

# TEAC



Preliminary  
暫定版

## SERVICE MANUAL

# CR-L600

### CD Receiver

COMPACT  
disc  
DIGITAL AUDIO

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## NOTES

- PC boards shown are viewed from parts side.
- The parts with no reference number or no 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 sign are safety critical components. They must be replaced with identical components - refer to the appropriate parts list and ensure exact replacement.
- Parts of [ ] mark can be used only with the version designated.  
[J]: JAPAN [E]: EUROPE [UK]: U.K.

## 注 意

- プリント基板図は部品面を示しています。
- 分解図に部番のない部品および品番のない部品は供給できません。
- 標準の抵抗、コンデンサーは省略してあります。回路図を参照してください。
- △印は安全重要部品です。交換する時は必ず指定の部品を使用してください。
- 仕向先  
[J]: JAPAN [E]: EUROPE [UK]: U.K.

# 1 SPECIFICATIONS

## 仕様

### AMPLIFIER Section

Output Power ..... 30 W/ch (6 ohms, 0.5 %, 1 kHz)  
Input Sensitivity ..... 350 mV/47k ohms  
Frequency Response ..... 20 Hz to 20,000 Hz (+1/-3 dB)

### TUNER Section

#### FM Section

Frequency Range ..... 87.50 MHz to 108.00 MHz (50 kHz steps)  
Signal-to-Noise Ratio ..... 65 dB (Mono) / 60 dB (Stereo)

#### AM Section

Frequency Range ..... 522 kHz to 1629 kHz (9 kHz steps)  
Signal-to-Noise Ratio ..... 35 dB

### CD PLAYER Section

Frequency Response ..... 20 Hz to 20,000 Hz ( $\pm 2$  dB)  
Signal-to-Noise Ratio ..... more than 85 dB  
Wow and Flutter ..... Unmeasurable

### GENERAL

Power Requirements ..... 230 V AC, 50 Hz  
Power Consumption ..... 40 W  
Power Consumption (standby) ..... 5 W  
Dimension (W x H x D) ..... 190 x 104 x 349 mm  
Weight ..... 3.0 kg  
Standard Accessories ..... Remote Control Unit (RC-864) x 1  
Batteries (AA, R6, SUM-3) x 2  
AM Loop Antenna x 1  
FM Lead-type Antenna x 1  
Owner's Manual x 1  
Warranty Card x 1

- Design and specifications are subject to change without notice.
- Weight and dimensions are approximate.

### ■アンプ部

定格出力 ..... 30W+30W(0.5%, 1kHz, 6 $\Omega$ )  
入力感度 ..... 350mV/47k $\Omega$   
周波数特性 ..... 20Hz~20,000Hz

### ■FMチューナー部

受信周波数 ..... 76.0MHz~90.0MHz(100kHzステップ)

### ■AMチューナー部

受信周波数 ..... 522kHz~1,629kHz(9kHzステップ)

### ■CDプレーヤー部

周波数特性 ..... 20Hz~20,000Hz( $\pm 2$ dB)  
S/N比 ..... 85dB以上  
ワウフラッター ..... 測定限界値以下

### ■共通部

電源 ..... AC100V, 50-60Hz  
消費電力 ..... 40W  
消費電力(スタンバイ時) ..... 3W  
外形寸法(幅、高さ、奥行) ..... 190×104×349mm  
質量 ..... 3.0kg  
付属品 ..... リモコン×1  
乾電池(単3形)×2  
FM室内アンテナ×1  
AMループアンテナ×1  
取扱説明書×1  
保証書×1

- 仕様および外観は改善のため予告なく変更することがあります。

## 2 ADJUSTMENTS AND CHECKS

調整と確認

**Preliminary**  
**準備中**

**Preliminary**  
**準備中**

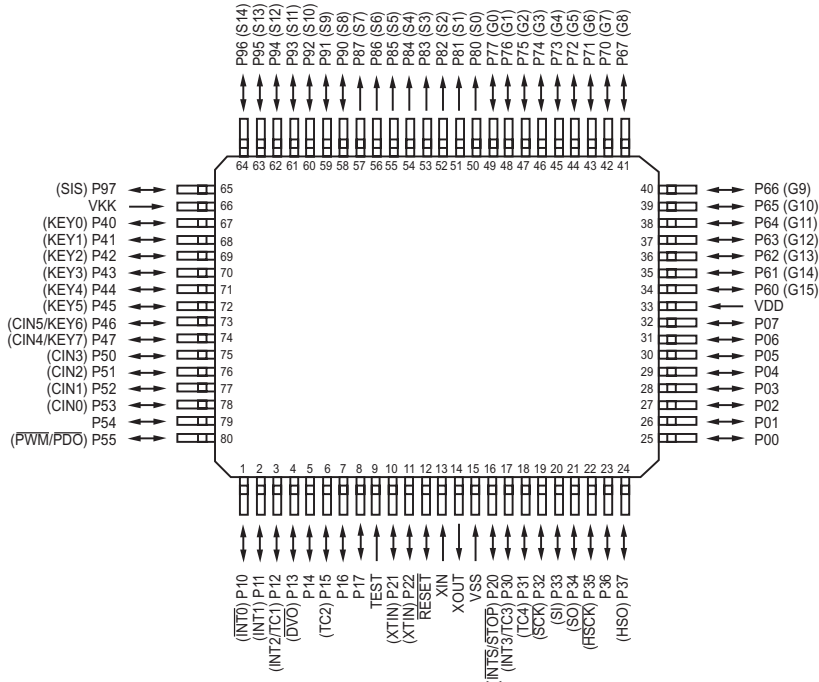
**Preliminary**  
**準備中**

# 3 IC BLOCK DIAGRAMS AND PIN FUNCTIONS

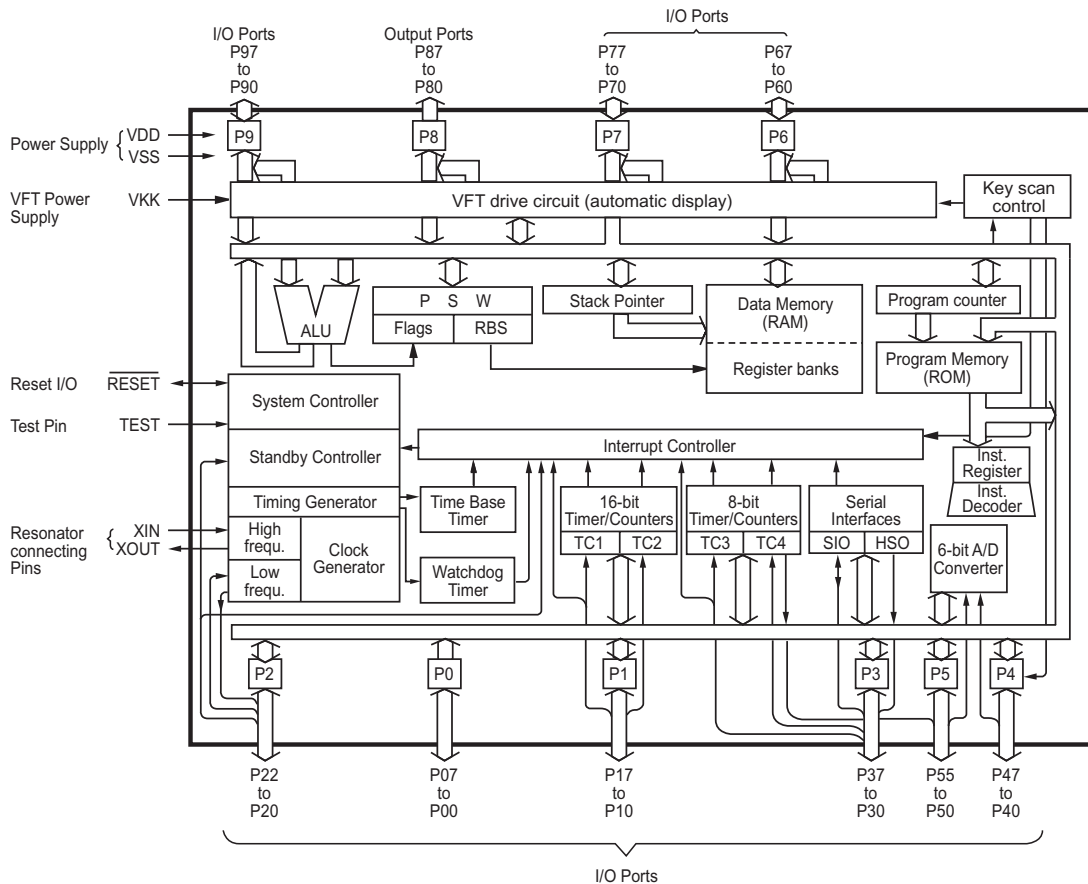
## ICブロック図と端子説明

### TMP87PS71AF (IC31)

#### ■ PIN ASSIGNMENTS (TOP VIEW)



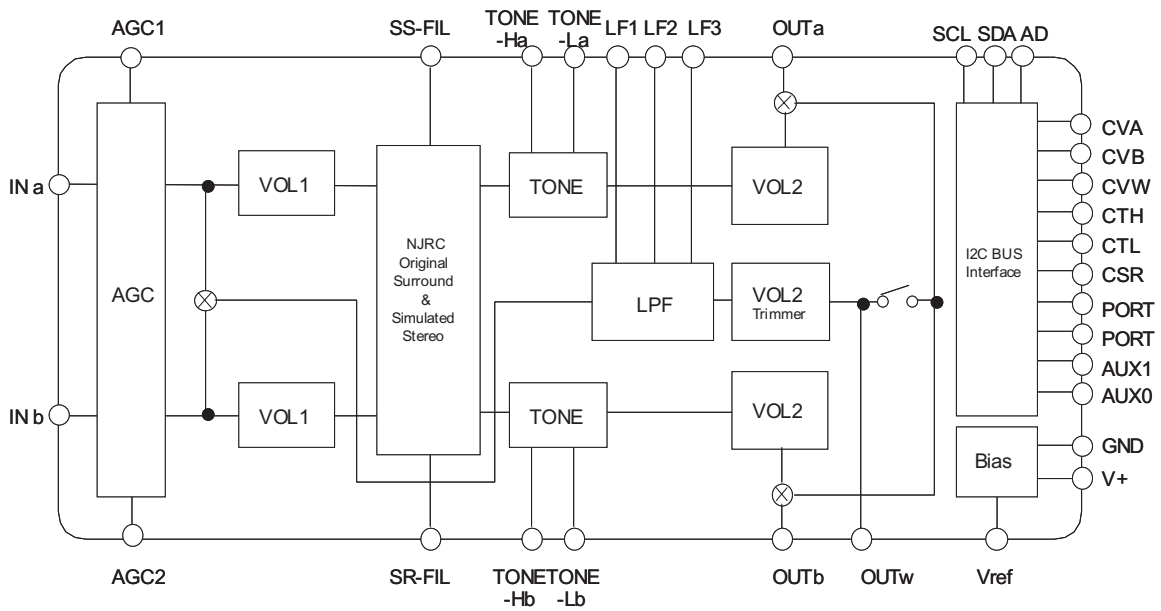
#### ■ BLOCK DIAGRAM



PIN NO.	SYMBOL	I/O	DESCRIPTION
1	F_MUTE	O	FUNCTION MUTE CONTROL PORT
2	REMO	I	REMOTE CONTROL SENSOR DATA INPUT
3	RDS CLK	I	RDS CLOCK/DATA PORT
4	RDS DATA	O	
5	V_SDATA	O	VOL.IC CONTROL PORT
6	V_SCLK	O	
7		-	
8	CD_M_STBY	O	CD STAND-BY PORT
9	GND	-	
10	VSW2	I	VOLUME CONTROL PORT
11	VSW1	I	
12	RESET	I	RESET INPUT PORT
13	X_IN	I	CRYSTAL CONNECTION PORT
14	X_OUT	O	
15	GND	-	
16	BACK_UP	I	BACK UP MODE CONTROL
17	CD_BUS0	O	CD DATA BUS PORT
18	CD_BUS1	O	
19	CD_BUS2	O	
20	CD_BUS3	O	
21	(DVD)RXDO	O	CD OPEN CONTROL PORT
22	D_RST	O	CD CLOSE CONTROL PORT
23	-	-	
24	TUNER_IN	I	TUNED/STEREO DISPLAY CONTROL PORT
25	STEREO_IN	I	
26	OPLED	O	LED ON/OFF CONTROL PORT
27	POWER	O	POWER ON/OFF CONTROL PORT
28	PLL_DATA_IN	I	PLL DATA INPUT PORT
29	F_STB	O	FUNCTION IC CONTROL PORT
30	F_P_CLK	O	
31	F_P_DATA	O	
32	PLL_CE	O	PLL ENABLE CONTROL PORT
33	VDD	-	POWER PORT(+5)
34	OPTION(A)	O	OPTION/FIP SEGMENT CONTROL PORT
35	OPTION(B)	O	
36	OPTION(C)	O	
37	OPTION(D)	O	
38	OPTION(E)	O	
39~65	FIP SEGMENT	O	
66	VKK(-)	-	POWER PORT(-30)
67	OPTION	I	OPTION CONTROL PORT
68	PROTECT	I	PROTECT INPUT PORT
69	HPIN	I	HEADPHONE IN/OUT DEFECT PORT
70	CD_PWR	O	CD POWER PORT
71	CD/RST	O	CD RESET PORT
72	CD_BUCK	O	CD BUCK PORT
73	CD/CCE	O	CD ENABLE CONTROL PORT
74	CD/RW	O	CD_RW PORT
75	M_OP_M	O	MECHA. CONTROL PORT
76	M_CL_M	O	
77	KEY2	I	KEY CONTROL INPUT
78	KEY1	I	
79	SP_ON	I	SPEAKER ON/OFF PORT
80	T_MUTE	O	TUNER MUTE PORT

