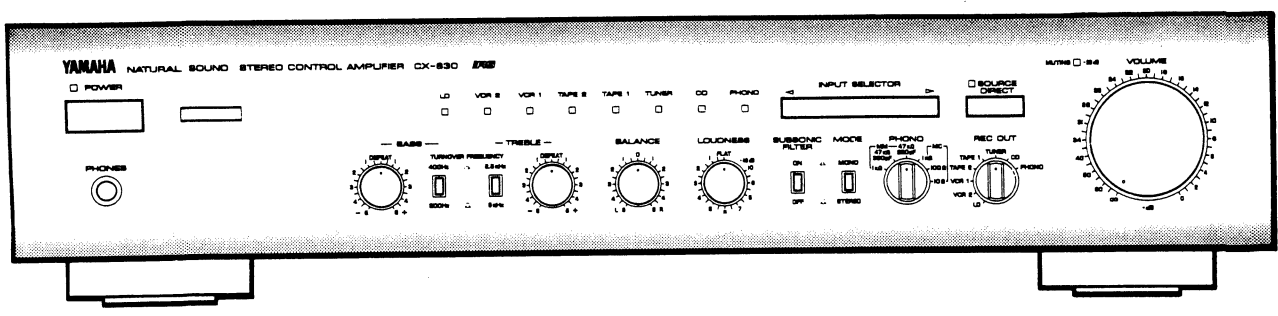


STEREO CONTROL AMPLIFIER

CX-830

SERVICE MANUAL

CX-830



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 or 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

TO SERVICE PERSONNEL	1	ADJUSTMENTS	7
SPECIFICATIONS	2	BLOCK DIAGRAM	8
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■ TO SERVICE PERSONNEL

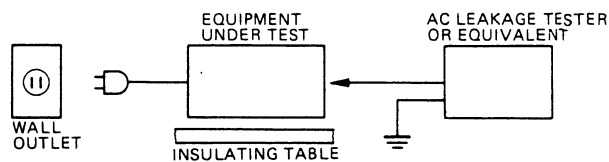
1. Critical Components Information.

Components having special characteristics are marked Δ 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 $0.15 \mu\text{F}$.
- Leakage current must not exceed 0.5mA.
- Be sure to test for leakage with the AC plug in both polarities.

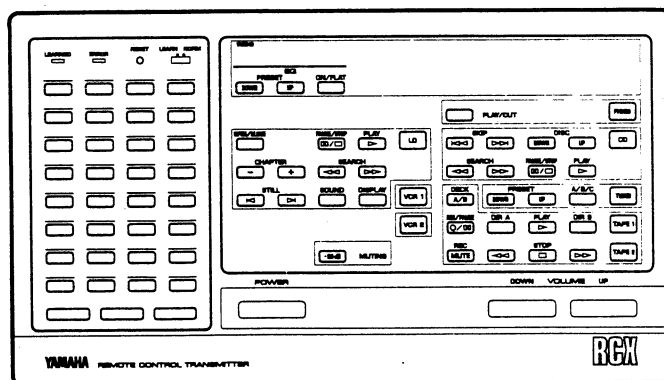


• POLARIZATION

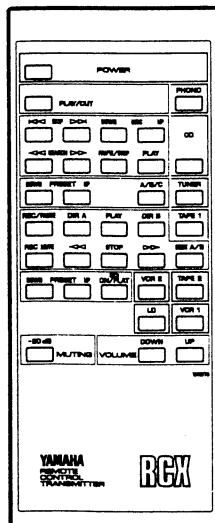
This amplifier product is equipped with a polarized alternating-current lineplug (a plug having one blade wider than the other). This plug will fit into the power outlet only one way. This is a safety feature. (U,C Model only)

■ REMOTE CONTROL TRANSMITTER

- U.S.A. and Canadian models



- European, British, Australian and General models



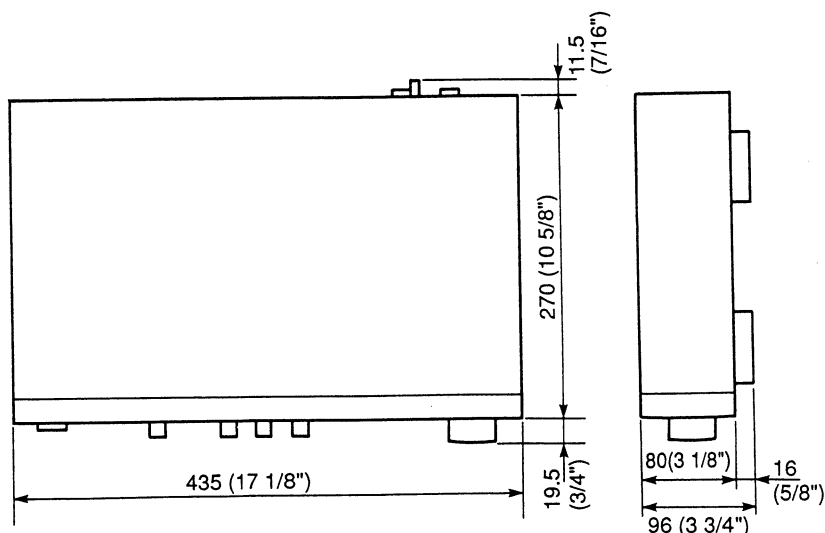
SPECIFICATIONS

Input Sensitivity/Impedance	
Phono MC	100 μ V/10 Ω , 100 Ω , 1k Ω
MM	2.5 mV/1 k Ω , 47 k Ω (220p, 330p)
CD/TUNER/TAPE1/TAPE2/VCR1/ VCR2/LD	150 mV/47 k Ω
Input Sensitivity (New IHF)	
Phono MC	33 μ V
MM	0.83 mV
CD/TUNER/TAPE1/TAPE2/VCR1/ VCR2/LD	50 mV
Maximum Input Signal	
1 kHz, 0.01% THD, Phono MC	7 mV
1 kHz, 0.01% THD, Phono MM	180 mV
Output Level/Impedance	
REC OUT	150 mV/2.5 k Ω
PRE OUT	1.5V/47 Ω
Maximum Voltage Output	
20 Hz - 20 kHz, 1% THD	12V
Headphone Jack Rated Output/Impedance	
Output Level (0.005% THD RL = 100 Ω)	4.5V
Impedance	68 Ω
Frequency Response	
CD/TUNER/TAPE1/TAPE2/VCR1/ VCR2/LD	20 Hz - 20 kHz (+0, -0.2 dB)
RIAA Equalization Deviation	
Phono MC/MM	20 Hz - 20 kHz ($\pm 0.2/\pm 0.2$ dB)
Total Harmonic Distortion	
20 Hz - 20 kHz	
Phono MC to REC OUT, 1.5V	0.002%
MM to REC OUT, 1.5V	0.001%
CD/TUNER/TAPE1/TAPE2/VCR1/ VCR2/LD to Pre Out, 1.5V	0.001%
Signal-to-Noise Ratio (IHF-A Network)	
Phono MC (500 μ V Input Shorted)	90 dB
MM (5 mV Input Shorted)	95 dB
CD/TUNER/TAPE1/TAPE2/VCR1/VCR2/ LD (Shorted)	106 dB
Residual Noise (IHF-A Network)	6 μ V
Channel Separation	
(Vol -30 dB)	
Phono MC, MM Input shorted	
1 kHz/10 kHz	80 dB/70 dB
CD/TUNER/TAPE1/TAPE2/VCR1/VCR2/LD Input 5.1 k Ω Terminated	
1 kHz/10 kHz	75 dB/60 dB
Tone Control Characteristics	
Bass	
Boost/Cut	± 10 dB (20 Hz)
Turnover frequency	200 Hz - 400 Hz
Treble	
Boost/Cut	± 10 dB (20 kHz)
Turnover frequency	2.5 kHz - 5 kHz

Video Input Sensitivity/Impedance	
VCR1, VCR2, LD	1 Vp-p/75 Ω
Video Output Level/Impedance	
VCR OUT, MONITOR OUT	1 Vp-p/75 Ω
Filter Characteristics	
Subsonic	15 Hz, -12 dB/oct
Continuous Loudness Control (Level Related Equalization)	
Attenuation	-40 dB (1 kHz)
Audio Muting	2 dB
Gain Tracking Error	
(0 - -60 dB)	2 dB
Power Supply	
U.S.A. and Canadian models	AC 120V/60 Hz
British and Australian models	AC 240V/50 Hz
European model	AC 220V/50 Hz
General model	AC 110/120/220/240 V 60/50 Hz
Power Consumption	
	30W
AC Outlets	
U.S.A. Canadian and General models	
Switched (2)	200 W max.
Unswitched (1)	300 W max.
General model	
Switched (2)	200 W max.
Unswitched (1)	400 W max.
British, Australia, and Europe models	
Switched (1)	100 W max.
Dimensions (W x H x D)	
	435 x 96 x 301 mm (17-1/8" x 3-3/4" x 11-7/8")
Weight	
	5.4 kg (11 lbs. 14 oz.)

* Specifications subject to change without notice.

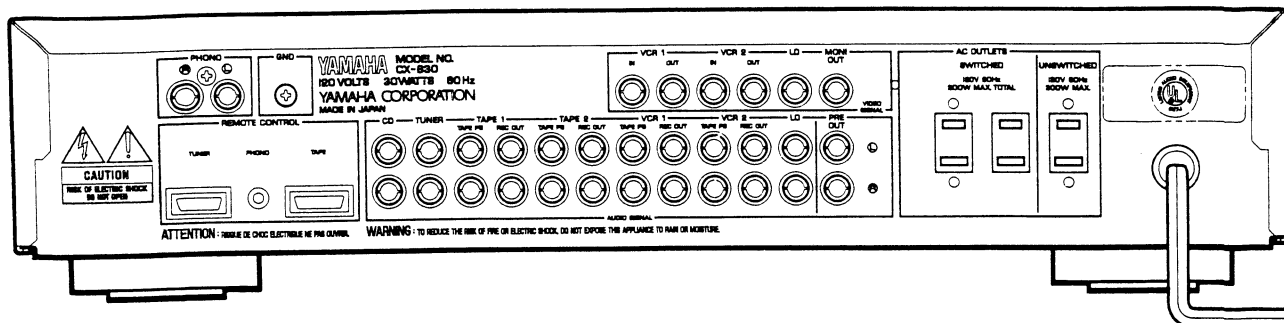
DIMENSIONS



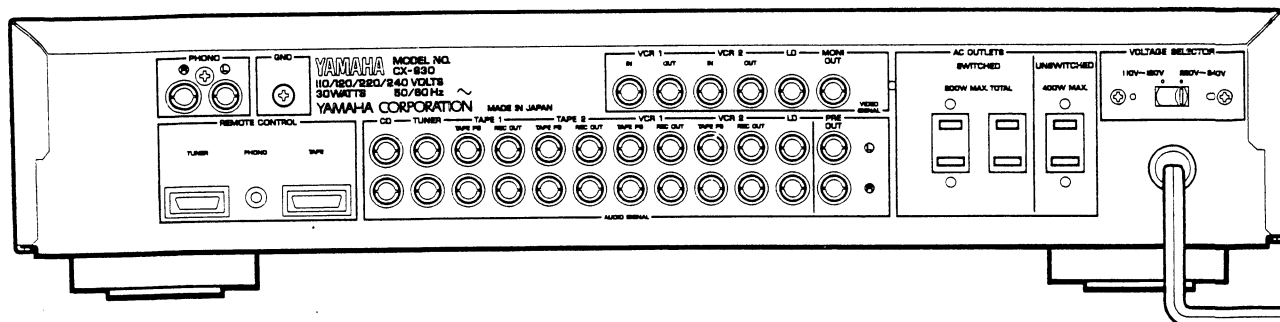
UNIT: mm (inch)

REAR PANEL

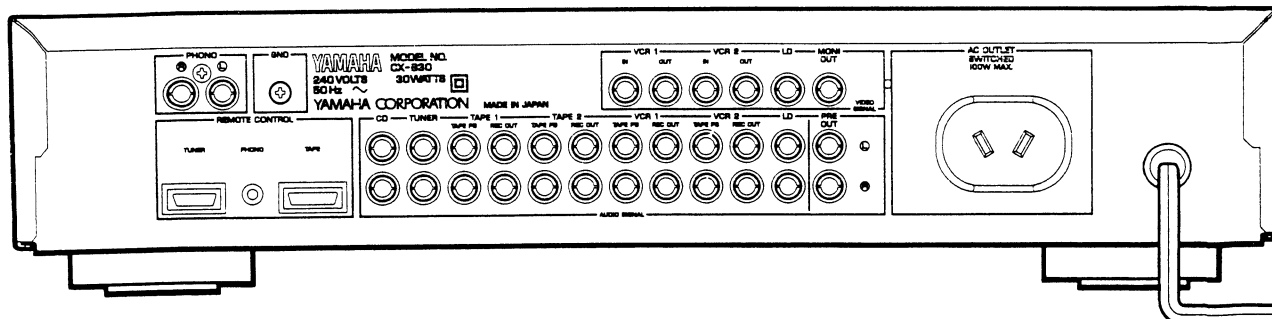
- U.S.A. and Canadian models



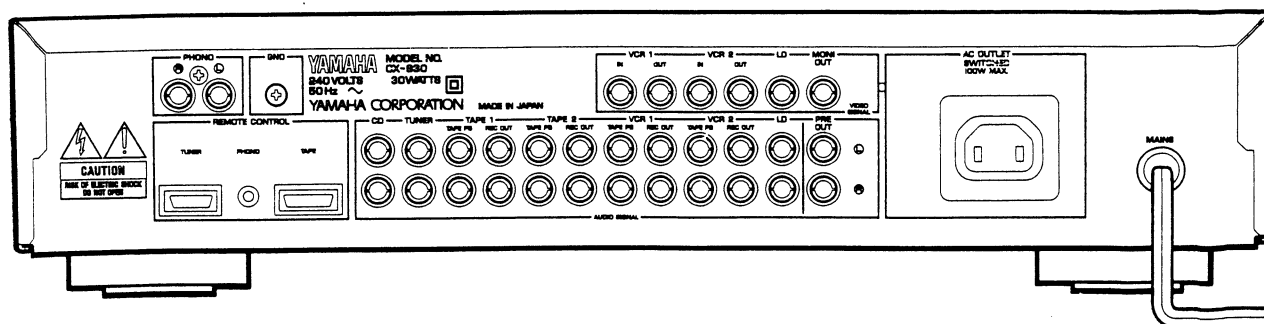
- General model



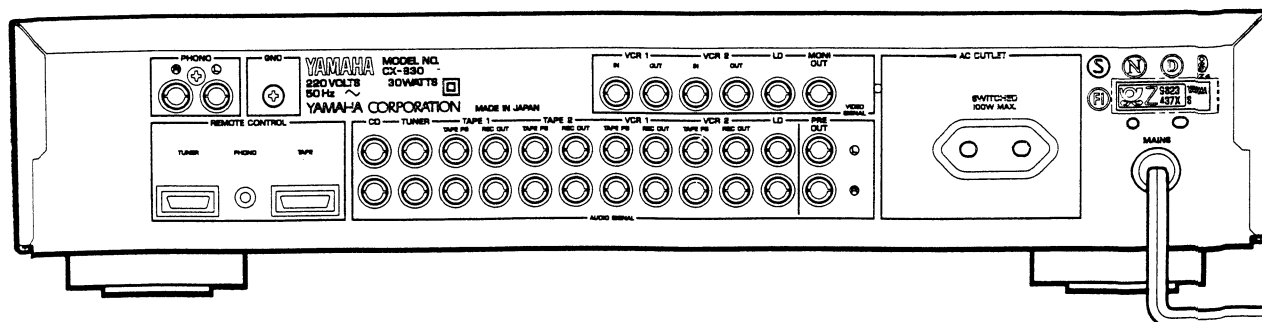
- Australian model



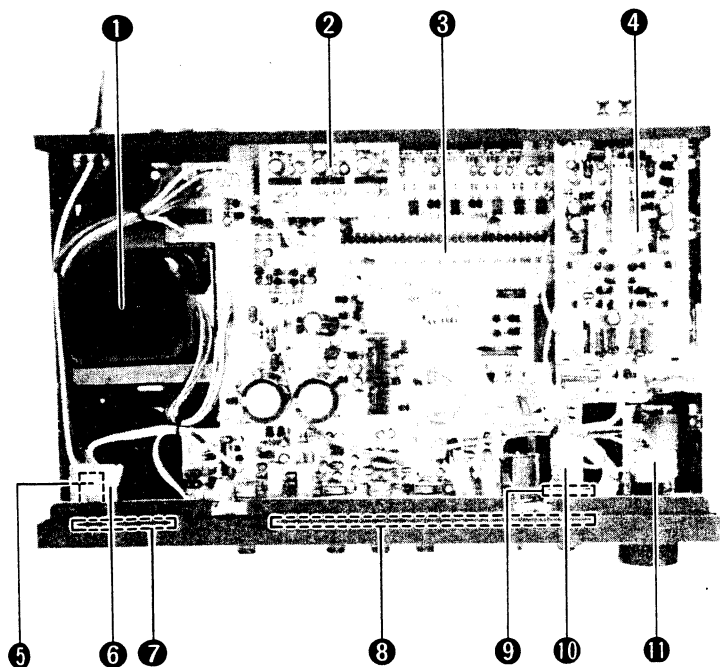
- British model



- European model



INTERNAL VIEW



- ① POWER TRANSFORMER
U, C models : XH008A0
R model : XH009A0
A, B models : XH010A0
G model : XH011A0
- ② EQUALIZER CIRCUIT BOARD (2)
- ③ MAIN CIRCUIT BOARD (1)
- ④ EQUALIZER CIRCUIT BOARD (1)
- ⑤ MAIN CIRCUIT BOARD (7)
- ⑥ MAIN CIRCUIT BOARD (5)
- ⑦ EQUALIZER CIRCUIT BOARD (3)
- ⑧ MAIN CIRCUIT BOARD (2)
- ⑨ MAIN CIRCUIT BOARD (6)
- ⑩ MAIN CIRCUIT BOARD (4)
- ⑪ MAIN CIRCUIT BOARD (3)

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DISASSEMBLY PROCEDURES

1. Removal of Top Cover

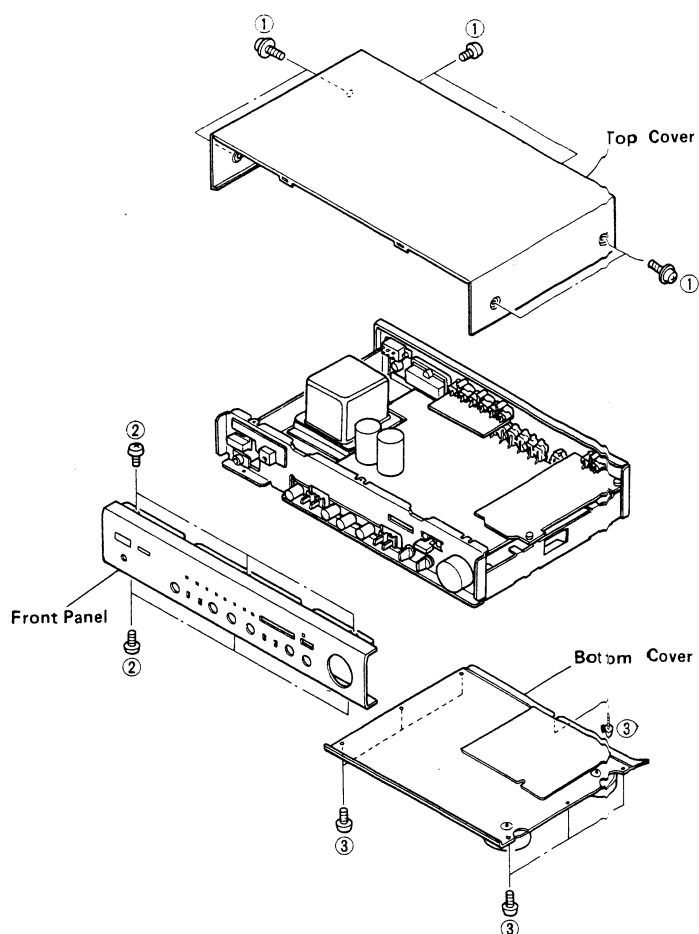
Remove 6 screws (①) in Fig. 1, and slide the Top Cover back and up.

