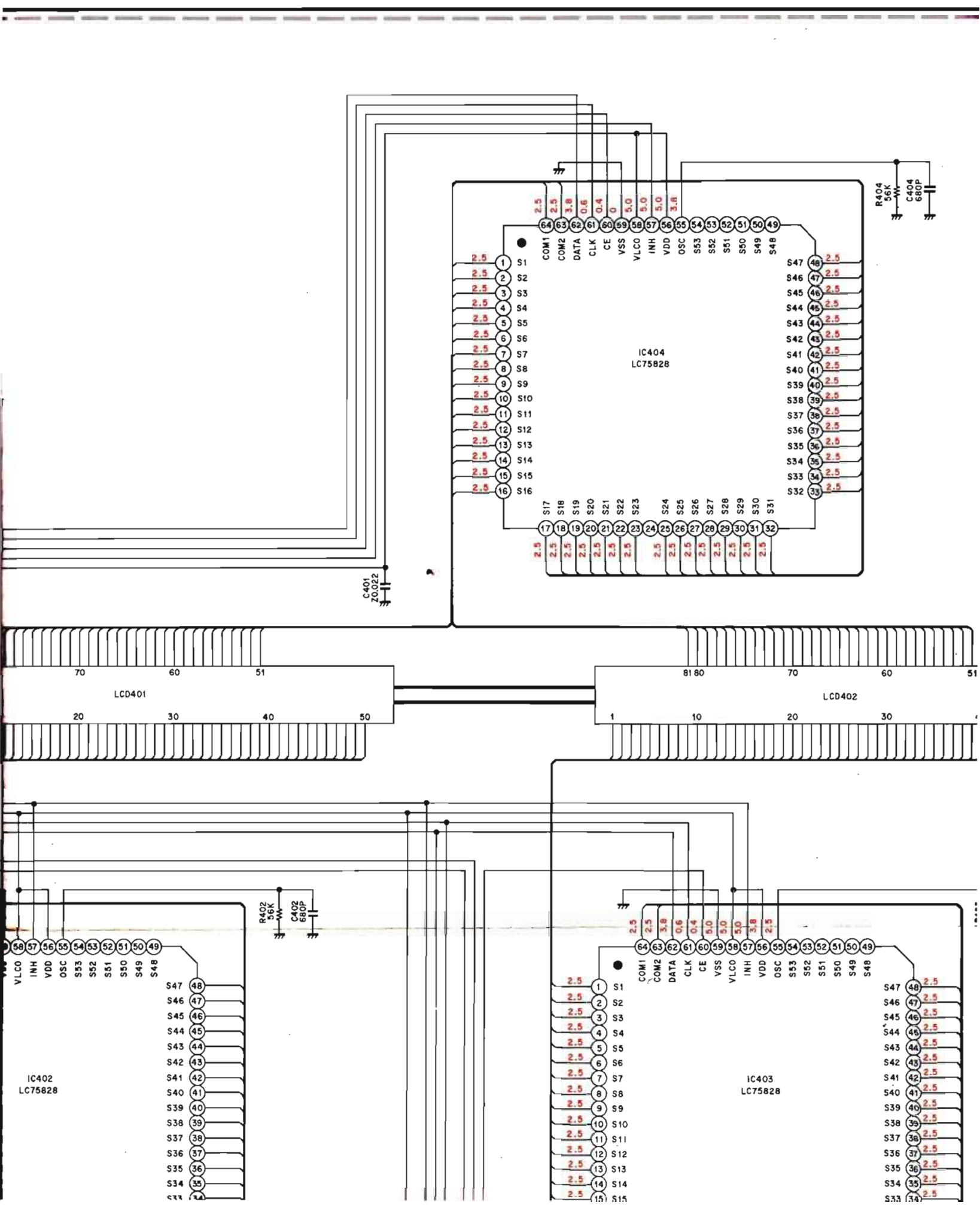


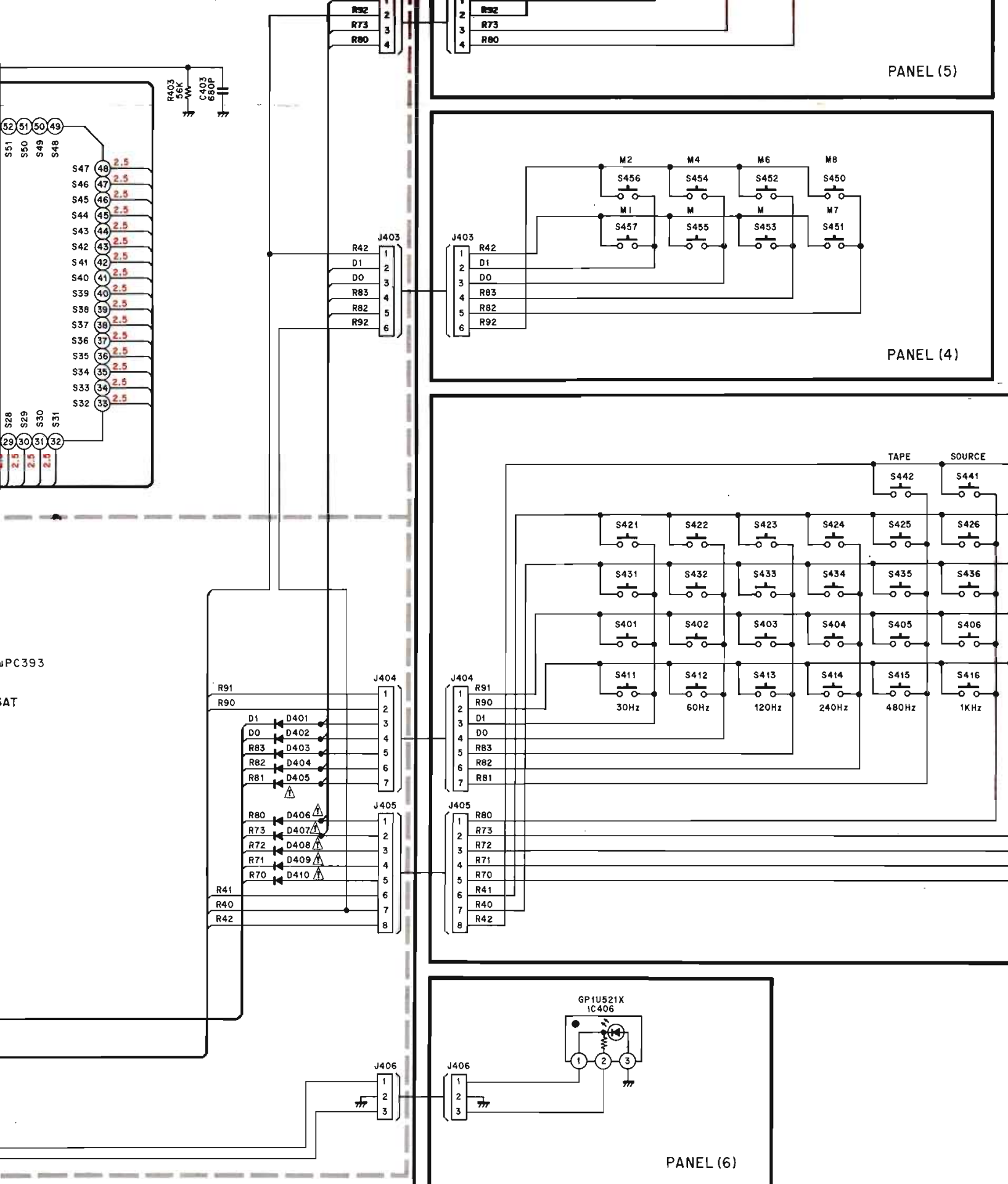
D

E

F

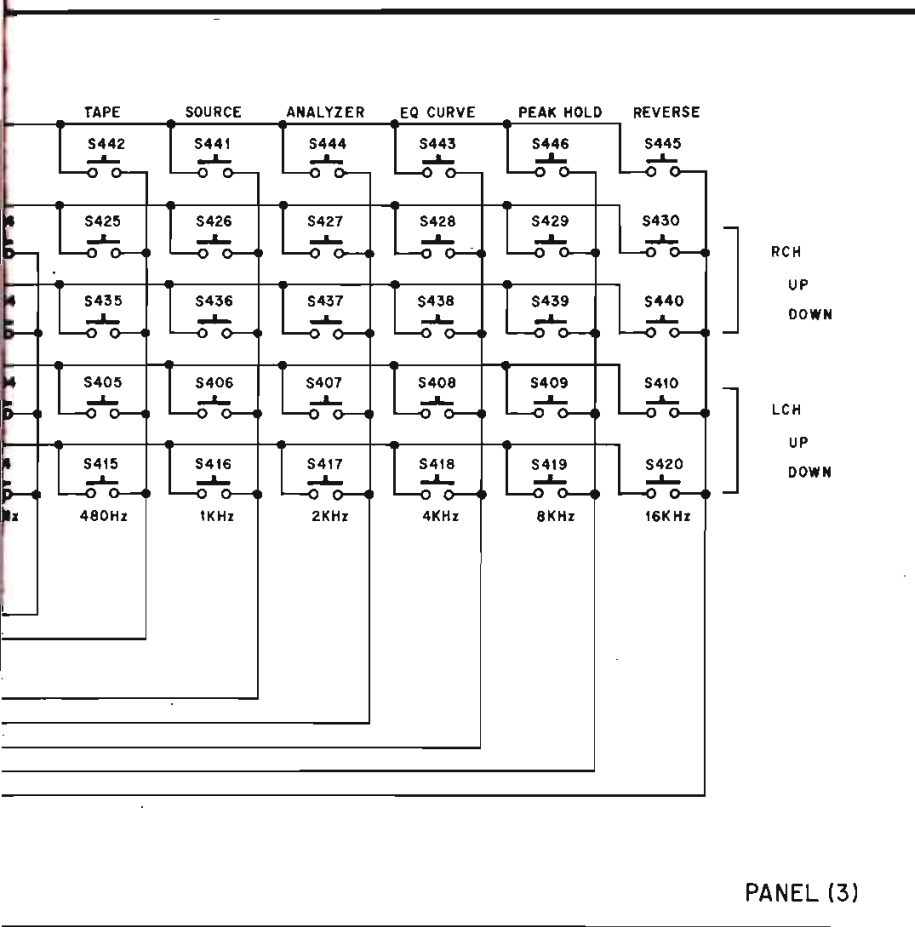
G





PANEL (5)

PANEL (4)



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.	100pF 50V 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.	10μF 25V 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.	1800pF 50V 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.	1200pF 25V 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.	0.12μF 50V TF コ ン	C121,122	ECVQ1H124JZ3	
※	FX 60 42 50	//	//	C117,118	ECVQ1H274JZ	
	HX 60 21 50	Resistor Array	220kΩ × 8 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	2SC2878A ト ラ ン ジ ス タ ー	Q1,2		
※	iX 61 38 70	//	2SA1309(Q,R,S) //	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	PSXPX426
※	FX 60 42 80	Ceramic Cap.	680pF 50V	円 筒 型 セ ラ コ ン	C402~404	ECBTH681KB
	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

