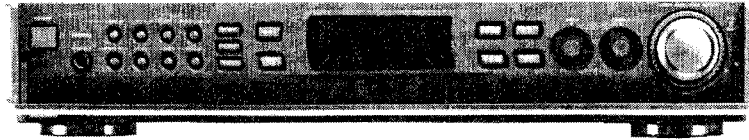


# Service Manual

75SR1041/2A/2M  
SR1041F<sub>G, TB</sub>  
Stereo receiver



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Please use this service manual with referring to the user guide (D.F.U.) without fail.  
修理の際は、必ず取扱説明書を準備し操作方法を確認の上作業を行ってください。

**marantz**®

**model SR1041**

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Parts can be ordered either by mail or by Fax.. In both cases, the correct part number has to be specified.

The following information must be supplied to eliminate delays in processing your order :

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

#### USA

**MARANTZ AMERICA, INC.**  
440 MEDINAH ROAD  
ROSELLE, ILLINOIS 60172-2330  
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FAX : 630 - 307 - 2687

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CANADA  
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FAX : 416 - 831 - 6936

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**MARANTZ EUROPE B.V.**  
P.O.BOX 80002  
BUILDING SFF2  
5600 JB EINDHOVEN  
THE NETHERLANDS  
PHONE : +31 - 40 - 2732241  
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**SUPERSCOPE TECHNOLOGIES, INC.**  
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P.O.BOX 80002  
BUILDING SFF2  
5600 JB EINDHOVEN  
THE NETHERLANDS  
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FAX : +31 - 40 - 2735578

#### BRAZIL

**MARANTZ BRAZIL**  
Caixa Postal 21462  
CEP 04698-970  
Sao Paulo, SP, BRAZIL  
PHONE : 0800 - 123123(Discagem Direta Gratuita)  
FAX : +55 11 534. 8988

#### THAILAND

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10200 THAILAND  
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88 QUEEN'S ROAD, CENTRAL, H. K.  
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FAX : +852 521 - 7835

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PHONE : +886 (2) 5221304 - 8  
FAX : +886 (2) 5630415

#### MALAYSIA

**WO KEE HONG ELECTRONICS SDN. BHD.**  
NO. 102 JALAN SS 21/35, DAMANSARA  
UTAMA, 47400 PETALING JAYA  
SELANGOR DARUL EHSAN,  
MA LAYS IA  
PHONE : +60 3 - 7184666  
FAX : +60 3 - 7173828

#### JAPAN Technical

**MARANTZ JAPAN INC.**  
35- 1, 7- chome, Sagamino  
Sagamihara - shi, Kanagawa  
Japan  
PHONE : +81 427 44 7950  
FAX : +81 427 48 0889

#### 日本マランツ株式会社

本社 〒228  
神奈川県相模原市相模大野7-35-1  
営業本部 〒150  
東京都渋谷区恵比寿南1-11-9

#### SINGAPORE

**FORWARD MARKETING (SINGAPORE) PTE. LTD.**  
29, LENG KEE ROAD  
SINGAPORE 159099,  
PHONE : +65 475 - 4555  
FAX : +65 475 - 8623

### SHOCK, FIRE HAZARD SERVICE TEST :

**CAUTION :** After servicing this appliance and prior to returning to customer, measure the resistance between either primary AC cord connector pins ( with unit NOT connected to AC mains and its Power switch ON ), and the face or Front Panel of product and controls and chassis bottom.

Any resistance measurement less than 1 Megohms should cause unit to be repaired or corrected before AC power is applied, and verified before it is return to the user/customer.

Ref. UL Standard NO. 1492.

In case os difficulties, do not hesitate to contact the Technical Department at above mentioned address.

## 1. TECHNICAL SPECIFICATIONS

### FM TUNER SECTION

Frequency range	F version.....	76 - 90.0 MHz
	/2A/2M version.....	87.5 - 108 MHz
Sensitivity DIN ( Mono / Stereo )		1.0 / 25 $\mu$ V
S / N ( Mono / Stereo )		76 / 68 dB
T.H.D.		0.3 / 0.6 %
Selectivity at 98 MHz ( $\pm$ 300 kHz )		60 dB

### AM TUNER SECTION

Frequency range.....	531 - 1602 kHz
Sensitivity DIN ( S / N 20 dB 30% Mod. 999 kHz )	500 $\mu$ V
S / N at 999 kHz.....	50 dB

### LW TUNER SECTION

Frequency range.....	152 - 282 kHz
Sensitivity DIN ( S / N 20 dB 30% Mod. 207 kHz )	1500 $\mu$ V

### AMPLIFIER SECTION

Power output	DIN 8 $\Omega$ .....	50 W
	RMS 8 $\Omega$ .....	45 W
IHF Dynamic power 8 $\Omega$ / 4 $\Omega$ / 2 $\Omega$ .....		64 W / 85 W / 92 W
T.H.D. at 8 $\Omega$ rated RMS output.....		0.05 %
Damping factor.....		100
Input sensitivity	: CD, TAPE1, TAPE2 / MD, AUX.....	220 mV / 40 k $\Omega$
S / N ( IFH-A )	: CD, TAPE1, TAPE2 / MD, AUX.....	80 dB
POWER REQUIREMENTS	F version.....	100 V AC, 50 / 60 Hz
	/02A/02M.....	230 V AC, 50Hz

### DIMENSIONS

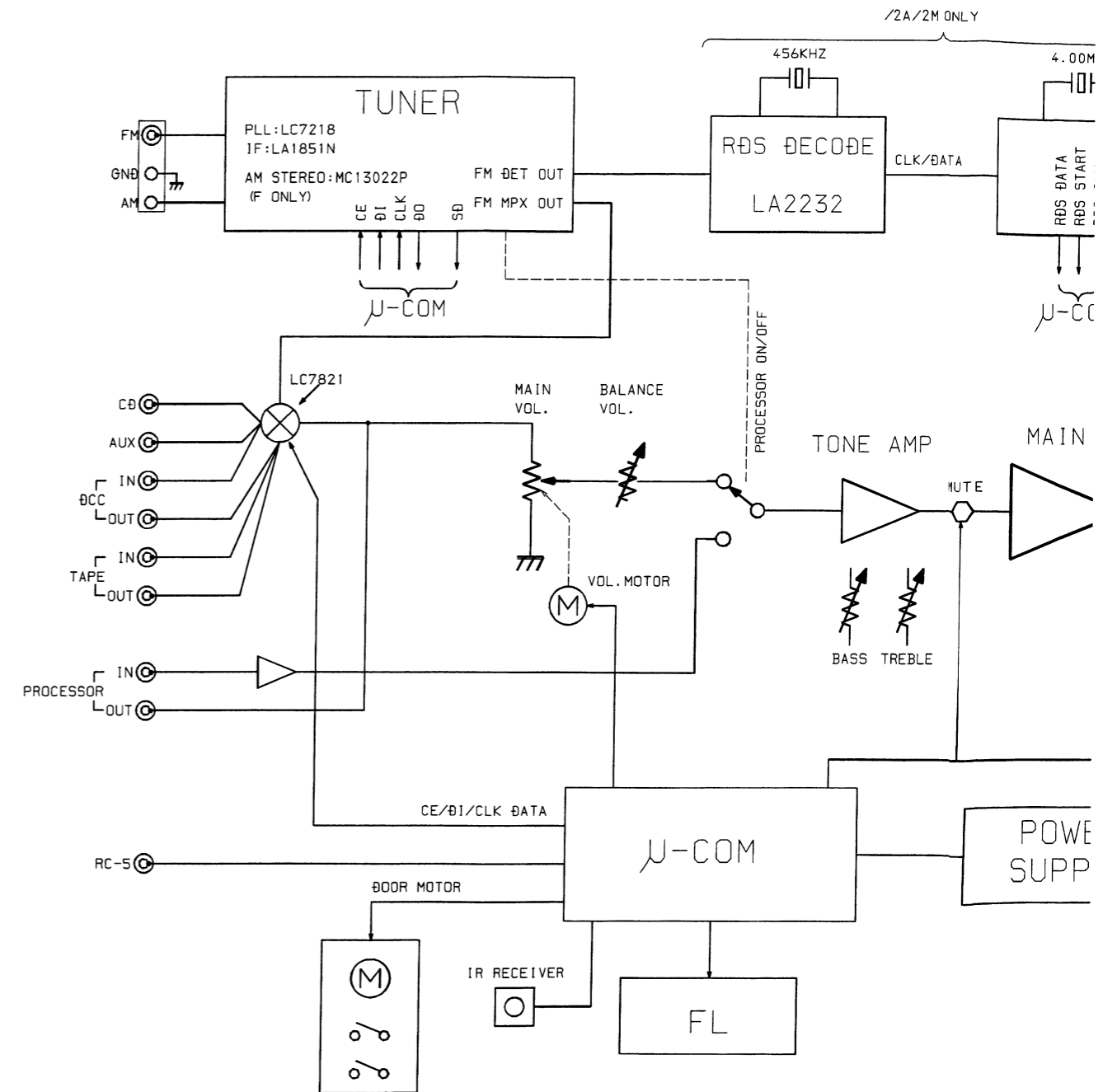
Width.....	422 mm
Height.....	76 mm
Depth.....	334 mm
WEIGHT.....	6.5 kg

### SUPPLIED ACCESSORIES

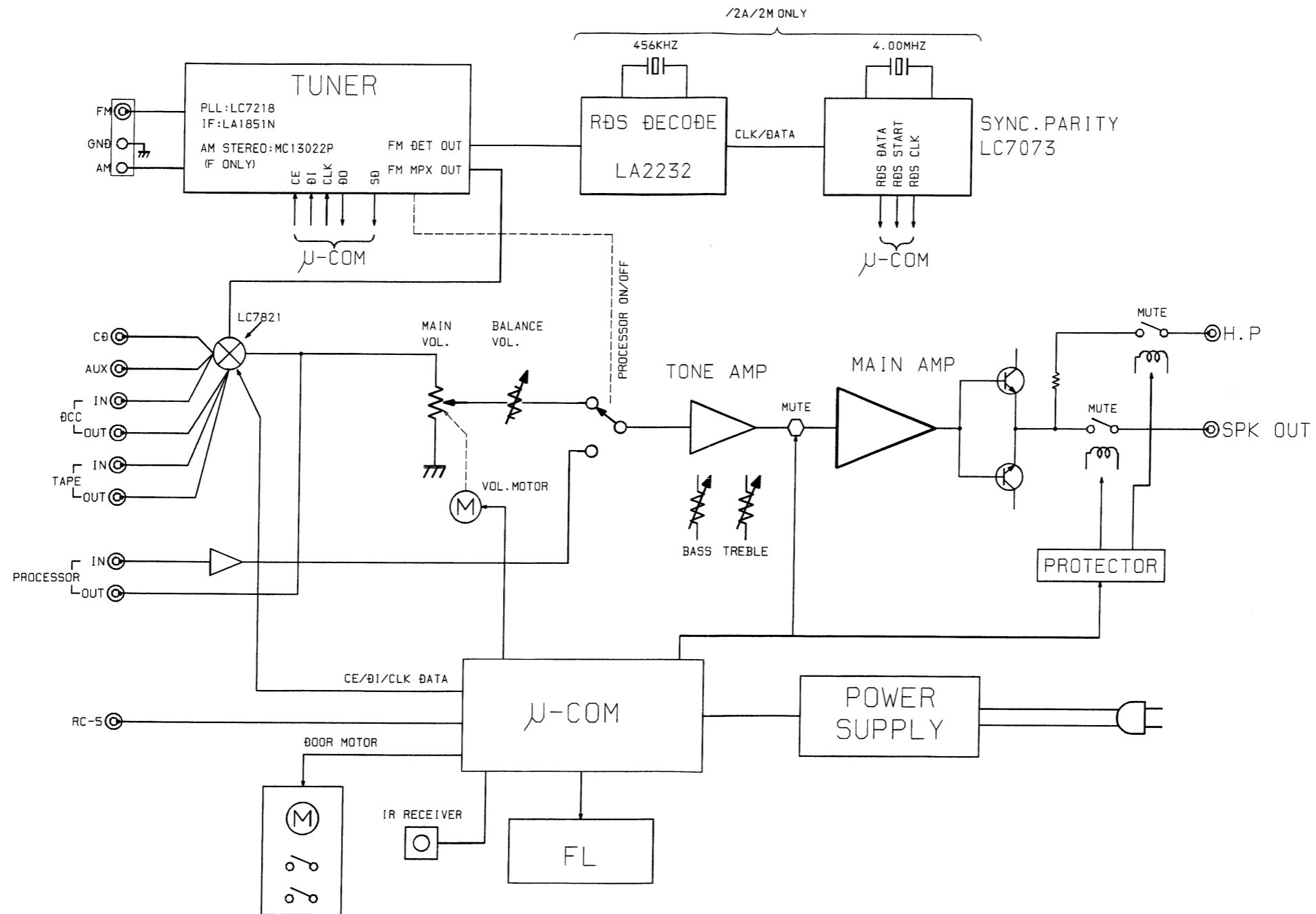
- Remote controller ( RC1041SR ) x 1
- CR2032 LITHIUM Battery x 1
- FM antenna x 1
- AM loop antenna x 1

Specifications subject to change without prior notice.

## 2. BLOCK DIAGRAM



## 2. BLOCK DIAGRAM



- 90.0 MHz  
5 - 108 MHz  
1.0 / 25  $\mu$ V  
76 / 68 dB  
0.3 / 0.6 %  
..... 60 dB