2. Removal of Front Panel

Remove 6 screws (②) in Fig. 1.

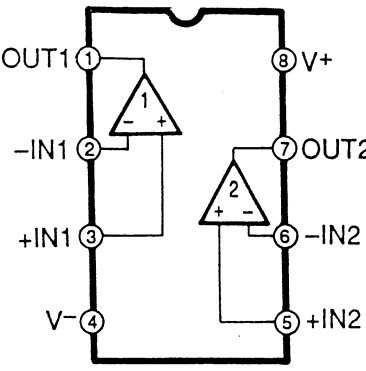
3. Removal of Bottom Cover

Remove 7 screws (③) in Fig. 1.

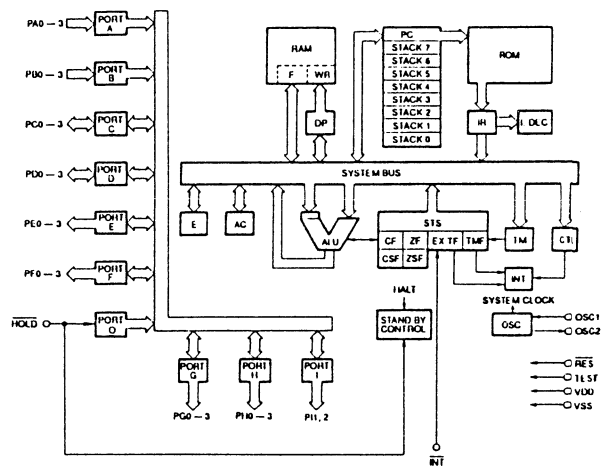
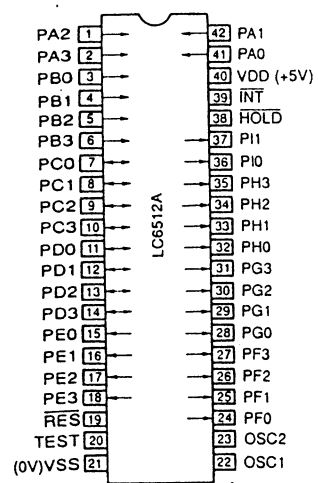


IC BLOCK

- IC1 ~ 7, 12, 13 : NJM2041D-D
Ope-Amp.



- IC11 : LC6512A-4345
Microcomputer

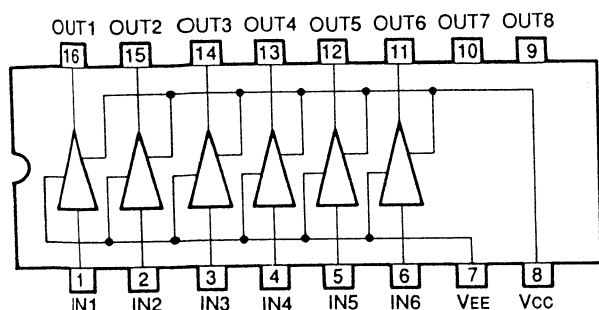


Pin No.	Terminal Name	Function	Pin No.	Terminal Name	Function
1	PA2	GND	22	OSC1	
2	PA3	GND	23	OSC2	
3	PB0	Input Selector UP	24	PF0	PHONO Input
4	PB1	Input Selector DOWN	25	PF1	CD Input
5	PB2	GND	26	PF2	TUNER Input
6	PB3	GND	27	PF3	TAPE 1 Input
7	PC0		28	PG0	TAPE 2 Input
8	PC1	NC	29	PG1	VCR 1 Input
9	PC2	NC	30	PG2	VCR 2 Input
10	PC3	RS Remote Control PHONO	31	PG3	LD Input
11	PD0	RS Remote Control TAPE	32	PH0	Volume Down
12	PD1	RS Remote Control TAPE	33	PH1	Volume Up
13	PD2	RS Remote Control TAPE	34	PH2	RS Remote Control TUNER
14	PD3	RS Remote Control TAPE	35	PH3	RS Remote Control TUNER
15	PE0	Power On/Off	36	PI0	Audio Mute
16	PE1	Video Input Control LD	37	PI1	Mute
17	PE2	Video Input Control VCR 1	38	HOLD	
18	PE3	NC	39	INT	+5V
19	RES		40	VDD	+5V
20	TEST	GND	41	PA0	Remote Control Input
21	VSS	GND	42	PA1	Power Switch

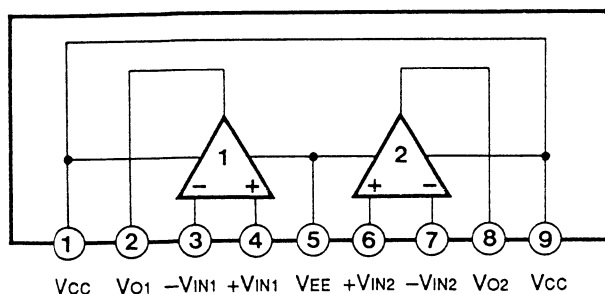
Video Input Control Selector

Pin No.	LD	VCR 1	VCR 2
16	H	L	L
17	L	H	L

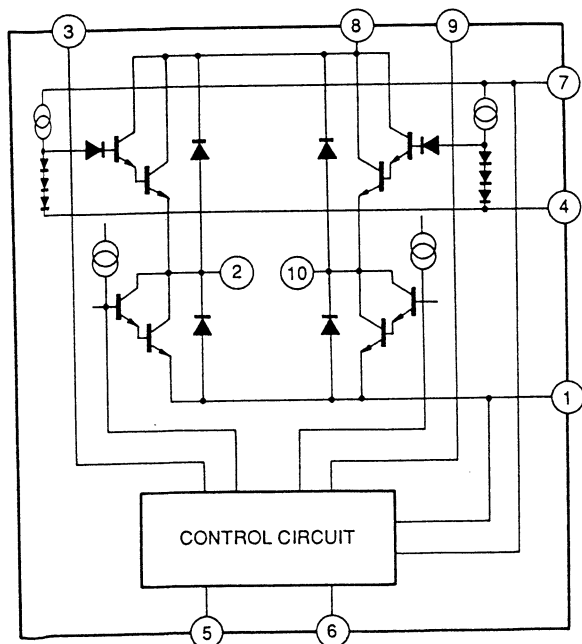
• IC8 : LB1294
Driver



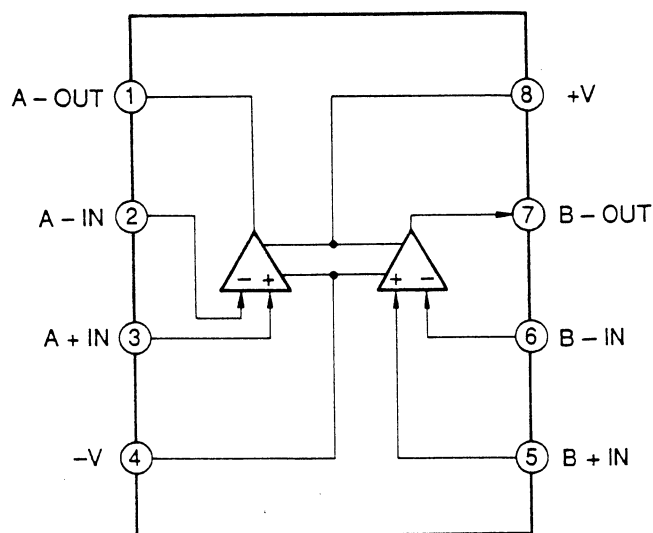
• IC15 : NJM4556S
Ope-Amp.



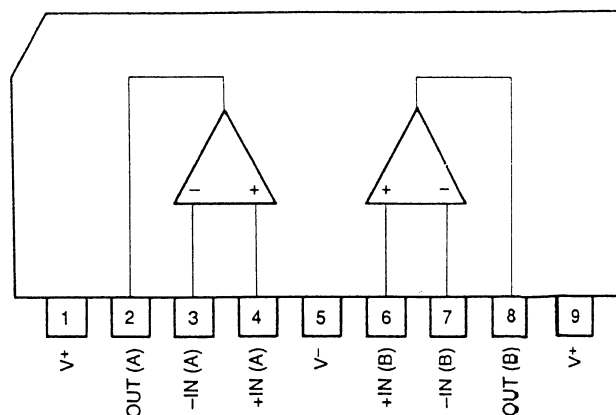
• IC10 : BA6229
Driver



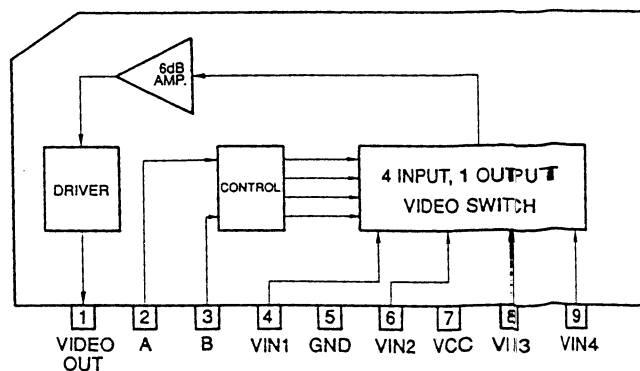
• IC14 : NJM5532D-D
Ope-Amp.



• IC401 ~ 404 : NJM5532S-D
Ope-Amp.



• IC405 ~ 407 : LA7956



A (2 pin)	B (3 pin)	VIN1 (4 pin)	VIN2 (6 pin)	VIN3 (8 pin)	VIN4 (9 pin)
H	H	ON	OFF	OFF	OFF
L	H	OFF	ON	OFF	OFF
H	L	OFF	OFF	ON	OFF
L	L	OFF	OFF	OFF	ON

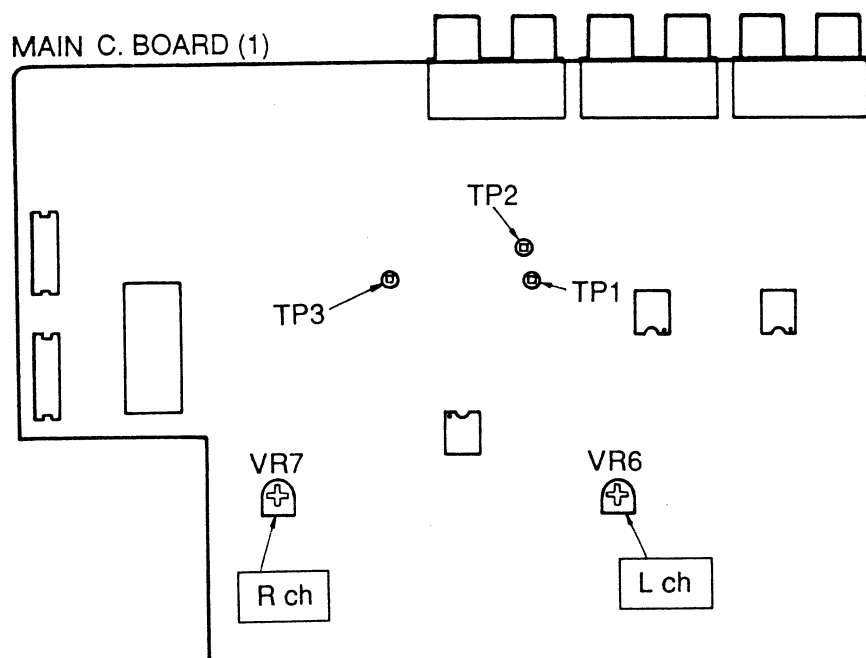
■ ADJUSTMENTS

• IDLING CURRENT ADJUSTMENT

Set the VOLUME to the minimum position.

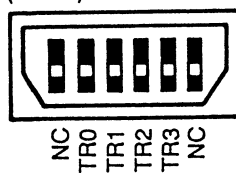
After the power has been turned on, age about 3 minutes in no signal and non loaded condition.

	Test points	Adjust point	Rating
L ch	Across the terminals of TP1 and TP2	VR6	0mV $\pm$ 5mV
R ch	Across the terminals of TP3 and TP2	VR7	0mV $\pm$ 5mV



Remote Control Terminal

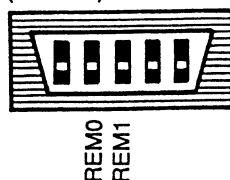
(TAPE)



TR3	TR2	TR1	TR0	MODE
L	L	L	L	NO DATA
L	L	L	H	STOP
L	L	H	L	FF
L	L	H	H	REW
L	H	L	L	PLAY
L	H	L	H	REC PAUSE
L	H	H	L	REC MUTE
H	H	H	H	A/B
H	H	L	L	DIR A
H	H	L	H	DIR B

Note) H 3V ~ 5V
 L Less than 0.6V
 Pulse .. More than 30msec

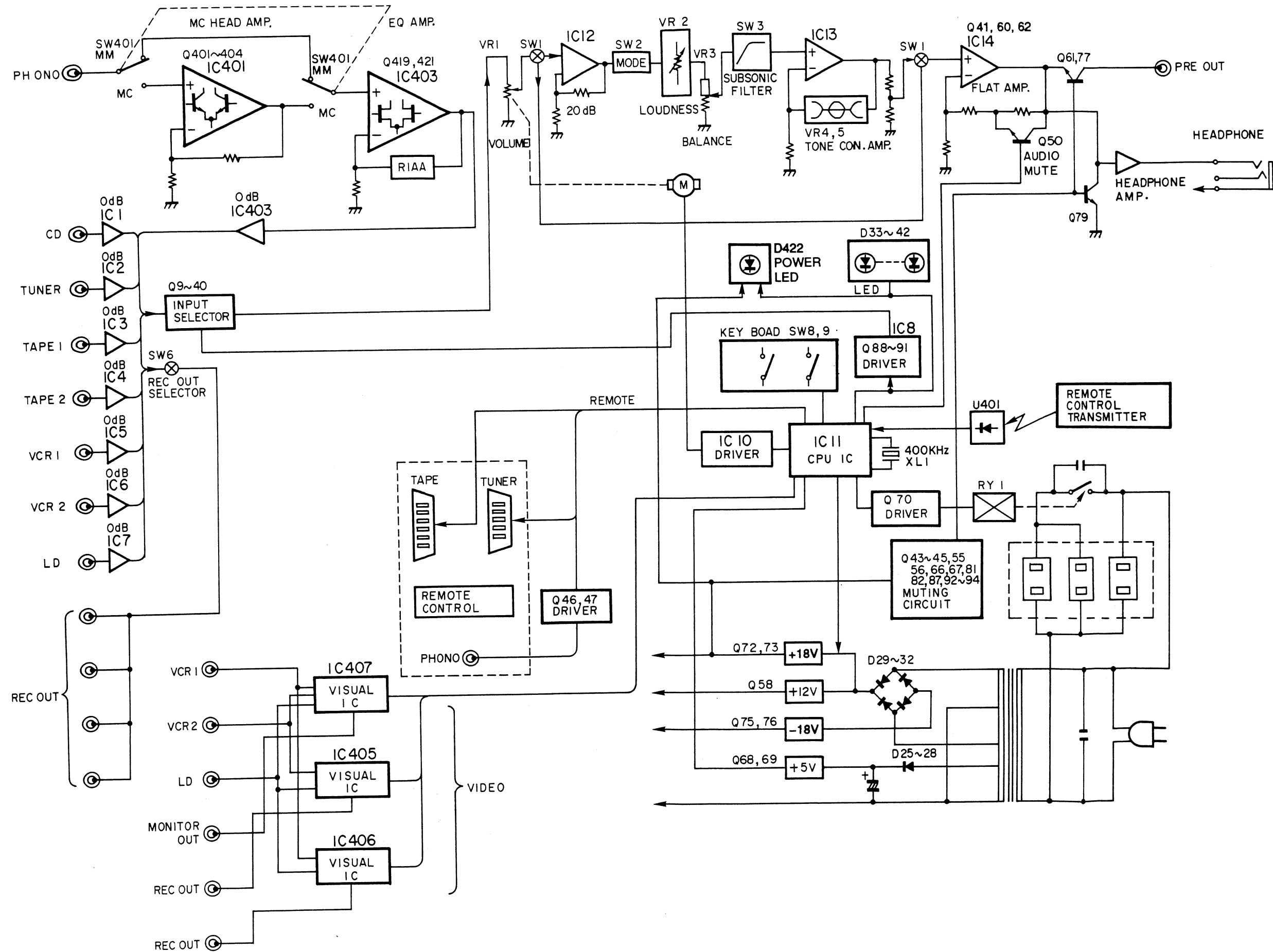
(TUNER)