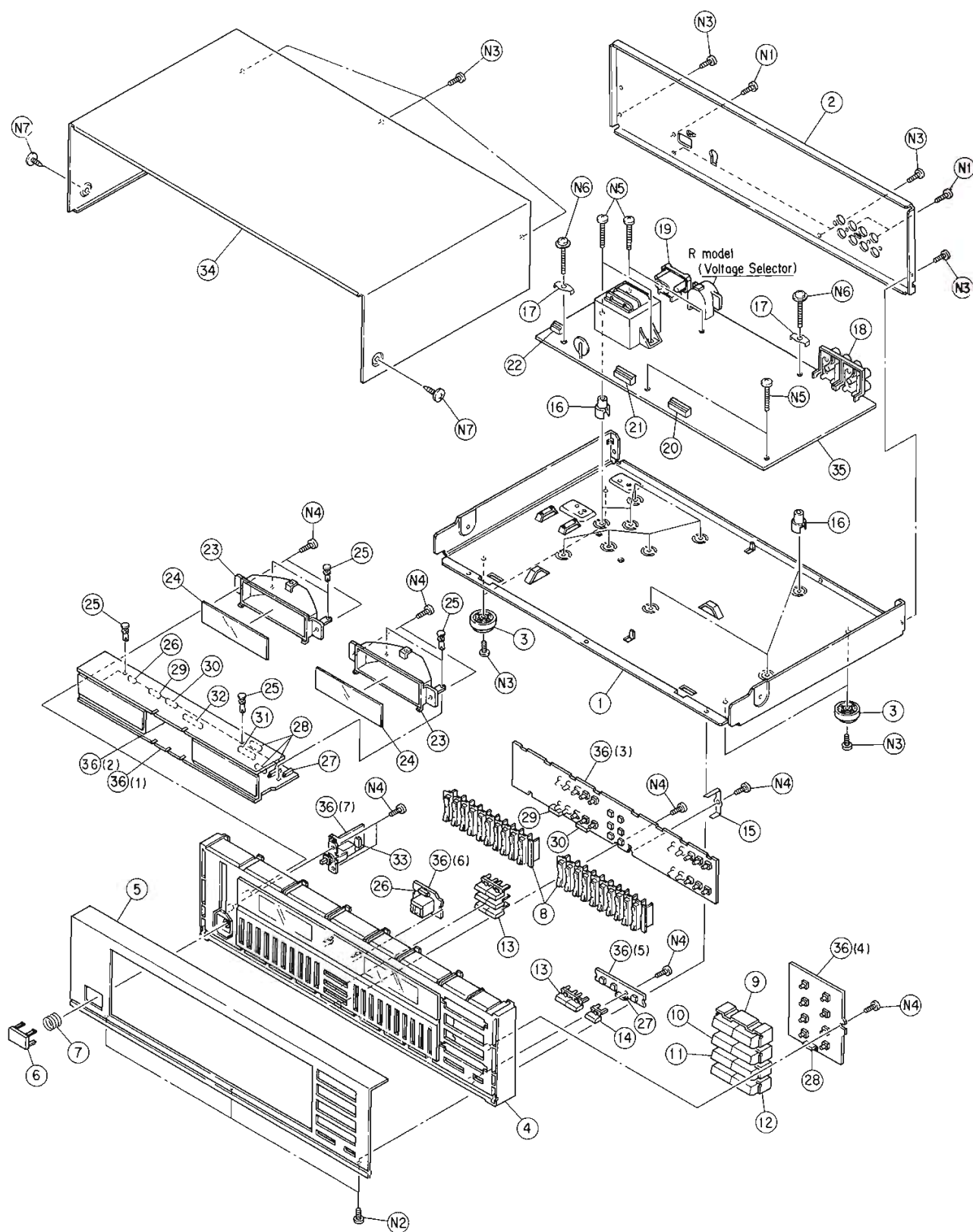
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