- 1602 kHz  
..... 500  $\mu$ V  
..... 50 dB

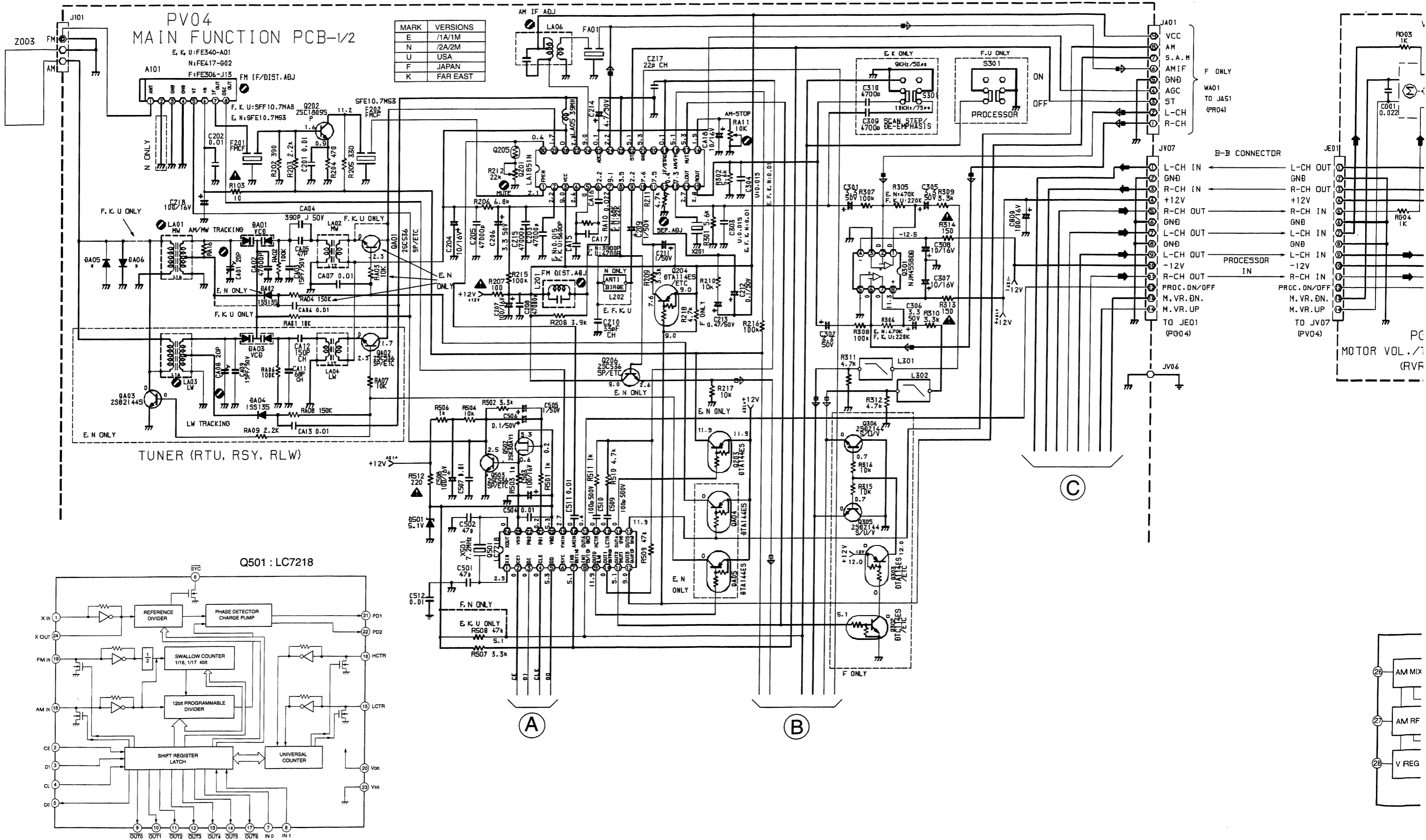
2 - 282 kHz  
.... 1500  $\mu$ V

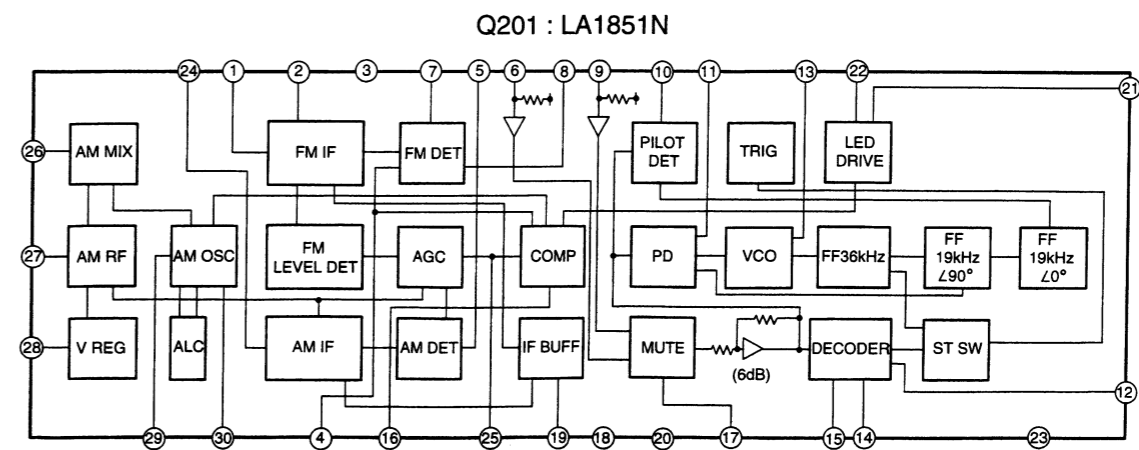
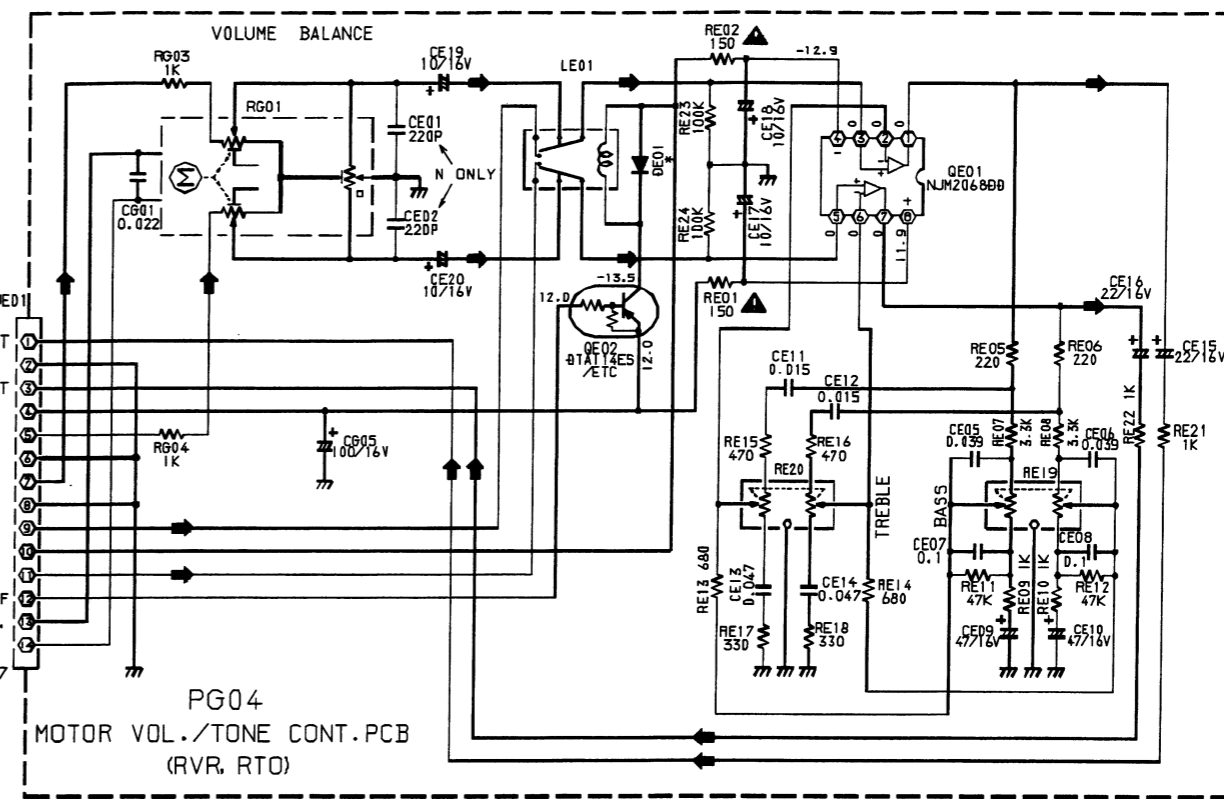
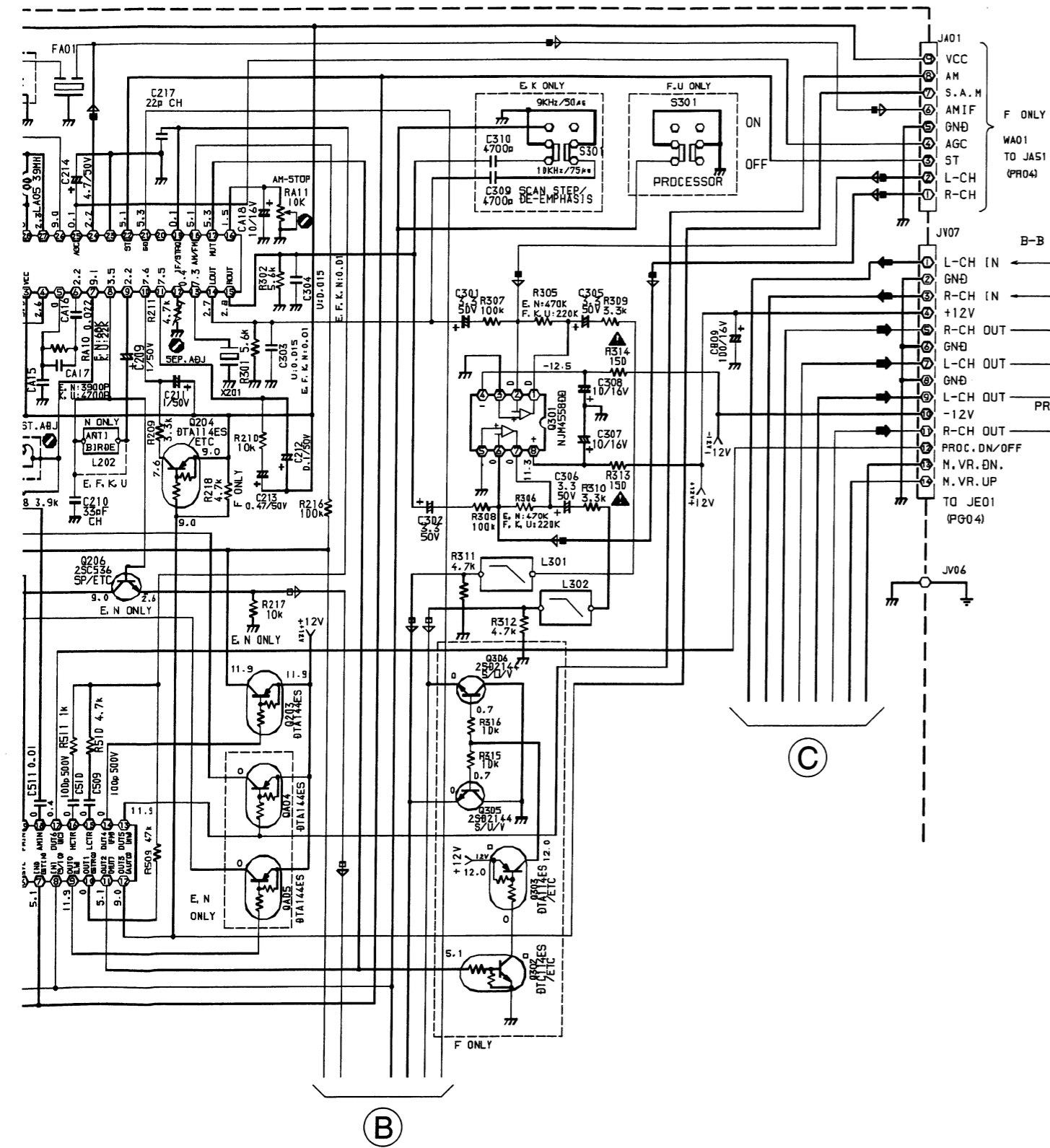
..... 50 W  
..... 45 W  
5 W / 92 W  
..... 0.05 %  
..... 100  
mV / 40 k $\Omega$   
..... 80 dB

50 / 60 Hz  
V AC, 50Hz

.... 422 mm  
..... 76 mm  
.... 334 mm  
..... 6.5 kg

### 3. SCHEMATIC DIAGRAM AND PARTS LOCATION ( Pattern side )







QA03 QA01 QA02  
Q502 Q503 Q501  
QD02 QA04 QA05 Q203

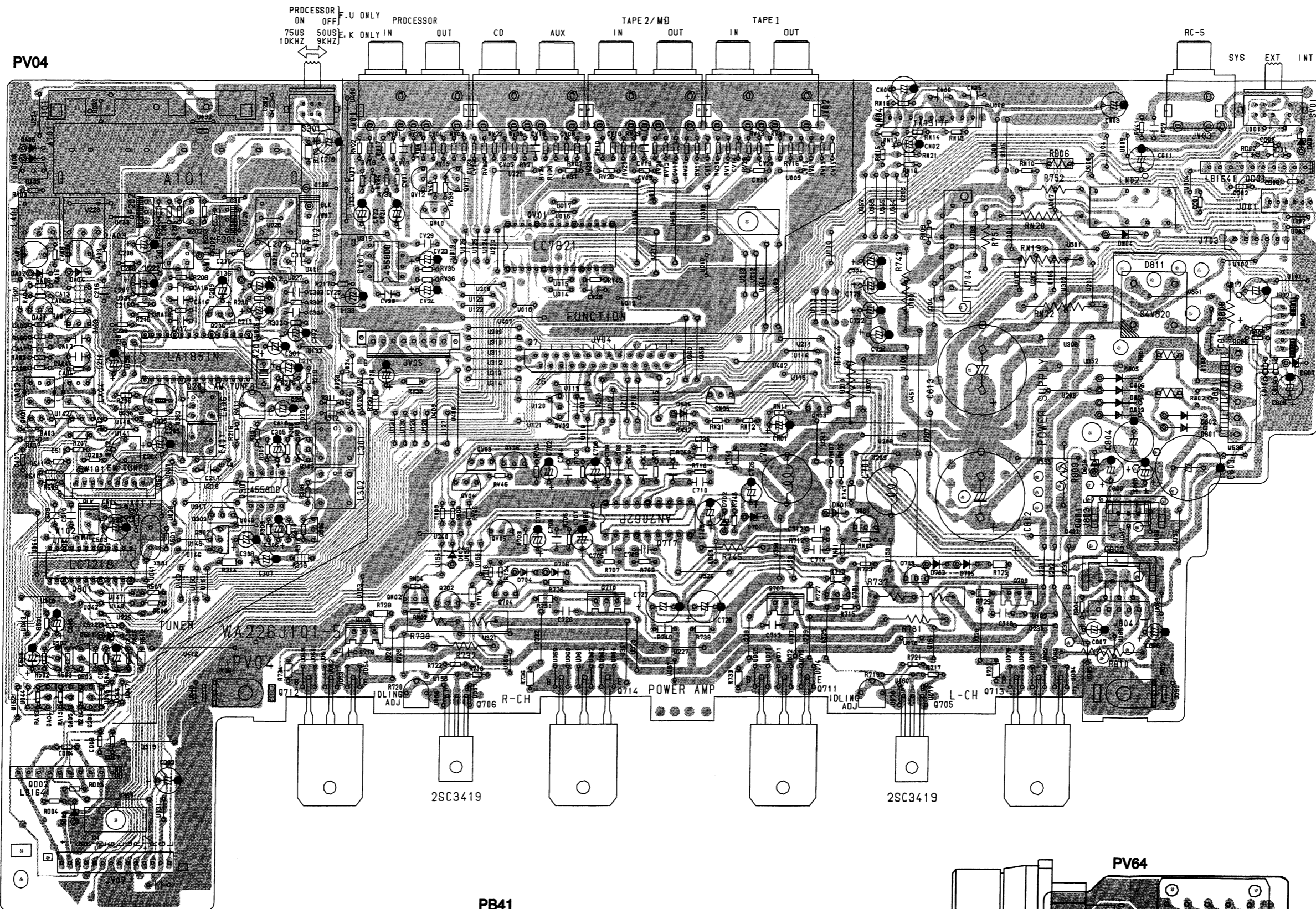
Q202 Q201 Q206 Q204  
Q303 Q302 Q301 Q305 Q306  
Q712 Q708 QN02 Q702 Q706 Q704