MODE	REM 0	REM 1
UP	H	L
DOWN	L	H
P1-P8/P9-P16	H	H

L= 0 ~ 1.5V
 H=3.3 ~ 5.5V

BLOCK DIAGRAM



A

B

C

D

E

F

G

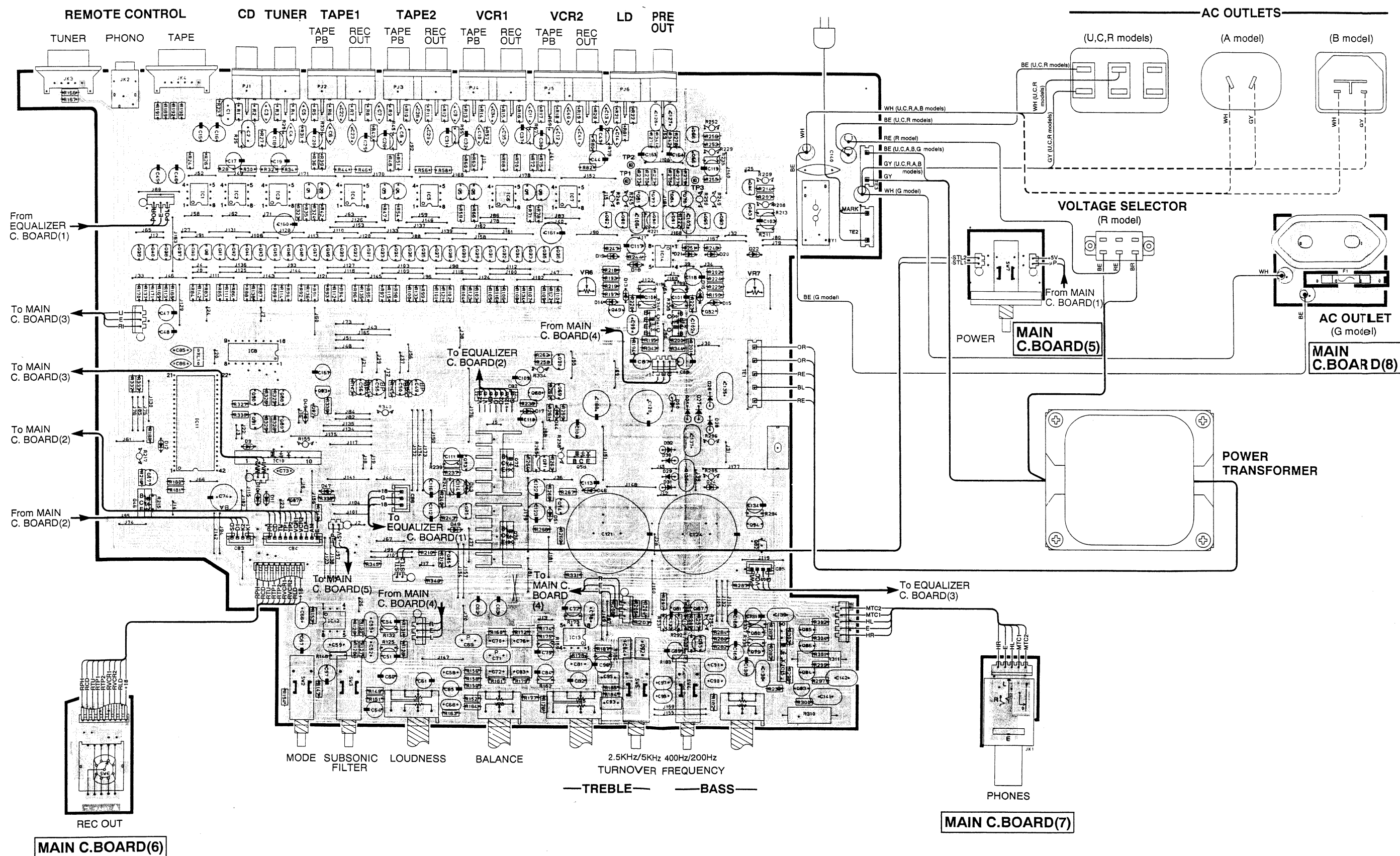
H

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■ PRINTED CIRCUIT BOARD (Pattern side)

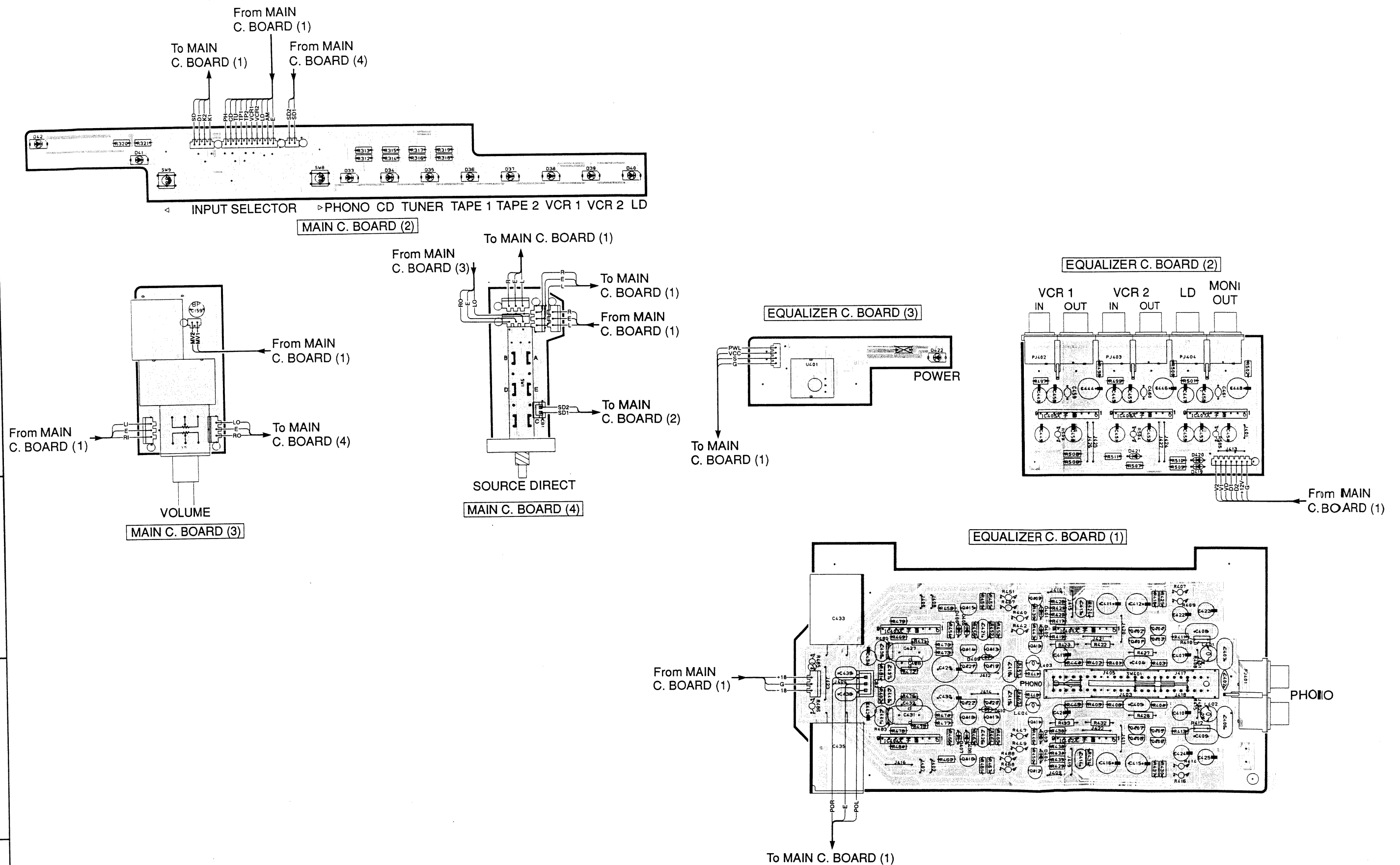
Notes) 文字面 : Component side

MAIN C. BOARD(1)



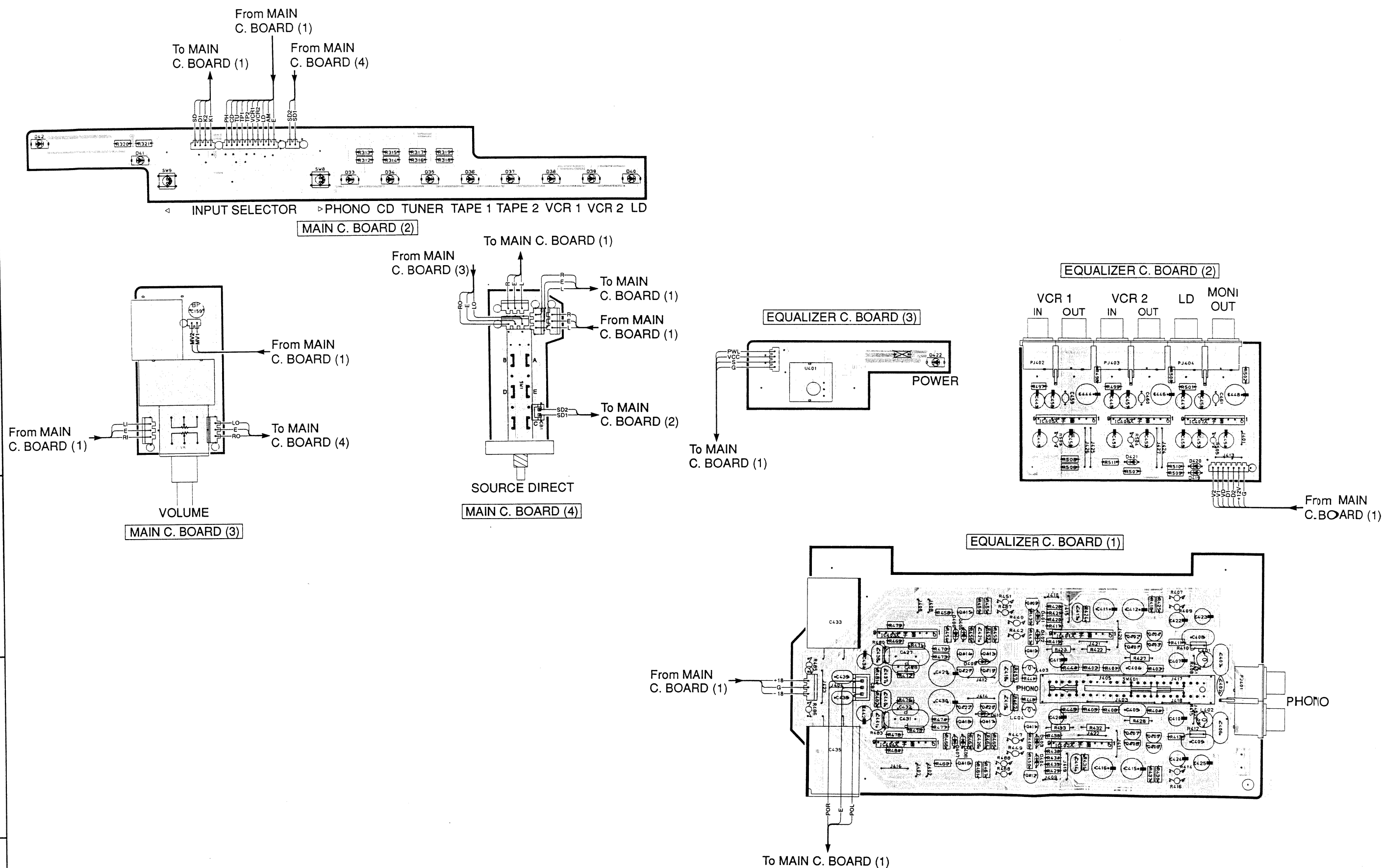
PRINTED CIRCUIT BOARD (Pattern side)

Notes) 文字面 : Component side

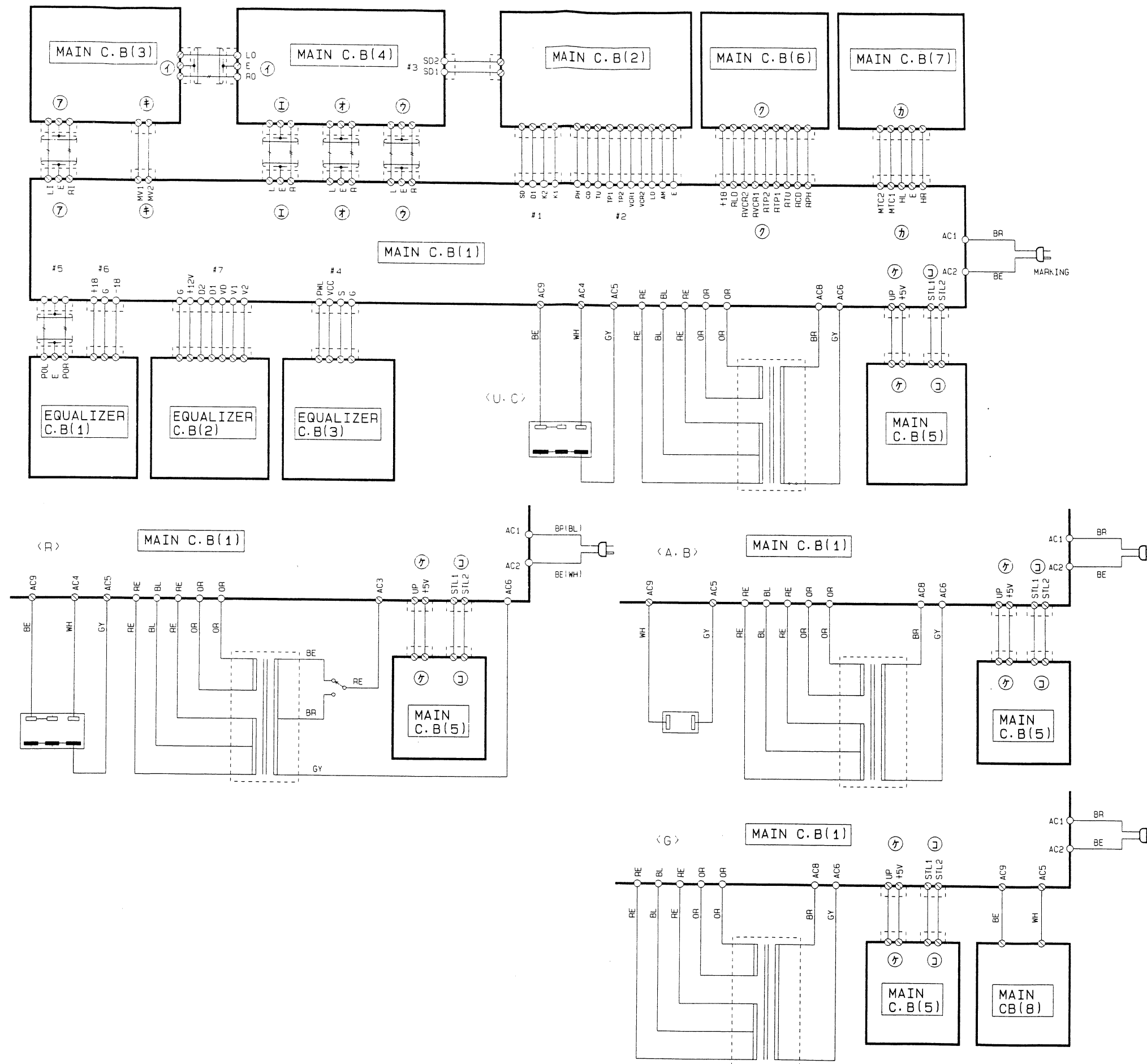


PRINTED CIRCUIT BOARD (Pattern side)

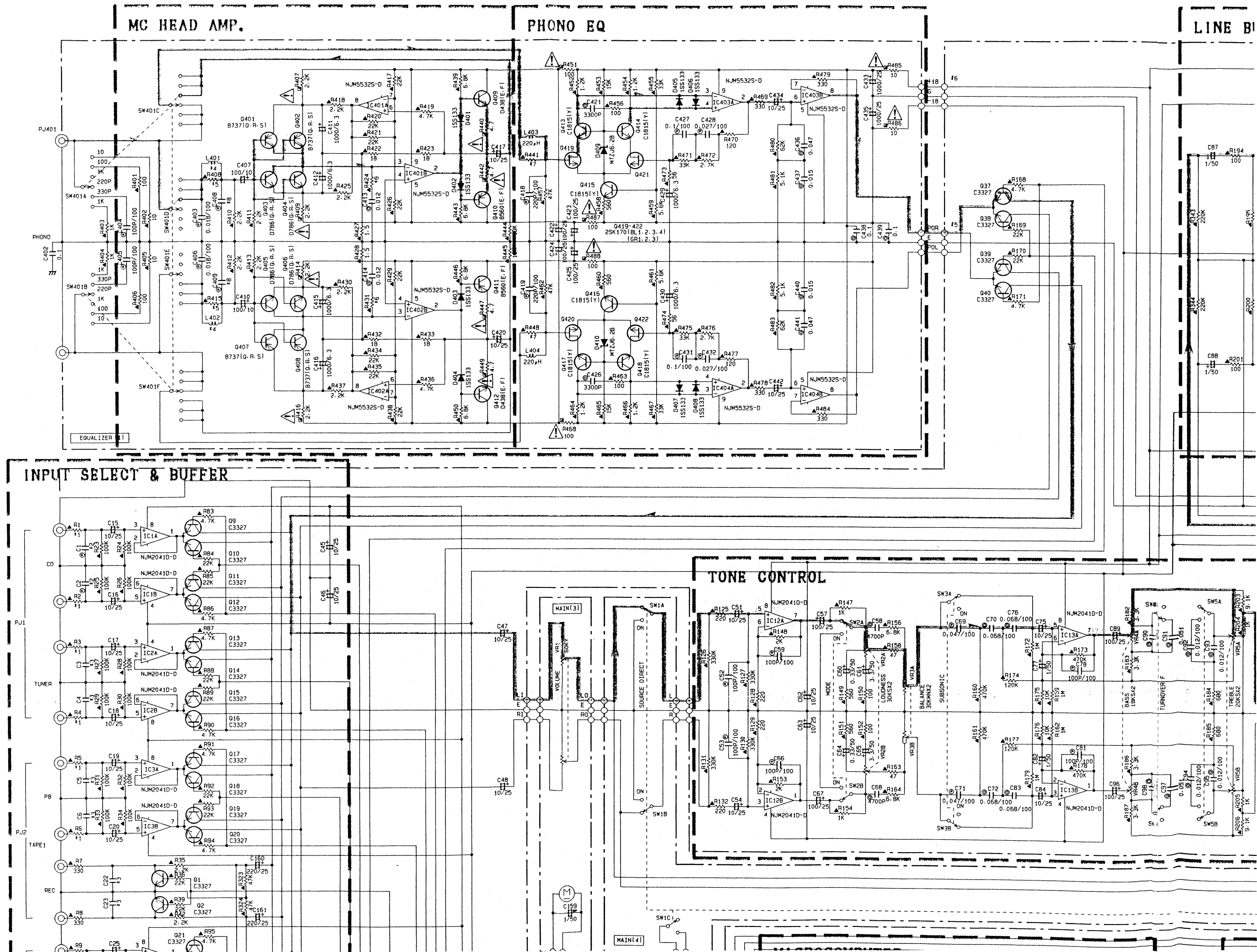
Notes) 文字面 : Component side

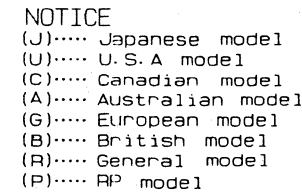


■ WIRING



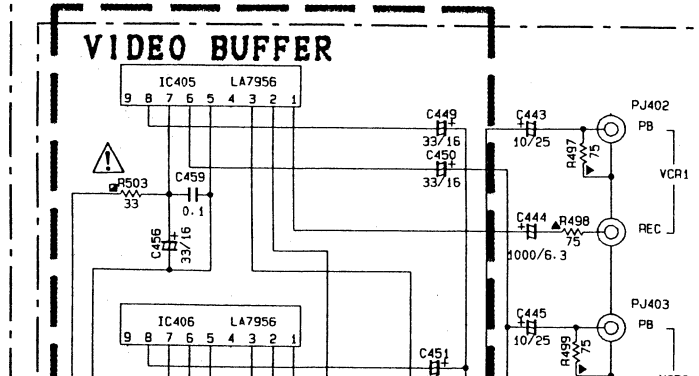
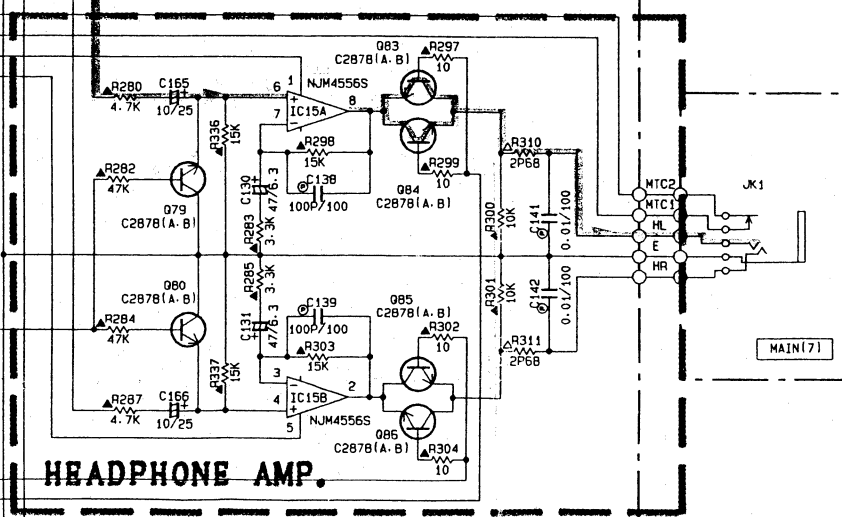
SCHEMATIC DIAGRAM



