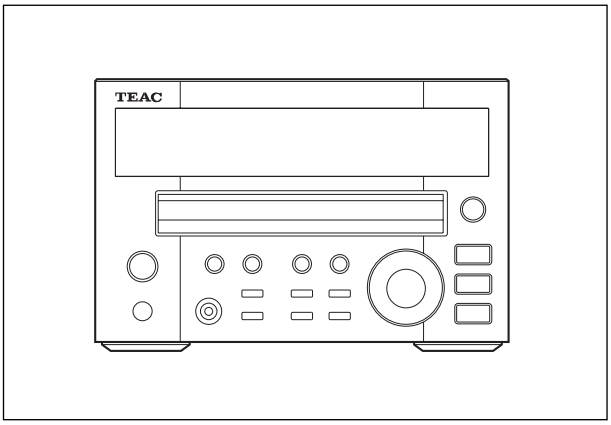


TEAC

SERVICE MANUAL

CR-H80/CR-H80mkII

CD/TUNER/AMPLIFIER

NOTES

- PC boards shown are viewed from parts side.
- The parts with no reference number or parts number in the exploded views are not supplied.
- As regards the resistors and capacitors, refer to the circuit diagrams contained in this manual.
- ⚠ Parts marked with this sigh are critical components. They must be replaced with identical components - refer to the appropriate parts list and ensure exact replacement.

CONTENTS

Specifications

AMP Section

Power output	: 20W + 20W (6Ω, 1 kHz)
Total Harmonic Distortion	: 5% (1 kHz)
S/N Ratio (Input Short)	: 85 dB (IHF-A)
Input Sensitivity	
LINE	: 200 mV/22 kΩ
Output level	
Tape	: 180 mV/2.2 kΩ
Frequency Response	: 20 Hz to 40 kHz (-3 dB)
Tone control	
Bass	: 9 dB (100 Hz)
Treble	: 9 dB (10 kHz)
Cross-Talk (Separation)	
CD (Linear)	: 50 dB (1 kHz)
Other Ch.	: 65 dB (1 kHz)

General

Power Consumption	: 60W
Power Requirements	: 100V, 50-60Hz [J]
Dimensions (W x H x D)	: 175 X 115 X 325 mm
Weight (net)	: 3.6 kg

Standard Accessories

Remote Control Unit	: 1
Operator's Manual	: 1
AM Loop Antenna	: 1
FM Antenna	: 1

FM Section

Tuning Range	: 76 MHz - 90 MHz, 100 kHz step
Usable Sensitivity (30 dB S/N)	: 11.2 dBf (2uV)
Distortion	
Mono	: 0.5%
Stereo	: 1.0%
Signal-to-Noise Ratio	
Mono	: 65 dB
Stereo	: 60 dB
Frequency Response	: 30 - 15 kHz (-3 dB)

AM Section

Tuning Range	: 522 kHz - 1620 kHz, 9 kHz step
AM Sensitivity	: 600 uV/m
Selectivity +/-9K	: 25 dB
Frequency Response	: 80 - 2.3 kHz
Signal-to-Noise Ratio	: 40 dB (50mV/m)

CD PLAYER Section

Signal-to-Noise Ratio	: 80 dB (with IHF "A" Filter)
T.H.D	: 0.05% (1 kHz, 20 kHz LPF)
Channel Separation	: 55 dB (1 kHz)
Channel Balance	: 1 dB
Frequency Response	: 17 Hz - 20 kHz (±1.5 dB)
Wow Flutter	: Bellow Measurable

* Improvements may result in specification or feature changes without notice.

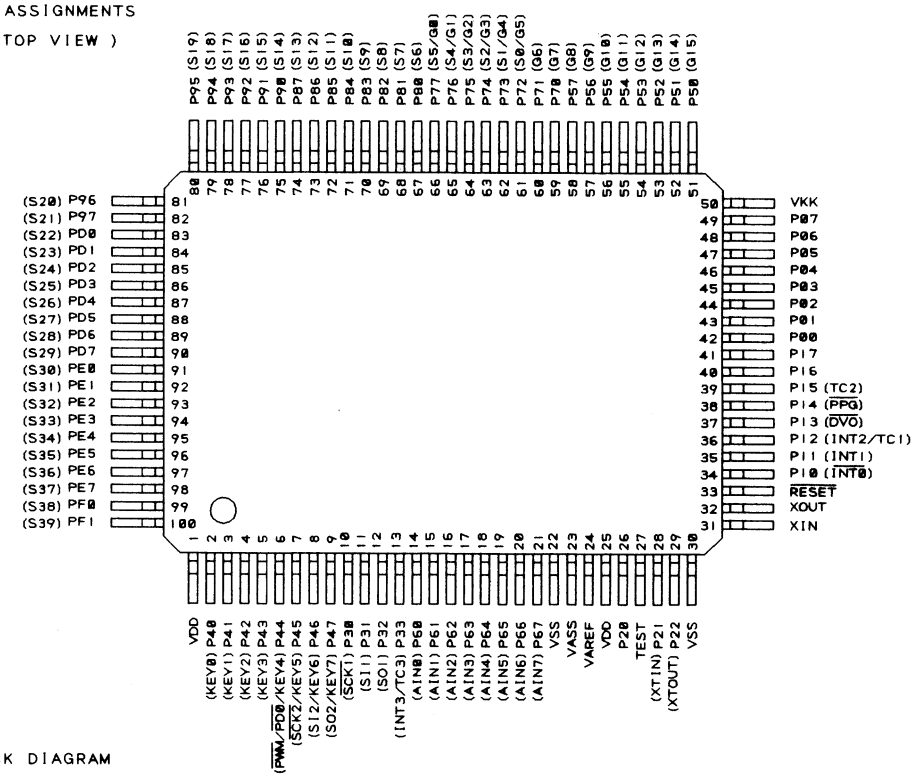
IC PIN FUNCTION (IC : ANAM1290ACT)

PIN No.	NAME	I/O	DESCRIPTION
1, 25	VDD	-	POWER SUPPLY (+5V)
2	CD BUS 0	I/O	BUS for CD DATA
3	CD BUS 1	I/O	BUS for CD DATA
4	CD BUS 2	I/O	BUS for CD DATA
5	CD BUS 3	I/O	BUS for CD DATA
6	BUCK	I/O	BUS for CD CLOCK
7	CCE	I/O	BUS for CD CHIP ENABLE
8	RESET	I	RESET for CD
9	MUTE	O	MUTE for CD SINGLE
10	ME-MOT OPEN	O	MECHA-MOTOR OPEN
11	ME-MOT CLOSE	O	MECHA-MOTOR CLOSE
12	DATA	O	EUROPE VERSION RDS DATA CONTROL PORT
13	CLOCK	O	
14	STEREO IN	I	STEREO IN CONTROL INPUT
15	TUNED	I	TUNED CONTROL INPUT
17	PROTECTOR	I	PROTECTOR IN PORT
20, 21	KEY MATRIX	I	KEY MATRIX PORTS
22,23,27,30	VSS	-	GND
24	VAREF	-	A/D CONVERTOR REFERENCE VOLTAGE
26	BACK UP	I	BACK-UP MODE CONTROL INPUT
28, 29	X-TAL	I	32.768kHz SUB CLOCK CONNECTING PORT
31	X IN	I	8MHz CRYSTAL CONNECTING TERMINAL
32	X OUT	O	
33	RESET	I	SYSTEM RESET PULSE INPUT
34	REMOTE IN	I	REMOTE CONTROL SIGNAL INPUT
35	BUS IN	I	REMOTE CONTROL SIGNAL INPUT
36	BUS OUT	O	REMOTE CONTROL SIGNAL INPUT
38	SPEAKER	O	SPEAKER ON/OFF PORT
41	CE	O	PLL DATA CONTROL PORT
42	DATA OUT	O	
43	CLOCK	O	
44	DATA IN	I	
45	CLOCK	O	TDA7318D DATA CONTROL PORT
46	DATA	O	
47	POWER	O	POWER ON/OFF
48	MUTE	O	SIGNAL MUTE
50	VFL		(-33V) NEGATIVE POWER SUPPLY FOR FIP BLINKING
52 ~ 60	GRID	O	FIP GRID CONTROL OUTPUTS
61 ~ 82	SEGMENT	O	FIP SEGMENT CONTROL OUTPUTS
83 ~ 87		I	AREA OPTION
89	CD POWER	O	CD POWER ON/OFF PORT
90	ON/STBY LED	O	ON/STANDBY LED CONTROL PORT
91	TAPE 'H'	O	ON TAPE FUNCTION 'H' OUTPUT PORT
93	MD 'H'	O	ON MD FUNCTION 'H' OUTPUT PORT
96, 97	JOG CONTROL	I	VOL/BAL/BASS/TRE CONTROL JOG INPUT PORT
98	CD CLOSE SW	I	
99	CD OPEN SW	I	For CD MECHANISM SW
100	CD LIMIT SW	I	

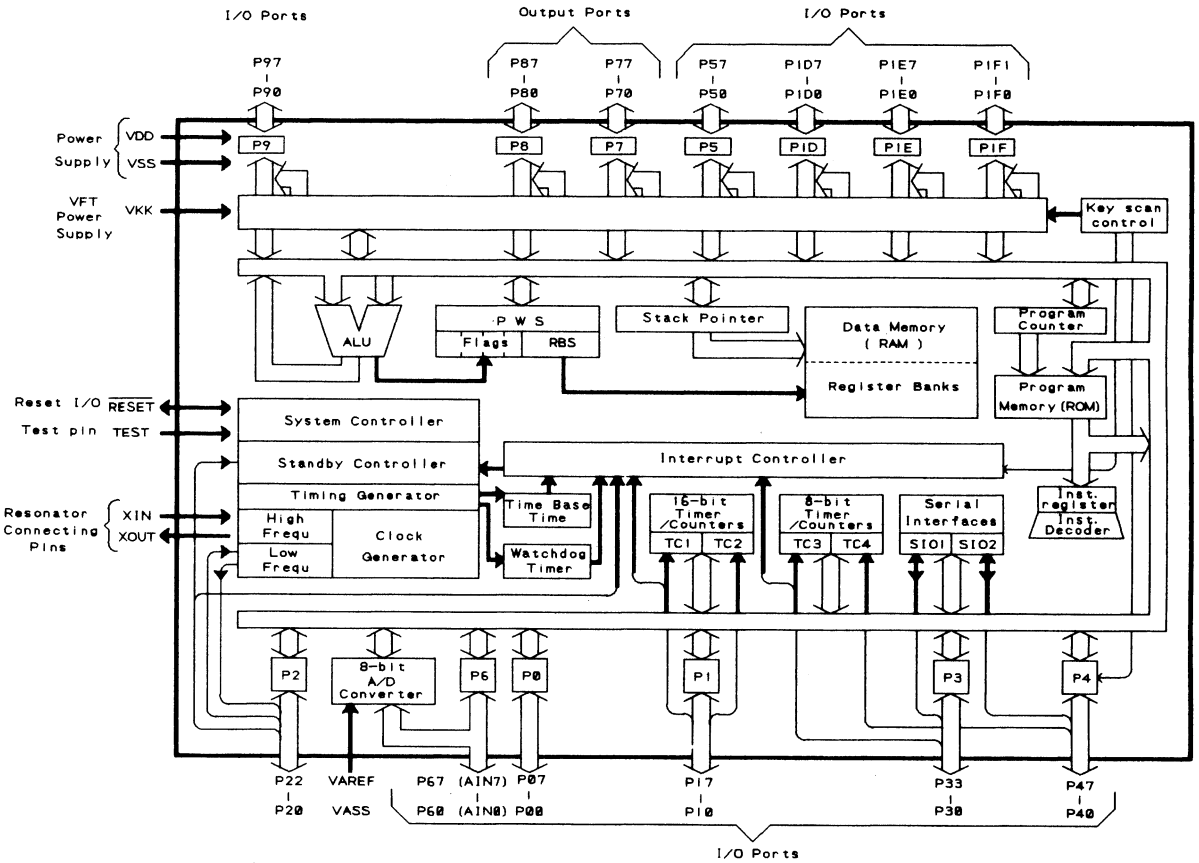
[U-COM FUNCTION : BVIANAM126T]

PIN ASSIGNMENTS

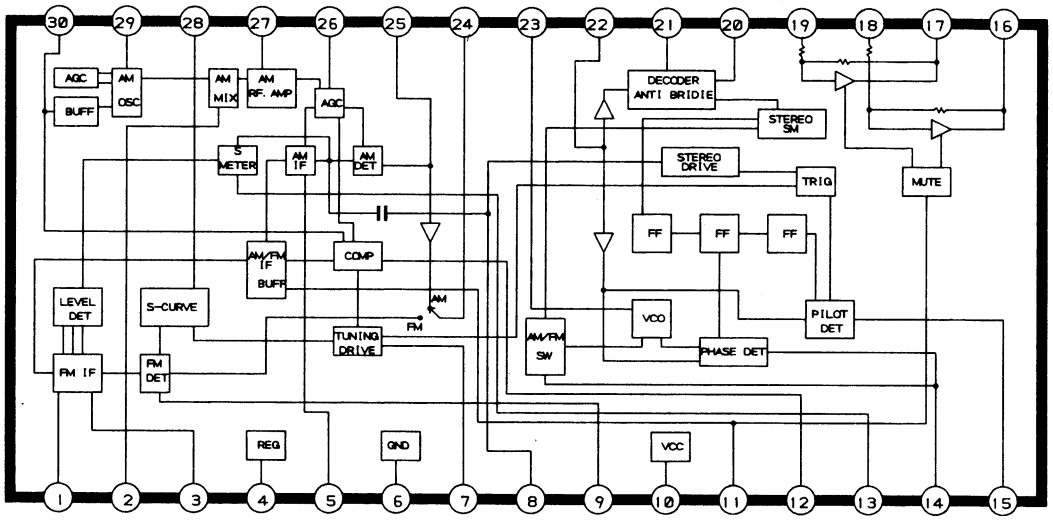
(TOP VIEW)



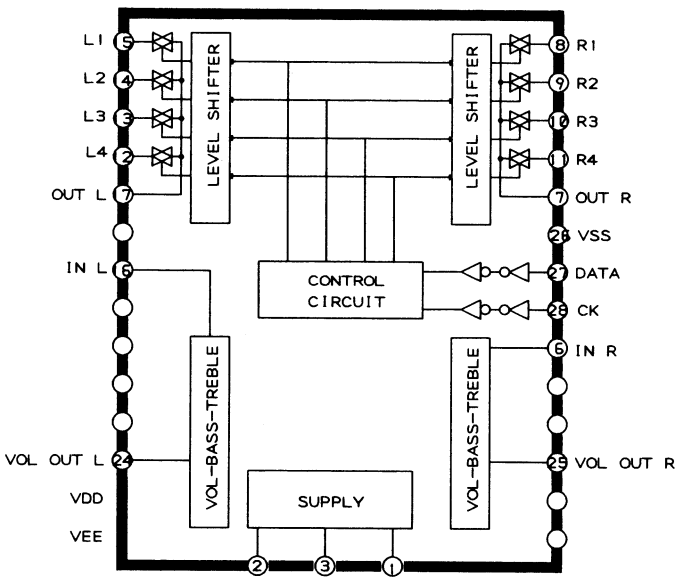
BLOCK DIAGRAM



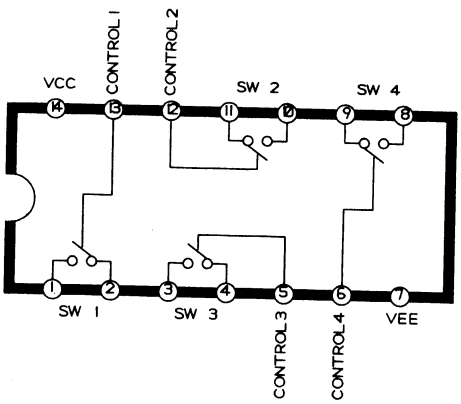
IC12(TUNER) LA1836M BLOCK DIAGRAM



TDA 7318D



IC22(INPUT) LC4966



■ ALIGNMENT INSTRUCTIONS

EQUIPMENT NEEDED:

