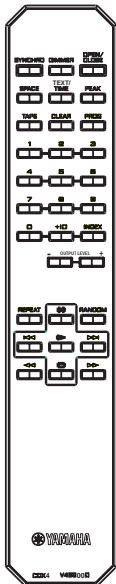
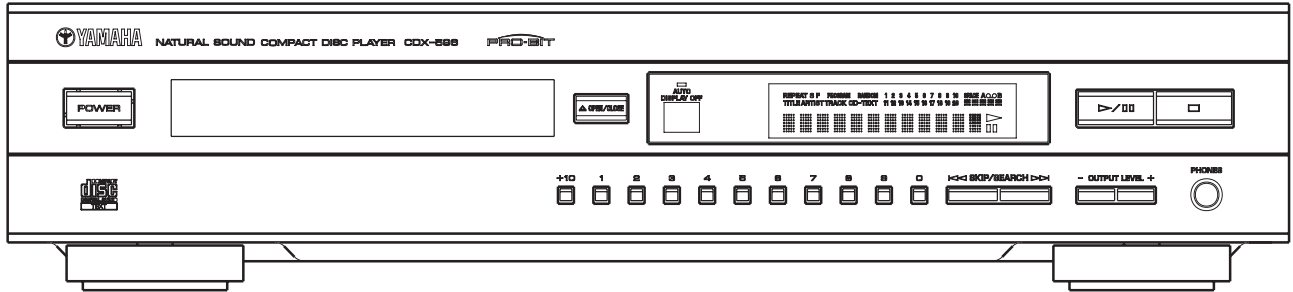


COMPACT DISC PLAYER CDX-596

SERVICE MANUAL



IMPORTANT NOTICE

This manual has been provided for the use of authorized YAMAHA Retailers and their service personnel. It has been assumed that basic service procedures inherent to the industry, and more specifically YAMAHA Products, are already known and understood by the users, and have therefore not been restated.

WARNING: Failure to follow appropriate service and safety procedures when servicing this product may result in personal injury, destruction of expensive components and failure of the product to perform as specified. For these reasons, we advise all YAMAHA product owners that all service required should be performed by an authorized YAMAHA Retailer or the appointed service representative.

IMPORTANT: The presentation or sale of this manual to any individual or firm does not constitute authorization, certification or recognition of any applicable technical capabilities, or establish a principle-agent relationship of any form.

The data provided is believed to be accurate and applicable to the unit(s) indicated on the cover. The research, engineering, and service departments of YAMAHA are continually striving to improve YAMAHA products. Modifications are, therefore, inevitable and specifications are subject to change without notice or obligation to retrofit. Should any discrepancy appear to exist, please contact the distributor's Service Division.

WARNING: Static discharges can destroy expensive components. Discharge any static electricity your body may have accumulated by grounding yourself to the ground buss in the unit (heavy gauge black wires connect to this buss).

IMPORTANT: Turn the unit OFF during disassembly and parts replacement. Recheck all work before you apply power to the unit.

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このサービスマニュアルは、エコマーク認定の再生紙を使用しています。
This Service Manual uses recycled paper.

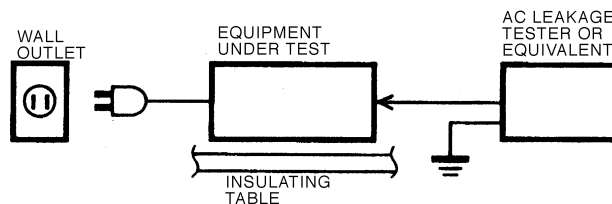


■ TO SERVICE PERSONNEL

1. Critical Components Information.

Components having special characteristics are marked \triangle and must be replaced with parts having specifications equal to those originally installed.

- Meter impedance should be equivalent to 1500 ohm shunted by 0.15 μ F.
- Leakage current must not exceed 0.5mA.
- Be sure to test for leakage with the AC plug in both polarities.



CAUTION: USE OF CONTROLS OR ADJUSTMENTS OR PERFORMANCE OF PROCEDURES OTHER THAN THOSE SPECIFIED HEREIN MAY RESULT IN HAZARDOUS RADIATION EXPOSURE.

THE COMPACT DISC PLAYER SHOULD NOT BE ADJUSTED OR REPAIRED BY ANYONE EXCEPT PROPERLY QUALIFIED SERVICE PERSONNEL.

PROTECTION OF EYES FROM LASER BEAM DURING SERVICING

This set employs a laser. Therefore, be sure to carefully follow the instructions below when servicing .

1. Laser Diode Properties

- Material : GaAlAs
- Wavelength : 780 nm
- Emission Duration : Continuous
- Laser Output : max. 44.6 μ W*

* This output is the value measured at a distance of about 200 mm from the objective lens surface on the Optical Pick-up Block.

2. When checking the laser diode emission, keep your eyes more than 30 cm away from the objective lens.

WARNING: CHEMICAL CONTENT NOTICE!

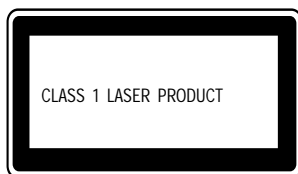
The solder used in the production of this product contains LEAD. In addition, other electrical/electronic and/or plastic (where applicable) components may also contain traces of chemicals found by the California Health and Welfare Agency (and possibly other entities) to cause cancer and/or birth defects or other reproductive harm.

DO NOT PLACE SOLDER, ELECTRICAL/ELECTRONIC OR PLASTIC COMPONENTS IN YOUR MOUTH FOR ANY REASON WHATSOEVER!

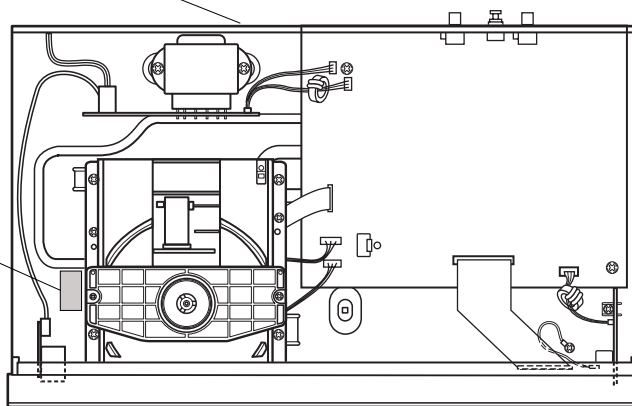
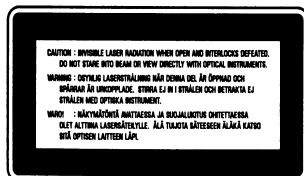
Avoid prolonged, unprotected contact between solder and your skin! When soldering, do not inhale solder fumes or expose eyes to solder/flux vapor!

If you come in contact with solder or components located inside the enclosure of this product, wash your hands before handling food.

① G, B models



② G, B models

**English**

- ① THIS PRINTING (SEE POSITION SHOWN IN THE ILLUSTRATION) INFORMS THE USER THAT THE APPARATUS CONTAINS A LASER COMPONENT.
- ② THIS LABEL (SEE POSITION SHOWN IN THE ILLUSTRATION) WARNS THAT ANY FURTHER PROCEDURE WILL BRING THE USER INTO EXPOSURE WITH THE LASER BEAM.

CAUTION : USE OF CONTROLS, ADJUSTMENTS OR PERFORMANCE OF PROCEDURES OTHER THAN THOSE SPECIFIED HEREIN, MAY RESULT IN HAZARDOUS RADIATION EXPOSURE.

Swedish

- ① DENNA MÄRKNING (SE FIGUR) UPPLYSER OM ATT DET I APPARATEN INGÅR EN LASERKOMPONENT AV TYP KLASS 1.
- ② VARNINGSMÄRKNING (SE FIGUR) FÖR STRÅLNING. INGREPP I APPARATEN BÖR ENDAST FÖRETAGAS AV FACKMAN MED KÄNNEDOM OM LASER. APPARATEN INNEHÅLLER EN LASERKOMPONENT SOM AVGER STRÅLNING ÖVERSTIGANDE GRÄNSEN FÖR LASERKLASS 1.

VARNING : OSYNLIG LASERSTRÅLNING NÄR DENNA DEL ÄR ÖPPNAD: BETRakta EJ STRÅLEN.

Danish

- ① DETTE MÆRKAT ER ANBRAGT SOM VIST I ILLUSTRATIONEN FOR AT ADVARE BRUGEREN OM AT APPARATET INDEHOLDER EN LASERKOMPONENT.
- ② DETTE MÆRKAT OM LASEREN ER ANBRAGT PÅ APPARATET SOM EN OPLYSNING OM AT APPARATET INDEHOLDER ET LASERKOMPONENT.

ADVARSEL : INDGREB BOR KUN FORETAGES AF EN FAGMAND DA DER ER RISIKO FOR RADIOAKTIV STRÅLING.

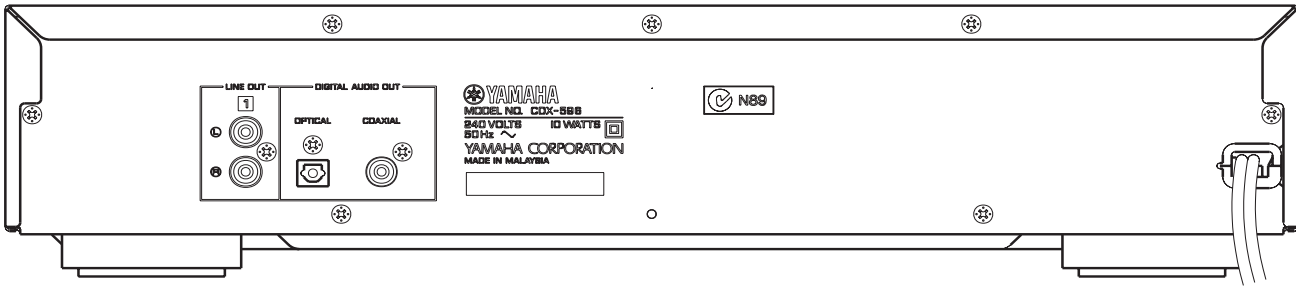
ADVARSEL : USYNLIG LASERSTRÅLING VED ÅBNING.
UNDGÅ UDSAETTELSE FOR STRÅLING.

Finnish

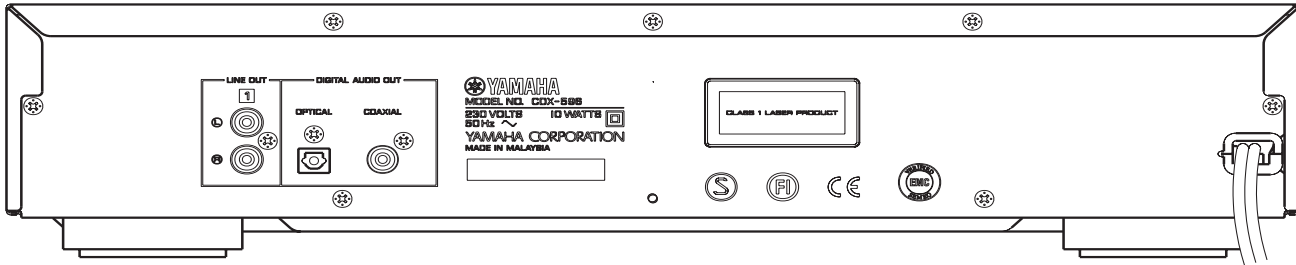
VARO! :
AVATTAESSA OLET ALTTIINA NÄKYMÄTTÖMÄLLE LASERSÄTEILYLLE. ÄLÄ KATSO SÄTEESEEN.

REAR PANELS

A model



G, B models



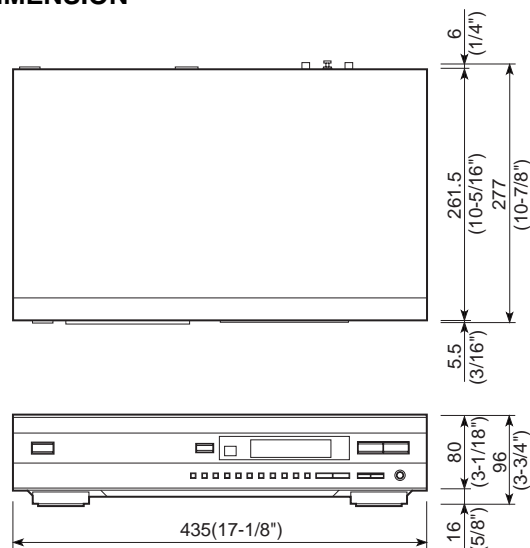
■ SPECIFICATIONS

Output Level 1kHz, 0dB	2.0 ± 0.5Vrms
Signal to Noise Ratio (EIAJ)	115dB
Dynamic Range	100dB
Harmonic Distortion+Noise (1kHz)	0.0025%
Frequency Response 2Hz — 20kHz	±0.5dB
Power Requirements B, G models A model	230V AC 50Hz 240V AC 50Hz
Power Consumption	10W
Dimensions (W x H x D)	435 x 96 x 277mm (17-1/8" x 3-3/4" x 10-7/8")
Weight	3.7kg (7 lbs 11 oz)
Finish CDX-596BL CDX-596GD CDX-596TI	Black color Gold color Titanium color
Accessories	Pin plug cord Remote control transmitter (Dry-cell : x 2: Size "AA", R06)

*Specifications are subject to change without notice.

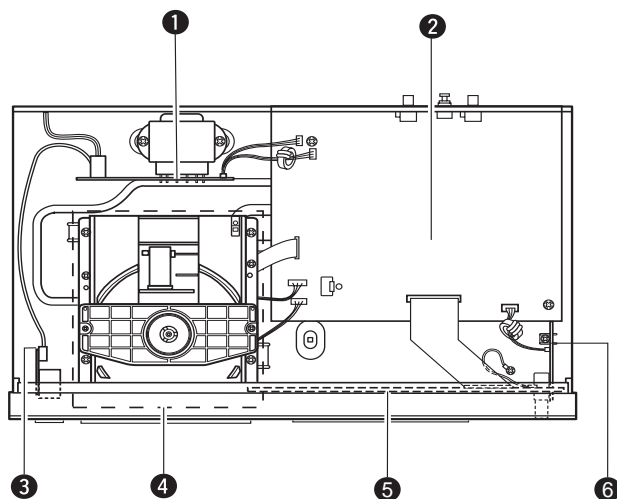
A Australian model
 B British model
 G European model

● DIMENSION



Unit : mm (inch)

■ INTERNAL VIEW



- ① MAIN P.C.B. (3)
- ② MAIN P.C.B. (1)
- ③ MAIN P.C.B. (4)
- ④ CD MECHANISM UNIT
- ⑤ MAIN P.C.B. (2)
- ⑥ MAIN P.C.B. (5)

DISASSEMBLY PROCEDURES (Remove parts in disassembly order as numbered.)

1. Removal of Top Cover

- a. Remove 4 screws (①) and 3 screws (②) in Fig. 1.
- b. Lift the Top Cover at the rear and move it rear-ward.

2. Removal of Front Panel

- a. Press the OPEN/CLOSE key and open the tray. Then remove the Lid attached to the front edge of the tray in Fig. 2.
- Press the OPEN/CLOSE key and close the tray, then unplug the power cord.
- b. Remove 3 connectors (CB100, CB202, CB301) in Fig. 2.
- c. Remove 5 (③) screws in Fig. 1.
- d. Remove 2 hooks and then pull the Front Panel forward.

3. Removal of CD Mechanism Unit

- a. Remove 3 connectors (CB1, CB2, CB3) in Fig. 2.
- b. Remove 4 screws (④) in Fig. 1.

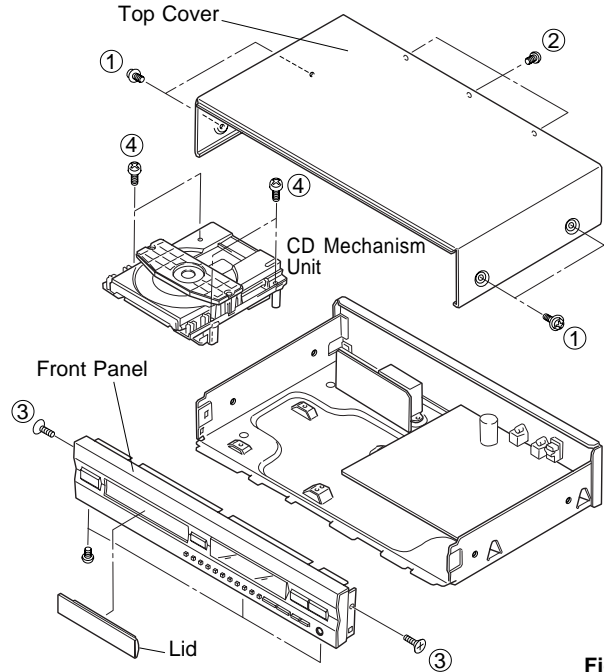


Fig. 1

4. Removal of Tray Unit

- a. Remove 2 screws (⑤) and then remove the Chucking Unit in Fig. 3.
- b. Remove 1 hook and then remove the Stopper Pin in Fig. 3.
- c. Rotate the Drive Gear and then open the Tray Unit in Fig. 3.
- d. Detach the Stoppers on both sides and then pull out the Tray in Fig. 3.

5. Removal of Pick-up Head

- a. Remove 2 screws (⑥) in Fig. 4.
- b. Remove 4 screws (⑦) and then remove the Drive Unit in Fig. 4.
- c. Remove the gear A in Fig. 5.
- d. Pull out the Sled Shaft in Fig. 5.
- e. Remove the Pick-up Head.