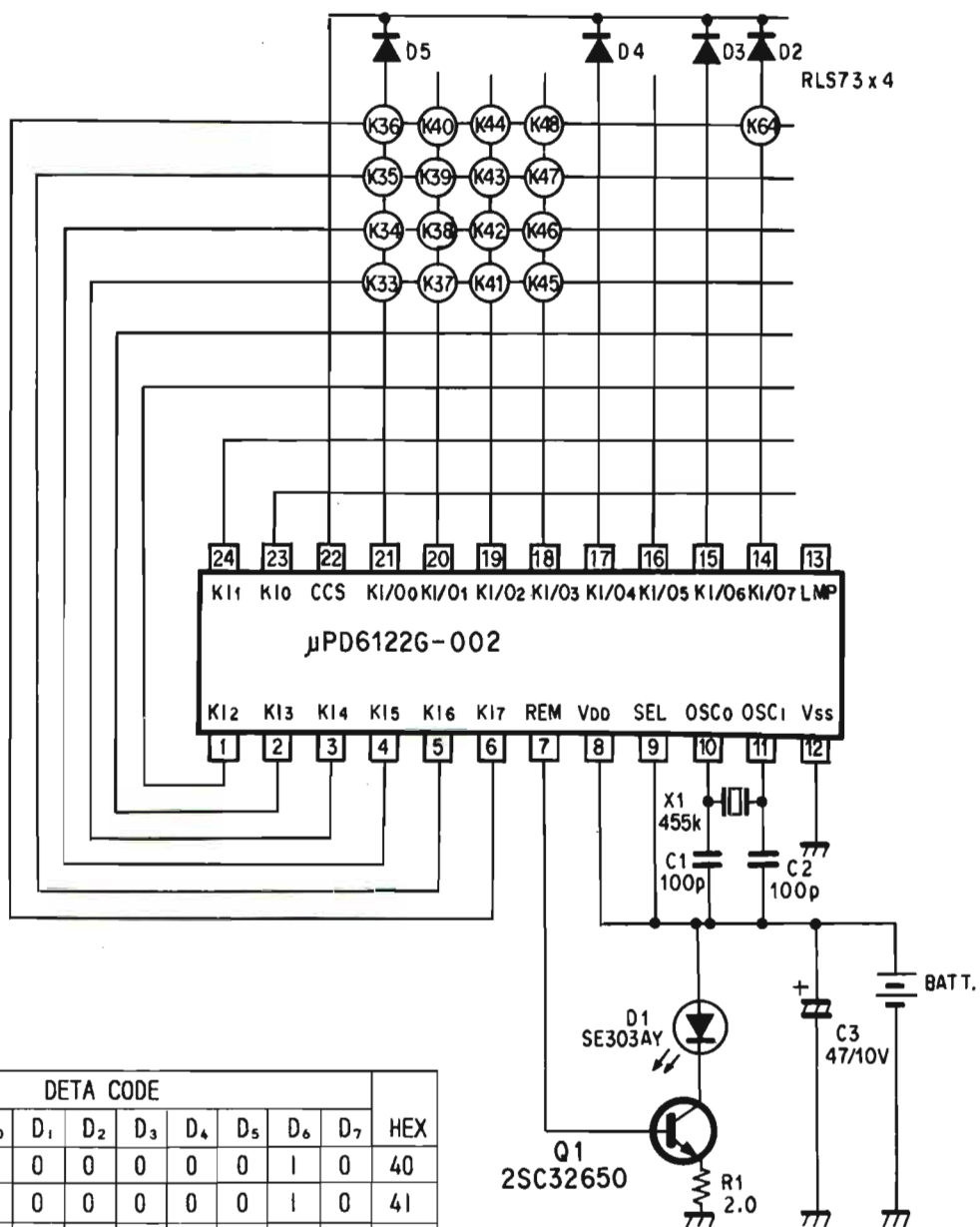
EXPLODED VIEW PARTS