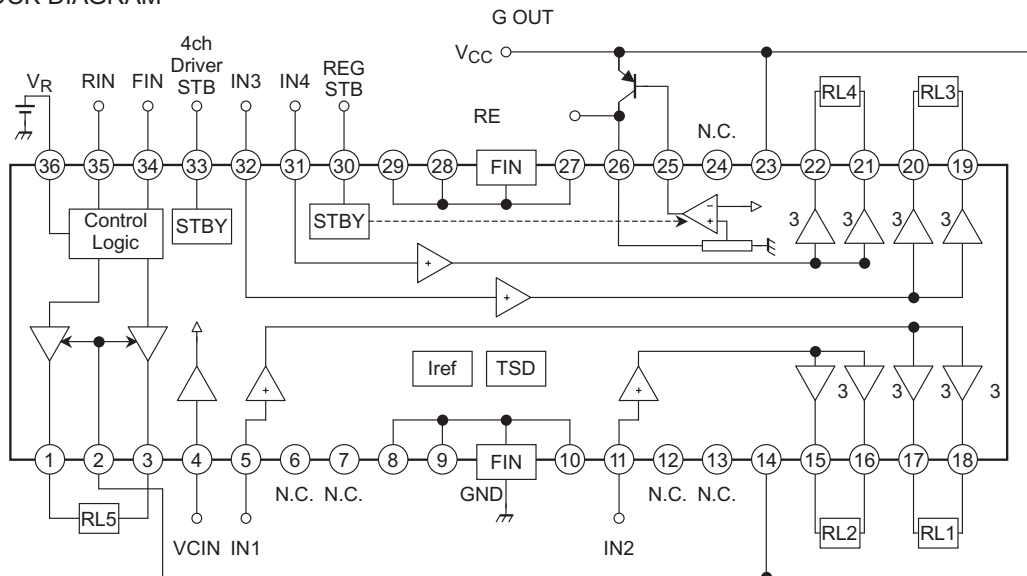
## NJW1136 (IC24)

### ■ BLOCK DIAGRAM



## TA2125AF (IC13)

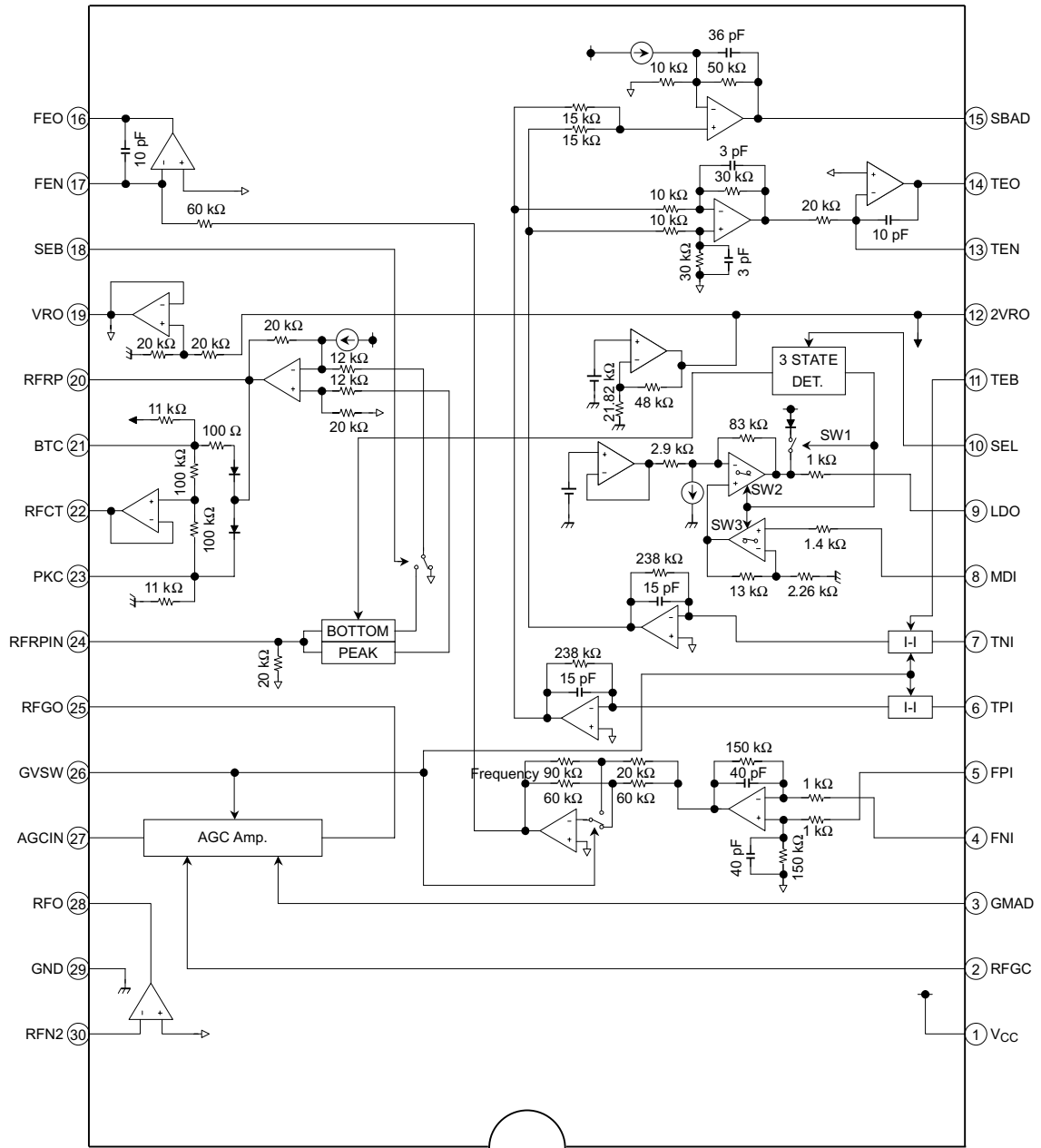
### ■ BLOCK DIAGRAM





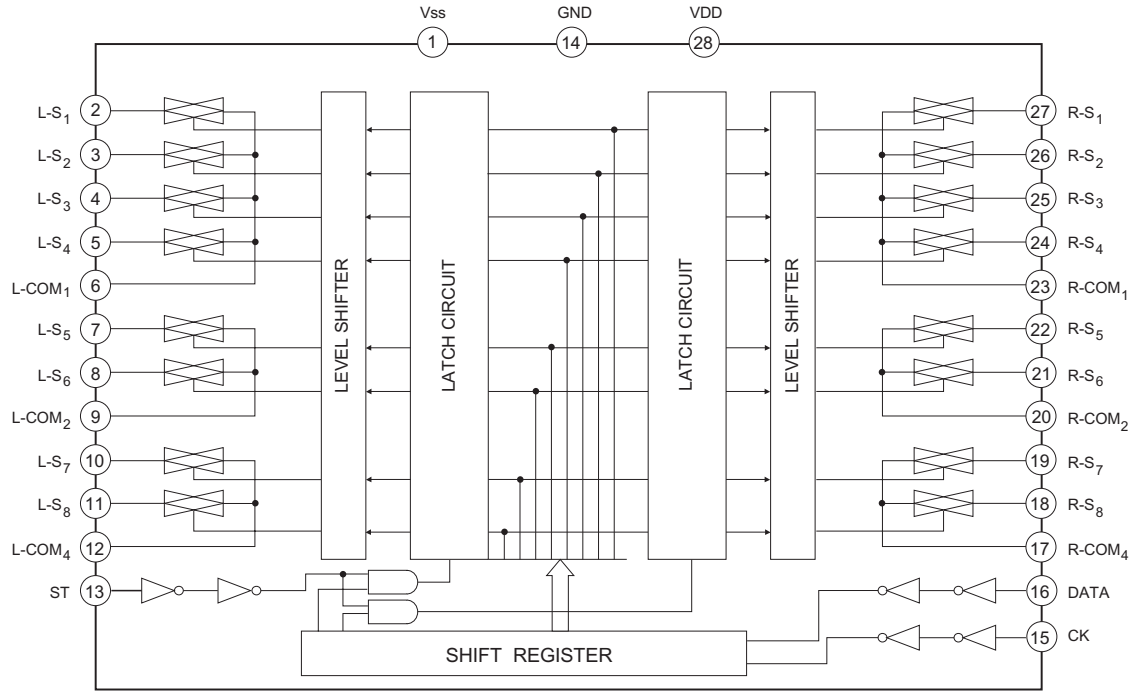
# TA2153FN (IC12)