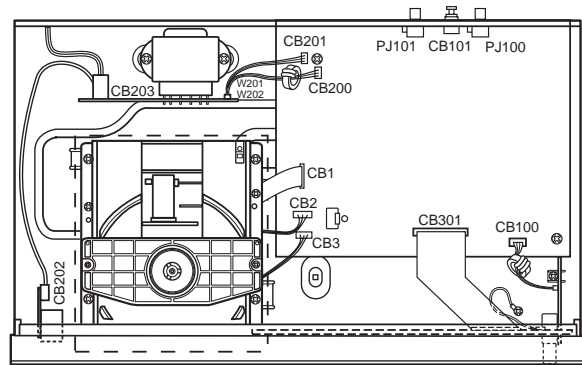


Fig. 2

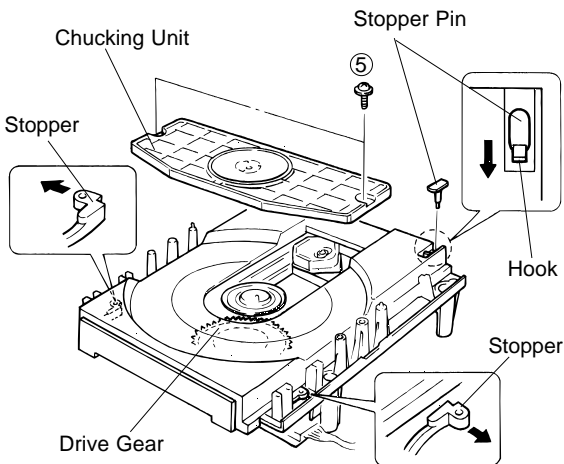


Fig. 3

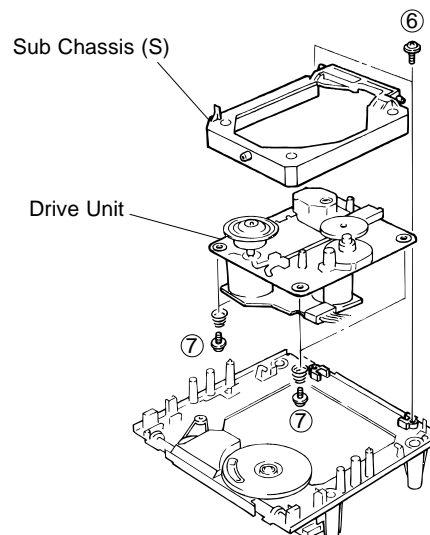
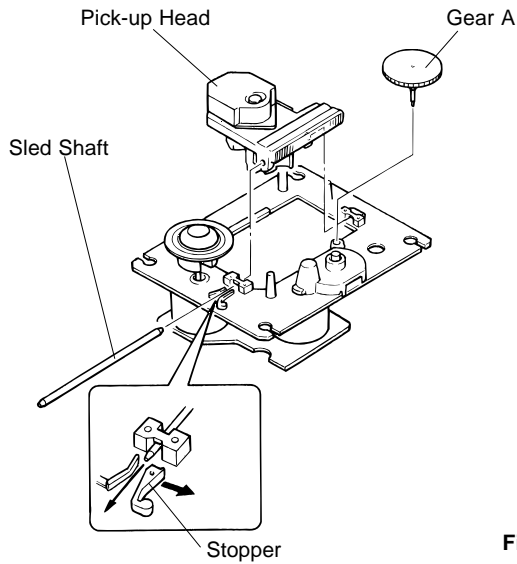


Fig. 4



Check that the disc table height is as specified below.

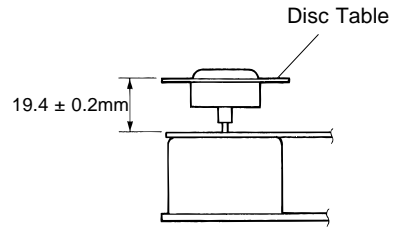
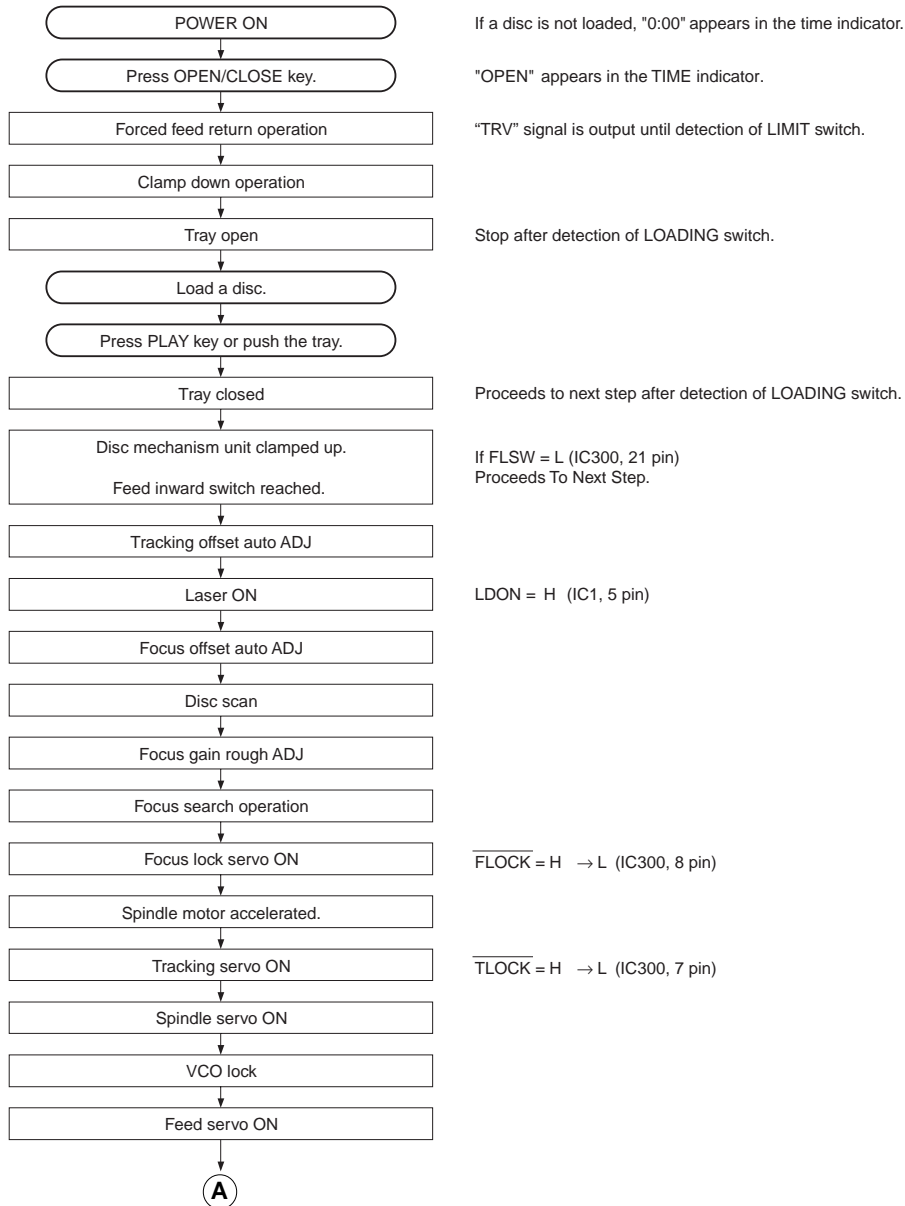
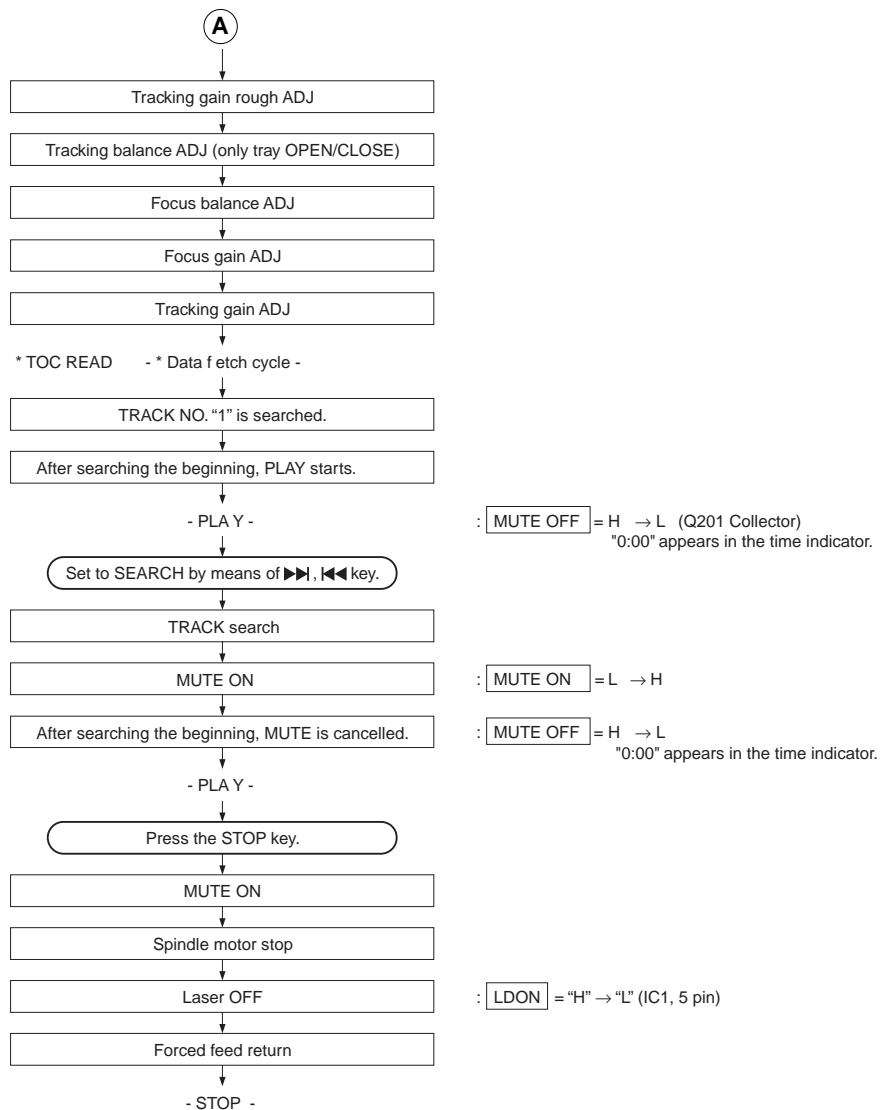


Fig. 5

STANDARD OPERATION CHART





■ TEST MODE

- (1) Turning ON the POWER while pressing the keys "PLAY/PAUSE" and "STOP" will set to the TEST mode. (When the TEST mode is set, all indicators light for 1 second.)



(2) Shown below are the panel key and remote control transmitter functions in the TEST mode.

● **Function List of Panel keys**

Note) "Traverse servo" means the same as "feed servo".

PANEL KEY	FUNCTION
▲ OPEN/CLOSE	Tray open/close.
▶/	FOON, TRON, SPON, TVON(FEON).
■	All stop. (Focus, spindle, feed, laser, tray, etc.) Initializes FL display
◀◀ (SKIP/SEARCH)	Inner circumference traverse servo.
▶▶ (SKIP/SEARCH)	Outer circumference traverse servo.
+10	Rotating the mode of coefficients. (Coefficient mode --- Coefficient setting --- product mode) Pressing twice will set to the product mode.
1	Returns to product mode.
2	Auto adjustment mode 1 (TR-off set, FO-off set, FO-rough gain adjustment)
3	Auto adjustment mode 2 (TR-balance, TR-rough gain adjustment)
4	Auto adjustment mode 3 (FO-fine gain, TR-fine gain, FO-balance adjustment)
5	1 TRACK KICK (-) continuously (Coefficient set up mode : address down)
6	1 TRACK KICK (+) continuously (Coefficient set up mode : address up)
7	30 TRACK KICK (-) continuously (Coefficient set up mode : upper digit down)
8	30 TRACK KICK (+) continuously (Coefficient set up mode : upper digit up)
9	150 TRACK KICK (-) continuously (Coefficient set up mode : lower digit down)
0	150 TRACK KICK (+) continuously (Coefficient set up mode : lower digit up)

● **Function List of Remote Control Transmitter**

CUSTOM CODE = (79)x

CODE	KEY	FUNCTION
01	OPEN/CLOSE	Tray open/close.
02	▶	PLAY (FOON, TRON, TVON(FEON), SPON)
04	◀◀	Inner circumference traverse servo.
05	◀◀	Inner 10 tracks kick continuously.
06	▶▶	Outer 10 tracks kick continuously.
07	◀◀	Outer circumference traverse servo.
08	REPEAT S/F	FOON, TROF (Enter focus search if focus servo is off.)
0A	TIME	Checks FL display. (88 8888 --- goes out --- All lamps.)
0B	INDEX	FOON, TROF, TVOF(EFOF) (Enter focus search if focus servo is off.)
0C	PROG	Rotates or accelerates spindle.
0D	CLEAR	Decelerates spindle. (checking EFM pattern and reflected STAT)
0F	SPACE	FOOF, TROF, TVOF(EFOF)
10	0	150 TRACK KICK (+) continuously (Coefficient set up mode : lower digit up)
11	1	Returns to product mode. (tray inoperative.)
12	2	Auto adjustment mode 1 (TR-off set, FO-off set, FO-rough gain adjustment)
13	3	Auto adjustment mode 2 (TR-balance, TR-rough gain adjustment)
14	4	Auto adjustment mode 3 (FO-fine gain, TR-fine gain, FO-balance adjustment)
15	5	1 TRACK KICK (-) continuously (Coefficient set up mode : address down)
16	6	1 TRACK KICK (+) continuously (Coefficient set up mode : address up)
17	7	30 TRACK KICK (-) continuously (Coefficient set up mode : upper digit down)
18	8	30 TRACK KICK (+) continuously (Coefficient set up mode : upper digit up)
19	9	150 TRACK KICK (-) continuously (Coefficient set up mode : lower digit down)
1A	+10	Rotating the mode of coefficients.
1B	RANDOM	SPON (Spindle servo on.)
1E	DIMMER	Checks FL display. (All lamps --- 88 8888 --- goes out.)
55		FOON, TROF, TVOF(EFOF) (Enter focus search if focus servo is off.)
56	■	All stop. (Focus, spindle, traverse, laser, tray, etc.)
57	TAPE	Spindle free (off)
58	SYNCHRO	TV(Feed) REV
5D	PEAK	-

■ ERROR MESSAGE

- (1) When operation is terminated in an abnormal condition (stop or open), pressing STOP on the remote control while pressing STOP on the panel will set to the error message display enable mode.
- (2) Shown below is an example of display. ("E-73" as an example)



- (3) This function stays effective till the power is turned OFF. (It is cleared at OFF.)
- (4) Listed in the table below are error messages.

● Error Messages List

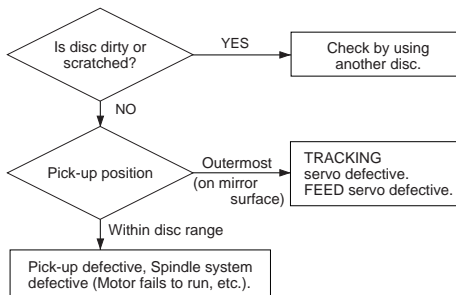
ERROR MESSAGES	DESCRIPTION
E - X 0	Data cannot be read after finishing search.
E - X 1	Data cannot be read during PLAY(X=0), PAUSE(X=3), or SCAN(X=2).
E - 7 1	At the start, tracking servo is not effective.
E - 7 2	At the start, spindle servo PLL is not effective.
E - 7 3	At the start, data cannot be read.
E - 9 4	Close switch does not work with tray closed.
E - A 5	Open switch does not work with tray open.
E - X 7	Traverse(Feed) inner switch does not work.
E - X 8	Recovery action fails after focus drop.
E r r	MN35511AL does not give response of SENSE, with resetting by the unit's microcomputer.

*No. for each state
(meaning of "X")

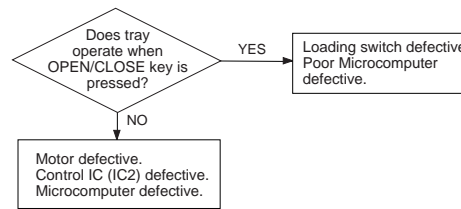
PLAY	X="0"
SCAN	X="2"
PAUSE	X="3"
PEAK SEARCH	X="4"
SEARCH	X="5"
START	X="7"
STOP	X="8"
LOADING	X="9"
OPEN	X="-"
NO DISC	X="C"

1) Error Code Troubleshooting

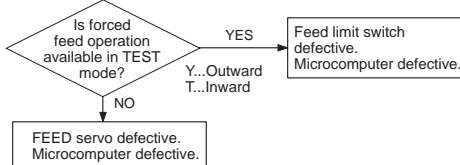
Error code **X0** , **X1** , **73** Data cannot be read.



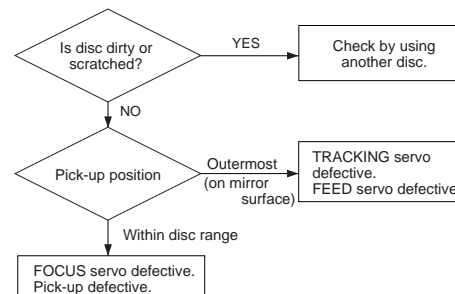
Error codes **94** , **A5** Poor tray loading operation.



Error code **X7** FEED operation defective. (Limit switch fails)

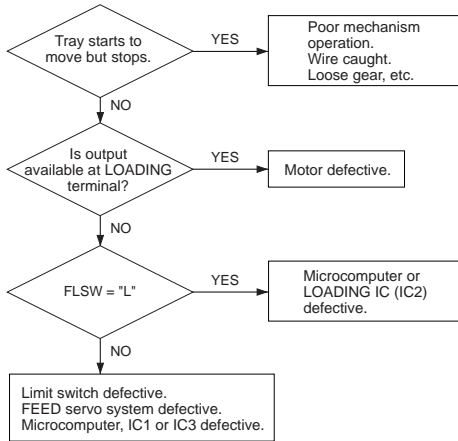


Error code **X8** Focus drops.



2) Troubleshooting from System Malfunctions

a) Tray fails to come out/go in.

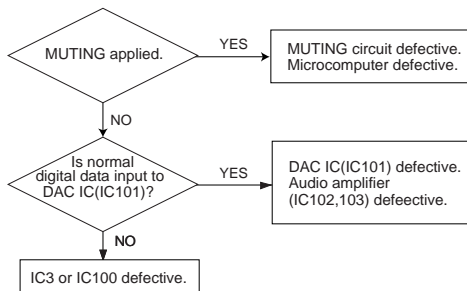


When tray fails to close completely (when it stops midway)

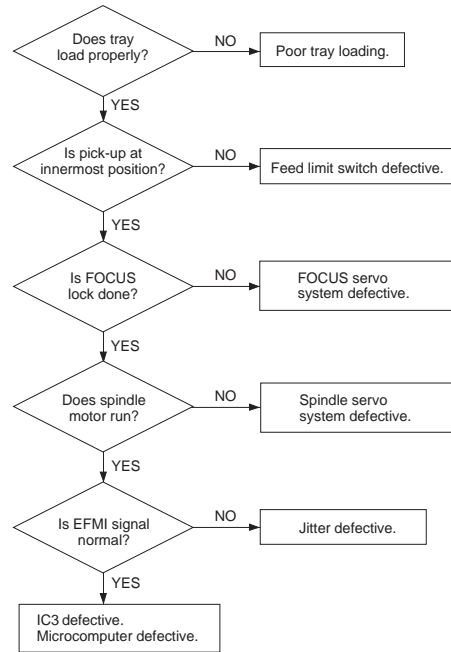
[Corrective measure]

- 1) Turn ON the power and open the tray.
- * If it failed to open (head and tray contacting each other), open it after removing the chucking unit.
- 2) Turn OFF the power and force the tray to go in fully and close.
- 3) With the power turned ON, open and close the tray to check if the tray close completely.