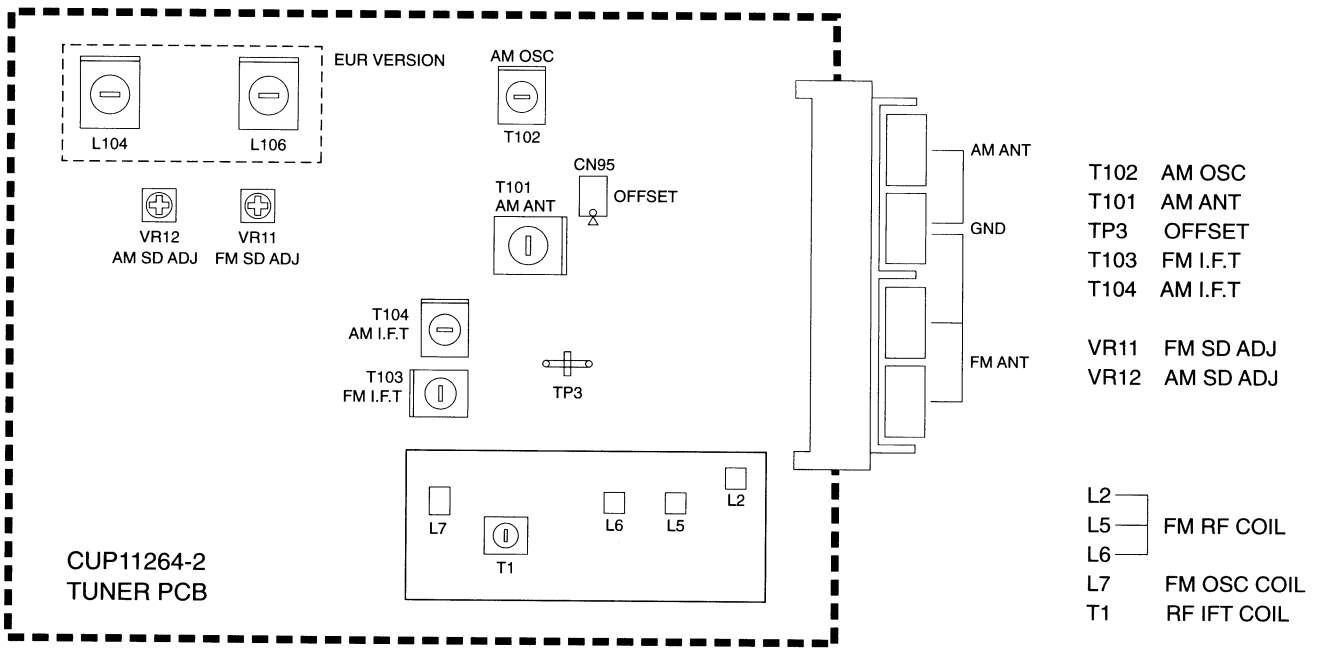
AM Signal Generator
FM Signal Generator
Oscilloscope
VTVM(AC, DC)
Test loop antenna (AW Adjustment)
Dummy antenna (FM Adjustment)
Stereo signal modulator
Frequency counter
Distortion analyser

IMPORTANT

1. Check power-source voltage.
2. Set the function switch to band aligned.
3. Keep the signal input as low as possible to adjust accurately.
4. Modulation and modulation frequency.

Item / Band	Modulation	Modulation frequency
AM	30%	400Hz
FM	100%(75KHz Dev.)	400Hz

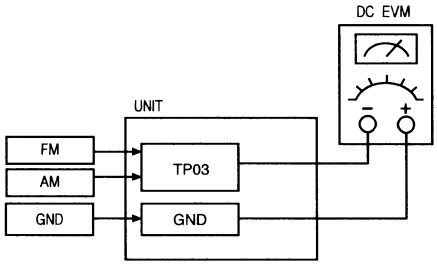
■ ADJUSTMENT POINT



測定と調整

1. FM/AMトラッキング電圧調整

DC電圧計..... テストポイントのTP1とGNDに接続する。

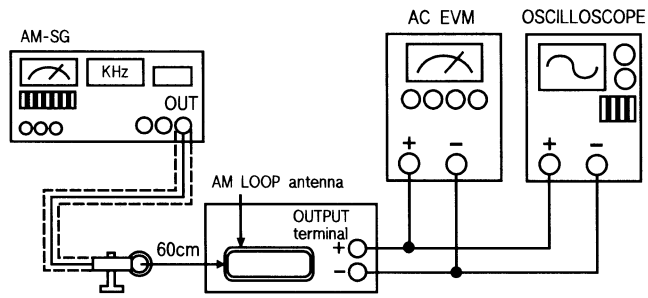


NO.	Band	周波数	調整値	調整ケ所
1	FM	76.00MHz	1.5V	L7
2	AM	522kHz	1V	T702

2. AM RF調整

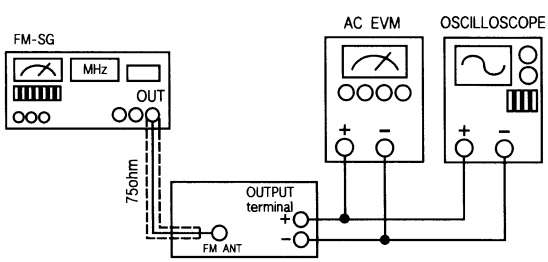
信号発生器..... ループアンテナを通して、AM ANTに接続する。
AC電圧計およびオシロスコープの波形が最大になるよう調整する。

BAND	Step	周波数	調整値	調整ケ所
AM	1	612kHz	最大感度	T101, T104
	2	1503kHz	最大感度	C127
	3	手順1と2を数回繰り返す。		



3. FM RF調整

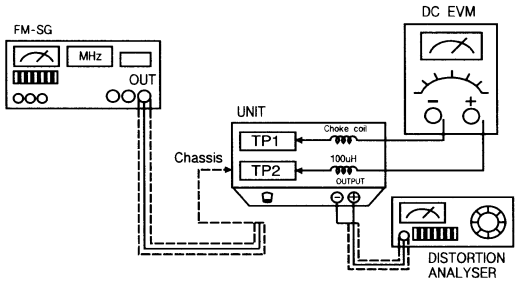
信号発生器..... FM ANT端子(FM IN)に接続する。



NO.	周波数	調整値	調整ケ所
1	78.10MHz	最大感度	L2, L5, L6
2	手順1を数回繰り返す。		

4. FM MONO歪率調整

DC電圧計..... チョークコイル(100μH)を通して、TP1(−)とTP2(+)に接続する。
信号発生器..... FM ANT端子(FM IN)に接続する。
歪率計..... 出力端子に接続する。



NO.	周波数	調整値	調整ケ所
1	83.10MHz	DC Voltmeter 0V	T103
2	83.10MHz	Minimum T.H.D	T103
3	手順1と2を数回繰り返す。		

5. FM/AMオートストップレベル調整

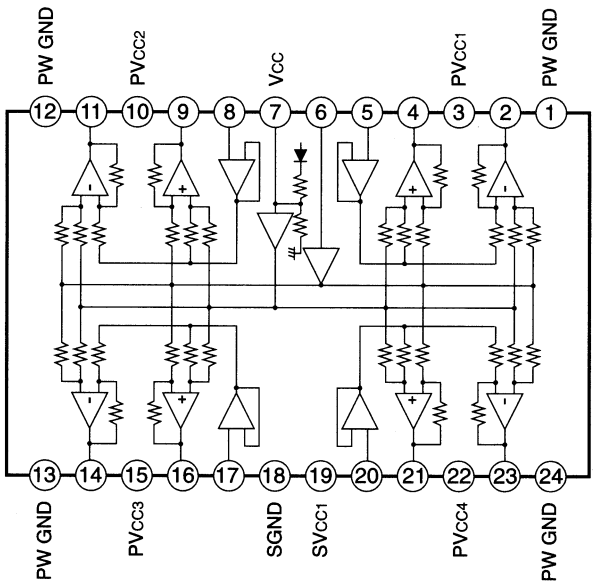
FM信号発生器..... FM ANT端子(FM IN)に接続する。
AM信号発生器..... ループアンテナを通して、AM ANTに接続する。

BAND	STEP	信号発生器	調整値	調整ケ所
FM	1	83.10MHz 30dB	TUNED Display OFF	VR11
	2	83.10MHz 30dB	TUNED Display ON	VR11
AM	1	999kHz 80dB	TUNED Display OFF	VR12
	2	999kHz 80dB	TUNED Display ON	VR12

TA2092N (POWER DRIVER)

PIN No.	NAME	DESCRIPTION
1	PW GND	Power GND Connected to substrate. ①, ⑫, ⑬, ㉔ pin are connected inside.
2	OUT (-) 1	Inverted output for CH1
3	PV_{CC1}	Supply terminal of output stage for CH1 Supply terminal of output stage are not connected to other channel terminal.
4	OUT (+) 1	Non-inverted output for CH1
5	V_{IN1}	Input for CH1. Not biased inside
6	V_{RI}	Input reference voltage Under condition of $V_{RI} \leqq 1.8V$, internal bias circuit is shut off. No signal input condition : $V_{RI} = V_{IN}$
7	V_{CI}	Output reference voltage. $V_{OUT} = V_{CI} = (V_{CC}-V_F)/2$
8	V_{IN2}	Input for CH2
9	OUT (+) 2	Non-inverted output for CH2
10	PV_{CC2}	Supply terminal of output stage for CH2
11	OUT (-) 2	Inverted output for CH2
12	PW GND	Power GND
13	PW GND	Power GND
14	OUT (-) 3	Inverted output for CH3
15	PV_{CC3}	Supply terminal of output stage for CH3
16	OUT (+) 3	Non-inverted output for CH3
17	V_{IN3}	Input for CH3
18	S GND	Supply terminal of small signal GND
19	S V_{CC}	Small signal GND
20	V_{IN4}	Input for CH4
21	OUT (+) 4	Non-invered output for CH4
22	PV_{CC4}	Supply terminal of output stage for CH4
23	OUT (-) 4	Inverted output for CH4
24	PW GND	Power GND

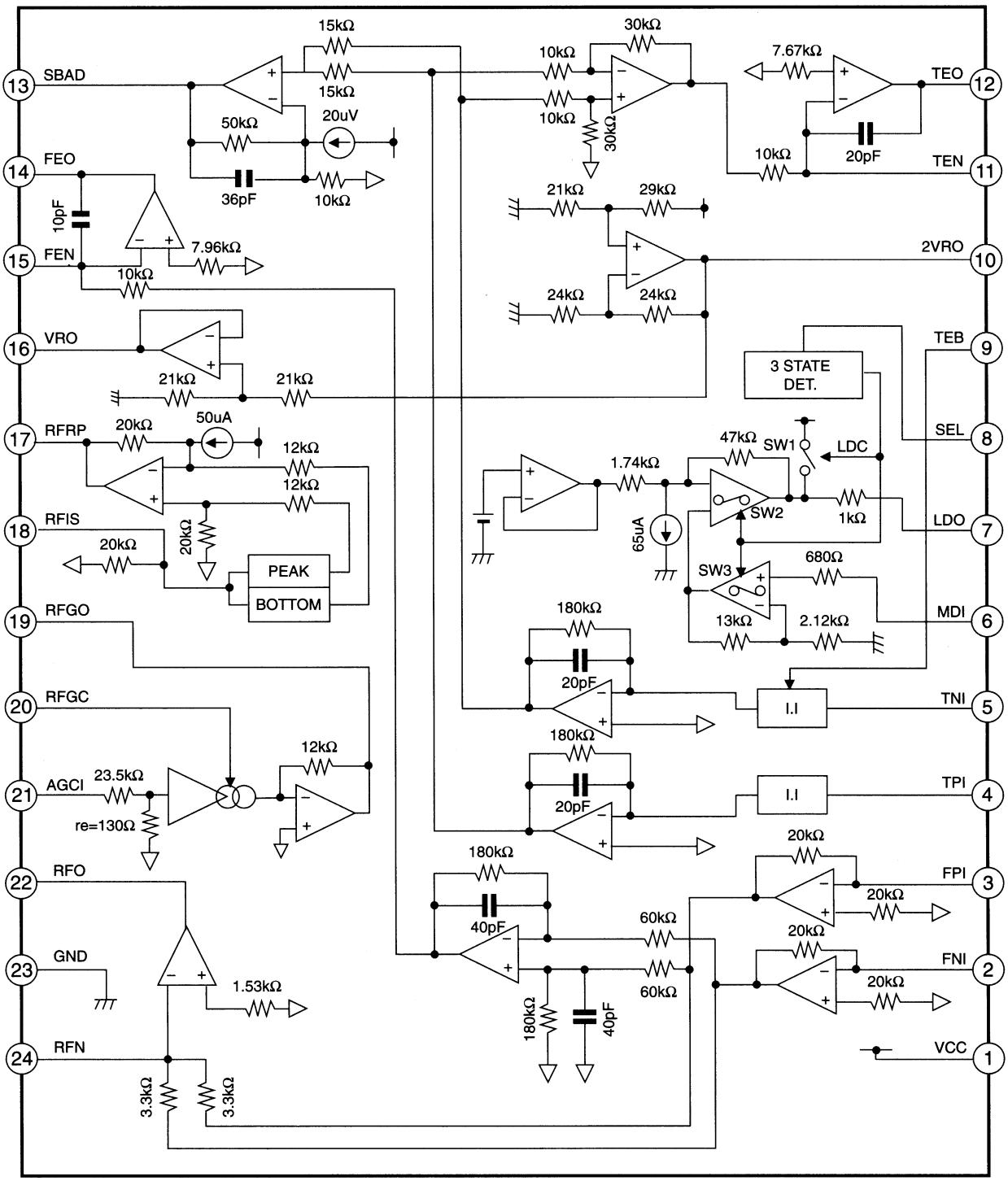
BLOCK DIAGRAM



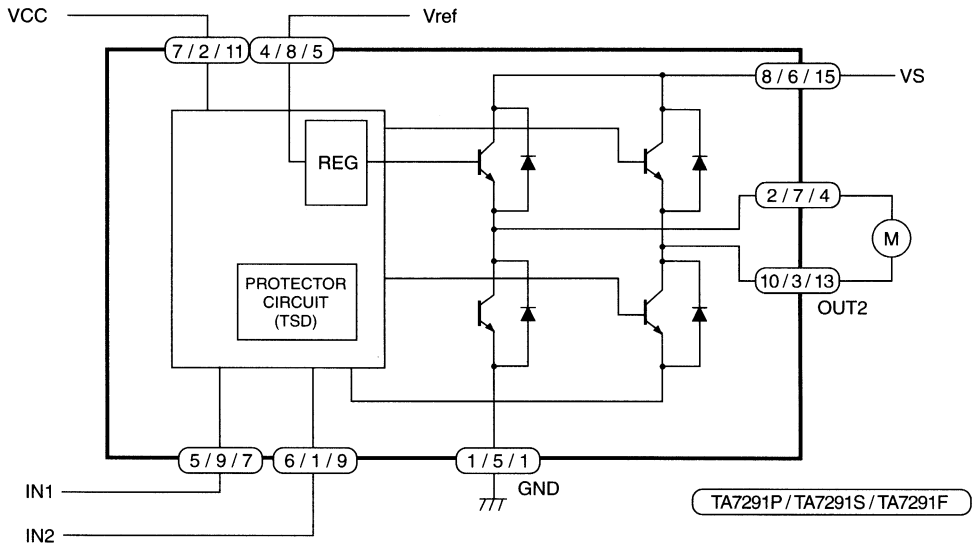
TA2109F (RF/DIGITAL SERVOR)