QV07 QV10-QV12  
QV03-QV06 QV09  
Q717 Q714

QN05 QN03 QN01  
Q707 Q711 Q701 Q703 Q705  
Q713 Q709

Q801  
Q802

QD01



PV04

PROCESSOR  
ON OFF  
75US  
10KHZ

F.U ONLY

PROCESSOR

OUT

CD

AUX

TAPE 2/MD

IN

OUT

TAPE 1

IN

OUT

RC-5

SYS

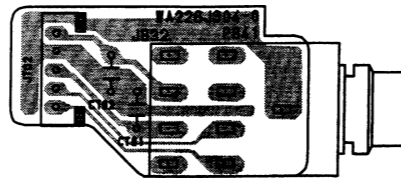
EXT

INT

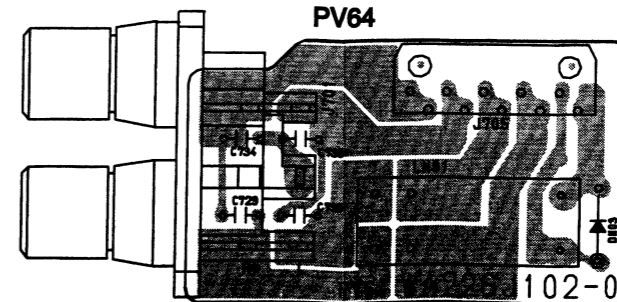
2SC3419

2SC3419

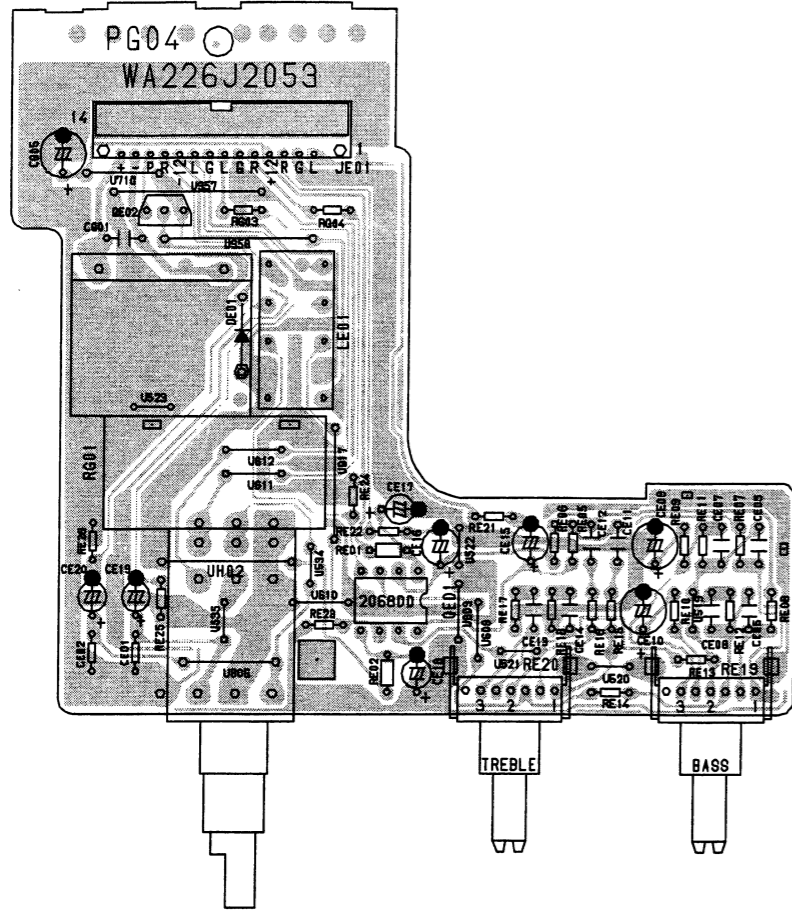
PB41



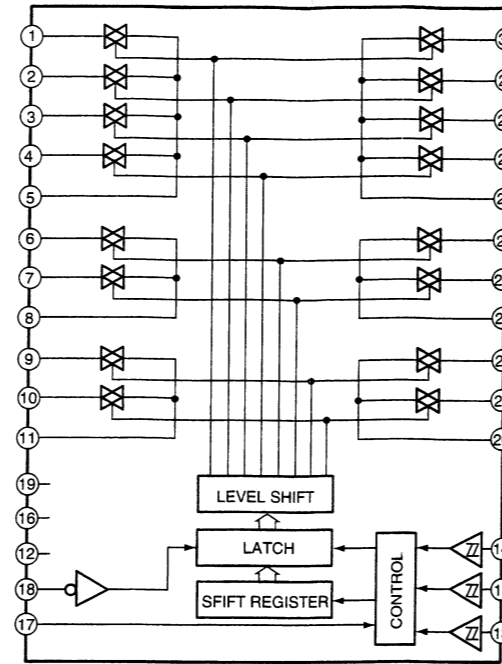
PV64



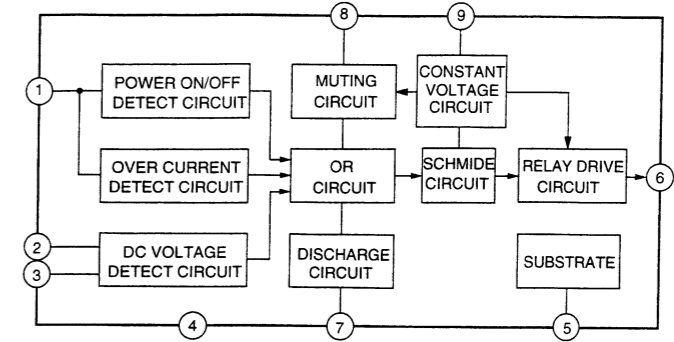
PG04



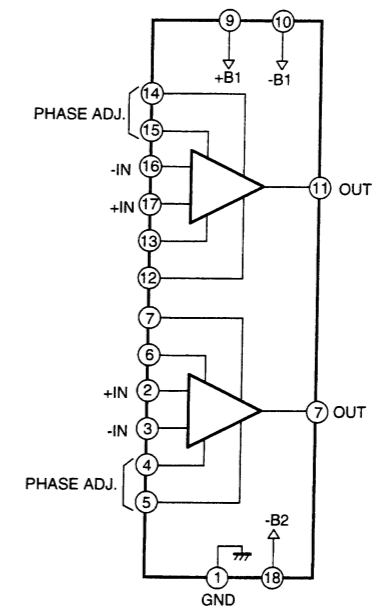
QV01 : LC7821



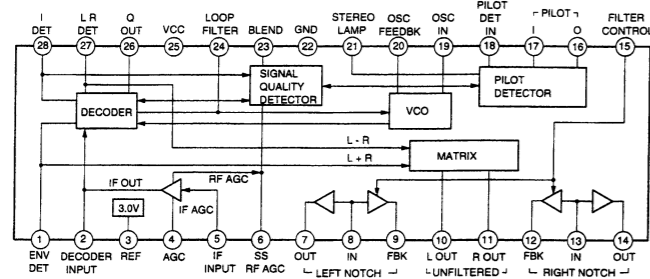
QN04 : TA7317P



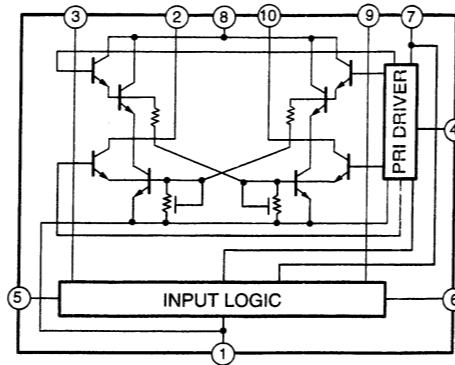
Q717 : AN7062



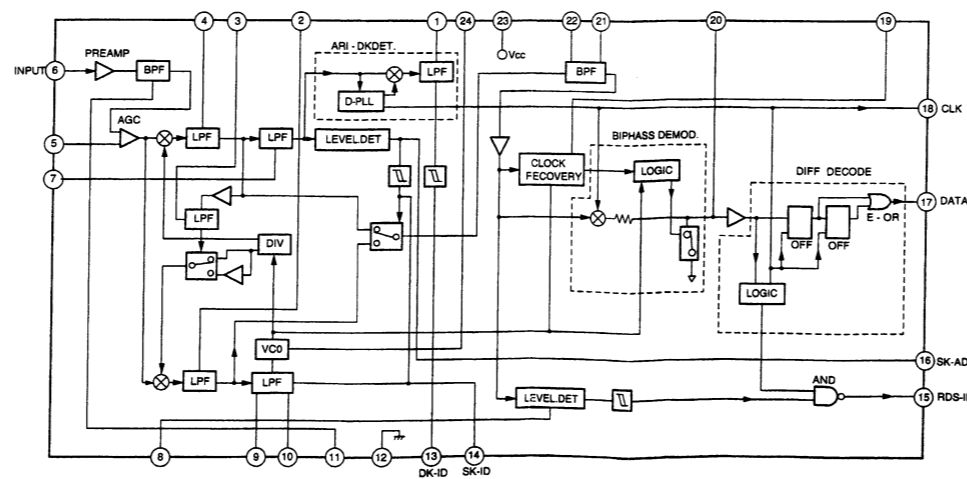
QA51 : MC13022



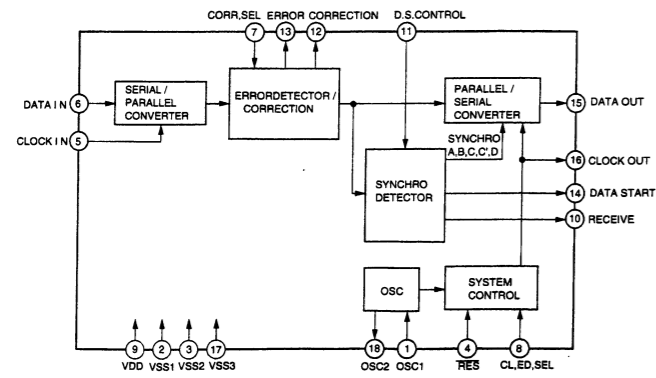
QD01 QD02 : LB1641



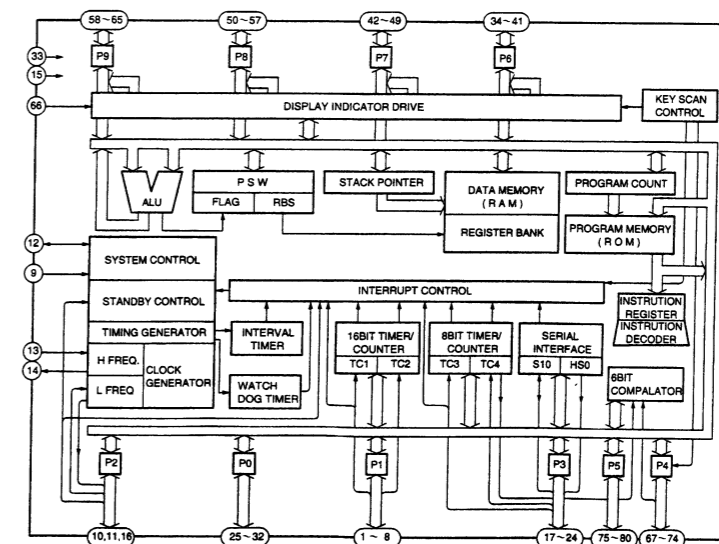
QR01 : LA2232



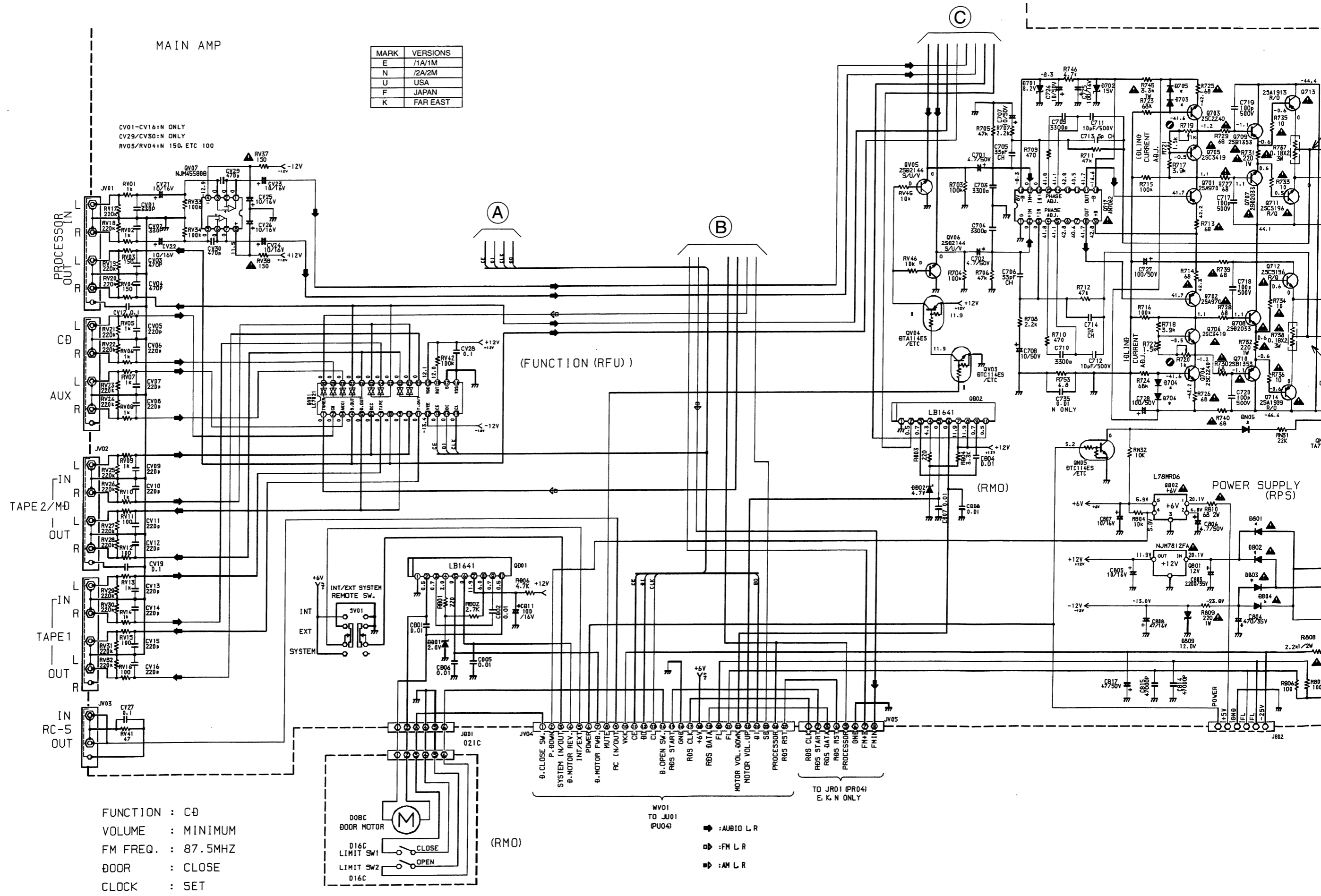
QR02 : LC7073

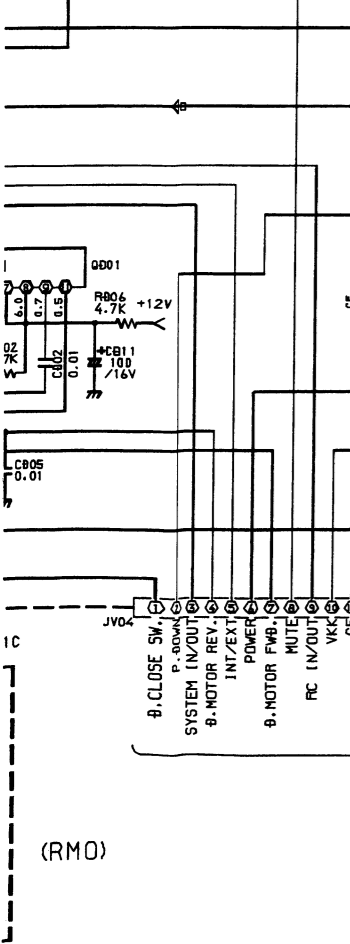
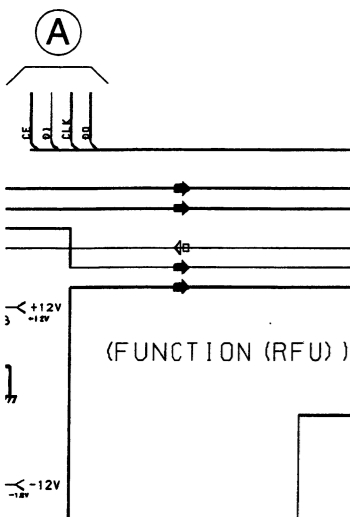
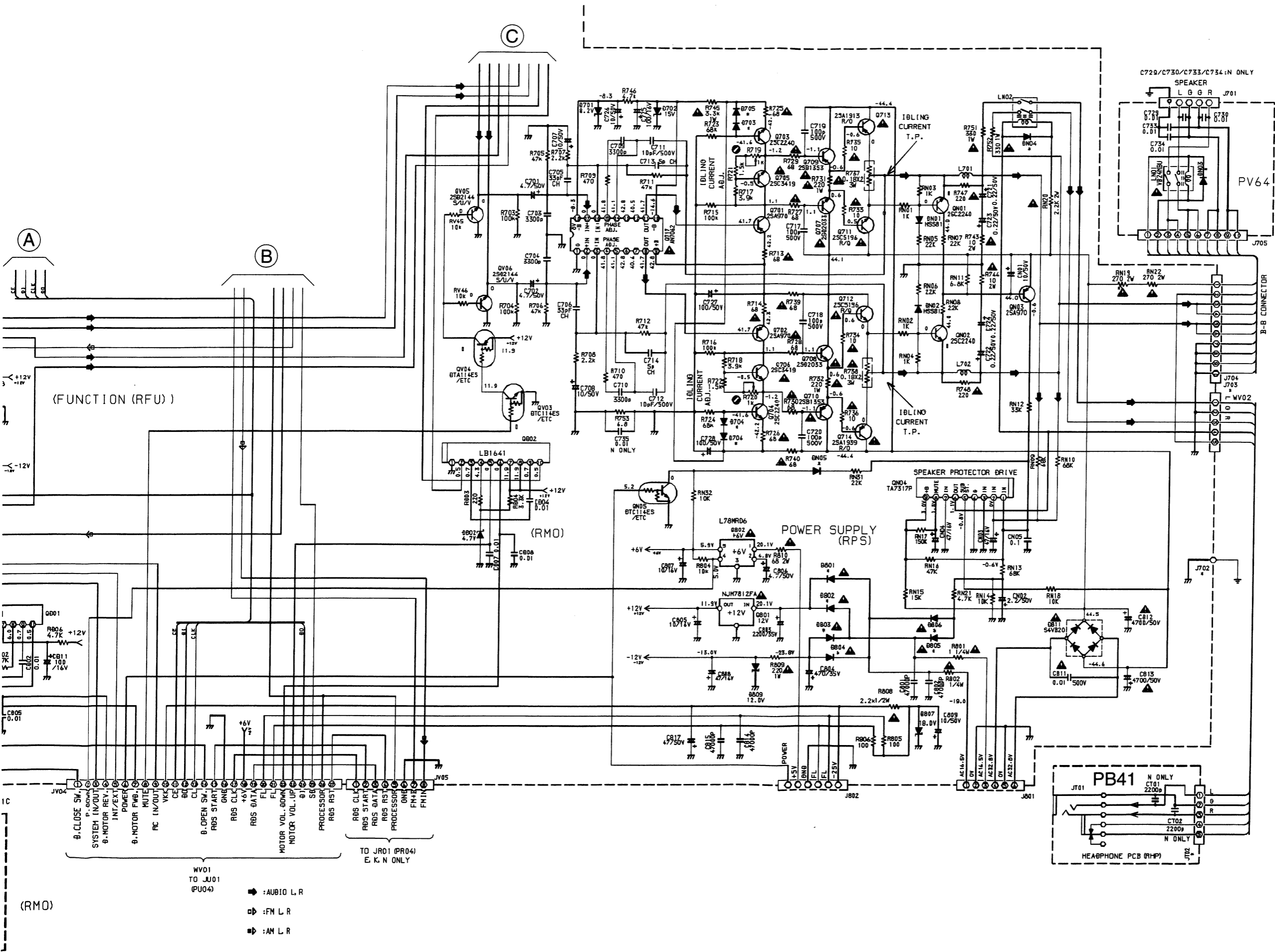