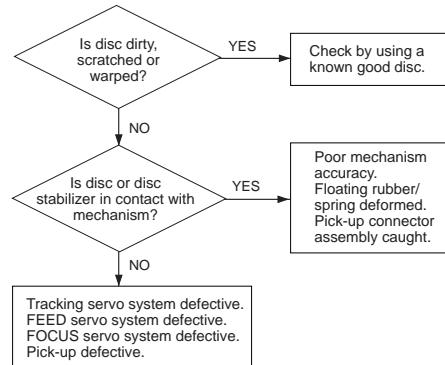
b) No sound generated, Sound cut during play. (but time display advances properly)



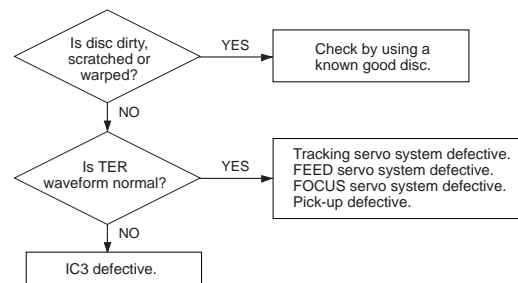
c) Operates as if no disc loaded. (although loaded)



d) Sound skips. (Time display fails to advance properly)

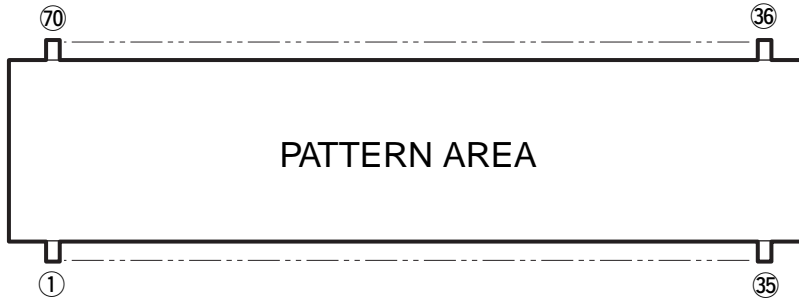


e) No search provided. (Sound skipped after search)



■ DISPLAY DATA

V300 : 14-BT-56GN

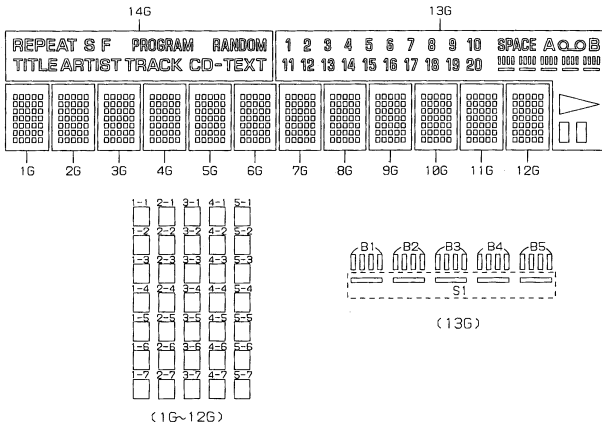


● PIN CONNECTION

Pin No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Connection	F1	F1	NP	14G	13G	12G	11G	10G	9G	8G	7G	6G	5G	4G	3G	2G	NX	NX	NX	NX	1G	IC	P35	P34	P33	P32	P31	P30	P29	P28
Pin No.	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
Connection	P27	P26	NP	F2	F2	F2	F2	NP	P25	P24	P23	P22	P21	P20	P19	P18	P17	P16	P15	P14	P13	NX	NX	NX	NX	P12	P11	P10	P9	P8
Pin No.	61	62	63	64	65	66	67	68	69	70																				
Connection	P7	P6	P5	P4	P3	P2	P1	NP	F1	F1																				

Note 1) F1, F2 Filament 3) NX No Extend pin 5) 1G~14G Grid
 2) NP No Pin 4) P1~P35 Datum Line 6) IC Internal Connection

● GRID ASSIGNMENT



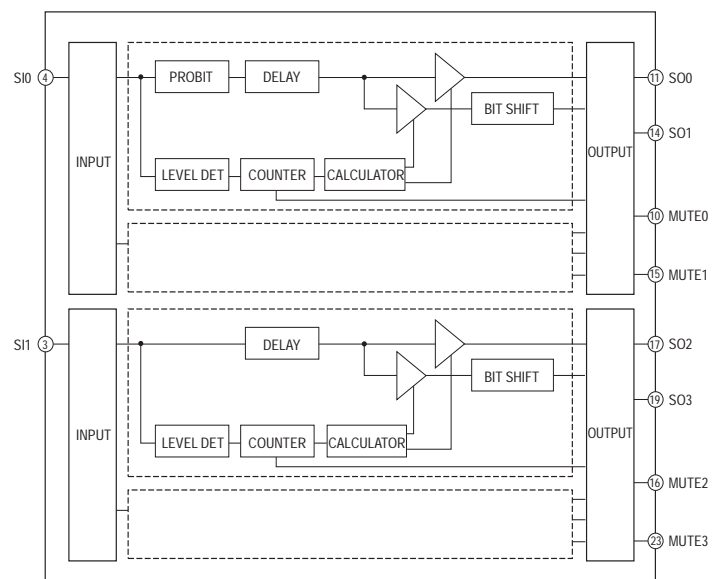
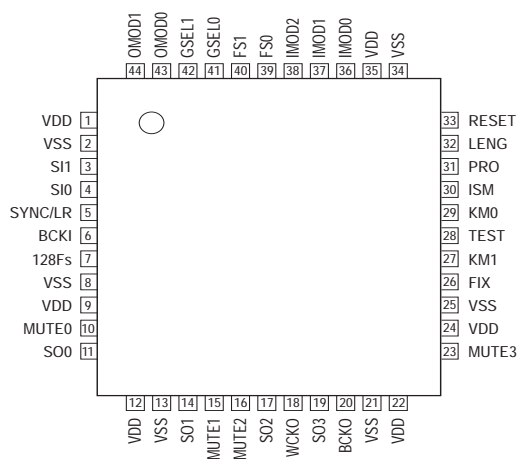
● ANODE CONNECTION

	14G	13G	12G~1G
P1	REPEAT	▶	1-1
P2	S	▯▯	2-1
P3	F	SPACE	3-1
P4	PROGRAM	A	4-1
P5	RANDOM	○ ○	5-1
P6	TITLE	B	1-2
P7	ARTIST	B1	2-2
P8	TRACK	B2	3-2
P9	CD-TEXT	B3	4-2
P10	-	B4	5-2
P11	-	B5	1-3
P12	-	S1	2-3
P13	-	1	3-3
P14	-	2	4-3
P15	-	3	5-3
P16	-	4	1-4
P17	-	5	2-4
P18	-	6	3-4
P19	-	7	4-4
P20	-	8	5-4
P21	-	9	1-5
P22	-	10	2-5
P23	-	11	3-5
P24	-	12	4-5
P25	-	13	5-5
P26	-	14	1-6
P27	-	15	2-6
P28	-	16	3-6
P29	-	17	4-6
P30	-	18	5-6
P31	-	19	1-7
P32	-	20	2-7
P33	-	-	3-7
P34	-	-	4-7
P35	-	-	5-7

CDX-596

IC DATA

IC100: YSZ914B-F DAFC

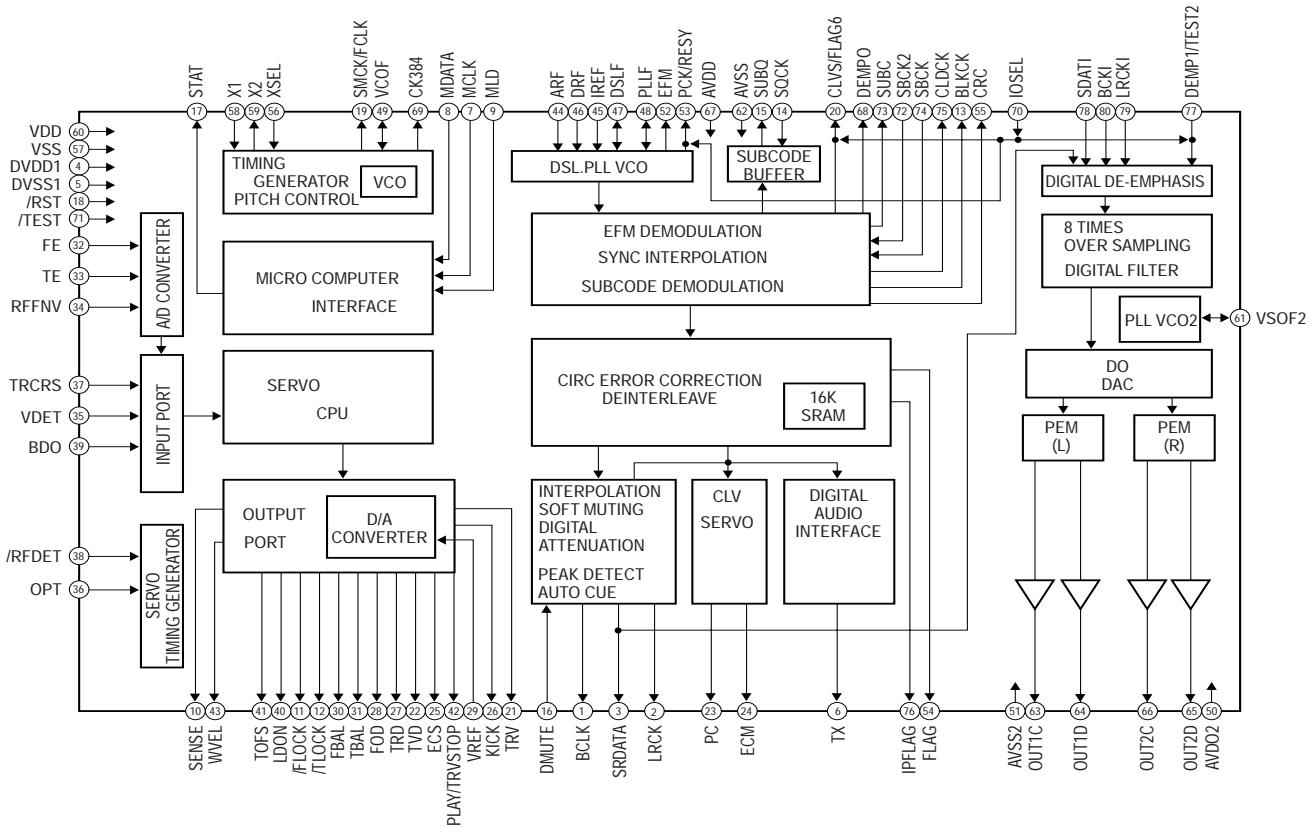
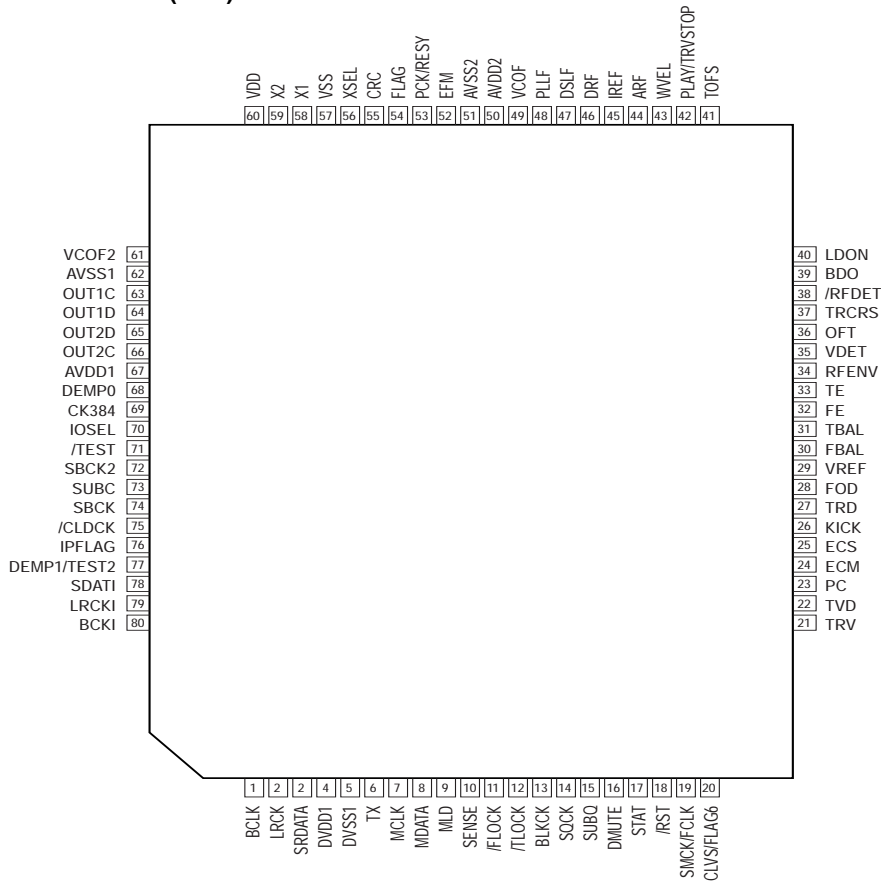


PIN No.	NAME	I/O	FUNCTION
1	VDD		+5V Power supply
2	VSS		GND
3	SI1	I	Serial data IN (ch2, 3)
4	SI0	I	Serial data IN (ch0, 1)
5	SYNC/LR	I	Sync. signal
6	BCKI	I	Bit clock (System clock)
7	128FS	I	128FS signal
8	VSS		GND
9	VDD		+5V Power supply
10	MUTE0	O	ch0 Mute signal (H: Mute)
11	SO0	O	ch0 Serial data OUT
12	VDD		+5V Power supply
13	VSS		GND
14	SO1	O	ch1Serial data OUT
15	MUTE1	O	ch1 Mute signal (H: Mute)
16	MUTE2	O	ch2 Mute signal (H: Mute)
17	SO2	O	ch2 Serial data OUT
18	WCKO	O	Serial word clock
19	SO3	O	ch3 Serial data OUT
20	BCKO	O	Serial bit clock
21	VSS		GND
22	VDD		+5V Power supply

PIN No.	NAME	I/O	FUNCTION
23	MUTE3	O	ch1 Mute signal (H: Mute)
24	VDD		+5V Power supply
25	VSS		GND
26	FIX	I	Cross fade ON/OFF
27	KM1	I	BCKI phase control
28	TEST	I	Test (L: Test)
29	KM0	I	Frame sync. control
30	ISM	I	Number of ch for an IN line
31	PRO	I	Pro-bit control
32	LENG	I	Input word length of pro-bit
33	RESET	I	Reset
34	VSS		GND
35	VDD		+5V Power supply
36	IMOD0	I	IN line format
37	IMOD1	I	
38	IMOD2	I	
39	FS0	I	Sampling rate control
40	FS1	I	
41	GSEL0	I	Floating gain control
42	GSEL1	I	
43	OMOD0	I	OUT line format
44	OMOD1	I	

IC3 : MN35511AL

Signal Process Controller (SPC) & D/A Converter

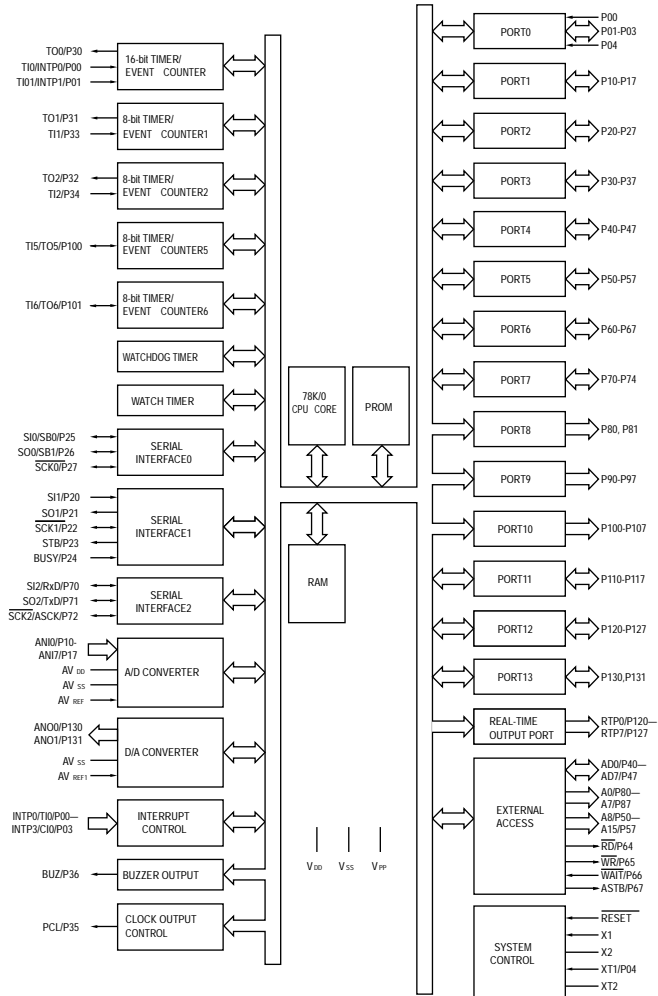
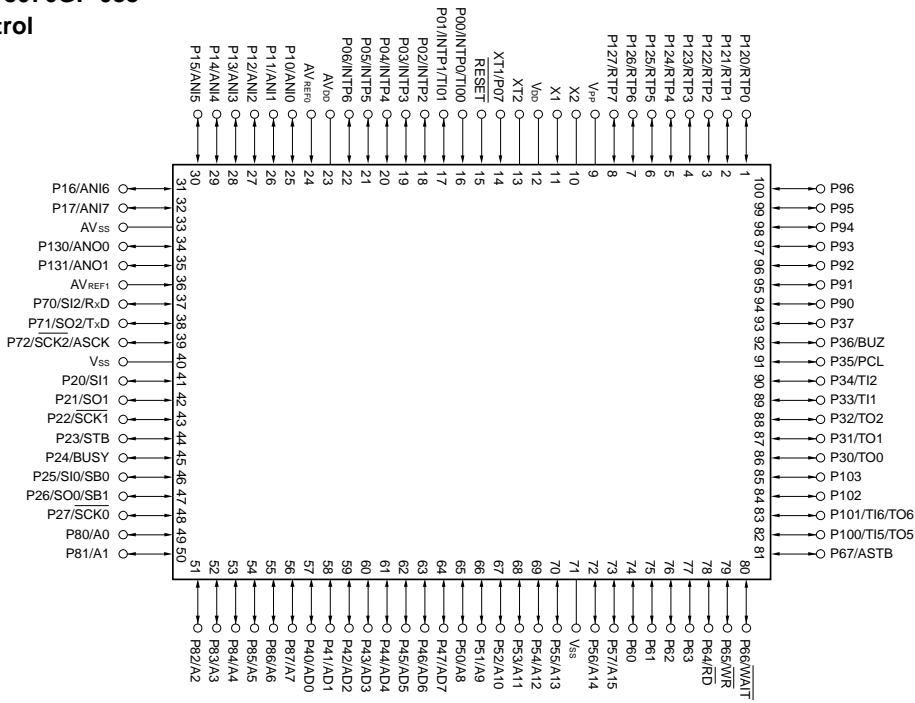