PIN No.	NAME	I/O	DESCRIPTION	REMARK
1	VCC	-	Power supply input terminal	-
2	FNI	I	Main beam I-V amp input terminal	Connected to pin diode A,C
3	FPI	I	Main beam I-V amp input terminal	Connected to pin diode B,D
4	TPI	I	Sub beam I-V amp input termianl	Connected to pin diode F
5	TNI	I	Sub beam I-V amp input termianl	Connected to pin diode E
6	MDI	I	Monitor phono diode amp input terminal	Connected to monitor photo diode
7	LDO	O	Laser diode amp output terminal	Connected to laser control circuit
8	SEL	I	Laser diode control signal input terminal and APC circuit ON/OFF control signal input terminal	3 signal input (Vcc, Hi-Z, GND)
9	TEB	I	Tracking error balance adjustment signal input terminal. Controlled by 3 PWM signal (PWM carrier = 88.2 kHz)	3 signal input (2 VREF, VR, GND)
10	2VRO	O	Reference voltage (2 VREF) output terminal 2 VREF = 4.2V when Vcc = 5V	-
11	TEN	I	TE amp negative input terminal	Connected to TEO through feedback register
12	TEO	O	TE error signal output terminal	-
13	SBAD	O	Sub beam adder signal output terminal	-
14	FEO	O	Focus error signal output terminal	-
15	FEN	I	FE amp negative input terminal	Connected to FEO through feedback register
16	VRO	O	Reference voltage (VREF) output terminal VREF = 2.1V when Vcc = 5V	-
17	RFRP	O	Track count signal output terminal	-
18	RFIS	I	RFRP detect circuit input terminal	Connected to RFO through condenser
19	RFGO	O	RF gain signal output terminal	-
20	RFGC	I	RF amplitude adjustment control signal input terminal. Controlled by 3 PWM signal (PWM carrier = 88.2 kHz)	3 signal input (2 VREF, VR, GND)
21	AGCI	I	RF signal amplitude adjustment amp input terminal	Connected to RFO through condenser
22	RFO	O	RF signal output terminal	-
23	GND	-	Ground terminal	-
24	RFN	I	RF amp negative input terminal	-

TA2109F (RF/DIGITAL SERVOR)



TA7291S (Bridge Driver)



PIN No.			SYMBOL	FUNCTIONAL DESCRIPTION
P	S	F		
7	2	11	Vcc	Supply voltage terminal for Logic
8	6	15	Vs	Supply voltage terminal for motor drive
4	8	5	Vref	Supply voltage terminal for control
1	5	1	GND	GND terminal
5	9	7	IN1	Input terminal
6	1	9	IN2	Input terminal
2	7	4	OUT1	Output terminal
10	3	13	OUT2	Output terminal

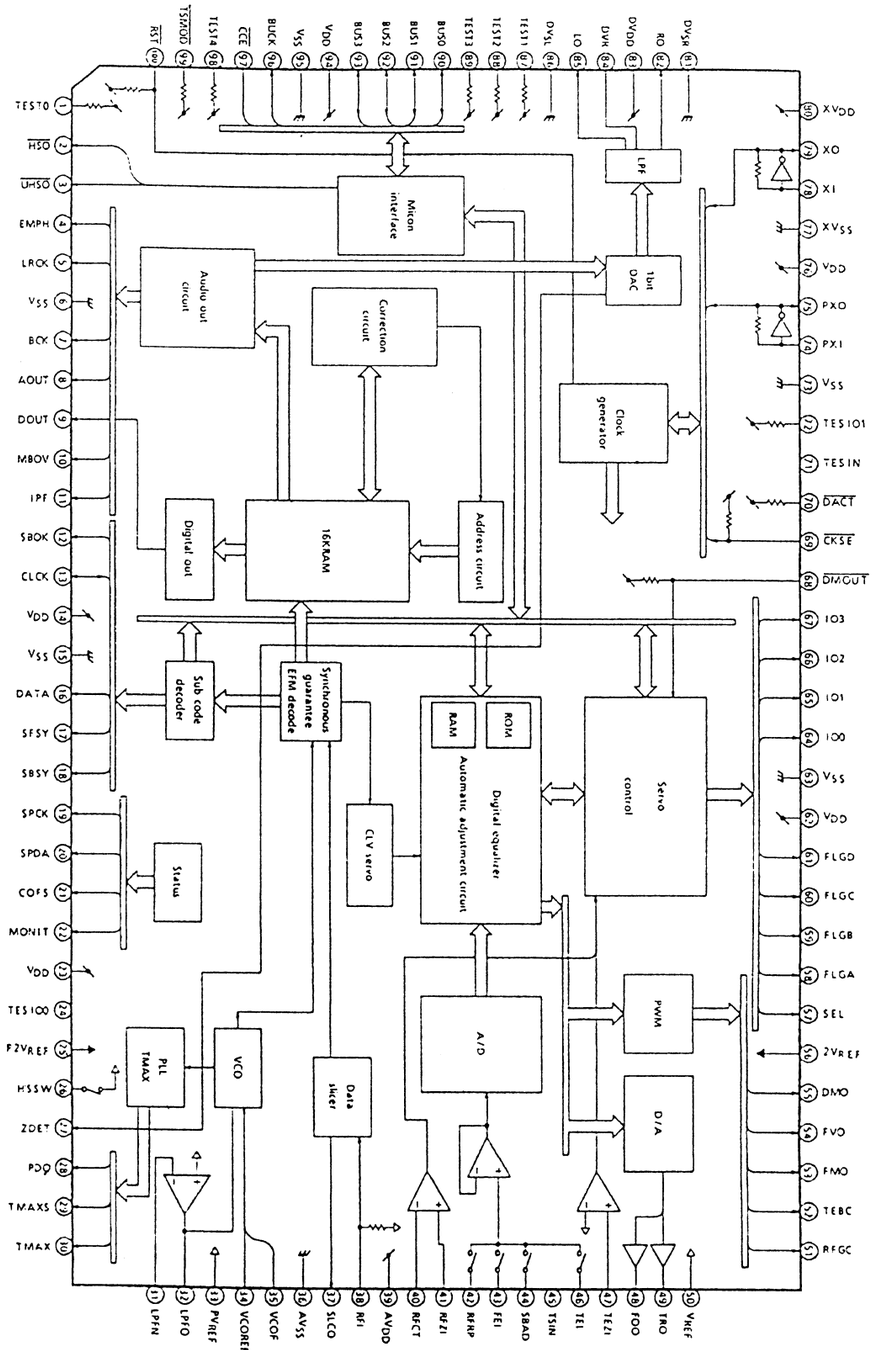
- P Type : PIN ③, ⑨ : NC
- S Type : PIN 4 : NC
- F Type : PIN ②, ③, ⑥, ⑧, ⑩, ⑫, ⑭, and ⑯ : NC
- For F Type, We recommend FIN to be connected to the GND.

TC9432AF (Digital Signal Processor)

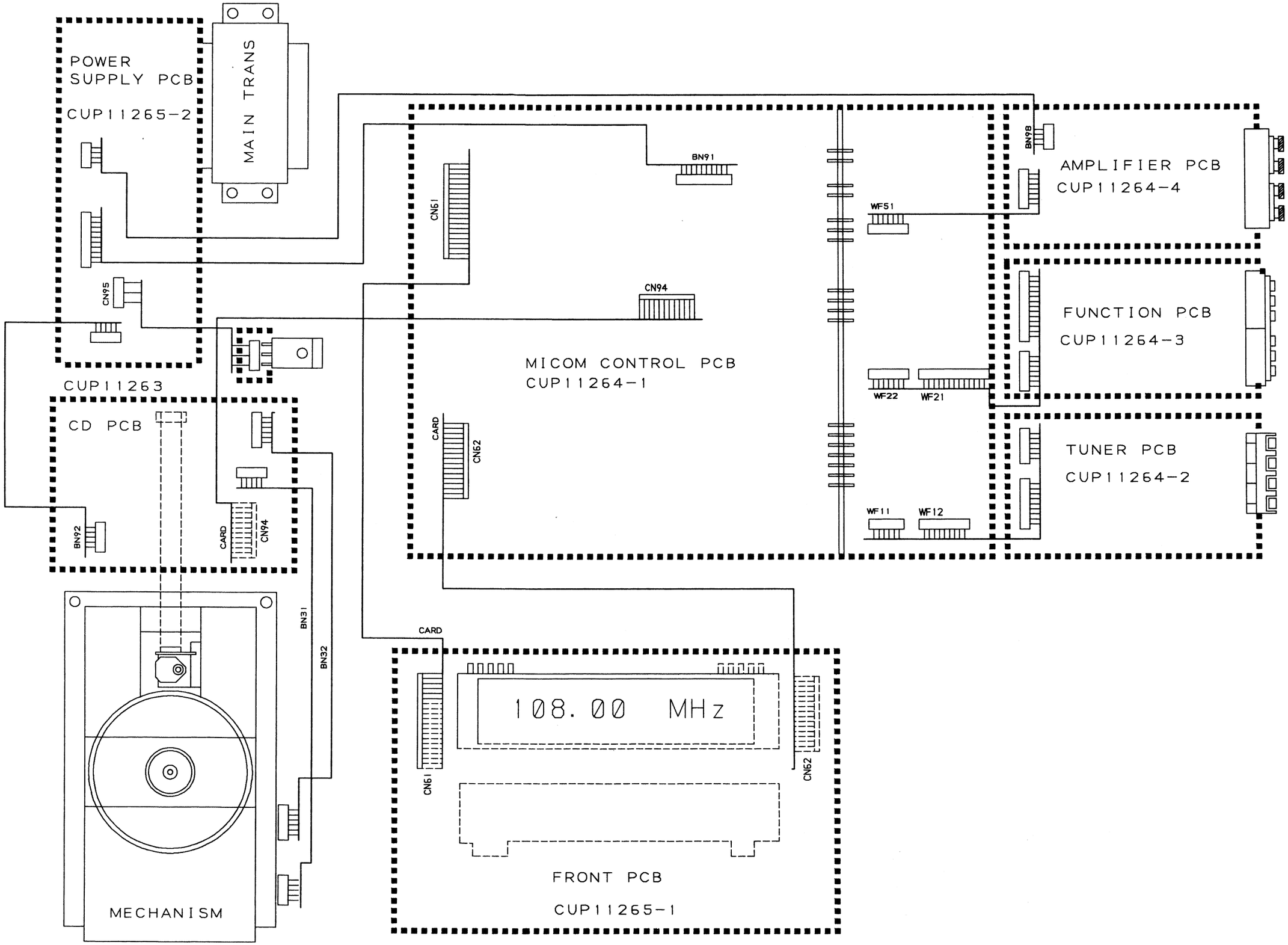
PIN No.	NAME	I/O	FUNCTIONAL DESCRIPTION	REMARKS
1	TEST0	-	Test mode terminal. Normally, keep at open.	With pull-up resistor.
2	$\overline{\text{HSO}}$	O	Playback speed mode flag output terminal. $\overline{\text{UHSO}}$ / $\overline{\text{HSO}}$ / PLAYBACK SPEED H / H / Normal H / L / 2 times L / H / 4 times L / L / -	-
3	$\overline{\text{UHSO}}$	O		
4	EMPH	O	Subcode Q data emphasis flag output terminal. Emphasis ON at "H" level and OFF at "L" level. The output polarity can invert by command.	-
5	LRCK	O	Channel clock output terminal. (44.1 kHz) L-ch at "L" level and R-ch at "H" level. The output polarity can invert by command.	-
6	VSS	-	Digital GND terminal.	-
7	BCK	O	Bit clock output terminal. (1.4112 MHz)	-
8	AOUT	O	Audio data output terminal.	-
9	DOUT	O	Digital data output terminal.	-
10	MBOV	O	Buffer memory over signal output terminal. Over at "H" level.	-
11	IPF	O	Correction flag output terminal. At "H " level, AOUT output is made to correction impossibility by C_2 correction processing.	-
12	SBOK	O	Subcode Q data CRCC check adjusting result output terminal. The adjusting result is OK at "H" level.	-
13	CLCK	I/O	Subcode P~W data readout clock input/output terminal. This terminal can select by command bit.	-
14	VDD	-	Digital power supply voltage terminal.	-
15	VSS	-	Digital GND terminal.	-
16	DATA	O	Subcode P~W data output terminal.	-
17	SFSY	O	Playback frame sync signal output terminal.	-
18	SBSY	O	Subcode block sync signal output terminal.	-
19	SPCK	O	Processor status signal readout clock output terminal.	-
20	SPDA	O	Processor status signal output terminal.	-
21	COFS	O	Correction frame clock output terminal. (7.35 kHz)	-
22	MONIT	O	Internal signal (DSP internal flag and PLL clock) output terminal. Selected by command.	-
23	VDD	-	Digital power supply voltage terminal.	-
24	TESIO0	I	Test input/output terminal. Normally, keep at "L" level.	-
25	P2VREF	-	PLL double reference voltage supply terminal.	-
26	HSSW	O	2/4 times speed at "VREF" voltage.	2-state output (PVREF,HiZ)
27	ZDET	O	1 bit DA converter zero detect flag output terminal.	-
28	PDO	O	Phase difference signal output terminal of EFM signal and PLCK signal.	3-state output (P2VREF,PVREF,VSS)
29	TMAXS	O	TMAX detection result output terminal. Selected by command bit (TMPS).	-
30	TMAX	O	TMAX detection result output terminal. Selected by command bit (TMPS). DIFFERENCE RESULT / TMAX OUTPUT Longer than fixed ferq. / "P2VREF" Shorter than fixed freq. / "VSS" Within the fixed freq. / "HiZ"	3-state output (P2VREF,HiZ,VSS)

