

ROTEL *hiFi*

RCC-945

Compact Disc Changer

Technical Manual

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4F,BUNZAN-SHINSEN-BLDG 10-10, SHINSEN-CHO, SHIBUYAKU TOKYO JAPAN

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MN20002322

Safety Caution

PROTECTION OF EYES FROM LASER BEAM DURING SERVICING

THIS SET EMPLOYS A LASER. THEREFORE, BE SURE TO FOLLOW CAREFULLY THE INSTRUCTIONS BELOW WHEN SERVICING.

WARNING !!

WHEN SERVICING, DO NOT APPROACH THE LASER EXIT WITH THE EYE TOO CLOSELY. IN CASE IT IS NECESSARY TO CONFIRM LASER BEAM EMISSION, BE SURE TO OBSERVE FROM A DISTANCE OF MORE THAN 30cm FROM THE SURFACE OF THE OBJECTIVE LENS ON THE OPTICAL PICK-UP BLOCK.

LASER WARNING LABEL

THE LABEL SHOWN BELOW ARE AFFIXED.

CAUTION

INVISIBLE LASER RADIATION WHEN OPEN, DO NOT STARE INTO BEAM.

DANGER

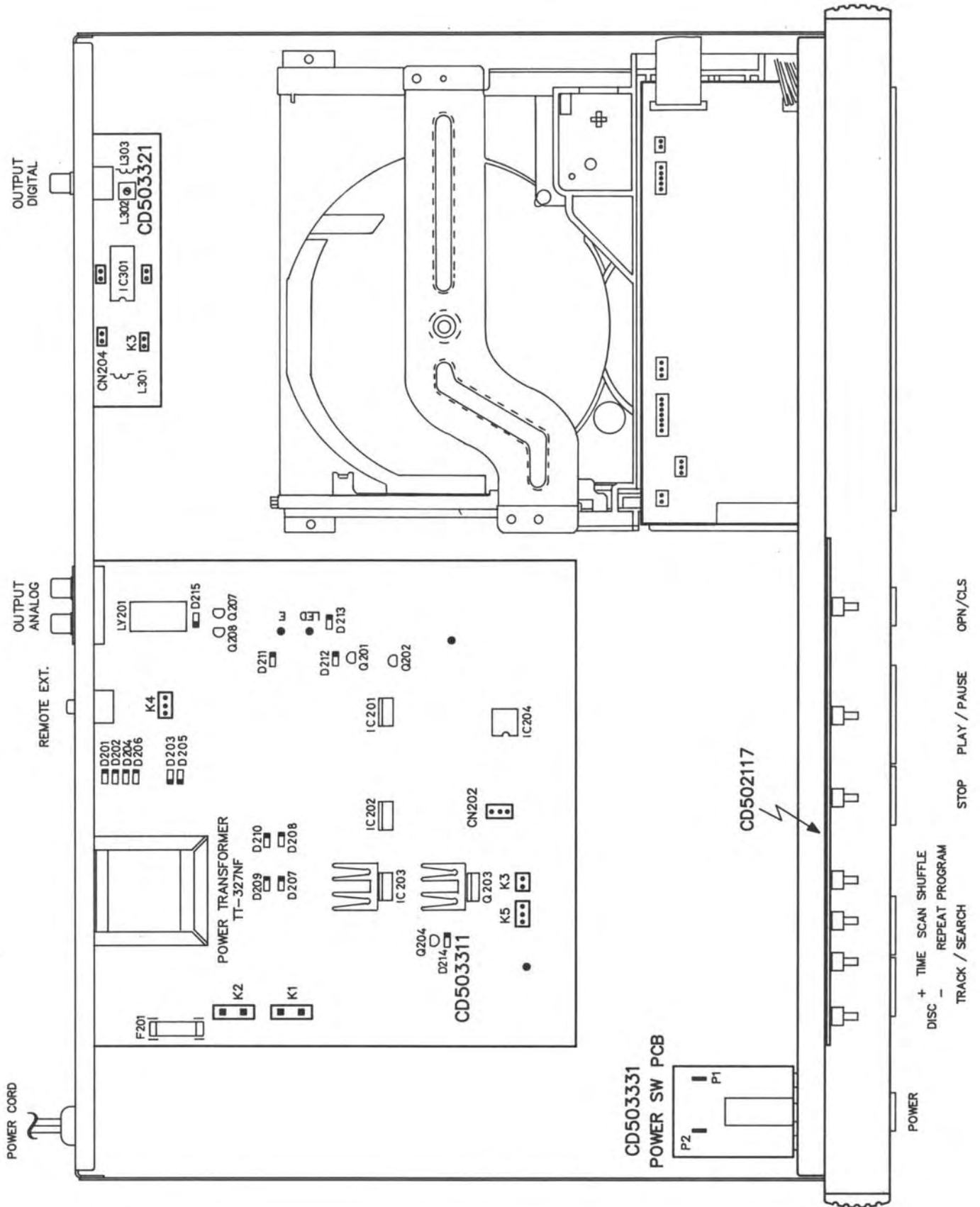
INVISIBLE LASER RADIATION WHEN OPEN, AVOID DIRECT EXPOSURE TO BEAM.

SPECIFICATIONS: RCC 945 COMPACT DISC PLAYER

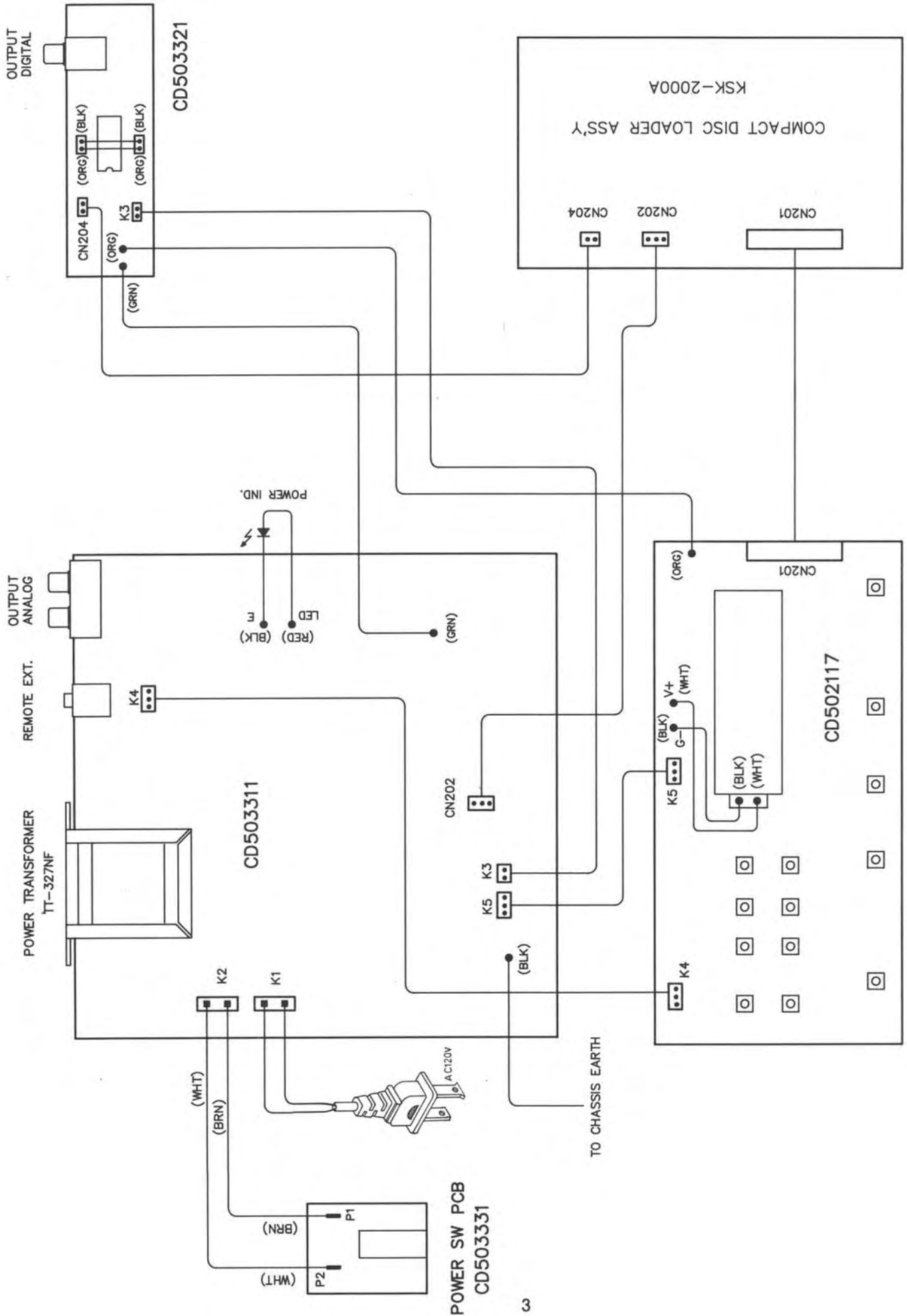
Frequency response	20-20,000 Hz \pm 0.8 dB
Total Harmonic Distortion + Noise	<0.01% @ 1 kHz
Channel Separation	> 95 dB @ 1 kHz
Signal to noise ratio	> 96 dB
Speed accuracy, wow and flutter	Quartz crystal accuracy
Digital to analog converter	1 Bit Pulse Width Modulated
Digital filter	8 x resampling equivalent
Power requirements	120 volts AC 50/60 Hz 220-240 volts AC 50/60 Hz
Power consumption	30 watts
Weight	6.1 kg (13.4 Lb.)
Dimensions	440 x 121 x 316 mm (W x H x D) 17-3/8" x 4-13/16" x 12-7/16" (W x H x D)