CDX-596

PIN No.	NAME	I / O	FUNCTION
1	BCLK		NC
2	LRCK		NC
3	SRDR		NC
4	DVDD1		+5V
5	DVSS1		GND
6	TX	O	Digital audio interface signal
7	MCLK	I	CPU clock
8	MDATA	I	CPU data
9	MLD	I	CPU load signal
10	SENSE	O	Sense signal
11	/FLOCK	O	Focus servo draw signal
12	/TLOCK	O	Tracking servo draw signal
13	BLKCK	O	Sub-code block clock
14	SQCK	I	Sub-code Q clock
15	SUBQ	O	Sub-code Q code signal
16	DMUTE	I	Mute signal
17	STAT	O	Status signal
18	/RST	I	Reset signal
19	SMCK/FCLK		NC
20	CLVS/FLAG6		NC
21	TRV	O	Traverse forced feed signal
22	TVD	O	Traverse drive signal
23	PC		NC
24	ECM	O	Spindle forced drive signal
25	ECS	O	Spindle drive signal
26	KICK	O	Kick pulse
27	TRD	O	Tracking drive signal
28	FOD	O	Focus drive signal
29	VREF	O	Reference Voltage
30	FBAL	O	Focus balance signal
31	TBAL	O	Tracking balance signal
32	FE	I	Focus error signal
33	TE	I	Tracking error signal
34	RFENV	I	RF envelope signal
35	VDET		GND
36	OFT	I	Off-track signal
37	TRCRS	I	Tracking close signal
38	/RFDET	I	RF signal detect
39	BD0	I	Black dot detect
40	LDON	O	Laser ON signal

PIN No.	NAME	I / O	FUNCTION
41	TOFS		NC
42	PLAY		NC
43	WVEL		NC
44	ARF	I	RF signal
45	IREF	I	Reference current
46	DREF	I	Bias for DSL
47	DSLFL	I / O	Loop filter for DSL
48	PLLF	I / O	Loop filter for PLL
49	VCOF		+5V
50	AVDD2		+5V
51	AVSS2		GND
52	EFM		NC
53	PCK		NC
54	FLAG		NC
55	CRC		NC
56	XSEL		GND
57	VSS		GND
58	X1	I	Crystal oscillation
59	X2	O	Crystal oscillation
60	VDD		+5V
61	VCOF2		GND
62	AVSS1		GND
63	OUT1C	O	PEM 1C signal
64	OUT1D	O	PEM 1D signal
65	OUT2D	O	PEM 2D signal
66	OUT2C	O	PEM 2C signal
67	AVDD1		+5V
68	DEMPO		De-emphasis detect signal
69	CK384	O	NC
70	IOSEL		Mode select (H)
71	/TEST		Test mode set (H)
72	SBCK2		NC
73	SUBC		NC
74	SBCK		NC
75	/CLDCK		NC
76	IPFLAG		NC
77	DEMPI		GND
78	SDATI		NC
79	LRCKI		NC
80	BCKI		NC

IC300 : uPD78076GF-088
System Control

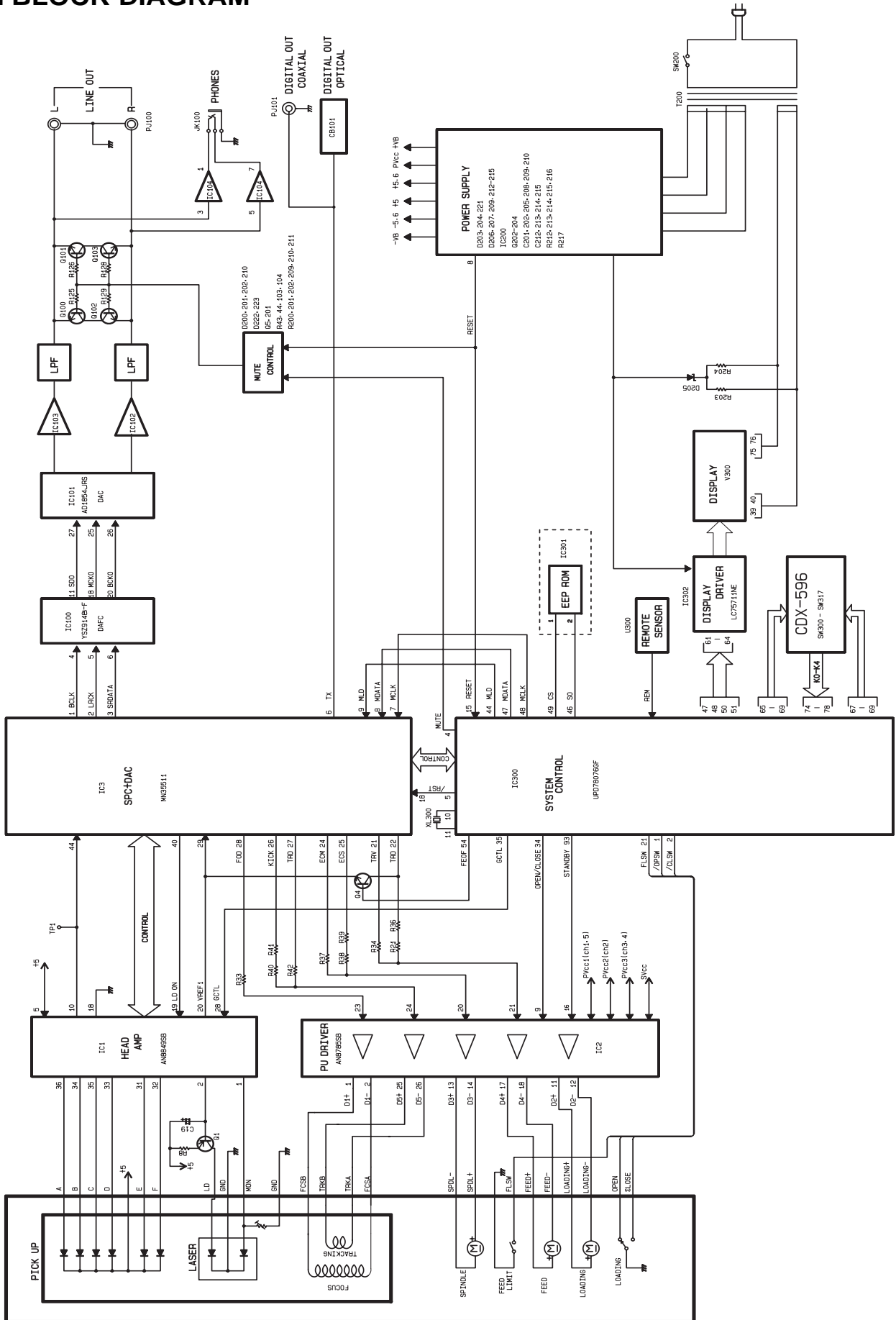


CDX-596

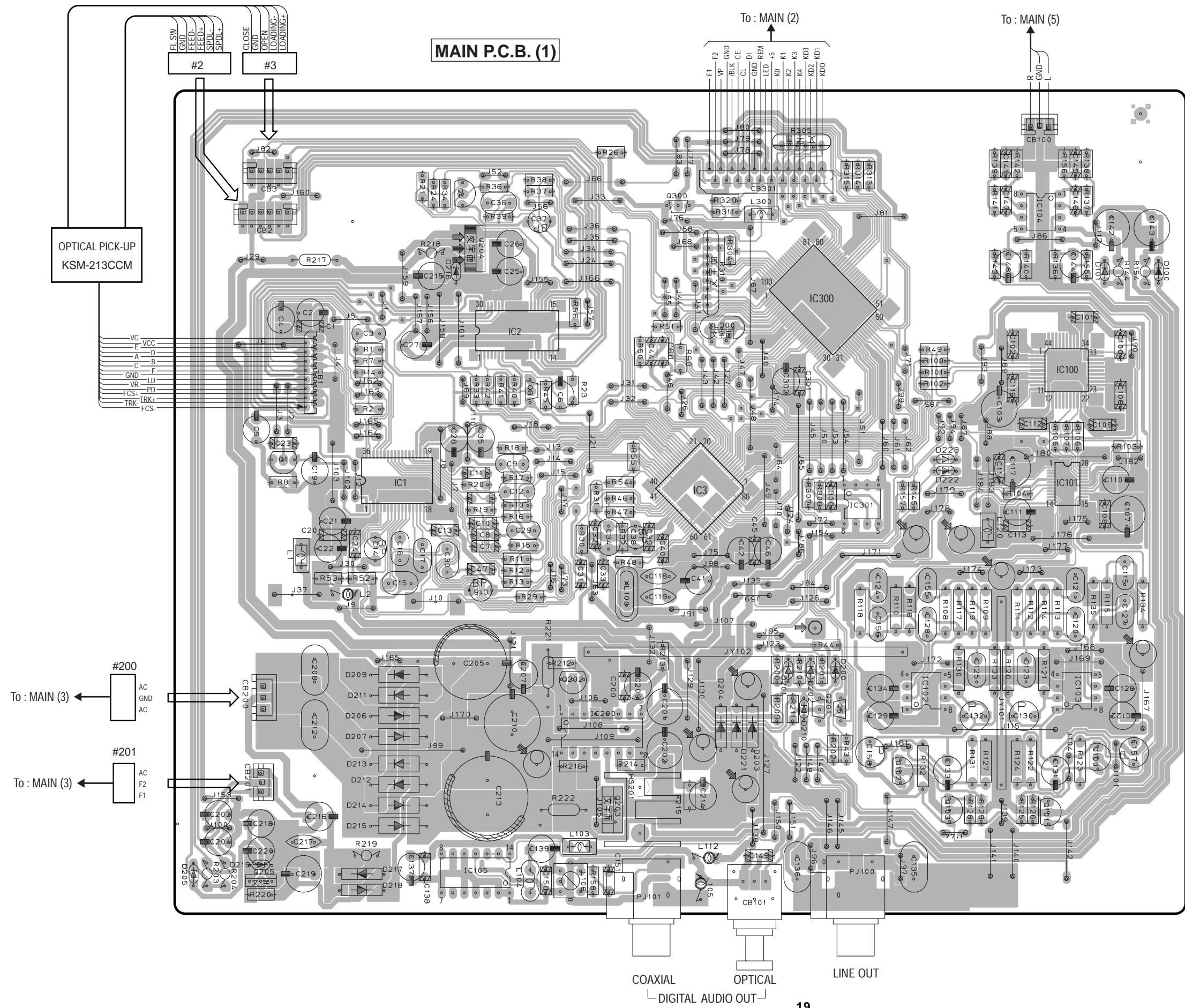
PIN No.	NAME		I / O	FUNCTION
	DEVICE	CIRCUIT		
1	P120/RTP0	OPSW	I	Tray open limit switch
2	P21/RTP1	CLSW	I	Tray close limit switch
3	P122/RTP2			NC
4	P123/RTP3	MUTE	O	Analog mute signal
5	P124/RTP4	/RST	O	Reset signal
6	P125/RTP5	DMUTE	O	Digital mute signal
7	P126/RTP6	/TLOCK	I	Tracking servo signal
8	P127/RTP7	/FLOCK	I	Focus servo signal
9	IC (Vpp)	IC		GND
10	X2	X2		OSC terminal
11	X1	X1		OSC terminal
12	VDD	VDD		+5V
13	XT2	XT2		NC
14	XT1/P07	XT1		+5V
15	RESET	/RESET	I	Reset signal
16	P00/INTP0/TI00	REM	I	Remote control receiver signal
17	P01/INTP1/TI01	BLKCK	I	Subcode block clock
18	P02/INTP2	LED	O	LED control signal
19	P03/INTP3	DOWNSW		NC
20	P04/INTP4	UPSW		NC
21	P05/INTP5	FLSW	I	Feed limit switch
22	P06/INTP6	/CLOCK	I	Clock
23	AVDD	AVDD		+5V
24	AVREF0	AVREF0		GND
25	P10/ANI0			NC
26	P11/ANI1			NC
27	P12/ANI2			NC
28	P13/ANI3			NC
29	P14/ANI4	SDA	I/O	Data for EEPROM
30	P15/ANI5	SCL	O	Clock for EEPROM
31	P16/ANI6			NC
32	P17/ANI7			NC
33	AVSS	AVSS		GND
34	P130/ANO0	OPN/CLS	O	Open/Close signal
35	P131/ANO1	GCTRL	O	Gain control signal
36	AVREF1	VREF2		+5V
37	P70/SI2/RxD	SUBQ	I	Sub-code Q signal
38	P71/SO2/TxD	STAT	I	Status signal
39	P72/SCK/ASCK	SQCK	O	Register clock for sub-code Q
40	VSS	VSS		GND
41	P20/SI1	SUBC	I	Sub-code serial signal
42	P21/SO1			NC
43	P22/SCK1	SBCK2	O	Sub-code clock
44	P23/STB	MLD	O	Load signal for μ -processor
45	P24/BUSY	SENSE	I	Sense signal
46	P25/SI0/SB0	SO		NC
47	P26/SO0/SB1	MDATA	O	Data for μ -processor
48	P27/SCK0	MCLK	O	Clock for μ -processor
49	P80/A0	/CS		NC
50	P81/A1	CE	O	Chip enable signal for LC75711

PIN No.	NAME		I / O	FUNCTION
	DEVICE	CIRCUIT		
51	P82/A2	/BLK	O	Control signal for LC7511
52	P83/A3		O	DAFC RST
53	P84/A4			NC
54	P85/A5	FEED OFF	O	Feed mute signal
55	P86/A6			NC
56	P87/A7			NC
57	P40/AD0			NC
58	P41/AD1			NC
59	P42/AD2			NC
60	P43/AD3			NC
61	P44/AD4			NC
62	P45/AD5			NC
63	P46/AD6			NC
64	P47/AD7			NC
65	P50/A8			NC
66	P51/A9	KD3	O	Key digit signals 0 - 3
67	P52/A10	KD2	O	
68	P53/A11	KD1	O	
69	P54/A12	KD0	O	
70	P55/A13			NC
71	VSS	VSS		GND
72	P56/A14			NC
73	P57/A15			NC
74	P60	K4	I	Key-in return signals 0 - 4
75	P61	K3	I	
76	P62	K2	I	
77	P63	K1	I	
78	P64/RD	K0	I	
79	P65/WR			NC
80	P66/WAIT			NC
81	P67/ASTB			NC
82	P100/TI5/TO5			NC
83	P101/TI6/TO6			NC
84	P102			NC
85	P103			NC
86	P30/TO0			NC
87	P31/TO1			NC
88	P32/TO2			NC
89	P33/TI1			NC
90	P34/TI2			NC
91	P35/PCL			NC
92	P36/BUZ			NC
93	P37	STAN	O	Standby signal
94	P90			(Fixed to H)
95	P91			
96	P92			
97	P93			
98	P94			
99	P95			
100	P96			

BLOCK DIAGRAM



1 ■ PRINTED CIRCUIT BOARD (Foil side)

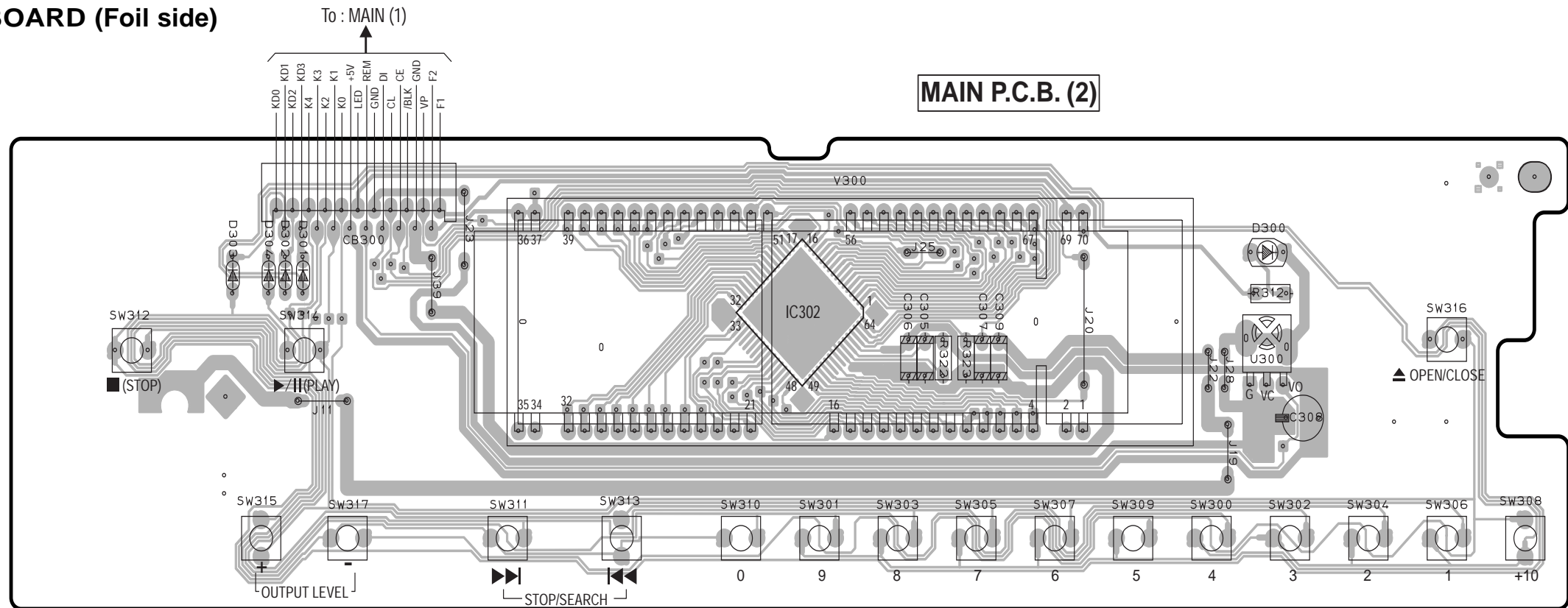


• Semiconductor Location

Ref. No.	Location
D100	I3
D101	H3
D200	G5
D201	F5
D202	F5
D203	F6
D204	F5
D205	C6
D206	D5
D207	D6
D209	D5
D210	F5
D211	D5
D212	D6
D213	D6
D214	D6
D215	D6
D216	D3
D217	D6
D218	D7
D219	C6
D221	F6
D222	G4
D223	G4
Q1	C4
Q3	E3
Q4	D2
Q5	G5
Q100	F6
Q101	H6
Q102	G6
Q103	G6
Q201	F5
Q202	E5
Q203	E6
Q204	D3
Q205	C6
Q300	F2
IC1	D4
IC2	E3
IC3	F4
IC100	H3
IC101	H4
IC102	G5
IC103	H5
IC104	H2
IC105	D6
IC200	E5
IC300	G3
IC301	G4