## ■ BLOCK DIAGRAM



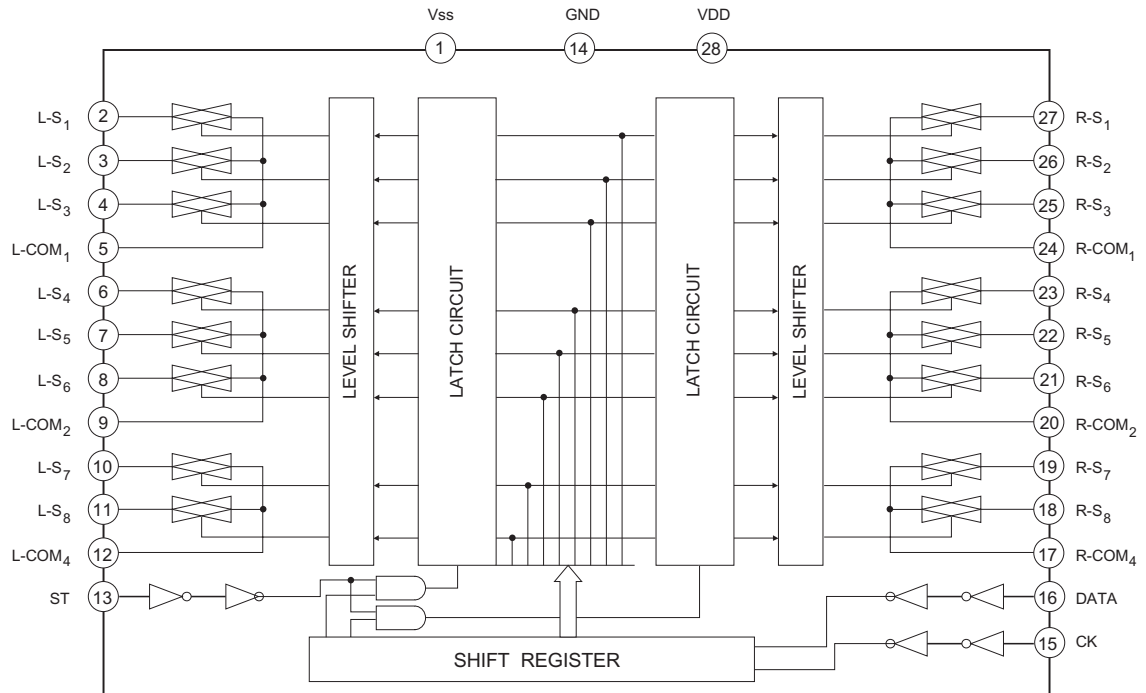
# TC9164AF

## ■ BLOCK DIAGRAM



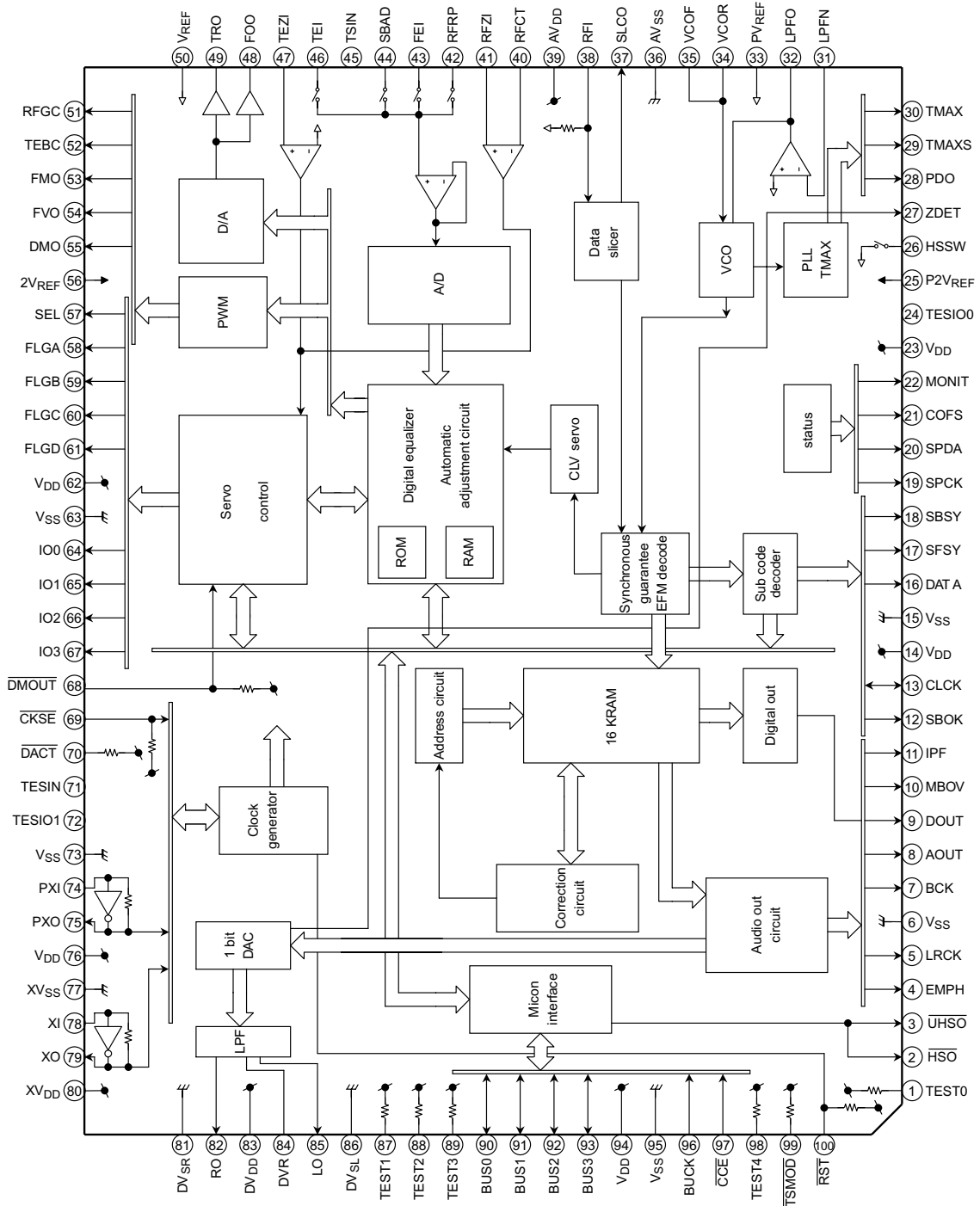
# TC9163AF (IC21)

## ■ BLOCK DIAGRAM



# TC9462A (IC10)

## ■ BLOCK DIAGRAM



Pin No.	Symbol	I/O	Functional Description	Remarks															
1	TEST0	I	Test mode terminal. Normally, keep at open.	With pull-up resistor.															
2	$\overline{\text{HSO}}$	O	Playback speed mode flag output terminal.																
3	$\overline{\text{UHSO}}$	O	<table border="1"> <thead> <tr> <th><math>\overline{\text{UHSO}}</math></th> <th><math>\overline{\text{HSO}}</math></th> <th>Playback Speed</th> </tr> </thead> <tbody> <tr> <td>H</td> <td>H</td> <td>Normal</td> </tr> <tr> <td>H</td> <td>L</td> <td>2 times</td> </tr> <tr> <td>L</td> <td>H</td> <td>4 times</td> </tr> <tr> <td>L</td> <td>L</td> <td></td> </tr> </tbody> </table>		$\overline{\text{UHSO}}$	$\overline{\text{HSO}}$	Playback Speed	H	H	Normal	H	L	2 times	L	H	4 times	L	L	
$\overline{\text{UHSO}}$	$\overline{\text{HSO}}$	Playback Speed																	
H	H	Normal																	
H	L	2 times																	
L	H	4 times																	
L	L																		
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	V <sub>SS</sub>		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 <sub>2</sub> 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.	Schmitt input															
14	V <sub>DD</sub>		Digital power supply voltage terminal.																
15	V <sub>SS</sub>		Digital GND terminal.																
16	DATA	O	Subcode P~W data output terminal.																
17	SFSY	O	Play-back 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. This terminal output the text data with serial by command.																
23	V <sub>DD</sub>		Digital power supply voltage terminal.																
24	TESIO0	I	Test input/output terminal. Normally, keep at "L" level. The terminal that inputted the clock for read of text data by command.																
25	P2V <sub>REF</sub>		PLL double reference voltage supply terminal.																
26	HSSW	O	This terminal is used to output PV <sub>REF</sub> or HiZ by command.	2-state output. (PV <sub>REF</sub> , 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. (P2V <sub>REF</sub> , PV <sub>REF</sub> , SS)															

Pin No.	Symbol	I/O	Functional Description	Remarks								
29	TMAXS	O	TMAX detection result output terminal. Selected by command bit (TMPS).	3-state output. (P2V <sub>REF</sub> , PV <sub>REF</sub> , V <sub>SS</sub> )								
30	TMAX	O	TMAX detection result output terminal. Selected by command bit (TMPS). <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>TMAX Detection</th> <th>TMAX Output</th> </tr> </thead> <tbody> <tr> <td>Longer than fixed freq.</td> <td>"P2V<sub>REF</sub>"</td> </tr> <tr> <td>Shorter than fixed freq.</td> <td>"V<sub>SS</sub>"</td> </tr> <tr> <td>Within the fixed freq.</td> <td>"HiZ"</td> </tr> </tbody> </table>	TMAX Detection	TMAX Output	Longer than fixed freq.	"P2V <sub>REF</sub> "	Shorter than fixed freq.	"V <sub>SS</sub> "	Within the fixed freq.	"HiZ"	3-state output. (P2V <sub>REF</sub> , HiZ, V <sub>SS</sub> )
TMAX Detection	TMAX Output											
Longer than fixed freq.	"P2V <sub>REF</sub> "											
Shorter than fixed freq.	"V <sub>SS</sub> "											
Within the fixed freq.	"HiZ"											
31	LPFN	I	LPF amplifier inverting input terminal for PLL.	Analog input.								
32	LPFO	O	LPF amplifier output terminal for PLL.	Analog output.								
33	PV <sub>REF</sub>		PLL reference voltage supply terminal.									
34	VCOREF	I	VCO center frequency reference level terminal. Normally, keep at "PV <sub>REF</sub> " level.									
35	VCOF	O	VCO filter terminal.	Analog output.								
36	AV <sub>SS</sub>		Analog GND terminal.									
37	SLCO	O	Data slice level output terminal.	Analog output.								
38	RFI	I	RF signal input terminal.	Analog input. (Z <sub>in</sub> : selected by command)								
39	AV <sub>DD</sub>		Analog power supply voltage terminal.									
40	RFCT	I	RFRP signal center level input terminal.	Analog input. (Z <sub>in</sub> : 50 k $\Omega$ )								
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 "V <sub>REF</sub> " level.	Analog input.								
46	TEI	I	Tracking error signal input terminal. Take in at tracking servo on.	Analog input.								
47	TEZI	I	Tracking error zero cross input terminal.	Analog input. (Z <sub>in</sub> : 10 k $\Omega$ )								
48	FOO	O	Focus servo equalizer output terminal.	Analog output.								
49	TRO	O	Tracking servo equalizer output terminal.	(2V <sub>REF</sub> ~AV <sub>SS</sub> )								
50	V <sub>REF</sub>		Analog reference voltage supply terminal.									
51	RFGC	O	RF amplitude adjustment control signal output terminal. 3-state PWM signal output. (PWM carrier 88.2 kHz)	3-state output. (2V <sub>REF</sub> , V <sub>REF</sub> , V <sub>SS</sub> )								
52	TEBC	O	Tracking balance control signal output terminal. 3-state PWM signal output. (PWM carrier 88.2 kHz)									
53	FMO	O	Feed equalizer output terminal. 3-state PWM signal output. (PWM carrier 88.2 kHz)									
54	FVO	O	Speed error signal or feed search equalizer output terminal. 3-state PWM signal output. (PWM carrier 88.2 kHz)									
55	DMO	O	Disc equalizer output terminal. (PWM carrier 88.2 kHz for DSP, Synchronize to PXO)									
56	2V <sub>REF</sub>		Analog double reference voltage supply terminal.									
57	SEL	O	APC circuit ON/OFF indication signal output terminal. At the laser on time, "HiZ" level at UHS <sub>L</sub> and "H" level at UHS <sub>H</sub> .									

Pin No.	Symbol	I/O	Functional Description	Remarks
58	FLGA	O	External flag output terminal for internal signal. Can select signal from TEZC, $\overline{FOON}$ , $\overline{FOK}$ and RFZC by command.	
59	FLGB	O	External flag output terminal for internal signal. Can select signal from $\overline{DFCT}$ , $\overline{FOON}$ , $\overline{FMON}$ and RFZC by command.	
60	FLGC	O	External flag output terminal for internal signal. Can select signal from $\overline{TRON}$ , $\overline{TRSR}$ , $\overline{FOK}$ and $\overline{SRCH}$ by command.	
61	FLGD	O	External flag output terminal for internal signal. Can select signal from $\overline{TRON}$ , $\overline{DMON}$ , $\overline{HYS}$ and $\overline{SHC}$ by command.	
62	V <sub>DD</sub>		Digital power supply voltage terminal.	
63	V <sub>SS</sub>		Digital GND terminal.	
64	IO0	I/O	General I/O terminal be changed over input port or output port by command. At the input port mode, it can readout a state of terminal (H/L) by read command. At the output port mode, it outputs (H/L/HiZ) by command.	
65	IO1			
66	IO2			
67	IO3			
68	$\overline{DMOUT}$	I	"L" active, when this terminal is set "L", IO 0/1 and 2/3 output feed equalizer signal and disc equalizer signal of 2-state PWM respectively.	With pull-up resistor.
69	$\overline{CKSE}$	I	Normally, keep at open.	With pull-up resistor.
70	$\overline{DACT}$	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.	
73	V <sub>SS</sub>		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	V <sub>DD</sub>		Digital power supply voltage terminal.	
77	XV <sub>SS</sub>		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	XV <sub>DD</sub>		Oscillator power supply voltage terminal for system clock.	
81	DV <sub>SR</sub>		Analog GND terminal for DA converter. (R-ch)	
82	RO	O	R channel data forward output terminal.	
83	DV <sub>DD</sub>		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	DV <sub>SL</sub>		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	Micon interface data input/output terminal.	Schmitt input. With pull-up resistor.
91	BUS1	I/O		
92	BUS2	I/O		
93	BUS3	I/O		
94	V <sub>DD</sub>		Digital power supply voltage terminal.	