PIN No.	NAME	I/O	FUNCTIONAL DESCRIPTION	REMARKS
31	LPFN	I	LPF amplifier inverting input terminal for PLL.	Analog input.
32	LPFO	O	LPF amplifier output terminal for PLL.	Analog output.
33	PVREF	-	PLL reference voltage supply terminal.	-
34	VCOREF	I	VCO center frequency reference level terminal. Normally, keep at "PVREF" level.	-
35	VCOF	O	VCO filter terminal.	Analog output.
36	AVSS	-	Analog GND terminal.	-
37	SLCO	O	Data slice level output terminal.	Analog output.
38	RFI	I	RF signal input terminal.	Analog input (Zin : selected by command)
39	AVDD	-	Analog power supply voltage terminal.	-
40	RFCT	I	RFRP signal center level input terminal.	Analog input (Zin : 50kΩ)
41	RFZI	I	RFRP zero cross input terminal.	Analog input.
42	RFRP	I	RF ripple signal input terminal.	Analog input.
43	FEI	I	Focus error signal input terminal.	Analog input.
44	SBAD	I	Sub-beam adder signal input terminal.	Analog input.
45	TSIN	I	Test input terminal. Normally, keep at "VREF" level.	Analog input.
46	TEI	I	Tracking error signal input terminal. Track in at tracking servo on.	Analog input.
47	TEZI	I	Trcaking error zero cross input terminal.	Analog input (Zin : 10kΩ)
48	FOO	O	Focus servo equalizer output terminal.	Analog output (2VREF~AVSS)
49	TRO	O	Tracking servo equalizer output terminal.	
50	VREF	-	Analog reference voltage supply terminal.	-
51	RFGC	O	RF amplitude adjustment control signal output terminal.	3-state PWM signal output. (2VREF, VREF, Vss) (PWM carrier = 88.2 kHz)
52	TEBC	O	Tracking balance control signal output terminal.	
53	TEBC	O	Feed equalizer output terminal.	
54	TEBC	O	Speed error signal or feed search equalizer output terminal.	
55	DMO	O	Disk equalizer output terminal. (PWM carrier = 88.2 kHz for DSP, Synchronize to PXO)	3-state PWM signal output.(2VREF, VREF, VSS)
56	2VREF	-	Analog double reference voltage supply terminal.	-
57	SEL	O	APC circuit ON/OFF indication signal output terminal. At the laser on time, UHF = L at "HiZ" level and UHF = H at "H" level.	-
58	FLGA	O	Extemal flag output terminal for internal signal. Can select signal from TEZC, $\overline{FOON}$, $\overline{FOK}$ and RFZC by command.	-
59	FLGB	O	Extemal flag output terminal for internal signal. Can select signal from $\overline{DECT}$, $\overline{FOON}$, $\overline{FMON}$ and RFZC by command.	-
60	FLGC	O	Extemal flag output terminal for internal signal. Can select signal from TRON, $\overline{TRSR}$, $\overline{FOK}$ and $\overline{SRCH}$ by command.	-
61	FLGD	O	Extemal flag output terminal for internal signal. Can select signal from $\overline{TRON}$, DMON, HYS and $\overline{SHC}$ by command.	-
62	VDD	-	Digital power supply voltage terminal.	-
63	Vss	-	Digital GND terminal.	-
64	IO0	I/O	General I/O terminal. Can change over input port or output port by command. At the input mode time can readout a state of terminal (H/L) by read command. At the output mode time can control a state of terminal (H/L/HiZ) by command.	-
65	IO1			
66	IO2			
67	IO3			

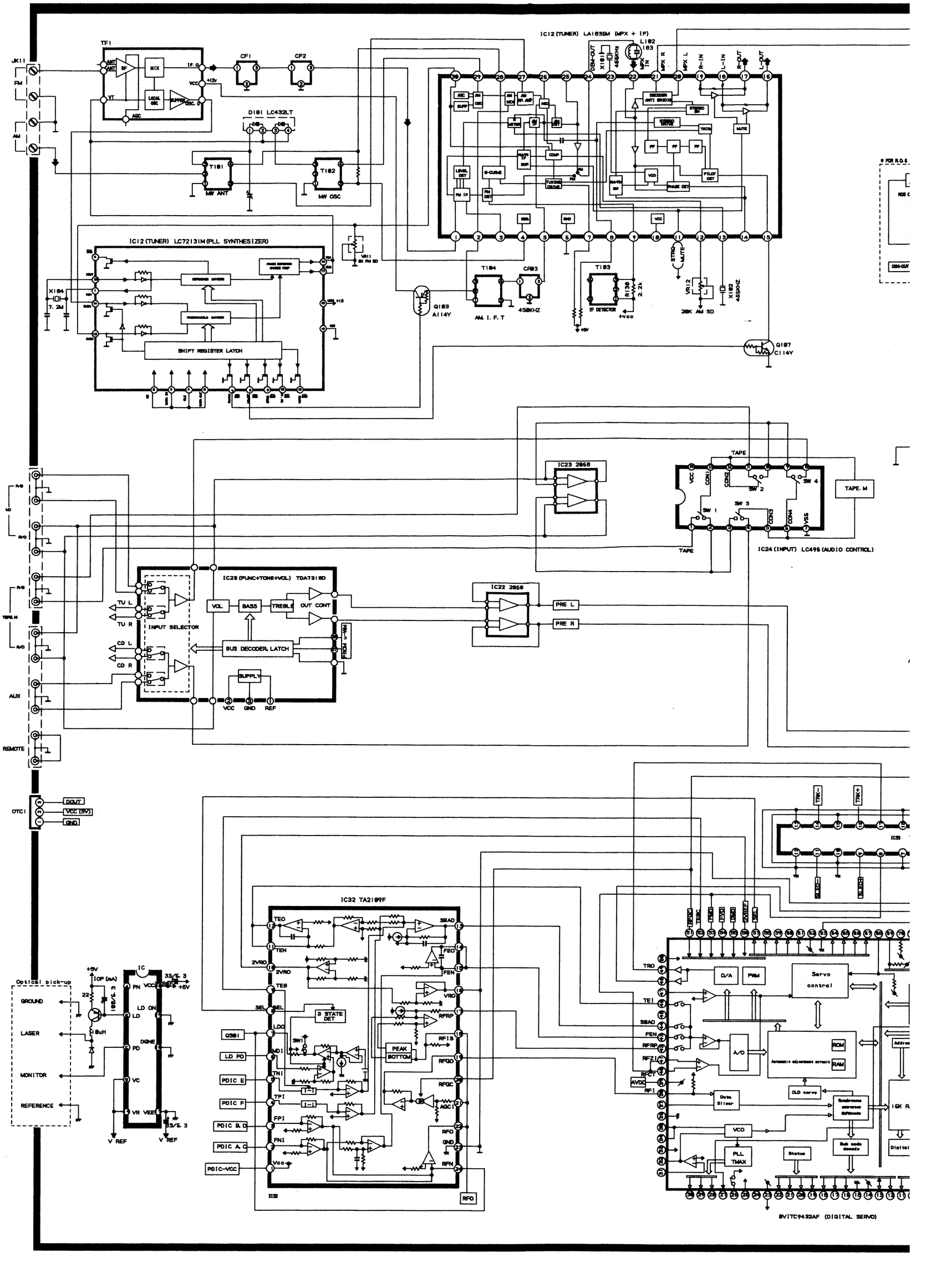
PIN No.	NAME	I/O	FUNCTIONAL DESCRIPTION	REMARKS
68	$\overline{\text{DMOUT}}$	I	This terminal controls IO0~IO3 terminal. At "L" level time, IO0, 1 out feed equalizer signal of 2-state PWM. IO2, 3 out disk equalizer signal of 2-state PWM.	With pull-up resistor.
69	$\overline{\text{CKSE}}$	I	Normally, keep at open.	With pull-up resistor.
70	$\overline{\text{DACT}}$	I	DAC test mode terminal. Normally, keep at open.	With pull-up resistor.
71	TESIN	I	Test input terminal. Normally, keep at "L" level.	Analog input.
72	TESIO1	I	Test input/output terminal. Normally, keep at "L" level.	Analog input.
73	VSS	-	Digital GND terminal.	-
74	PXI	I	Crystal oscillator connecting input terminal for DSP. Normally, keep at "L" level.	-
75	PXO	O	Crystal oscillator connecting output terminal for DSP.	
76	VDD	-	Digital power supply voltage terminal.	-
77	XVSS	-	Oscillator GND terminal for system clock.	-
78	XI	I	Crystal oscillator connecting input terminal for system clock.	-
79	XO	O	Crystal oscillator connecting output terminal for system clock.	-
80	XVDD	-	Oscillator power supply voltage terminal for system clock.	-
81	DVSR	-	Analog GND terminal for DA converter. (R-ch)	-
82	RO	O	R channel data forward output terminal.	-
83	DVDD	-	Analog supply voltage terminal for DA converter.	-
84	DVR	-	Reference voltage terminal for DA converter.	-
85	LO	O	L channel data forward output terminal.	-
86	DVSL	-	Analog GND terminal for DA converter. (L-ch)	-
87	TEST1	I	Test mode terminal. Normal, keep at open.	With pull-up resistor.
88	TEST2	I	Test mode terminal. Normal, keep at open.	With pull-up resistor.
89	TEST3	I	Test mode terminal. Normal, keep at open.	With pull-up resistor.
90	BUS0	I/O	Micom interface data input/output terminal.	Schmit input. With pull-up resistor.
91	BUS1	I/O		
92	BUS2	I/O		
93	BUS3	I/O		
94	VDD	-	Digital Ppower supply voltage terminal.	-
95	VSS	-	Digital GND terminal.	-
96	BUCK	I	Micom interface clock input terminal.	Schmit input.
97	$\overline{\text{CCE}}$	I	Command and data sending/receiving chip enable signal input terminal. The bus line becomes active at "L" level.	Schmit input.
98	TEST4	I	Test mode terminal. Normal, keep at open.	With pull-up resistor.
99	$\overline{\text{TSMOD}}$	I	Local test mode selection terminal.	With pull-up resistor.
100	$\overline{\text{RST}}$	I	Reset signal input terminal. Reset at "L" level.	With pull-up resistor.