1
2
3
4
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7

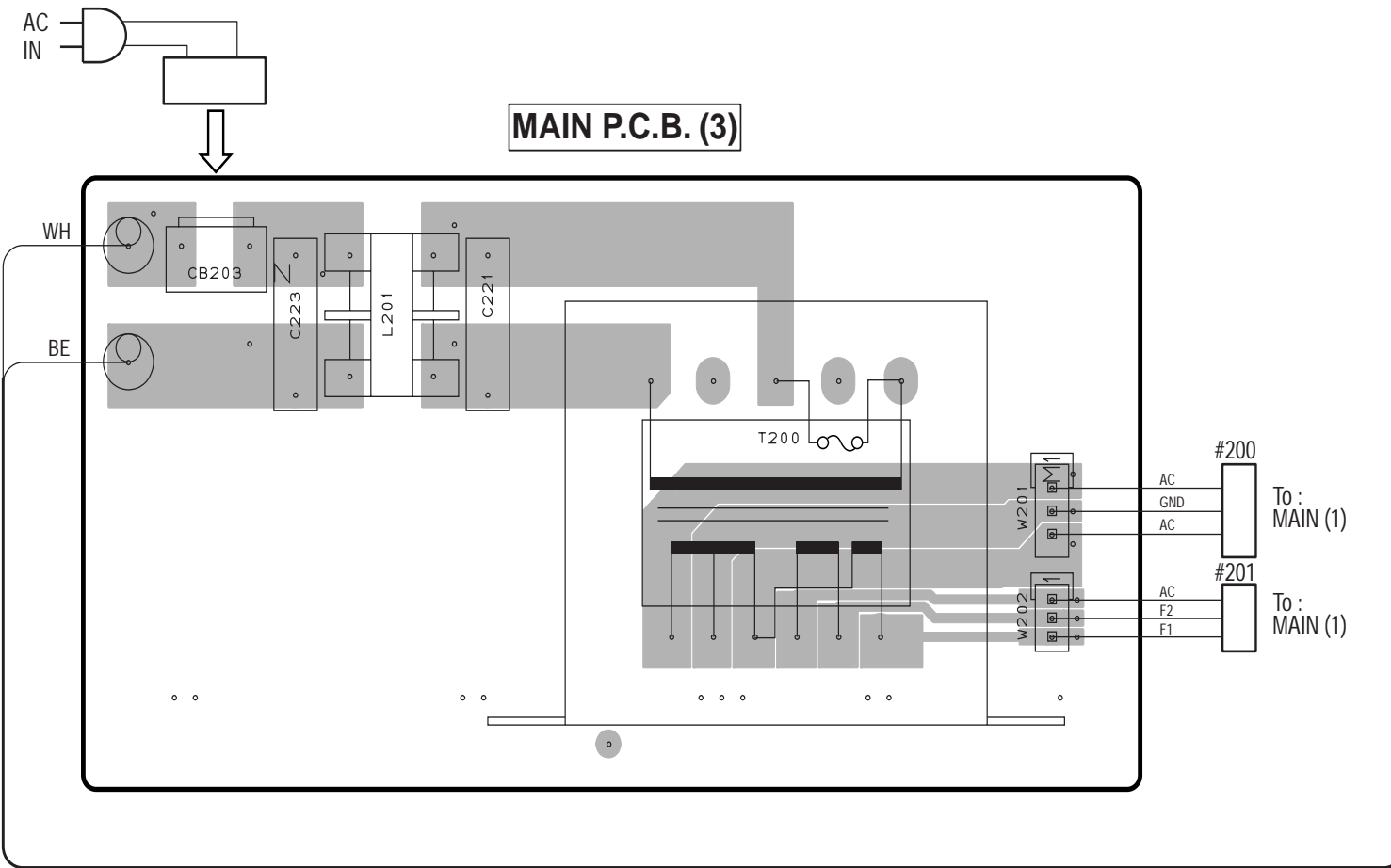
■ PRINTED CIRCUIT BOARD (Foil side)



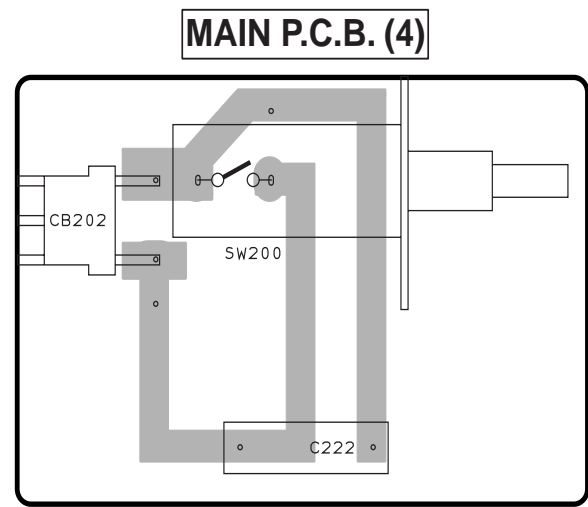
MAIN P.C.B. (2)

• Semiconductor Location

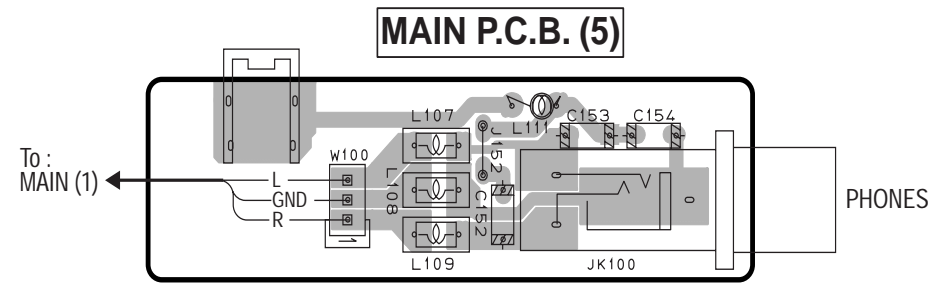
Ref. No.	Location
D300	H2
D301	D2
D302	D2
D303	C2
D304	C2
IC302	F2



MAIN P.C.B. (3)



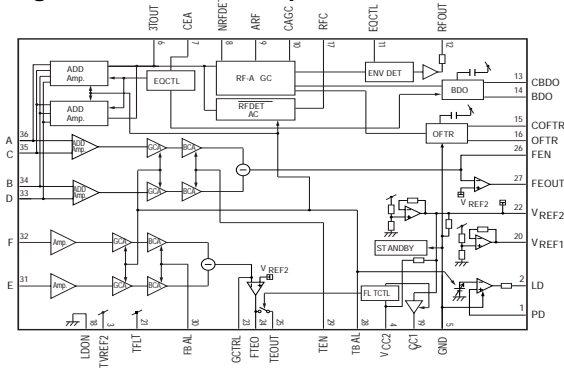
MAIN P.C.B. (4)



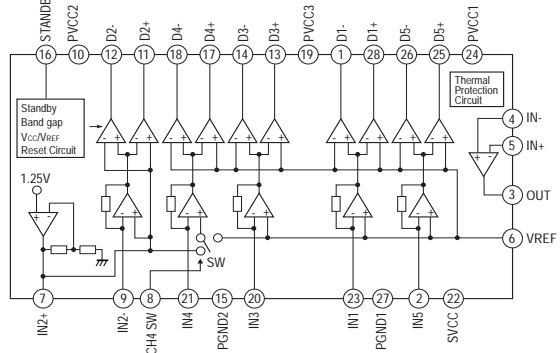
MAIN P.C.B. (5)

IC BLOCK

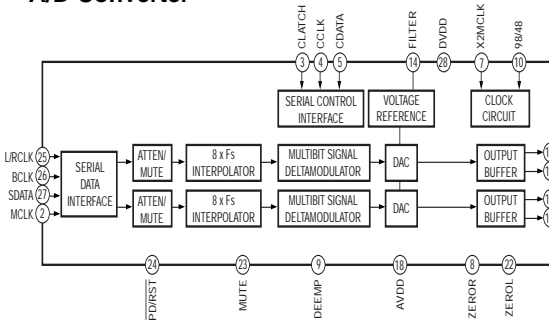
IC1 : AN8882SB
Digital Servo Head Amp



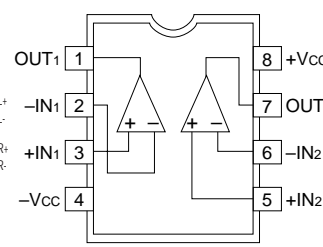
IC2 : AN8785SB
PU Driver



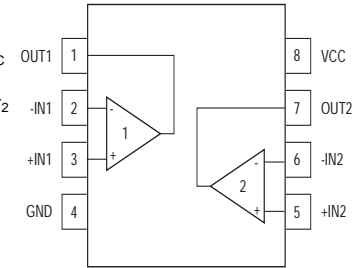
IC101:AD1854JRS
A/D Converter



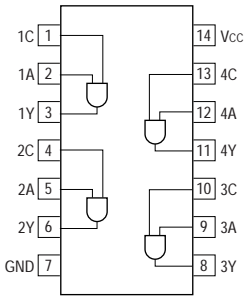
IC102, 103 : NJM5532D
Dual OP-Amp



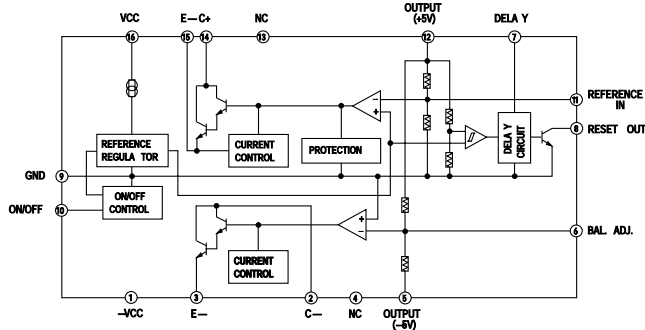
IC104 : BA15218
Dual OP-Amp



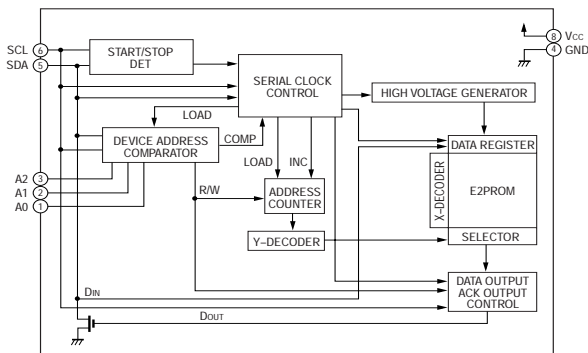
IC105: HD74HC00P
2-Input NAND



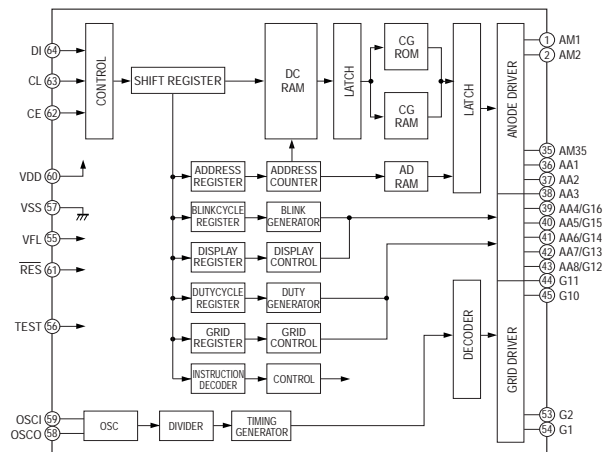
IC200 : M5290P
Constant-Voltage Tracking Supply with Reset



IC301 : S-24001ADP
EEPROM



IC302 : LC75711NE
FL Filter

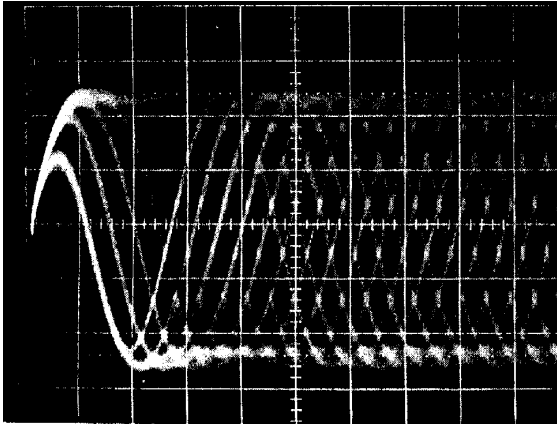


Other ICs

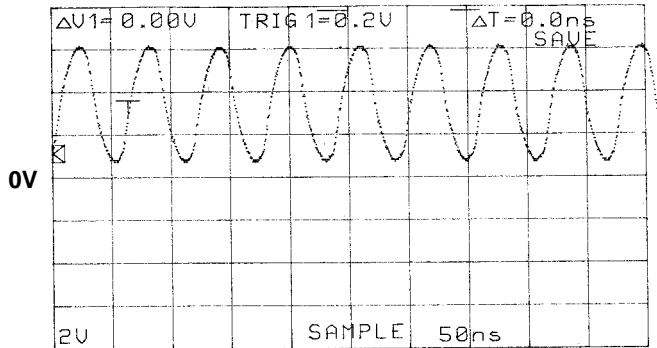
- IC3: See page 13.
- IC100: See page 12.
- IC300: See page 15.

■ WAVEFORMS

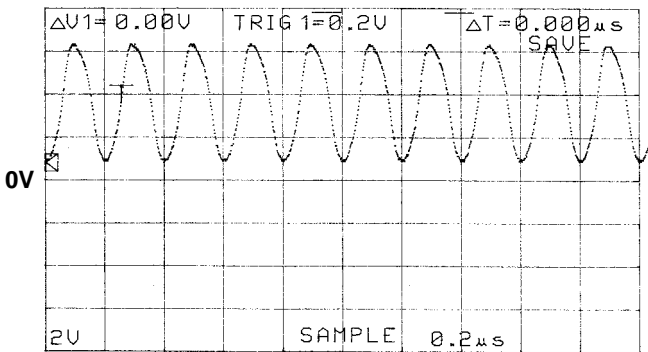
Point A (EFM : Pin10 of IC1)
 V : 0.2V/div H : 0.5 μ sec/div
 AC range 1 : 1 probe



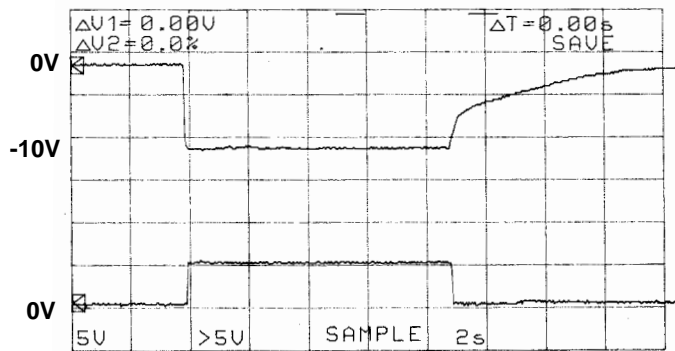
Point B (Pin59 of IC3)
 V : 1V/div H : 50 nsec/div
 DC range 1 : 1 probe



Point C (Pin10 of IC300)
 V : 2V/div H : 0.2 μ sec/div
 DC range 1 : 1 probe



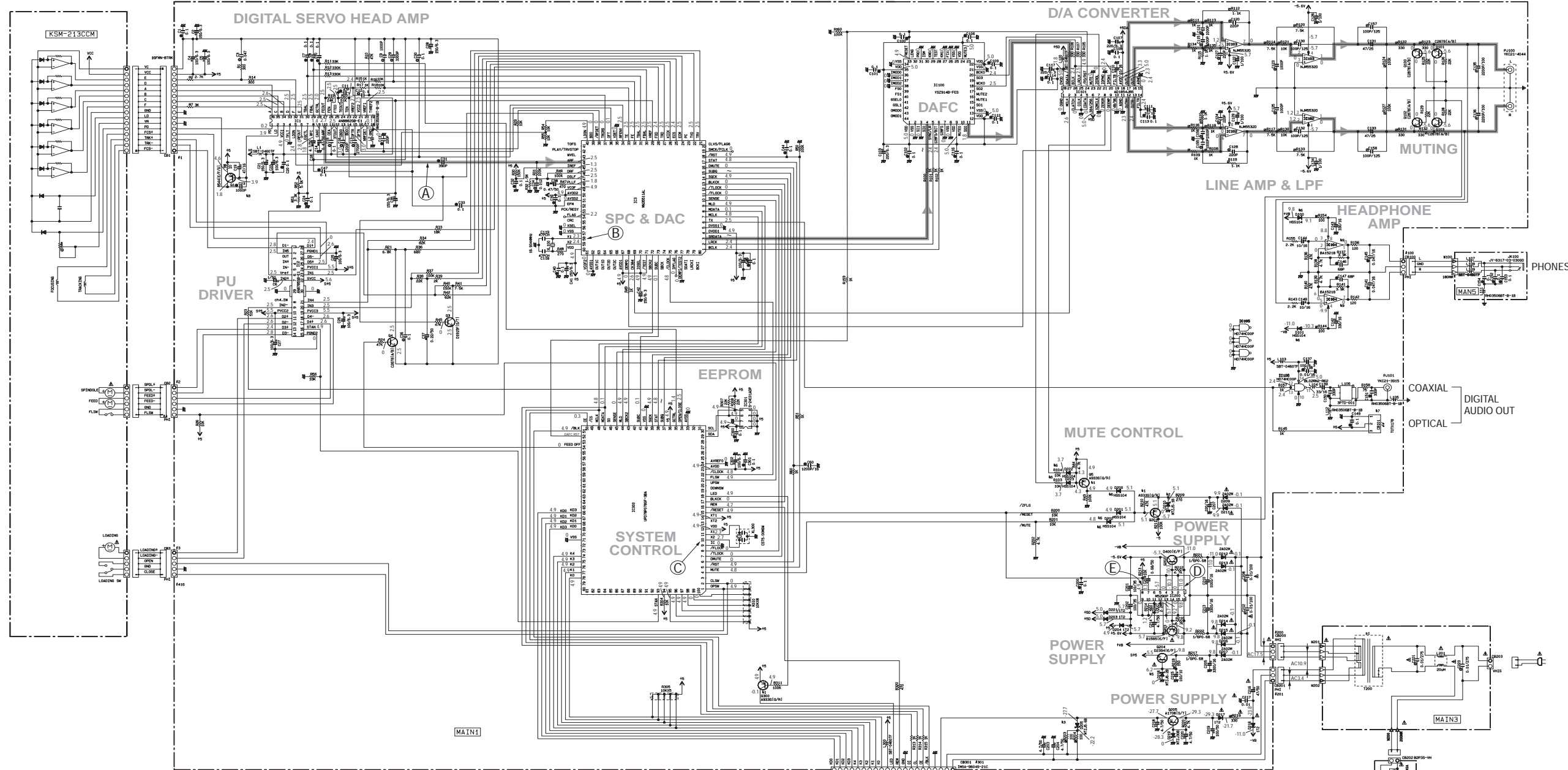
Point D (CH1 : Pin1 of IC200)
Point E (CH2 : Pin8 of IC200)
 V : 5V/div H : 2 sec/div
 DC range1 1 : probe



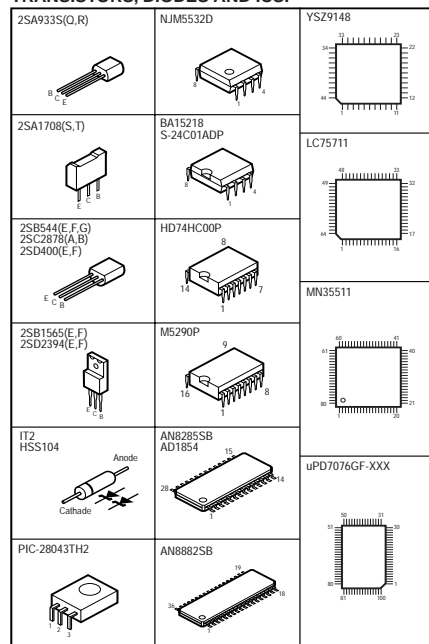
▲ With the POWER switch turned ON, connect the power cord to the AC outlet. ▲ Disconnect the power cord from the AC outlet.