QU01 : TMP87CK70AF

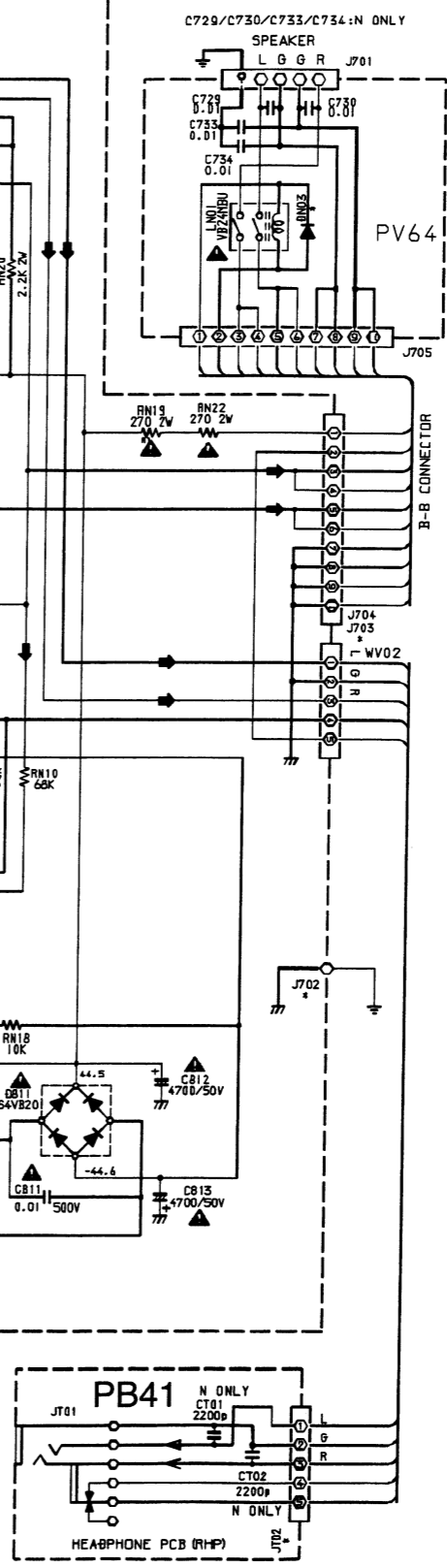


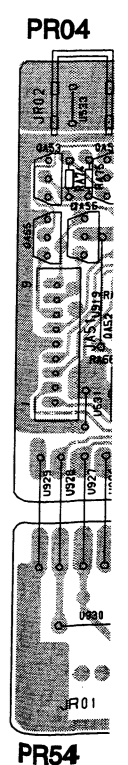
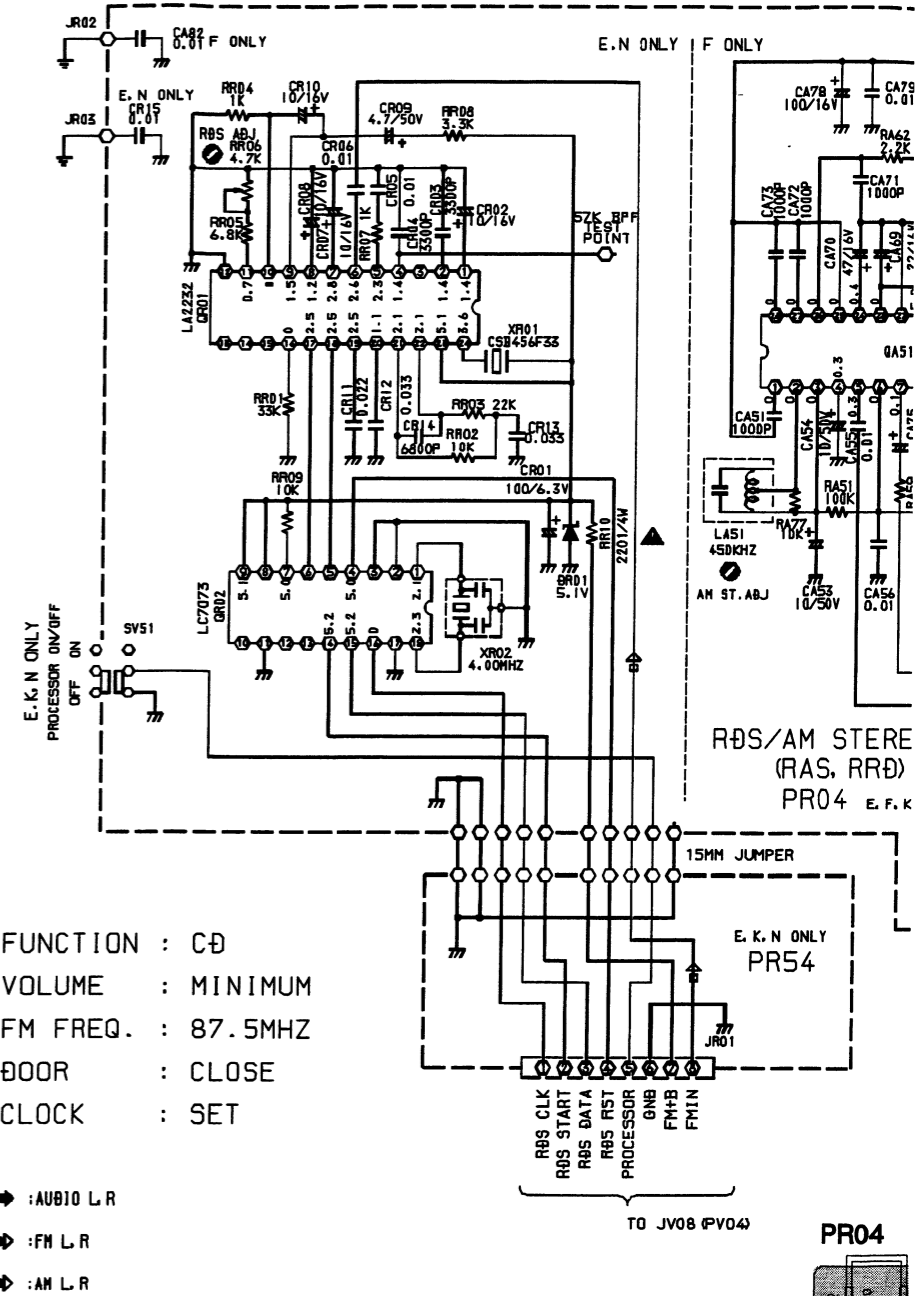
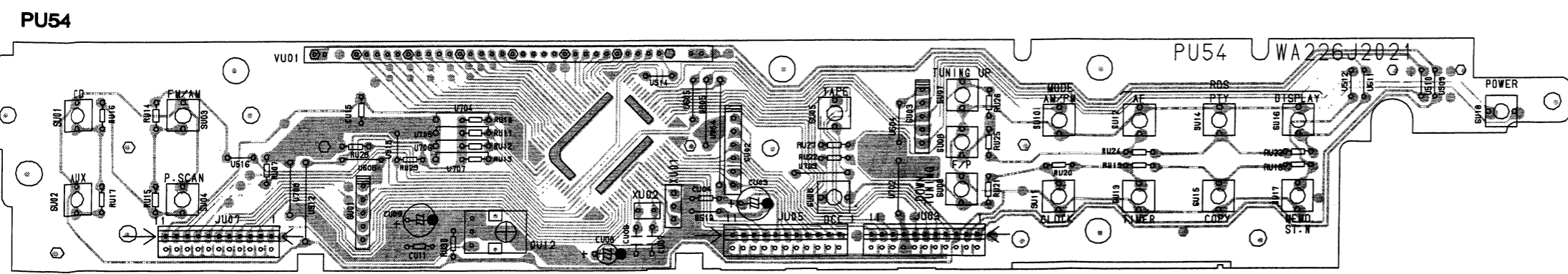
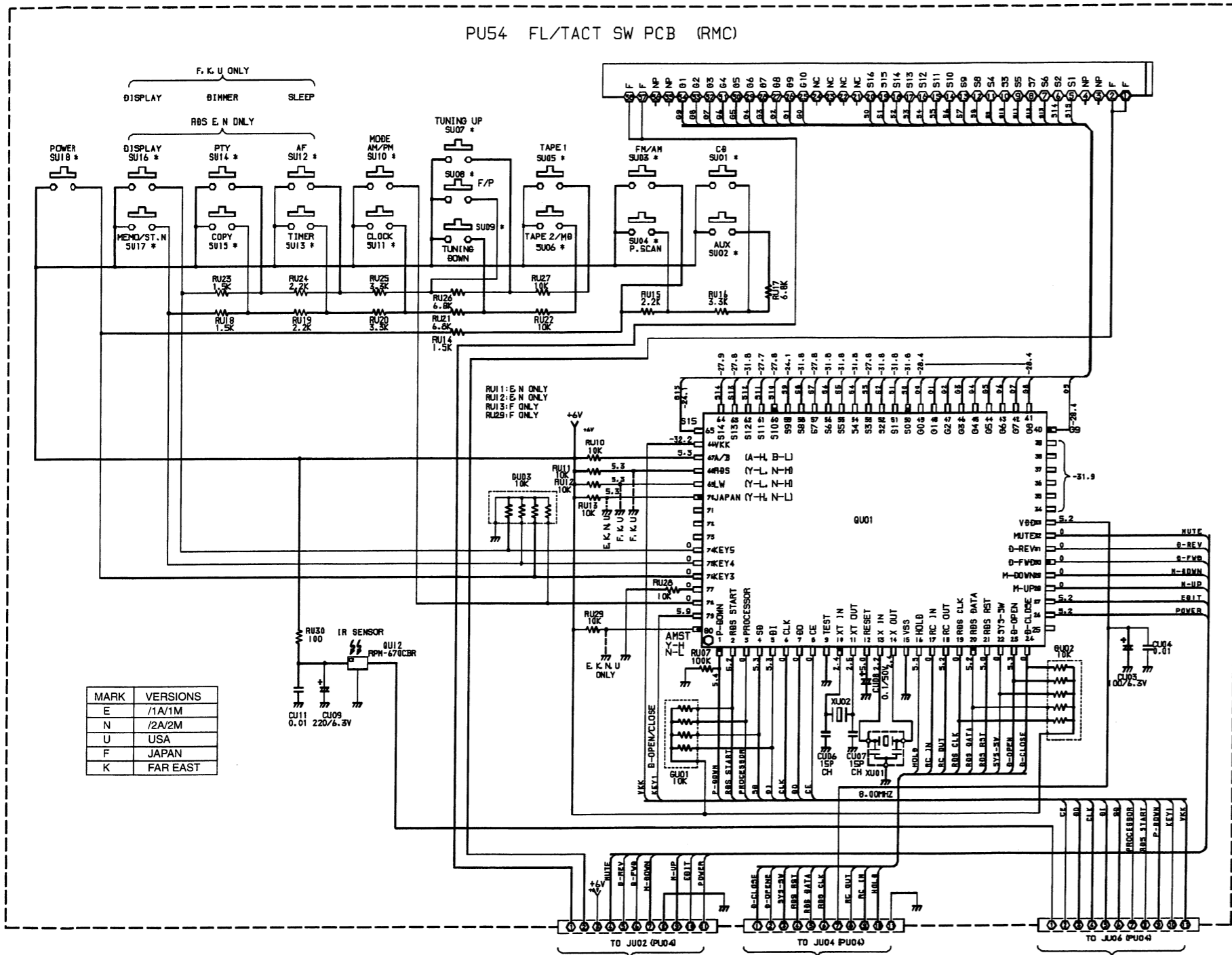


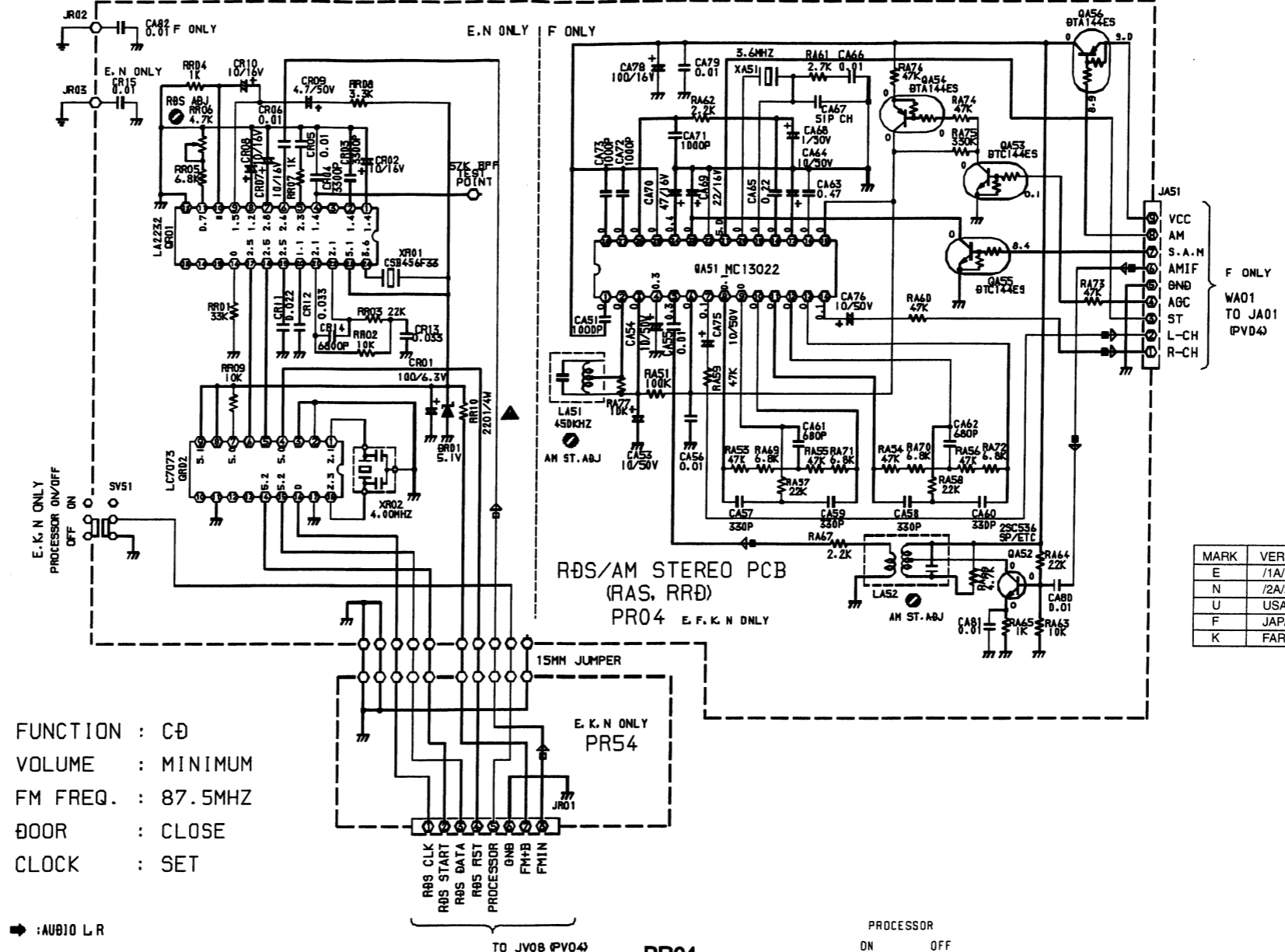
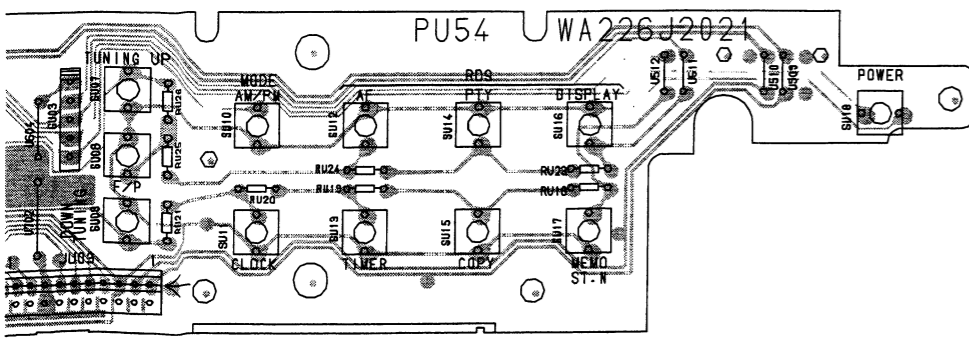
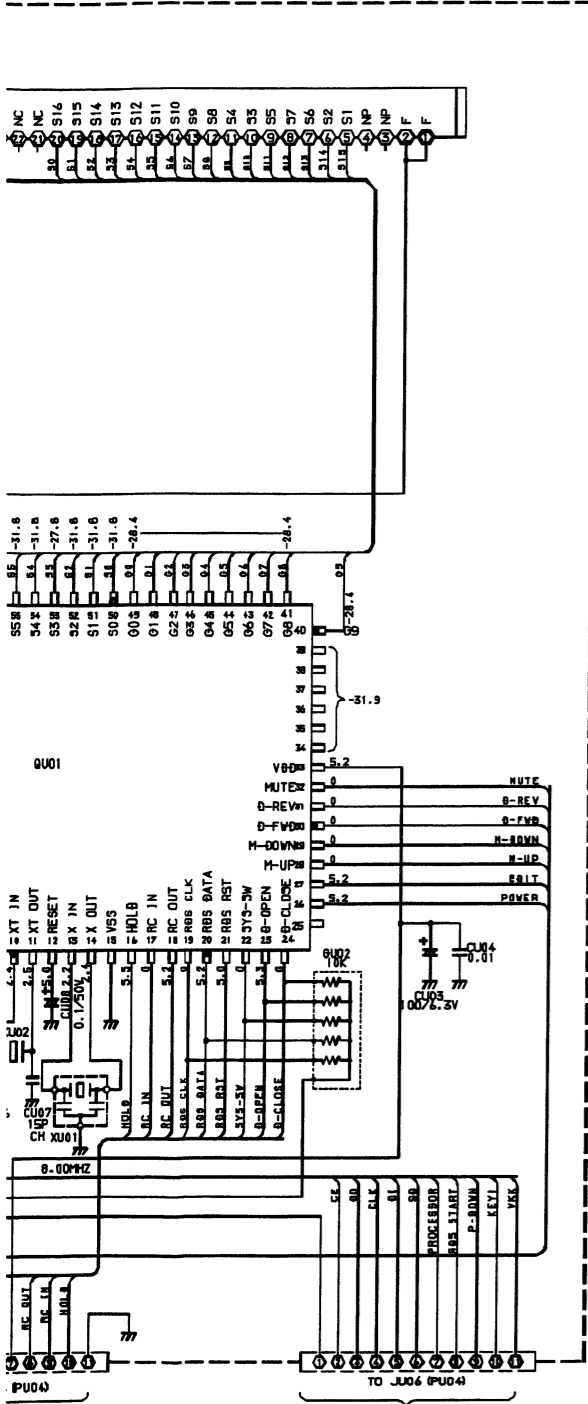




- ➡ :AUBIO L,R
- ➡ :FM L,R
- ➡ :AM L,R



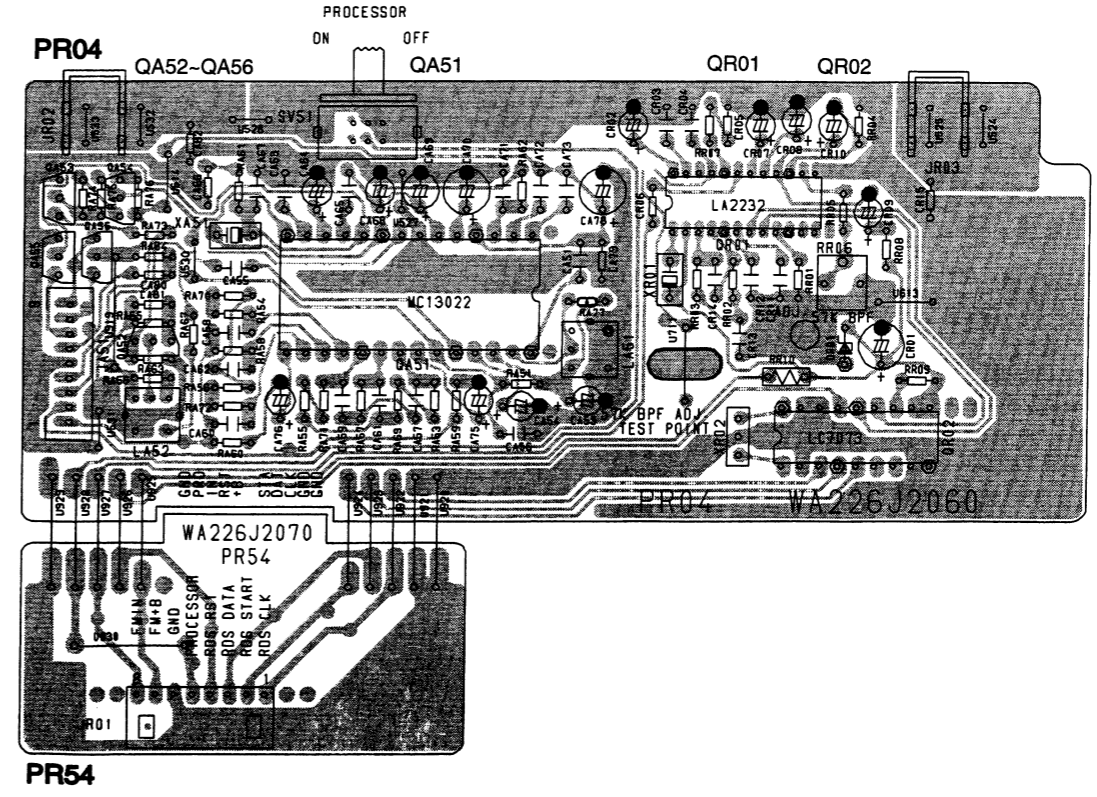


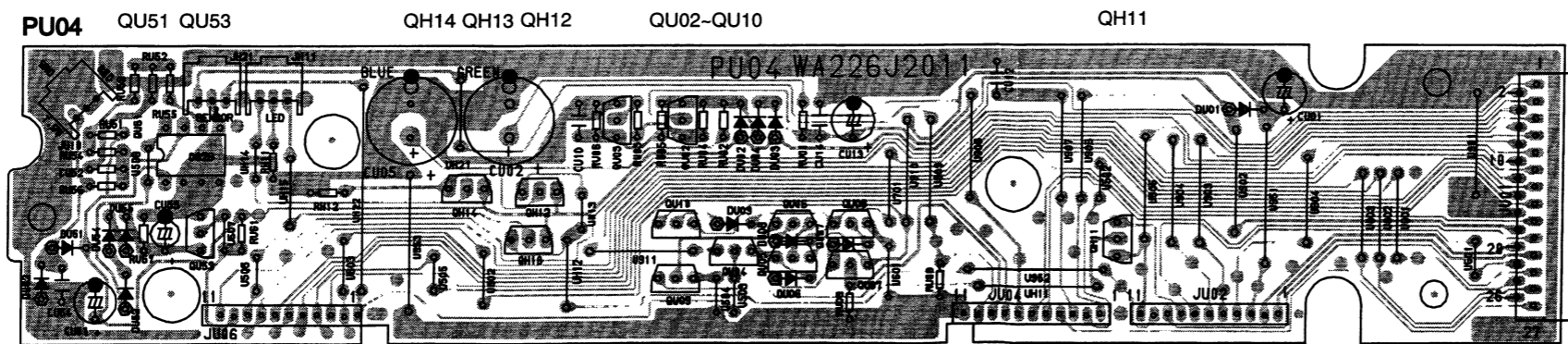
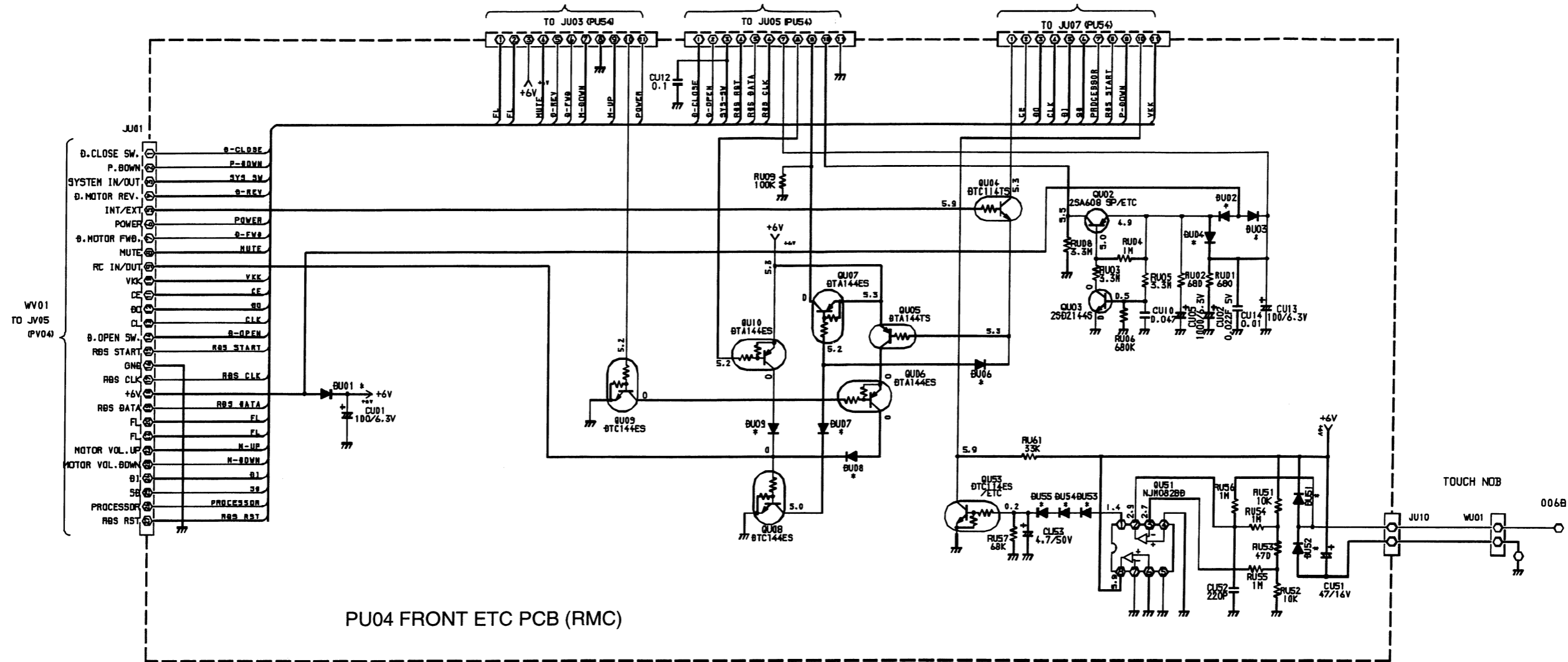