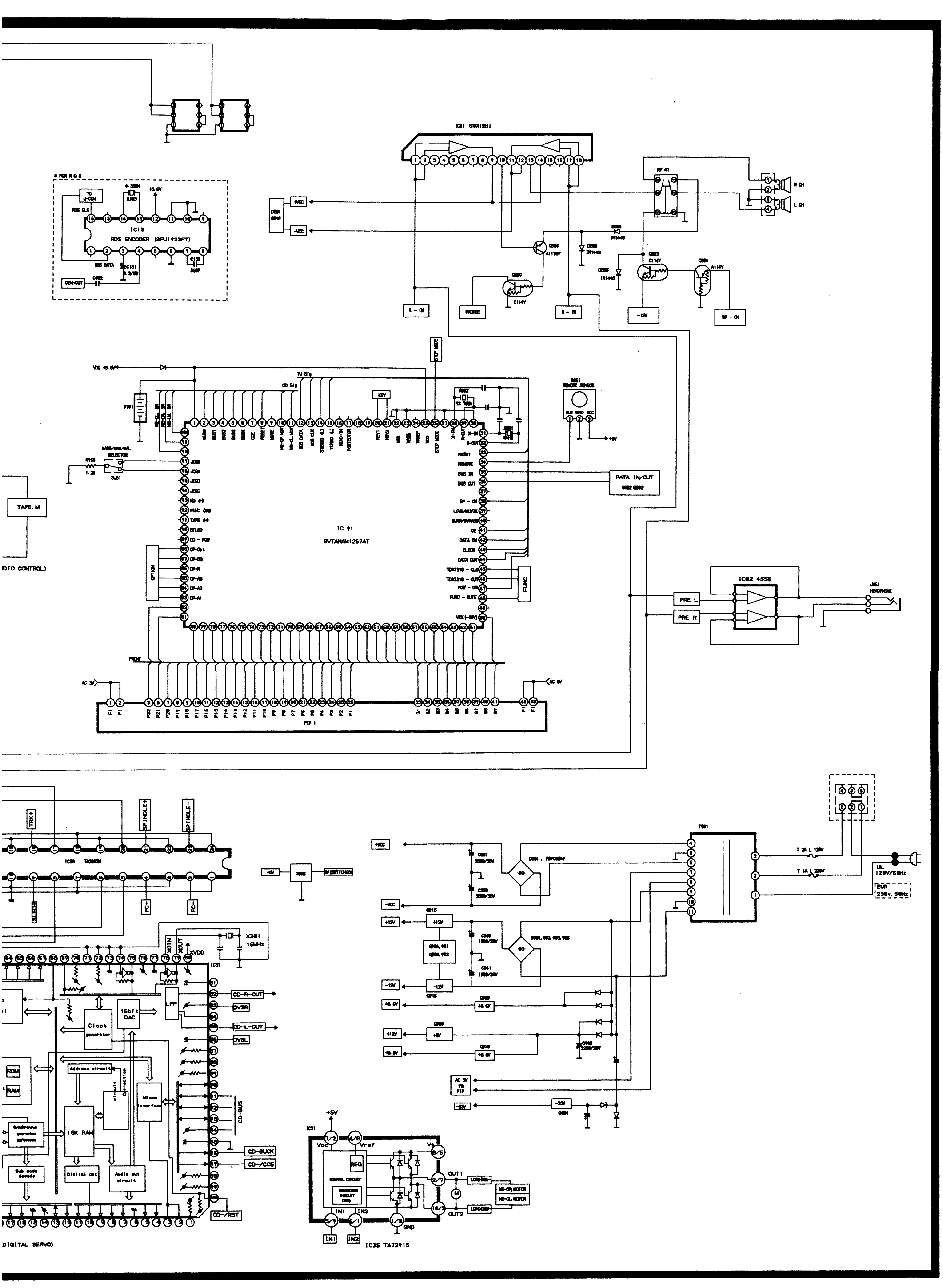


WIRING DIAGRAM



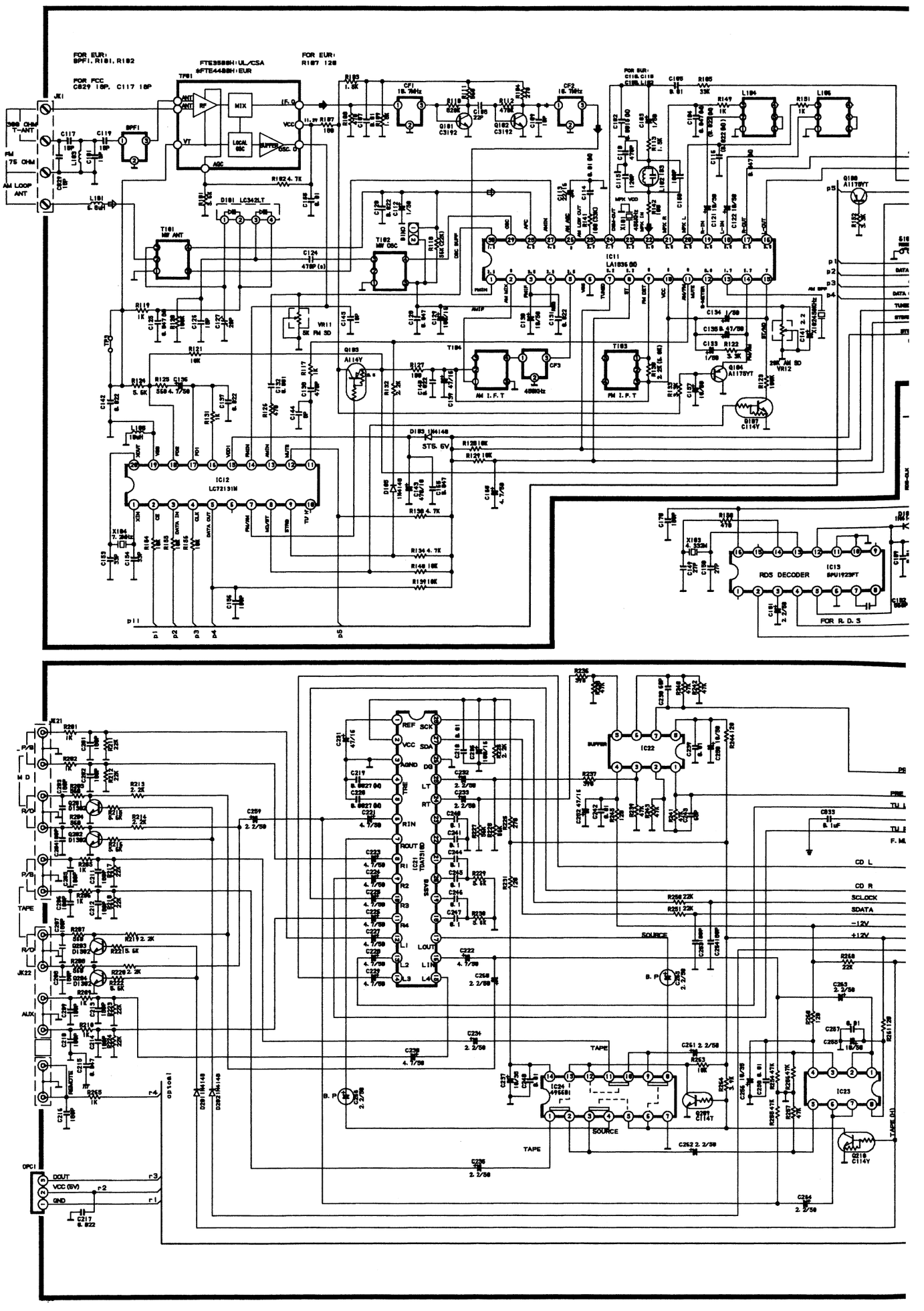
BLOCK DIAGRAM

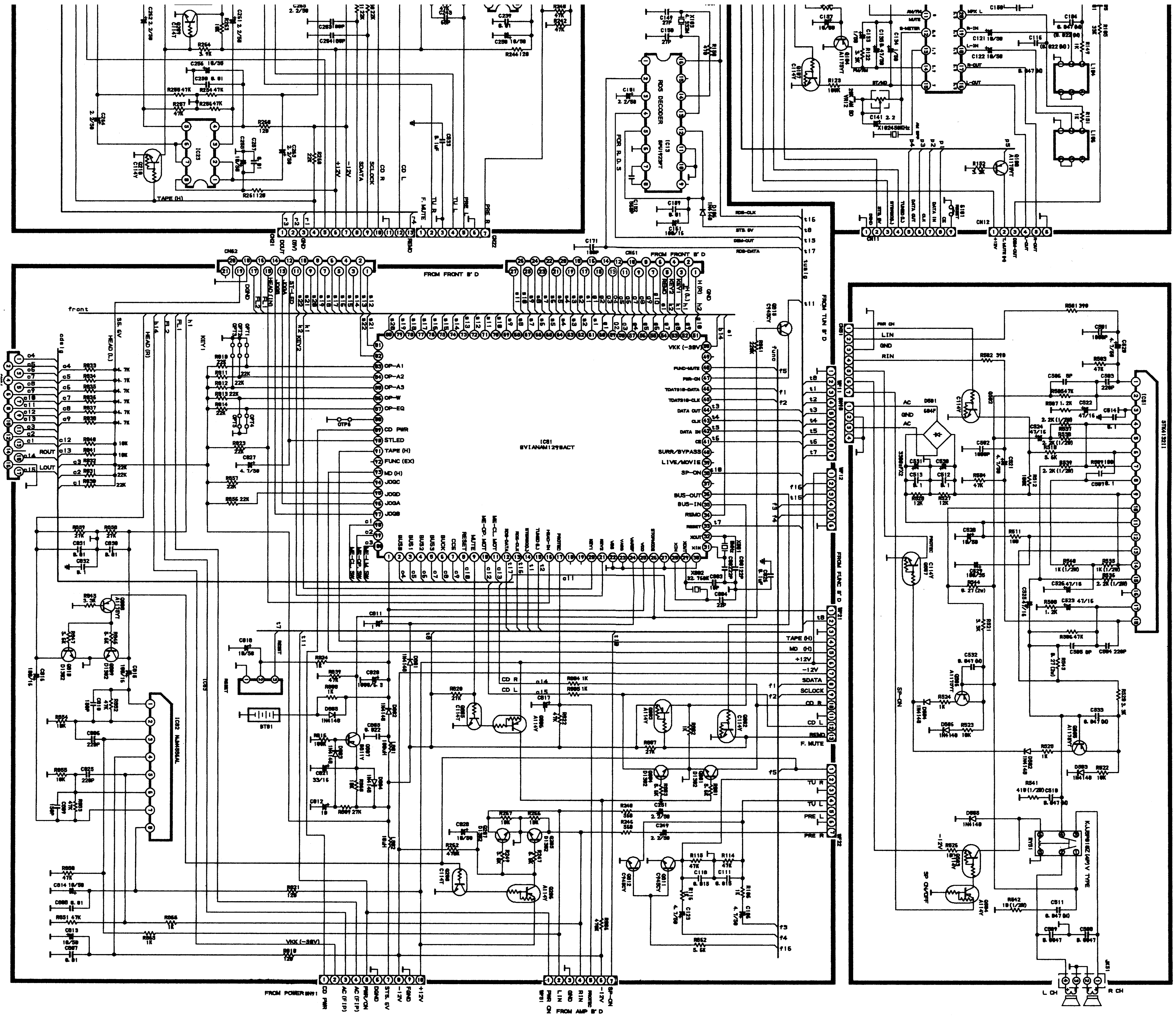


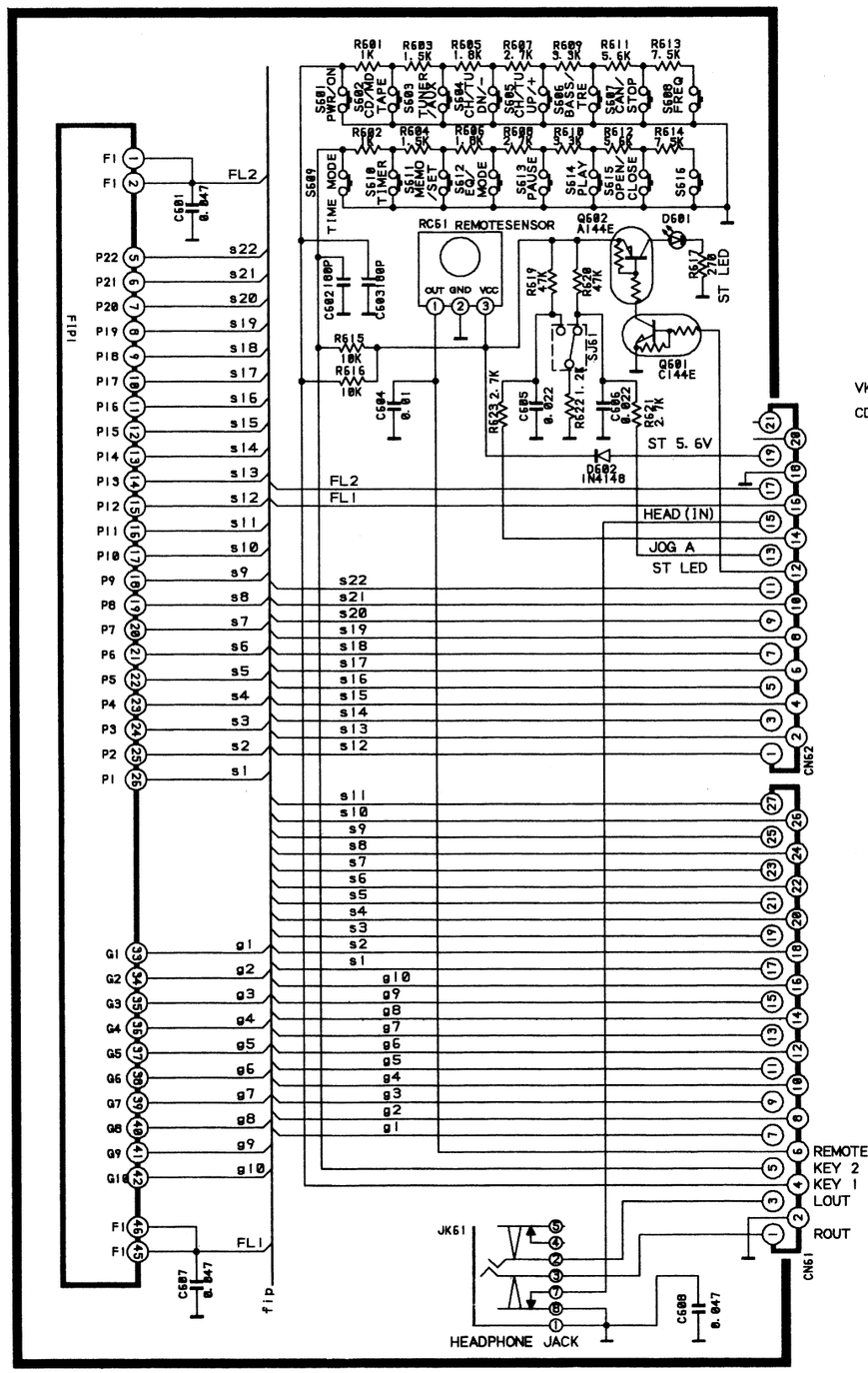


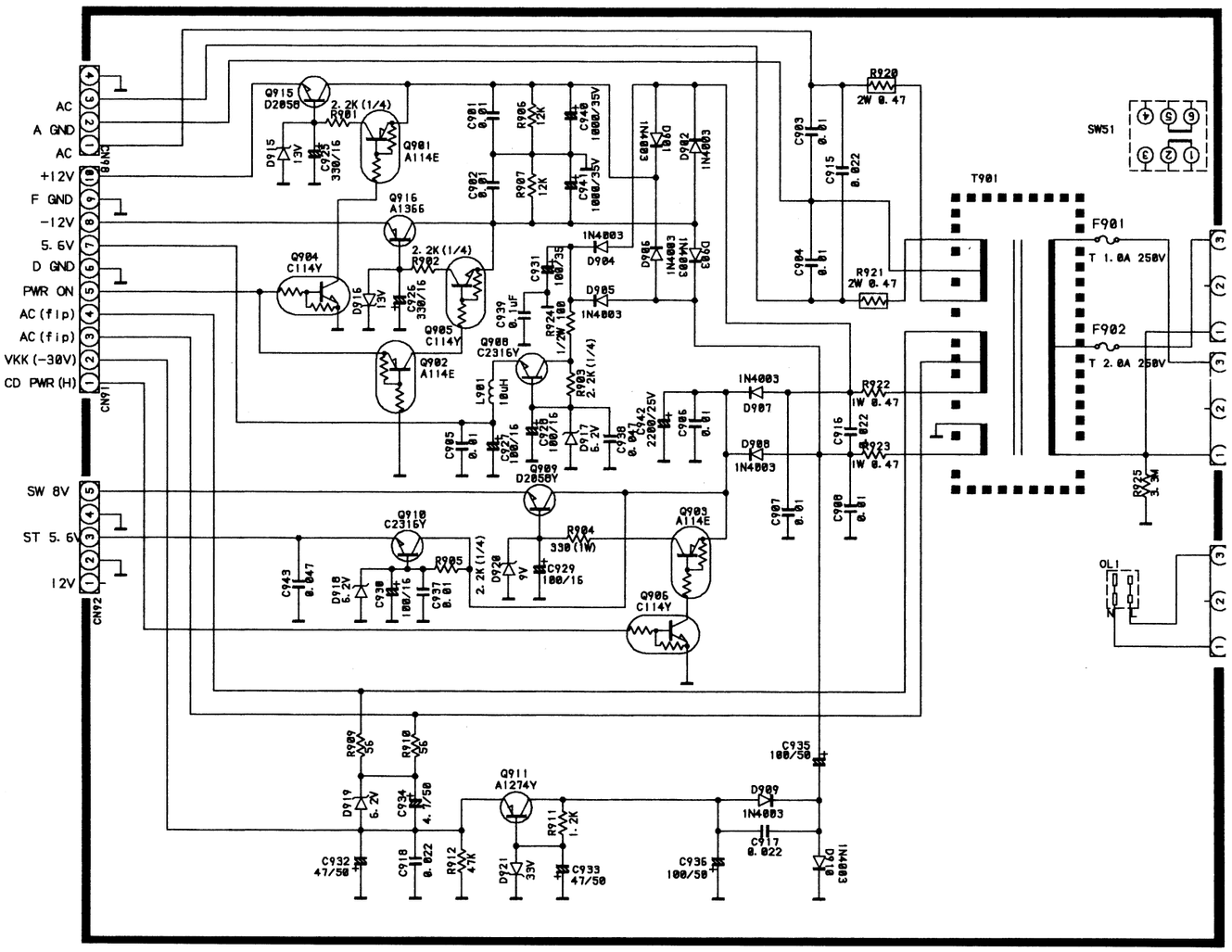
IC61 STK4132II
RY 41
R CH
L CH
IC13
RDS ENCODER (BFU1923FT)
RDS CLK
RDS DATA
L - IN
PROTEC
R - IN
-12V
SP - ON
STOP MODE
REMOTE SENSOR
PATA IN/OUT
IC 91
BVTANAM1267AT
OPTION
FUNC
TAPE M
PRE L
PRE R
IC82 4556
HEADPHONE
FIP 1
TA2092N
SPINDLE+
SPINDLE-
TRK+
X301
16MHz
CD-R-OUT
DVSR
CD-L-OUT
DVSL
CD-BUS
CD-BUCK
CD-/CCE
CD-/RST
16bit DAC
Clock generator
Address circuit
Correction circuit
Micom Interface
16K RAM
Digital out
Audio out circuit
Sub code decode
ROM
RAM
DIGITAL SERVO)
IC35 TA7291S
ME-OP MOTOR
ME-CL MOTOR
T901
UL 120V/60Hz
EUR 230V, 50Hz
T 2A L 120V
T 1A L 230V

SCHEMATIC DIAGRAM




RDS DECODER
FROM FRONT B'D
FROM TUN B'D
FROM FUNC B'D
FROM POWER
FROM AMP B'D
L CH
R CH





* IMPORTANT SAEFTY NOTICE :
COMPONENTS IDENTIFIED BY ⚠ MARK
HAVE SPECIAL CHARACTERISTICS,
IMPORTANT FOR SAFETY, WHEN REPLACING ANY OF THESE
COMPONENTS USE ONLY MANUFACTURER' S SPECIFIED PART.