{ This waveform is not available by pushing the power switch ON and OFF. }

SCHEMATIC DIAGRAM



PIN CONNECTION DIAGRAM OF TRANSISTORS, DIODES AND ICs.



CAPACITOR

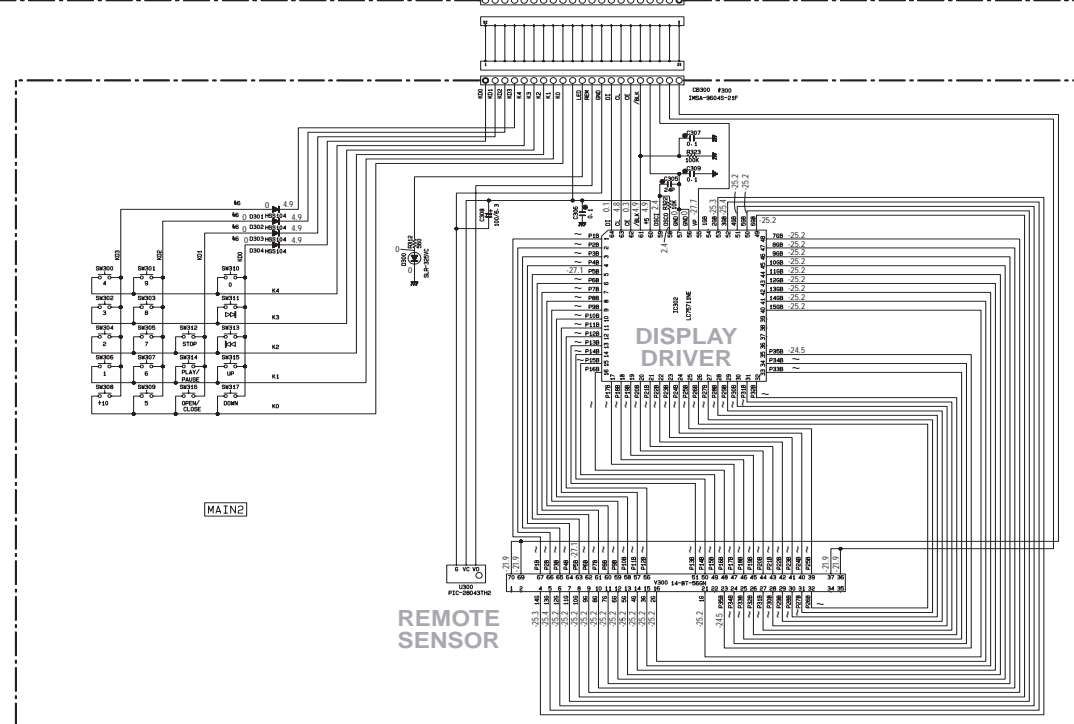
REMARKS	PARTS NAME	UNIT
NO MARK	ELECTROLYTIC CAPACITOR	μF
○	TANTALUM CAPACITOR	μF
NO MARK	CERAMIC CAPACITOR	μF
○	CERAMIC TUNING CAPACITOR	μF
○	POLYESTER FILM CAPACITOR	μF
○	POLYSTYRENE FILM CAPACITOR	μF
○	MYLAR CAPACITOR	μF
○	POLYPROPYLENE FILM CAPACITOR	μF
■	SEMICONDUCTIVE CERAMIC CAPACITOR	μF

RESISTOR

REMARKS	PARTS NAME	UNIT
NO MARK	CARBON FILM RESISTOR (F/P/S)	Ω
○	CARBON FILM RESISTOR (F/P/S)	Ω
△	METAL DIODE FILM RESISTOR	Ω
○	METAL FILM RESISTOR	Ω
○	METAL PLATE RESISTOR	Ω
○	FINE GRID CARBON FILM RESISTOR	Ω
○	CEMENT MOUNTED RESISTOR	Ω
○	SEMI VARIABLE RESISTOR	Ω
■	CHIP RESISTOR	Ω

NOTICE (code 1)

(J)..... JAPANESE
 (U)..... U. S. A.
 (C)..... CANADIAN
 (R)..... GENERAL
 (A)..... AUSTRALIAN
 (B)..... BRITISH
 (G)..... EUROPEAN
 (T)..... TAIWANESE
 (L)..... SINGAPORE



Interchangeable Parts at Manufacture-Stage

Mark	Reference Parts Number	Parts Name
41	05-201-300	2SA933S(G/R) 2SA1115(E/F) 2SA1309A(G/R/S)
42	D210	MT2J5-18 HZ50C1
43	D205	MT2J5-6B HZ58A3
44		
45	D216	MT2J6-2B HZ52C2
46	D100-101-200-202-222-223-230-304	HS304 ISS133 ISS136 T0147B GP1735 T0147BA
47	CB104	2SB644(E/F/G) 2SA934(F/G/R)
48	Q1	2SB644(E/F/G) 2SA934(F/G/R)
49	IC104	BA15018 H5218AP
410		

5	J	A	B-G
1	T200	XY0B2	XY0B3 XY0B4
2			
3			
4			
5			
6			
7			
8			

* All voltages are measured with a 10M/DC electric volt meter.
 * Components having special characteristics are marked Δ and must be replaced with parts having specifications equal to those originally installed.
 * Schematic diagram is subject to change without notice.

PARTS LIST

■ ELECTRICAL PARTS

■ WARNING

Components having special characteristics are marked Δ and must be replaced with parts having specifications equal to those originally installed.

- Carbon resistors (1/6W or 1/4W) are not included in the ELECTRICAL PARTS List. For the part Nos. of the carbon resistors, refer to the last page.

ABBREVIATIONS IN THIS LIST ARE AS FOLLOWS :

C.A.EL.CHP	: CHIP ALUMI. ELECTROLYTIC CAP	L.EMIT	: LIGHT EMITTING MODULE
C.CE	: CERAMIC CAP	LED.DSPLY	: LED DISPLAY
C.CE.ARRAY	: CERAMIC CAP ARRAY	LED.INFRD	: LED, INFRARED
C.CE.CHP	: CHIP CERAMIC CAP	MODUL.RF	: MODULATOR, RF
C.CE.ML	: MULTILAYER CERAMIC CAP	PHOT.CPL	: PHOTO COUPLER
C.CE.M.CHP	: CHIP MULTILAYER CERAMIC CAP	PHOT.INTR	: PHOTO INTERRUPTER
C.CE.SAFTY	: RECOGNIZED CERAMIC CAP	PHOT.RFLCT	: PHOTO REFLECTOR
C.CE.TUBLR	: CERAMIC TUBULAR CAP	PIN.TEST	: PIN, TEST POINT
C.CE.SMI	: SEMI CONDUCTIVE CERAMIC CAP	PLST.RIVET	: PLASTIC RIVET
C.EL	: ELECTROLYTIC CAP	R.ARRAY	: RESISTOR ARRAY
C.MICA	: MICA CAP	R.CAR	: CARBON RESISTOR
C.ML.FLM	: MULTILAYER FILM CAP	R.CAR.CHP	: CHIP RESISTOR
C.MP	: METALLIZED PAPER CAP	R.CAR.FP	: FLAME PROOF CARBON RESISTOR
C.MYLAR	: MYLAR FILM CAP	R.FUS	: FUSABLE RESISTOR
C.MYLAR.ML	: MULTILAYER MYLAR FILM CAP	R.MTL.CHP	: CHIP METAL FILM RESISTOR
C.PAPER	: PAPER CAPACITOR	R.MTL.FLM	: METAL FILM RESISTOR
C.PLS	: POLYSTYRENE FILM CAP	R.MTL.OXD	: METAL OXIDE FILM RESISTOR
C.POL	: POLYESTER FILM CAP	R.MTL.PLAT	: METAL PLATE RESISTOR
C.POLY	: POLYETHYLENE FILM CAP	RSNR.CE	: CERAMIC RESONATOR
C.PP	: POLYPROPYLENE FILM CAP	RSNR.CRYS	: CRYSTAL RESONATOR
C.TNTL	: TANTALUM CAP	R.TW.CEM	: TWIN CEMENT FIXED RESISTOR
C.TNTL.CHP	: CHIP TANTALUM CAP	R.WW	: WIRE WOUND RESISTOR
C.TRIM	: TRIMMER CAP	SCR.BND.HD	: BIND HEAD B-TITE SCREW
CN	: CONNECTOR	SCR.BW.HD	: BW HEAD TAPPING SCREW
CN.BS.PIN	: CONNECTOR, BASE PIN	SCR.CUP	: CUP TITE SCREW
CN.CANNON	: CONNECTOR, CANNON	SCR.TERM	: SCREW TERMINAL
CN.DIN	: CONNECTOR, DIN	SCR.TR	: SCREW, TRANSISTOR
CN.FLAT	: CONNECTOR, FLAT CABLE	SUPRT.PCB	: SUPPORT, P.C.B.
CN.POST	: CONNECTOR, BASE POST	SURG.PRTCT	: SURGE PROTECTOR
COIL.MX.AM	: COIL, AM MIX	SW.TACT	: TACT SWITCH
COIL.AT.FM	: COIL, FM ANTENNA	SW.LEAF	: LEAF SWITCH
COIL.DT.FM	: COIL, FM DETECT	SW.LEVER	: LEVER SWITCH
COIL.MX.FM	: COIL, FM MIX	SW.MICRO	: MICRO SWITCH
COIL.OUTPT	: OUTPUT COIL	SW.PUSH	: PUSH SWITCH
DIOD.ARRAY	: DIODE ARRAY	SW.RT.ENC	: ROTARY ENCODER
DIODE.BRG	: DIODE BRIDGE	SW.RT.MTR	: ROTARY SWITCH WITH MOTOR
DIODE.CHP	: CHIP DIODE	SW.RT	: ROTARY SWITCH
DIODE.VAR	: VARACTOR DIODE	SW.SLIDE	: SLIDE SWITCH
DIOD.Z.CHP	: CHIP ZENER DIODE	TERM.SP	: SPEAKER TERMINAL
DIODE.ZENR	: ZENER DIODE	TERM.WRAP	: WRAPPING TERMINAL
DSCR.CE	: CERAMIC DISCRIMINATOR	THRMST.CHP	: CHIP THERMISTOR
FER.BEAD	: FERRITE BEADS	TR.CHP	: CHIP TRANSISTOR
FER.CORE	: FERRITE CORE	TR.DGT	: DIGITAL TRANSISTOR
FET.CHP	: CHIP FET	TR.DGT.CHP	: CHIP DIGITAL TRANSISTOR
FL.DSPLY	: FLUORESCENT DISPLAY	TRANS	: TRANSFORMER
FLTR.CE	: CERAMIC FILTER	TRANS.PULS	: PULSE TRANSFORMER
FLTR.COMB	: COMB FILTER MODULE	TRANS.PWR	: POWER TRANSFORMER ASS'y
FLTR.LC.RF	: LC FILTER ,EMI	TUNER.AM	: TUNER PACK, AM
GND.MTL	: GROUND PLATE	TUNER.FM	: TUNER PACK, FM
GND.TERM	: GROUND TERMINAL	TUNER.PK	: FRONT-END TUNER PACK
HOLDER.FUS	: FUSE HOLDER	VR	: ROTARY POTENTIOMETER
IC.PRTCT	: IC PROTECTOR	VR.MTR	: POTENTIOMETER WITH MOTOR
JUMPER.CN	: JUMPER CONNECTOR	VR.SW	: POTENTIOMETER WITH ROTARY SW
JUMPER.TST	: JUMPER, TEST POINT	VR.SLIDE	: SLIDE POTENTIOMETER
L.DTCT	: LIGHT DETECTING MODULE	VR.TRIM	: TRIMMER POTENTIOMETER

Note) Those parts marked with “#” are not included in the P.C.B. ass'y.

Schm			
Ref.	PART NO.	Description	
*	V5004600	P.C.B.	MAIN(A)
*	V5004700	P.C.B.	MAIN(BG)
	CB1	V2731000	CN.FMN 16P
	CB2	VB390200	CN.BS.PIN 6P
	CB3	VB390100	CN.BS.PIN 5P
	CB100	VB389900	CN.BS.PIN 3P
	CB101	VT707200	L.EMIT TOTX178
△	CB200	VL844700	CN.BS.PIN 3P
	CB201	VB389900	CN.BS.PIN 3P
△	CB202	VP245600	CN 2P
△	CB203	VG879900	CN.BS.PIN 2P
*	CB300	VU282100	CN 21P
*	CB301	VU272100	CN 21P
	C1	VJ599100	C.CE.TUBLR 0.1uF 50V
*	C2	V4749000	C.EL 150uF 6.3V
	C3	UA954470	C.MYLAR 0.047uF 50V
	C4	UR818100	C.EL 100uF 6.3V
	C5	UR818100	C.EL 100uF 6.3V
	C6	UR866100	C.EL 1uF 50V
	C7	VJ599100	C.CE.TUBLR 0.1uF 50V
	C8	VJ599100	C.CE.TUBLR 0.1uF 50V
	C9	UA953100	C.MYLAR 1000pF 50V
	C10	VJ599100	C.CE.TUBLR 0.1uF 50V
	C11	VF466700	C.CE.TUBLR 47pF 50V
	C12	UA655100	C.MYLAR 0.1uF 50V
	C13	VG278400	C.CE.TUBLR 220pF 50V
	C14	UN865470	C.EL 0.47uF 50V
	C15	UA655100	C.MYLAR 0.1uF 50V
	C16	UA953120	C.MYLAR 1200pF 50V
	C17	UA953270	C.MYLAR 2700pF 50V
	C18	UN866470	C.EL 4.7uF 50V
	C19	UR837470	C.EL 47uF 16V
	C20	VJ599100	C.CE.TUBLR 0.1uF 50V
*	C21	V4749000	C.EL 150uF 6.3V
	C22	UR818100	C.EL 100uF 6.3V
	C23	VF467000	C.CE.TUBLR 1000pF 50V
	C24	VJ599100	C.CE.TUBLR 0.1uF 50V
	C25	UR818100	C.EL 100uF 6.3V
	C26	UR818100	C.EL 100uF 6.3V
	C27	UR818100	C.EL 100uF 6.3V
*	C28	V4749000	C.EL 150uF 6.3V
	C29	UA953330	C.MYLAR 3300pF 50V
	C30	UA655100	C.MYLAR 0.1uF 50V
	C31	VG278700	C.CE.TUBLR 390pF 50V
	C32	VJ599100	C.CE.TUBLR 0.1uF 50V
	C33	VJ599100	C.CE.TUBLR 0.1uF 50V
	C34	UA954120	C.MYLAR 0.012uF 50V
*	C35	V4749000	C.EL 150uF 6.3V
	C36	UA655100	C.MYLAR 0.1uF 50V
*	C37	UN865220	C.EL 0.22uF 50V
	C38	UA655100	C.MYLAR 0.1uF 50V
	C39	VJ599100	C.CE.TUBLR 0.1uF 50V
	C40	VJ599100	C.CE.TUBLR 0.1uF 50V