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	PSGEQ630-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

REMOTE CONTROL TRANSMITTER

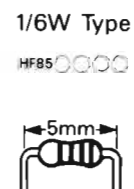
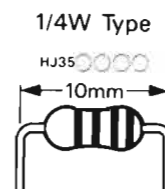


KEY NO.	FUNCTION	DETA CODE								HEX
		D ₀	D ₁	D ₂	D ₃	D ₄	D ₅	D ₆	D ₇	
33	PRESET 1	0	0	0	0	0	0	1	0	40
34	PRESET 2	1	0	0	0	0	0	1	0	41
35	PRESET 3	0	1	0	0	0	0	1	0	42
36	PRESET 4	1	1	0	0	0	0	1	0	43
37	PRESET 5	0	0	1	0	0	0	1	0	44
38	PRESET 6	1	0	1	0	0	0	1	0	45
39	PRESET 7	0	1	1	0	0	0	1	0	46
40	PRESET 8	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			



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.

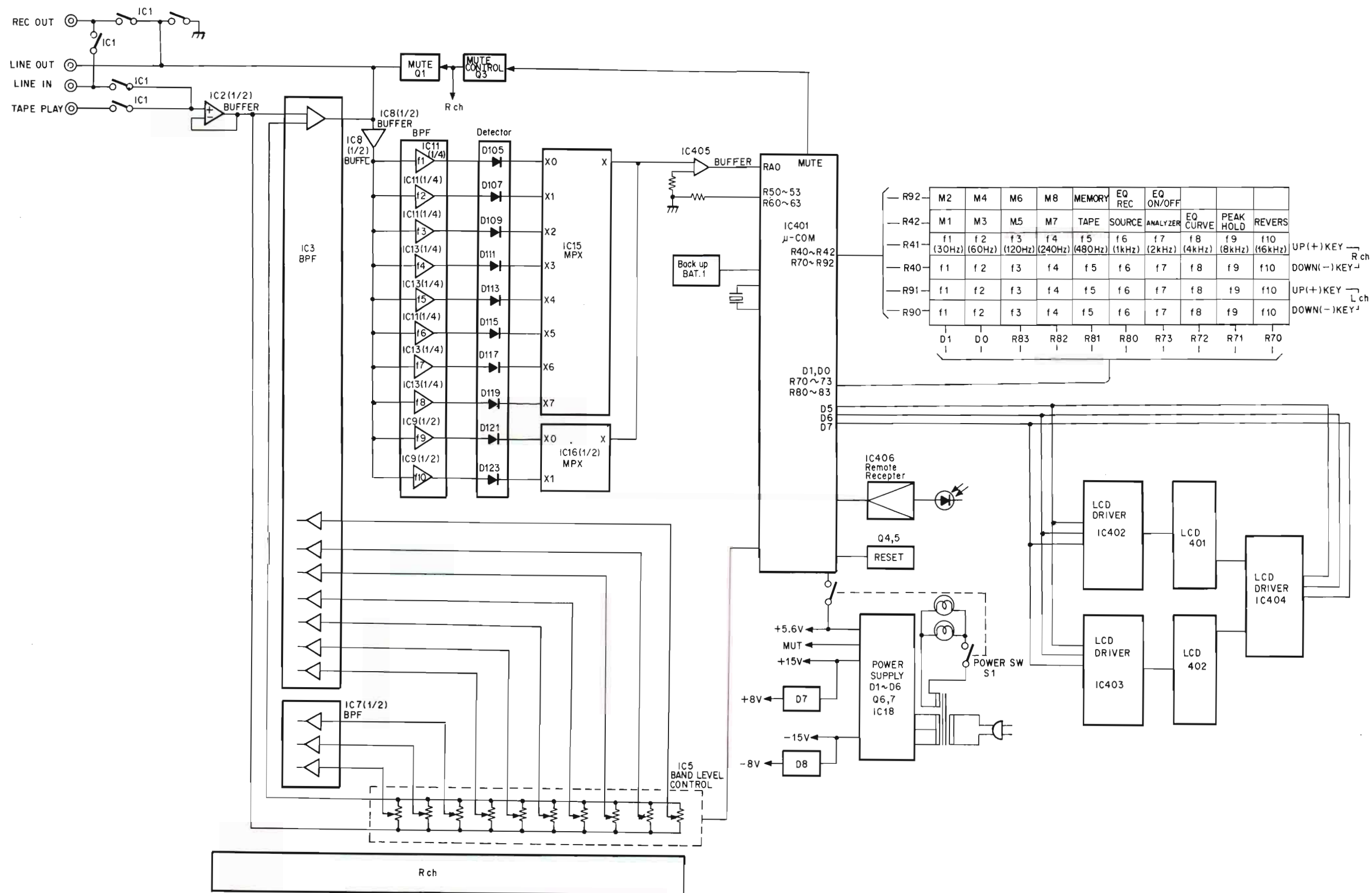
CAUSE: The 3 volt lithium memory back-up battery has failed due to excessive current-drain whenever the AC-mains power is disconnected.

