

Service Manual

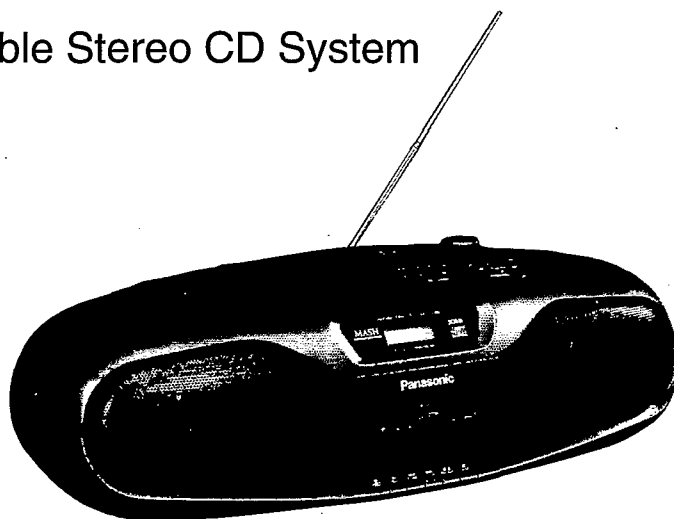
Portable Stereo CD System

Radio Cassette

RX-DS101

COMPACT
disc
DIGITAL AUDIO

MASH*
multi-stage noise shaping



Colour

(K) Black Type

Area

Suffix for Model No.	Area	Colour
(E)	Continental Europe	(K)
(EB)	Great Britain	
(EG)	F.R.Germany & Italy	
(GN)	Oceania	

Tape section: SG-20W MECHANISM SERIES

CD section: RX-DT55 Traverse deck series (S0DD110)

■ SPECIFICATIONS

General:

Power Requirement: AC; 230V~240V, 50Hz
Battery; 15V (10 "D" size, R20/LR20 size batteries)

Power Consumption: 45W (AC only)
Power Output: 45W (22.5 W x 2)...PMPO
Speaker: Woofer; 10 cm (4") x 2 (2.7Ω)

Input: MIC; 5mV (600Ω)
Outputs: HEADPHONES; 32Ω, Ø 3.5
Dimensions: 610(W) x 184(H) x 266(D) mm
(24" x 7 1/4" x 10 1/2")

Weight: 5.4 kg (11 lbs. 14 oz) without batteries.

Disc Player Section:

Sampling Frequency: 44.1 kHz
D-A Conversion: MASH (1 Bit DAC)
Beam Source: Semiconductor laser
(wavelength 780 nm)

No. of Channels: 2 channels, stereo
Frequency Range: 20~20,000 Hz (+0/-2 dB).
S/N Ratio: 75 dB (1 kHz)
Wow and Flutter: Unmeasurable

Radio Section:

Frequency Range: FM; 87.5 ~ 108 MHz
MW; 520 ~ 1610 kHz
LW; 148.5 ~ 285kHz
Intermediate Frequency: FM; 10.7MHz
AM; 459 kHz
Sensitivity: FM; 12 dB/50mW output
(-3 dB Limit Sens.)
MW; 52 dB/m/50mW output
LW; 54 dB/m/50mW output

Tape Deck Section:

Frequency Range: 40~14,000 Hz (with normal tape)
Recording System: AC bias, AC erase
Tape Speed: 4.8cm/s (1 7/8 ips)
Monitor System: Variable sound monitor
Track System: 4-track 2-channel stereo recording and playback.

*MASH

- MASH (Multi-Stage Noise Shaping) is an effective oversampling D/A conversion technique which realizes a high S/N ratio and needs no highly complex manufacturing processes such as a laser trimming.
- MASH is a trademark of NTT (Nippon Telegraph and Telephone Corporation).

Notes:

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

Panasonic

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CAUTION:

THIS PRODUCT UTILIZES A LASER.

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

■ PRECAUTION OF LASER DIODE

CAUTION: This product utilizes a laser diode with the unit turned "ON", invisible laser radiation is emitted from the pick-up lens.

Wave Length: 780 nm

Maximum output radiation power from pick up: 100 μ W/VDE

Laser radiation from the pick-up lens is within safety level, but take precaution on the followings:

1. Do not disassemble the optical pick up unit, since radiation from exposed laser diode is dangerous.
2. Do not adjust the variable resistor on the pickup unit. It has already been adjusted.
3. Do not look at the focus lens using optical instruments.
4. It is Not advisable to look at the pick up lens for a long period of time.

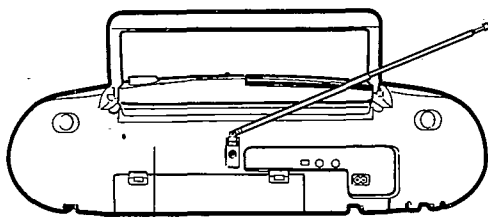
ACHTUNG: Dieses produkt enthält eine laserdioden. Im eingeschalteten zustand wird unsichtbare laserstrahlung von der lasereinheit abgestrahlt.

Wellenlänge: 780 nm

Maximale strehlungsleistung der lasereinheit: 100 μ W/VDE

Die strahlung an der lasereinheit ist ungefährlich, wenn folgende punkte beachtet werden:

1. Die lasereinheit nicht zerlegen, da die strahlung an der freigelegten laserdioden gefährlich ist.
2. Den werksseitig justierten einstellregler der lasereinheit nicht verstellen.
3. Nicht mit optischen instrumenten in die fokussierlinse blicken.
4. Nicht über längere zeit in die fokussierlinse blicken.



VORSICHT- Unsichtbare Laserstrahlung, wenn Abdeckung geöffnet und Sicherheitsverriegelung überbrückt. Nicht dem Strahl aussetzen.

(Im Inneren des Gerätes)

DANGER- Invisible laser radiation when open and interlock defeated. AVOID DIRECT EXPOSURE TO BEAM.

(Inside of product)

**CLASS 1
LASER PRODUCT**

**LUOKAN 1 LASERLAITE
KLASS 1 LASER APPARAT**

ADVARSEL: USYNLIG LASERSTRÅLING VED ÅBNING. NÅR SIKKERHEDSAFBRYDERE ER UDE AF FUNKTION. UNDGÅ UDSÆTTELSE FOR STRÅLING.