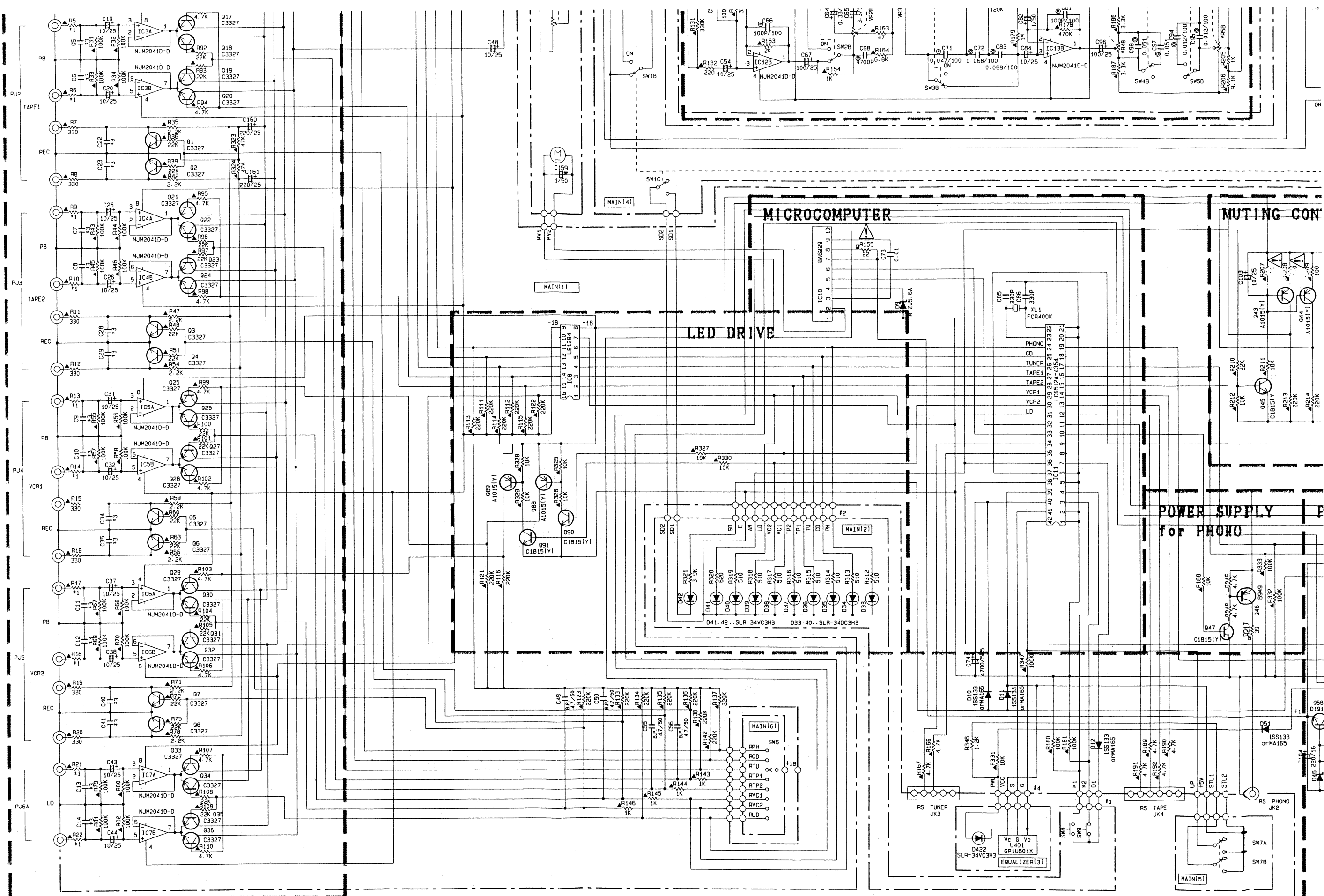


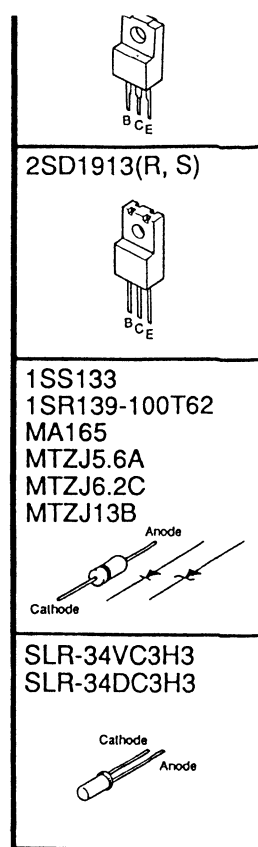
MAIN		
	LAST NO.	UN LISTED NO.
C	168	
R	348	
Q	94	
D	51	
IC	15	

RESISTOR	
REMARKS	PARTS NAME
NO MARK	CARBON FILM RESISTOR (1/6W)
☒	CARBON FILM RESISTOR (1/4W)
☐	METAL OXIDE FILM RESISTOR
☐	METAL FILM RESISTOR
☒	METAL PLATE RESISTOR
☒	FIRE PROOF CARBON FILM RESISTOR
☐	CEMENT MOLDED RESISTOR
☒	SEMI VARIABLE RESISTOR
☐	CHIP RESISTOR



1SS133
1SR139-100T62
MA165
MTZJ5.6A
MT7.16 2C





12

PARTS LIST

■ 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 P.27.

■ ELECTRICAL PARTS

Ref. No.	PART NO.	Description	部 品 名	Remarks	Markets	ランク
	Vi594700	EQUALIZER CIRCUIT BOARD	イコライザーシート		U,C,R,A,B	
	Vi594800	EQUALIZER CIRCUIT BOARD	イコライザーシート		G	
	FA153330	MYLAR FILM CAP 3300pF 50V	マイラーコン	C421,426		
	FA154120	MYLAR FILM CAP 0.012uF 50V	マイラーコン	C413,414		
	FA154150	MYLAR FILM CAP 0.015uF 50V	マイラーコン	C437,440		
	FA154470	MYLAR FILM CAP 0.047uF 50V	マイラーコン	C436,441		
	FA155100	MYLAR FILM CAP 0.1uF 50V	マイラーコン	C438,439		
	UT452100	POLYPROPYLENE FILM CAP 100pF 100V	PPコン	C404,405		
	UT452220	POLYPROPYLENE FILM CAP 220pF 100V	PPコン	C418,419		
	UT453470	POLYPROPYLENE FILM CAP 4700pF 100V	PPコン	C408,409	G	
	UT454100	POLYPROPYLENE FILM CAP 0.01uF 100V	PPコン	C408,409	U,C,R,A,B	
	UT654180	POLYPROPYLENE FILM CAP 0.018uF 100V	PPコン	C403,406		
	UT454270	POLYPROPYLENE FILM CAP 0.027uF 100V	PPコン	C428,432		
	UT655100	POLYPROPYLENE FILM CAP 0.1uF 100V	PPコン	C427,431		
	VF611200	MULTILAYER CERAMIC CAP 0.1uF 50V	積層セラコン	C402,459-461		
	VG286600	ELECTROLYTIC CAP 1000uF 6.3V	ケミコン	C411,412,415,416,420,430,444,446,448		
	VG286800	ELECTROLYTIC CAP 100uF 10V	ケミコン	C407,410		
	VG287400	ELECTROLYTIC CAP 33uF 16V	ケミコン	C449-458		
	VG288500	ELECTROLYTIC CAP 10uF 25V	ケミコン	C417,420,434,442,443,		
				445,447		
	VG288900	ELECTROLYTIC CAP 100uF 25V	ケミコン	C422-425		
	VC780700	ELECTROLYTIC CAP 1000uF 25V	ケミコン	C433,435		
	VB056900	COIL ELFO505RA 220uH	コイル	L403,404		
	VF541100	COIL ELFO505RA 15uH	コイル	L401,402	G	
	HV453470	FLAME PROOF CARBON RESISTOR 4.7Ω 1/4W	不燃化カーボン抵抗	R440,442,447,449		△
	HV454100	FLAME PROOF CARBON RESISTOR 10Ω 1/4W	不燃化カーボン抵抗	R485,486		△
	HV454330	FLAME PROOF CARBON RESISTOR 33Ω 1/4W	不燃化カーボン抵抗	R503-505		
	HV455100	FLAME PROOF CARBON RESISTOR 100Ω 1/4W	不燃化カーボン抵抗	R451,468,487,488		△
	HV456220	FLAME PROOF CARBON RESISTOR 2.2KΩ 1/4W	不燃化カーボン抵抗	R407,409,414,416		△
	HU574100	METAL FILM RESISTOR 10Ω 1/4W	金属皮膜抵抗	R402,405		
	HU594220	METAL FILM RESISTOR 22Ω 1/4W	金属皮膜抵抗	R424,431	U,C,R,A,B	
	HU574560	METAL FILM RESISTOR 56Ω 1/4W	金属皮膜抵抗	R424,431	G	
	HU574470	METAL FILM RESISTOR 47Ω 1/4W	金属皮膜抵抗	R408,415	G	
	HU574560	METAL FILM RESISTOR 56Ω 1/4W	金属皮膜抵抗	R473,474		
	HU594750	METAL FILM RESISTOR 75Ω 1/4W	金属皮膜抵抗	R497-502		
	HU575100	METAL FILM RESISTOR 100Ω 1/4W	金属皮膜抵抗	R401,406,456,463		
	HU575120	METAL FILM RESISTOR 120Ω 1/4W	金属皮膜抵抗	R470,477		
	HU575220	METAL FILM RESISTOR 220Ω 1/4W	金属皮膜抵抗	R441,448	U,C,R,A,B	
	HU576150	METAL FILM RESISTOR 1.5KΩ 1/4W	金属皮膜抵抗	R441,448	G	
	HU575330	METAL FILM RESISTOR 330Ω 1/4W	金属皮膜抵抗	R469,478,479,484		
	HU575560	METAL FILM RESISTOR 560Ω 1/4W	金属皮膜抵抗	R458,460		
	HU576100	METAL FILM RESISTOR 1KΩ 1/4W	金属皮膜抵抗	R403,404		
	HU576120	METAL FILM RESISTOR 1.2KΩ 1/4W	金属皮膜抵抗	R452,454,464,466		
	HU576220	METAL FILM RESISTOR 2.2KΩ 1/4W	金属皮膜抵抗	R410-413,418,425,430,		
				437		
	HU576270	METAL FILM RESISTOR 2.7KΩ 1/4W	金属皮膜抵抗	R472,476		
	HU576470	METAL FILM RESISTOR 4.7KΩ 1/4W	金属皮膜抵抗	R419,436		
	HU576510	METAL FILM RESISTOR 5.1KΩ 1/4W	金属皮膜抵抗	R481,482		
	HU576560	METAL FILM RESISTOR 5.6KΩ 1/4W	金属皮膜抵抗	R459,461,501-508		

*New Parts (新規部品)

ランク : Japan only

Ref. NO.	PART NO.	Description	部 品 名	Remarks	Markets	ランク
	HU576680	METAL FILM RESISTOR	0.8KΩ 1/4W	金属皮膜抵抗	R439,443,446,450	
	HU577100	METAL FILM RESISTOR	10KΩ 1/4W	金属皮膜抵抗	R444,445	
	HU577150	METAL FILM RESISTOR	15KΩ 1/4W	金属皮膜抵抗	R453,465,509-511	
	HU577220	METAL FILM RESISTOR	22KΩ 1/4W	金属皮膜抵抗	R417,420,421,426,429,434,435,438	
	HU577330	METAL FILM RESISTOR	33KΩ 1/4W	金属皮膜抵抗	R455,467,471,475	
	HU577470	METAL FILM RESISTOR	47KΩ 1/4W	金属皮膜抵抗	R457,462	
	HU577620	METAL FILM RESISTOR	62KΩ 1/4W	金属皮膜抵抗	R480,483	
	HU573150	METAL FILM RESISTOR	1.5Ω 1/4W	金属被膜抵抗	R427,428	
	HU574180	METAL FILM RESISTOR	18Ω 1/4W	金属被膜抵抗	R422,423,432,433	
	XC632A00	IC	NJM5532SD	I C	IC401-404	
	XH436A00	IC	LA7956	I C	IC405-407	
	VF926500	LIGHT DETECTING MODULE	GP1U501X	リモコン受光ユニット	U401	
	KA902890	ROTARY SWITCH	SSR26602D	ロータリーSW	SW401	
	VE384500	PIN JACK	T6180-A	ピンジャック	PJ401	
	VG217400	PIN JACK	T6180-CAAF	ピンジャック	PJ402-404	
	iB056020	TRANSISTOR	2SB560	トランジスタ	Q410,411	
	iC181521	TRANSISTOR	2SC1815 Y	トランジスタ	Q413-418	
	iD043810	TRANSISTOR	2SD438	トランジスタ	Q409,412	
	iB073700	TRANSISTOR	2SB737 Q.R.S	トランジスタ	Q401,402,407,408	
	iD078600	TRANSISTOR	2SD786 Q.R.S	トランジスタ	Q403-406	
	iE102480	FET	2SK170 GR,BL	F E T	Q419-422	
	LB918030	BASE PIN	3P	ベースツキポスト	CB2	
	iF004600	DIODE	1SS133 T-77	ダイオード	D401-408,419-421	
	VG438000	ZENER DIODE	MTZJ6.2B 6.2V	ツェナーダイオード	D409,410	
	Vi013600	LED	SLR-34VC3H3	L E D	D422	
	Vi594300	MAIN CIRCUIT BOARD		メインシート		U,C
	Vi594400	MAIN CIRCUIT BOARD		メインシート		R
	Vi594500	MAIN CIRCUIT BOARD		メインシート		A,B
	Vi594600	MAIN CIRCUIT BOARD		メインシート		G
	FA153330	MYLAR FILM CAP	3300pF 50V	マイラーコン	C99,102	
	FA153470	MYLAR FILM CAP	4700pF 50V	マイラーコン	C58,68	
	UA654510	MYLAR FILM CAP	0.051uF 50V	マイラーコン	C90,91,97,98	
	Vi503300	MYLAR FILM CAP	0.012uF 100V	マイラーコン	C92-95	
	Vi504200	MYLAR FILM CAP	0.068uF 100V	マイラーコン	C70,72,76,83	
	UT452100	POLYPROPYLENE FILM CAP	100pF 100V	PPコン	C52,53,59,66,78,81,126,127,138,139	
	UT452220	POLYPROPYLENE FILM CAP	220pF 100V	PPコン	C1,2	G
	UT452560	POLYPROPYLENE FILM CAP	560pF 100V	PPコン	C106,107	
	UT454100	POLYPROPYLENE FILM CAP	0.01uF 100V	PPコン	C135-137,141,142	
	UT454470	POLYPROPYLENE FILM CAP	0.047uF 100V	PPコン	C69,71	
	FG212220	CERAMIC CAP	220pF 50V	セラコン	C3-14,22,23,28,29,34,35,40,41	G
	FG212330	CERAMIC CAP	330pF 50V	セラコン	C85,86	
	FG244100	CERAMIC CAP	0.01uF 50V	セラコン	C73	
	Fi514100	CERAMIC CAP	0.01uF VA-1	スパークキラーコン	C140	
	UH117470	ELECTROLYTIC CAP	47uF 6.3V	ケミコン	C130,131	
	VG286300	ELECTROLYTIC CAP	220uF 6.3V	ケミコン	C109	

※New Parts (新規部品)