Pin No.	Symbol	I/O	Functional Description	Remarks
95	Vss		Digital GND terminal.	
96	BUCK	I	Micon in terface clock input terminal	Schmitt input
97	$\overline{\text{CCE}}$	I	Command and data sending/receiving chip enable signal input terminal. The bus line becomes active at "L"level.	Schmitt input
98	TEST4	I	Test mode selection terminal.	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

## TC2000 Audio Signal Processor Pin Descriptions

Pin	Function	Description
1	BIASCAP	Bandgap reference times two (typically 2.5VDC). Used to set the common mode voltage for the input op amps. This pin is not capable of driving external circuitry.
2, 6	FDBKP2, FDBKP1	Positive switching feedback.
3	DCMP	Internal mode selection. This pin must be grounded for proper device operation.
4, 7	FDBKN2, FDBKN1	Negative switching feedback.
5	VPWR	Test pin. Must be left floating.
8	HMUTE	Logic output. A logic high indicates both amplifiers are muted, due to the mute pin state, or a fault.
9, 12	Y1, Y2	Non-inverted switching modulator outputs.
10, 11	Y1B, Y2B	Inverted switching modulator outputs.
13	NC	No connect
14	OCD2	Over Current Detect.
15	REF	Internal reference voltage; approximately 1.2 VDC.
16	OCD1	Over Current Detect. This pin must be grounded for proper device operation.
17	VLO	Negative power stage over/under supply voltage sense resistor tie point.
18	OVRldb	A logic low output indicates the input signal has overloaded the amplifier.
19	VHI	Positive power stage over/under supply voltage sense resistor tie point.
20	GND	Ground.
21	V5	5 Volt power supply input.
22, 27	VP1, VP2	Input stage output pins.
23, 28	IN1, IN2	Single-ended inputs. Inputs are a virtual ground of an inverting opamp with approximately 2.4VDC bias.
24	MUTE	When set to logic high, both amplifiers are muted and in idle mode. When low (grounded), both amplifiers are fully operational. If left floating, the device stays in the mute mode. Ground if not used.
25, 26	BBM1, BBM0	Break-before-make timing control to prevent shoot-through in the output FETs.

## TC2000 Audio Signal Processor Pinout

1	BIASCAP	IN2	28
2	FDBKP2	VP2	27
3	DCMP	BBM0	26
4	FDBKN2	BBM1	25
5	VPWR	MUTE	24
6	FDBKP1	IN1	23
7	FDBKN1	VP1	22
8	HMUTE	V5	21
9	Y1	GND	20
10	Y1B	VHI	19
11	Y2B	OVRldb	18
12	Y2	VLO	17
13	NC	OCD1	16
14	OCD2	REF	15



## TP2050 Power Stage Pin Descriptions

Pin	Function	Description
1	GND-SUB	Substrate ground
35,36	VccSign	Signal positive supply
15	Vcc1A	Positive supply
12	Vcc1B	Positive supply
7	Vcc2A	Positive supply
4	Vcc2B	Positive supply
14	GND1A	Negative supply
13	GND1B	Negative supply
6	GND2A	Negative supply
5	GND2B	Negative supply
16,17	OUT1A	Output half bridge 1A
10,11	OUT1B	Output half bridge 1B
8,9	OUT2A	Output half bridge 2A
2,3	OUT2B	Output half bridge 2B
29	IN1A	Input of half bridge 1A
30	IN1B	Input of half bridge 1B
31	IN2A	Input of half bridge 2A
32	IN2B	Input of half bridge 2B
21,22	Vdd	5V regulator referenced to ground
33,34	Vss	5V regulator referenced to Vcc
25	PWRDN	Stand-by pin
26	TRI-STATE	Hi-Z pin
27	FAULT	Fault output
24	CONFIG	Config input
28	TH-WAR	Thermal warning output
19	GND-clean	Logic ground
23	IBIAS	Logic high voltage
18	NC	Not connected
20	GND-Reg	Ground for Vdd regulator

## TP2050 Power Stage Pinout

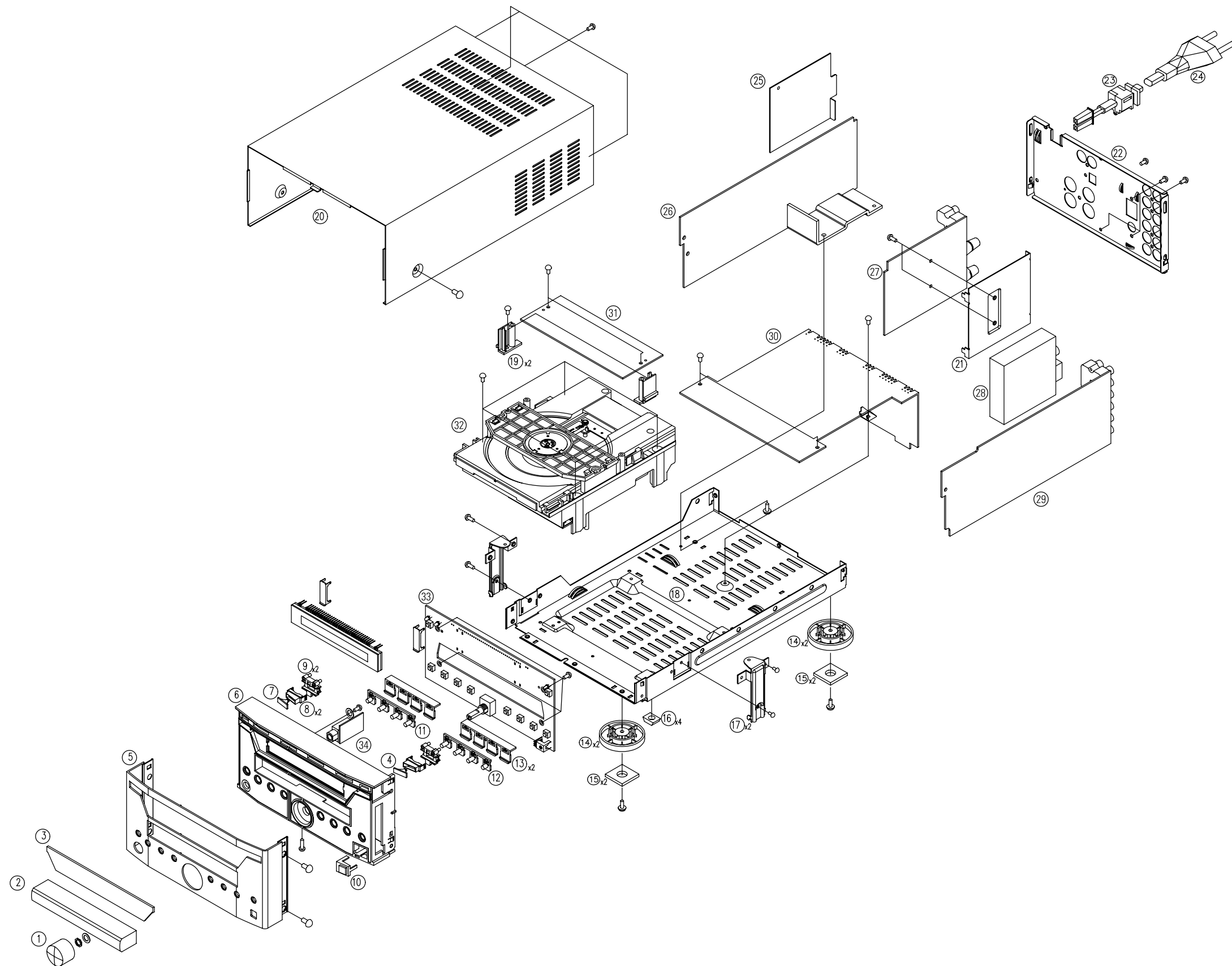
(Top view with heat slug up)