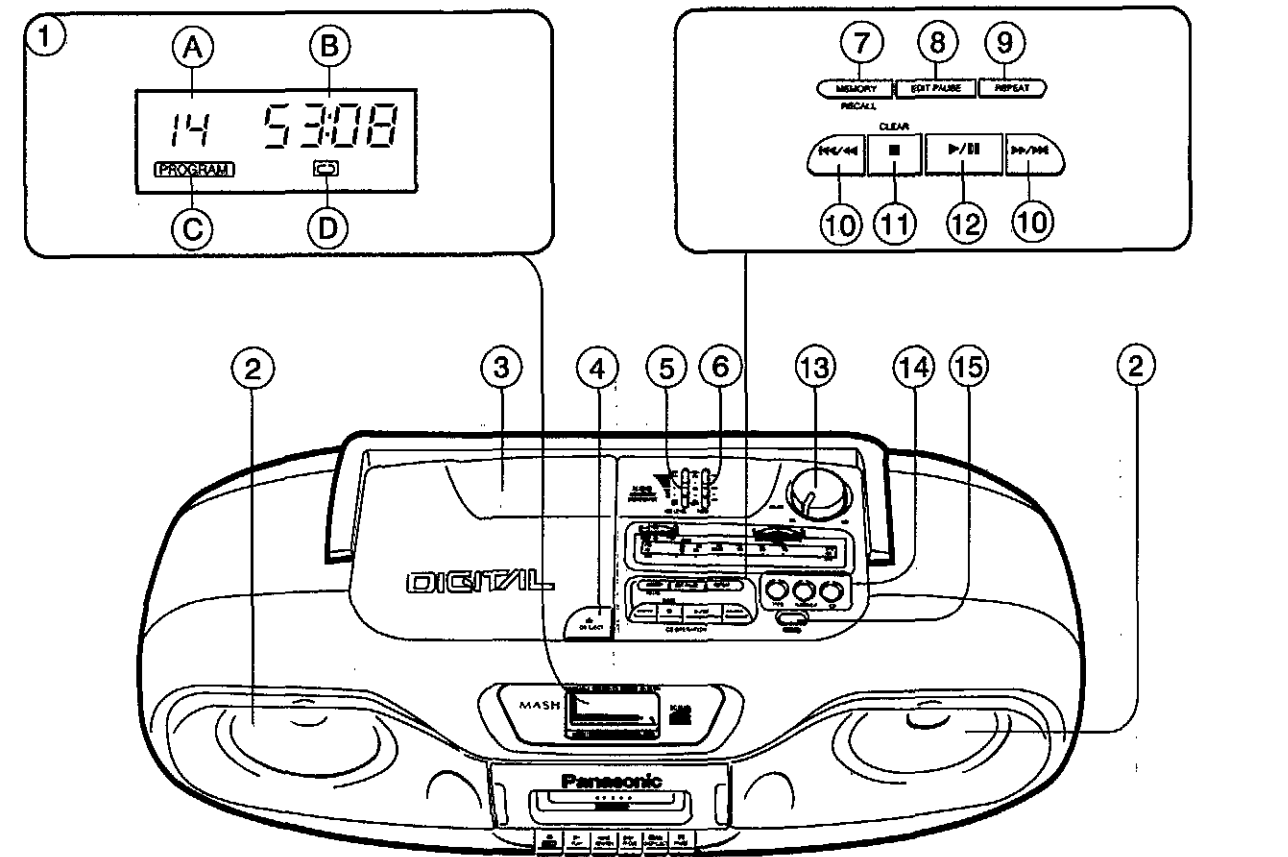
(Indersiden af apparatet)

VARO! Avattaessa ja suojalukitus ohitettaessa olet alttiina näkymättömälle lasersäteilylle. Älä katso säteeseen.

WARNING! Osynlig laserstråling når denna del är öppnad och spårren är urkopplad. Betrakta ej strålen.

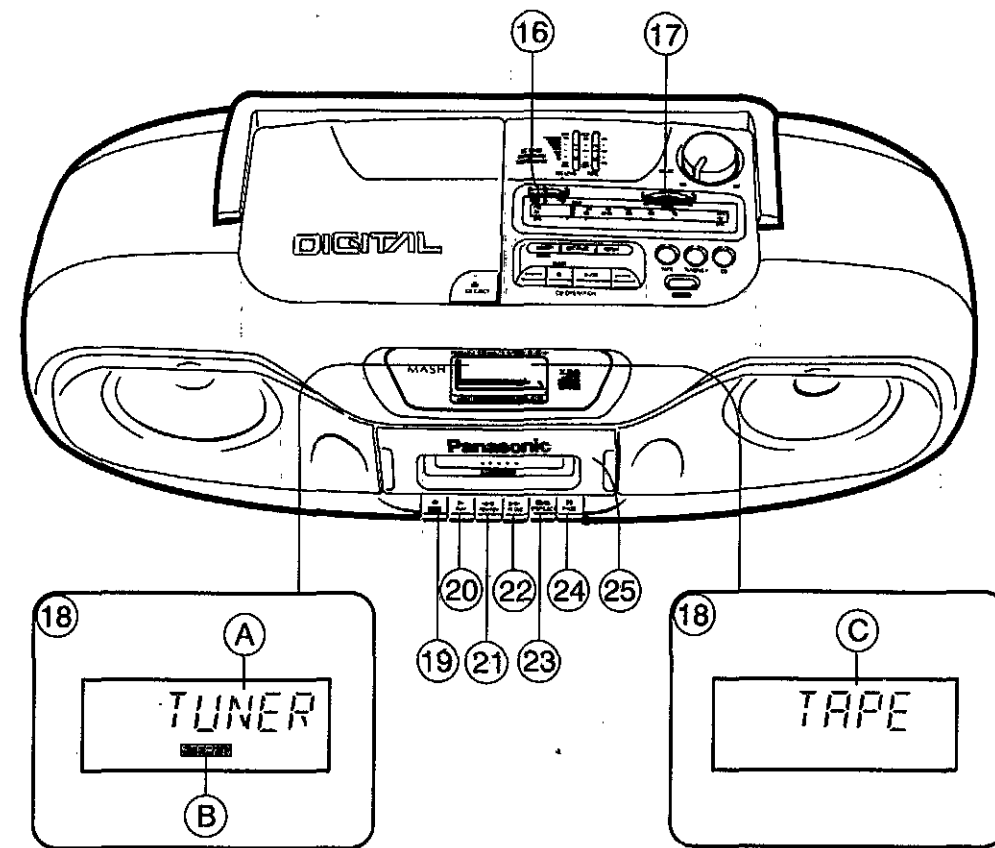
LOCATION OF CONTROLS

CD/GENERAL CONTROLS



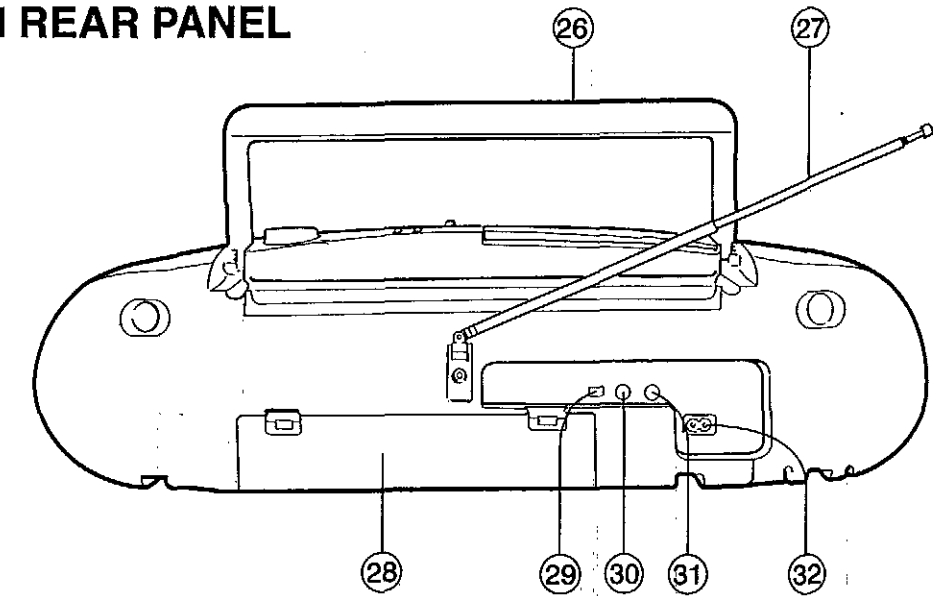
- ① Display section
 A: Track display
 B: Playing time display
 C: Program indicator (PROGRAM)
 D: Repeat indicator (REPEAT)
- ② Speakers
- ③ Disc holder
- ④ CD eject button (▲ CD EJECT)
- ⑤ Extra bass system control (XBS LEVEL)
- ⑥ Tone control (TONE)
- ⑦ Memory/recall button (MEMORY, RECALL)
- ⑧ Edit pause button (EDIT PAUSE)
- ⑨ Repeat button (REPEAT)
- ⑩ Skip/search buttons (◀◀/▶▶, ▶▶/▶▶)
- ⑪ Stop/clear button (■ CLEAR)
- ⑫ Play/pause button (▶/||)
- ⑬ Volume control (VOLUME)
- ⑭ Function select buttons (TAPE, TUNER/B.P., CD)
- ⑮ Operation switch (OPERATION)