ランク : Japan Only



Part No.	Description		部 品 名	Remarks	Markets	ランク
VG287500	ELECTROLYTIC CAP	47uF 16V	ケミコン	C163,164		
VG288500	ELECTROLYTIC CAP	10uF 25V	ケミコン	C15-20,25,26,31,32,37, 38,43-48,51,54,62,63, 75,84,103,112,116-119, 165,166		
VG288600	ELECTROLYTIC CAP	22uF 25V	ケミコン	C111		
VG288700	ELECTROLYTIC CAP	33uF 25V	ケミコン	C167		
VG288900	ELECTROLYTIC CAP	100uF 25V	ケミコン	C57,67,89,96,114,168		
VG289000	ELECTROLYTIC CAP	220uF 25V	ケミコン	C160,161		
VG290000	ELECTROLYTIC CAP	0.1uF 50V	ケミコン	C133		
VG290200	ELECTROLYTIC CAP	0.33uF 50V	ケミコン	C60,64		
VG290500	ELECTROLYTIC CAP	1uF 50V	ケミコン	C77,82,87,88,110		
VG290700	ELECTROLYTIC CAP	3.3uF 50V	ケミコン	C61,65		
VG290600	ELECTROLYTIC CAP	2.2uF 50V	ケミコン	C134		
VG290800	ELECTROLYTIC CAP	4.7uF 50V	ケミコン	C100,101,122,123		
VE990600	ELECTROLYTIC CAP	220uF 16V	ケミコン	C104		
VJ016500	ELECTROLYTIC CAP	47uF 50V	ケミコン	C113		
VF248400	ELECTROLYTIC CAP	470uF 25V	ケミコン	C120		
VG892500	ELECTROLYTIC CAP	4700uF 50V	ケミコン	C121,124		
UK166100	ELECTROLYTIC CAP	1uF 50V	B P ケミコン	C159		
UK166470	ELECTROLYTIC CAP	4.7uF 50V	ケミコン	C49,50,55,56		
VB170100	ELECTROLYTIC CAP	4.7mF 5.5V	バックアップケミコン	C74		
HV453100	FLAME PROOF CARBON RESISTOR	1Ω 1/4W	不燃化カーボン抵抗	R295,296,334		⚠
HV454100	FLAME PROOF CARBON RESISTOR	10Ω 1/4W	不燃化カーボン抵抗	R245,246,249,250		⚠
HV454220	FLAME PROOF CARBON RESISTOR	22Ω 1/4W	不燃化カーボン抵抗	R155,254,288,340		⚠
HV454390	FLAME PROOF CARBON RESISTOR	39Ω 1/4W	不燃化カーボン抵抗	R217		⚠
HV455100	FLAME PROOF CARBON RESISTOR	100Ω 1/4W	不燃化カーボン抵抗	R208,209,229,252		
HV456560	FLAME PROOF CARBON RESISTOR	5.6KΩ 1/4W	不燃化カーボン抵抗	R238		
HU574100	METAL FILM RESISTOR	10Ω 1/4W	金属皮膜抵抗	R270,272,277,279,297, 299,302,304		
HU574470	METAL FILM RESISTOR	47Ω 1/4W	金属皮膜抵抗	R158,163,271,278		
HU575100	METAL FILM RESISTOR	100Ω 1/4W	金属皮膜抵抗	R1-6,9,10,13,14,17,18, 21,22	U,C,R,A,B	
HU575220	METAL FILM RESISTOR	220Ω 1/4W	金属皮膜抵抗	R1-6,9,10,13,14,17,18, 21,22	G	
HU575100	METAL FILM RESISTOR	100Ω 1/4W	金属皮膜抵抗	R150,152,194,201,220, 223		
HU575220	METAL FILM RESISTOR	220Ω 1/4W	金属皮膜抵抗	R125,128,129,132,196, 199		
HU575330	METAL FILM RESISTOR	330Ω 1/4W	金属皮膜抵抗	R7,8,11,12,15,16,19,20		
HU575560	METAL FILM RESISTOR	560Ω 1/4W	金属皮膜抵抗	R149,151,197,198		
HU575680	METAL FILM RESISTOR	680Ω 1/4W	金属皮膜抵抗	R184,185		
HU576100	METAL FILM RESISTOR	1KΩ 1/4W	金属皮膜抵抗	R143-147,154,204,205, 207,253,260,289,345		
HU576200	METAL FILM RESISTOR	2KΩ 1/4W	金属皮膜抵抗	R148,153,221,222		
HU576220	METAL FILM RESISTOR	2.2KΩ 1/4W	金属皮膜抵抗	R35,42,47,54,59,66,71, 78,264,265,268,269, 273,275		
HU576330	METAL FILM RESISTOR	3.3KΩ 1/4W	金属皮膜抵抗	R182,183,186,187,261, 266,283,285		

*New Parts (新規部品)

ランク : Japan Only

Ref. NO.	PART NO.	Description	部 品 名	Remarks	Markets	ランク
	HU576470	METAL FILM RESISTOR 4.7K Ω 1/4W	金属皮膜抵抗	R83,86,87,90,91,94,95, 98,99,102,103,106,107, 110,259,166-168,171, 189-193,202,215,216, 218,224,237,263,280,		
	IIU576680	METAL FILM RESISTOR 6.8K Ω 1/4W	金属皮膜抵抗	287 R156,164,244,247,248,		
	IIU576820	METAL FILM RESISTOR 8.2K Ω 1/4W	金属皮膜抵抗	251		
	HU576910	METAL FILM RESISTOR 9.1K Ω 1/4W	金属皮膜抵抗	R241		
	IIU577100	METAL FILM RESISTOR 10K Ω 1/4W	金属皮膜抵抗	R203,206		
	IIU577150	METAL FILM RESISTOR 15K Ω 1/4W	金属皮膜抵抗	R175,176,188,212,228, 231,240,243,267,300, 301,325-331,338 R239,294,298,303,336, 337		
	IIU577180	METAL FILM RESISTOR 18K Ω 1/4W	金属皮膜抵抗	R211,255,291		
	IIU577220	METAL FILM RESISTOR 22K Ω 1/4W	金属皮膜抵抗	R36,39,48,51,60,63,72, 75,84,85,88,89,92,93, 96,97,100,101,104,105, 108,109,169,170,210,		
	IIU577470	METAL FILM RESISTOR 47K Ω 1/4W	金属皮膜抵抗	262 R219,225,282,284,323, 324		
	IIU577820	METAL FILM RESISTOR 82K Ω 1/4W	金属皮膜抵抗	R236		
	HU578100	METAL FILM RESISTOR 100K Ω 1/4W	金属皮膜抵抗	R23-34,43-46,55-58,		
	IIU578120	METAL FILM RESISTOR 120K Ω 1/4W	金属皮膜抵抗	67-70,79-82,180,181, 332,333,341,342,347 R174,177		
	IIU598220	METAL FILM RESISTOR 220K Ω 1/4W	金属皮膜抵抗	R111-116,133-138,142, 213,214,234,235,256, 257,292,121-123,195, 200,335,343,344,346 R126,127,130,131 R160,161,173,178,339 R159,162,172,179		
	Vi515500	METAL FILM RESISTOR 330K Ω 1/4W	金属皮膜抵抗	R310,311		
	HU578470	METAL FILM RESISTOR 470K Ω 1/4W	金属皮膜抵抗	IC1-7,12,13		
	HU579100	METAL FILM RESISTOR 1M Ω 1/4W	金属皮膜抵抗	IC10		
	HL324680	METAL OXIDE RESISTOR 68 Ω 2W	酸化金属被膜抵抗	IC14		
	iG069200	IC NJM2041D-D	IC	IC15		
	iG152500	IC BA6229	IC	IC8		
	XAG73A00	IC NJM5532D-D	IC	IC11		
	iG077400	IC NJM4556S	IC	SW7		
	XA549001	IC LB1294	IC	SW6		
	XG990B00	IC LC6512A-4345	IC	SW8,9		
	VG707400	PUSH SWITCH	IC	SW1		
	Vi623700	ROTARY SWITCH	IC	SW2-5		
	VE327300	PUSH SWITCH	IC	RY1		
	VJ004000	PUSH SWITCH	IC	F1		
	VF337700	PUSH SWITCH	IC	TE3		
	VD506000	RELAY	IC			
	KB002980	FUSE	IC			
	LA002580	LAPPING TERMINAL	IC			

*New Parts (新規部品)

ランク : Japan only

Ref. NO.	PART NO.	Description	部 品 名	Remarks	Markets	ランク
※	LA002040	LAPPING TERMINAL	5P	ラッピング端子	TE1	
	LA003870	LAPPING TERMINAL	2P	ラッピング端子	TE2	
	LB401290	PIN JACK	T5857-A	ピンコネクタ	PJ1,2-6	
	Vi435500	MINI JACK		ミニジャック	JK2	
	Vi783700	PHONES JACK	M1659-ARAA	ヘッドホーンジャック	JK1	
※	LB500710	SOCKET	5P	S T コネクターソケット	JK3	
	LB608390	SOCKET	6P	S T コネクターソケット	JK4	
	VD004500	BASE PIN	2P	ベースピン	CB1	
	VD004700	BASE PIN	4P	ベースピン	CB3,5	
	VD005000	BASE PIN	7P	ベースピン	CB2	
※	VD005300	BASE PIN	10P	ベースピン	CB4	
	LB018030	BASE PIN	3P	ベースツキポスト	CB6	
	GG000700	CERAMIC RESONATOR	400K	セラミック振動子	XL1	
	VR661000	PRE-SET POTENTIOMETER	B470Ω	半固定抵抗	VR6,7	
	VA984800	POTENTIOMETER	20KΩ	二連ロータリーV R	VR5	
※	VE854600	POTENTIOMETER	MN30KΩ	二連ロータリーV R	VR3	
	VF338000	POTENTIOMETER	18KΩ	二連ロータリーV R	VR4	
	VF990900	POTENTIOMETER	30KΩ	二連ロータリーV R	VR2	
	Vi619200	POTENTIOMETER WITH MOTOR	60KΩ	モーター付V R	VR1	
	iA101521	TRANSISTOR	2SA1015 Y	トランジスタ	Q43,44,55,56,66,67,69,	
※	iB056020	TRANSISTOR	2SB560	トランジスタ	71,75,81,88,89,94	
	iC1815C0	TRANSISTOR	2SC1815 Y	トランジスタ	Q62,63	
	iC224000	TRANSISTOR	2SC2240 GR,BL	トランジスタ	Q45,47,49,52,68,70,73, 74,90,91	⚠
※	iC332700	TRANSISTOR	2SC3327	トランジスタ	Q1-40	
	iC287820	TRANSISTOR	2SC2878 A,B	トランジスタ	Q50,51,61,64,77-80, 83-86	
	iD043810	TRANSISTOR	2SD438	トランジスタ	Q60,65	
	iD127510	TRANSISTOR	2SD1275 P,Q,R	トランジスタ	Q72	
※	iB094910	TRANSISTOR	2SB049 P,Q,R	トランジスタ	Q46,76	
	VC407900	TRANSISTOR	2SD1913 R,S	トランジスタ	Q58	
	iC338100	TRANSISTOR	2SC3381 GR,BL	トランジスタ	Q41,42	
	VD678500	DIGITAL TRANSISTOR	DTA114ES	デジタルトランジスタ	Q92	
	VD678700	DIGITAL TRANSISTOR	DTC114ES	デジタルトランジスタ	Q82,87	
※	iF004600	DIODE	1SS133 T-77	ダイオード	D10-22,24,47,49,51	
	ViH01600	DIODE	1SR139-100	ダイオード	D25-32,50	
	VG437600	ZENER DIODE	MTZJ5.6A 5.6V	ツェナーダイオード	D9,44	
	VG438100	ZENER DIODE	MTZJ6.2C 6.2V	ツェナーダイオード	D43,48	
※	VG440500	ZENER DIODE	MTZJ13B 13V	ツェナーダイオード	D46	
	Vi013600	LED	SLR-34VC3H3	L E D	D41,42	
	VF402500	LED	SLR-34DC3H3	L E D	D33-40	
	LB201060	FUSE HOLDER PIN		ヒューズホルダピン		G
※	VE999300	HEAT SINK		ヒートシンク		
	ED330066	BINDING HEAD SCREW	3x6 FCM3-BL	バインドヘッド小ネジ		
※	BB069510	GROUND PLATE		ランド金具		

※ New Parts (新規部品)

ランク : Japan only

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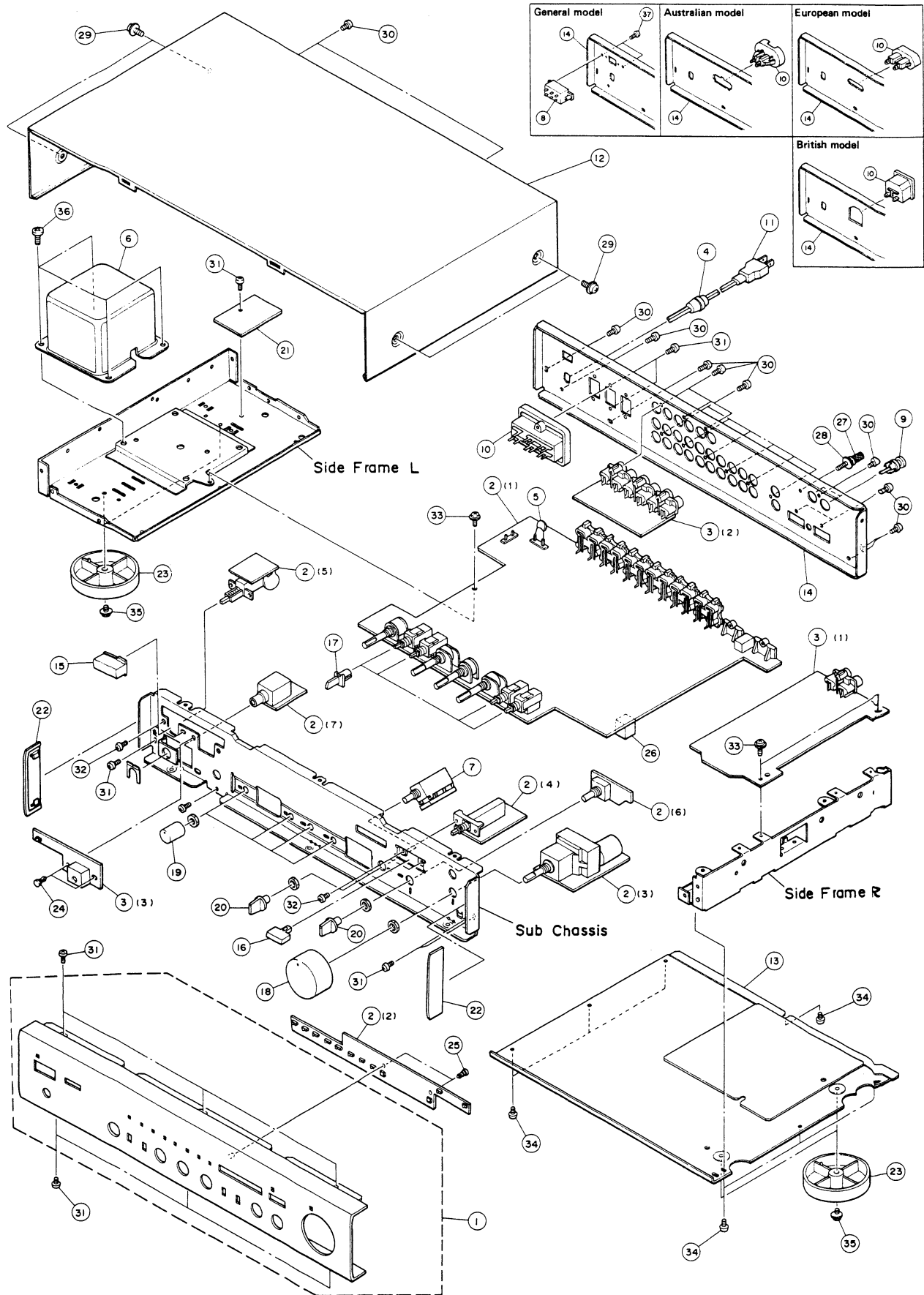
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D

CX-830

EXPLODED VIEW



MECHANISM PARTS

Ref. NO.	PART NO.	Description	部 品 名	Remarks	Markets	ランク
01	Vi593900	PANEL UNIT	パネルユニット	BL		
01	Vi594100	PANEL UNIT	パネルユニット	T		
02	Vi594300	MAIN CIRCUIT BOARD	メインシート		U,C	
02	Vi594400	MAIN CIRCUIT BOARD	メインシート		R	
02	Vi594500	MAIN CIRCUIT BOARD	メインシート		A,B	
02	Vi594600	MAIN CIRCUIT BOARD	メインシート		G	
03	Vi594700	EQUALIZER CIRCUIT BOARD	イコライザーシート		U,C,R,A,B	
03	Vi594800	EQUALIZER CIRCUIT BOARD	イコライザーシート		G	
04	CB620200	CORD STOPPER	コードストッパー		U,C	
04	CB620190	CORD STOPPER	コードストッパー		R,A,B,G	
05	Fi384100	CERAMIC CAP	規格認定コン		A,B,G	
06	XH008A00	POWER TRANSFORMER	電源トランス		U,C	
06	XH009A00	POWER TRANSFORMER	電源トランス		R	
06	XH010A00	POWER TRANSFORMER	電源トランス		A,B	
06	XH011A00	POWER TRANSFORMER	電源トランス		G	
07	Vi635900	SWITCH OPERATER	リモート操作+ワイヤー			
08	VE962600	SLIDE SWITCH	スライドSW		R	
09	LB100180	SHORT,PLUG	ショートプラグ			
10	LB608130	AC OUTLET	ACアウトレット		U,C,R	
10	VC626100	AC OUTLET	電源コネクタ		A	
10	VC627000	AC OUTLET	電源コネクタ		B	
10	Vi783900	AC OUTLET	ACアウトレット		G	
11	MG002220	POWER CORD	電源コード		U,C	
11	MG002310	POWER CORD	電源コード		A	
11	MG002330	POWER CORD	電源コード		B	
11	MG002320	POWER CORD	電源コード		G	
11	VE371000	POWER CORD	電源コード		R	
12	Vi066000	TOP COVER	トップカバー	BL		
12	Vi066100	TOP COVER	トップカバー	T		
13	Vi493900	BOTTOM COVER	ボトムカバー			
14	Vi066400	REAR PANEL	リヤパネル		U,C	
14	Vi066500	REAR PANEL	リヤパネル		R,P	
14	Vi066600	REAR PANEL	リヤパネル		A	
14	Vi066700	REAR PANEL	リヤパネル		B	
14	Vi066800	REAR PANEL	リヤパネル		G	
15	VH841900	BUTTON	ボタン	BL		
15	VH842000	BUTTON	ボタン	T		
16	VH877000	BUTTON	ボタン	BL		
16	VH877100	BUTTON	ボタン	T		
17	Vi210300	BUTTON	ボタン	BL		
17	Vi210200	BUTTON	ボタン	T		
18	Vi065300	KNOB	ノブ	BL		
18	Vi065400	KNOB	ノブ	T		
19	VH889200	KNOB	ノブ	BL		
19	VH889300	KNOB	ノブ	T		
20	Vi251000	KNOB	ノブ	BL		
20	Vi251100	KNOB	ノブ	T		
21	Vi922500	SHEET	シートアイソレーション			
22	Vi068400	SIDE COVER	サイドカバー	BL		
22	Vi068500	SIDE COVER	サイドカバー	T		

*New Parts (新規部品)