All specifications are accurate at the time of printing. Rotel reserves the right to make improvements without notice.

Chassis Layout



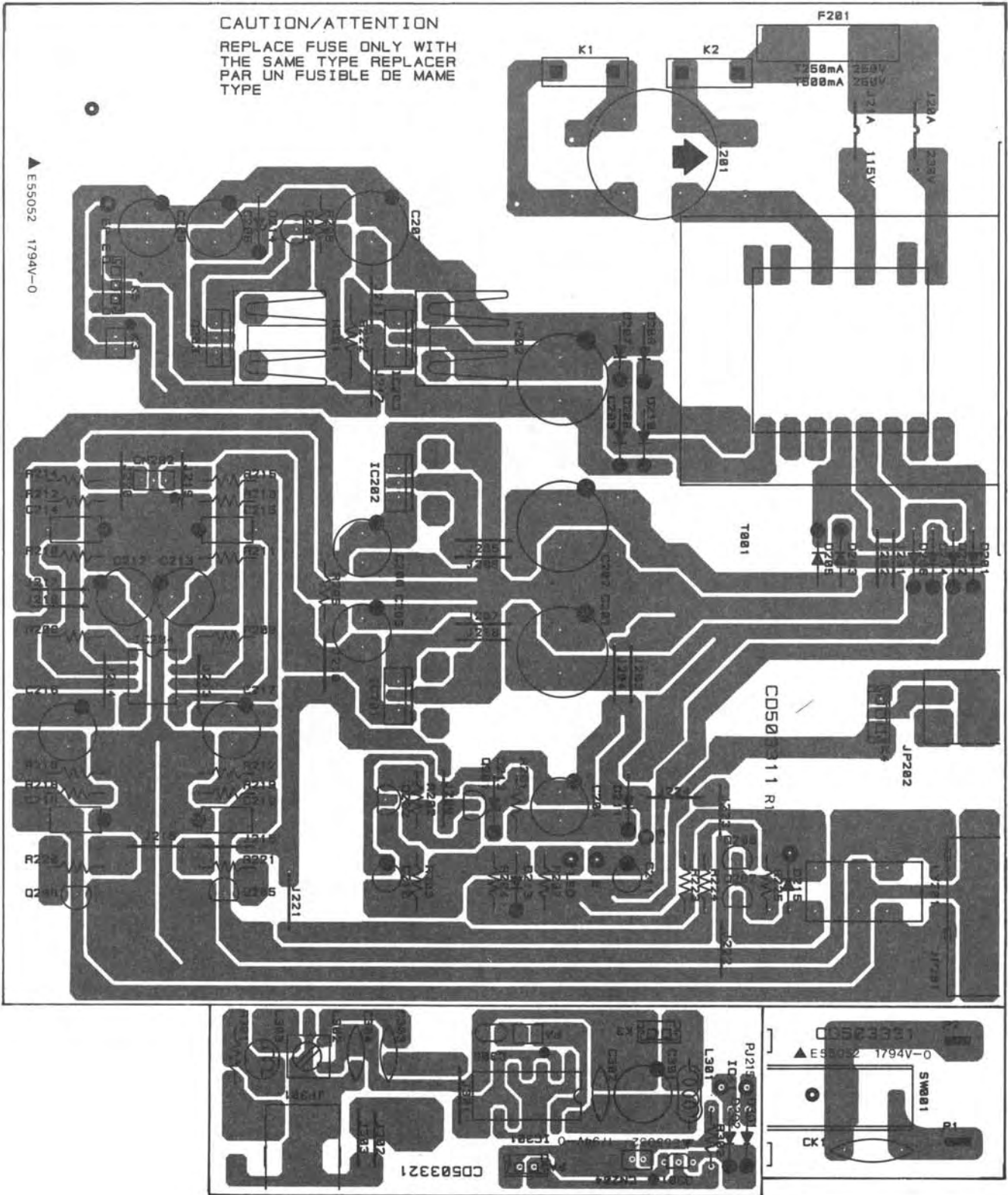
Wiring Diagram



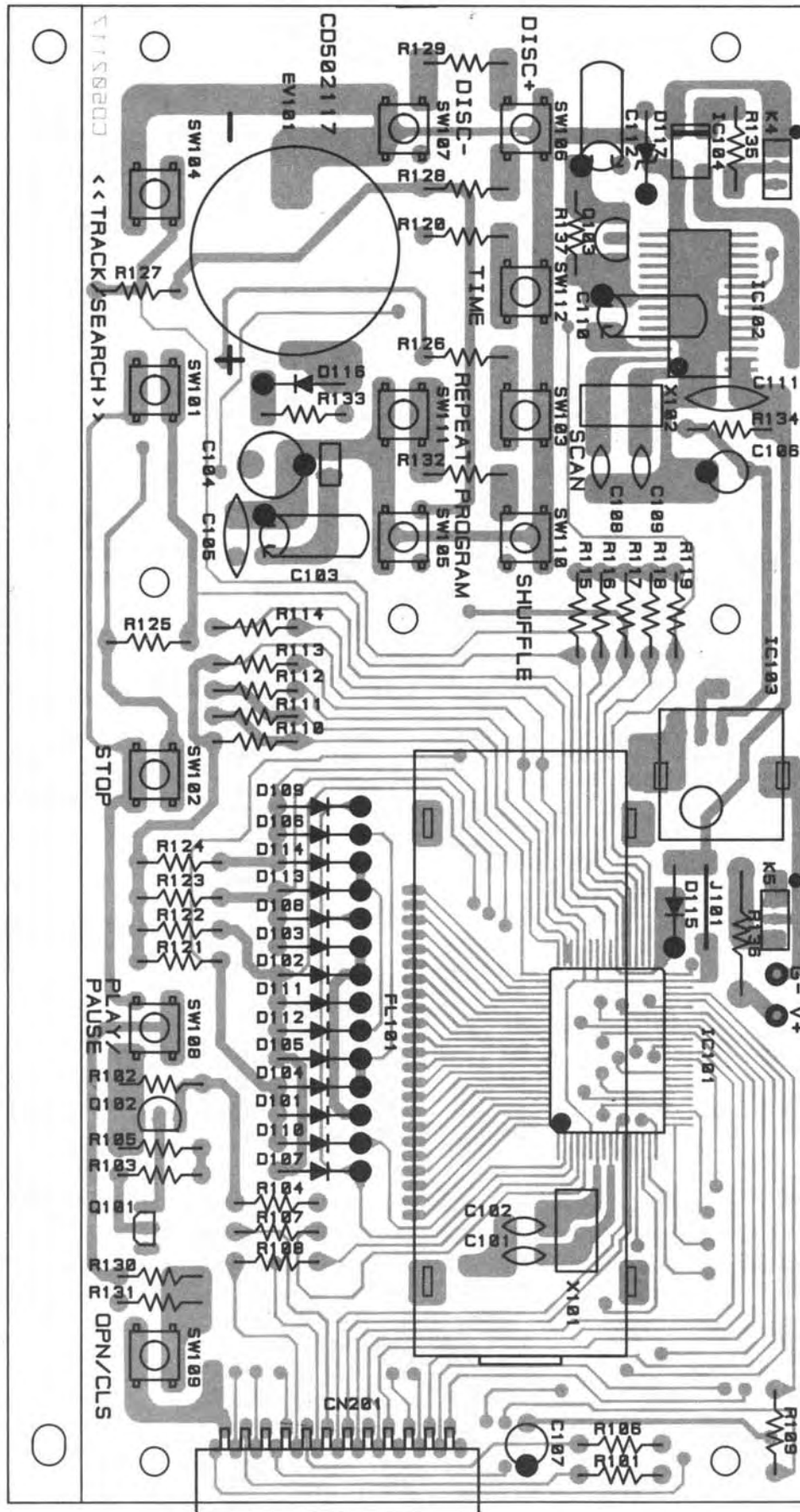
Printed Circuit Boards

CAUTION/ATTENTION
REPLACE FUSE ONLY WITH
THE SAME TYPE REPLACER
PAR UN FUSIBLE DE MAME
TYPE

▲ E55052 1794V-0

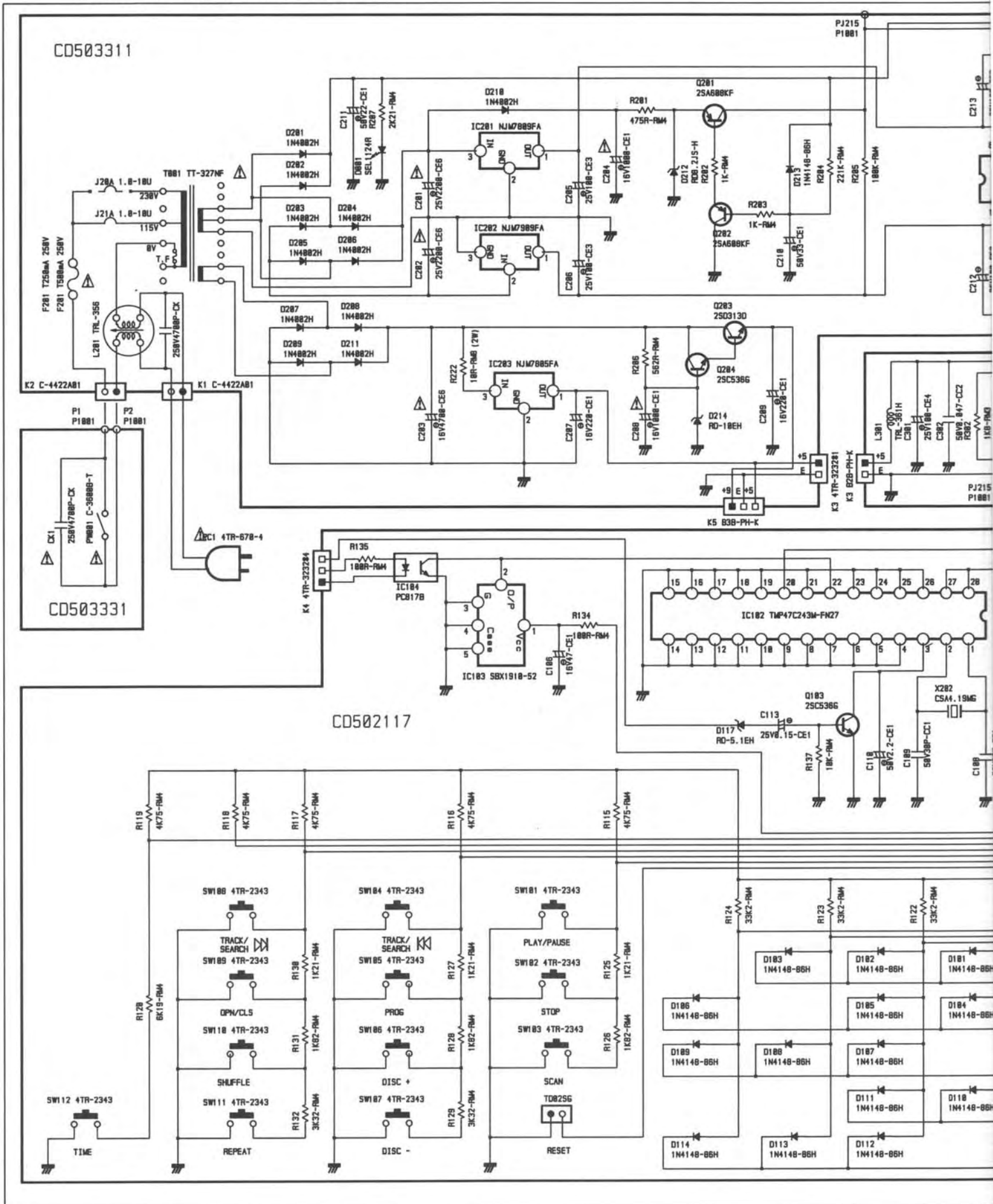


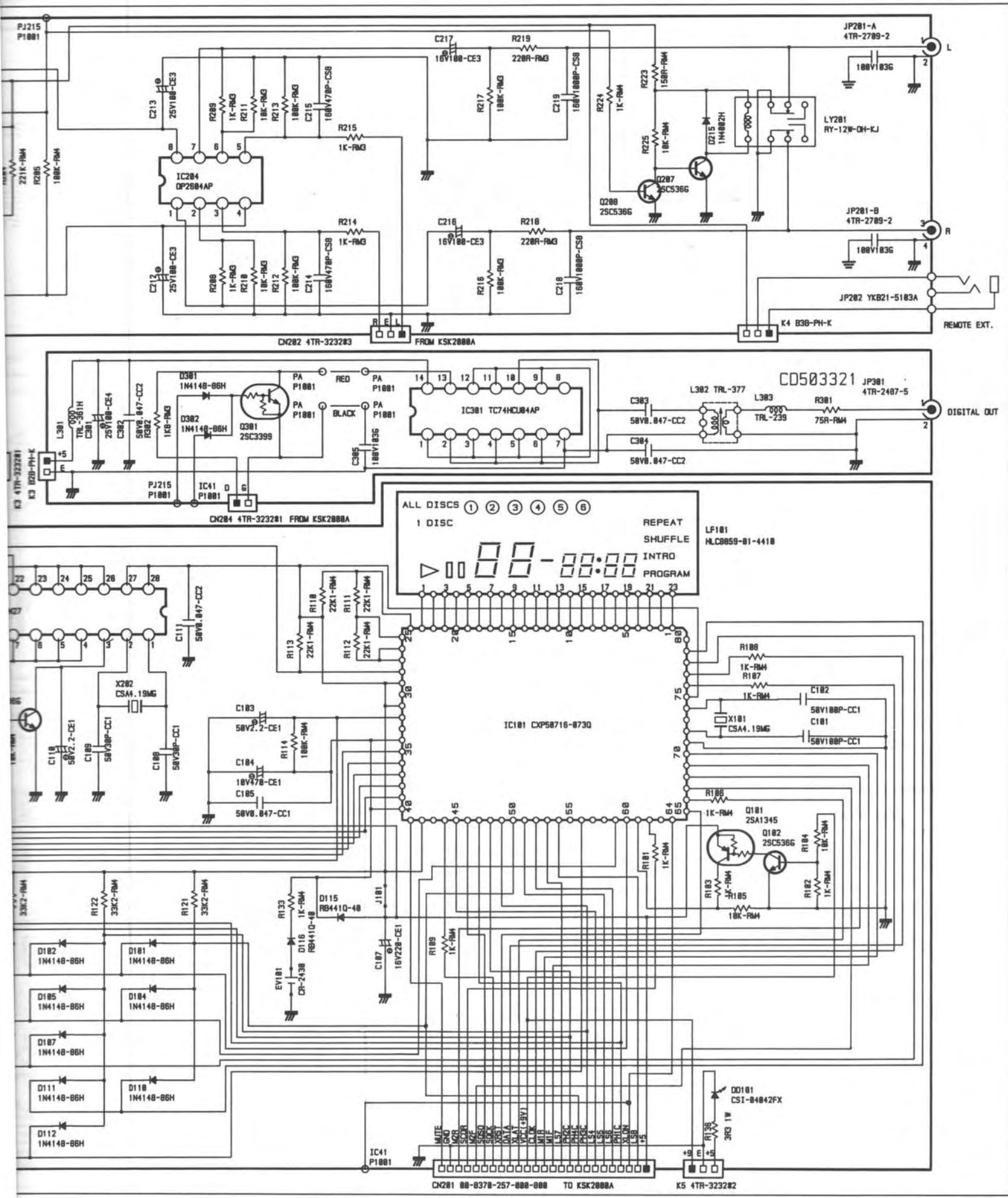
Printed Circuit Boards

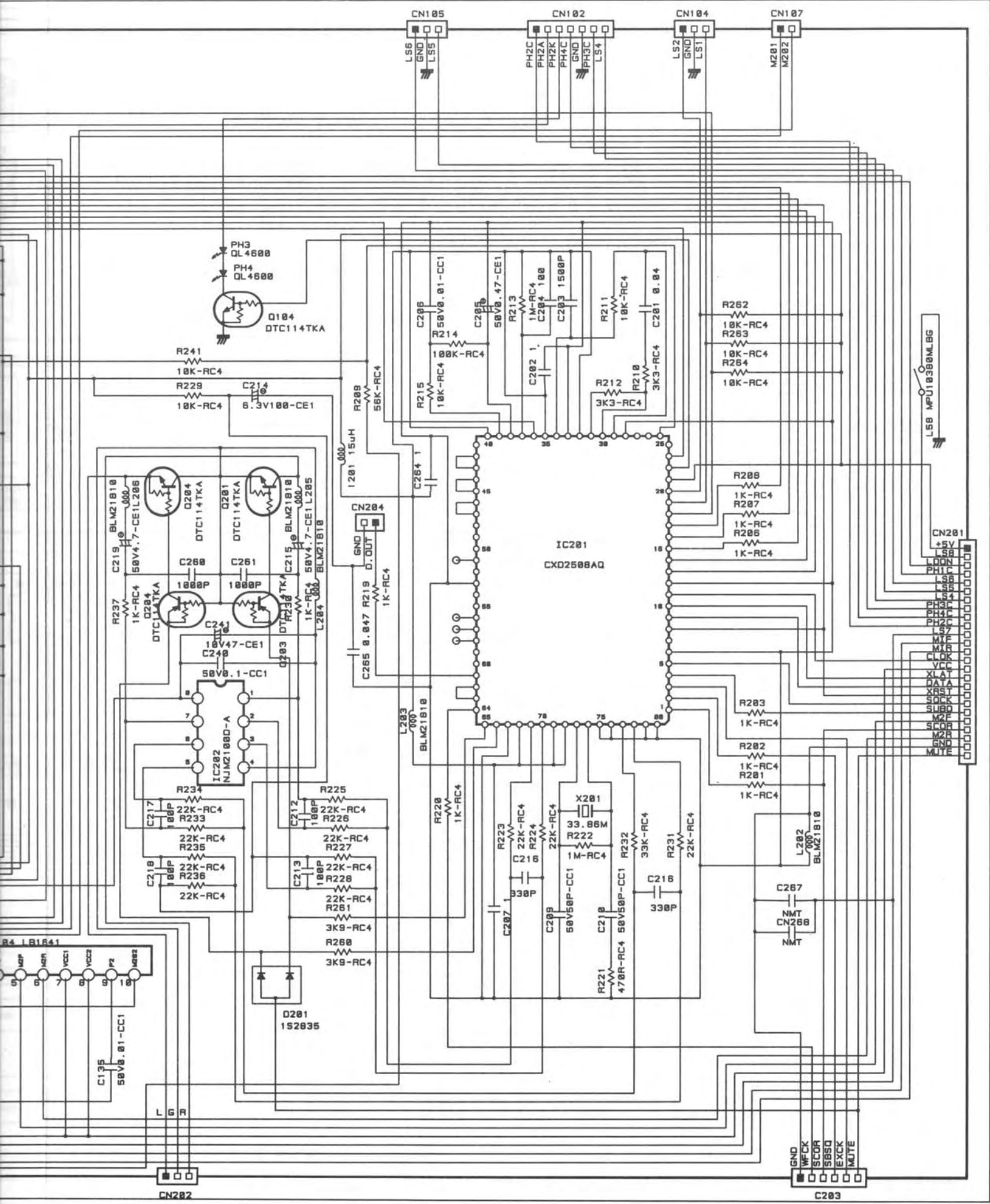


Schematic Diagram

SCHEMATIC DIAGRAM MODEL NO. RCC-945