TUNER/TAPE DECK CONTROLS



- ⑬ Band selector (BAND)
- ⑭ Tuning control (TUNING)
- ⑮ Display section
 A: Tuner mode display
 B: Stereo indicator (STEREO)
 C: Tape mode display
- ⑯ Record button (● REC)
- ⑰ Playback button (▶ PLAY)
- ⑱ Rewind/review button (◀◀ REW/REV)
- ⑲ Fast/forward/cue button (▶▶ FF/CUE)
- ⑳ Stop/eject button (■ / ▲ STOP/EJECT)
- ㉑ Pause button (||/PAUSE)
- ㉒ Cassette compartment cover

REAR PANEL



- ⑳ Handle
- ㉑ Telescopic antenna
- ㉒ Battery compartment cover
- ㉓ FM mode selector (FM MODE)
- ㉔ Mixing microphone jack (MIX MIC)
- ㉕ Headphone jack (PHONES)
- ㉖ AC socket (AC IN ~)

HANDLING PRECAUTIONS FOR TRAVERSE DECK

The laser diode in the traverse deck (optical pickup) may break down due to potential difference caused by static electricity of clothes or human body. So, be careful of electrostatic breakdown during repair of the traverse deck (optical pickup).

Handling of traverse deck (optical pickup)

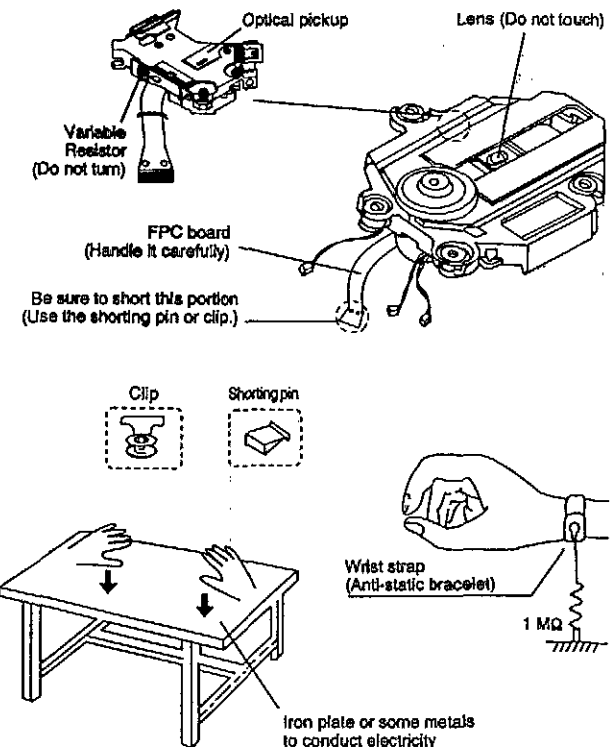
- Do not subject the traverse deck (optical pickup) to static electricity as it is extremely sensitive to electrical shock.
- To prevent the breakdown of the laser diode, an anti-static shorting pin is inserted into the flexible board (FPC board). When removing or connecting the short pin, finish the job in as short time as possible.
- Take care not to apply excessive stress to the flexible board (FPC board).
- Do not turn the variable resistor (laser power adjustment). It has already been adjusted.

Grounding for electrostatic breakdown prevention

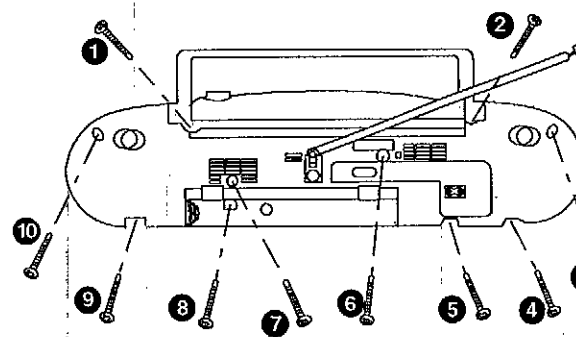
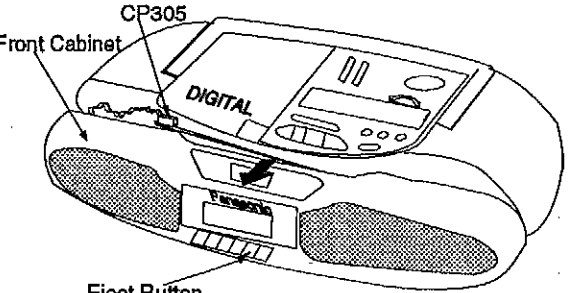
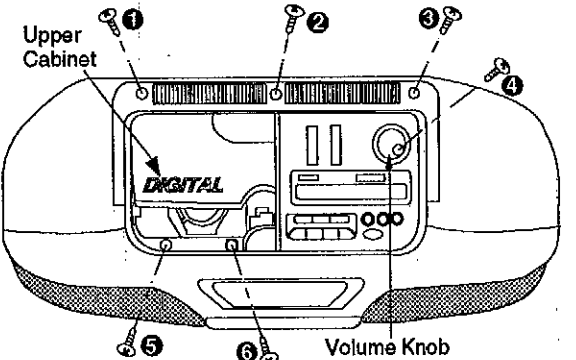
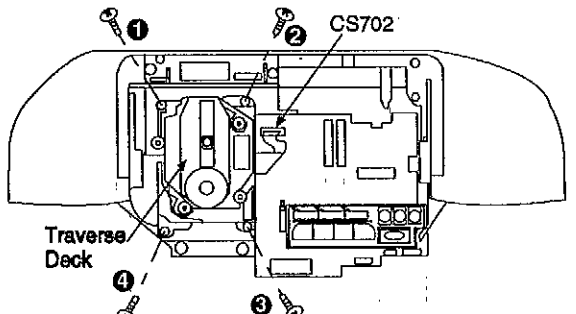
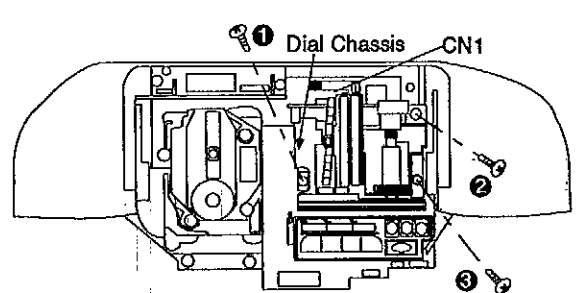
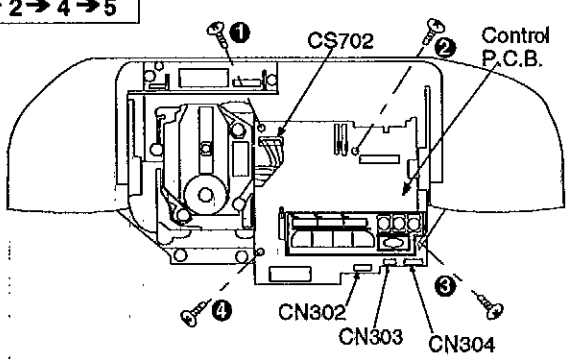
- Human body grounding
Use the anti-static wrist strap to discharge the static electricity from your body.
- Work table grounding
Put a conductive material (sheet) or steel sheet on the area where the traverse deck (optical pickup) is placed, and ground the sheet.