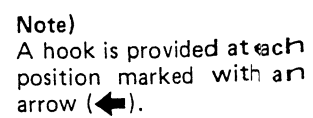
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Ref. NO.	PART NO.	Description	部 品 名	Remarks	Markets	ランク
23	VF639400	LEG	レッグ	BL		
23	Vi031600	LEG	レッグ	T		
24	CB605620	PLASTIC RIVET	ブラリベット			
25	CB068880	PLASTIC RIVET	ブラリベット			
26	VF274900	DAMPER	ダンパー			
27	AA627310	GROUND TERMINAL	GNDターミナル			
28	EV265560	PLAIN WASHER	3.6x10x0.8 FNM3-3G 平座金みがき丸			
29	EX601080	CUP SCREW	4x8-10 FCM3-BL カップネジ	BL		
29	EX601150	BW HEAD S-TYTE SCREW	4x8-10 FNM3-BL BWヘッドSタイトネジ	T		
30	EZ000460	BIND HEAD BONDING TAP. SCREW	3x8 FCM3-BL ボンディングタッピング			
31	Ei330086	BINDING HEAD TAPPING SCREW	3x8 FCRM3-BL バインドタッピングネジ			
32	ED330066	BINDING HEAD SCREW	3x6 FCM3-BL バインド小ネジ			
33	EX600240	BW HEAD TAPPING SCREW	3x8 FCM3-BL BWヘッドタッピングネジ			
34	Ei330066	BINDING HEAD TAPPING SCREW	3x6 FCRM3-BL バインドタッピングネジ			
35	EK336020	BW HEAD TAPPING SCREW	3x6 FCM3-BL BWヘッドタッピングネジ			
36	Ei340086	BINDING HEAD TAPPING SCREW	4x8 FCRM3-BL バインドタッピングネジ			
37	EJ326086	PAN HEAD TAPPING SCREW	2.6x8 FCM3-BL ナベタッピングネジ		R,P	
38	CB069250	BINDING TIE	BK-1 束線止め			
39	CB040540	BINDING TIE	束線止め			
		ACCESSORIES	付属品			
	Vi352400	REMOTE CONTROL TRANSMITTER DRY CELL	SUM-3,R6,AA リモコントランスミッター マンガン電池		U,C U,C	
	Vi467700	REMOTE CONTROL TRANSMITTER DRY CELL	UM-4,R03,AAA トランスミッター マンガン電池		R,A,B,G R,A,B,G	
	Vii447900	ACCESSORIES ASSY	LABEL 付属品ASSY		U,C	
	Mi066210	PIN CORD	1.2M 出力コード			
	VA945800	CONNECTOR	500MM コネクタ			
	VA945900	CONNECTOR	500MM コネクタ			
	Mi081780	CORD WITH MINI-PLUG	1.2M ミニプラグコード			

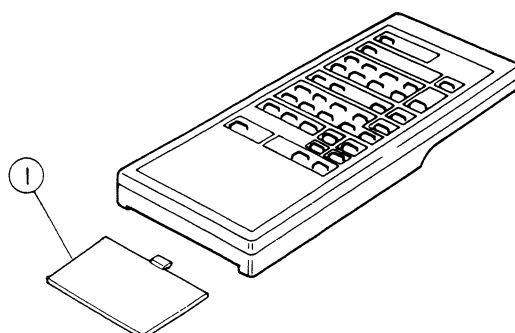
※New Parts (新規部品)

ランク : Japan only

- **U.S.A. and Canadian models**



- European, British, Australian and General models



Ref. NO.	PART NO.	Description	部 品 名	Remarks	Markets	ランク
01	Vi352400	REMOTE CONTROL TRANSMITTER	リモコン		B.C	21
02	CX613230	CASE (A) ASS'Y	上ケース ASSY			
03	CX611070	CASE (B)	下ケース		UR66CS200B	
04	CX611080	LID	電池蓋		UR66EC201B	
05	CX607950	FILTER, SMOKE	スモーク板		UR66SU257	
06	CX611090	RUBBER, CONTACT (A)	ゴム接点 (A)		UR66CT202M	
07	CX613210	RUBBER, CONTACT (B)	ゴム接点 (B)		UR66CT203L	
08	CX613220	RUBBER, CONTACT	ゴム接点		UR66CT204L	
09	CX608090	KNOB	ノブ		UR66VTM83	
10	NX607300	P.C.B. ASS'Y	プリント基板 ASSY		UR66VPB133	
11	LX602520	TERMINAL, BATTERY	電極板		UR66TD239	
12	EO320066	FLAT HEAD TAPPING SCREW 2x6 FCRM3-BL	皿タッピングネジ	PACK	XTS2+6GFZ	
	EJO20056	PAN HEAD TAPPING SCREW 2x5 ZMC2-Y	ナベタッピングネジ	PACK	XTB2+5GFZ	
	NX607300	P.C.B. ASS'Y	プリント基板 ASSY		UR66VPB133	
	IX612280	PHOTO DIODE TPS705	フォトダイオード	D1		
	IX614280	LED (RED) LN01201CQ	LED	D2, 3		
	IX612290	LED SE303AS	赤外線 LED	D4, 5		
	QX600270	CERAMIC RESONATOR CSA737MT	セラミック発振子	X1		
	UJ118100	ELECTROLYTIC CAP 100uF 6.3V	ケミコン	C9		
	UJ118220	ELECTROLYTIC CAP 220uF 6.3V	ケミコン	C6		
	LX602530	TERMINAL, BATTERY	電極板	(-)	UR66TD209	
	LX602540	TERMINAL, BATTERY	電極板	(+)	UR66TD208	
01	Vi467700	REMOTE CONTROL TRANSMITTER	リモコン		R.A.B.G	
	CX613770	LID	電池蓋		PM1-562-12	

*New Parts (新規部品)

ランク : Japan only

A

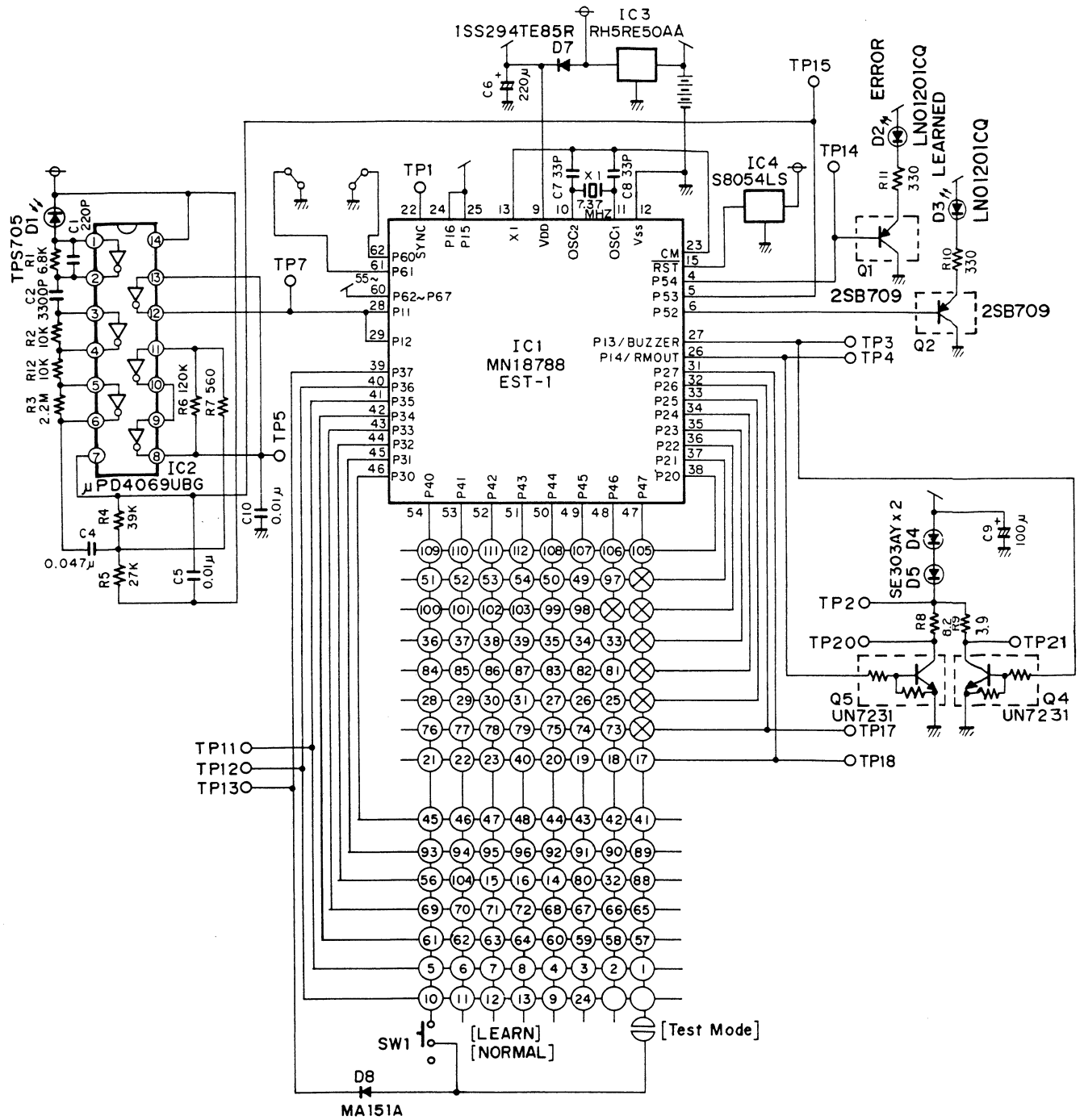
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C

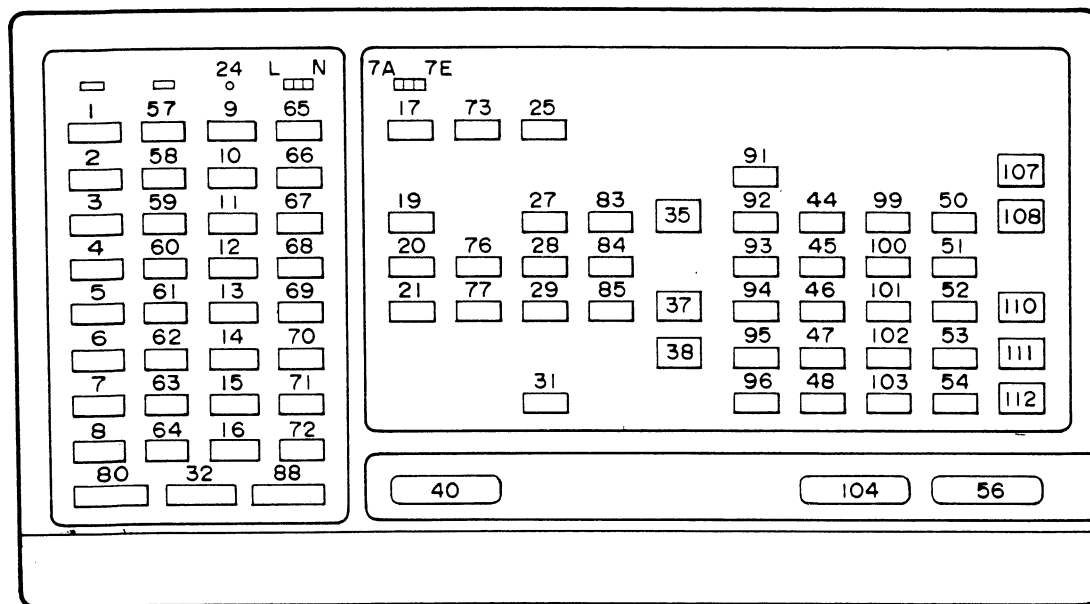
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CX-830

● U.S.A. and Canadian models

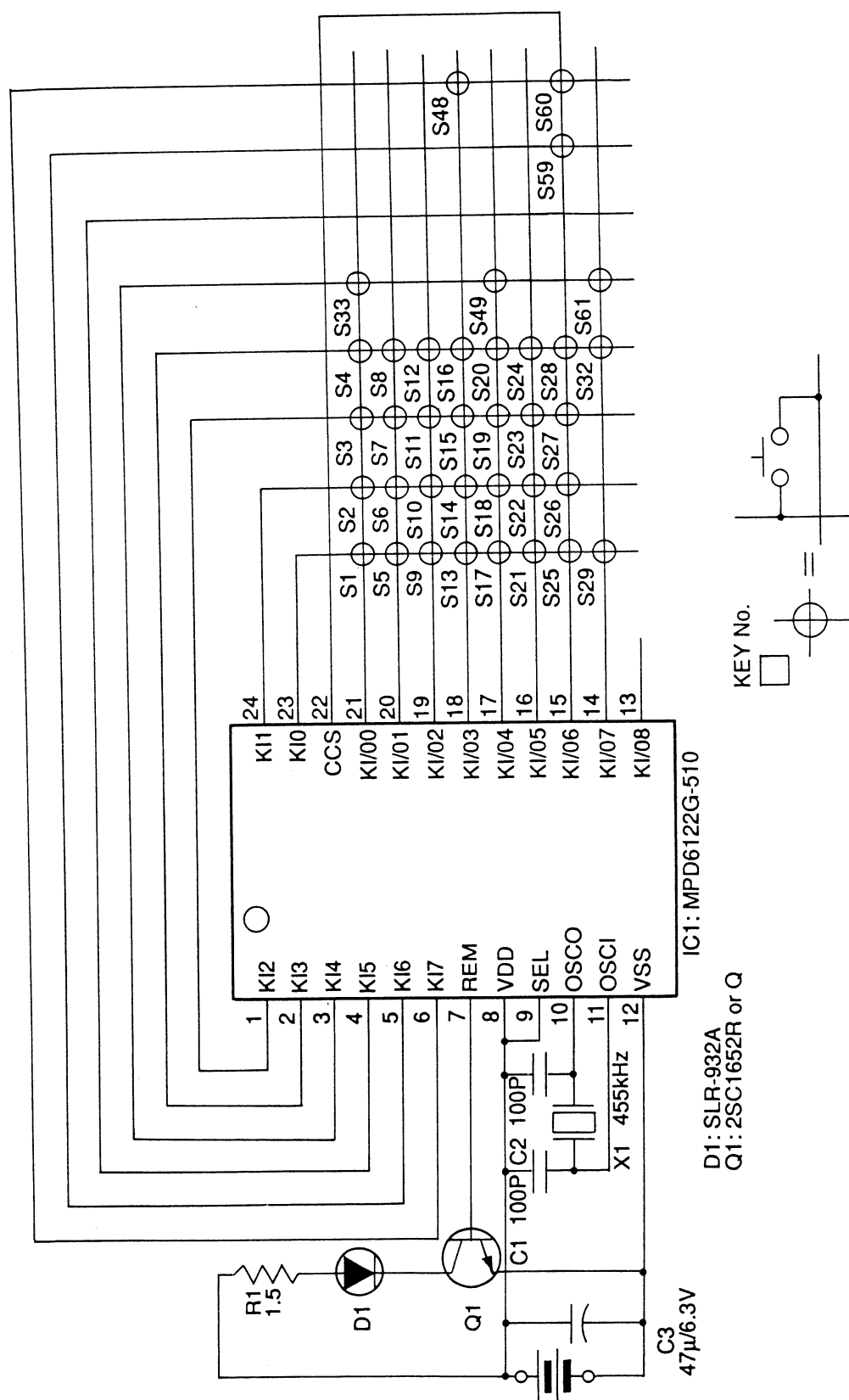


- U.S.A. and Canadian models



Key No.	FUNCTION	OUTPUT CODE	Key No.	FUNCTION	OUTPUT CODE	Key No.	FUNCTION	OUTPUT CODE
1~16	LEARNING		44	CD SKIP $\triangleright\triangleleft$	7A-0A	—	—	—
17	EQ PRESET DOWN	7A-5C	45	CD SEARCH $\triangleright\triangleright$	7A-0C	88	LEARNING	—
19	LD OPEN/CLOSE	7C-01	46	TUNER P. DOWN	7A-11	—	—	—
20	LD CHAPTER "L"	7C-02	47	TAPE DIR A	7A-07	—	—	—
21	LD STILL $\triangleleft$	7C-0A	48	TAPE $\triangleleft\triangleleft$	7A-01	91	PHONO PLAY/CUT	7A-0E
—	—	—	—	—	—	92	CD SKIP $\triangleleft\triangleleft$	7A-0B
—	—	—	50	CD DISC UP	7A-4F	93	CD SEARCH $\triangleleft\triangleleft$	7A-0D
24	RESET		51	CD PLAY	7A-08	94	TAPE DECK A/B	7A-06
25	EQ ON/FLAT	7A-5A	52	TUNER A/B/C	7A-12	95	TAPE REC/PAUSE	7A-04
27	LD PAUSE/STOP	7C-04	53	TAPE DIR B	7A-40	96	TAPE REC/MUTE	7A-05
28	LD SEARCH $\triangleleft\triangleleft$	7C-06	54	TAPE $\triangleright\triangleright$	7A-02	—	—	—
29	LD SOUND	7C-12	—	—	—	—	—	—
—	—	—	56	(VOLUME UP)	(7A-1A)	99	CD DISC DOWN	7A-00
31	MUTING	7A-1C	57~72	LEARNING		100	CD PAUSE/STOP	7A-09
32	LEARNING		73	EQ PRESET UP	7A-5B	101	TUNER P. UP	7A-00
—	—	—	76	LD CHAPTER "+"	7C-03	102	TAPE PLAY	7A-00
—	—	—	77	LD STILL $\triangleright$	7C-0B	103	TAPE STOP	7A-03
35	LD	7A-17	—	—	—	104	(VOLUME DOWN)	(7A-0B)
—	—	—	—	—	—	—	—	—
37	VCR 1	7A-0F	80	LEARNING		—	—	—
38	VCR 2	7A-13	—	—	—	107	PHONO	7A-04
—	—	—	—	—	—	108	CD	7A-05
40	POWER	7A-1F	83	LD PLAY	7C-05	—	—	—
—	—	—	84	LD SEARCH $\triangleright\triangleright$	7C-07	110	TUNER	7A-06
—	—	—	85	LD DISPLAY	7C-13	111	TAPE 1	7A-08
—	—	—	—	—	—	112	TAPE 2 MONI	7A-09