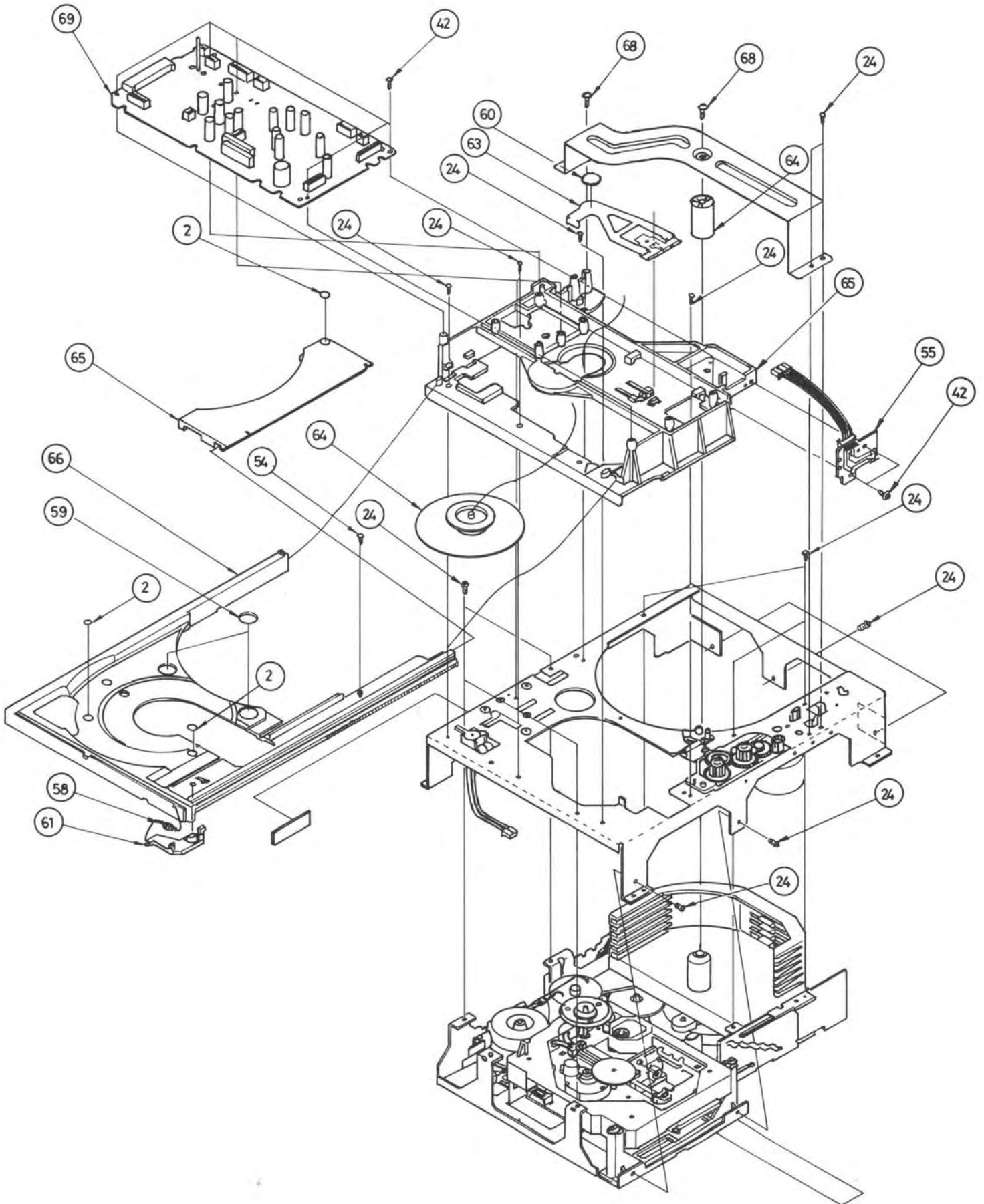




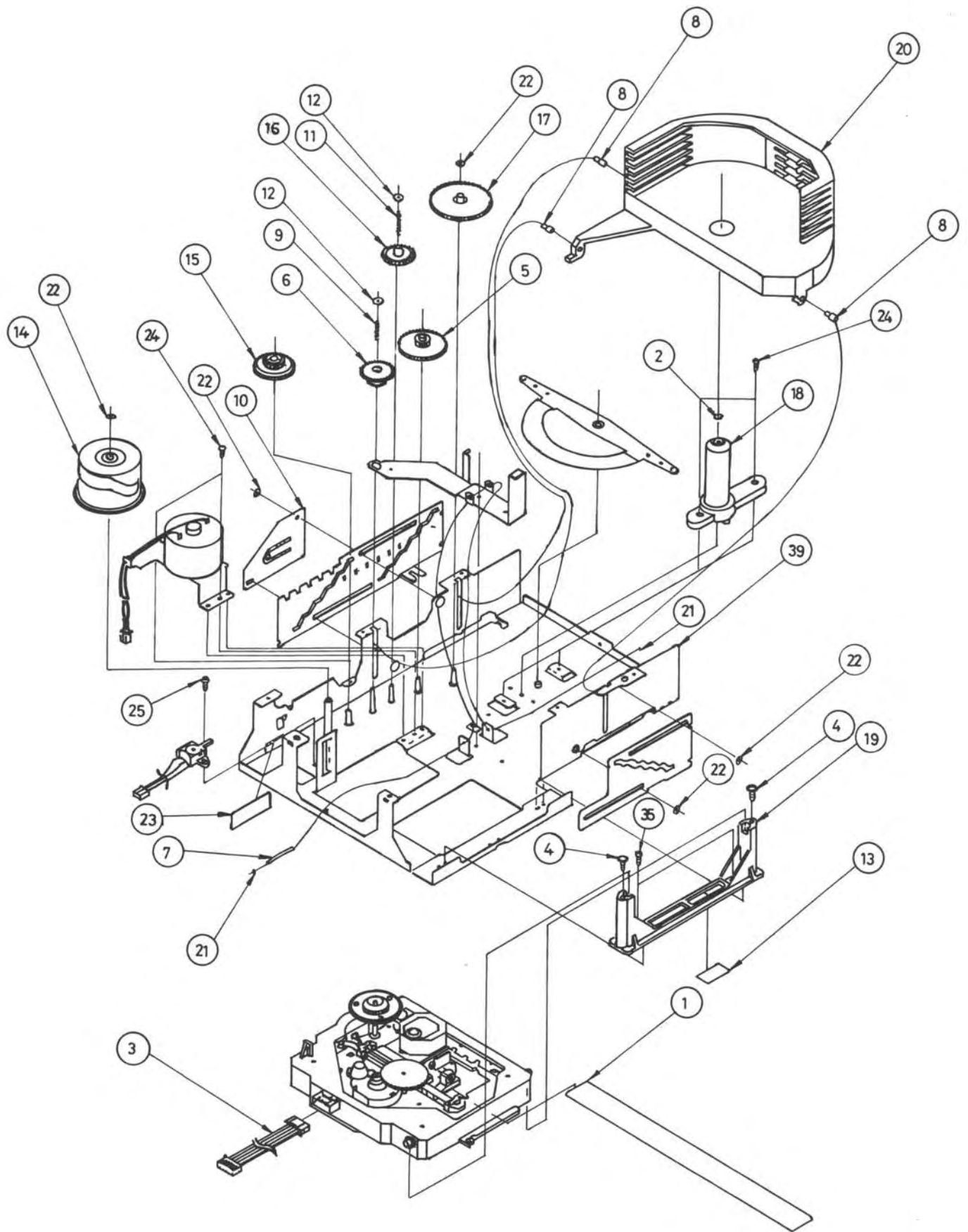


Disassembly Diagram

General ASSY

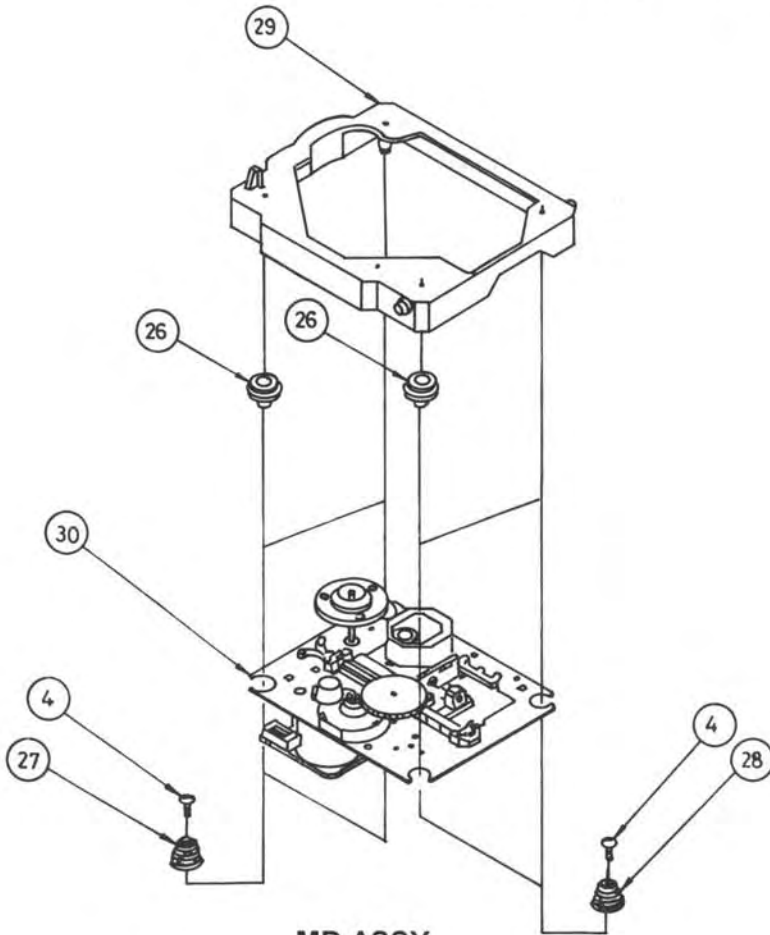


Elevator ASSY

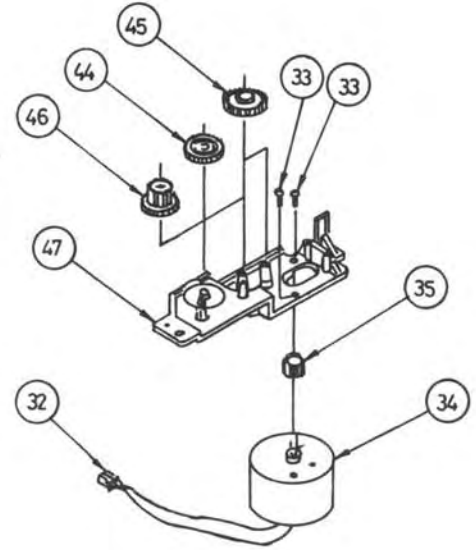


Disassembly Diagram

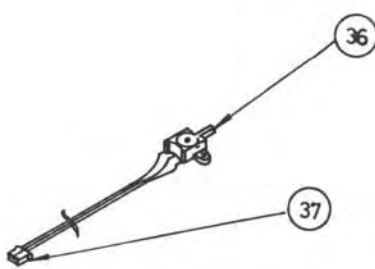
Each Parts ASSY



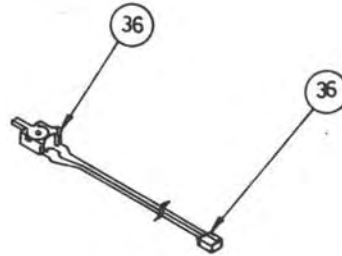
MD ASSY



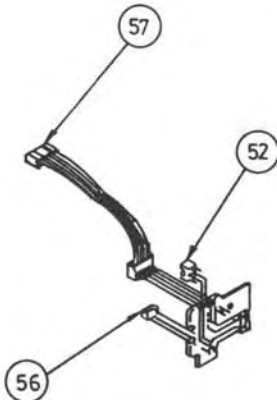
Gear Base ASSY



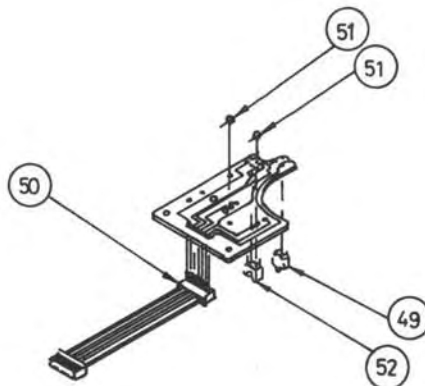
Switch (MD) ASSY



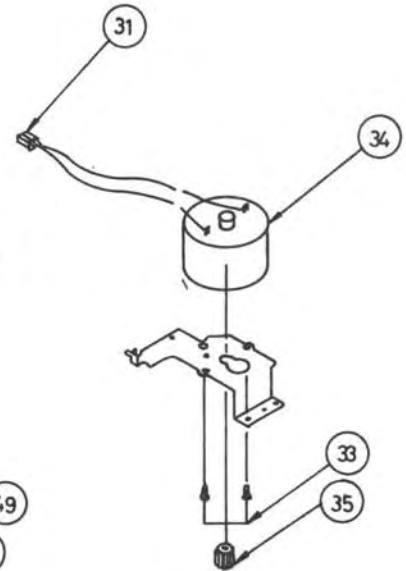
Switch (Main Tray) ASSY



Sub Tray PCB ASSY