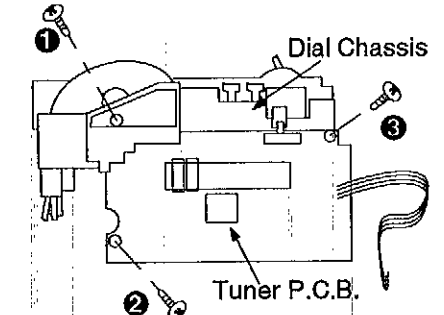
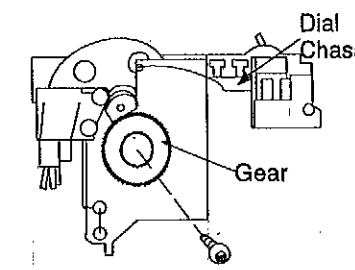
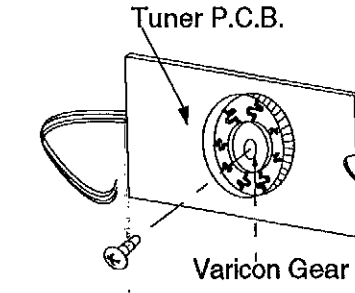
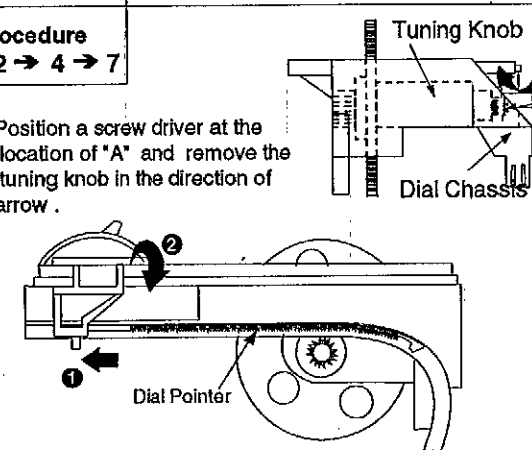
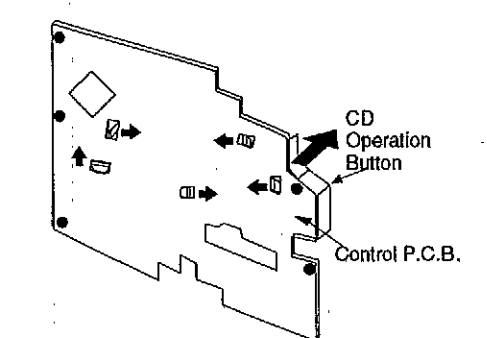
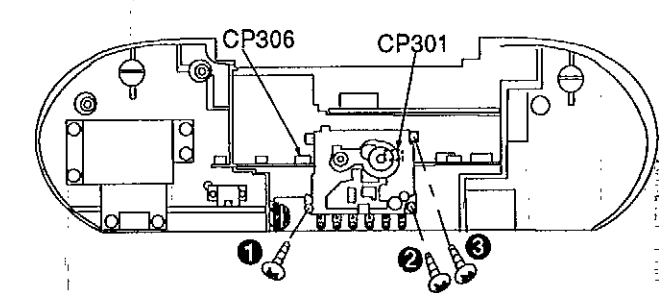
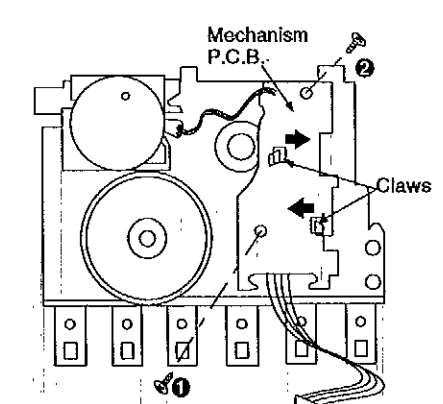
Caution:

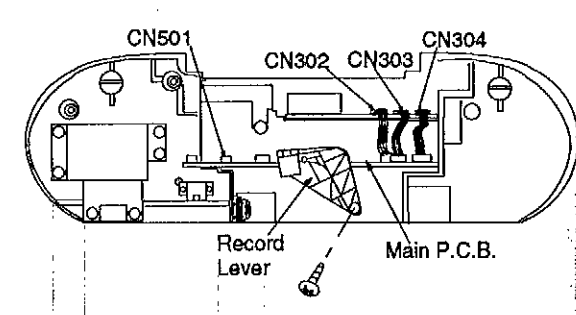
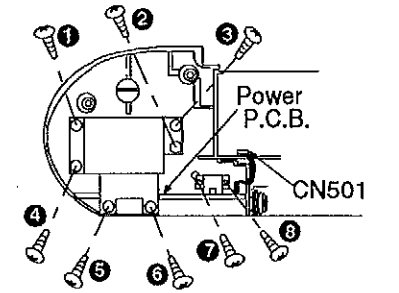
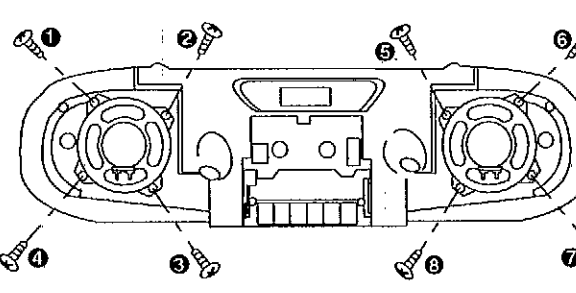
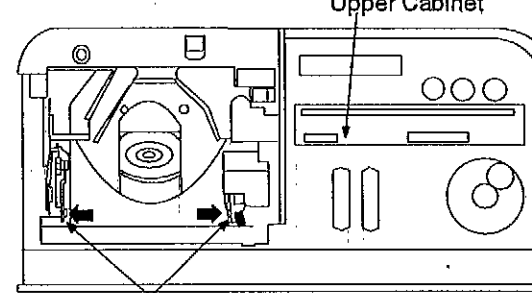
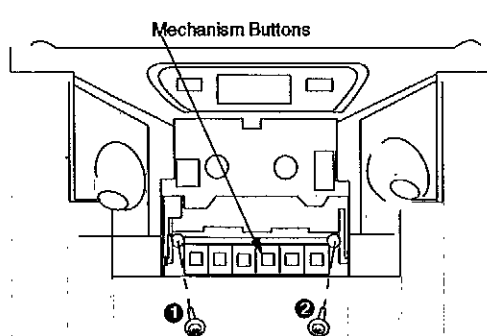
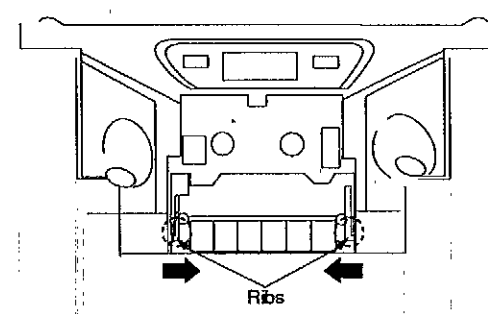
The static electricity of your clothes will not be grounded through the wrist strap. So, take care not to let your clothes touch the traverse deck (optical pickup).