• European, British, Australian and General models



D1: SLR-932A
Q1: 2SC1652R or Q

A

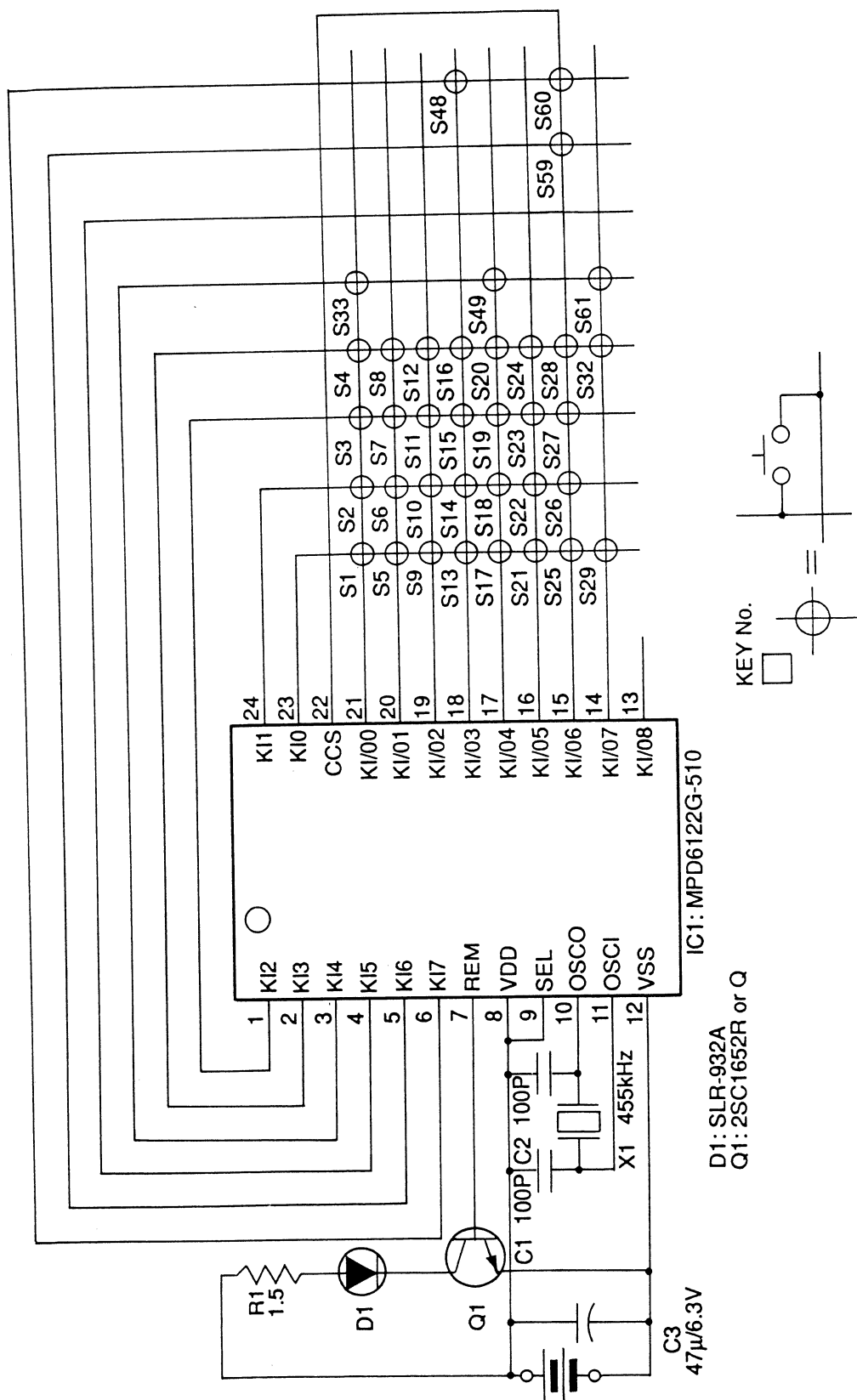
B

C

D

CX-830

- European, British, Australian and General models



A

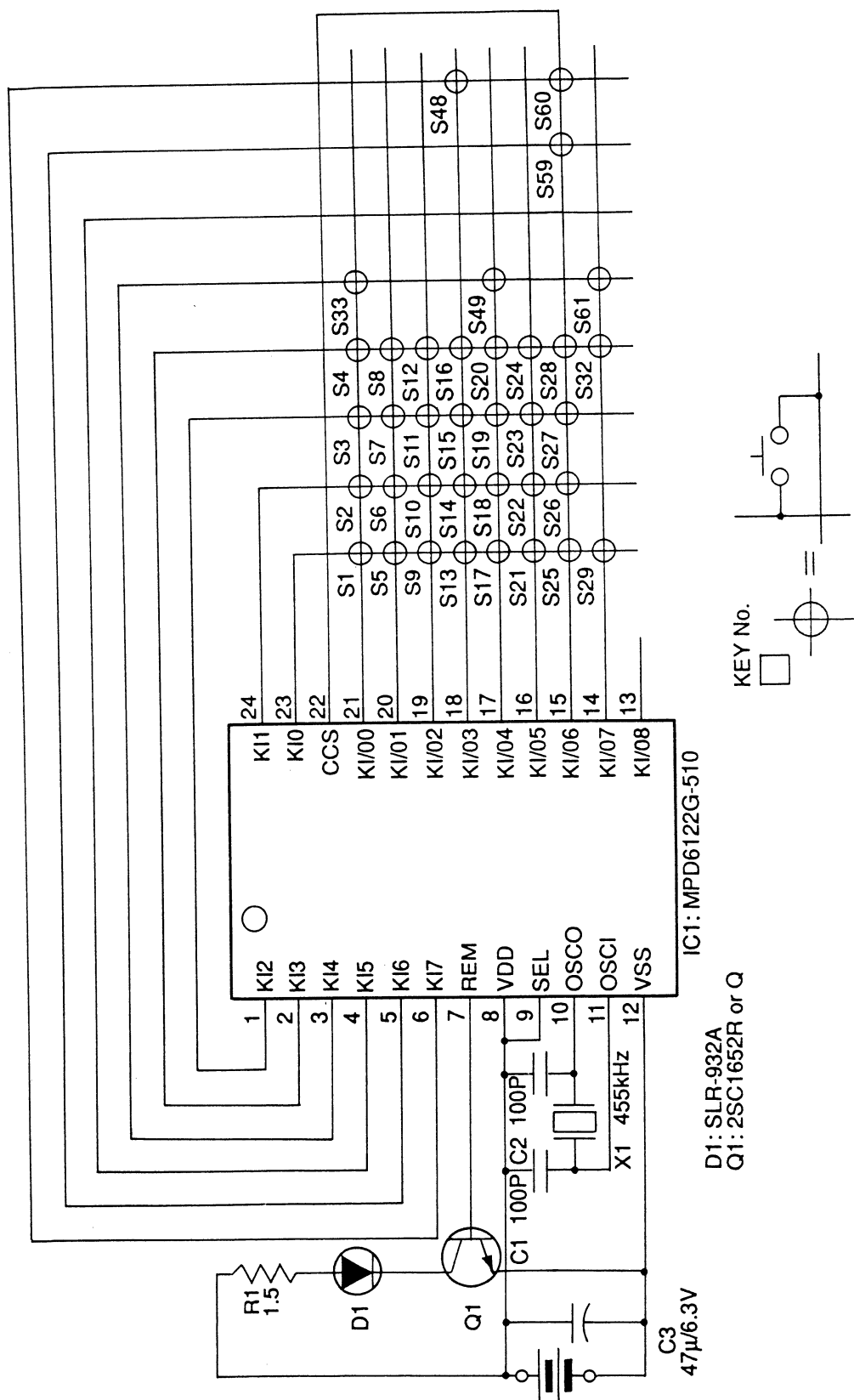
B

C

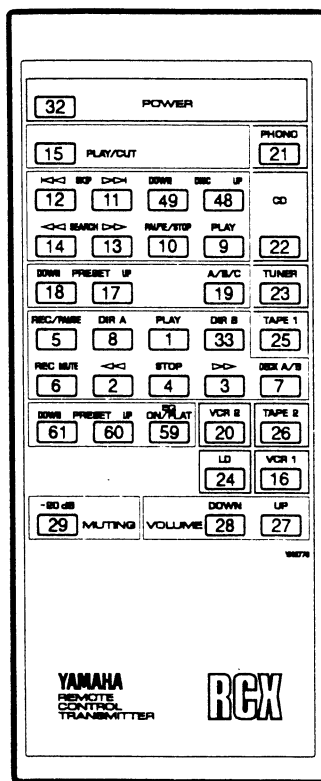
D

CX-830

- European, British, Australian and General models



- European, British, Australian and General models



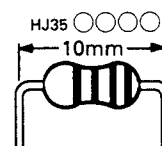
C0 C1 C2 C3 C4 C5 C6 C7
CUSTOM CODE : 0 1 0 1 1 1 1 0

KEY No.	DATA CODE								FUNCTION	KEY No.	DATA CODE								FUNCTION
	D0	D1	D2	D3	D4	D5	D6	D7			D0	D1	D2	D3	D4	D5	D6	D7	
1	0	0	0	0	0	0	0	0	PLAY (TAPE)	19	0	1	0	0	1	0	0	0	A/B/C (TUNER)
2	1	0	0	0	0	0	0	0	◀◀ (TAPE)	20	1	1	0	0	1	0	0	0	VCR 2
3	0	1	0	0	0	0	0	0	▶▶ (TAPE)	21	0	0	1	0	1	0	0	0	PHONO
4	1	1	0	0	0	0	0	0	STOP (TAPE)	22	1	0	1	0	1	0	0	0	CD
5	0	0	1	0	0	0	0	0	REC/PAUSE (TAPE)	23	0	1	1	0	1	0	0	0	TUNER
6	1	0	1	0	0	0	0	0	REC MUTE (TAPE)	24	1	1	1	0	1	0	0	0	LD
7	0	1	1	0	0	0	0	0	DECK A/B (TAPE)	25	0	0	0	1	1	0	0	0	TAPE 1
8	1	1	1	0	0	0	0	0	DIR A (TAPE)	26	1	0	0	1	1	0	0	0	TAPE 2
9	0	0	0	1	0	0	0	0	PLAY (CD)	27	0	1	0	1	1	0	0	0	VOLUME UP
10	1	0	0	1	0	0	0	0	PAUSE/STOP (CD)	28	1	1	0	1	1	0	0	0	VOLUME DOWN
11	0	1	0	1	0	0	0	0	SKIP ▶▶ (CD)	29	0	0	1	1	1	0	0	0	MUTING
12	1	1	0	1	0	0	0	0	SKIP ◀◀ (CD)	32	1	1	1	1	1	0	0	0	POWER
13	0	0	1	1	0	0	0	0	SEARCH ▶▶ (CD)	33	0	0	0	0	0	0	1	0	DIR B (TAPE)
14	1	0	1	1	0	0	0	0	SEARCH ◀◀ (CD)	48	1	1	1	1	0	0	1	0	DISK UP (CD)
15	0	1	1	1	0	0	0	0	PLAY/CUT (PHONO)	49	0	0	0	0	1	0	1	0	DISK DOWN (CD)
16	1	1	1	1	0	0	0	0	VCR 1	59	0	1	0	1	1	0	1	0	ON/FLAT (EQ)
17	0	0	0	0	1	0	0	0	PRESET UP (TUNER)	60	1	1	0	1	1	0	1	0	PRESET UP (EQ)
18	1	0	0	0	1	0	0	0	PRESET DOWN (TUNER)	61	0	0	1	1	1	0	1	0	PRESET DOWN (EQ)

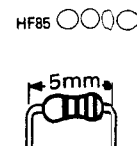
Parts List for Carbon Resistors

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	HJ35 3100	※	12K Ω	HJ35 7120	HF85 7120
1.8 Ω	HJ35 3180	※	15 Ω	HJ35 7150	HF85 7150
2.2 Ω	HJ35 3220	HF85 3220	18 Ω	HJ35 7180	HF85 7180
3.3 Ω	HJ35 3330	HF85 3330	22 Ω	HJ35 7220	HF85 7220
4.7 Ω	HJ35 3470	HF85 3470	27 Ω	HJ35 7270	HF85 7270
5.6 Ω	HJ35 3560	HF85 3560	33 Ω	HJ35 7330	HF85 7330
10 Ω	HJ35 4100	HF85 4100	39 Ω	HJ35 7390	HF85 7390
15 Ω	HJ35 4150	HF85 4150	47 Ω	HJ35 7470	HF85 7470
22 Ω	HJ35 4220	HF85 4220	56 Ω	HJ35 7560	HF85 7560
27 Ω	HJ35 4270	HF85 4270	68 Ω	HJ35 7680	HF85 7680
33 Ω	HJ35 4330	HF85 4330	82 Ω	HJ35 7820	HF85 7820
39 Ω	HJ35 4390	HF85 4390	91 Ω	HJ35 7910	HF85 7910
47 Ω	HJ35 4470	HF85 4470	100 Ω	HJ35 8100	HF85 8100
56 Ω	HJ35 4560	HF85 4560	120 Ω	HJ35 8120	HF85 8120
68 Ω	HJ35 4680	HF85 4680	150 Ω	HJ35 8150	HF85 8150
82 Ω	HJ35 4820	HF85 4820	180 Ω	HJ35 8180	HF85 8180
100 Ω	HJ35 5100	HF85 5100	220 Ω	HJ35 8220	HF85 8220
110 Ω	HJ35 5110	HF85 5100	270 Ω	HJ35 8270	HF85 8270
120 Ω	HJ35 5120	HF85 5120	330 Ω	HJ35 8330	HF85 8330
150 Ω	HJ35 5150	HF85 5150	390 Ω	HJ35 8390	HF85 8390
160 Ω	HJ35 5160	※	470 Ω	HJ35 8470	HF85 8470
180 Ω	HJ35 5180	HF85 5180	560 Ω	HJ35 8560	HF85 8560
220 Ω	HJ35 5220	HF85 5220	680 Ω	HJ35 8680	HF85 8680
270 Ω	HJ35 5270	HF85 5270	820 Ω	HJ35 8820	HF85 8820
330 Ω	HJ35 5330	HF85 5330	1.0M Ω	HJ35 9100	HF85 9100
390 Ω	HJ35 5390	HF85 5390	1.2 Ω	HJ35 9120	※
470 Ω	HJ35 5470	HF85 5470	1.5 Ω	HJ35 9150	HF85 9150
510 Ω	※	HF85 5510	1.8 Ω	HJ35 9180	HF85 9180
560 Ω	HJ35 5560	HF85 5560	2.2 Ω	HJ35 9220	HF85 9220
680 Ω	HJ35 5680	HF85 5680	3.3 Ω	HJ35 9330	HF85 9330
820 Ω	HJ35 5820	HF85 5820	3.9 Ω	HJ35 9390	※
910 Ω	HJ35 5910	HF85 5910	4.7 Ω	HJ35 9470	※
1.0K Ω	HJ35 6100	HF85 6100			
1.2 Ω	HJ35 6120	HF85 6120			
1.5 Ω	HJ35 6150	HF85 6150			
1.8 Ω	HJ35 6180	HF85 6180			
2.0 Ω	HJ35 6200	HF85 6200			
2.2 Ω	HJ35 6220	HF85 6220			
2.4 Ω	HJ35 6240	HF85 6240			
2.7 Ω	HJ35 6270	HF85 6270			
3.0 Ω	HJ35 6300	HF85 6300			
3.3 Ω	HJ35 6330	HF85 6330			
3.6 Ω	HJ35 6360	HF85 6360			
3.9 Ω	HJ35 6390	HF85 6390			
4.7 Ω	HJ35 6470	HF85 6470			
5.1 Ω	HJ35 6510	HF85 6510			
5.6 Ω	HJ35 6560	HF85 6560			
6.8 Ω	HJ35 6680	HF85 6680			
8.2 Ω	HJ35 6820	HF85 6820			
9.1 Ω	HJ35 6910	HF85 6910			
10 Ω	HJ35 7100	HF85 7100			

1/4W Type



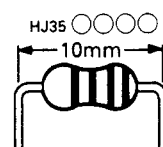
1/6W Type



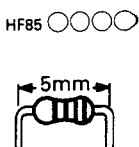
Parts List for Carbon Resistors

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	HJ35 3100	※	12K Ω	HJ35 7120	HF85 7120
1.8 Ω	HJ35 3180	※	15 Ω	HJ35 7150	HF85 7150
2.2 Ω	HJ35 3220	HF85 3220	18 Ω	HJ35 7180	HF85 7180
3.3 Ω	HJ35 3330	HF85 3330	22 Ω	HJ35 7220	HF85 7220
4.7 Ω	HJ35 3470	HF85 3470	27 Ω	HJ35 7270	HF85 7270
5.6 Ω	HJ35 3560	HF85 3560	33 Ω	HJ35 7330	HF85 7330
10 Ω	HJ35 4100	HF85 4100	39 Ω	HJ35 7390	HF85 7390
15 Ω	HJ35 4150	HF85 4150	47 Ω	HJ35 7470	HF85 7470
22 Ω	HJ35 4220	HF85 4220	56 Ω	HJ35 7560	HF85 7560
27 Ω	HJ35 4270	HF85 4270	68 Ω	HJ35 7680	HF85 7680
33 Ω	HJ35 4330	HF85 4330	82 Ω	HJ35 7820	HF85 7820
39 Ω	HJ35 4390	HF85 4390	91 Ω	HJ35 7910	HF85 7910
47 Ω	HJ35 4470	HF85 4470	100 Ω	HJ35 8100	HF85 8100
56 Ω	HJ35 4560	HF85 4560	120 Ω	HJ35 8120	HF85 8120
68 Ω	HJ35 4680	HF85 4680	150 Ω	HJ35 8150	HF85 8150
82 Ω	HJ35 4820	HF85 4820	180 Ω	HJ35 8180	HF85 8180
100 Ω	HJ35 5100	HF85 5100	220 Ω	HJ35 8220	HF85 8220
110 Ω	HJ35 5110	HF85 5100	270 Ω	HJ35 8270	HF85 8270
120 Ω	HJ35 5120	HF85 5120	330 Ω	HJ35 8330	HF85 8330
150 Ω	HJ35 5150	HF85 5150	390 Ω	HJ35 8390	HF85 8390
160 Ω	HJ35 5160	※	470 Ω	HJ35 8470	HF85 8470
180 Ω	HJ35 5180	HF85 5180	560 Ω	HJ35 8560	HF85 8560
220 Ω	HJ35 5220	HF85 5220	680 Ω	HJ35 8680	HF85 8680
270 Ω	HJ35 5270	HF85 5270	820 Ω	HJ35 8820	HF85 8820
330 Ω	HJ35 5330	HF85 5330	1.0M Ω	HJ35 9100	HF85 9100
390 Ω	HJ35 5390	HF85 5390	1.2 Ω	HJ35 9120	※
470 Ω	HJ35 5470	HF85 5470	1.5 Ω	HJ35 9150	HF85 9150
510 Ω	※	HF85 5510	1.8 Ω	HJ35 9180	HF85 9180
560 Ω	HJ35 5560	HF85 5560	2.2 Ω	HJ35 9220	HF85 9220
680 Ω	HJ35 5680	HF85 5680	3.3 Ω	HJ35 9330	HF85 9330
820 Ω	HJ35 5820	HF85 5820	3.9 Ω	HJ35 9390	※
910 Ω	HJ35 5910	HF85 5910	4.7 Ω	HJ35 9470	※
1.0K Ω	HJ35 6100	HF85 6100			
1.2 Ω	HJ35 6120	HF85 6120			
1.5 Ω	HJ35 6150	HF85 6150			
1.8 Ω	HJ35 6180	HF85 6180			
2.0 Ω	HJ35 6200	HF85 6200			
2.2 Ω	HJ35 6220	HF85 6220			
2.4 Ω	HJ35 6240	HF85 6240			
2.7 Ω	HJ35 6270	HF85 6270			
3.0 Ω	HJ35 6300	HF85 6300			
3.3 Ω	HJ35 6330	HF85 6330			
3.6 Ω	HJ35 6360	HF85 6360			
3.9 Ω	HJ35 6390	HF85 6390			
4.7 Ω	HJ35 6470	HF85 6470			
5.1 Ω	HJ35 6510	HF85 6510			
5.6 Ω	HJ35 6560	HF85 6560			
6.8 Ω	HJ35 6680	HF85 6680			
8.2 Ω	HJ35 6820	HF85 6820			
9.1 Ω	HJ35 6910	HF85 6910			
10 Ω	HJ35 7100	HF85 7100			