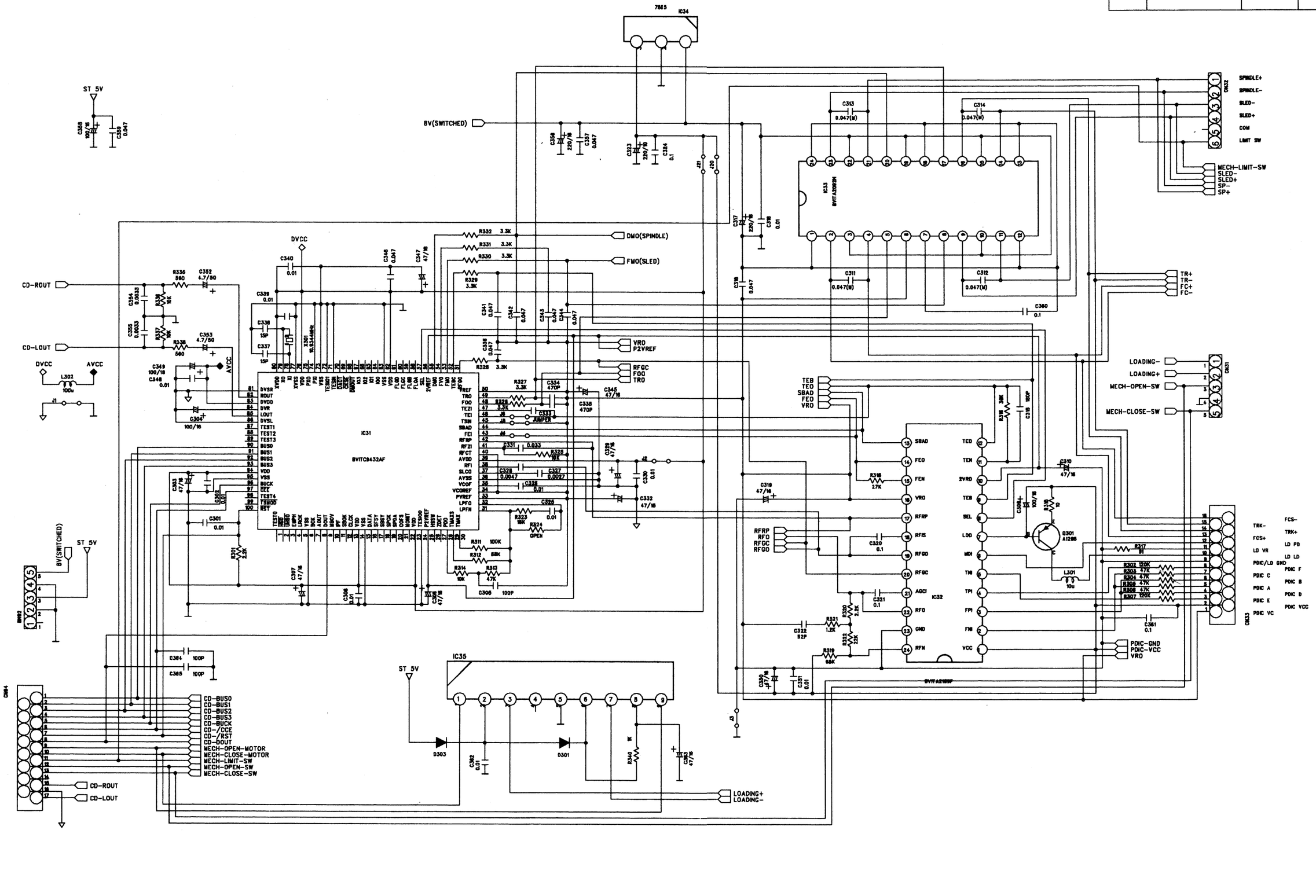
* THE UNIT OF RESISTANCE IS OHM, K=1000 OHM, M=1000 KOHM.

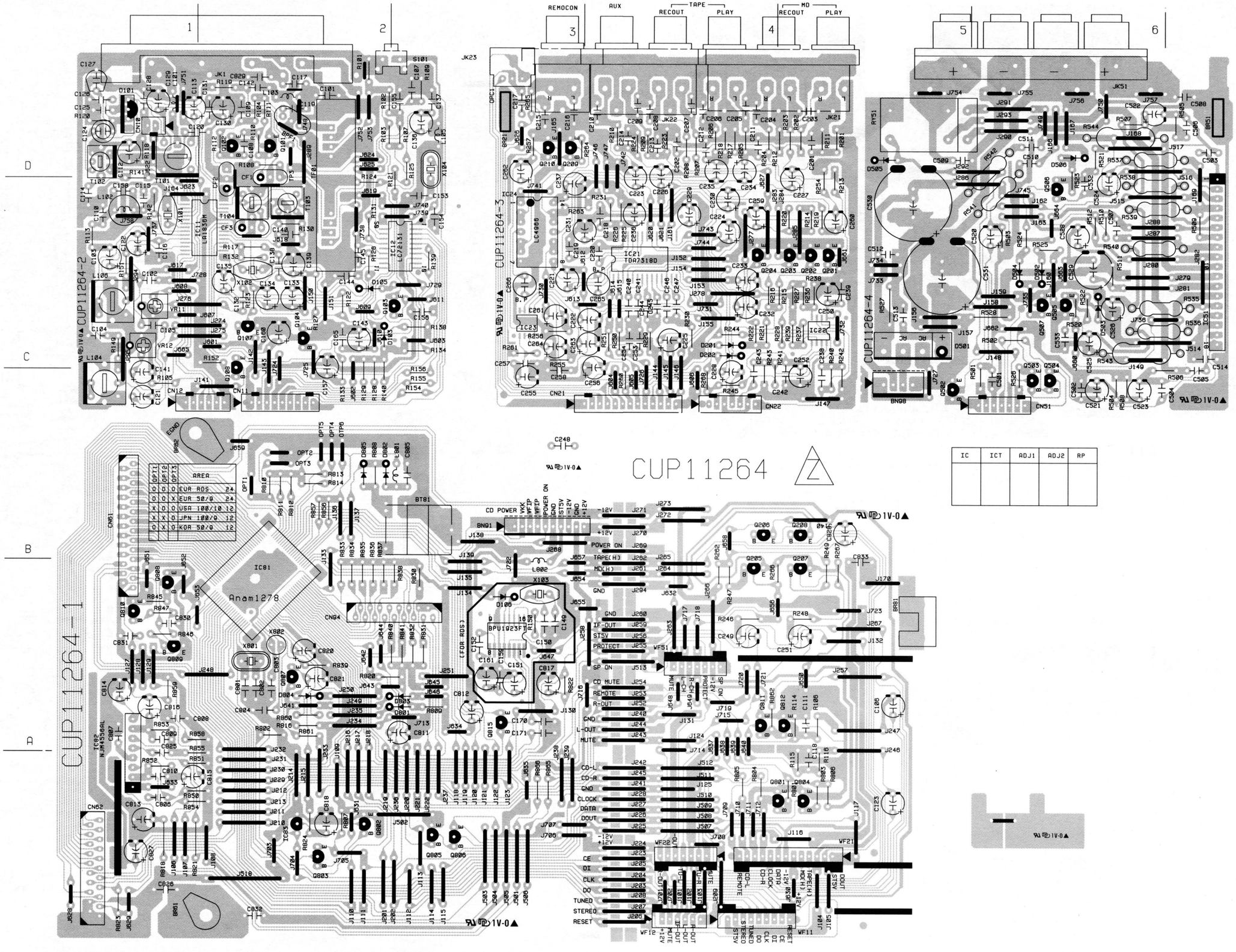
* THE CAPACITANCE IS MICROFARAD P=PICO FARAD

* THIS SCHEMATIC DIAGRAM MAY BE MODIFYED
AT ANY TIME WITH THE IMPROVEMENT OF PERFORMANCE.

* ALL VOLTAGE ARE MEASURED WITH GROUND.
DC:VALUES WITH NO SINGAL
AC:RMS

REVISION RECORD			
LTR	ECO NO:	APPROVED:	DATE:
	C311–314 0.1---0.047(M)		3/10





PRINTED CIRCUIT BOARDS

OPT1	OPT2	OPT3	AREA	
O	O	O	EUR RDS	24
O	O	X	EUR 50/9	24
X	O	O	USA 100/10	12
X	X	O	JPN 100/9	12
O	X	O	KOR 50/9	12

IC	ICT	ADJ1	ADJ2	RP

POWER PCB

CUP11265 ⚠Z

IC	ICT	ADJ1	ADJ2	RP

CUP11265-2

120V 230V

100V 220V

CAUTION FOR CONTINUED PROTECTION AGAINST RISK OF FIRE REPLACE ONLY WITH SAME TYPE AND RATING OF FUSE(S).

ATTENTION AFIN D'ASSURER UNE PROTECTION PERMANENTE CONTRE LES RISQUES D'INCENDIE REMPLACER UNIQUEMENT PARUN FUSIBLES DE MEME TYPE ET DE MEME VALEUR.