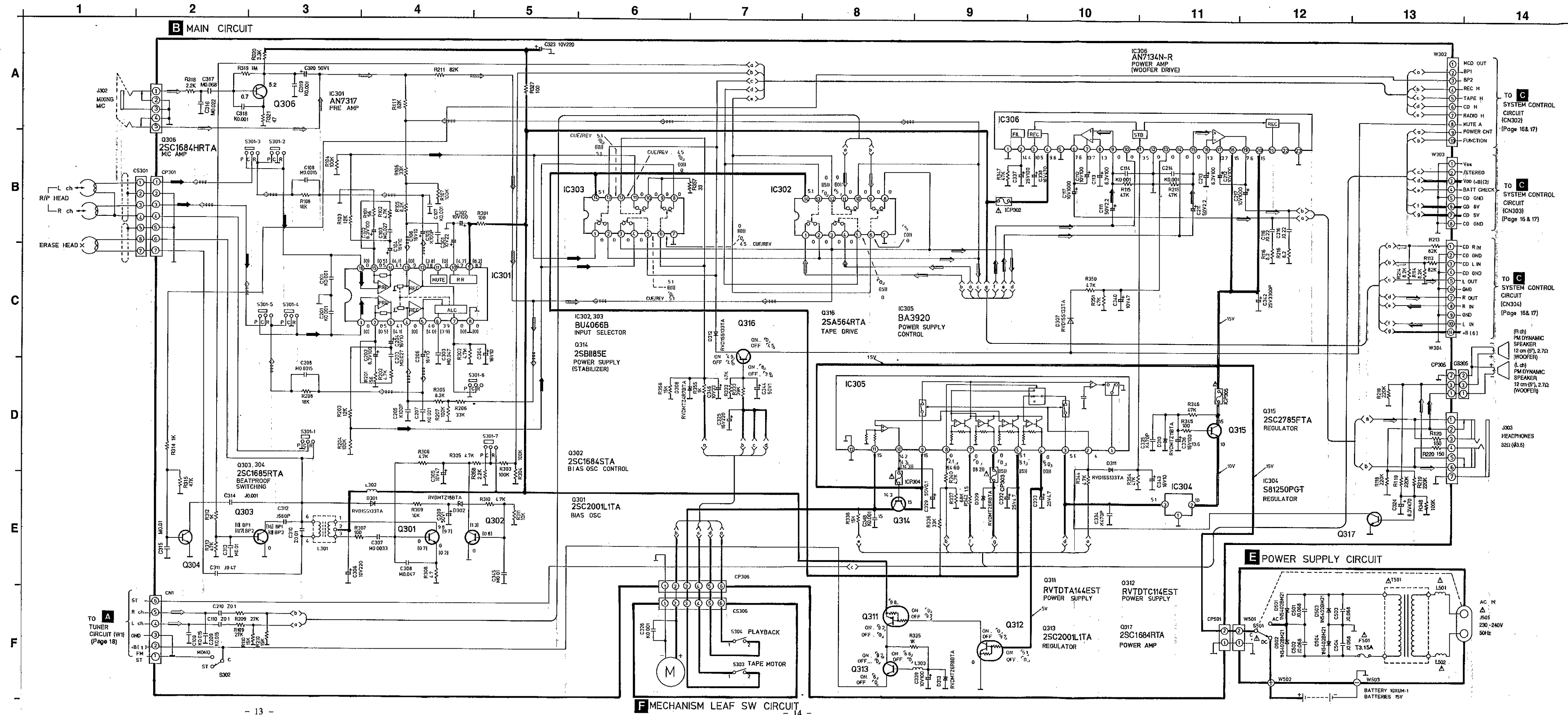


DISASSEMBLY INSTRUCTIONS

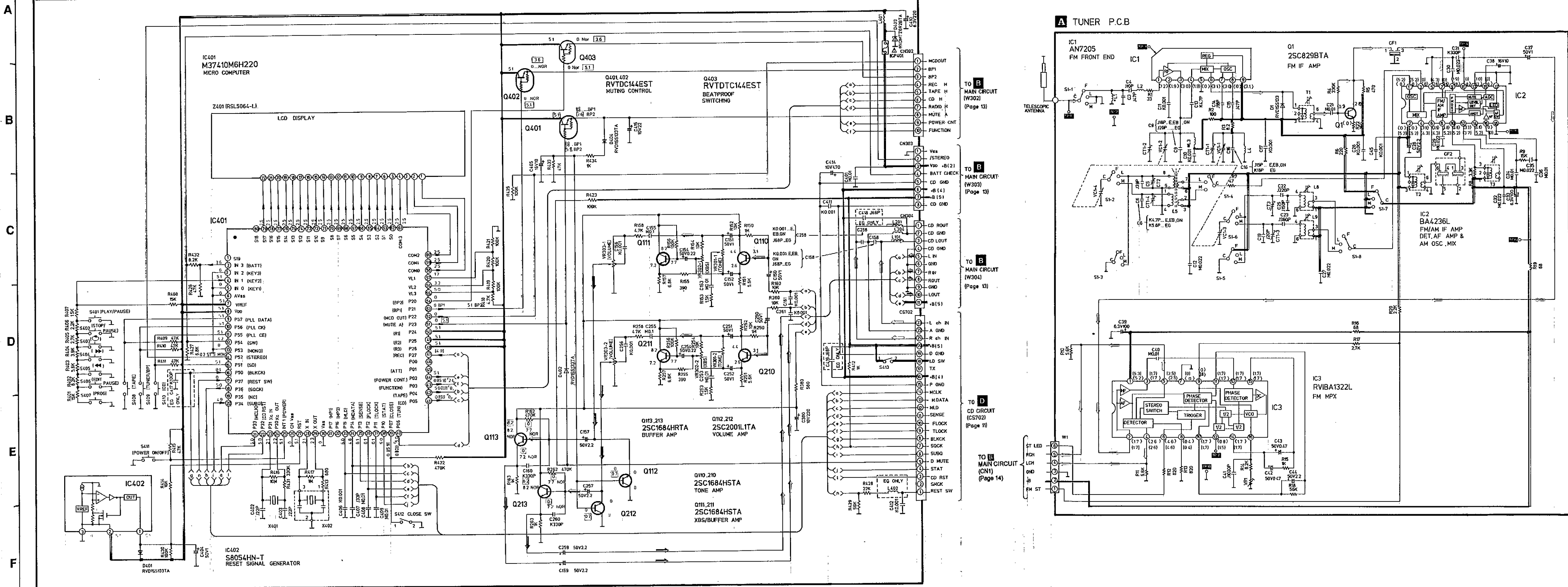
Ref. No 1 Procedure 1	Removal of the Front Cabinet 1. Remove 10 screws (1 ~ 10).  2. Press the eject button and remove connector CP305. 3. Remove the front cabinet in the direction of arrow. 
Ref. No 2 Procedure 1 → 2	Removal of Upper Cabinet  1. Pull out the volume knob. 2. Remove 6 screws (1 ~ 6) and remove the upper cabinet.
Ref. No 3 Procedure 1 → 2 → 3	Removal of Traverse Deck 1. Remove the 4 screws (1 ~ 4). 2. Remove connector CS702. 
Ref. No 4 Procedure 1 → 2 → 4	Removal of Dial Chassis  1. Remove 3 screws (1 ~ 3). 2. Remove connector CN1.
Ref. No 5 Procedure 1 → 2 → 4 → 5	Removal of Control P.C.B.  1. Remove 4 screws (1 ~ 4). 2. Remove 4 connectors CN302, CN303, CN304 & CS702.

Ref. No 6 Procedure 1 → 2 → 4 → 6	Removal of Tuner P.C.B. and Varicon Gear  1. Remove 3 screws (1 & 3). 2. Pull out the Tuner P.C.B.  3. Remove 1 screw. 4. Pull out the Gear.  3. Remove 1 screw and pull out the Varicon Gear from the reverse side of Tuner P.C.B.
Ref. No 7 Procedure 1 → 2 → 4 → 7	Removal of Tuning Knob and Dial Pointer  1. Position a screw driver at the location of "A" and remove the tuning knob in the direction of arrow. 2. Slide the Dial Pointer in the direction of arrow 1 and pull up one end of the pointer in the direction of arrow 2 and slide up the other end gradually.
Ref. No 8 Procedure 1 → 2 → 4 → 7 → 8	Removal of the CD Operation Button  1. Release 5 hooks in the direction of arrow and pull out the CD operation button.
Ref. No 9 Procedure 1 → 9	Removal of the Mechanism and Mechanism P.C.B.  1. Remove 3 screws (1 ~ 3). 2. Remove 2 connectors CP306 and CP301.  3. Remove 2 screws (1 ~ 2). 4. Release the 2 claws in the direction of arrow and remove the mechanism P.C.B.