FUNCTION : CD  
 VOLUME : MINIMUM  
 FM FREQ. : 87.5MHZ  
 DOOR : CLOSE  
 CLOCK : SET

- ➡ :AUBIO L R
- ➡ :FM L R
- ➡ :AM L R

MARK	VERSIONS
E	/1A/1M
N	/2A/2M
U	USA
F	JAPAN
K	FAR EAST





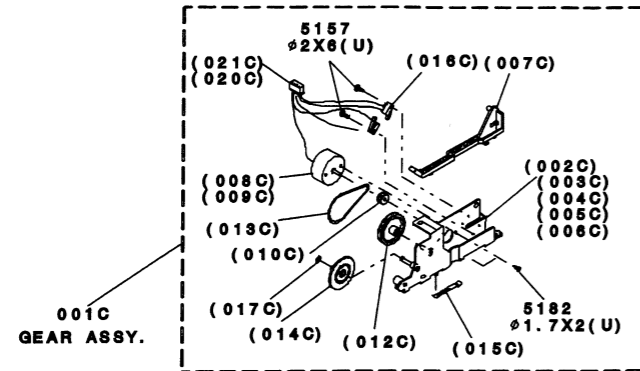






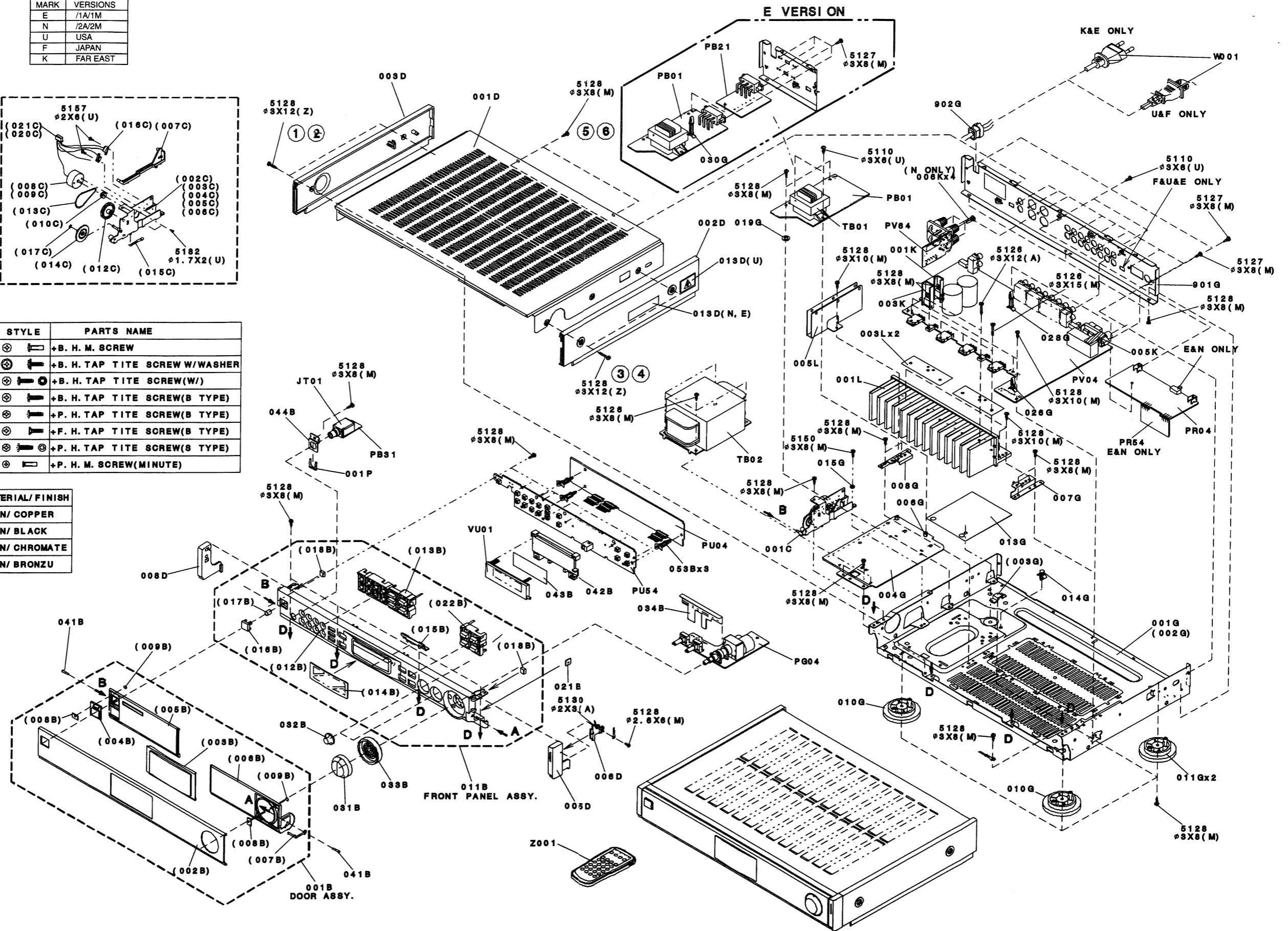
# 4. EXPLODED VIEW AND PARTS LIST

MARK	VERSIONS
E	/1A/1M
N	/2A/2M
U	USA
F	JAPAN
K	FAR EAST



SYMBOL	STYLE	PARTS NAME
5110	⊕	+B. H. M. SCREW
5126	⊕	+B. H. TAP TITE SCREW W/WASHER
5127	⊕	+B. H. TAP TITE SCREW(W/)
5128	⊕	+B. H. TAP TITE SCREW(B TYPE)
5130	⊕	+P. H. TAP TITE SCREW(B TYPE)
5150	⊕	+F. H. TAP TITE SCREW(B TYPE)
5157	⊕	+P. H. TAP TITE SCREW(S TYPE)
5182	⊕	+P. H. M. SCREW(MINUTE)

MARK	MATERIAL/ FINISH
(M)	IRON/ COPPER
(U)	IRON/ BLACK
(A)	IRON/ CHROMATE
(Z)	IRON/ BRONZU



## ◆ アイドリング電流の調整

- 電流を投入しない状態で、マスターボリュームを最小の位置にします。
- 電流調整用半固定抵抗R719 (Lch)、R720 (Rch) を中央の位置にします。
- セメント抵抗R737 (Lch)、R738 (Rch) の両端のピンに、デジタル電圧計を接続します。

※ 電源を投入しアイドリング電流を、下表に従ってR719、R720を調整します。

### 参考

アイドリング電流調整済みのセットを、冷えた状態から電源投入すると、30秒後に約3.5mV、1分後に約4.5mVに達する。10分後には平衡状態となり、7mVで安定します。従って、電源投入後、30秒後～1分以内に調整作業を行なう場合は「4mV」に調整します。同様に1分後～2分以内の場合は「5mV」に、2分後～3分以内の場合は「6mV」に、調整します。5分後以降は、設定値である「7mV」に調整します。尚、ヒートラン、エージング後あるいは修理後に調整を行なう場合は、10分間無信号、無負荷、電源投入状態で放置し、その後設定値である「7mV」に調整します。

## 5. IDLING CURRENT ADJUSTMENT

- Before switching the power ON, set the Master Volume control to the minimum position and the Balance and Tone controls to the center positions. Then, rotate the semi-fixed resistors R719 (LCH) and R720 (RCH) on the PC board PV04 center positions.
- Connect a digital voltmeter, set for the DC voltage input to the pertinent test points (the marked ones of R737-R738) on the PC board PV04.
- After the completion of the above setup. Switch the power ON and adjust the semi-fixed resistors R719 (LCH) and R720 (RCH) on the PC board PV04 according to the reading of the digital voltmeter. The setting values are 7mV (19.4mA) of the both channels.

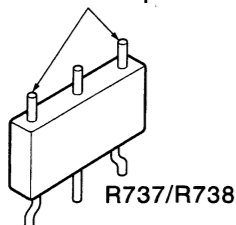
### Note:

When you proceed to this adjustment after serviced the unit, operate the unit with a non-signal condition for about 15 minutes after turning its power ON, then adjust to 7mV.

If you should proceed to the adjustment in less than 15 minutes after turning the power ON, refer to the following table for the value to be adjusted.

Power ON	
30 sec. ~ 1 min.	4.0 mV
1 min. ~ 2 min.	5.0 mV
2 min. ~ 3 min.	6.0 mV
More than 10 min.	7.0mV

Measurement point



## ◆ サービスプログラム

- トラッキングポイントメモリー「MEMO」「TAPE1」keysを同時押ししながら「FM/AM」keyを押します。下表参照(FM: JAPAN, AM: 10kHz)

memoryをclearする場合は「MEMO」「TAPE1」keysを同時押ししながら「AUX」keyを押します。この場合、全てのRAM Dataがclearされます。

- FLセグメントチェック「MEMO」「TAPE1」キーを同時押ししながら「P.SCAN」を押します。all segmentsが点灯します。この時、functionが「TUNER」の場合は約5秒後に消灯し、最左端桁より1桁ずつ順番に点灯します。「TUNER」以外のfunctionでは、全点灯のままです。segment check mode中は他の動作は一切しません。power offでcancelされます。

## 6. SERVICE PROGRAM

**6-1. T.R POINT ME ( tracking point memory ) mode.**  
While holding the MEMO and TAPE1 keys depressed simultaneously, press the FM / AM ( MW ) keys, the T.R POINT ME mode is called. Frequencies to be memorized are as follows.

		P1	P2	P3	P4	P5	P6	P7
FM [MHz]	EUROPE	90	98	106	87.5			
	USA	90	98	106	87.5			
	JAPAN	78	83	88	76.0			
AM [kHz]	9kHz without LW					603	999	1404
	9kHz with LW					603	999	1404
	10 kHz					600	1000	1400

		P8	P9	P10	P11	P12 ~ P30
AM [kHz]	9kHz without LW	-	-	-	-	-
	9kHz with LW	171	207	270	152	531
	10 kHz	-	-	-	-	-

- : Low end frequency of the AM ( MW ) band.

To clear the entire memory:  
While holding the MEMO and TAPE1 keys depressed simultaneously, press the AUX key. This will clear the RAM data entirely.

**6-2. FL segment check mode.**  
While holding the MEMO and TAPE1 keys depressed simultaneously, press the P. SCAN keys. All of the display segments light up. If the current input function is TUNER, the segments go off in about 5 seconds then the segments of each display digit light one after another starting with the leftmost digit. If the current input function is other than TUNER, all of the segments remain lit. No other operation occurs during the segment check mode. This mode can be cancelled by turning the power OFF.

## 7. TUNER ALIGNMENT PROCEDURES

- Set to T.R point ME mode of the service program. ( P2 ) to ( P10 ) in the Digital Readout Frequency Setting column shows preset numbers for the above mode.
- Before alignment, connect a dummy resistor of 47 kohms to the tape output terminal.

### 7-1. FM Alignment Procedures

(Band switch at "FM" position and MODE switch at "MONO" position )

#### FM RF Alignment

Step	Signal Source Connection	Signal Frequency	Indicator Connection	Digital Readout Frequency Setting	Adjust
1	FM signal generator to FM antenna terminal. Adjust the RF signal output so that slight noise occurs at the upper and lower sides of the output waveform.	98.0 MHz	AC VTVM to L-or R-channel Tape out ( JV02 )	98.0 MHz ( P2 )	Front end ( A101 ) IFT for maximum output and minimum distortion.
2	FM signal generator 500 μV output to FM antenna terminal ( 75-ohm ).	98.0 MHz	Distortion meter to L-or R-channel Tape out ( JV02 )	98.0 MHz ( P2 )	L201 core for minimum distortion.

#### FM IF Alignment

( Band switch at "FM" position and MODE switch at "AUTO STEREO" position )

Step	Signal Source Connection	Signal Frequency	Indicator Connection	Digital Readout Frequency Setting	Adjust
1	FM signal generator 500 μV output modulated by MPX signal generator to FM antenna terminal ( 75-ohm ).	Stereo L-channel ( 1.000 Hz )	VTVM to L-channel Tape out ( JV02 L-channel )	98.0 MHz ( P2 )	Front end ( A101 ) IFT for minimum distortion.
2	Modulation level: IHF 67.5 kHz +9% pilot dev. DIN 40 kHz +8% pilot dev.	Stereo R-channel ( 1.000 Hz )	VTVM to R-channel Tape out ( JV02 R-channel )		

#### Muting Level Alignment

( Band switch at "FM" position and MODE switch at "AUTO STEREO" position )

Step	Signal Source Connection	Signal Frequency	Indicator Connection	Digital Readout Frequency Setting	Adjust
1	FM signal generator 6.3 μV output to FM antenna terminal ( 75-ohm )	98.0 MHz	AC VTVM to L-or R- channel Tape out ( JV02 )	98.0 MHz ( P2 )	R212 to a point at which output appears.

### Multiplex Alignment

( Band switch at "FM" position and MODE switch at "AUTO STEREO" position )

Step	Signal Source Connection	Signal Frequency	Indicator Connection	Digital Readout Frequency Setting	Adjust
1	FM signal generator 500 μV output modulated by MPX signal generator to FM antenna terminal ( 75-ohm ) Modulation level : IHF 67.5 kHz +9% pilot dev. DIN 40 kHz +8% pilot dev.	Stereo L-channel ( 1.000 Hz )	VTVM to R-channel Tape out ( JV02 R-channel )	98.0 MHz ( P2 )	R211 so that channel separation is identical between both channels.
2		Stereo R-channel ( 1.000 Hz )	VTVM to L-channel Tape out ( JV02 L-channel )		
3	Repeat steps 1 and 2				

### RDS 57 kHz BPF Alignment ( Europe only )

Step	Signal Source Connection	Signal Frequency	Indicator Connection	Digital Readout Frequency Setting	Adjust
1	fm signal generator 500 μV output modulated by MPX signal generator to FM antenna terminal (75-ohm). Modulation level: RDS signal 1 kHz dev.	98.0 MHz	AC VM and Oscilloscope between U711 and GND. ( PR04 )	98.0 MHz	RR06 for maximum output.

### 7-2. MW ( AM ) / LW Alignment Procedures ( Band switch at "MW" or "AM" position )

#### AM IF Alignment

Step	Signal Source Connection	Signal Frequency	Indicator Connection	Digital Readout Frequency Setting	Adjust
1	Sweep generator to AM antenna terminal.	450 kHz	AC VTVM to L-or R-channel Tape out ( JV03 )	—	LA06 for maximum and symmetrical waveform.

#### MW ( AM ) RF Alignment

Step	Signal Source Connection	Signal Frequency	Indicator Connection	Digital Readout Frequency Setting	Adjust
1	AM signal generator to AM loop antenna in a test loop.	603 kHz ( Europe, Japan ) 600 kHz ( USA )	VTVM to L-or R-channel Tape out ( JV03 )	603 kHz ( P5 )	LA01 for maximum output.
2		1404 kHz ( Europe, Japan ) 1400 kHz ( USA )		1404 kHz ( P7 ) 1400 kHz ( P7 )	CA01 for maximum output.
3	Repeat steps 1 and 2 until sensitivity is maximized.				

### AM Auto Stop Alignment ( Band switch at "MW" or "AM" position )

Step	Signal Source Connection	Signal Frequency	Indicator Connection	Digital Readout Frequency Setting	Adjust
1	RF generator to AM loop antenna in a test loop ( 500 μV / m )	999 kHz ( Europe, Japan ) 1000 kHz ( USA )	—	999 kHz 1000 kHz ( P6 )	RA11 so that the "TUNED" on the display tube lights.

### LW RF Alignment ( Europe only )

Step	Signal Source Connection	Signal Frequency	Indicator Connection	Digital Readout Frequency Setting	Adjust
1	AM signal generator to AM loop antenna in a test loop.	173 kHz	VTVM to L-or R-channel Tape out ( JV03 )	173 kHz ( P8 )	LA03 for maximum output.
2		272 kHz		272 kHz ( P10 )	CA08 for maximum output.
3	Repeat steps 1 and 2 until sensitivity is maximized.				

### AM Stereo 調整 ( Japan only )

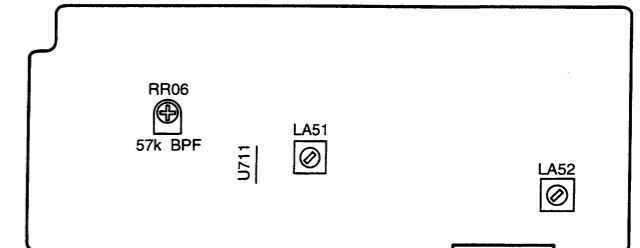
調整箇所 : LA51, LA52, LA06  
調整周波数 : 999kHz, 50mV/m(94dB/m)  
変調条件 : 400Hz (L+R) = 30% MOD.  
25Hz PILOT = 5% MOD.