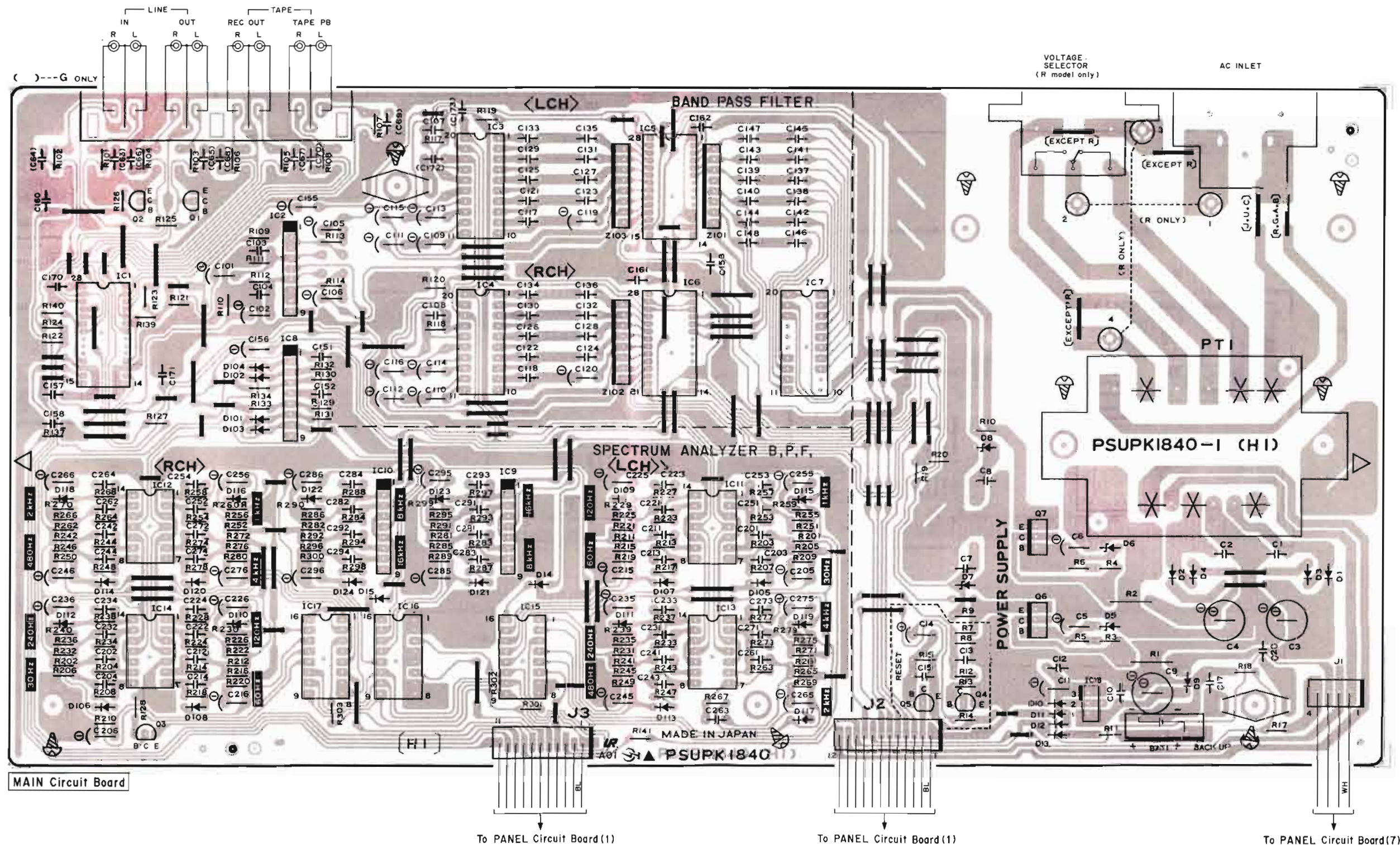
SOLUTION: Modify the "memory" back-up circuit to reduce current-draw, then remove and replace the lithium battery (as described on the reverse side of this bulletin).