# 4 EXPLODED VIEWS AND PARTS LIST

分解図とパーツリスト

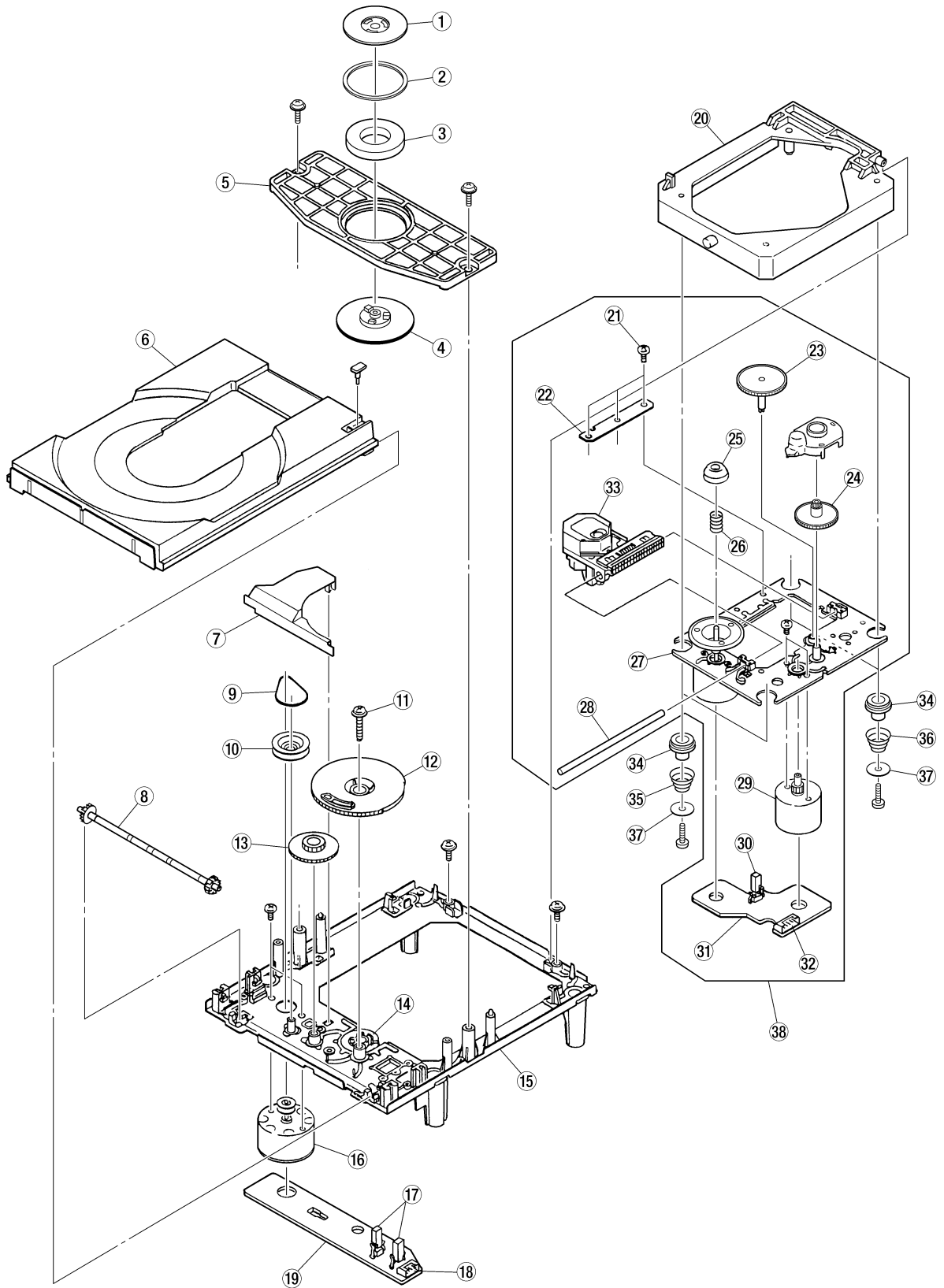
## EXPLODED VIEW-1



## EXPLODED VIEW-1

REF. NO.	PARTS NO.	DESCRIPTION	REMARKS
1- 1	9A09567000	VOLUME KNOB ASSY	HGX1A322ZA
1- 2	9A09557700	DOOR, CD	CGR1A281ZK101
1- 3	9A09571100	WINDOW, FIP [J]	KGU1A291Y
	9A09571120	WINDOW, FIP [E, UK]	KGU1A291Z
1- 4	9A09556700	KNOB, CAP (R)	CBT1A847YK101
1- 5	9A09559400	FRONT PANEL (AL)	CKM2A126ZC35
1- 6	9A09558000	PANEL, SUB	CGW1A348K101
1- 7	9A09556800	KNOB, CAP (L)	CBT1A847ZK101
1- 8	9A09557600	INDICATOR, POWER	CGL1A207
1- 9	9A09557000	KNOB, HOUSING	CBT1A862
1-10	9A09557800	WINDOW, IR	CGU1A292K101
1-11	9A09556500	KNOB, FUNCTION (L)	CBT1A845C22
1-12	9A09556600	KNOB, FUNCTION (R)	CBT1A846C22
1-13	9A09556900	KNOB, SUPPORT	CBT1A848
1-14	9A09571300	FOOT	KKL2A055M7G6
1-15	9A05837300	FOOT CUSHION	KHG1A050Y
1-16	9A08885700	RUBBER	CHG1A113
1-17	9A09559800	BRACKET, PCB	CMD1A473
1-18	9A09562700	CHASSIS, BOTTOM	CUA1A219
1-19	9A07891600	SUPPORT, PCB	KMH1A092
1-20	9A09559200	TOP CABINET	CKC1B133S35
1-21	9A09559600	PLATE, SHIELD	CMC1A187
1-22	9A09559300	REAR PANEL [J]	CKF1A241Y
	9A09559320	REAR PANEL [E, UK]	CKF1A241Z
1-23	△ 9A06754900	BUSHING, AC CORD	KHR1A028
1-24	△ 9A08125200	CORD, POWER [J]	CJA2J049Z
	△ 9A07916700	CORD, POWER 2.5A 250V [E]	CJA2B043Z
	△ 9A07916800	CORD, POWER 2.5A 250V [UK]	CJA2E045Z
1-25	9A09559900	INSULATOR, SMPS	CMX1A133
1-26	9A09560200	SMPS PCB ASSY [J]	COPDDS114B
	9A09560220	SMPS PCB ASSY [E, UK]	COPDDS114A
1-27	9A09560600	AMP PCB ASSY [J]	COP11536D
	9A09560620	AMP PCB ASSY [E, UK]	COP11536E
1-28	9A09560100	TUNER MODULE [J]	CNVMB006MA18SL
	9A09560120	TUNER MODULE [E, UK]	CNVMB114MA18L
1-29, 1-30	9A09560500	MAIN PCB ASSY [J]	COP11535D
	9A09560520	MAIN PCB ASSY [E, UK]	COP11535E
1-31	9A09560400	CD PCB ASSY [J]	COP11534D
	9A09560420	CD PCB ASSY [E, UK]	COP11534E
1-32	9A09056400	MECHANISM, KSL2130CCM	HJDKSL2130CCM
1-33, 1-34	9A09560300	FRONT PCB ASSY [J, UK]	COP11533D
	9A09560320	FRONT PCB ASSY [E]	COP11533E
	9A09564000	CARD CABLE	CWC1B2A15A120B
	9A09564100	CARD CABLE	CWC1B2A30A120B
	9A09564300	CARD CABLE	CWC1C4A17B070B
	9A09564200	CARD CABLE [J, UK]	CWC1C4A15B130B
	9A09572600	CARD CABLE [E]	CWC1C4A17B130B
	9A09316700	MECHA CABLE	CWC1F1A16A200A

# EXPLODED VIEW-2



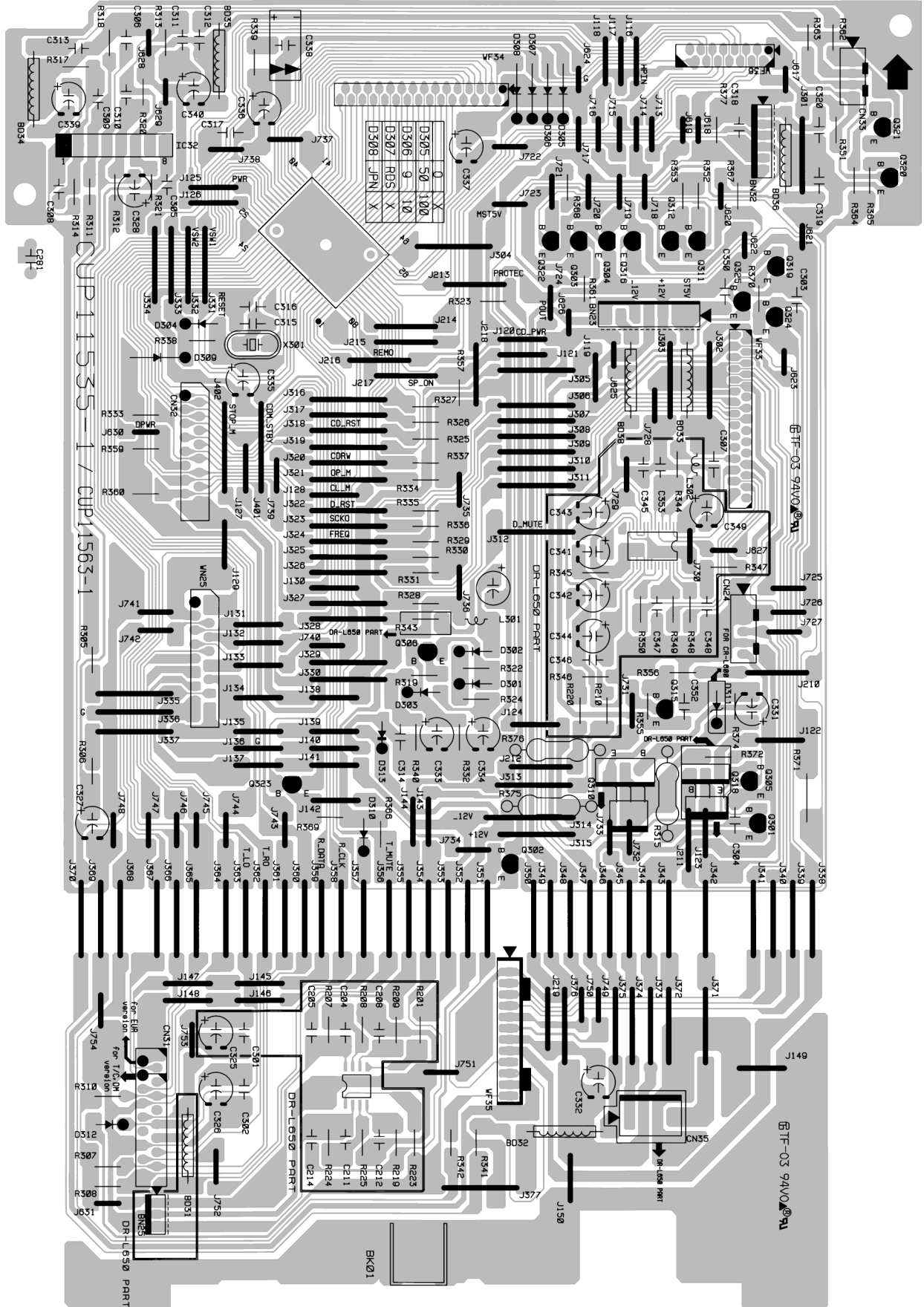
## EXPLODED VIEW-2 (KSL-2130CCM)

REF. NO.	PARTS NO.	DESCRIPTION	REMARKS
2- 1	9A06965300	CHUCKING YOKE (S)	2-625-537-01
2- 2	9A07268700	DAMPER	2-625-541-02
2- 3	9A06965400	MAGNET	1-452-493-21
2- 4	9A07979800	CHUCKING PULLY	2-625-548-01
2- 5	9A07268900	CHUCKING PLATE	2-625-546-01
2- 6	9A07979600	TRAY (C)	2-646-290-01
2- 7	9A07979700	GEAR COVER(S)	2-625-544-01
2- 8	9A07268500	TRAY GEAR(S)	2-625-535-01
2- 9	9A07980900	LM BELT	3-653-387-00
2-10	9A07268600	LOADING PULLY	2-625-536-02
2-11	9A06966200	SCREW, +PTPWH 2.6X16	3-319-501-51
2-12	9A07980700	DRIVE GEAR(S)	2-625-547-01
2-13	9A07980800	MIDWAY GEAR(S)	2-625-274-02
2-14	9A07269000	CONTROL CAM(S)	2-625-545-04
2-15	9A07980600	OUTSERT MAIN CHASSIS(S)	2-625-552-06
2-16	9A06966800	LOADING MOTOR ASSY	X-2625-117-1
2-17	9A07268000	LEAF SWITCH	1-692-667-11
2-18	9A06966600	CONNECTOR 5P	1-564-721-11
2-19	9A06966700	LOADING PCB	1-640-523-11
2-20	9A07979900	SUB CHASSIS 2130	2-646-288-01
2-21	9A06967500	SCREW, TAPPING 2X5(S)	2-641-386-01
2-22	9A06967600	REINFORCEMENT(S)	2-625-625-01
2-23	9A07981200	GEAR(A) (S)	2-625-188-02
2-24	9A07981400	GEAR(B) (RP)	2-627-003-02
2-25	9A06967800	CENTER RING(L0) (S)	2-625-477-01
2-26	9A07981500	COMPRESSION SPRING(S)	2-625-191-01
2-27	9A07981000	MOTOR CHASSIS ASSY(MB)	X-2625-984-1
2-28	9A07269800	SLED SHAFT(S)	2-626-908-01
2-29	9A07981100	MOTOR GEAR ASSY	X-2625-769-1
2-30	9A07981300	LEAF SWITCH	1-572-085-11
2-31	9A06968300	MOTOR PCB(6P) (S)	1-639-678-12
2-32	9A06968500	CONNECTOR 6P	1-564-722-11
2-33	K0000320	OPT PU ASSY, KSS-213C	
2-34	9A07980400	INSULATOR	2-627-234-01
2-35	9A07980000	COIL SPRING(FRONT)	2-627-236-01
2-36	9A07980100	COIL SPRING(BACK)	2-627-235-01
2-37	9A07980200	WASHER 2130	2-646-289-01
2-38	9A07980500	CD ASSY	A-4912-186-A