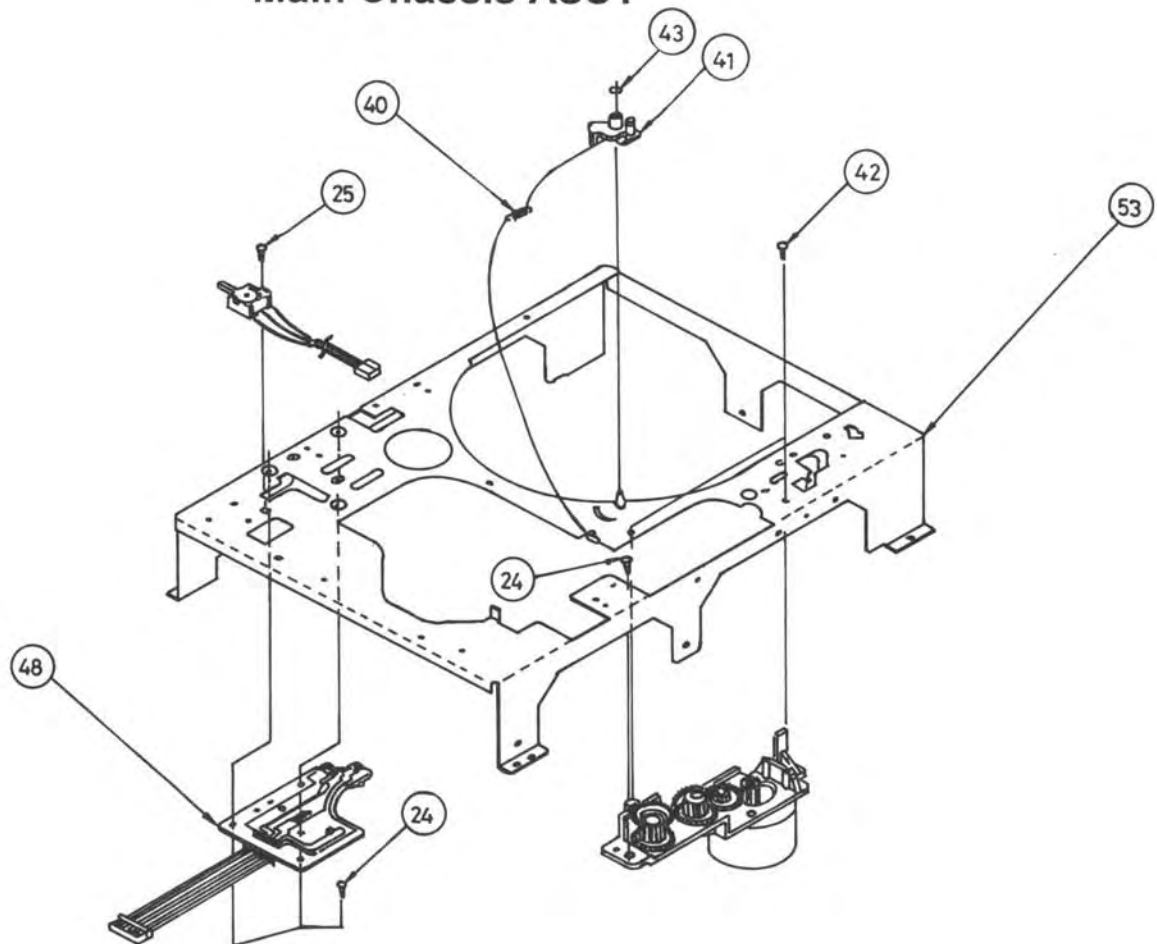


Elevator ASSY



Motor Base ASSY

Main Chassis ASSY




NO.	PART NO.	DESCRIPTION			
1	DI50000019	FLAT CABLE (16P)	36	DI50000329	ROTARY SWITCH
2	DI50000020	CUSHION	37	DI50000330	SWITCH HARNESS 3P WHITE
3	DI50000032	MD MOTOR HARNESS 6P	38	DI50000342	SWITCH HARNESS 3P RED
4		+PTPWH 2.6x7	39	DI50000354	ELEVATOR CHASSIS ASS'Y
5	DI50000044	GEAR (EL-B)	40	DI50000366	EXTENSION COIL SPRING (SWICHING)
6	DI50000056	GEAR (SWITCHING)	41	DI50000378	SWICHING LEVER (B)
7	DI50000068	SHAFT (SWITCHING LEVEL A)	42		+PTPWH 2