1. SGの変調を「L - R」(SUB), PILOT - OFFにする。
2. セットのLch (又はRch)の出力が最小になるように、LA51, LA52を調整、LA06を微調整する。(注)

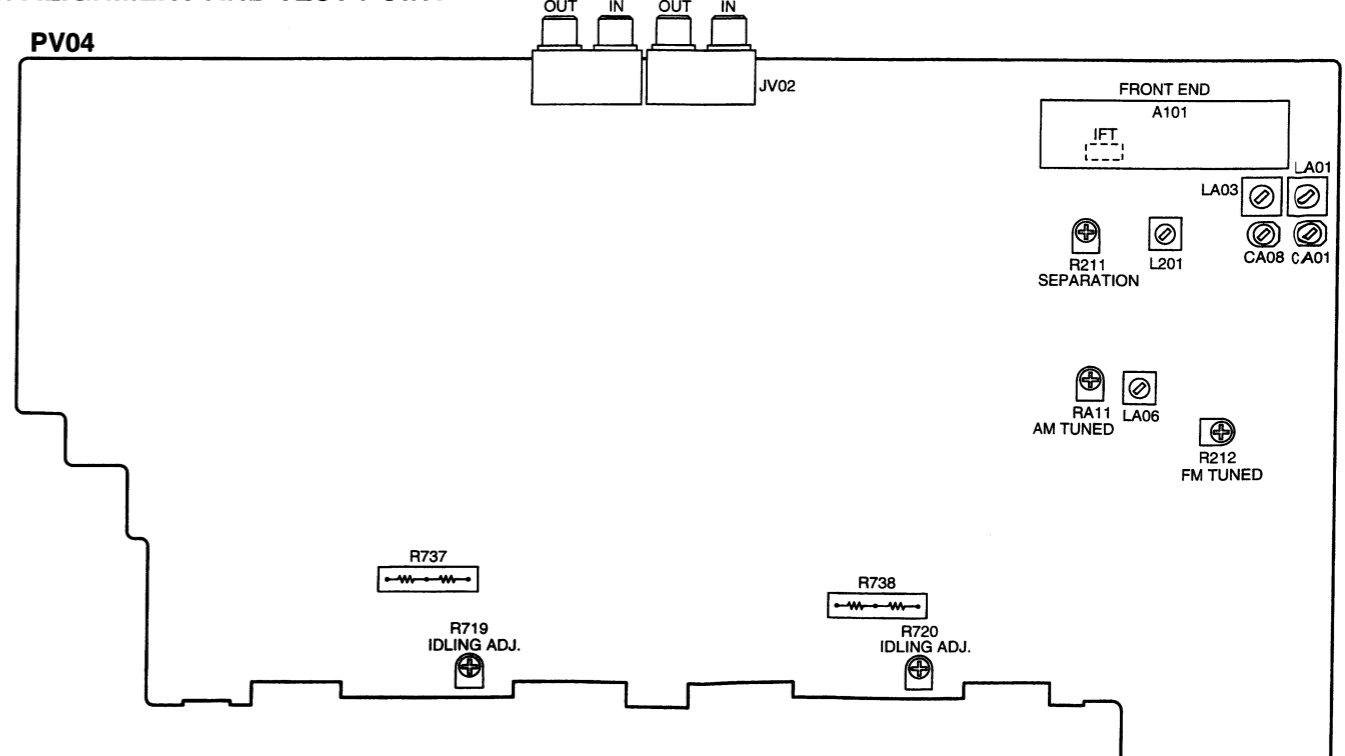
※MODE SW は、「AUTO」ポジションとする。

(注) LA52 の調整はブロードであり、セットの出力変化は極僅かです。

#### PR04



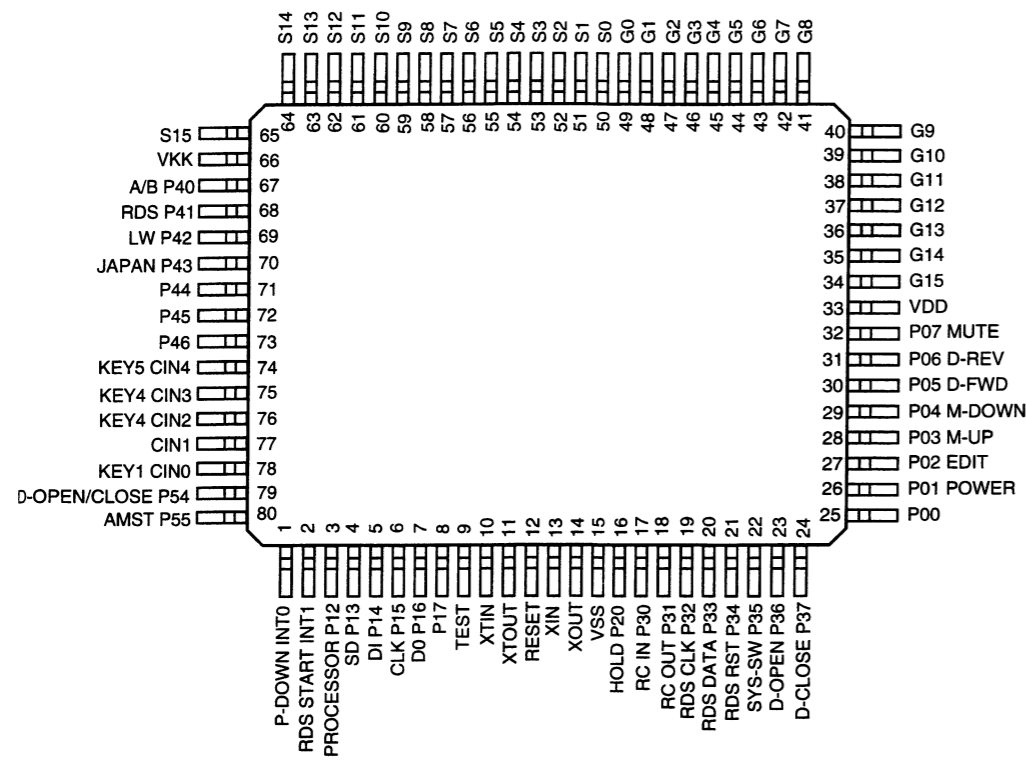
### 8. ALIGNMENT AND TEST POINT



## 9. MICROPROCESSOR SPECIFICATIONS

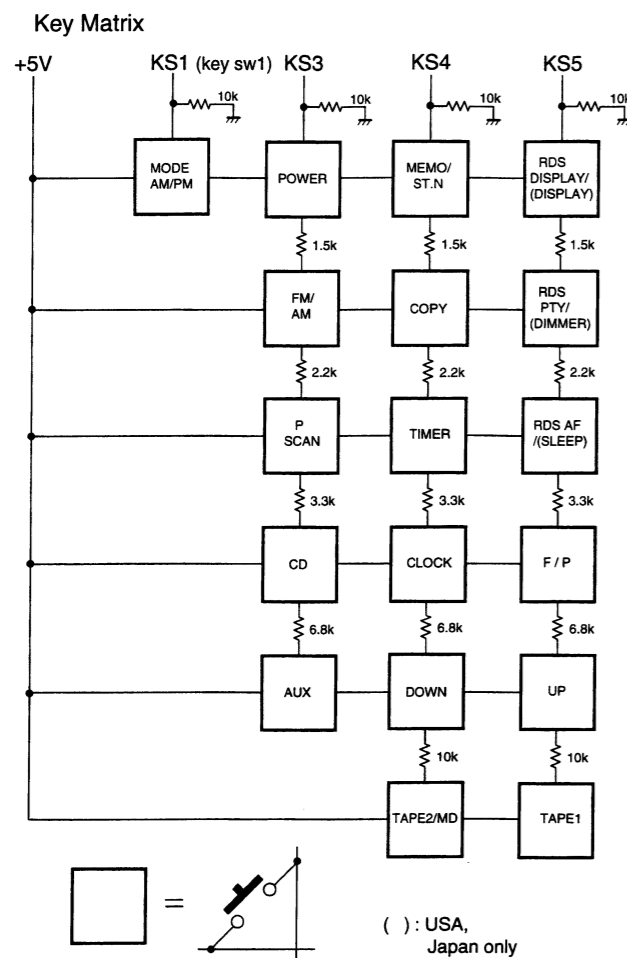
### Receiving Frequency Range, Channel Space, Reference Frequency and Intermediate Frequency

		Receiving Frequency	Channel Space	Reference Frequency	Intermediate Frequency
Europe	FM	87.5 ~ 108.0 MHz	50 kHz	25 kHz	+10.7 MHz
	MW	531 ~ 1602 kHz	9 kHz	9 kHz	+450 kHz
	LW	152 ~ 282 kHz	1 kHz	1 kHz	+450 kHz
U.S.A.	FM	87.5 ~ 108.0 MHz	100 kHz	25 kHz	+10.7 MHz
	AM	520 ~ 1710 kHz	10 kHz	10 kHz	+450 kHz
Japan	FM	76.0 ~ 90.0 MHz	100 kHz	25 kHz	-10.7 MHz
	AM	531 ~ 1602 kHz	9 kHz	9 kHz	+450 kHz



TMP87CK70AF

Pin No.	Pin name	I / O	Action	Function	Pin No.	Pin name	I / O	Action	Function		
1	INT0		I	H	41	G8		0	H	Power down signal	FTD 2G digit
2	INT1		I	L	42	G7		0	H	RDS Data start	FTD 3G digit
3	P12		I	H	43	G6		0	H	Processor SW	FTD 4G digit
4	P13		I	L	44	G5		0	H	SD in	FTD 5G digit
5	P14		I	H	45	G4		0	H	Di in	FTD 6G digit
6	P15		0	H	46	G3		0	H	Clock out	FTD 7G digit
7	P16		0	H	47	G2		0	H	Data out	FTD 8G digit
8	P17		0	H	48	G1		0	H	CE out	FTD 9G digit
9	TEST		I	-	49	G0		0	H	Not used	FTD 10G digit
10	XT in		I	-	50	S0		0	H	Sub clock, 32.768kHz	FTD S16 segment
11	XT out		0	-	51	S1		0	H	Sub clock	FTD S15 segment
12	RESET		I	L	52	S2		0	H	Reset	FTD Sr segment
13	X in		I	-	53	S3		0	H	Main clock, 8.0MHz	FTD Sp segment
14	X out		0	-	54	S4		0	H	Main clock	FTD Sn segment
15	Vss		-	-	55	S5		0	H	GND	FTD Sm segment
16	P20		I	H	56	S6		0	H	Hold	FTD Sk segment
17	P30		I	H	57	S7		0	H	RC-5 in	FTD Sj segment
18	P31		0	L	58	S8		0	H	RC-5 out	FTD Sh segment
19	P32		I	L	59	S9		0	H	RDS clock in	FTD Sd segment
20	P33		I	L	60	S10		0	H	RDS data in	FTD Sc segment
21	P34		0	L	61	S11		0	H	RDS reset out	FTD Se segment
22	P35		I	H	62	S12		0	H	System SW	FTD Sg segment
23	P36		I	L	63	S13		0	H	Door open SW	FTD Sf segment
24	P37		I	L	64	S14		0	H	Door close SW	FTD Sb segment
25	P00		0	-	65	S15		0	H	Not used	FTD Sa segment
26	P01		0	H	66	Vkk		-	-	Power relay drive	-30V
27	P02		0	L	67	P40		I	-	Edit	MODEL
28	P03		0	H	68	P41		I	L	Motor volume up	RDS
29	P04		0	H	69	P42		I	L	Motor volume down	LW
30	P05		0	H	70	P43		I	H	Door motor forward	JAPAN
31	P06		0	H	71	P44		0	-	Door motor reverse	Not used
32	P07		0	H	72	P45		0	-	Muting	Not used
33	Vdd		-	-	73	P46		-	-	+5V	Not used
34	G15		0	-	74	CIN4		I	-	Not used	Key SW 5
35	G14		0	-	75	CIN3		I	-	Not used	Key SW 4
36	G13		0	-	76	CIN2		I	-	Not used	Key SW 3
37	G12		0	-	77	CIN1		I	-	Not used	Not used
38	G11		0	-	78	CIN0		I	-	Not used	Key SW 1
39	G10		0	-	79	P54		I	L	Not used	Door key SW
40	G9		0	H	80	P55		I	H	Not used	AM stereo SELECT



## Description of Keys

### ※ RDS DISPLAY ( DISPLAY ) key

This key is used to switch the information shown on the display. It is valid only during tuner reception. Usually, the display shows the station name but the frequency appears when the key is pressed. During reception of a station without station name, its frequency is displayed. If this key is pressed then, "NO NAME" will be displayed for about 2 second.

### ※ RDS PTY ( DIMMER ) key

This key is used to select the PTY ( Programme Type ). When this key is pressed during reception of an RDS station, the PTY of the station being received will be displayed for about 5 seconds. If the UP or DOWN key is pressed after displaying the PTY, the PTY auto search starts and stops only when a station of the same PTY is received.

In case of "without RDS", this key functions as the Dimmer key, which varies ( dims ) the display brightness when it is pressed.

### ※ RDS AF ( SLEEP ) key

This key is used to switch the station being received to an AF ( Alternative Frequencies ) station. When the key is pressed during reception of an RDS station, a station broadcasting the same programme will be received. If there is no AF station to the original station, "NO AF" will be displayed.

In case of "without RDS", this key functions as the Sleep key, which allow to set the sleep timer.

### ※ F / P key

This key is used to switch the function of the UP / DOWN keys between the Frequency up / down keys and Preset up / down keys.

### ※ UP / DOWN keys

These keys are used to increase or decrease the frequency or preset number.

In the clock and timer modes, these keys are used to set the time, programme, etc.

### ※ TAPE1, TAPE2/MD, CD and AUX keys

These keys are used to select the input function.

### ※ FM / AM keys

This key is used to select the tuner mode and the receiving band.

In case the LW band is available, this key functions as the FM / MW / LW band selector keys.

### ※ P. SCAN key

This key is used to initiate the preset scanning of radio stations.

With preset scanning, the preset stations in memory are received sequentially for 5 seconds per each station.

When this key is pressed again, the preset scanning stops at that point.

### ※ MODE AM / PM key

This key is usually used as the MODE key for selecting the FM reception mode ( Auto stereo / Mono ).

In the clock and timer modes, this key functions as the AM / PM selector key.

### ※ MEMO / ST. N key

This key is usually used as the MEMO key for use in storing preset stations in memory or programming of the clock or timer.

When the key is held depressed for more than 3 seconds, the station name input mode is initiated and this key allows to input the station name manually.

### ※ COPY key

This key is used to initiate direct recording from TAPE2/MD to TAPE. This key is invalid if D. BUS switch on the rear panel is set to SYSTEM.

### ※ CLOCK key

This key is used when setting the current time of the day. When this key is pressed while the power is ON, the current time will be displayed for about 3 seconds.

### ※ TIMER key

This key is used when setting the programme timer or checking the programmed contents.

### ※ POWER key

This key is used to turn the power ON / OFF. The clock is displayed while the power is OFF.

### ※ DISPLAY key

DISPLAY部の表示を切替えるKeyです。チューナ受信時のみ有効です。

### ※ DIMMER key

Keyを押すと表示部の明るさが変化 ( 暗くなる ) します。

### ※ SLEEP key

Sleep key でSleep timerを設定することができます。

### ※ F/P key

UP/DOWNkeys をFrequency up/downかPreset up/downかに切替えるkeyです。

### ※ UP/DOWN keys

FrequencyPreset number のup/down keyです。Clock, Timer mode の時には、Time, Programme 等の設定keysになります。

### ※ TAPE1, TAPE2/MD, CD, AUX keys

Function切替えkeyです。

### ※ FM/AM key

Tuner選択及び受信Band 切替えるkeyです。

### ※ P. SCAN key

TunerのPreset scan を行なうkeyです。MemoryされているPreset stationを5秒間ずつ、順番に受信します。Preset scan中に再度keyを押すとstopします。

### ※ MODE AM/PM key

FM/AMの受信Mode (Auto stereo / Mono)を切替えるkeyです。Clock, Timer modeの時には、AM/PM切替えkeyになります。

### ※ MEMO/ST. N key

TunerのPreset memory やClock, TimerのProgramme等に使用するMemory keyです。3秒以上押し続けると、Station name input modeになり、manual でstation nameをinputすることができます。

### ※ COPY key

TAPE2/MDからTAPEに直接、録音する時に使用するkeyです。Rear panelの「D. BUS」のSwitchが「SYSTEM」に切替えてある時には、無効keyになります。

### ※ CLOCK key

現時刻を設定する時に使用するkeyです。又、Power on中にkeyを押すと表示部に3秒間現時刻が表示されます。

### ※ TIMER key

Programme timer の設定やProgramme内容の確認を行なうkeyです。

### ※ POWER key

Power on/off keyです。Power off時は時計表示となります。

# 10. ELECTRICAL PARTS LIST

## ASSIGNMENT OF COMMON PARTS CODES.

### RESISTORS

R\*\*\* : 1) GD05 x x x 140, Carbon film fixed resistor, ±5% 1/4W  
 R\*\*\* : 2) GD05 x x x 160, Carbon film fixed resistor, ±5% 1/6W  
 ① Resistance value

Examples :  
 ① Resistance value  
 0.1 Ω ..... 001    10 Ω ..... 100    1k Ω ..... 102    100k Ω ..... 104  
 0.5 Ω ..... 005    18 Ω ..... 180    2.7k Ω ..... 272    680k Ω ..... 684  
 1 Ω ..... 010    100 Ω ..... 101    10k Ω ..... 103    1M Ω ..... 105  
 6.8 Ω ..... 068    390 Ω ..... 391    22k Ω ..... 223    4.7M Ω ..... 475  
**Note** : Please distinguish 1/4W from 1/6W by the shape of parts used actually.

### CAPACITORS

C\*\*\* : CERAMIC CAP.

3) DD1 x x x x 370, Ceramic capacitor  
 Disc type  
 Temp.coeff. P350~N1000, 50V  
 ③ Capacity value  
 ② Tolerance

Examples  
 ② Tolerance (Capacity deviation)  
 ± 0.25 pF ..... 0  
 ± 0.5 pF ..... 1  
 ± 5% ..... 5  
 \* Tolerance of COMMON PARTS handled here are as follows :  
 0.5 pF - 5 pF ..... ± 0.25 pF  
 6 pF - 10 pF ..... ± 0.5 pF  
 12 pF - 560 pF ..... ± 5%

③ Capacity value  
 0.5 pF ..... 005    3 pF ..... 030    100 pF ..... 101  
 1 pF ..... 010    10 pF ..... 100    220 pF ..... 221  
 1.5 pF ..... 015    47 pF ..... 470    560 pF ..... 561

C\*\*\* : CERAMIC CAP.

4) DK16 x x x 300, High dielectric constant ceramic capacitor  
 Disc type  
 Temp.chara. 2B4, 50V  
 ④ Capacity value

Examples  
 ④ Capacity value  
 100 pF ..... 101    1000 pF ..... 102    10000 pF ..... 103  
 470 pF ..... 471    2200 pF ..... 222

C\*\*\* : 5) ELECTROLY CAP. ( , 6) FILM CAP. ( )

5) EA x x x x x 10, Electrolytic capacitor  
 One-way lead type, Tolerance ±20%  
 ⑥ Working voltage  
 ⑤ Capacity value

Examples  
 ⑤ Capacity value  
 0.1μF ..... 104    4.7μF ..... 475    100μF ..... 107  
 0.33μF ..... 334    10μF ..... 106    330μF ..... 337  
 1μF ..... 105    22μF ..... 226    1100μF ..... 118  
 2200μF ..... 228

⑥ Working voltage  
 6.3 V. . .006    25 V. . .025  
 10 V. . .010    35 V. . .035  
 16 V. . .016    50 V. . .050

6) DF15 x x x 350 → Plastic film capacitor  
 DF15 x x x 310 → One-way type, Mylar ±5% 50V  
 DF16 x x x 310 → Plastic film capacitor  
 One-way type, Mylar ±10% 50V  
 ⑦ Capacity value

Examples  
 ⑦ Capacity value  
 0.001μF (1000pF) ..... 102    0.1μF ..... 104  
 0.0018μF ..... 182    0.56μF ..... 564  
 0.01μF ..... 103    1μF ..... 105  
 0.015μF ..... 153

**NOTE** : 1) The above CODES (R\*\*\*, R\*\*\*, C\*\*\*, C\*\*\* and C\*\*\*) are omitted on the schematic diagram in some case.