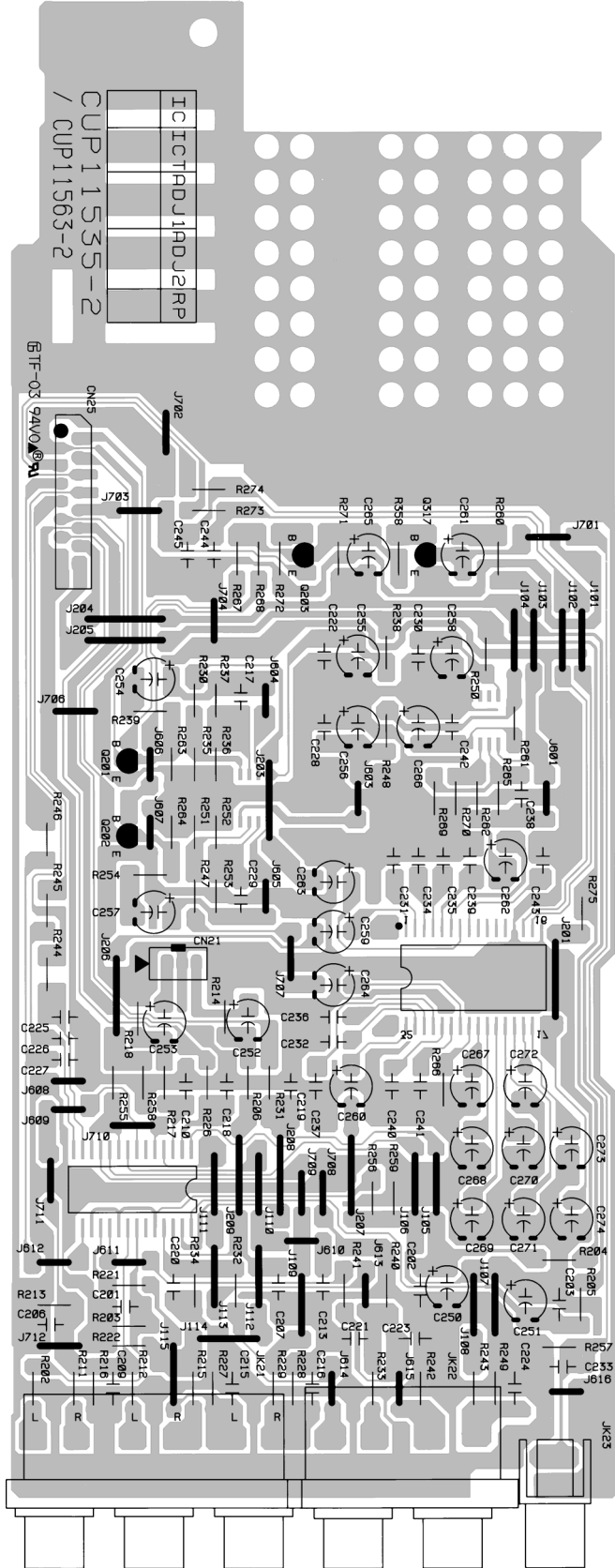
# 5 PC BOARDS AND PARTS LIST

基板図とパーツリスト

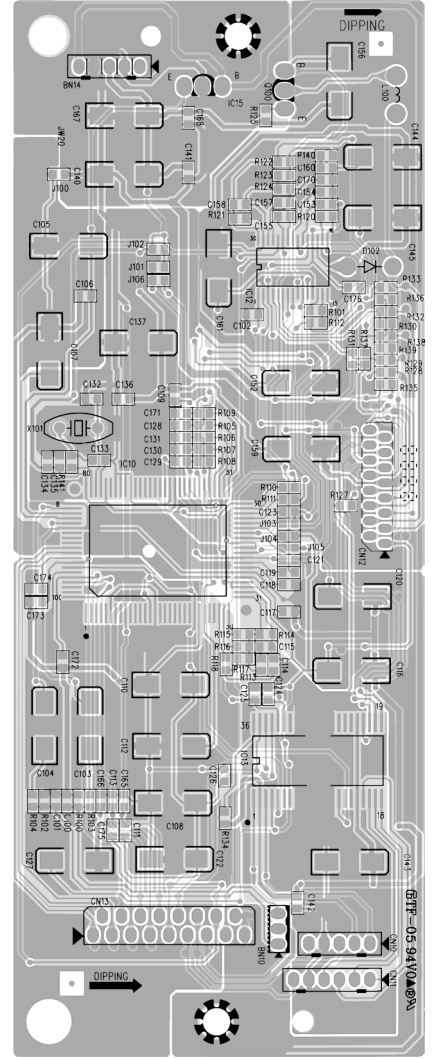
## MAIN PCB



# INPUT PCB



# CD PCB







**MAIN PCB ASSY (MAIN PCB+INPUT PCB)**

REF. NO.	PARTS NO.	DESCRIPTION
	9A09560500	MAIN PCB ASSY [J]
	9A09560520	MAIN PCB ASSY [E, UK]
	9A09563100	MAIN PCB
BD32, BD33	9A07050600	BEAD, CORE
BD34-BD36	9A07050600	BEAD, CORE [E, UK]
BD38	9A07050600	BEAD, CORE
BK01	9A09559700	BRACKET, PCB
CN21	9A05938500	WAFER, 3P
CN24	9A05356400	WAFER, MOLEX53014-0510
CN25	9A07890600	WAFER, CARD CABLE
CN31	9A08220000	WAFER, CARD CABLE [J]
CN31	9A07890600	WAFER, CARD CABLE [E, UK]
CN32	9A07890600	WAFER, CARD CABLE
CN33	9A05356300	WAFER, 04GA19ZM
D301-D304	9A08878200	DIODE, 1SS133T-77
D305-D307	9A08954200	DIODE, 1N4148T [E, UK]
D306, D308	9A08954200	DIODE, 1N4148T [J]
D309	9A05194700	DIODE, 1N4003ST
D310	9A08878200	DIODE, 1SS133T-77
D311	9A08884000	DIODE, ZENER MTZJ9.1BT
D312	9A05194600	DIODE, 1N4003SRT
D313	9A09571900	DIODE, 1N5819T
IC21	9A09340300	IC, TC9163AF
IC23	9A08163400	IC, NJM2068MD
IC24	9A09570200	IC, NJW1136
IC25	9A08163400	IC, NJM2068MD
IC31	9A09570500	IC, HVIANAM1353DAT (PRGMD)
IC32	9A08163500	IC, NJM4556AL
JK21	9A09559000	JACK, BOARD
JK22	9A09558900	JACK, BOARD
JK23	9A09558800	JACK, INPUT 1PIN(GOLD)
L301	9A07886600	COIL, AXAIL 10UH
Q201, Q202	9A07888500	TR, KTD1302T
Q203	9A03745100	TR, KSA1175-YTA
Q301-Q305	9A08884100	TR, KRA107M
Q306	9A07887900	TR, KSB811YT
Q310	9A08883500	TR, KTC2026Y
Q311, Q312	9A09058600	TR, KSC945CYT
Q315	9A07898600	TR, KSD1021YT
Q316	9A03745100	TR, KSA1175-YTA
Q317	9A07888500	TR, KTD1302T
Q319	9A08878300	TR, KRC107M
Q320, Q321	9A07888500	TR, KTD1302T
Q322	9A08884100	TR, KRA107M
Q323	9A09041400	TR, KRC111MT
Q324	9A09041500	TR, KSA916YT
Q325	9A09041300	TR, KRA111MT
R315	△ 9A07892200	R, METAL 330 OHM 1W J
R375, R376	△ 9A09571800	R, METAL OXIDE FILM
WF34	9A09256300	WAFER, CARD CABLE
WF35	9A09279300	WAFER
WF36	9A08870000	WAFER, CARD CABLE 15P
WN25	9A07890600	WAFER, CARD CABLE
X301	9A08879000	CRYSTAL

**CD PCB ASSY**

REF. NO.	PARTS NO.	DESCRIPTION
	9A09560400	CD PCB ASSY [J]
	9A09560420	CD PCB ASSY [E, UK]
	9A09563000	CD PCB
CN10	9A05356400	WAFER, MOLEX53014-0510
CN11	9A05329700	WAFER, MOLEX53014-0610
CN12	9A07890500	WAFER, CARD CABLE 16P
CN13	9A07890700	WAFER, CARD CABLE
D102	9A08878200	DIODE, 1SS133T-77
IC10	9A08878700	IC, TC9462F
IC12	9A09344500	IC, TA2153FN
IC13	9A09570300	IC, TA2125AF
IC15	△ 9A09570100	IC, KA78L05
L100	9A07886600	COIL, AXAIL 10UH
Q100	9A07888100	TR, KTA1266YT
X101	9A09567300	CRYSTAL

**FRONT PCB ASSY (FRONT PCB+PHONE JACK PCB)**

REF. NO.	PARTS NO.	DESCRIPTION
	9A09560300	FRONT PCB ASSY [J, UK]
	9A09560320	FRONT PCB ASSY [E]
	9A09562900	FRONT PCB
	9A08877300	BRACKET, FLT
D901	9A09344400	LED, YELLOW
D902, D906	9A08878200	DIODE, 1SS133T-77
D903, D904	9A09563300	LED, BLUE
FL91	9A09571000	F. I. P
JK91	9A09567200	JACK, HEADPHONE
L901	9A07886600	COIL, AXAIL 10UH
Q901-Q903	9A08878300	TR, KRC107M
RC91	9A08563600	SENSOR, REMOCON
S901-S910	9A07878500	SW, TACT SKHV10910G
SW91	9A08162900	VR, ENCODER EC16B243040F
WF90	9A09571200	WAFER, CARD CABLE
WF91	9A08867800	WAFER, CARD CABLE 15P

## AMP PCB ASSY

REF. NO.	PARTS NO.	DESCRIPTION
	9A09560600	AMP PCB ASSY [J]
	9A09560620	AMP PCB ASSY [E, UK]
	9A09563200	AMP PCB
	9A09559600	PLATE, SHIELD
BD21	9A07050600	BEAD, CORE
CN21	9A09279400	CONNECTOR
D200, D201	9A08878200	DIODE, 1SS133T-77
D204	9A09570000	DIODE, 1N4003
D205	9A07887100	DIODE, ZENER MTZJ6.2BT
IC20	9A09570400	IC, TC2000
IC21	9A09570600	IC, TP2050
JK20	9A09559100	TERMINAL, SPEAKER
JK21	9A08126500	MODULE, OPTICAL
L200	9A09559500	COIL, SPEAKER
Q200	9A08878300	TR, KRC107M
Q201, Q202	9A08884100	TR, KRA107M
Q203	9A09041400	TR, KRC111MT
Q205	9A08878300	TR, KRC107M
Q209	9A07888000	TR, KSC2316YT
RY20	9A09569900	RELAY
RY21	9A09058500	RELAY
VR21, VR22	9A09570700	VR, SEMI-FIXED 4.7K OHM