Ref. No 10 Procedure 1 → 2 → 4 → 10	Removal of Main P.C.B.  1. Remove 1 screw and pull out the record lever. 2. Remove 4 connectors (CN302, CN303, CN304 & CN501) and pull out the Main P.C.B.
Ref. No 11 Procedure 1 → 11	Removal of Power P.C.B.  1. Remove 8 screws (1 ~ 8). 2. Remove the connector CN501 and pull out the Power P.C.B.
Ref. No 12 Procedure 1 → 12	Removal of Speakers  1. Remove 8 screws (1 ~ 8).
Ref. No 13 Procedure 1 → 2 → 13	Removal of the CD Cover  Release 2 ribs in the direction of arrow.
Ref. No 14 Procedure 1 → 14	Removal of Mechanism Button  1. Remove 2 screws (1 ~ 2). 2. Remove the mechanism buttons.
Ref. No 15 Procedure 1 → 15	Removal of Cassette Holder  1. Release the ribs in the direction of arrow. 2. Remove the cassette holder.

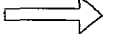
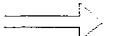
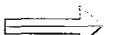
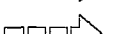


A TUNER P.C.B



Notes:

- S1-1~S1-8 : Band select switch in "FM" position.
(F...FM ,L ...LW,M ...MW).
- S301-1~S301-7 : Tape Deck Record switch.
- S302 : FM mode and beat proof switch .(FM MODE/B.P)
- S303 : Tape deck motor switch.
- S304 : Tape deck playback switch.
- S401 : CD play and pause switch.(▶/⏸)
- S402 : CD stop and clear switch.(■ /CLEAR)
- S403 : CD repeat switch.(REPEAT)
- S404 : Skip/search switch.(◀◀/▶▶)
- S405 : Skip /search switch.(▶▶/▶▶)
- S406 : CD edit pause switch.(EDIT PAUSE)
- S407 : CD memory/recall switch.(MEMORY/RECALL)
- S408 : Function select switch.(TAPE)
- S409 : Function select switch.(TUNER/BP)
- S410 : Function select switch.(CD)
- S411 : Power ON/OFF switch in OFF position.(POWER)
- S412 : CD cover open/close detect switch.
- S501 : AC/DC select switch in "DC" position.
- S701 : REST switch.(for CD)
- VR1 : FM VCO adjustment VR.
- VR301 : Tone control VR.(TONE)
- VR302 : XBS control VR.(XBS)
- VR303 : Volume control VR.(VOLUME)
- VR701 : Best Eye Adj. (for CD)

-  : Tuner Signal Line
-  : CD Signal Line
-  : Tape Playback Signal Line
-  : AF Signal Line
-  : Recording Signal Line
-  : +B Line
-  : MIC Signal Line

•DC voltage measurement are taken with electronic voltmeter.
The negative terminal of the battery provides negative meter connection point.

No Mark ...TAPE PLAYBACK []...TAPE RECORDING
< >...FM () ...AM (()) ...CD J ...TUNER

•Battery Current :

Vol.min	103.1mA (AM)	Vol.max.....	790mA (AM)
	108.7mA (FM)		1033mA (FM)
	140.7mA (PLAYBACK)		1470mA (PLAYBACK)
	321mA (CD)		1930mA (CD)

Measurement instruction:

(AM:74dB/m 30%Mod
FM:60dB 30%Mod
TAPE:315Hz, 0dB
CD:1kHz, 0dB)

•Important Safety Notice:

Component identified by  have special characteristics important for safety. When replacing any of these components, use only manufacturer's specified parts.

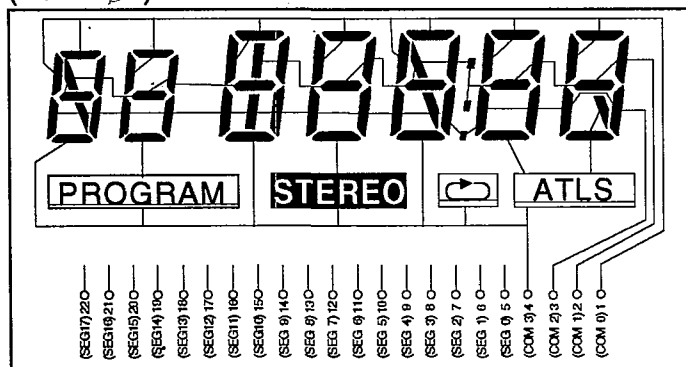
•This schematic diagram may be modified at any time with the development of new technology.

■ TERMINAL GUIDE OF IC'S, TRANSISTORS AND DIODES

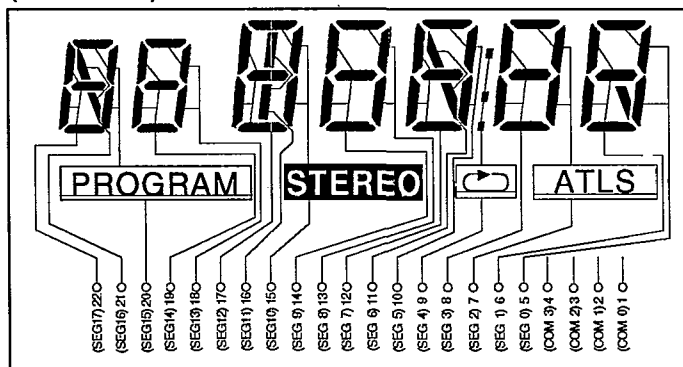
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BU4066B 	AN7205 	AN8377N 	AN7317 	RVIBA4236L 	RVIBA1332L
BA3920 	AN7134N-R 	S8054HN-T S81250PG-T 	2SC2785FTA 	2SB1185E 	2SB709S
	2SA564RTA 2SC1684STA 2SC1685RTA 2SC1684HSTA 2SC1684HRTA 2SC2001L1TA			RVTDTA144EST RVTDTA144EST RVTDTA114EST	
RVD1SS133TA 	1N5402BM21 	MA110TW 			

■ INTERNAL CONNECTIONS OF LCD (Liquid Crystal Display) (Z401: RSL5064-L)