CUP11265-1 ⚠Z

FRONT PCB

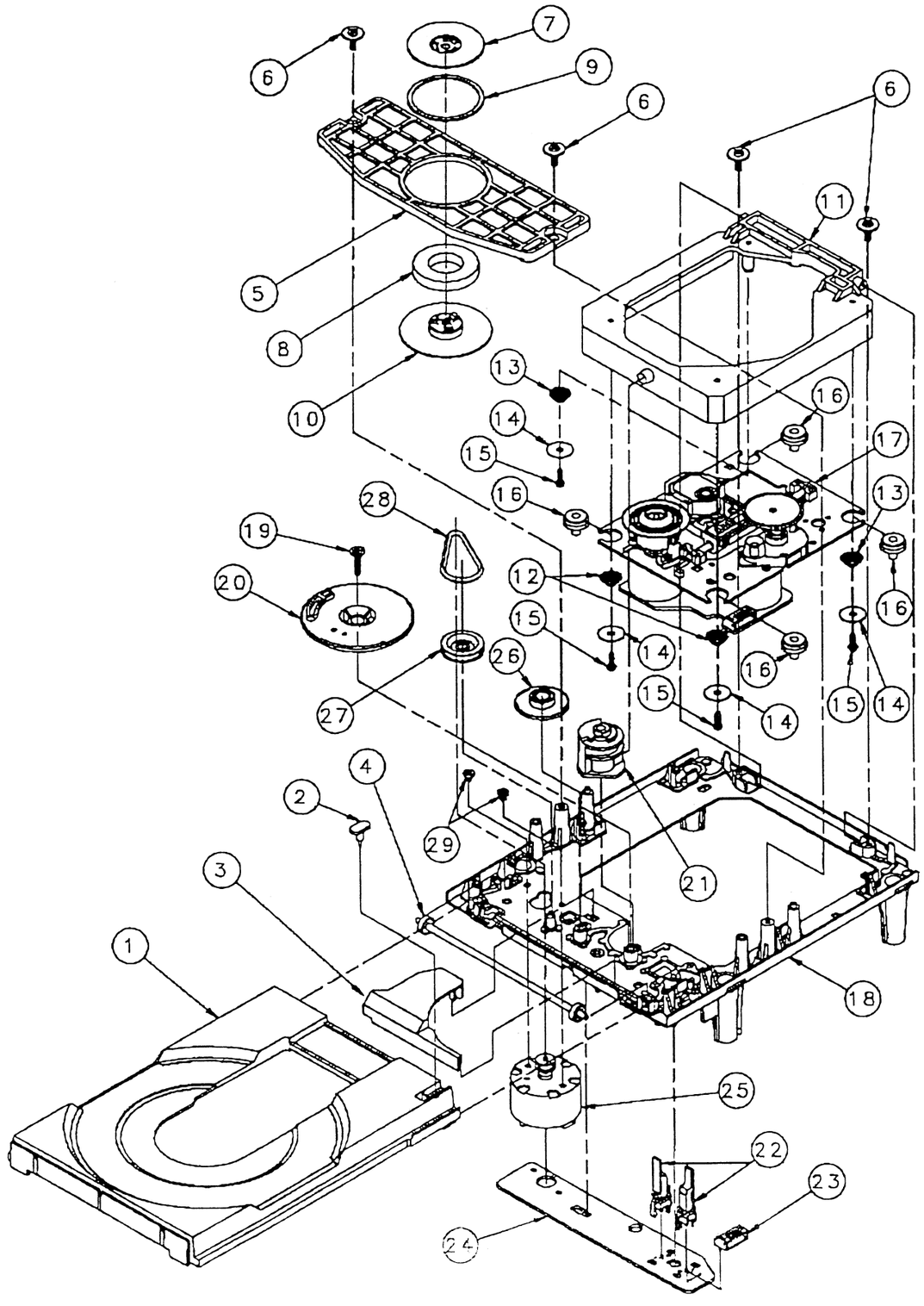
CUP11265

⚠Z

CUP11263

MECHANISM ASS'Y

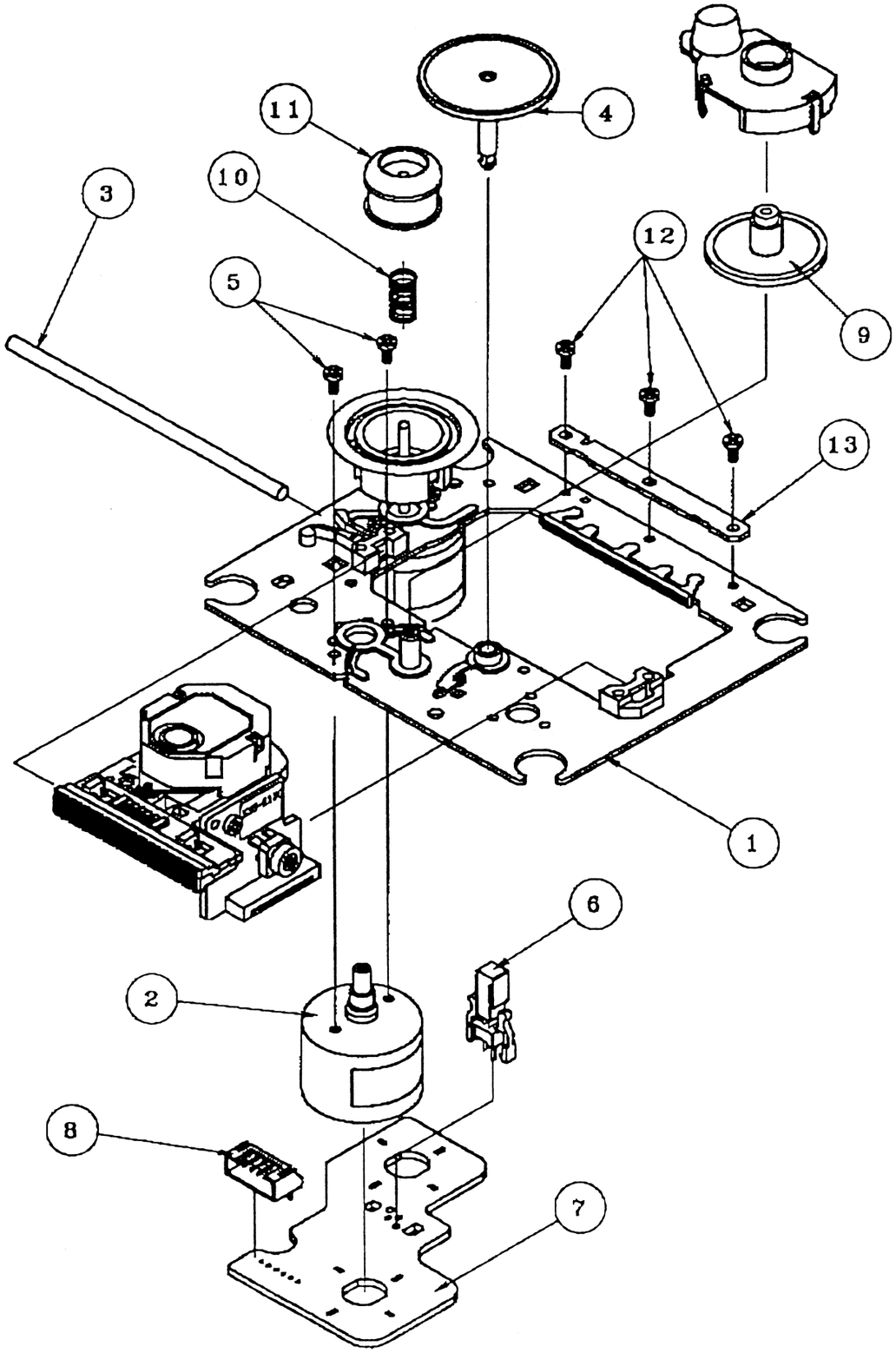
KSL-2130CCM 分解図
Disassembly Drawing



MECHANISM KSL2130CCM VIEW-1

REF. NO.	PARTS NO.	DESCRIPTION	REMARKS
1- 1	9A07979600	TRAY (C)	2-646-290-01
		VACANT	
1- 3	9A07979700	GEAR COVER (S)	2-625-544-01
1- 4	9A07268500	TRAY GEAR (S)	2-625-535-01
1- 5	9A07268900	CHUCKING PLATE	2-625-546-01
1- 6	9A07269900	+PTPWH 2.6*7	2-626-294-01
1- 7	9A06965300	YOKE (S), CHUCKING	2-625-537-01
1- 8	9A06965400	MAGNET	1-452-493-21
1- 9	9A07268700	DAMPA	2-625-541-02
1-10	9A07979800	CHUCKING PULLY	2-625-548-01
1-11	9A07979900	SUB CHASSIS 2130	2-646-288-01
1-12	9A07980000	COIL SPRING (FRONT)	2-627-236-01
1-13	9A07980100	COIL SPRING (BACK)	2-627-235-01
1-14	9A07980200	WASHER 2130	2-646-289-01
1-15	9A07980300	SCREW +P2.6*10	7-685-135-11
1-16	9A07980400	INSULATOR	2-627-234-01
1-17	9A07980500	MD ASS'Y	A-4912-186-A
1-18	9A07980600	OUTSERT MAIN CHASSIS (S)	2-625-552-06
1-19	9A06966200	SCREW + PTPWH 2.6X16	3-319-501-51
1-20	9A07980700	DRIVE GEAR (S)	2-625-547-01
1-21	9A07269000	CONTROL CAM (S)	2-625-545-04
1-22	9A07268000	LEAF SW	1-692-667-11
1-23	9A06966600	PIN, CONNECTOR 5P	1-564-721-11
1-24	9A06966700	PC BOARD, LOADING	1-640-523-11
1-25	9A06966800	MOTOR ASSY, LOADING	X-2625-117-1
1-26	9A07980800	MIDWAY GEAR (S)	2-625-274-02
1-27	9A07268600	LOADING PULLY	2-625-536-02
1-28	9A07980900	LM BELT	3-653-387-00
1-29	9A06967200	SCREW +B2.6X2.5	2-625-279-01

KSM-213CCM 分解図
Disassembly Drawing



MECHANISM KSL2130CCM VIEW-2

REF. NO.	PARTS NO.	DESCRIPTION	REMARKS
2- 1	9A07981000	MOTOR CHASSIS ASS'Y (MB)	X-2625-984-1
2- 2	9A07981100	MOTOR GEAR ASS'Y	X-2625-769-1
2- 3	9A07269800	SLED SHAFT (S)	2-626-908-01
2- 4	9A07981200	GEAR (A)(S)	2-625-188-02
2- 5	9A06968600	SCREW +P2X3	7-621-255-15
2- 6	9A07981300	LEAF SWITCH	1-572-085-11
2- 7	9A06968300	PC BOARD MOTOR (6P) (S)	1-639-678-12
2- 8	9A06968500	PIN, CONNECTOR 6P	1-564-722-11
2- 9	9A07981400	GEAR (B)(RP)	2-627-003-02
2-10	9A07981500	SPRING (S),COMPRESSION	2-625-191-01
2-11	9A06967800	RING (LO)(S),CENTER	2-625-477-01
2-12	9A06967500	SCREW (2X5), TAPPING (S)	2-641-386-01
2-13	9A06967600	REINFORCEMENT(S)	2-625-625-01

■ RESISTORS AND CAPACITORS

Notes : • Part numbers are indicated for most mechanical parts.
Please use this part number for parts order.
• IMPORTANT SAFETY NOTICE.
Components identified by ⚠ mark have special characteristics important for safety.
When replacing any of these components, use only manufacture's specified parts.
• The unit of resistance is OHM(Ω)
K=1000(Ω), M=1000(KΩ)
• The unit of capacitance is MICROFARED(μF)
P=10 $^{-6}$μF

■ Numbering System of Resistor

Example

CRD	25	F	J	101
Type	Wattage	Shape	Tolerance	Value

Resistor Type	Wattage	Tolerance
CRD: Carbon CRG: Metal Oxide CRF:Metal Cement	20:1/5W 25:1/4W 50:1/2W 1:1W 2:2W 3:3W	F:= ±1% J:= ±5% K:= ±10%

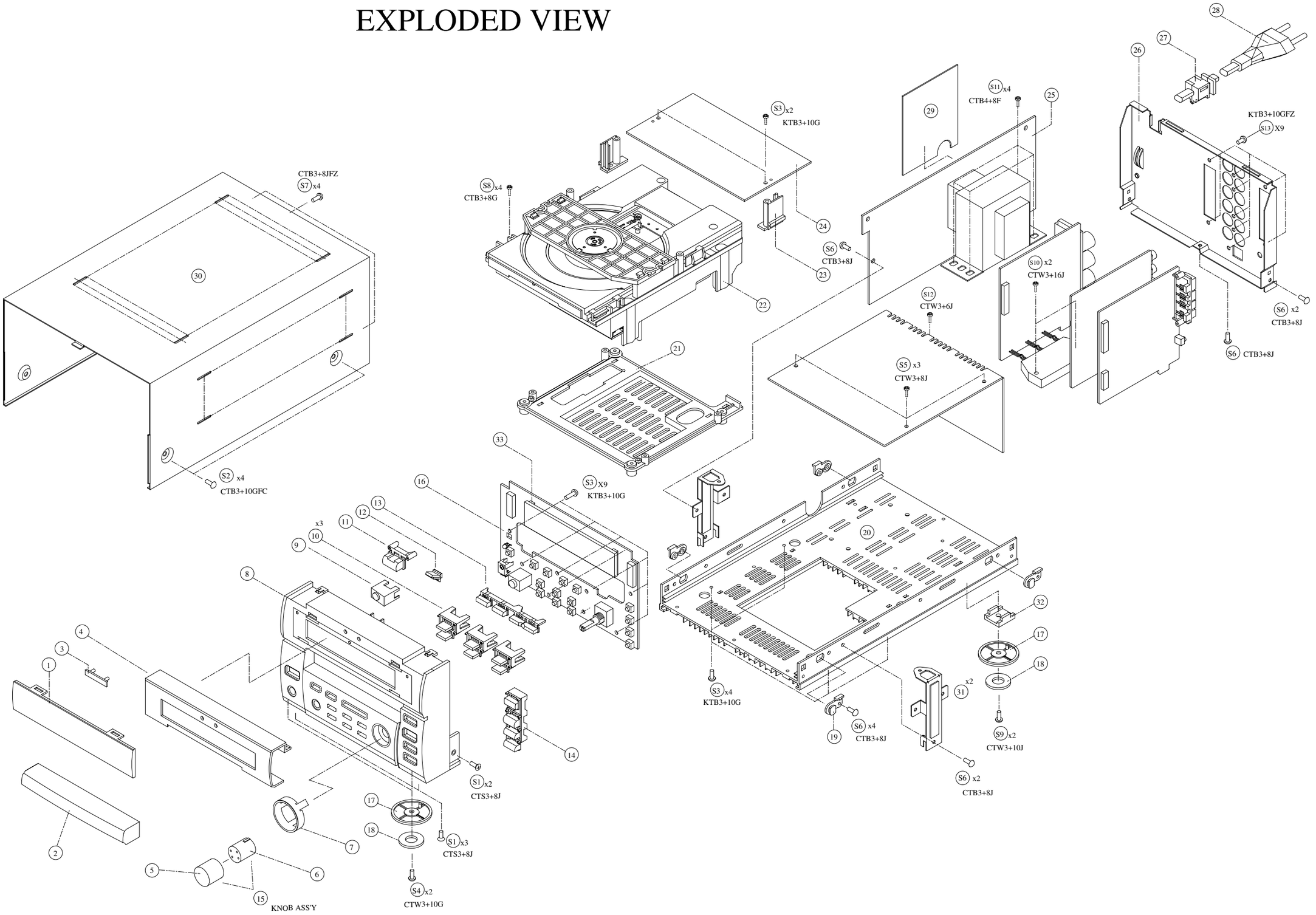
■ Numbering System of Capacitor

Example

HCKR	1H	101	K	B
Type	Voltage	Value	Tolerance	Peculiarity

Capacitor Type	Voltage		Tolerance
	ECEA Type	Other	
HCB:Ceramic	0J:6.3V	1H:50V DC	C: ±0.25pF
HCC:Ceramic	1A:10V	1:125V DC	G: ±2%
HCK:Ceramic	1C:16V	KC:400V AC	J: ±5%
HCQI:Polyester	1E:25V		K: ±10%
HCQP:Polypropylene	1H:50V		Z: +80%, –20%
HCQS:Polystyrol	1V:35V		

EXPLODED VIEW



EXPLODED VIEW (CR-H80)

REF. NO.		PARTS NO.	DESCRIPTION	REMARKS
1		9A08124900	WINDOW, FIP	CGU1A224
2		9A08124800	DOOR, CD	CGR1A173M9ZK87
3		9A08127900	BADGE, TEAC CR-H80	KGB1A080Z
4		9A08128000	ORNAMENT, FRONT(AL)	KGK1A055YC21
5		9A08163900	CAP , KNOB	KGK2A056C21
6		9A08163800	KNOB, ROTARY	KBN2A119
7		9A08128300	ORNAMENT, VOLUME	KGR1A174MBC22
8		9A08125100	PANEL, SUB	CGW1A271M9ZK87
9		9A08125000	WINDOW, SENSOR	CGU1A225
10		9A08124500	KNOB, MODE	CBT1A682M9K87
11		9A08124300	KNOB, POWER	CBT1A680M9K87
12		9A08124700	INDICATOR, POWER	CGL1A178
13		9A08124400	KNOB, FUNCTION	CBT1A681M9K87
14		9A08124600	KNOB, BAND	CBT1A683M9ZK87
15		9A08164000	VOLUME KNOB ASS'Y	KGK2A056ZA
16			SUB PCB(MC-D80TCCC)	
17		9A07872900	FOOT	CKL1A059M9K63
18		9A07889500	CUSHION, FOOT	KHG1A165
19		9A07873500	LOCKER, TOP	CMH1A088
20		9A07878700	BOTTOM CHASSIS, BOTTOM	CUA1A175
21		9A07873600	SUPPORT, MECHA	CMH1A091
22		9A07870900	MECHANISM KSL2130CCM	BJDKSL2130CCM
23		9A07891600	SUPPORT, PCB	KMH1A092
24			CD PCB	
25			POWER SUB PCB ASS'Y JPN	
26		9A08130300	PANEL, REAR	KKF5A177V
27	⚠	9A06754900	BUSHING, AC CORD	KHR1A028
28	⚠	9A08125200	POWER, CORD	CJA2J049Z
29		9A07891700	SHEET, INSULATOR	KMX1A094
30		9A08130200	CABINET, TOP	KKC2B100S26
31		9A07891500	BRACKET, PCB	KMD1A396
21		9A07873600	SUPPORT, MECHA	CMH1A091
33		9A08877300	BRACKET, FLT	CMD1A374
S1		9A01397400	SCREW KTS3+8J	KTS3+8J
S2		9A08164100	SCREW	KTB3+10GFC
S3		9A01377400	SCREW, KTB3+10G	KTB3+10G
S4		9A05985100	SCREW KTW3+10G	KTW3+10G
S5		9A05339200	SCREW KTW3+8J	KTW3+8J
S6		9A01535800	SCREW, KTB3+8J	KTB3+8J
S7		9A01377200	SCREW KTB3+8JFZ	KTB3+8JFZ
S8		9A01420500	SCREW, KTB3*8G	KTB3+8G
S9		9A06700000	SCREW KTW3+10J	KTW3+10J
S10		9A06028100	SCREW KTW3+16J	KTW3+16J
S11		9A01477800	SCREW, KTB4*8F	KTB4+8F
S12		9A05966100	SCREW KTW3+6J	KTW3+6J
S13		9A01377300	SCREW, KTB3+10GFZ	KTB3+10GFZ
F 901	⚠	9A08127700	FUSE	KBA2C2000TLJ

EXPLODED VIEW (CR-H80MK2)

REF. NO.		PARTS NO.	DESCRIPTION	REMARKS
1		9A08124900	WINDOW, FIP	CGU1A224
2		9A09054600	DOOR, CD	CGR1A173M7ZK101
3		9A08877500	BADGE, TEAC CR-H80MK2	KGB1A080X
4		9A09055800	ORNAMENT, FRONT(AL)	CGK1A055XC25
5				
6				
7		9A08128300	ORNAMENT, VOLUME	KGR1A174MBC22
8		9A09056000	PANEL, SUB	CGW1A271M7ZK101
9		9A08125000	WINDOW, SENSOR	CGU1A225
10		9A09055600	KNOB, MODE	CBT1A682M7K101
11		9A09055400	KNOB, POWER	CBT1A680M7K101
12		9A09055900	INDICATIOR, POWER	CGL2A178
13		9A09055500	KNOB, FUNCTION	CBT1A681M7K101
14		9A09055700	KNOB, BAND	CBT1A683M7ZK101
15		9A09054900	VOLUME KNOB ASS'Y	GKG2A056YA
16			SUB PCB (MC-D80TCCC)	
17		9A07872900	FOOT	CKL1A059M9K63
18		9A07889500	CUSHION, FOOT	KHG1A165
19		9A07873500	LOCKER, TOP	CMH1A088
20		9A09054800	BOTTOM CHASSIS ASS'Y	CUACRH80MK2DMCC
21		9A07873600	SUPPORT, MECHA	CMH1A091
22		9A09056400	MECHANISM	HJDKSL2130CCM
23		9A07891600	SUPPORT, PCB	KMH1A092
24			CD PCB	
25			POWER SUB PCB ASS'Y JPN	
26		9A09056100	PANEL, REAR	CKF5A177U
27	⚠	9A06754900	BUSHING, AC CORD	KHR1A028
28	⚠	9A08125200	POWER, CORD	CJA2J049Z
29		9A07891700	SHEET, INSULATOR	KMX1A094
30		9A09056500	CABINET, TOP	KKC6B100S35
31		9A08945100	BRACKET, PCB	CMD1A081
32				
33		9A08877300	BRACKET, FLT	CMD1A374
S1		9A01397400	SCREW KTS3+8J	KTS3+8J
S3		9A01377400	SCREW,KTB3+10G	KTB3+10G
S4		9A05985100	SCREW KTW3+10G	KTW3+10G
S5		9A05339200	SCREW KTW3+8J	KTW3+8J
S6		9A01535800	SCREW,KTB3+8J	KTB3+8J
S7		9A01377200	SCREW KTB3+8JFZ	KTB3+8JFZ
S8		9A01420500	SCREW,KTB3*8G	KTB3+8G
S9		9A06700000	SCREW KTW3+10J	KTW3+10J
S10		9A06028100	SCREW KTW3+16J	KTW3+16J
S11		9A01477800	SCREW,KTB4*8F	KTB4+8F
S12		9A05966100	SCREW KTW3+6J	KTW3+6J
S13		9A01377300	SCREW,KTB3+10GFZ	KTB3+10GFZ
F 901	⚠	9A08127700	FUSE	KBA2C2000TLJ