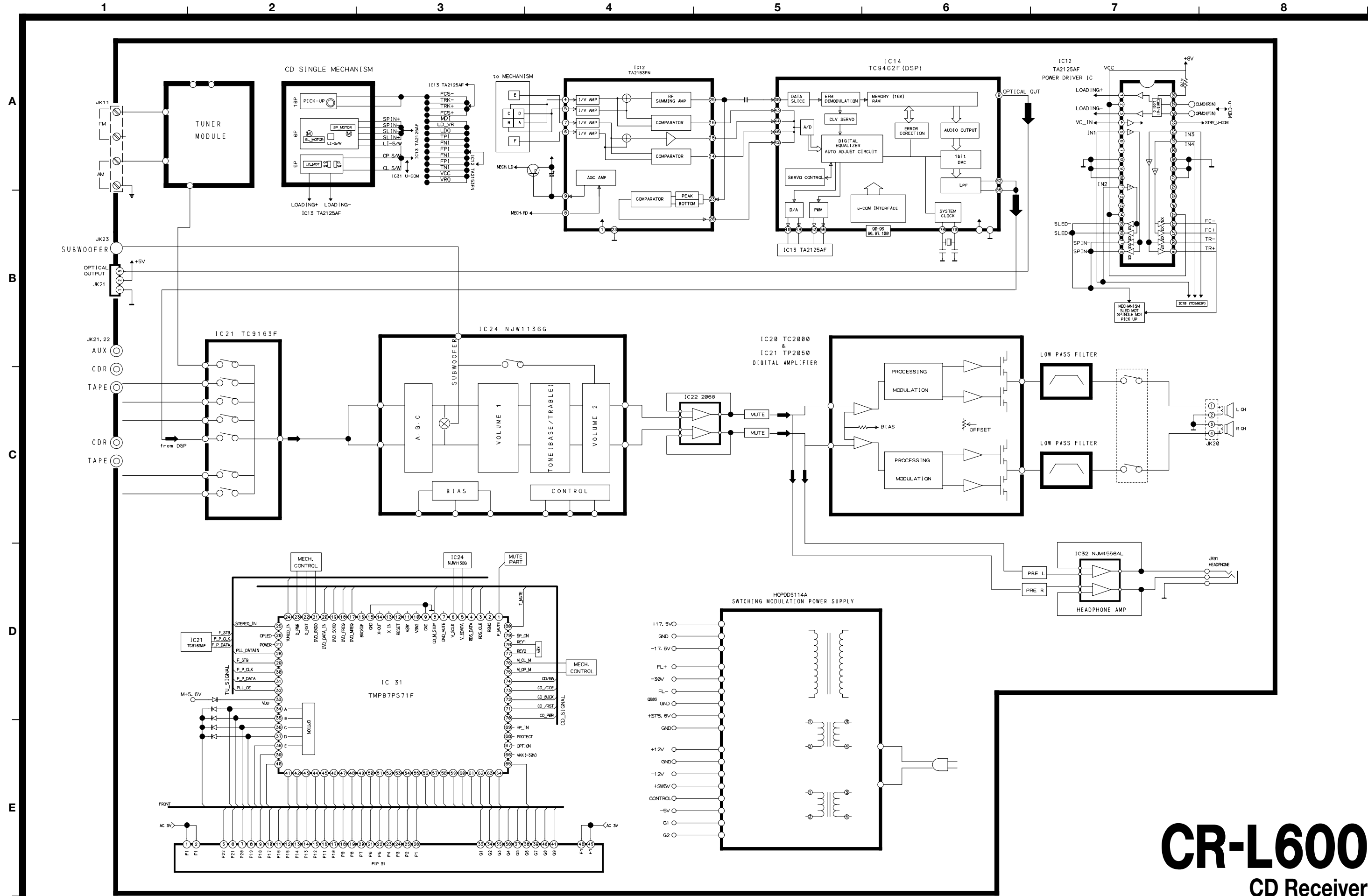
# 6 INCLUDED ACCESSORIES

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## INCLUDED ACCESSORIES

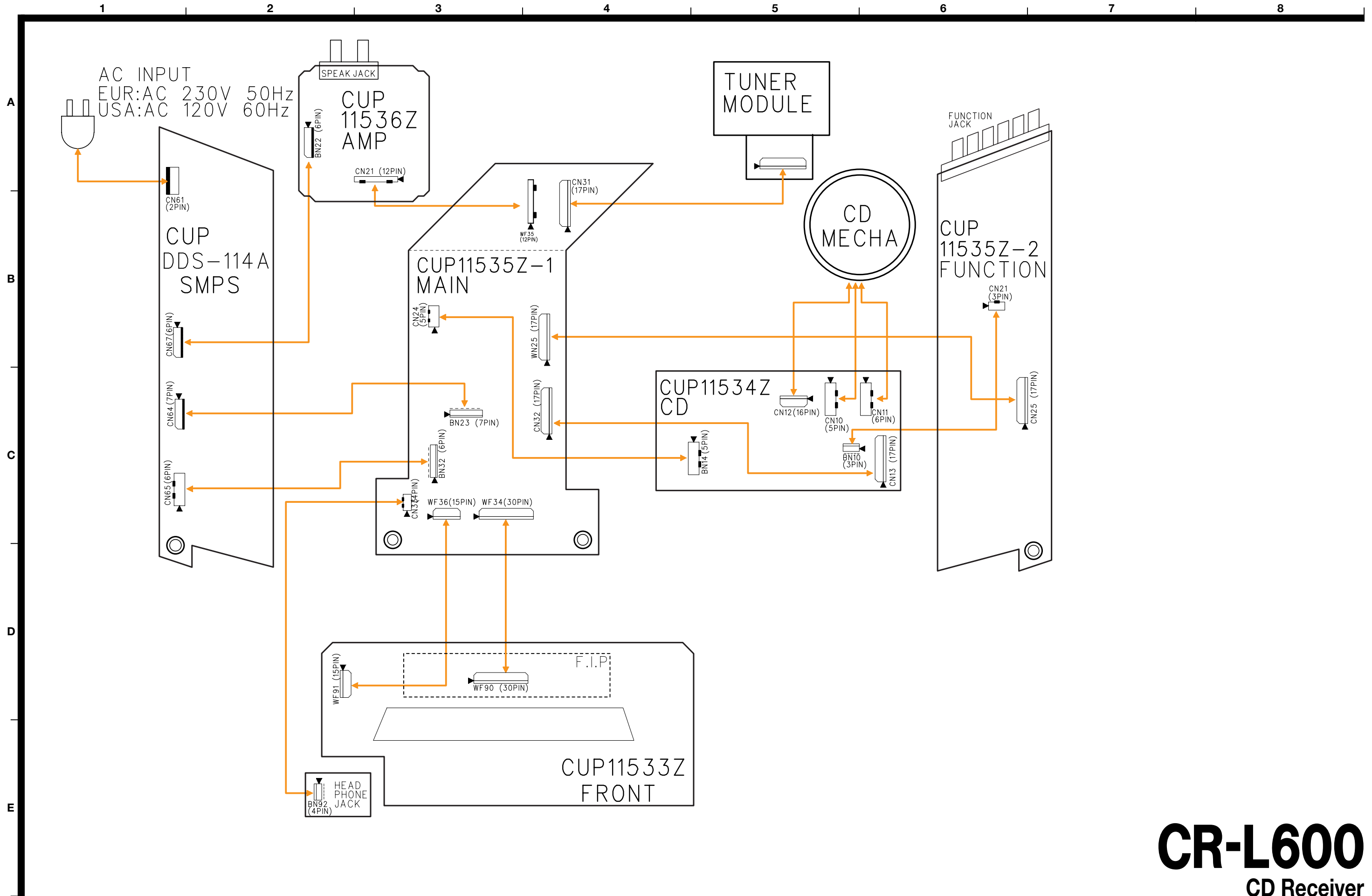
REF. NO.	PARTS NO.	DESCRIPTION	REMARKS
	9A09477800	OWNER'S MANUAL, J [J]	CQX1A782Z
	9A09472201	OWNER'S MANUAL, EF1 [E, UK]	CQX1A781Z
	9A09556400	REMOCON ASSY [J]	CARTCRL600DMCC
	9A09556420	REMOCON ASSY [E, UK]	CARTCRL600EURCC
	9A09055200	BATTERY	HABAAM1.5V
	9A09562100	AM LOOP ANT	CSA1A020Z
	9A09562000	FM 1 POLE ANT [J]	CSA1A019Z
	9A09572700	FM 1 POLE ANT [E, UK]	CSA1A018Z