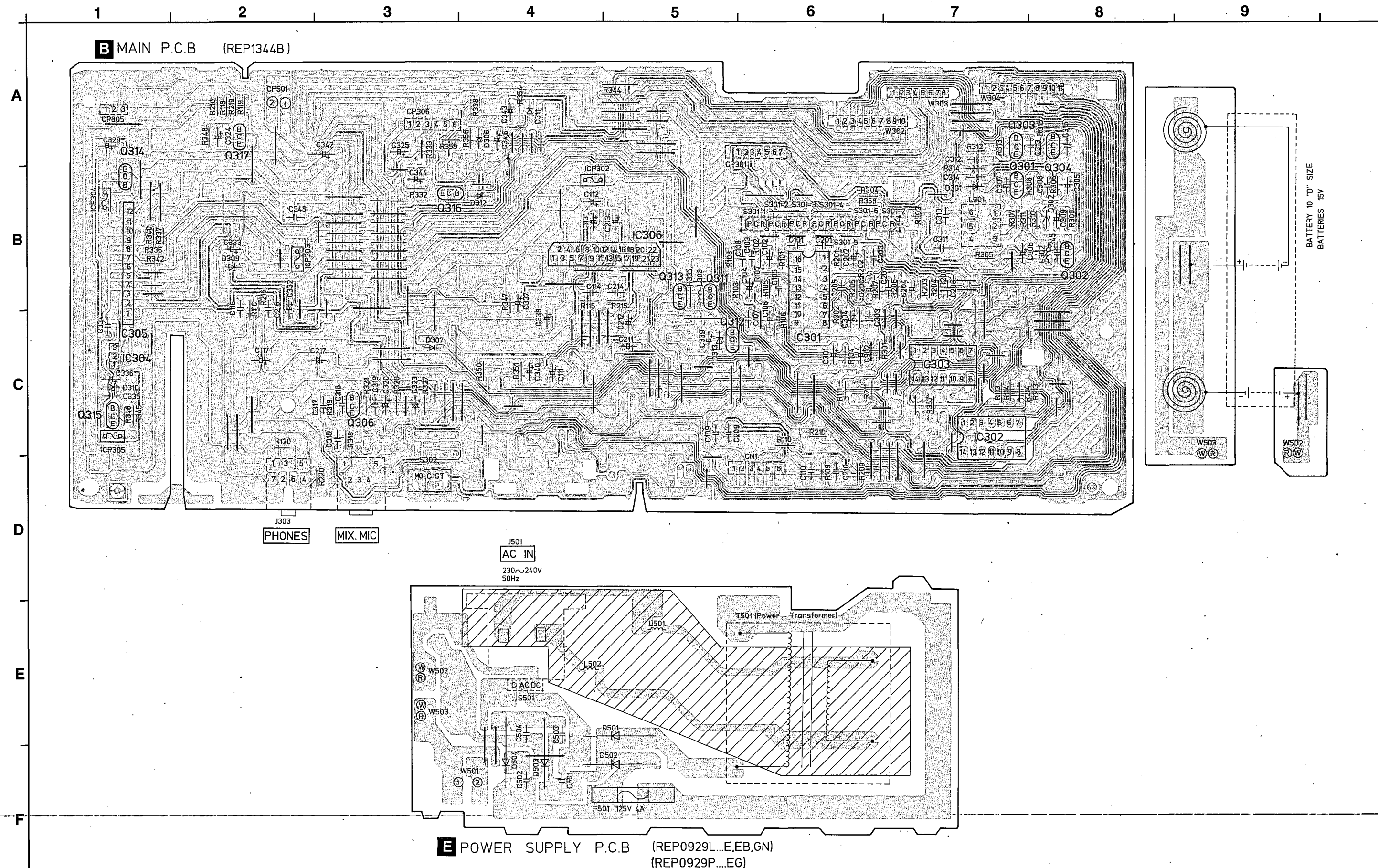
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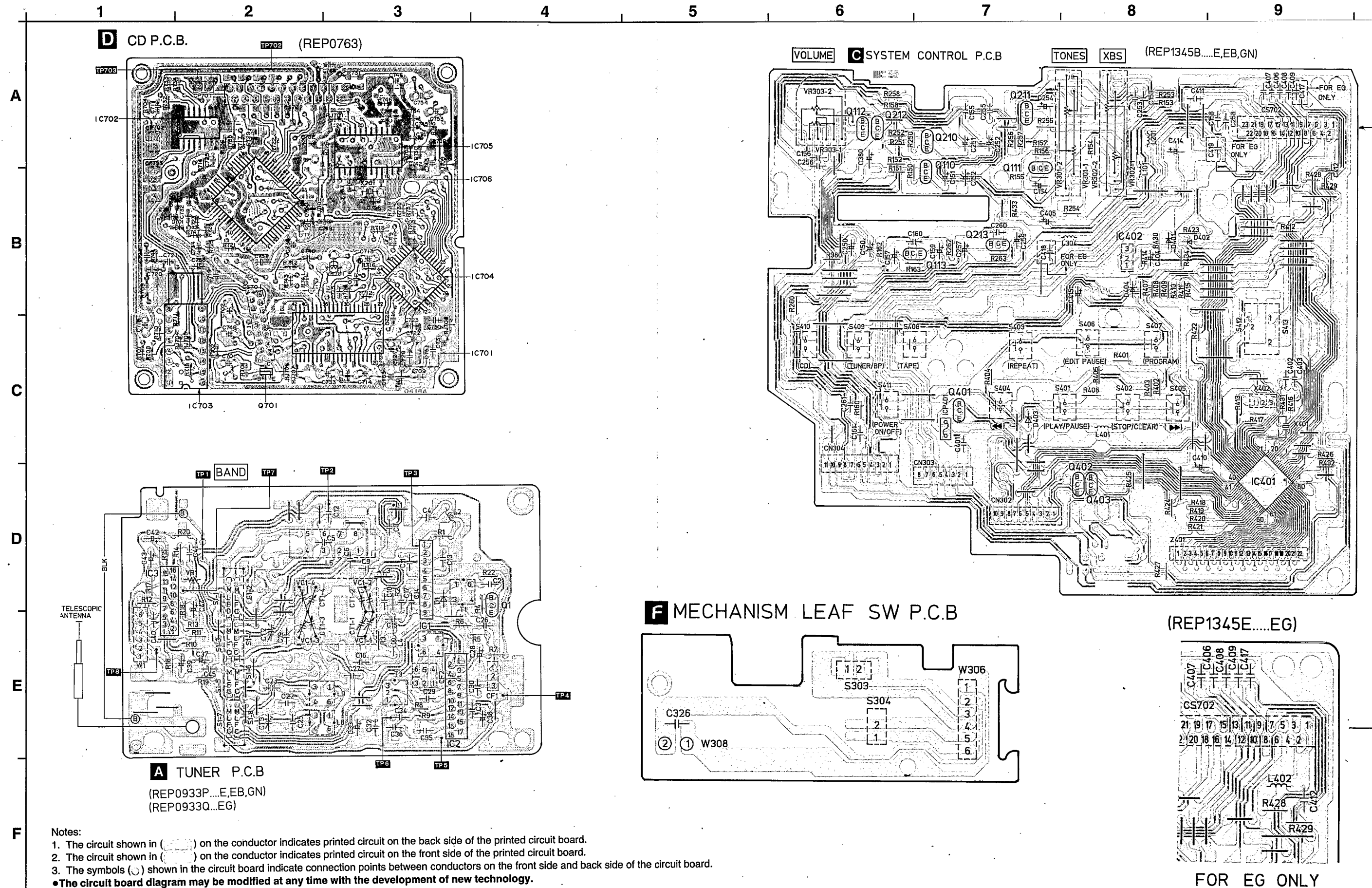
(SEGMENT)



■ CIRCUIT BOARD DIAGRAM



CIRCUIT BOARD DIAGRAM



FUNCTIONS OF IC TERMINALS

IC401 (M37410M6H220)

Pin No.	Mark	Function
1	S19	
2	BATT	Battery state signal output
3	KEY3	GND
4	KEY2	Key source
5	KEY1	GND
6	AVSS	GND
7	VREF	A/D converter reference voltage
8	VDD	Power supply (+5V)
9	PLL DATA	PLL tuner data signal output
10	PLL CLK	PLL tuner clock signal output
11	PLL CE	PLL tuner strove signal output
12	SW	
13	MONO	GND
14	STEREO	Tuner stereo signal input
15	SD	Auto-stop signal detect input
16	BLKCK	CD subcode block clock signal input
17	REST SW	Reset switch signal input
18	SQCK	CD subcode clock output
19	NC	
20	SUBQ	CD subcode data input
21	MCLK	CD signal process IC control signal output
22	CD RST	CD reset signal output
23	Xc IN	Clock input (32KHz)
24	Xc OUT	Clock output (32KHz)
25	POWER	Main switch control signal input
26	CNVSS	GND
27	RST	Power on reset signal input
28	XIN	Clock input (4MHz)
29	XOUT	Clock output (4MHz)
30	VSS	GND
31	MP1	