MAIN PCB ASS'Y

REF. NO.	PARTS NO.	DESCRIPTION	REMARKS
	9A08162200	MAIN PCB ASS'Y JPN	COP11264J
	9A08126200	MAIN PCB	CUP11264Y
	9A07879800	WIRE ASS'Y 8202040AA	CWE8202040AA
	9A07880000	WIRE ASS'Y NT20001	CWZNT20001
BN91	9A07879200	WIRE ASS'Y 10P , 50MM	CWB1C010050EN
BN98	9A07879400	WIRE ASS'Y 4P , 100MM	CWB1D004100BM
BT01	9A08124000	BATTERY,RECHARGEABLE	BABGP40BVH3A3H
C124	9A07886400	CAP,STYROLE	HCQS1H471JZ
C127	9A01405900	C,VARIABLE 20PF A020S12	KCRA020S12
C134	9A07897400	CAP,ELECT HCEA1HH0R1T	HCEA1HH0R1T
C244 C246	9A08127800	CAP,FILM	KCFE1J184JBT
C245 C247	9A08127800	CAP,FILM	KCFE1J184JBT
C530 C531	9A07883600	CAP , ELECT 3300/50V	HCEA1HH332E
C820	9A07882100	CAP,ELECT 1000/6.3V	HCEA0JH102T
CF01 CF02	9A06544600	FILTER,CERAMIC E107MSHAT	BVFE107MSHAT
CF03	9A07006300	FILTER CERAMIC PBF450JR3	BVFPFB450JR3
CN10	9A06250600	WAFER 02GA19ZM	KJP02GA19ZM
CN11	9A07890200	CONNECTOR MOLEX35237-0910	KJP09GB99ZM
CN12	9A07889800	CONNECTOR MOLEX35237-0610	KJP06GB99ZM
CN21	9A07890400	CONNECTOR MOLEX35237-1310	KJP13GB99ZM
CN22 CN51	9A07890000	CONNECTOR MOLEX35237-0710	KJP07GB99ZM
CN61	9A07891000	WAFER, CARD CABLE GF120-2	KJP27GA115ZG
CN62	9A07890800	WAFER, CARD CABLE GF120-2	KJP21GA115ZG
CN94	9A07890600	WAFER, CARD CABLE GF120-1	KJP17GA115ZG
D101	9A08163000	DIODE,VARICAP	HVDSVC342LT
D103 C105	9A07887200	DIODE 1SS131M	HVD1SS131MT
D201 C202	9A07887200	DIODE 1SS131M	HVD1SS131MT
D501	9A06224900	DIODE , BRIDGE PBU604F	BVDPBU604F
D502- D506	9A07887200	DIODE 1SS131M	HVD1SS131MT
D801- D805	9A07887200	DIODE 1SS131M	HVD1SS131MT
IC11	9A08163100	IC,(IF+MPX) LA1836M	HVILA1836M
IC12	9A08163300	IC,PLL LC72131M"	HVILC72131M
IC21	9A08882800	I.C,(VOLUME+FUNCTION)	HVITDA7318D
IC22 IC23	9A08163400	IC,OP AMP NJM2068MD	HVINJM2068MDTE1
IC24	9A08163200	IC,LC4966	HVILC4966
IC51	9A08163700	IC,AMP STK4132MK2	HVISTK4132(2)
IC81	9A08622700	IC,MICOM CR-H100 V31.04	HVIANAM1320ACT
IC82	9A08163500	IC,NJM4556AL	HVINJM4556AL
IC83	9A06878400	VOLTAGE DETECTOR	BVIRE5VL30CARZ
JK01	9A08883100	TERMINAL,ANT(USA 75 OHM)	CJJ3G010Z
JK02	9A08883200	JACK,PIN BOARD JK060092JN	CJJ4R018Z
JK21	9A07872700	TERMINAL,IN/OUT	CJJ4R012Z
JK51	9A08125300	S.P TERMINAL	CJJ5P010Z
L105	9A07886600	COIL,AXAIL 10UH	HLQ02C100KT
L801	9A07886700	COIL,AXAIL 100UH	HLQ02C101JT
L802	9A07886600	COIL,AXAIL 10UH	HLQ02C100KT
OPC1	9A08126500	MODULE,OPTICAL	HJS9L001Z
Q101 C102	9A07888400	T.R,KTC3192OT	HVTKTC3192OT
Q103	9A08884100	TR,KRA107M	HVTKRA107MT
Q104	9A03745100	TR,KSA1175-YTA	KVTKSA1175YT
Q107	9A08878300	TR,KRC107M	HVTKRC107MT
Q108	9A03745100	TR,KSA1175-YTA	KVTKSA1175YT
Q201- Q205	9A07888500	TR,KTD1302T	HVTKTD1302T
Q206	9A08884100	TR,KRA107M	HVTKRA107MT
Q207	9A07888500	TR,KTD1302T	HVTKTD1302T

MAIN PCB ASS'Y

REF. NO.		PARTS NO.	DESCRIPTION	REMARKS
Q208- Q210		9A08878300	TR,KRC107M	HVTKRC107MT
Q502 Q503		9A08878300	TR,KRC107M	HVTKRC107MT
Q504		9A08884100	TR,KRA107M	HVTKRA107MT
Q505 Q506		9A03745100	TR,KSA1175-YTA	KVTKSA1175YT
Q507		9A08878300	TR,KRC107M	HVTKRC107MT
Q801		9A07888500	TR,KTD1302T	HVTKTD1302T
Q802		9A08878300	TR,KRC107M	HVTKRC107MT
Q803		9A08884100	TR,KRA107M	HVTKRA107MT
Q804		9A07888500	TR,KTD1302T	HVTKTD1302T
Q805		9A08878300	TR,KRC107M	HVTKRC107MT
Q806		9A08884100	TR,KRA107M	HVTKRA107MT
Q807		9A07887900	T.R KSB811YT	HVTKSB811YT
Q808		9A03745100	TR,KSA1175-YTA	KVTKSA1175YT
Q809 Q810		9A07888500	TR,KTD1302T	HVTKTD1302T
Q811 Q812		9A01388800	TR,KSC945-YTA	KVTKSC945CYT
Q815		9A01388800	TR,KSC945-YTA	KVTKSC945CYT
Q816 Q817		9A08878300	TR,KRC107M	HVTKRC107MT
R535	⚠	9A07892000	RES,CARBON 1K OHM 1/2W	KRD50FJ102T
R536- R539	⚠	9A07892100	RES,CARBON 2.2K OHM 1/2 J	KRD50FJ222T
R540	⚠	9A07892000	RES,CARBON 1K OHM 1/2W	KRD50FJ102T
R541 R542	⚠	9A05338000	RES,METAL 10 OHM 1W J	KRG1ANJ100H
R543 R544	⚠	9A06062000	R, CEMENT 0.27 2W	KRF2CJR27H
RY51		9A09058500	RELAY	HSL4A010ZU
S101		9A04882400	SW,TACT DC-D2100	KST1A010Z
T101		9A07873000	COIL,AM ANT2	CLA2C005
T102		9A07873300	COIL,AM OSC	CLO2B008Z
T103		9A09229500	I.F.T.FM	CLI3B030Z
T104		9A08125400	I.F.T. AM	CLI2B111Z
TF01		9A08126600	TUNER PACK(JAPAN)	HNVFTE3J508T
VR11		9A08131400	RES,SEMI FIXED(4.7K OHM)	KVN1RA472B01T
VR12		9A08040700	RES,SEMI FIXED(22K OHM)	KVN1RA223B01T
WF11		9A07890100	WAFER MOLEX35336-0910	KJP09GA98ZM
WF12		9A07889700	WAFER MOLEX35336-0610	KJP06GA98ZM
WF21		9A07890300	WAFER MOLEX35336-1310	KJP13GA98ZM
WF22 WF51		9A07889900	WAFER MOLEX35336-0710	KJP07GA98ZM
X101		9A07491700	RESONATOR,CERAMIC	HVFZTB456F11
X102		9A07491800	FILTER,CERAMIC	HVFLZU450C4N
X104		9A08883700	CRYSTAL	HOX07200A200C
X801		9A08879000	CRYSTAL	HOX08000E160C
X802		9A05188800	CRYSTAL, 32,768KHZ DT-38	BOX00032A120C

POWER SUB PCB ASS'Y

REF. NO.	PARTS NO.	DESCRIPTION	REMARKS
	9A08162300	POWER SUB PCB ASS'Y JPN	COP11298J
	9A09058300	SUB PCB(MC-D80TCCC)	CUP11298Y
BN95	9A07879300	WIRE ASS'Y 1C903100BM	CWB1C903100BM
C931	9A07884100	CAP,ELECT 100/35V	HCEA1VH101T
C932 C933	9A07883800	CAP,ELECT 47/50V	HCEA1HH470T
C935 C936	9A07883400	CAP,ELECT 100/50V	HCEA1HH101T
C940 C941	9A07884200	CAP,ELECT 1000/35V	HCEA1VH102E
C942	9A07884300	CAP,ELECT 2200/35V	HCEA1VH222E
CN61	9A07891100	WAFER,CARD CAGF120-27S-L	KJP27GB116ZG
CN62	9A07890900	WAFER,CARD CAGF120-21S-L	KJP21GB116ZG
CN91	9A05330700	WAFER MOLEX 53014-1010	KJP10GA19ZM
CN92	9A05356400	WAFER MOLEX53014-0510	KJP05GA19ZM
CN95	9A05329100	WAFER MOLEX 5267-03A	KJP03GA01ZM
CN97	9A06674400	WAFER,7.92MM (YUNHO)	KJP02KA060ZY
CN98	9A05329300	WAFER MOLEX 5267-04A	KJP04GA01ZM
D601	9A08131100	L.E.D, YELLOW SLR342YCTB7	KVD342YCTB7T089
D602	9A07887200	DIODE 1SS131M	HVD1SS131MT
D901- D910	9A05194700	DIODE,1N4003ST	KVD1N4003ST
D915 D916 ⚠	9A07886900	DIODE,ZENER 13V ZENER	HVDMTZJ13BT
D917- D919 ⚠	9A07887100	DIODE,ZENER 6.2V ZENER	HVDMTZJ6.2BT
D920 ⚠	9A07892400	DIODE , ZENER 9.1V 1/2W	KVDUZ9.1BMT
D921 ⚠	9A07887000	DIODE,ZENER 33V 1/2W	HVDMTZJ33BT
F902	9A05328200	HOLDER,FUSE KJCFC5S	KJCFC5S
FIP1	9A07889000	F.I.P SVA10MM17	KFLSVA10MM17
JK61	9A08126400	JACK,HEADPHONE(SILVER)	HJJ2D003Y
JW03	9A07879700	WIRE P202110VV	CWEP202110VV
JW61	9A07879900	WIRE ASS'Y AMC660JW52	CWZAMC660JW52
L901	9A07886600	COIL,AXAIL 10UH	HLQ02C100KT
Q601	9A08878300	TR,KRC107M	HVTKRC107MT
Q602	9A08884100	TR,KRA107M	HVTKRA107MT
Q901- Q903	9A08884100	TR,KRA107M	HVTKRA107MT
Q904- Q906	9A08878300	TR,KRC107M	HVTKRC107MT
Q908 Q910 ⚠	9A07888000	T.R KSC2316YT	HVTKSC2316YT
Q909 Q915 ⚠	9A08883500	TR,KTC2026Y	HVTKTC2026Y
Q911 ⚠	9A07888200	T.R KTA1274YT	HVTKTA1274YT
Q916	9A09058700	TR,KTA1046Y	HVTKTA1046Y
R904 ⚠	9A07892200	RES,METAL 330 OHM 1W J	KRG1ANJ331H
R920 R921 ⚠	9A06062000	R, CEMENT 0.27 2W	KRF2CJR27H
R922 R923 ⚠	9A06760900	R,FUSE 0.47 J 1W	KRQ1AJR47H
R924 ⚠	9A05890500	R,CARBON 1/2W 100	KRD50FJ101T
RC61	9A08563600	SENSOR,REMOCON	KRVHIM602H32
S601- S615	9A07878500	SW,TACT SKHV10910G	CST1A012ZT
SJ61	9A08162900	VR,ENCODER EC16B243040F	HSR2A011Z
T901 ⚠	9A08125600	TRANS,POWER(JAPAN)	CLT5P037ZJ

CD PCB ASS'Y

REF. NO.	PARTS NO.	DESCRIPTION	REMARKS
	9A07873700	CD PCB ASS'Y	COP11263B
	9A07878800	CD PCB	CUP11263Z
BN92	9A07879100	WIRE ASS'Y 5P , 50MM	CWB1C005050EN
CN31	9A05356400	WAFER MOLEX53014-0510	KJP05GA19ZM
CN32	9A05329700	WAFER MOLEX53014-0610	KJP06GA19ZM
CN33	9A07890500	WAFER , CARD CABLE 16P 1.	KJP16GB113ZG
CN94	9A07890700	WAFER, CARD CABLE(ANGLE)G	KJP17GB116ZG
D301- D303	9A07887200	DIODE 1SS131M	HVD1SS131MT
IC31	9A08878700	IC,DIGITAL SERVO TC9462F	HVITC9462F
IC32	9A07887400	I.C RF DIGI SERVO TA2109F	HVITA2109F
IC33	9A07887300	I.C POWER DRIVER TA2092N	HVITA2092N
IC34	9A07871100	I.C NJM7805FA	BVINJM7805FA
IC35	9A07887500	I.C TA7291S	HVITA7291S
L301	9A07886600	COIL,AXAIL 10UH	HLQ02C100KT
L302	9A07886700	COIL,AXAIL 100UH	HLQ02C101JT
Q301	9A07888100	T.R TKTA1266YT	HVTKTA1266YT
X301	9A09058400	CRYSTAL	HOX16934A120C

INCLUDED ACCESSORIES (CR-H80)

REF. NO.	PARTS NO.	DESCRIPTION	REMARKS
	9A08164300	SPEAKER ASS'Y	LS-H80A
	9A01397000	ANTENNA TERMINAL T-60	KSA267
	9A07871200	REMOCON TRANSMITTER ASS'Y	CARTCR-H100TCCC
	9A07927800	OWNER'S MNL J, CR-H80	CQX1A574Z
	9A08046100	ADAPTOR,75-300 (NTSC)	KLR1T201
	9A08131000	AM LOOP ANTENNA ASS'Y	KSA2A012Z
	9A08153900	BATTERY	KABAAM1.5V

INCLUDED ACCESSORIES (CR-H80mk2)

REF. NO.	PARTS NO.	DESCRIPTION	REMARKS
	9A08046100	ADAPTOR,75-300 (NTSC)	KLR1T201
	9A09055100	SPEAKER ASS'Y	LS-H80MK2
	9A09054500	INSTRUCTION MANUAL ASSY	CQXCRH80MK2DMCC
	9A07871200	REMOCON TRANSMITTER ASS'Y	CARTCR-H100TCCC
	9A08668000	O/M CR-H80MK2 (J)	CQX1A574Y
	9A08880800	ANT,FM.T(LUG TYPE)	CSA267
	9A08880900	AM LOOP ANTENNA ASS'Y	CSA3A012Z
	9A09055200	BATTERY	HABAAM1.5V