8	DI50000070	SHAFT (STOCKER)	43	DI50000380	RETAINING WASHER
9	DI50000081	COMPRESSION COIL SPRING (SWITCHING GEAR)	44	DI50000391	GEAR (TR-B)
			45	DI50000408	GEAT (TR-C)
10	DI50000093	PRESSER BAR SPRING			
			46	DI50000410	GEAR (TR-A)
11	DI50000100	COMPRESSION COIL SPRING (EL-A)	47	DI50000421	GEAR BASE
12	DI50000111	WASHER	48	DI50000433	ELEVATOR PCB ASS'Y
13	DI50000123	DOUBLE FACED TAPE	49	DI50000445	PUSH SWICHI (1 KEY)
14	DI50000135	CONTROL CAM GEAR	50	DI50000457	MECHANISM HAR
15	DI50000147	GEAR (MD)			
			51	DI50000469	PHOTO TRANSISTOR PT4600FS
16	DI50000159	GEAR (EL-A)	52	DI50000470	DIODE GPIS24
17	DI50000160	GEAR (EL-C)	53	DI50000482	MAIN CHASSIS ASS'Y
18	DI50000172	CENTER LEVER (A)	54		TAPPING +P2x5
19	DI50000184	MD FULCRUM	55	DI50000494	SUB TRAY PCB ASS'Y
20	DI50000196	STOCKER			
			56	DI50000500	PUSH SWITCH (1 KEY)
21	DI50000202	RETAINING WASHER	57	DI50000512	MECHANISM HARNESS 5P
22	DI50000214	RETAINING WASHER	58	DI50000524	EXTENSION COIL SPRING (LOCK A)
23	DI50000226	SPENCER E	59	DI50000536	CUSHION (B)
24		+PTT 2x4	60	DI50000548	SHEET
25		+PTT 2.6x5			
			61	DI50000550	LOCK LEVER (A)
26	DI50000238	INSULATOR	62	DI50000561	CHUCKING PULLEY
27	DI50000240	SPRING (FRONT)	63	DI50000573	CHUCKING SPRING
28	DI50000251	GEAR (BACK)	64	DI50000585	CENTER LEVER (B)
29	DI50000263	SUB CHASSIS	65	DI50000597	SUB TORAY
30	DI50000275	OPTICAL DEVICE			
			66	DI50000603	MAIN TORAY
31	DI50000287	MOTOR HAMESS 2P WHITE	67	DI50000615	CHUCKING BASE
32	DI50000299	MOTOR HAMESS 2P RED	68		+PTPWH 2.6x8
33		TOOTHED SCREW	69	DI50000627	SERVO DSP PCB MOUNT
34	DI50000305	DC MOTOR			
35	DI50000317	GEAR (MOTOR)			

Parts List

NOTE: THE COMPONENTS INDENTIFIED BY Δ MARK ARE FOR SAFFTY. REPLACE ONLY WITH ORIGINAL PARTS. DO NOT SUBSTITUTE.