* New Parts

Schm				
Ref.	PART NO.	Description		
*	C41	V4749000	C.EL	150uF 6.3V
*	C42	V4749000	C.EL	150uF 6.3V
	C44	VJ599100	C.CE.TUBLR	0.1uF 50V
	C45	VJ599100	C.CE.TUBLR	0.1uF 50V
	C46	UR818100	C.EL	100uF 6.3V
	C47	VJ599100	C.CE.TUBLR	0.1uF 50V
	C60	VG279100	C.CE.TUBLR	1200pF 16V
	C100	VJ599100	C.CE.TUBLR	0.1uF 50V
	C101	VJ599100	C.CE.TUBLR	0.1uF 50V
	C102	VJ599100	C.CE.TUBLR	0.1uF 50V
*	C103	VH619100	C.EL	220uF 6.3V
	C106	VJ599100	C.CE.TUBLR	0.1uF 50V
*	C107	VH619100	C.EL	220uF 6.3V
	C108	VJ599100	C.CE.TUBLR	0.1uF 50V
	C109	VJ599100	C.CE.TUBLR	0.1uF 50V
	C110	VG287200	C.EL	10uF 50V
	C111	VG287200	C.EL	10uF 50V
	C112	VJ599100	C.CE.TUBLR	0.1uF 50V
	C113	VJ599100	C.CE.TUBLR	0.1uF 50V
	C114	VJ599100	C.CE.TUBLR	0.1uF 50V
*	C115	Vi715500	C.MYLAR	1000pF 50V
	C116	VJ599100	C.CE.TUBLR	0.1uF 50V
*	C117	VE016600	C.EL	220uF 6.3V
	C118	VA761400	C.CE	47pF 50V
	C119	VA761400	C.CE	47pF 50V
*	C120	VQ462600	C.MYLAR	220pF 50V
*	C121	Vi715500	C.MYLAR	1000pF 50V
	C122	VQ572600	C.EL	1uF 100V
*	C123	V2508400	C.MYLAR	1000pF 50V
*	C124	VQ462600	C.MYLAR	220pF 50V
*	C125	V2508400	C.MYLAR	1000pF 50V
	C126	VQ572600	C.EL	1uF 100V
*	C127	VQ462600	C.MYLAR	220pF 50V
*	C128	VQ462600	C.MYLAR	220pF 50V
	C129	VQ572600	C.EL	1uF 100V
*	C130	UT552100	C.PP	100pF 125V
*	C131	VQ562000	C.EL	47uF 25V
*	C132	UT552100	C.PP	100pF 125V
*	C133	VQ562000	C.EL	47uF 25V
	C134	VQ572600	C.EL	1uF 100V
	C135	VL883800	C.PP	2200pF 100V
	C136	VL883800	C.PP	2200pF 100V
	C137	UR818100	C.EL	100uF 6.3V
	C138	VF467300	C.CE.TUBLR	0.01uF 16V
	C139	UR837330	C.EL	33uF 16V
	C141	VJ599000	C.CE.TUBLR	0.047uF 16V
	C142	UR838330	C.EL	330uF 16V
	C143	UR838330	C.EL	330uF 16V
	C144	UR837100	C.EL	10uF 16V
	C145	VJ599000	C.CE.TUBLR	0.047uF 16V
	C146	VG277700	C.CE.TUBLR	68pF 50V
	C147	VG277700	C.CE.TUBLR	68pF 50V
	C148	UR837100	C.EL	10uF 16V

* New Parts

CDX-596

Schm			
Ref.	PART NO.	Description	
C149	VJ599100	C.CE.TUBLR	0.1uF 50V
C150	VG278600	C.CE.TUBLR	330pF 50V
C151	VG278600	C.CE.TUBLR	330pF 50V
C152	VJ599100	C.CE.TUBLR	0.1uF 50V
C153	VJ599100	C.CE.TUBLR	0.1uF 50V
C154	VJ599100	C.CE.TUBLR	0.1uF 50V
* C155	Vi715500	C.MYLAR	1000pF 50V
* C156	Vi715500	C.MYLAR	1000pF 50V
* C157	UT552100	C.PP	100pF 125V
* C158	UT552100	C.PP	100pF 125V
C200	VJ599100	C.CE.TUBLR	0.1uF 50V
* C201	VN011900	C.EL	100uF 35V
* C202	VN011900	C.EL	100uF 35V
C203	UR866470	C.EL	4.7uF 50V
C204	UR866470	C.EL	4.7uF 50V
* C205	VG288200	C.EL	3300uF 16V
C207	UR838220	C.EL	220uF 16V
C208	VK534100	C.PP	0.01uF 100V
△ C209	UR865680	C.EL	0.68uF 50V
* C210	VN137400	C.EL	1000uF 16V
△ C212	VK534100	C.PP	0.01uF 100V
* C213	V5421400	C.EL	3300uF 25V
C214	UR866470	C.EL	4.7uF 50V
C215	UR828100	C.EL	100uF 10V
△ C216	UR867470	C.EL	47uF 50V
△ C217	FG644100	C.CE	0.01uF 50V
C218	UR866470	C.EL	4.7uF 50V
C219	UR868100	C.EL	100uF 50V
C220	UR866470	C.EL	4.7uF 50V
△ C221	VS741700	C.CE.SAFTY	0.01uF 275V
△ C222	VS741700	C.CE.SAFTY	0.01uF 275V
△ C223	VS741700	C.CE.SAFTY	0.01uF 275V
C300	VJ599100	C.CE.TUBLR	0.1uF 50V
C301	VJ599100	C.CE.TUBLR	0.1uF 50V
C302	UR818100	C.EL	100uF 6.3V
C305	VG276700	C.CE.TUBLR	24pF 50V
C306	VJ599100	C.CE.TUBLR	0.1uF 50V
C307	VJ599100	C.CE.TUBLR	0.1uF 50V
C308	UM388100	C.EL	100uF 10V
C309	VJ599100	C.CE.TUBLR	0.1uF 50V
D100	VD631600	DIODE	1SS133,176,HSS104
D101	VD631600	DIODE	1SS133,176,HSS104
D200	VD631600	DIODE	1SS133,176,HSS104
D201	VD631600	DIODE	1SS133,176,HSS104
D202	VD631600	DIODE	1SS133,176,HSS104
D203	VS997800	DIODE	1T2
D204	VS997800	DIODE	1T2
D205	VG437700	DIODE.ZENR	MTZJ5.6B 5.6V
D206	VV731400	DIODE	2A02M
D207	VV731400	DIODE	2A02M
△ D209	VV731400	DIODE	2A02M
D210	VG437400	DIODE.ZENR	MTZJ5.1B 5.1V
△ D211	VV731400	DIODE	2A02M

* New Parts

Schm			
Ref.	PART NO.	Description	
D212	VV731400	DIODE	2A02M
D213	VV731400	DIODE	2A02M
△ D214	VV731400	DIODE	2A02M
△ D215	VV731400	DIODE	2A02M
D216	VG438000	DIODE.ZENR	MTZJ6.2B 6.2V
△ D217	VS997800	DIODE	1T2
△ D218	VS997800	DIODE	1T2
D219	VG443300	DIODE.ZENR	MTZJ30B 30V
D221	VS997800	DIODE	1T2
D222	VD631600	DIODE	1SS133,176,HSS104
D223	VD631600	DIODE	1SS133,176,HSS104
D300	VS132300	LED(re)	SLR-325VCT31
D301	VD631600	DIODE	1SS133,176,HSS104
D302	VD631600	DIODE	1SS133,176,HSS104
D303	VD631600	DIODE	1SS133,176,HSS104
D304	VD631600	DIODE	1SS133,176,HSS104
HS201	VR506800	HEAT.SINK	PUH16-25
HS202	Vi835500	HEAT.SINK	PH-0124S-B
* IC1	XW249A00	IC	AN8882SB
* IC2	XW244A00	IC	AN8785SB
* IC3	XW915A00	IC	MN35511AL
* IC100	XY080A00	IC	YSZ914B-F
* IC101	XY108A00	IC	AD1854JRS
IC102	iG142800	IC	NJM5532D
IC103	iG142800	IC	NJM5532D
IC104	Xi249A00	IC	BA15218
IC105	iR000010	IC	HD74HC00P 2INN AND
IC200	XD201A00	IC	M5290P
* IC300	XW823A00	IC.CPU	uPD78076GF-088 CPU
IC301	XS070A00	IC	S-24C01ADP EEPROM
IC302	XV633A00	IC	LC75711NE FLD
JK100	V2700900	JACK.PHONE	JY-6317-03-030GD
L1	VD473700	COIL	60uH
L2	V4769500	FER.BEAD	RH03506BT-B-1B
L103	VD473700	COIL	60uH
L104	VB871100	FER.BEAD	BL02RN2-R62
L105	V4769500	FER.BEAD	RH03506BT-B-1B
L106	Vi530800	TRANS.PULS	3PTD-001
L107	VD473700	COIL	60uH
L108	VD473700	COIL	60uH
L109	VD473700	COIL	60uH
L110	Vi491100	FER.CORE	BP53RB19012080M
L111	V4769500	FER.BEAD	RH03506BT-B-1B
L112	V4769500	FER.BEAD	RH03506BT-B-1B
L120	VD473700	COIL	60uH
△ L201	VV900900	FLTR	3071-012-0
L300	VD473700	COIL	60uH
* PJ100	V4925200	JACK.PIN	2P
PJ101	V2283400	JACK.PIN	1P
Q1	iB054430	TR	2SB544 D,E,F,G
Q3	VK432900	TR	2SD1915F S,T
Q4	iC287820	TR	2SC2878 A,B
Q5	iA093320	TR	2SA933S Q,R

* New Parts

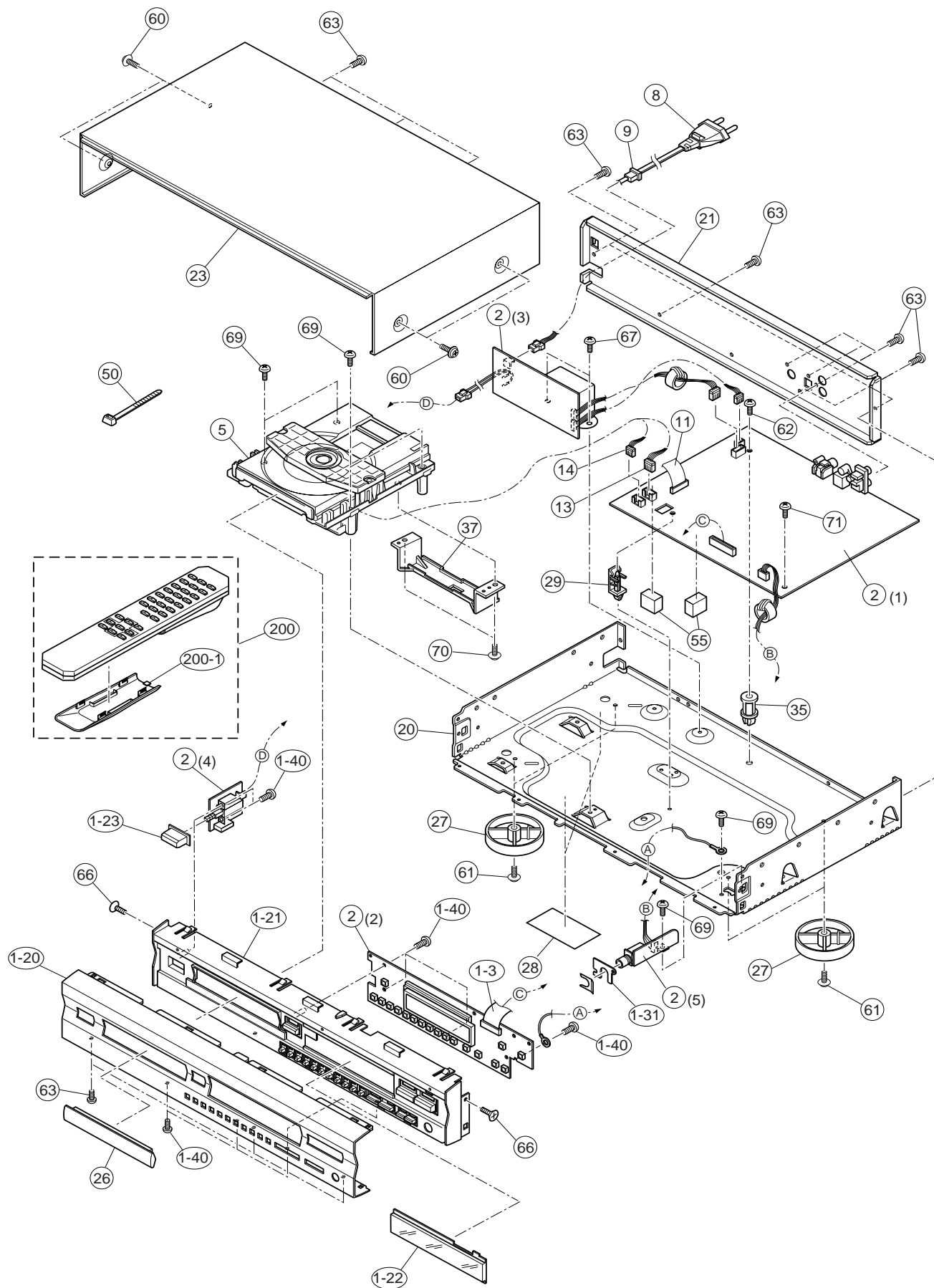
Schm Ref.	PART NO.	Description
Q100	iC287820	TR 2SC2878 A,B
Q101	iC287820	TR 2SC2878 A,B
Q102	iC287820	TR 2SC2878 A,B
Q103	iC287820	TR 2SC2878 A,B
Q201	iA093320	TR 2SA933S Q,R
Q202	iD040040	TR 2SD400
△ Q203	VS883300	TR 2SB1565 E,F
△ Q204	VS883400	TR 2SD2394 E,F
Q205	VP872600	TR 2SA1708 S,T
Q300	iA093320	TR 2SA933S Q,R
R144	HV755100	R.CAR.FP 100 1/4W
R154	HV755100	R.CAR.FP 100 1/4W
R203	HV755100	R.CAR.FP 100 1/4W
R204	HV755100	R.CAR.FP 100 1/4W
R217	Vi868300	R.FUS 0.68 1/6W
R218	HV755150	R.CAR.FP 150 1/4W
△ R219	HV755330	R.CAR.FP 330 1/4W
R221	Vi868300	R.FUS 0.68 1/6W
R222	Vi868300	R.FUS 0.68 1/6W
* R305	VK860600	R.ARRAY RGLE5X103J
R310	VF771900	R.ARRAY RGLE8X103J
△ SW200	VZ364100	SW.PUSH SDDL1-A2-F-1
SW300	VG392900	SW.TACT SKHVAA
SW301	VG392900	SW.TACT SKHVAA
SW302	VG392900	SW.TACT SKHVAA
SW303	VG392900	SW.TACT SKHVAA
SW304	VG392900	SW.TACT SKHVAA
SW305	VG392900	SW.TACT SKHVAA
SW306	VG392900	SW.TACT SKHVAA
SW307	VG392900	SW.TACT SKHVAA
SW308	VG392900	SW.TACT SKHVAA
SW309	VG392900	SW.TACT SKHVAA
SW310	VG392900	SW.TACT SKHVAA
SW311	VG392900	SW.TACT SKHVAA
SW312	VG392900	SW.TACT SKHVAA
SW313	VG392900	SW.TACT SKHVAA
SW314	VG392900	SW.TACT SKHVAA
SW315	VG392900	SW.TACT SKHVAA
SW316	VG392900	SW.TACT SKHVAA
SW317	VG392900	SW.TACT SKHVAA
△ * T200	XY083A00	TRANS.PWR (A)
△ * T200	XY084A00	TRANS.PWR (BG)
U300	V2856200	L.DTCT PIC-28043TH2
V300	V3618100	FL.DSPLY 14-BT-56GN
XL100	VJ719800	RSNR.CRYS 16.9344MHz
XL300	VU763600	RSNR.CE 5MHz
	VB966900	CN IMSA-6024
	VQ948800	SHEET.FL GD
	V3747500	SUPRT
	VN008600	SCR.TERM 8.3x13
	V3747400	SPACER.FL T4x6x18
	EG330030	SCR.BND.HD 3x6 FCRM3-BL

* New Parts

Schm Ref.	PART NO.	Description
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* New Parts

EXPLODED VIEW



MECHANICAL PARTS

Ref. No.	PART NO.	Description	Remarks	Markets
1-3	MF121160	FLEXIBLE FLAT CABLE	21P 160mm	
* 1-20	V4210800	FRONT PANEL		BL
* 1-20	V4210900	FRONT PANEL		TI
* 1-20	V4411100	FRONT PANEL		GD
* 1-21	V4211000	PANEL, SUB		BL
* 1-21	V4211100	PANEL, SUB		TI
* 1-21	V4413900	PANEL, SUB		GD
* 1-22	V4210600	WINDOW PANEL, LID		
1-23	V0068200	BUTTON		GD
1-23	VZ494400	BUTTON	11x22	BL
1-23	VZ494500	BUTTON	11x22	TI
1-31	V2668300	SUPPORT, HP		
1-40	EP630290	BIND HEAD P-TITE SCREW	3x6 FCRM3-BL	
* 2	V5004600	P.C.B. ASS'Y	MAIN	(A)
* 2	V5004700	P.C.B. ASS'Y	MAIN	(BG)
5	VZ573200	CD MECHANISM UNIT	KSL-2130CCM	
△ 8	V2296800	POWER CORD ASS'Y		(A)
△ 8	VN363700	POWER CORD ASS'Y		(G)
△ 8	VV437300	POWER CORD ASS'Y		(B)
9	V2438700	CORD STOPPER	#10P1	
11	V5343800	CONNECTOR, FLAT CABLE	16P 260mm	
13	MF706100	CONNECTOR ASS'Y	6P 100mm	
14	MF705100	CONNECTOR ASS'Y	5P 100mm	
20	VZ151800	CHASSIS, MAIN	ALL	
* 21	V4410900	REAR PANEL		(BG)
* 21	V4629800	REAR PANEL		(A)
23	V3081200	TOP COVER		GD
23	VZ151900	TOP COVER		BL
23	VZ152000	TOP COVER		TI
* 26	V4200800	LID, CDX		BL
* 26	V4200900	LID, CDX		TI
* 26	V4411200	LID, CDX		GD
27	V0049900	LEG	D60xH16	GD
27	VQ780300	LEG	D60xH16	BL, TI
28	VS037900	SHEET, TRAY	B	
29	V3205000	CARD EDGE SPACER	KGES-18	
35	VU981200	SUPPORT, P.C.B.No. 3596		
37	VZ262200	SUPPORT	PU	
50	VU590000	BINDING TIE	CBTD001B	
55	V2113100	SPACER		
60	21991500	PW HEAD S-TITE SCREW	4x8-10 FCRM3-BL	BL
60	VD069600	PW HEAD S-TITE SCREW	4x8-10 MFNI-33	GD
60	VH313200	BW HEAD S-TITE SCREW	4x8-10 FNM3-BL	TI
61	EP600250	BIND HEAD B-TITE SCREW	3x8 ZMC2-Y	
62	EP630640	BIND HEAD P-TITE SCREW	3x20 FCRM3-BL	
63	VN413300	BIND HEAD BONDING B-T.SCREW	3x8 MFZN2-BL	
66	EP630400	FLAT HEAD B-TITE SCREW	3x6 FCRM3-BL	
67	V2728500	BIND HEAD S-TITE SCREW	4x7 MFZN2-BL	
69	EP600830	BIND HEAD B-TITE SCREW	3x8 FCRM3-BL	
70	V2128100	PW HEAD S-TITE SCREW	3x12-8 MFZN2-Y	
71	VT669300	PW HEAD B-TITE SCREW	3x8-8 MFC2	
		ACCESSORIES		
* 200	V4926000	REMOTE CONTROL TRANSMITTER	CDX4	
200-1	AA13340	LID	BLJYE 60050001	
	VS381600	PIN-PLUG CORD	2P 1.0m	
		BATTERY, MANGANESE	SUM-3, AA, R06	

* New Parts

1

■ EXPLODED VIEW (CD Mechanism Unit)