2) On the occasion, be confirmed the common parts on the parts list.

3) Refer to "Common Parts List" for the other common parts (R105, DD4, DK4).

### NOTE ON SAFETY FOR FUSIBLE RESISTOR :

The suppliers and their type numbers of fusible resistors are as follows :

1. KOA Corporation  
 Part No.(MJI)    Type No.(KOA)    Description  
 NH05 x x x 140 → RF25S x x x x Ω J    (±5% 1/4W)  
 NH05 x x x 120 → RF50S x x x x Ω J    (±5% 1/2W)  
 NH85 x x x 110 → RF73B2A x x x x Ω J    (±5% 1/10W)  
 NH95 x x x 140 → RF73B2E x x x x Ω J    (±5% 1/4W)  
 \* Resistance value    Resistance value(0.1 Ω- 10k Ω)



2. Matsushita Electronic Components Co., Ltd  
 Part No.(MJI)    Type No.(MEC)    Description  
 NF05 x x x 140 → ERD-2FCJ x x x    (±5% 1/4W)  
 RF05 x x x 140 → ERD-2FCG x x x    (±2% 1/4W)  
 NF02 x x x 140 → ERD-2FCG x x x    (±2% 1/4W)  
 RF02 x x x 140 → ERD-2FCG x x x    (±2% 1/4W)  
 \* Resistance value

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


### ABBREVIATION AND MARKS

ANT. : ANTENNA	BATT. : BATTERY
CAP. : CAPACITOR	CER. : CERAMIC
CONN. : CONNECTING	DIG. : DIGITAL
HP : HEADPHONE	MIC. : MICROPHONE
μ-PRO : MICROPROCESSOR	REC. : RECORDING
RES. : RESISTOR	SPK : SPEAKER
SW : SWITCH	TRANSF. : TRANSFORMER
TRIM. : TRIMMING	TRS. : TRANSISTOR
VAR. : VARIABLE	X-TAL : CRYSTAL

### NOTE ON SAFETY:

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

### 安全上の注意 :

 がついている部品は、安全上重要な部品です。必ず指定されている部品番号の部品を使用して下さい。

(VERS. : VERSION, U : U.S.A., F : JAPAN, K : FAR EAST, /XX : EUROPE)

POS. NO.	VERS. COLOR	PART NO. (FOR EUROPE)	DISCRIPTION	PART NO. (MJI)
▲CB01		4822 122 33276	PB01-BACKUP TRANSF. CIRCUIT BOARD	
CB11		4822 122 33639	PB01-CAPACITORS CER. 0.1μF ±20%	DK17103840
CB12		4822 122 33639	CER. 1000pF ±10%	DA16102110
			CER. 1000pF ±10%	DA16102110
C***			PB01-CAPACITORS (COMMON) ELECTROLYTIC CAPACITOR ±20% : CB16 CB17	
▲RB11		4822 113 90107	PB01-RESISTORS 4.7 Ω ±5% 1/4W FUSIBLE	NH05047140
▲RB19		4822 050 22209	220 Ω ±5% 1/4W	GG05220140
R***			RB01-RESISTORS (COMMON) CARBON FILM FIXED RESISTOR ±5% 1/6W : RB16-RB18	
▲DB11		4822 130 82421	PB01-SEMICONDUCTORS DIODE 1D3 1A 200V	HD20002710
▲DB13		4822 130 82421	DIODE 1D3 1A 200V	HD20002710
▲DB14		4822 130 82421	DIODE 1D3 1A 200V	HD20002710
DB16		4822 130 32362	DIODE 1SS176 MA165	HD20002000
▲DB17		4822 130 82421	DIODE 1SS254 30V 0.1A	HD20002710
QB16		4822 130 61189	DEG.TRS. DTC114TS UN4215	BA20004000
QB17		4822 130 61441	TRS. 2SD1862 Q R	HT418622A0
▲F001	/2A/2M	4822 070 31252	PB01-MISCELLANEOUS FUSE 1.25A 125V	FS10125850
▲F001	F		FUSE 3.15A 125V	FS10315350
▲LB01		4822 280 10352	RELAY G5P-1 DC12V	LY10120350
▲TB01	/2A/2M	4822 146 10879	POWER TRASF. 230V	TS14823290
▲TB01	F		POWER TRASF. 100V	TS17805110
CT01	/2A/2M	4822 122 33639	PB41-HEADPHONE CIRCUIT BOARD CER. 1000pF ±10% 50V	DA16102110
CT02	/2A/2M	4822 122 33639	CER. 1000pF ±10% 50V	DA16102110
CT03	/2A/2M	4822 122 33639	CER. 1000pF ±10% 50V	DA16102110
JB32		4822 267 31685	PB41-MISCELLANEOUS JACK HEADPHONE	YJ01003900
CE01	/2A/2M	4822 126 10408	PG04-MOTOR VR TONE CIRCUIT BOARD CER. 220pF ±10%	DA16221110
CE02	/2A/2M	4822 126 10408	CER. 220pF ±10%	DA16221110
CE09		4822 124 23056	ELECT 47μF 16V	EJ47601610
CE10		4822 124 23056	ELECT 47μF 16V	EJ47601610
CE15		4822 124 23055	ELECT 22μF 16V	EJ22601610

POS. NO.	VERS. COLOR	PART NO. (FOR EUROPE)	DISCRIPTION	PART NO. (MJI)
CE16		4822 124 23055	ELECT 22μF 16V	EJ22601610
CE17				
CE20		4822 124 21894	ELECT 10μF 16V	EJ10601610
CG01		4822 122 30103	CER. 0.022μF +80% -20% 50V	DK18223310
CG05		4822 124 23052	ELECT 100μF 16V	EJ10701610
C***			PG04-CAPACITORS (COMMON) PLASTIC FILM CAPACITOR ±5% 50V : CE05-CE08 CE11-CE14	
RE01		4822 052 10151	PG04-RESISTORS 150 Ω ±5% 1/6W	GG05151160
RE01		4822 052 10151	150 Ω ±5% 1/6W	GG05151160
RE19		4822 101 30834	10 kΩ E VARIABLE	RM01030900
RE20		4822 101 30834	10 kΩ E VARIABLE	RM01030900
RG01		4822 101 30835	100 kΩ A x 2 100 kΩ B VAR.	RY01040240
R***			RG04-RESISTORS (COMMON) CARBON FILM FIXED RESISTOR ±5% 1/6W : RE05-RE18 RE21-RE24 RG03 RG04	
DE01		4822 130 32508	PG04-SEMICONDUCTORS DIODE RL103E DSF10C	HD20003000
QE01		4822 209 73064	IC NJM2068DD	HC10053090
QE02		4822 130 61227	DIG.TRS. DTA114ES UN4111	BA10001000
LE01		4822 280 20501	PG04-MISCELLANEOUS RELAY MR62-24SR	LY20240410
CA53	F		PR04-RDS/AM STEREO CIRCUIT BOARD ELECT 10μF 16V	EJ10601610
CA54	F		ELECT 10μF 16V	EJ10601610
CA56	F		CER. 0.022μF +80%- 20% 50V	DK18223310
CA64	F		ELECT 10μF 16V	EJ10601610
CA66	F		CER. 0.01μF ±20%	DA17103110
CA67	F		CER. 51pF ±5% 50V	DD15510300
CA68	F		ELECT 1μF 50V	EJ10505010
CA69	F		ELECT 22μF 16V	EJ22601610
CA70	F		ELECT 47μF 16V	EJ47601610
CA75	F		ELECT 0.1μF 50V	EJ10405010
CA76	F		ELECT 0.1μF 50V	EJ10405010
CA78	F			
CA79	F			
CA82	F		CER. 0.01μF ±20%	DA17103110
CR01	/2A/2M	4822 126 10935	ELECT 100μF 6.3V	EJ10700610
CR02	/2A/2M	4822 124 21894	ELECT 10μF 16V	EJ10601610
CR05	/2A/2M	4822 122 40586	CER. 0.01μF ±20% 25V	DA17103110
CR06	/2A/2M	4822 122 40586	CER. 0.01μF ±20% 25V	DA17103110
CR07	/2A/2M	4822 124 21894	ELECT 10μF 16V	EJ10601610
CR08	/2A/2M	4822 124 21894	ELECT 10μF 16V	EJ10601610
CR09	/2A/2M	4822 124 23057	ELECT 4.7μF 50V	EJ47505010
CR10	/2A/2M	4822 124 21894	ELECT 10μF 16V	EJ10601610
CR11	/2A/2M	4822 122 30103	CER. 0.022μF +80% -20% 50V	DK18223310
CR15	/2A/2M	4822 122 40586	CER. 0.01μF ±20% 25V	DA17103110



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POS. NO.	VERS. COLOR	PART NO. (FOR EUROPE)	DISCRIPTION	PART NO. (MJI)
C***			<b>PR04-CAPACITORS (COMMON)</b> HIGH DIELECTRIC CONSTANT CERAMIC CAPACITOR ±10% 50V: ( CA51 CA55 CA57-CA62 CA71-CA73 [ F ] ) ( CR03 CR04 CR12-CR14 [ /2A/2M ] )	
C***			PLASTIC FILM CAPACITOR ±5% 50V : ( CA63 CA65 [ F ] )	
RR06	/2A/2M	4822 100 11373	<b>PR04-RESISTORS</b> 4.7 kΩ TRIMMING	RA04720780
RR10	/2A/2M	4822 116 83929	220 Ω ±5%/14W	GG05221140
R***			<b>PR04-RESISTORS (COMMON)</b> CARBON FILM FIXED RESISTOR ±5% 1/6W : ( RA51 RA53-RA67 RA69-RA77 [ F ] ) ( RR01-RR05 RR07-RR09 [ /2A/2M ] )	
DR01	/2A/2M	4822 130 80317	<b>PR04-SEMICONDUCTORS</b> ZENER DIODE RD5.1JB2/MTZJ5.1B	HD30511000
QA51	F		IC MC13022P	HC10078170
QA52	F		TRS. 2SC536SP 2SC2458 2SC3311 2SC1740S	HT30001000
QA53	F		DIG.TRS. DTC144ES UN4213	BA20002000
QA54	F		DIG.TRS. DTA144ES UN4113	BA10002000
QA55	F		DIG.TRS. DTC144ES UN4213	BA20002000
QA56	F		DIG.TRS. DTA144ES UN4113	BA10002000
QR01	/2A/2M	4822 209 32706	IC LA2232 RDS	HC10315030
QR02	/2A/2M	4822 209 33818	IC LC7073 RDS	HC10333030
JA51	F		<b>PR04-MISCELLANEOUS</b> PLUG 9P	YP06006690
LA51	F		I.F.T. COIL	LI71010120
LA51	F		I.F.T. COIL	LI70033510
SV51	/2A/2M	4822 277 21712	SLIDE SW ON OFF	SS02021470
XA51	F		CER. RESONATOR 3.60MHZ	FQ03604020
XR01		4822 242 81608	CER. RESONATOR 4.56MHZ	FQ04563040
XR02		4822 242 72527	CER. RESONATOR 4.00MHZ	FQ04004030
CU01		4822 126 10935	<b>PU04-FRONT ETC</b> <b>CIRCUIT BOARD</b> <b>PU04-CAPACITORS</b> ELECT 100µF 6.3V	EJ10700610
CU02		4822 124 23295	BIG. ELECT 0.022F	EX22300510
CU05		4822 126 12867	ELECT 1000µF 6.3V	OA108006Q0
CU12		4822 122 40617	CER. 0.1µF +80% -20% 50V	DD38104010
CU51		4822 124 23056	ELECT 47µF 16V	EJ47601610
CU52		4822 126 10408	CER. 220pF ±10% 25V	DA16221110
CU53		4822 124 23057	ELECT 4.7µF 50V	EJ47505010
C***			<b>PU04-CAPACITORS (COMMON)</b> PLASTIC FILM CAPACITORS ±5% 50V : CU10	
RU03		4822 050 23308	<b>PU04-RESISTORS</b> 3.3MΩ ±5% 1/6W	GG05335160
RU05		4822 050 23308	3.3MΩ ±5% 1/6W	GG05335160
RU08		4822 050 23308	3.3MΩ ±5% 1/6W	GG05335160

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R***			<b>PU04-RESISTORS (COMMON)</b> CARABON FILM FIXED RESISTOR ±5% 1/6W : RU01 RU02 RU04 RU06 RU09 RU51-RU57 RU61	
DU01			<b>PU04-SEMICONDUCTORS</b>	
DU04		4822 130 32362	DIODE 1SS176 MA165	HD20002000
DU06			1SS254 30AV 0.1A	
DU09		4822 130 32362	DIODE 1SS176 MA165	HD20002000
DU51			1SS254 30AV 0.1A	
DU55		4822 130 32362	DIODE 1SS176 MA165	HD20002000
QU02		4822 130 42715	TRS. 2SA608SP 2SA1048 2SA13092SA933S	HT10001000
QU03		4822 130 61892	TRS. 2SD2144S U V	HT421442A0
QU04		4822 130 61189	DIG.TRS. DTC114TS	BA20017210
QU05		4822 130 61187	DIG.TRS. DTA144TS	BA10009210
QU06		4822 130 42682	DIG.TRS. DTA144ES UN4113	BA10002000
QU07		4822 130 42682	DIG.TRS. DTA144ES UN4113	BA10002000
QU08		4822 130 42594	DIG.TRS. DTC144ES UN4213	BA20002000
QU09		4822 130 42594	DIG.TRS. DTC144ES UN4213	BA20002000
QU10		4822 130 42682	DIG.TRS. DTA144ES UN4113	BA10002000
QU51		4822 209 63468	IC NJM082D	HC10066090
QU53		4822 130 60588	DIG.TRS. DTC114ES UN4211	BA20001000
XU02		4822 242 72236	<b>PU04-MISCELLANEOUS</b> CRYSTAL 32.768KHz	XO001001T0
CU03		4822 126 10935	<b>PU54-FL / µ-COM / TACTSW</b> <b>CIRCUIT BOARD</b> <b>PU54-CAPACITORS</b> ELECT 100µF 6.3V	EJ10700610
CU04		4822 122 40586	CER. 0.01µF ±20% 25V	DA17103110
CU06		4822 122 31823	CER. 15pF ±5% 50V	DD15150300
CU07		4822 122 31823	CER. 15pF ±5% 50V	DD15150300
CU08		4822 122 40617	CER. 0.1µF +80% -20%	DD38104010
CU09		4822 124 80087	ELECT 220µF 6.3V	EJ22700610
CU11		4822 122 40586	CER. 0.01µF ±20% 25V	DA17103110
CU15		4822 126 11558	CER. 0.1µF ±20%	DA17104110
GU01		4822 111 92205	<b>PU54-RESISTORS</b> 10 kΩ x4 ARRAY	BW05103250
GU02		4822 111 92204	10 kΩ x5 ARRAY	BW05103240
GU03		4822 111 92205	10 kΩ x4 ARRAY	BW05103250
R***			<b>PU54-RESISTORS (COMMON)</b> CARABON FILM FIXED RESISTOR ±5% 1/6W : RU07 RU10 RU14-RU28, UJ 30 ( RU12 RU13 RU29 [ F ] )	
QU01		4822 209 15871	<b>PU54-SEMICONDUCTORS</b> µ-PRO TMP87CK70A	HU226JT040
QU12		4822 130 83519	IR RECIVER RPM-670CB	HW10001210
SU01			<b>PU54-MISCELLANEOUS</b>	
SU18		4822 276 20508	PUSH SW TACT	SP01011280
VU01		4822 130 91418	DISPLAY UNIT 10GRD 16EG	HQ31003410
XU01		4822 242 72066	CER. RESOMNATOR 8.0MHz	FQ08004010

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POS. NO.	VERS. COLOR	PART NO. (FOR EUROPE)	DISCRIPTION	PART NO. (MJI)
<b>PV04-MAIN FUNCTION CIRCUIT BOARD PV04-CAPACITORS</b>				
CA01		4822 125 50384	TRIMMING 20pF	CT12000200
CA02		4822 122 40589	CER. 0.047μF ±20% 25V	DA17473110
CA03		4822 126 11553	CER. 15pF ±5%	DA15150120
CA04		4822 121 42466	FILM 390pF ±5% 100V	DF15391550
CA05		4822 126 10513	CER. 47pF ±5%	DA15470110
CA06		4822 122 40586	CER. 0.01μF ±20% 25V	DA17103110
CA07	/2A/2M	4822 122 40586	CER. 0.01μF ±20% 25V	DA17103110
CA08	/2A/2M	4822 125 50384	TRIMMING 20F	CT12000200
CA09	/2A/2M	4822 126 11553	CER. 15pF ±5%	DA15150120
CA11	/2A/2M	4822 122 31349	CER. 68pF ±5% 50V	DD15680300
CA12	/2A/2M	4822 122 10367	CER. 150pF ±5% 50V	DD15151300
CA13	/2A/2M	4822 122 40586	CER. 0.01μF ±20% 25V	DA17103110
CA18		4822 124 21894	ELECT 10μF 16V	EJ10601610
CD01		4822 122 40586	CER. 0.01μF ±20% 25V	DA17103110
CD02		4822 122 40586	CER. 0.01μF ±20% 25V	DA17103110
CD04				
f		4822 122 40586	CER. 0.01μF ±20% 25V	DA17103110
CD08				
CD09		4822 124 23052	ELECT 100μF 16V	EJ10701610
CD11		4822 124 23052	ELECT 100μF 16V	EJ10701610
CN01		4822 124 22571	ELECT 10μF 50V	OA10605020
CN02		4822 124 40786	ELECT 2.2μF 50V	EJ22505010
CN03		4822 124 23056	ELECT 47μF 16V	EJ47601610
CN04		4822 124 23056	ELECT 47μF 16V	EJ47601610
CN05		4822 122 40617	CER. 0.1μF +80% -20% 50V	DD38104010
CN06		4822 122 40617	CER. 0.1μF +80% -20% 50V	DD38104010
CV05				
f	/2A/2M	4822 126 10408	CER. 220pF ±10% 25V	DA16221110
CV16				
CV17		4822 122 40617	CER. 0.1μF +80% -20% 50V	DD38104010
CV18	/2A/2M	4822 126 10408	CER. 220pF ±10% 50V	DA16221110
CV19		4822 122 40617	CER. 0.1μF +80% -20% 50V	DD38104010
CV20	/2A/2M	4822 126 10408	CER. 220pF ±10% 50V	DA16221110
CV21				
f		4822 124 21894	ELECT 10μF 16V	EJ10601610
CV26				
CV27		4822 122 40617	CER. 0.1μF +80% -20% 50V	DD38104010
CV28		4822 122 40617	CER. 0.1μF +80% -20% 50V	DD38104010
C201		4822 122 40586	CER. 0.01μF ±20% 25V	DA17103110
C202		4822 122 40586	CER. 0.01μF ±20% 25V	DA17103110
C203		4822 122 40589	CER. 0.047μF ±20% 25V	DA17473110
C204		4822 124 21894	ELECT 10μF 16V	EJ10601610
C205		4822 122 40589	CER. 0.047μF ±20% 25V	DA17473110
C206		4822 124 21982	ELECT 3.3μF 50V	EJ33505010
C207		4822 124 23052	ELECT 100μF 16V	EJ10701610
C208		4822 122 40589	CER. 0.047μF ±20% 25V	DA17473110
C209		4822 124 23053	ELECT 1μF 50V	EJ10505010
C210		5322 122 32072	CER. 33pF ±5% 50V	DD15330300
C211		4822 124 23053	ELECT 1μF 50V	EJ10505010
C212		4822 124 41604	ELECT 0.1μF 50V	EJ10405010
C213		4822 124 23054	ELECT 0.47μF 50V	EJ47405010
C214	/2A/2M	4822 124 23057	ELECT 4.7μF 50V	EJ47505010
C214	F		ELECT 3.3μF 50V	EJ33505010
C215		4822 122 40589	CER. 0.047μF +80% -20% 25V	DA17473110
C217		5322 122 32143	CER. 22pF ±5%	DD15220300
C218		4822 124 23052	ELECT 100μF 16V	EJ10701610
C301		4822 124 21982	ELECT 3.3μF 50V	EJ33505010
C302		4822 124 21982	ELECT 3.3μF 50V	EJ33505010