# TEAC BLOCK DIAGRAM CR-L600

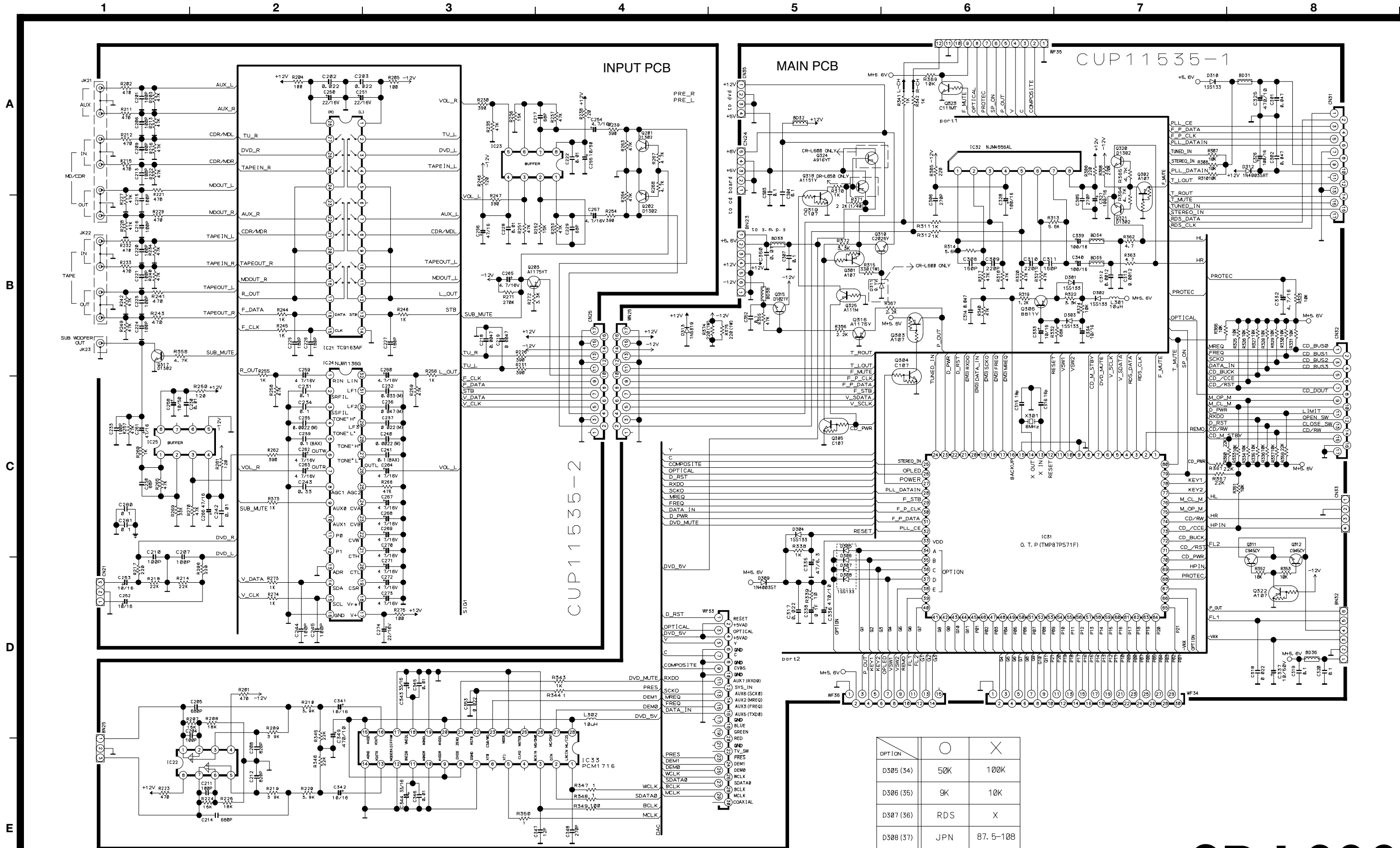


**CR-L600**  
**CD Receiver**  
 1st Issue; November 2002

# TEAC WIRING DIAGRAM CR-L600



# TEAC SCHEMATIC DIAGRAM CR-L600 INPUT PCB, MAIN PCB



# CR-L600

## CD Receiver

1st Issue; November 2002



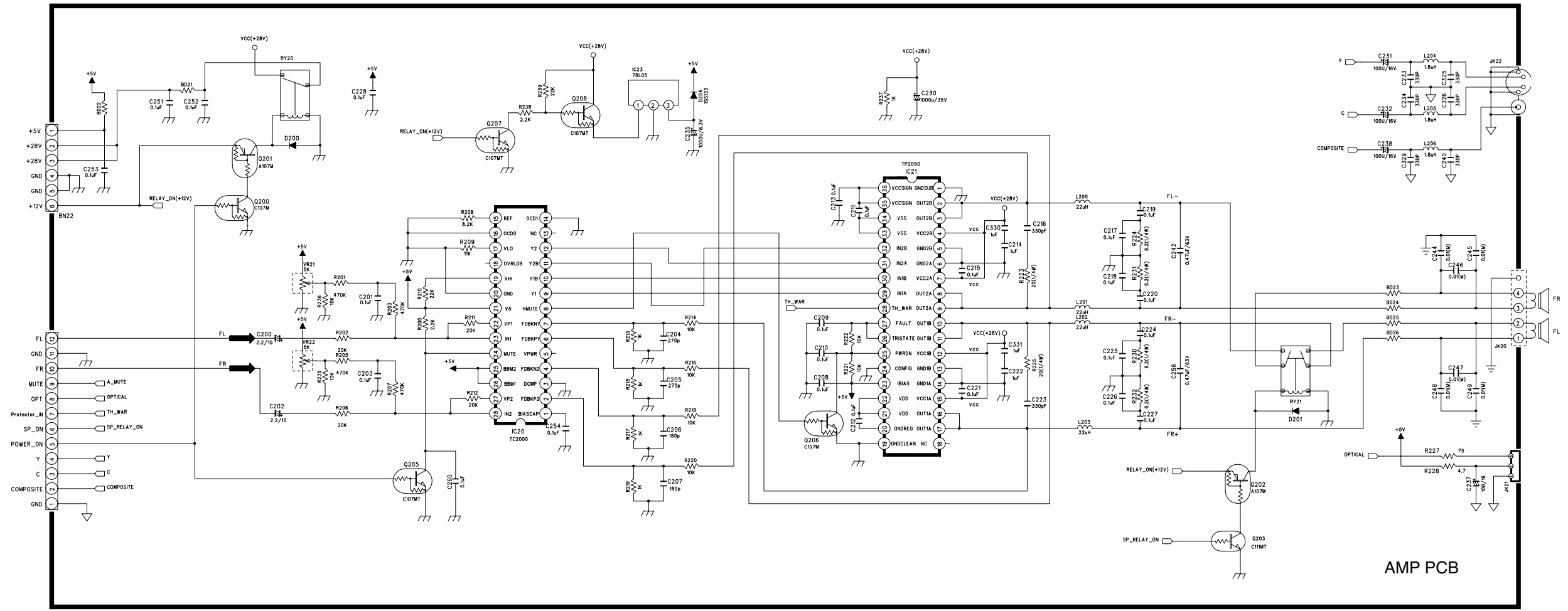
# TEAC SCHEMATIC DIAGRAM CR-L600 AMP PCB, FRONT PCB, PHONE JACK PCB

1 2 3 4 5 6 7 8

A

B

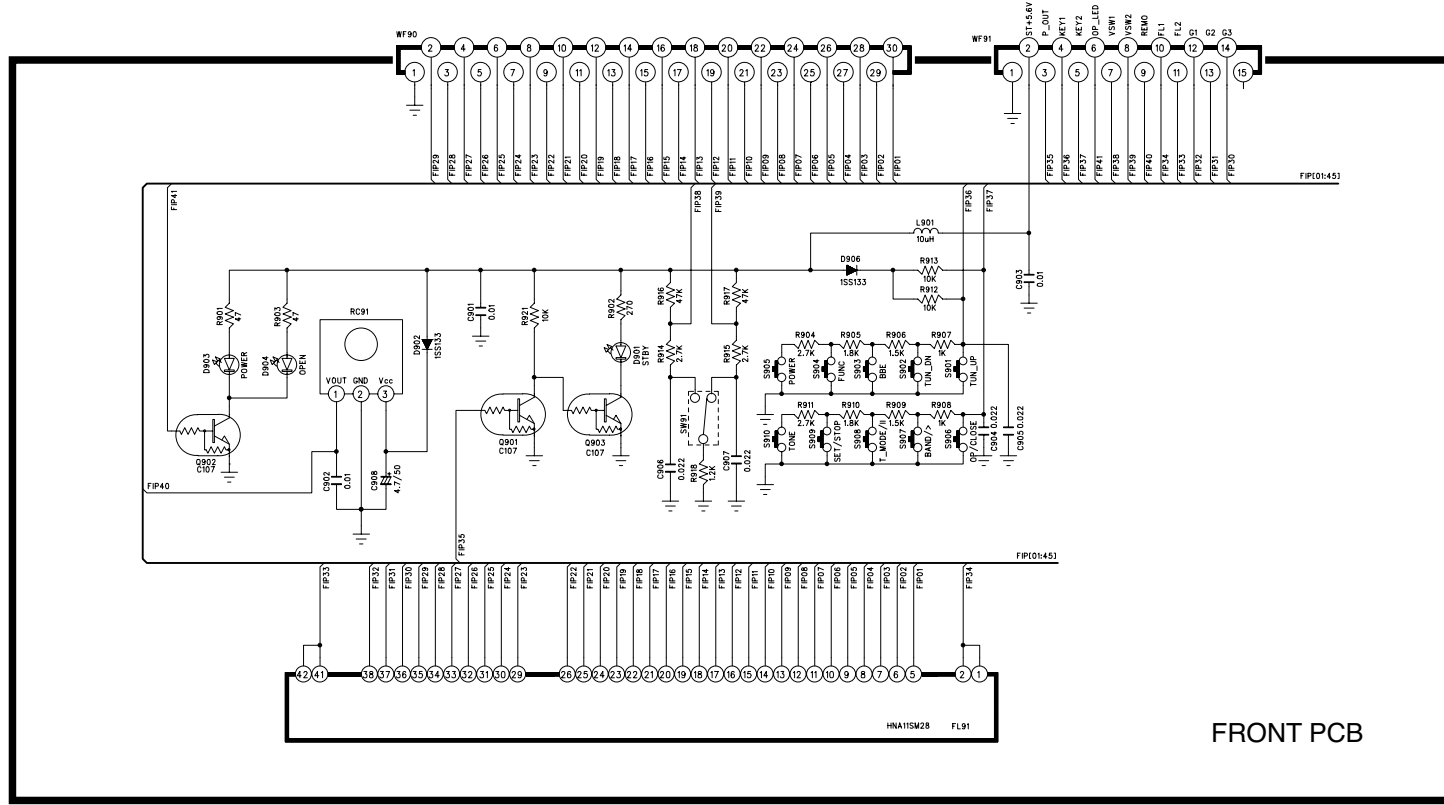
C



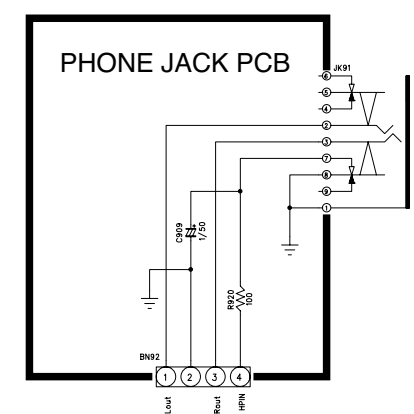
AMP PCB

D

E



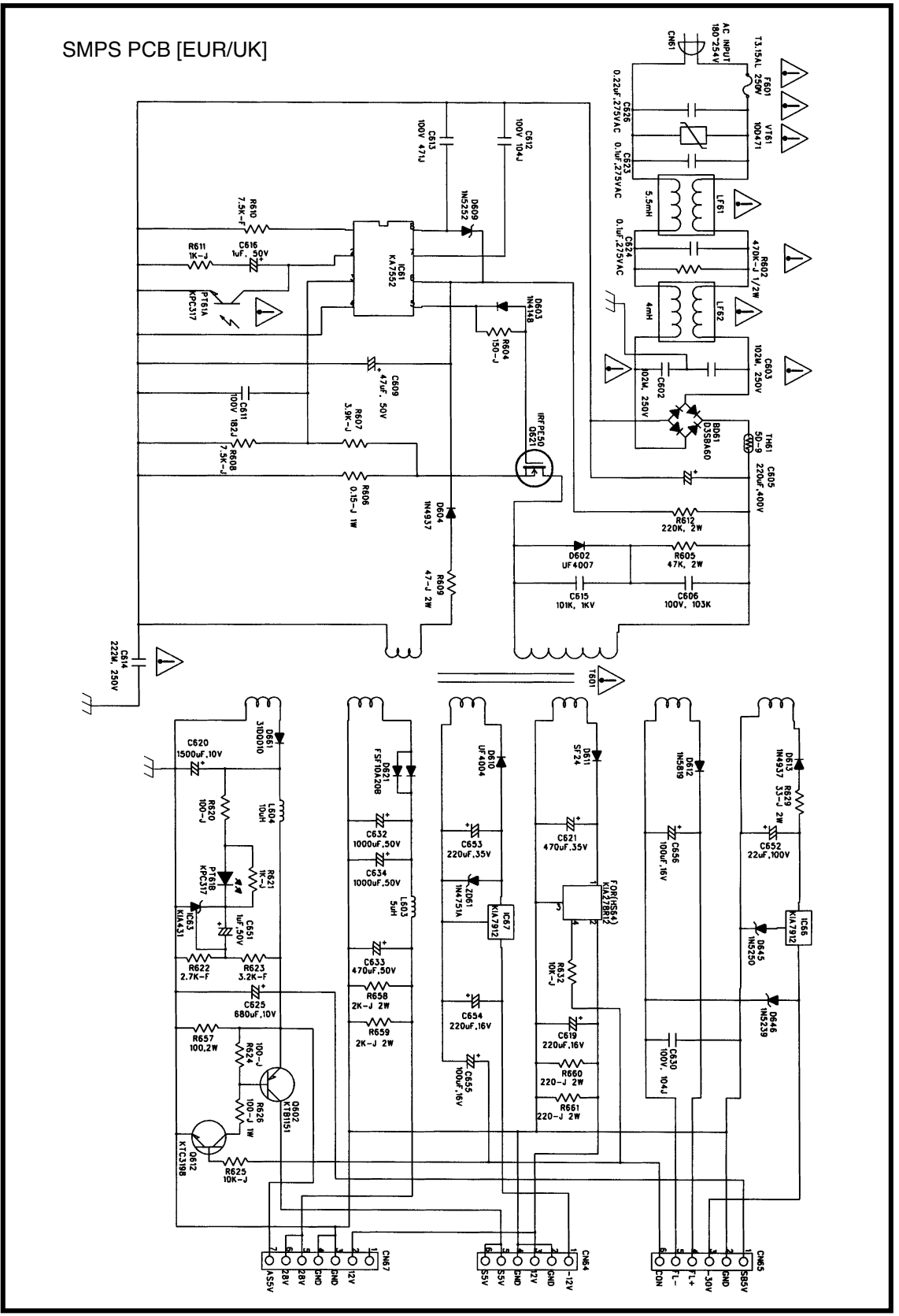
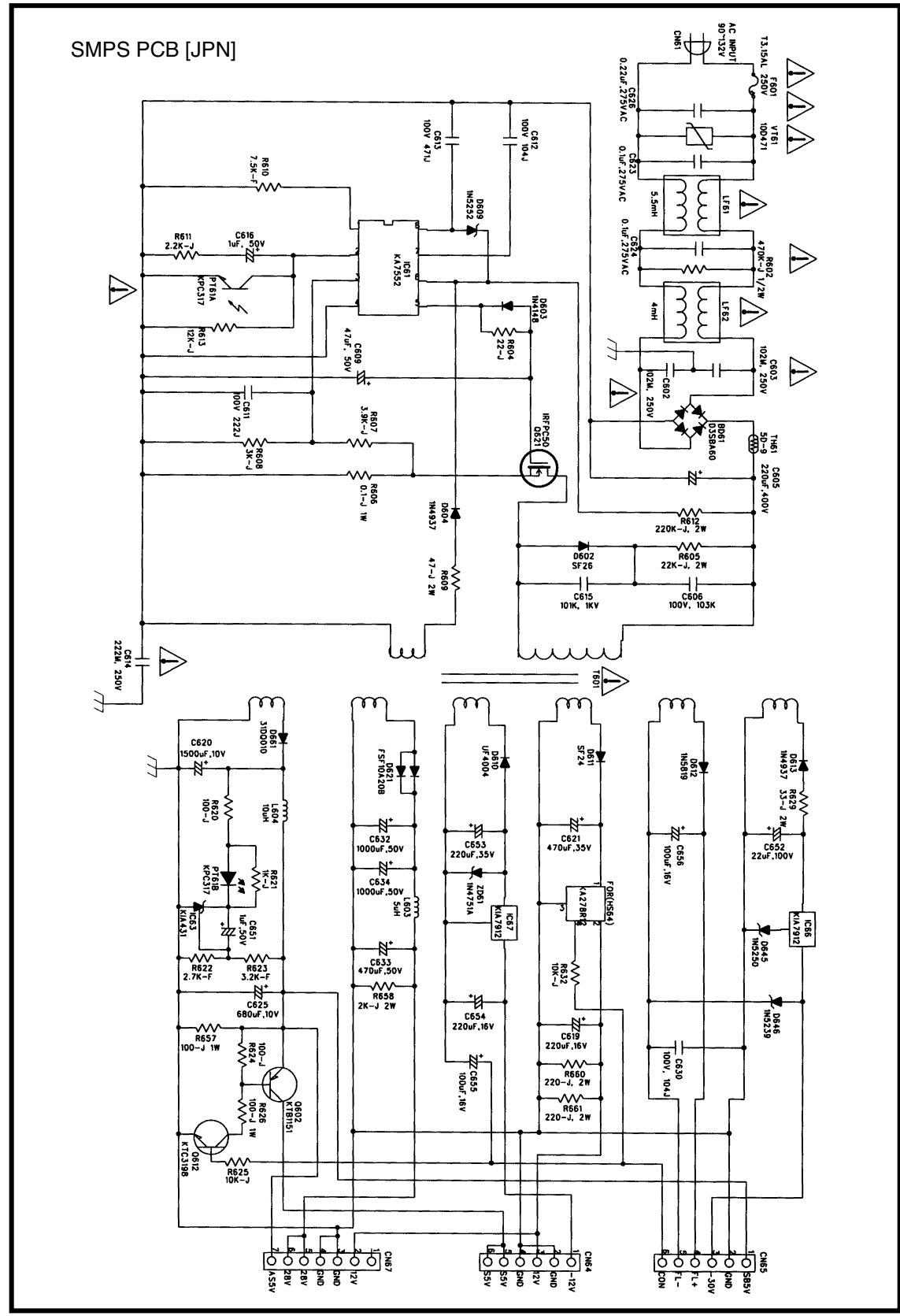
FRONT PCB



PHONE JACK PCB



A  
B  
C  
D  
E



**INSTRUCTIONS FOR SERVICE PERSONNEL**  
**BEFORE RETURNING APPLIANCE TO THE CUSTOMER, MAKE LEAKAGE-CURRENT OR RESISTANCE MEASUREMENTS TO DETERMINE THAT EXPOSED PARTS ARE ACCEPTABLY INSULATED FROM THE SUPPLY CIRCUIT.**

**NOTES:**  
 △Parts marked with this sign are safety critical components. They must always be replaced with identical components-refer to the appropriate parts list and ensure exact replacement.

**注意**  
 △マークのある部品は安全規格重要部品です。交換するときは必ずティアック指定の部品を使用してください。