***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.

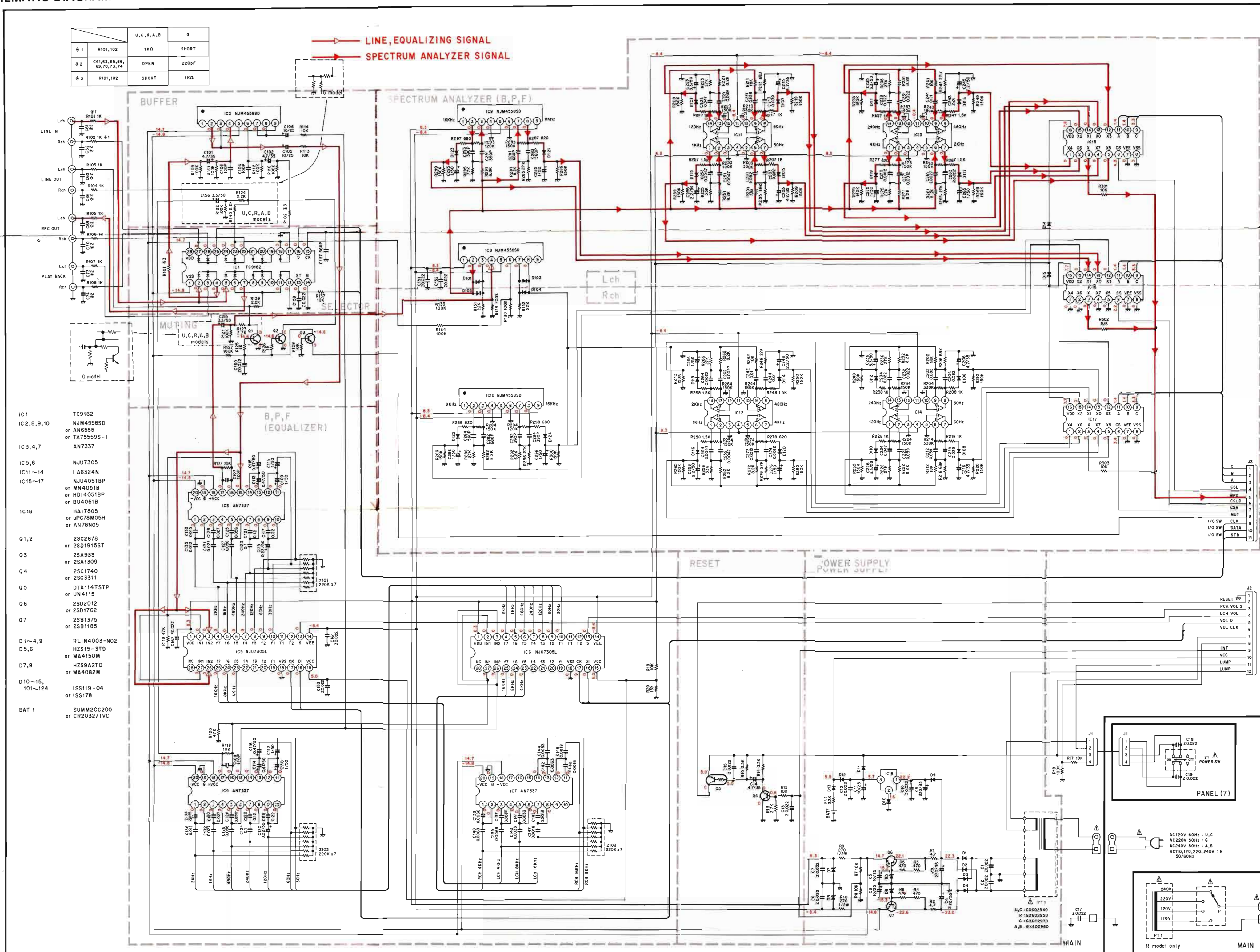
(See reverse side for procedure to modify the memory back-up circuit and replace the lithium battery.)

BLOCK DIAGRAM

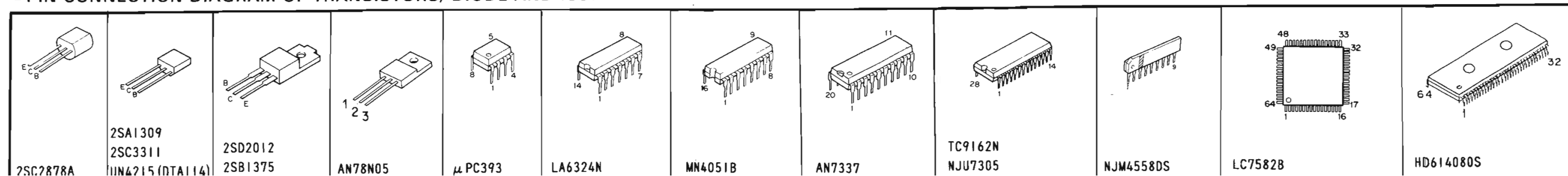




■ SCHEMATIC DIAGRAM



■ 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 10M Ω /V DC electric volt meter.
- Schematic diagram is subject to change without notice.