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C305		4822 124 21982	ELECT 3.3μF 50V	EJ33505010
C306		4822 124 21982	ELECT 3.3μF 50V	EJ33505010
C307		4822 124 21894	ELECT 10μF 16V	EJ10601610
C308		4822 124 21894	ELECT 10μF 16V	EJ10601610
C501		4822 126 10513	CER. 47μF ±5%	DA15470110
C502		4822 126 10513	CER. 47μF ±5%	DA15470110
C503		4822 124 23052	ELECT 100μF 16V	EJ10701610
C504		4822 122 40586	CER. 0.01μF ±20% 25V	DA17103110
C505		4822 124 23053	ELECT 1μF 50V	OA10505010
C506		4822 124 41604	ELECT 0.1μF 50V	OA10405010
C507		4822 122 40586	CER. 0.01μF ±20% 25V	DA17103110
C508		4822 124 23052	ELECT 100μF 16V	EJ10701610
C509		5322 122 32265	CER. 100pF ±5% 500V	DD15101560
C510		5322 122 32265	CER. 100pF ±5% 500V	DD15101560
C511		4822 122 40586	CER. 0.01μF ±20% 25V	DA17103110
C512		4822 122 40586	CER. 0.01μF ±20% 25V	DA17103110
C701		4822 124 23057	ELECT 4.7μF 50V	EJ47505010
C702		4822 124 23057	ELECT 4.7μF 50V	EJ47505010
C705		5322 122 32072	CER. 33pF ±5% 50V	DD15330300
C706		5322 122 32072	CER. 33pF ±5% 50V	DD15330300
C707		4822 124 22571	ELECT 10μF 50V	OA10605020
C708		4822 124 22571	ELECT 10μF 50V	OA10605020
C711		4822 126 10797	CER. 10pF ±0.5pF 500V	DD11100560
C712		4822 126 10797	CER. 10pF ±0.5pF 500V	DD11100560
C713		4822 122 40103	CER. 5pF ±0.25pF 50V	DD10050300
C714		4822 122 40103	CER. 5pF ±0.25pF 50V	DD10050300
C717				
f		5322 122 32265	CER. 100pF ±5% 500V	DD15101560
C720				
C721				
f		4822 124 21895	ELECT 0.22μF 50V	EJ22405010
C724				
C725		4822 124 23052	ELECT 100 μF 16V	EJ10701610
C726		4822 124 22571	ELECT 10 μF 50V	OA10605020
C735	/2A/2M	4822 122 30043	CER. 0.01μF +80% -20% 50V	DK18103310
C803		4822 124 22695	ELECT 2200μF 35V	OA22803520
C805		4822 124 21894	ELECT 10μF 16V	EJ10601610
C806		4822 124 23057	ELECT 4.7μF 50V	EJ47505010
C807		4822 124 21894	ELECT 10μF 16V	EJ10601610
C808		4822 124 23056	ELECT 47μF 16V	EJ47601610
C809		4822 124 22571	ELECT 10μF 50V	OA10605020
▲C811		4822 126 12453	CER. 0.01μF +80% -20% 500V	DK18103560
▲C812		4822 126 12866	ELECT 4700μF 50V	EB47805040
▲C813		4822 126 12866	ELECT 4700μF 50V	EB47805040
C814		4822 122 40589	CER. 0.047μF ±20% 50V	DA17473110
C815		4822 122 40589	CER. 0.047μF ±20% 50V	DA17473110
***			<b>PV01-CAPACITORS (COMMON)</b> PLASTIC FILM CAPACITOR ±5% 50V : CA15 ( CA16 CA17 [ /2A/2M ] ) C303 C304	
***			HIGH DIELECTRIC CONSTANT CERAMIC CAPACITOR ±10% 50V : ( CV01-CV04 CV29 CV30 [ /2A/2M ] )C703 C704 C709 C710	
***			ELECTROLYTIC CAPACITOR ±20%: C727 C728 C804 C817	

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POS. NO.	VERS. COLOR	PART NO. (FOR EUROPE)	DISCRIPTION	PART NO. (MJJ)	POS. NO.	VERS. COLOR	PART NO. (FOR EUROPE)	DISCRIPTION	PART NO. (MJJ)
RA11		4822 100 11351	<b>PV04-RESISTORS</b> 10 kΩ TRIMMING	RA01030780	DA01		4822 125 50416	<b>PV04-SEMICONDUCTORS</b> VARICAP SVC342K	HD40009030
▲RD06		4822 111 90967	4.7 Ω ±5%1/6W FUSE	NF05047140	DA02	/2A/2M	4822 130 33697	DIODE 1SS135	HD20017210
▲RN19		4822 053 11271	270 Ω ±5% 2W	GA05271020	DA03	/2A/2M	4822 125 50416	VARICAP SVC342K	HD40009030
▲RN20		4822 053 11222	2.2 kΩ ±5% 2W	GA05222020	DA04	/2A/2M	4822 130 33697	DIODE 1SS135	HD20017210
▲RN22		4822 053 11271	270 Ω ±5% 2W	GA05271020	DA05		4822 130 32362	DIODE 1SS176 MA165	HD20002000
▲RV37		4822 052 10151	150 Ω ±5% 1/6W	GG05151160	DA06		4822 130 32362	DIODE 1SS254 30V 0.1A	HD20002000
▲RV38		4822 052 10151	150 Ω ±5% 1/6W	GG05151160	DD01		4822 130 82609	ZENER DIODE MTZJ2.0B	HD30201000
▲R207		4822 050 21021	100 Ω ±5% 1/4W	GG05101140	DD02		4822 130 33759	ZENER DIODE RD4.7JB2 MTZJ4.7B	HD30471000
R211		4822 100 11373	4.7 kΩ TRIMMING	RA04720780	DN01		4822 130 80837	DIODE HSS81	HD20027010
R212		4822 100 11352	22 kΩ TRIMMING	RA02230780	DN02		4822 130 80837	DIODE HSS81	HD20027010
▲R313		4822 052 10151	150 Ω ±5% 1/6W	GG05151160	DN04		4822 130 32508	DIODE RL103E DSF10C	HD20003000
▲R314		4822 052 10151	150 Ω ±5% 1/6W	GG05151160	DN05		4822 130 32362	DIODE 1SS176 MA165	HD20002000
▲R512		4822 052 10221	220 Ω ±5% 1/6W	GG05221160	D501		4822 130 80317	ZENER DIODE RD5.1JB2 MTZJ5.1B	HD30511000
▲R713		4822 050 26809	68 Ω ±5% 1/6W	GG05680160	D701		4822 130 80273	ZENER DIODE RD8.2JB2 MTZJ8.2C	HD30821000
▲R714		4822 050 26809	68 Ω ±5% 1/6W	GG05680160	D702		4822 130 80322	ZENER DIODE RD15JB3 MTZJ16A	HD31501000
R719		4822 100 11386	1 kΩ TRIMMING	RA01020780	D703		4822 130 32362	DIODE 1SS176 MA165	HD20002000
R720		4822 100 11386	1 kΩ TRIMMING	RA01020780	D706		4822 130 32508	DIODE RL103E DSF10C	HD20003000
▲R725		4822 050 26809	68 Ω ±5% 1/6W	GG05680160	▲D801		4822 130 32508	DIODE RL103E DSF10C	HD20003000
▲R730		4822 053 10221	220 Ω ±5% 1W	GA05221010	▲D806		4822 130 80838	ZENER DIODE RD18JB2 MTZJ18C	HD31801000
▲R731		4822 053 10221	220 Ω ±5% 1W	GA05221010	D807		4822 130 80091	ZENER DIODE RD12JB2 MTZJ12C	HD31201000
▲R732		4822 053 10221	220 Ω ±5% 1W	GA05221010	D809		4822 130 31007	DIODE S4VB20	HE20015290
▲R733		4822 052 10109	10 Ω ±5% 1/6W	GG05100160	▲D811		4822 130 42298	TRS. 2SC536SP 2SC2458	HT30001000
▲R736		4822 116 82049	0.18 Ω x 2 3W ARRAY	BZ10182010	QA01	/2A/2M	4822 130 42298	2SC3311 2SC1740S	HT30001000
▲R737		4822 116 82049	0.18 Ω x 2 3W ARRAY	BZ10182010	QA02	/2A/2M	4822 130 42298	TRS. 2SC536SP 2SC2458	HT30001000
▲R738		4822 116 82049	0.18 Ω x 2 3W ARRAY	BZ10182010	QA03	/2A/2M	4822 130 61892	TRS. 2SD2144S U V	HT421442A0
▲R739		4822 050 26809	68 Ω ±5% 1/6W	GG05680160	QA04	/2A/2M	4822 130 61227	DIG.TRS. DTA114ES UN4111	BA10001000
▲R740		4822 050 26809	68 Ω ±5% 1/6W	GG05680160	QA05	/2A/2M	4822 130 61227	DIG.TRS. DTA114ES UN4111	BA10001000
▲R743		4822 053 11109	10 Ω ±5% 2W	GA05100020	QD01		4822 209 30193	IC LB1641 DRIVER	HC10279030
▲R744		4822 053 11109	10 Ω ±5% 2W	GA05100020	QD02		4822 209 30193	IC LB1641 DRIVER	HC10279030
▲R745		4822 053 10332	3.3 kΩ ±5% 1W	GA05332010	QN01		4822 130 43233	TRS. 2SC2240	HT322402A0
▲R747		4822 052 10221	220 Ω ±5% 1/6W	GG05221160	QN02		4822 130 43233	TRS. 2SC2240	HT322402A0
▲R748		4822 052 10221	220 Ω ±5% 1/6W	GG05221160	QN03		4822 130 42949	TRS. 2SA970	HT109702A0
▲R751		4822 053 10331	330 Ω ±5% 1W	GA05331010	QN04		4822 209 83312	IC TA7317P	HC10042050
▲R752		4822 053 10331	330 Ω ±5% 1W	GA05331010	QN05		4822 130 60588	DIG.TRS. DTC114ES UN4211	BA20001000
▲R801		4822 117 10158	1 Ω ±5% 1/4W	GG05010140	QV01		4822 209 32552	IC LC78211	HC10308030
▲R802		4822 117 10158	1 Ω ±5% 1/4W	GG05010140	QV03		4822 130 60588	DIG.TRS. DTC114ES UN4211	BA20001000
▲R808		4822 117 10002	2.2 kΩ ±5% 1/2W	GG05222120	QV04		4822 130 61227	DIG.TRS. DTA114ES UN4111	BA10001000
▲R809		4822 053 10221	220 Ω ±5% 1W	GA05221010	QV05		4822 130 61892	TRS. 2SD2144S U V	HT421442A0
▲R810		4822 053 11688	6.8 Ω ±5% 2W	GA05068020	QV06		4822 130 61892	TRS. 2SD2144S U V	HT421442A0
R***			<b>PV04-RESISTORS (COMMON)</b> CARBON FILM FIXED RESISTOR ±5% 1/6W : RA01 RA02 ( RA03 RA04 RA06~RA10 [ /2A/2M ] ) RD01~RD04 RN01~RN18 RN21 RN31 RN32 RV01~RV36 RV41 RV42 RV45 RV46 R202~R206 R208~R210 R215 R216 ( R217 [ /2A/2M ] ) ( R218 [ F ] ) R301 R302 R305~R312 ( R315 R316 [ F ] ) R501~R507 R509~R511 R703~R712 R715~R718 R721~R724R746 R753 R804~R806		QV07		4822 209 83631	IC NJM4588DD	HC10008090
					Q201		4822 209 31001	IC LA1851N	HC10288030
					Q202		4822 130 62294	TRS. 2SC1809S P	HT318091P0
					Q203		4822 130 61227	DIG.TRS. DTA114ES UN4111	BA10001000
					Q204		4822 130 61227	DIG.TRS. DTA114ES UN4111	BA10001000
					Q205		4822 126 90006	VARIATOR PTH59F04BH222TS	HP00016230
					Q206	/2A/2M	4822 130 42298	TRS. 2SC536SP 2SC2458 2SC3311 2SC1740S	HT30001000

(VERS. : VERSION, U : U.S.A., F : JAPAN, K : FAR EAST, /XX : EUROPE)

POS. NO.	VERS. COLOR	PART NO. (FOR EUROPE)	DISCRIPTION	PART NO. (MJI)
Q301		4822 209 83631	IC NJM4588DD	HC10008090
Q303	F		DIG.TR.S. DTC114ES UN4211	BA20001000
Q303	F		DIG.TR.S. DTA114ES UN4111	BA10001000
Q305	F		TRS. 2SD2144 U V	HT421442A0
Q306	F		TRS. 2SD2144 U V	HT421442A0
Q501		4822 209 30178	IC LC7218 PLL	HC10221030
Q502		4822 130 42121	F.E.T. 2SK30A	HF200300B0
Q503		4822 130 42298	TRS. 2SC536SP 2SC2458 2SC3311 2SC1740P	HT30001000
▲Q701		4822 130 42949	TRS. 2SA970 GR BL	HT109702A0
▲Q702		4822 130 42949	TRS. 2SA970 GR BL	HT109702A0
▲Q703		4822 130 43233	TRS. 2SC2240	HT322402A0
▲Q704		4822 130 43233	TRS. 2SC2240	HT322402A0
▲Q705		4822 130 60117	TRS. 2SC3419 Y	HT334191Y0
▲Q706		4822 130 60117	TRS. 2SC3419 Y	HT334191Y0
▲Q707		4822 130 62335	TRS. 2SD2033 E	HT420331E0
▲Q708		4822 130 62335	TRS. 2SD2033 E	HT420331E0
▲Q709		4822 130 62334	TRS. 2SB1353 E	HT213531E0
▲Q710		4822 130 62334	TRS. 2SB1353 E	HT213531E0
▲Q711		4822 130 11033	TRS. 2SC5196 R O	HT351962A0
▲Q712		4822 130 11033	TRS. 2SC5196 R O	HT351962A0
▲Q713		4822 130 11034	TRS. 2SA1939 R O	HT119392A0
▲Q714		4822 130 11034	TRS. 2SA1939 R O	HT119392A0
▲Q717		4822 209 83732	IC AN7062 V-AMP	HC10066020
▲Q801		4822 209 60826	IC NJM7812FA	HC38912090
▲Q802		4822 209 32514	IC L78MR06	HC10263030
<b>PV04-MISCELLANEOUS</b>				
A101	/2A/2M	4822 210 10567	FM FRONT END FE417-G02	AV01202230
A101	F		FM FRONT END FE337-J05	AV01201090
FA01		4822 242 81262	CERAMIC FILTER SFP450F	FF10045390
F201	/2A/2M	4822 242 70665	CERAMIC FILTER SFE10.7MS3-A	FF11070620
F201	F		CERAMIC FILTER SFE10.7MA8-A	FF11070610
F202		4822 242 70665	CERAMIC FILTER SFE10.7MS3-A	FF11070620
JV01		4822 267 31451	TERMINAL 8P RCA PIN JACK	YT02080110
JV02		4822 267 31451	TERMINAL 8P RCA PIN JACK	YT02080110
JV03		4822 267 41009	TERMINAL 2P RCA JACK	YT02020890
J101	/2A/2M	4822 290 81632	TERMINAL ANT	YT03030020
J101	F		TERMINAL ANT	YT01030080
LA01		4822 157 63084	ANT COIL MW	LA10295170
LA02		4822 157 70779	OSC.COIL MW	LO70013010
LA03	/2A/2M	4822 157 52714	ANT COIL LW	LA10295160
LA04	/2A/2M	4822 157 70781	OSC.COIL LW	LO70013020
LA05		4822 157 53589	CHOKE COIL	LC23960710
LA06		4822 148 81095	I.F.T. COIL AM	LI70033510
LN02		4822 280 20501	RELAY SRV-24A	LY20240400
L201		4822 157 63904	I.F.T. COIL	LI70376010
L202		4822 156 10794	M.P.X. COIL	LS10295030
L301		4822 157 70021	M.P.X. COIL 19.38KHz	LS10293010
L302		4822 157 70021	M.P.X. COIL 19.38KHz	LS10293010
L701		4822 157 70022	AIR COIL SPK CHOCK	ML08010030
L702		4822 157 70022	AIR COIL SPK CHOCK	ML08010030
R103		4822 526 10584	FERRITE CORE	FC90090010

POS. NO.	VERS. COLOR	PART NO. (FOR EUROPE)	DISCRIPTION	PART NO. (MJI)
SV01		4822 277 21718	SLIDE SW INT EXT	SS02030560
S301	F		SLIDE SW SCAN STEP PROC	SS02021470
X201		4822 242 81608	CER. RESONATOR 4.56MHz	FQ04563040
X501		4822 242 72333	CRYSTAL, 7.2MHz	JX07001260
<b>PV64-SPK TERMINAL CIRCUIT BOARD</b>				
C729	/2A/2M	4822 122 30043	CER.CAP. 0.1µF +80% -20%	DK18103310
C730	/2A/2M	4822 122 30043	CER.CAP. 0.1µF +80% -20%	DK18103310
C733	/2A/2M	4822 122 30043	CER.CAP. 0.1µF +80% -20%	DK18103310
C734	/2A/2M	4822 122 30043	CER.CAP. 0.1µF +80% -20%	DK18103310
DN03		4822 130 32508	DIODE RL103E/DSF10C	HD20003000
J701		4822 290 81646	TERMINAL 4P SPK	YT01040640
LN01		4822 280 70354	RELAY VB24MBU	LY20240310
R103		4822 526 10584	FERRITE CORE	FC90090010