1/4W Type



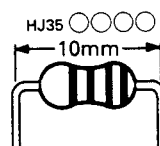
1/6W Type



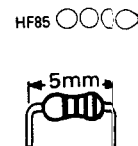
Parts List for Carbon Resistors

Value	1/4W Type Part No.	1/6W Type Part No.	Value	1/4W Type Part No.	1/6W Type Part No.
1.0Ω	HJ35 3100	※	12KΩ	HJ35 7120	HF85 7120
1.8Ω	HJ35 3180	※	15Ω	HJ35 7150	HF85 7150
2.2Ω	HJ35 3220	HF85 3220	18Ω	HJ35 7180	HF85 7180
3.3Ω	HJ35 3330	HF85 3330	22Ω	HJ35 7220	HF85 7220
4.7Ω	HJ35 3470	HF85 3470	27Ω	HJ35 7270	HF85 7270
5.6Ω	HJ35 3560	HF85 3560	33Ω	HJ35 7330	HF85 7330
10Ω	HJ35 4100	HF85 4100	39Ω	HJ35 7390	HF85 7390
15Ω	HJ35 4150	HF85 4150	47Ω	HJ35 7470	HF85 7470
22Ω	HJ35 4220	HF85 4220	56Ω	HJ35 7560	HF85 7560
27Ω	HJ35 4270	HF85 4270	68Ω	HJ35 7680	HF85 7680
33Ω	HJ35 4330	HF85 4330	82Ω	HJ35 7820	HF85 7820
39Ω	HJ35 4390	HF85 4390	91Ω	HJ35 7910	HF85 7910
47Ω	HJ35 4470	HF85 4470	100Ω	HJ35 8100	HF85 8100
56Ω	HJ35 4560	HF85 4560	120Ω	HJ35 8120	HF85 8120
68Ω	HJ35 4680	HF85 4680	150Ω	HJ35 8150	HF85 8150
82Ω	HJ35 4820	HF85 4820	180Ω	HJ35 8180	HF85 8180
100Ω	HJ35 5100	HF85 5100	220Ω	HJ35 8220	HF85 8220
110Ω	HJ35 5110	HF85 5100	270Ω	HJ35 8270	HF85 8270
120Ω	HJ35 5120	HF85 5120	330Ω	HJ35 8330	HF85 8330
150Ω	HJ35 5150	HF85 5150	390Ω	HJ35 8390	HF85 8390
160Ω	HJ35 5160	※	470Ω	HJ35 8470	HF85 8470
180Ω	HJ35 5180	HF85 5180	560Ω	HJ35 8560	HF85 8560
220Ω	HJ35 5220	HF85 5220	680Ω	HJ35 8680	HF85 8680
270Ω	HJ35 5270	HF85 5270	820Ω	HJ35 8820	HF85 8820
330Ω	HJ35 5330	HF85 5330	1.0MΩ	HJ35 9100	HF85 9100
390Ω	HJ35 5390	HF85 5390	1.2Ω	HJ35 9120	※
470Ω	HJ35 5470	HF85 5470	1.5Ω	HJ35 9150	HF85 9150
510Ω	※	HF85 5510	1.8Ω	HJ35 9180	HF85 9180
560Ω	HJ35 5560	HF85 5560	2.2Ω	HJ35 9220	HF85 9220
680Ω	HJ35 5680	HF85 5680	3.3Ω	HJ35 9330	HF85 9330
820Ω	HJ35 5820	HF85 5820	3.9Ω	HJ35 9390	※
910Ω	HJ35 5910	HF85 5910	4.7Ω	HJ35 9470	※
1.0KΩ	HJ35 6100	HF85 6100			
1.2Ω	HJ35 6120	HF85 6120			
1.5Ω	HJ35 6150	HF85 6150			
1.8Ω	HJ35 6180	HF85 6180			
2.0Ω	HJ35 6200	HF85 6200			
2.2Ω	HJ35 6220	HF85 6220			
2.4Ω	HJ35 6240	HF85 6240			
2.7Ω	HJ35 6270	HF85 6270			
3.0Ω	HJ35 6300	HF85 6300			
3.3Ω	HJ35 6330	HF85 6330			
3.6Ω	HJ35 6360	HF85 6360			
3.9Ω	HJ35 6390	HF85 6390			
4.7Ω	HJ35 6470	HF85 6470			
5.1Ω	HJ35 6510	HF85 6510			
5.6Ω	HJ35 6560	HF85 6560			
6.8Ω	HJ35 6680	HF85 6680			
8.2Ω	HJ35 6820	HF85 6820			
9.1Ω	HJ35 6910	HF85 6910			
10Ω	HJ35 7100	HF85 7100			

1/4W Type



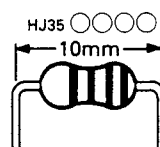
1/6W Type



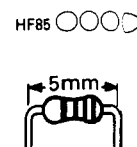
Parts List for Carbon Resistors

Value	1/4W Type Part No.	1/6W Type Part No.	Value	1/4W Type Part No.	1/6W Type Part No.
1.0Ω	HJ35 3100	※	12K Ω	HJ35 7120	HF85 7120
1.8 "	HJ35 3180	※	15 "	HJ35 7150	HF85 7150
2.2 "	HJ35 3220	HF85 3220	18 "	HJ35 7180	HF85 7180
3.3 "	HJ35 3330	HF85 3330	22 "	HJ35 7220	HF85 7220
4.7 "	HJ35 3470	HF85 3470	27 "	HJ35 7270	HF85 7270
5.6 "	HJ35 3560	HF85 3560	33 "	HJ35 7330	HF85 7330
10 "	HJ35 4100	HF85 4100	39 "	HJ35 7390	HF85 7390
15 "	HJ35 4150	HF85 4150	47 "	HJ35 7470	HF85 7470
22 "	HJ35 4220	HF85 4220	56 "	HJ35 7560	HF85 7560
27 "	HJ35 4270	HF85 4270	68 "	HJ35 7680	HF85 7680
33 "	HJ35 4330	HF85 4330	82 "	HJ35 7820	HF85 7820
39 "	HJ35 4390	HF85 4390	91 "	HJ35 7910	HF85 7910
47 "	HJ35 4470	HF85 4470	100 "	HJ35 8100	HF85 8100
56 "	HJ35 4560	HF85 4560	120 "	HJ35 8120	HF85 8120
68 "	HJ35 4680	HF85 4680	150 "	HJ35 8150	HF85 8150
82 "	HJ35 4820	HF85 4820	180 "	HJ35 8180	HF85 8180
100 "	HJ35 5100	HF85 5100	220 "	HJ35 8220	HF85 8220
110 "	HJ35 5110	HF85 5100	270 "	HJ35 8270	HF85 8270
120 "	HJ35 5120	HF85 5120	330 "	HJ35 8330	HF85 8330
150 "	HJ35 5150	HF85 5150	390 "	HJ35 8390	HF85 8390
160 "	HJ35 5160	※	470 "	HJ35 8470	HF85 8470
180 "	HJ35 5180	HF85 5180	560 "	HJ35 8560	HF85 8560
220 "	HJ35 5220	HF85 5220	680 "	HJ35 8680	HF85 8680
270 "	HJ35 5270	HF85 5270	820 "	HJ35 8820	HF85 8820
330 "	HJ35 5330	HF85 5330	1.0MΩ	HJ35 9100	HF85 9100
390 "	HJ35 5390	HF85 5390	1.2 "	HJ35 9120	※
470 "	HJ35 5470	HF85 5470	1.5 "	HJ35 9150	HF85 9150
510 "	※	HF85 5510	1.8 "	HJ35 9180	HF85 9180
560 "	HJ35 5560	HF85 5560	2.2 "	HJ35 9220	HF85 9220
680 "	HJ35 5680	HF85 5680	3.3 "	HJ35 9330	HF85 9330
820 "	HJ35 5820	HF85 5820	3.9 "	HJ35 9390	※
910 "	HJ35 5910	HF85 5910	4.7 "	HJ35 9470	※
1.0KΩ	HJ35 6100	HF85 6100			
1.2 "	HJ35 6120	HF85 6120			
1.5 "	HJ35 6150	HF85 6150			
1.8 "	HJ35 6180	HF85 6180			
2.0 "	HJ35 6200	HF85 6200			
2.2 "	HJ35 6220	HF85 6220			
2.4 "	HJ35 6240	HF85 6240			
2.7 "	HJ35 6270	HF85 6270			
3.0 "	HJ35 6300	HF85 6300			
3.3 "	HJ35 6330	HF85 6330			
3.6 "	HJ35 6360	HF85 6360			
3.9 "	HJ35 6390	HF85 6390			
4.7 "	HJ35 6470	HF85 6470			
5.1 "	HJ35 6510	HF85 6510			
5.6 "	HJ35 6560	HF85 6560			
6.8 "	HJ35 6680	HF85 6680			
8.2 "	HJ35 6820	HF85 6820			
9.1 "	HJ35 6910	HF85 6910			
10 "	HJ35 7100	HF85 7100			

1/4W Type



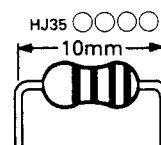
1/6W Type



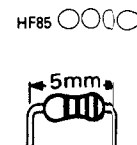
Parts List for Carbon Resistors

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	HJ35 3100	※	12K Ω	HJ35 7120	HF85 7120
1.8 Ω	HJ35 3180	※	15 Ω	HJ35 7150	HF85 7150
2.2 Ω	HJ35 3220	HF85 3220	18 Ω	HJ35 7180	HF85 7180
3.3 Ω	HJ35 3330	HF85 3330	22 Ω	HJ35 7220	HF85 7220
4.7 Ω	HJ35 3470	HF85 3470	27 Ω	HJ35 7270	HF85 7270
5.6 Ω	HJ35 3560	HF85 3560	33 Ω	HJ35 7330	HF85 7330
10 Ω	HJ35 4100	HF85 4100	39 Ω	HJ35 7390	HF85 7390
15 Ω	HJ35 4150	HF85 4150	47 Ω	HJ35 7470	HF85 7470
22 Ω	HJ35 4220	HF85 4220	56 Ω	HJ35 7560	HF85 7560
27 Ω	HJ35 4270	HF85 4270	68 Ω	HJ35 7680	HF85 7680
33 Ω	HJ35 4330	HF85 4330	82 Ω	HJ35 7820	HF85 7820
39 Ω	HJ35 4390	HF85 4390	91 Ω	HJ35 7910	HF85 7910
47 Ω	HJ35 4470	HF85 4470	100 Ω	HJ35 8100	HF85 8100
56 Ω	HJ35 4560	HF85 4560	120 Ω	HJ35 8120	HF85 8120
68 Ω	HJ35 4680	HF85 4680	150 Ω	HJ35 8150	HF85 8150
82 Ω	HJ35 4820	HF85 4820	180 Ω	HJ35 8180	HF85 8180
100 Ω	HJ35 5100	HF85 5100	220 Ω	HJ35 8220	HF85 8220
110 Ω	HJ35 5110	HF85 5100	270 Ω	HJ35 8270	HF85 8270
120 Ω	HJ35 5120	HF85 5120	330 Ω	HJ35 8330	HF85 8330
150 Ω	HJ35 5150	HF85 5150	390 Ω	HJ35 8390	HF85 8390
160 Ω	HJ35 5160	※	470 Ω	HJ35 8470	HF85 8470
180 Ω	HJ35 5180	HF85 5180	560 Ω	HJ35 8560	HF85 8560
220 Ω	HJ35 5220	HF85 5220	680 Ω	HJ35 8680	HF85 8680
270 Ω	HJ35 5270	HF85 5270	820 Ω	HJ35 8820	HF85 8820
330 Ω	HJ35 5330	HF85 5330	1.0M Ω	HJ35 9100	HF85 9100
390 Ω	HJ35 5390	HF85 5390	1.2 Ω	HJ35 9120	※
470 Ω	HJ35 5470	HF85 5470	1.5 Ω	HJ35 9150	HF85 9150
510 Ω	※	HF85 5510	1.8 Ω	HJ35 9180	HF85 9180
560 Ω	HJ35 5560	HF85 5560	2.2 Ω	HJ35 9220	HF85 9220
680 Ω	HJ35 5680	HF85 5680	3.3 Ω	HJ35 9330	HF85 9330
820 Ω	HJ35 5820	HF85 5820	3.9 Ω	HJ35 9390	※
910 Ω	HJ35 5910	HF85 5910	4.7 Ω	HJ35 9470	※
1.0K Ω	HJ35 6100	HF85 6100			
1.2 Ω	HJ35 6120	HF85 6120			
1.5 Ω	HJ35 6150	HF85 6150			
1.8 Ω	HJ35 6180	HF85 6180			
2.0 Ω	HJ35 6200	HF85 6200			
2.2 Ω	HJ35 6220	HF85 6220			
2.4 Ω	HJ35 6240	HF85 6240			
2.7 Ω	HJ35 6270	HF85 6270			
3.0 Ω	HJ35 6300	HF85 6300			
3.3 Ω	HJ35 6330	HF85 6330			
3.6 Ω	HJ35 6360	HF85 6360			
3.9 Ω	HJ35 6390	HF85 6390			
4.7 Ω	HJ35 6470	HF85 6470			
5.1 Ω	HJ35 6510	HF85 6510			
5.6 Ω	HJ35 6560	HF85 6560			
6.8 Ω	HJ35 6680	HF85 6680			
8.2 Ω	HJ35 6820	HF85 6820			
9.1 Ω	HJ35 6910	HF85 6910			
10 Ω	HJ35 7100	HF85 7100			

1/4W Type



1/6W Type



Parts List for Carbon Resistors

CX-830

Value	1/4W Type Part No.	1/6W Type Part No.	Value	1/4W Type Part No.	1/6W Type Part No.
1.0Ω	HJ35 3100	※	12KΩ	HJ35 7120	HF85 7120
1.8Ω	HJ35 3180	※	15Ω	HJ35 7150	HF85 7150
2.2Ω	HJ35 3220	HF85 3220	18Ω	HJ35 7180	HF85 7180
3.3Ω	HJ35 3330	HF85 3330	22Ω	HJ35 7220	HF85 7220
4.7Ω	HJ35 3470	HF85 3470	27Ω	HJ35 7270	HF85 7270
5.6Ω	HJ35 3560	HF85 3560	33Ω	HJ35 7330	HF85 7330
10Ω	HJ35 4100	HF85 4100	39Ω	HJ35 7390	HF85 7390
15Ω	HJ35 4150	HF85 4150	47Ω	HJ35 7470	HF85 7470
22Ω	HJ35 4220	HF85 4220	56Ω	HJ35 7560	HF85 7560
27Ω	HJ35 4270	HF85 4270	68Ω	HJ35 7680	HF85 7680
33Ω	HJ35 4330	HF85 4330	82Ω	HJ35 7820	HF85 7820
39Ω	HJ35 4390	HF85 4390	91Ω	HJ35 7910	HF85 7910
47Ω	HJ35 4470	HF85 4470	100Ω	HJ35 8100	HF85 8100
56Ω	HJ35 4560	HF85 4560	120Ω	HJ35 8120	HF85 8120
68Ω	HJ35 4680	HF85 4680	150Ω	HJ35 8150	HF85 8150
82Ω	HJ35 4820	HF85 4820	180Ω	HJ35 8180	HF85 8180
100Ω	HJ35 5100	HF85 5100	220Ω	HJ35 8220	HF85 8220
110Ω	HJ35 5110	HF85 5110	270Ω	HJ35 8270	HF85 8270
120Ω	HJ35 5120	HF85 5120	330Ω	HJ35 8330	HF85 8330
150Ω	HJ35 5150	HF85 5150	390Ω	HJ35 8390	HF85 8390
160Ω	HJ35 5160	※	470Ω	HJ35 8470	HF85 8470
180Ω	HJ35 5180	HF85 5180	560Ω	HJ35 8560	HF85 8560
220Ω	HJ35 5220	HF85 5220	680Ω	HJ35 8680	HF85 8680
270Ω	HJ35 5270	HF85 5270	820Ω	HJ35 8820	HF85 8820
330Ω	HJ35 5330	HF85 5330	1.0MΩ	HJ35 9100	HF85 9100
390Ω	HJ35 5390	HF85 5390	1.2Ω	HJ35 9120	※
470Ω	HJ35 5470	HF85 5470	1.5Ω	HJ35 9150	HF85 9150
510Ω	※	HF85 5510	1.8Ω	HJ35 9180	HF85 9180
560Ω	HJ35 5560	HF85 5560	2.2Ω	HJ35 9220	HF85 9220
680Ω	HJ35 5680	HF85 5680	3.3Ω	HJ35 9330	HF85 9330
820Ω	HJ35 5820	HF85 5820	3.9Ω	HJ35 9390	※
910Ω	HJ35 5910	HF85 5910	4.7Ω	HJ35 9470	※
1.0KΩ	HJ35 6100	HF85 6100			
1.2Ω	HJ35 6120	HF85 6120			
1.5Ω	HJ35 6150	HF85 6150			
1.8Ω	HJ35 6180	HF85 6180			
2.0Ω	HJ35 6200	HF85 6200			
2.2Ω	HJ35 6220	HF85 6220			
2.4Ω	HJ35 6240	HF85 6240			
2.7Ω	HJ35 6270	HF85 6270			
3.0Ω	HJ35 6300	HF85 6300			
3.3Ω	HJ35 6330	HF85 6330			
3.6Ω	HJ35 6360	HF85 6360			
3.9Ω	HJ35 6390	HF85 6390			
4.7Ω	HJ35 6470	HF85 6470			
5.1Ω	HJ35 6510	HF85 6510			
5.6Ω	HJ35 6560	HF85 6560			
6.8Ω	HJ35 6680	HF85 6680			
8.2Ω	HJ35 6820	HF85 6820			
9.1Ω	HJ35 6910	HF85 6910			
10Ω	HJ35 7100	HF85 7100			