SYMBOL	PARTS NO.	DESCRIPTION	SYMBOL	PARTS NO.	DESCRIPTION
TD502117 PCB ASSEMBLY			C205, 206	CE51005679	CAP, ELEC. 25BGF100M
R101-103	RM51001816	R, METAL 1K 1/4W F	C207	CE42205163	CAP, ELEC. 16V 220uF
R104, 105	RM51002810	R, METAL 10K 1/4W F	C208	CE01004163	CAP, ELEC. 16V 1000uF Δ
R106-109	RM51001816	R, METAL 1K 1/4W F	C209	CE42205163	CAP, ELEC. 16V 220uF
R110-113	RM52212811	R, METAL 22.1K 1/4W F	C210	CE43306467	CAP, ELEC. 50V 33uF
R114	RM51003813	R, METAL 100K 1/4W F	C211	CE42206507	CAP, ELEC. 50V 22uF
R115-119	RM54751816	R, METAL 4.75K 1/4W F	C212, 213	CE51005679	CAP, ELEC. 25BGF100M
R120	RM56191814	R, METAL 6.19K 1/4W F	C214, 215	CS34711318	CAP, POLYSTYRENE 160V 470PF
R121-124	RM53322818	R, METAL 33.2K 1/4W F	C216, 217	CE61005743	CAP, ELEC. 16BGF100M
R125	RM51211811	R, METAL 1.21K 1/4W F	C218, 219	CS31010317	CAP, POLYSTYRENE 160V 1000PF
R126	RM51821819	R, METAL 1.82K 1/4W F	IC201	IC00003641	IC NJM7809FA
R127	RM51211811	R, METAL 1.21K 1/4W F	IC202	IC00003665	IC NJM7909FA
R128	RM51821819	R, METAL 1.82K 1/4W F	IC203	IC00003630	IC NJM7805FA
R129	RM53321814	R, METAL 3.32K 1/4W F	IC204	IC00004232	IC OPA2604AP
R130	RM51211811	R, METAL 1.21K 1/4W F	Q201, 202	TR11000015	TRANSISTOR 2SA608KF
R131	RM51821819	R, METAL 1.82K 1/4W F	Q203	TR30000029	TRANSISTOR 2SD313D
R132	RM53321814	R, METAL 3.32K 1/4W F	Q204	TR31000034	TRANSISTOR 2SC536G
R133	RM51001816	R, METAL 1K 1/4W F	Q207, 208	TR31000034	TRANSISTOR 2SC536G
R134, 135	RM51000812	R, METAL 100 1/4W F	D201-211	DD80000033	DIODE, DETECT IN4002-TB
R136	RM93308122	R, METAL 3.3 J 1W	D212	DD20000510	DIODE, ZENER RD8.2JS-T1
R137	RM51002810	R, METAL 10K 1/4W F	D213	DD80000021	DIODE, DETECT IN4148-86
C101, 102	CC41011432	CAP, CERAMIC 50V 100PF	D214	DD20000533	DIODE, ZENER RD10JS-T1
C103	CE42207500	CAP, ELEC. 50V 2.2uF	D215	DD80000033	DIODE, DETECT IN4002-TB
C104	CE44705849	CAP, ELEC. 10V 470uF	L201	LC23560006	LINE FILTER COIL TRL-356
C105	CC44709422	CAP, CERAMIC	LY201	LY00000253	RELAY RY-12W-01H-KJ Δ
		RT-DSXE65TKYF473Z	F201	FU25000016	FUSE 250V 500mA Δ
				FU23000384	FUSE 250V T250mA (S) Δ
C106	CE44706167	CAP, ELEC. 16V 47uF	CD503321 PCB ASSEMBLY		
C107	CE42205163	CAP, ELEC. 16V 220uF	R301	RM57509810	R, METAL 75R 1/4W F
C108, 109	CC43312435	CAP, CERAMIC 50V 33P	R302	RM11801710	R, METAL MRS251K8 0.6W
C110	CE42207500	CAP, ELEC. 50V 2.2uF	C301	CE71005259	CAP, ELEC. 25V 100uF
C111	CC44709422	CAP, CERAMIC	C302-304	CC44709422	CAP, CERAMIC
		RT-DSXE65TKYF473Z			RT-DSXE65TKYF473Z
C113	CE01508256	CAP, ELEC. 25V 0.15uF	C305	CP01009317	CAP, POLYPROPYLENE
IC101	OC00004270	IC CXP50716-073Q			100V 103 G
IC102	IC00004281	IC TMP47C243M-FN27	IC301	IC00003689	IC TC74HCU04AP
IC103	IC00004347	REMOTE RECEIVER SBX1910-52	Q301	TR31000101	TRANSISTOR 2SC3399-AC
IC104	DD70000061	PHOTO COUPLER PC817B	D301, 302	DD80000021	DIODE, DETECT IN4148-86
D101-114	DD80000021	DIODE, DETECT IN4148-86	L301	LM00000632	MICRO INDUCTOR TRL-361
D115, 116	DD10000536	DIODE RB441Q-40	L302	LC23770001	DIG OUT TRANSFORMER TRL-377
D117	DD20000466	DIODE, ZENER RD5.1JS-T1	L303	LM00000073	MICRO INDUCTOR TRL-239
FL101	DD40001555	L.C.D HLC8859-01-4410			CD503331 PCB ASSEMBLY
	DD40001567	LCD BACKLIGHTING	CK1	CK00000035	SPARK KILLER DE7150F472M Δ
		CSI-04042FX	SW001	SH40000120	POWER SWITCH C-3600B-T Δ
Q101	TR11000064	TRANSISTOR 2SA1345-AC	OTHERS		
Q102, 103	TR31000034	TRANSISTOR 2SC536G-NP-AA	AF50000091	FRONT CHASSIS 3TOC-2	
X101, 102	LF00000490	CERAMIC RESONATOR CSA4.19MG	AM00002347	CHASSIS BODY 3TOC-4	
EV101	SE00000333	LITHIUM BATTERY CR2430-F2ST4	AR50000174	PRINTED REAR CHASSIS	
SW101-112	SH60000240	KEY BOARD SW 4TR-2343	DI00001405	TRP-701	
				COMPACT DISC LOADER ASS'Y	
				KSK-2000A	
CD503311 PCB ASSEMBLY			FT00000229	PLASTIC FOOT 4TSH-19#2	
R201	RM54750812	R, METAL 475 1/4W F		50F \times 14H	
R202, 203	RM51001816	R, METAL 1K 1/4W F	SB00001320	P.V.C SHIELD PLATE 4TOC-16	
R204	RM52213815	R, METAL 221K 1/4W F	SC00000027	AC CORD STOPPER SR-4N-4 Δ	
R205	RM51003813	R, METAL 100K 1/4W F	SP10007495	LOADER SUPPORT 4TOC-6	
R206	RM55620810	R, METAL 562 1/4W F	CD00000218	AC CORD SPT-2 AWG#18	
R207	RM52211818	R, METAL 2.21K 1/4W F		4TR-670#4-U, C, A, J Δ	
R208, 209	RM11001716	R, METAL MRS251K 0.6W	CD00000322	AC POWER CORD OKA	
R210-211	RM11002710	R, METAL MRS2510K 0.6W		4TR-2757-D Δ	
R212, 213	RM11003713	R, METAL MRS25100K 0.6W	CD00000048	AC POWER CORD 4TR-1037	
R214, 215	RM11001716	R, METAL MRS251K 0.6W		-H, E, Y, S1 Δ	
R216, 217	RM11003713	R, METAL MRS25100K 0.6W	CD00000528	AC CORD 4TR-3083-K1 Δ	
R218, 219	RM12200717	R, METAL MRS25220R 0.6W	CD00000115	AC POWER CORD C-3763-T-G1 Δ	
R222	RM91009220	R, METAL 2W 10 J			
R223	RM51500810	R, METAL 150 1/4W F			
R224	RM51001816	R, METAL 1K 1/4W F			
R225	RM51002810	R, METAL 10K 1/4W F			
C201, 202	CE92204646	CAP, ELEC. 25V 220uF Δ			
C203	CE94704749	CAP, ELEC. 16V 4700uF Δ			
C204	CE90004163	CAP, ELEC. 16V 100uF Δ			

Parts List

SYMBOL	PARTS NO.	DESCRIPTION
	NP00001949	NAME STICKER AC-120V 4TR-2828A#1 TNP-382
	NP00002012	NAME STICKER AC-110V 4TR-2828A#6 TNP-391
	NP00002140	NAME STICKER AC-220-240V 4TR-2828A#11 TNP-398
	PT32710101	POWER TRANSFORMER TT-327-NF 
	AA50000193	FRONT PANEL 3TOC-1 TFP-779
	AW00000824	PANEL WINDOW 4TOC-5A TFP-780
	BU00001145	POWER RING W/LED 4TQF-13
	KB20002681	POWER BUTTON 4TQF-15 14x14
	KB20003302	7 KEY TACT BUTTON 3TOC-8
	KB20003314	5 KEY TACT BUTTON 3TOC-9
	OM10001284	ORNAMENTAL SIDE BOARD 4TR-2797#3
	DD40000095	L.E.D SEL1124R
	OM70000065	PUSH BUTTON CONNECTOR 4TTL-15
	SN00000179	BUTTON SPRING 4TR-1988A#2 10F
	AG00000536	REMOTE CONTROL HANDSET RR-931
	AU00001237	TOP COVER POLY 3TUV-6#7
	OM10002008	CD PLASTIC DOOR 3TOC-7
	SR00000882	UPPER COVER SPACER 4TR-2418
	SR00000961	RUBBER CAP 4TTV-8
	PL00001063	STYROL SIDE MOULDING 3TUV-7A#2 TZ-158-1
	MN10004078	OWNER'S MANUAL RCC-945