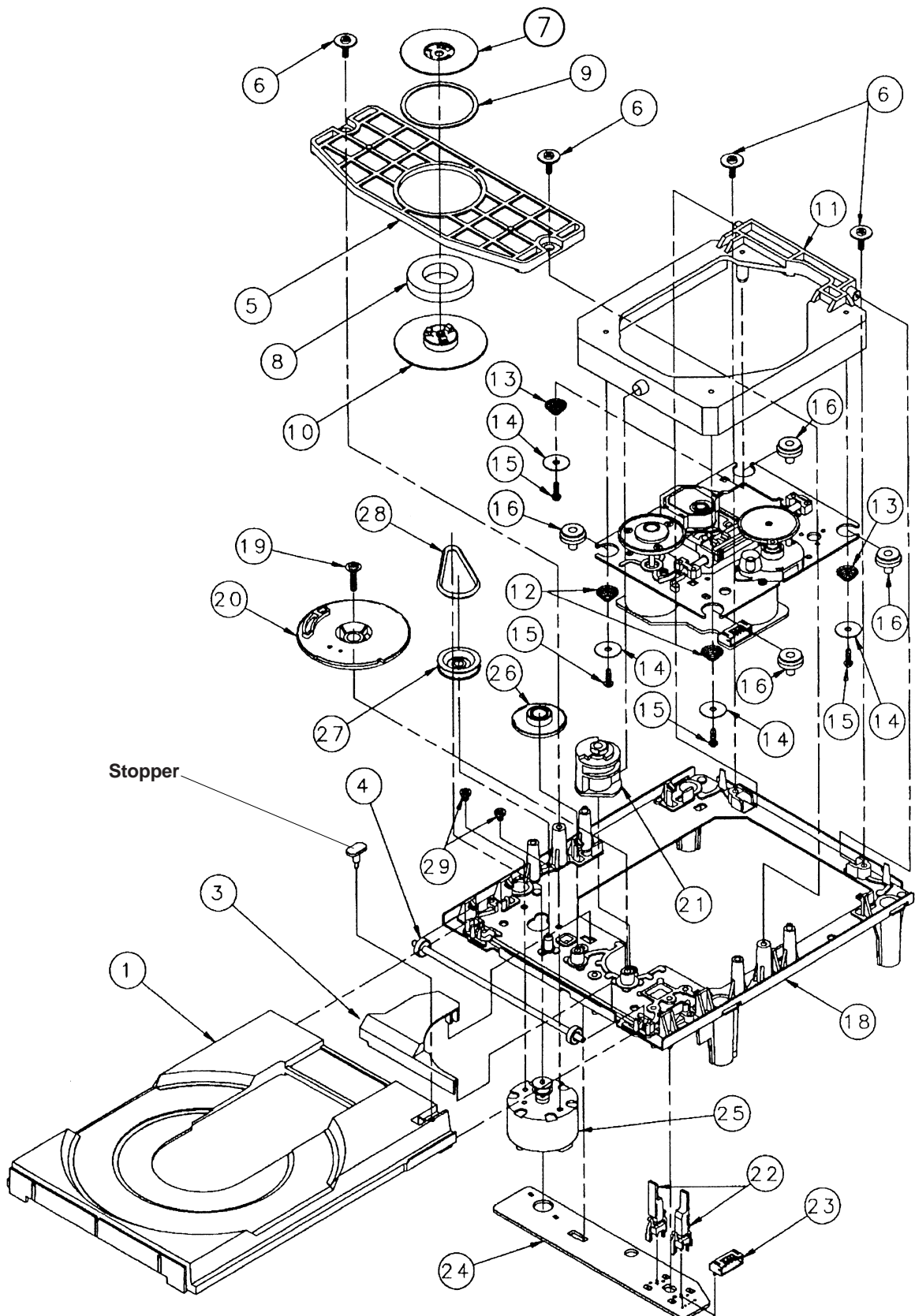
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3

4

5

6



Stopper

7

* The stopper is not supplied with the tray as a spare part.

When replacing the tray, keep the removed stopper and reuse it.

Should it be lost and a new one be necessary, order service part (18) Main Chassis (S) and remove the stopper only from it and use it as a spare part.

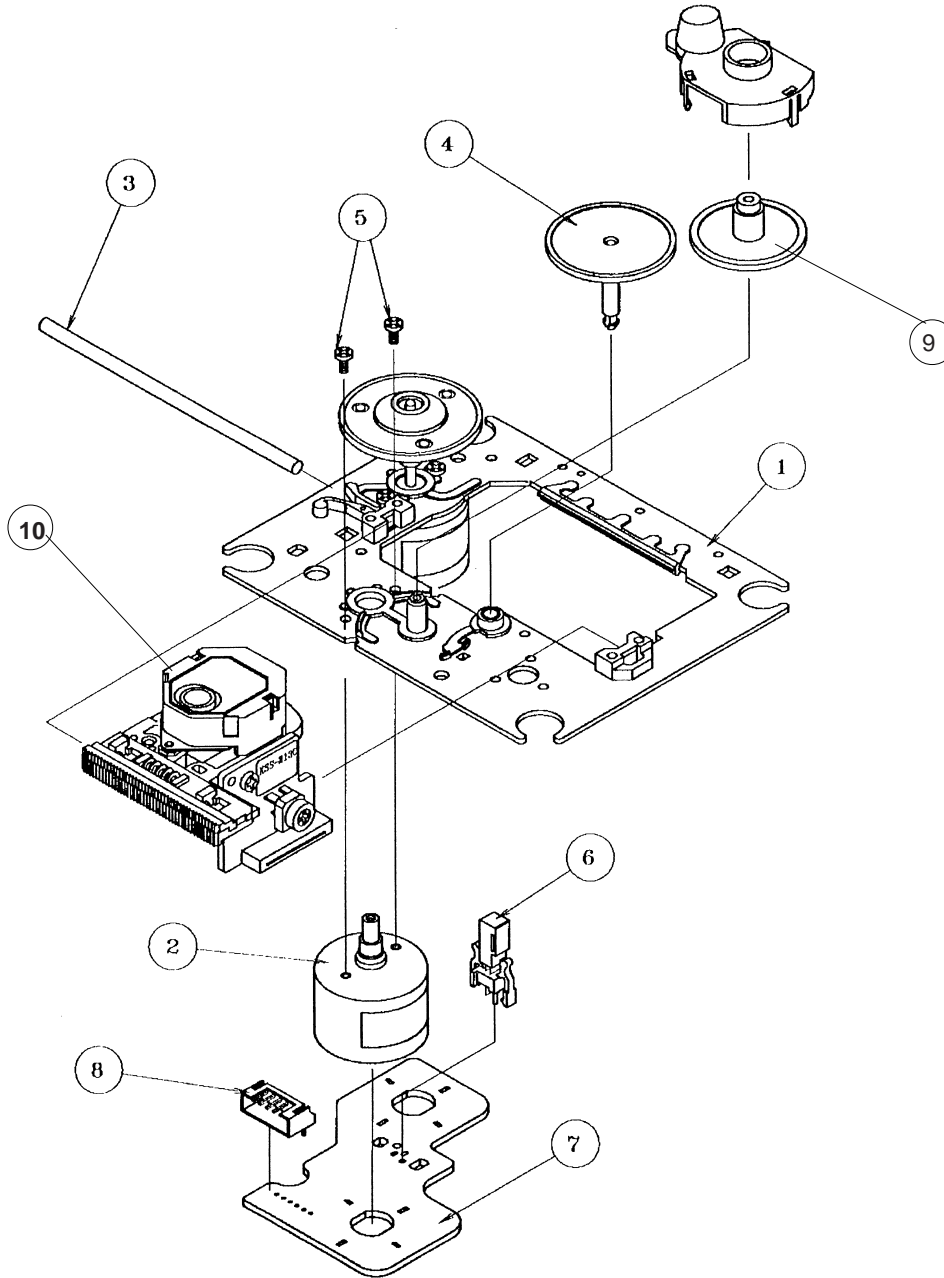
MECHANICAL PARTS (CD Mechanism Unit)

Ref. No.	PART NO.	Description	Remarks	Markets
	VZ573200	CD MECHANISM UNIT	KSL-2130CCM	
1	CX680620	TRAY (C)	2130	264629001
3	CX675250	GEAR COVER (S)		262554401
4	CX675210	TRAY GEAR (S)		262553501
5	AX619150	CHUCKING PLATE (S)		262554601
6	EX602890	BW HEAD P-TITE SCREW	2.6x7	262629401
7	BX602660	CHUCKING YOKE (S)		262553701
8	NX610570	MAGNET ASS'Y		145249321
9	CX675240	DAMPER (S)		262554102
10	NX636010	CHUCKING PULLEY		264629101
11	AX624650	SUB CHASSIS ASS'Y (S)		264628801
12	AX624640	COIL, SPRING (F)		264723601
13	AX624630	COIL, SPRING (R)		262723501
14	AX624660	WASHER	2130	264628901
15	EX604270	P-TITE SCREW	2.6x10	768513511
16	AX624620	INSULATOR		262723401
18	AX619160	MAIN CHASSIS (S), OUTSERT		262555206
19	VH554700	BW HEAD P-TITE SCREW	2.6x16	331950151
20	CX675270	DRIVE GEAR (S)		262554701
21	CX675260	CONTROL CAM (S)		262554504
22	KX604780	LEAF SWITCH		169266711
23	LX608390	CONNECTOR PIN	5P	156472111
24	NX613050	PWB, LOADING (S)		164052311
△ 25	JX601470	LOADING MOTOR ASS'Y		X26251171
26	CX675200	CENTER GEAR (S)		262527402
27	CX675220	LOADING PULLEY (S)		262553602
28	CX610840	BELT, LOADING MOTOR		365338700
29	EX602880	SCREW	2.6x2.5	262527901

* New Parts

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EXPLODED VIEW (Drive Unit)



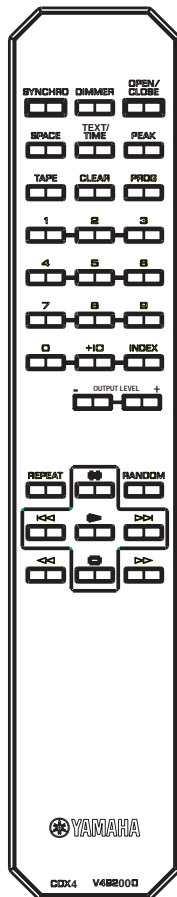
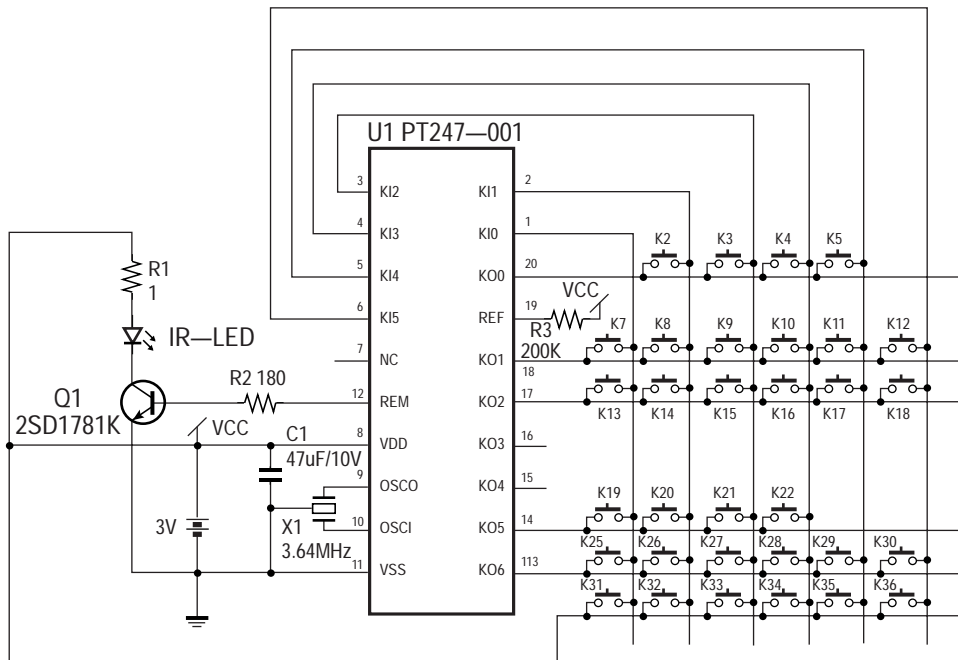
Ref. No.	PART NO.	Description	Remarks	Markets
1	NX635420	MOTOR CHASSIS ASS'Y	(MB)	X26258771
2	CX679710	MOTOR GEAR ASS'Y		X26257691
3	AX623980	SLED SHAFT		262690801
4	CX679720	GEAR, A	(S)	262690701
5	EA020036	PAN HEAD SCREW	2x3 ZMC2-Y	762125515
6	KX604660	LEAF SWITCH		157208511
7	NX613040	PWB, MOTOR	MOTOR 6P	163967812
8	LX610120	CONNECTOR PIN	6P	156472211
9	CX680030	GEAR		262700301
10	NX636020	OPTICAL HEAD		KSS213C

* New Parts

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REMOTE CONTROL TRANSMITTER

■ SCHEMATIC DIAGRAM



KEY No.	FUNCTION	CUSTOM CODE (HEX)	DATA CODE (HEX)
K2	REPEAT	79	08
K3	0	79	10
K4	8	79	18
K5	5	79	15
K7	OPEN/CLOSE	79	01
K8	CLEAR	79	0D
K9	1	79	11
K10	9	79	19
K11	6	79	16
K12	STOP	79	56
K13	PLAY	79	02
K14	TIME/TEXT	79	0A
K15	2	79	12
K16	+10	79	1A
K17	SEARCH ►►	79	06
K18	OUTPUT LEVEL-	79	1D
K19	PEAK	79	5D
K20	INDEX	79	0B
K21	3	79	13
K22	RANDOM	79	1B
K25	◀◀ SKIP	79	04
K26	PROG	79	0C
K27	4	79	14
K28	OUTPUT LEVEL+	79	1C
K29	TAPE	79	57
K30	SYNCHRO	79	58
K31	SKIP ►►	79	07
K32	SPACE	79	0F
K33	7	79	17
K34	DIMMER	79	1E
K35	PAUSE	79	55
K36	◀◀ SEARCH	79	05

Parts List for Carbon Resistors

Value	1/4W Type Part No.	1/6W Type Part No.	Value	1/4W Type Part No.	1/6W Type Part No.
1.0	HJ35 3100	HF85 3100	10 k	HF45 7100	HF45 7100
1.8	HJ35 3180	*	11 k	HF45 7110	HF45 7110
2.2	HJ35 3220	HF85 3220	12 k	HJ35 7120	HF85 7120
3.3	HJ35 3330	HF85 3330	13 k	HF45 7130	HF45 7130
4.7	HJ35 3470	HF85 3470	15 k	HF45 7150	HF45 7150
5.6	HJ35 3560	HF85 3560	18 k	HF45 7180	HF45 7180
10	HF45 4100	HF45 4100	22 k	HF45 7220	HF45 7220
15	HJ35 4150	HF85 4150	24 k	HF45 7240	HF45 7240
22	HF45 4220	HF45 4220	27 k	HJ35 7270	HF85 7270
27	HJ35 4270	HF85 4270	30 k	HF45 7300	HF45 7300
33	HF45 4330	HF45 4330	33 k	HF45 7330	HF45 7330
39	HJ35 4470	HF85 4390	36 k	HF45 7360	HF45 7360
47	HF45 4470	HF45 4470	39 k	HF45 7390	HF45 7390
56	HF45 4560	HF45 4560	47 k	HF45 7470	HF45 7470
68	HF45 4680	HF45 4680	51 k	HF45 7510	HF45 7510
75	HF45 4750	HF45 4750	56 k	HF45 7560	HF45 7560
82	HF45 4820	HF45 4820	62 k	HF45 7620	HF45 7620
91	HF45 4910	HF45 4910	68 k	HF45 7680	HF45 7680
100	HF45 5100	HF45 5100	82 k	HF45 7820	HF45 7820
110	HJ35 5110	HF85 5110	91 k	HF45 7910	HF45 7910
120	HF45 5120	HF45 5120	100 k	HF45 8100	HF45 8100
150	HF45 5150	HF45 5150	110 k	HF45 8110	HF45 8110
160	HJ35 5160	*	120 k	HF45 8120	HF45 8120
180	HF45 5180	HF45 5180	150 k	HF45 8150	HF45 8150
200	HF45 5200	HF45 5200	180 k	HF45 8180	HF45 8180
220	HF45 5220	HF45 5220	220 k	HJ35 8220	HF85 8220
270	HF45 5270	HF45 5270	270 k	HF45 8270	HF45 8270
330	HF45 5330	HF45 5330	300 k	HF45 8300	HF45 8300
390	HF45 5390	HF45 5390	330 k	HF45 8330	HF45 8330
430	HF45 5430	HF45 5430	390 k	HJ35 8390	HF85 8390
470	HF45 5470	HF45 5470	470 k	HF45 8470	HF45 8470
510	HF45 5510	HF45 5510	560 k	HJ35 8560	HF85 8560
560	HF45 5560	HF45 5560	680 k	HJ35 8680	HF85 8680
680	HF45 5680	HF45 5680	820 k	HJ35 8820	HF85 8820
820	HF45 5820	HF45 5820	1.0 M	HF45 9100	HF45 9100
910	HF45 5910	HF45 5910	1.2 M	HJ35 9120	*
1.0 k	HF45 6100	HF45 6100	1.5 M	HJ35 9150	HF85 9150
1.2 k	HF45 6120	HF45 6120	1.8 M	HJ35 9180	HF85 9180
1.5 k	HF45 6150	HF45 6150	2.2 M	HJ35 9220	HF85 9220
1.8 k	HF45 6180	HF45 6180	3.3 M	HJ35 9330	HF85 9330
2.0 k	HJ35 6200	HF85 6200	3.9 M	HJ35 9390	*
2.2 k	HF45 6220	HF45 6220	4.7 M	HJ35 9470	HF85 9470
2.4 k	HJ35 6240	HF85 6240			
2.7 k	HF45 6270	HF45 6270			
3.0 k	HF45 6300	HF45 6300			
3.3 k	HF45 6330	HF45 6330			
3.6 k	HJ35 6360	HF85 6360			
3.9 k	HF45 6390	HF45 6390			
4.7 k	HF45 6470	HF45 6470			
5.1 k	HF45 6510	HF45 6510			
5.6 k	HF45 6560	HF45 6560			
6.8 k	HF45 6680	HF45 6680			
8.2 k	HF45 6820	HF45 6820			
9.1 k	HF45 6910	HF45 6910			

1/4W Type

HJ35 ○○○○

10mm

1/4W Type

HF45 ○○○○

5mm

1/6W Type

HF85 ○○○○

5mm

CDX-596

YAMAHA