Pin No.	Mark	Function
32	MP2	
33	MLD	CD signal process strove signal output
34	MDATA	CD signal process IC data output
35	SENSE	CD sense signal input
36	FLOCK	CD focus lock signal input
37	TLOCK	CD tracking signal input
38	STAT	CD status signal input
39	CLOSE	CD cover open/close detection signal input
40	TUN	Input selector control signal output (TUNER)
41	CD	Input selector control signal output (CD)
42	TAPE	Input selector control signal output (TAPE)
43	FUNCTION	Power supply control signal output
44	POWER CONT	Power AMP control signal output
45	ATT	
46		
47	REC	REC detecting signal input
48	R3	Region select signal input
50	R1	
51	MUTE A	AF muting signal output
52	MCD OUT	CD line out control (Muting)
53	BP1	Beat proof
54	BP2	GND
55	VL3	LCD bias reference voltage V3
56	VL2	LCD bias reference voltage V2
57	VL1	LCD bias reference voltage V1
58	COM0	LCD common signal output
61	COM3	
62	S0	LCD segment signal output
79	S17	
80	S18	

FUNCTION OF IC TERMINALS

IC 701 (AN8800SCE2)

Pin No.	Mark	I/O Division	Function
1	LDG	I	+5 V input
2	LDP	—	
3	LD	O	Laser power control output
4	LPD	I	Laser power monitor input
5	GND	—	Ground terminal
6	LDON	I	Laser power control input
7	AMPI	I	RF signal input
8	AMPO	O	RF signal output
9	RFIN	I	RF signal input
10	RFEQ	—	Ground
11	C.AGC	I	AGC detecting capacitor input
12	ARF	O	RF signal output
13	C.SBDO	I	Dropout detecting capacitor input
14	RFDET	O	RF detections signal output
15	BDO	O	Black dropout detection output
16	VCC	I	Power supply (+5 V input)
17	SDO	O	System dropont detection output
18	VAD+	O	A/D converter reference voltage output
19	VREF	O	Reference voltage output
20	VAD—	O	A/D converter reference voltage output
21	OFTR	O	Off track detection output

IC702 (TCA0372DM2R)

Pin No.	Mark	I/O Division	Function
1	GND	—	Ground
2	NC	—	
3	VOUT1	O	Spindle motor control output
4	VCC	I	Power supply (+7.5 V input)
5	VOUT2	O	Spindle motor control output
6	NC	—	
7	NC	—	
8	GND	—	Ground

Pin No.	Mark	I/O Division	Function
22	PLAY	I	Play signal input
23	WVEL	I	High speed signal input
24	TES	I	Tracking error signal input
25	PTO	—	
26	PTI	I	Traverse speed detection signal input
27	PBO	—	
28	POT	I	Position detecting buffer input
29	CROSS	O	Tracking error cross detection output
30	TE	O	Tracking error output
31	TEBAL	I	Tracking error gain detecting filter input
32	TBAL	I	Tracking balance adjustment
33	VDET	O	Vibration detection signal output
34	FE	O	Focus error output
35	EBL2	I	Focus balance adjustment
36	FBL1		
37	VCC	I	Power supply (+5 V input)
38	GND	—	Ground
39	PDBD	I	Photo detector current input
40	PDA	I	
41	PDAD	I	
42	PDB	I	

Pin No.	Mark	I/O Division	Function
9	GND	—	Ground
10	NC	—	
11	—VIN2	I	Spinde motor control input
12	+VIN2		
13	+VIN1		
14	—VIN1	I	
15	NC		
16	GND	—	Ground

●IC703 (AN8377N): Motor Drive

Pin No.	Mark	I/O Division	Function
1	PVCC	I	Driver power supply (+8.9 input)
2	VCC	I	Power supply (+8.9 V input)
3	TB	O	External transistor base driving output
4	VMON	O	Voltage output
5	TVDI	I	Traverse error signal input
6	FDI	I	Focus error signal input
7	TDI	I	Tracking error signal input
8	VREF	I	Reference voltage input

●IC706 (MN6626)

Pin No.	Mark	I/O Division	Function
1	AVSS	—	Ground
2	IRÉF	I	Reference current input
3	ARF	I	RF signal input
4	DRF	I	DSL bias input
5	DSLIF	O	DSL loop filter
6	PLLF	I	PLL loop filter
7	AVDD	I	Power supply (+5 V input)
8	RSEL	I	+5 V input
9 16	TBUS7 TBUSO	—	Test terminal (Ground)
17	FLAG	—	—
18	IPFLAG		
19	FCLK		
20	BTYCK		
21	WDCK		
22	/RST	I	Reset signal input
23	TX	O	Digital audio interface signal output
24	LDG	—	—
25	RDG		
26	SRDATA	O	Serial data output
27	SCK	O	Serial bit clock output
28	LRCK	O	Clock output
29	XCK	O	Clock output (f=16.9344 MHz)
30	PMCK	—	—
31	CSEL	I	+5 V input
32	PSEL	—	Ground
33	x1	I	Clock input (f=16.9344 MHz)
34	x2	—	—
35	VSS	—	Ground

Pin No.	Mark	I/O Division	Function
9	TD—	O	Inverting output of tracking driver
10	TD+	O	Non-inverting output of tracking driver
11	FD—	O	Inverting output of focus driver
12	FD+	O	Non-inverting output of focus driver
13	TVD—	O	Inverting output of traverse driver
14	TVD+	O	Non-inverting output of traverse driver
15	RESET	O	Reset signal output
16	PC	I	PC input (connect to GND)

Pin No.	Mark	I/O Division	Function
36	SUBQ	O	Sub-code (Q data) output
37	SQCK	I	Sub-codé (Q data) clock input f=7.3 kHz
38	/CLDCK	—	—
39	BLKCK	O	Sub-code block (Q data) clock f=75 Hz
40	DEMPH	O	De-emphasis ON signal output
41	MEMPH	I	Enphasis signal input
42	MLD	I	Command load signal input
43	MCLK	I	Command clock signal input
44	MDATA	I	Command data input
45	DMUTE	I	Muting control signal input
46	SMCK	O	Clock output (f=4.2336 MHz)
47	STAT	O	Status signal output
48	CRC	—	—
49	SUBC	—	—
50	SBCK	I	Clock for sub-code serial output
51	/TRON	I	Tracking servo ON signal input
52	CLVS	O	Spindle servo signal output
53	PC	—	—
54	ECM	O	Spindle motor control signal output
55	ECS	O	Spindle motor control signal output
56	VDD	I	Power supply (+5 V input)
57	/TEST	I	+5 V input
58	SSEL	I	+5 V input
59	MSEL	—	—
60	RESY	—	—
61	DO	I	Drop out signal input
62	EFM	—	—
63	PCK		
64	PDO		

●IC704 (MN6650)

Pin No.	Mark	I/O Division	Function
1	TES	O	Tracking error signal output
2	PLAY	O	Play signal output
3	RFDET	I	RF detection signal input
4	DO	I	Dropout signal input
5	OFT	I	Off track signal input
6	ARF	I	RF signal input
7	WVEL	O	High speed status signal output
8	PBO	I	Potension buffer signal input
9	TE	I	Tracking error signal input
10	FE	I	Focus error signal input
11	VR2	I	A/D reference voltage input
12	VR1	I	A/D reference voltage input
13	LDON	O	Laser power control signal output
14	VSS	—	Ground
15	AVSS	—	Ground
16	AVDD	I	Power supply (+5 V input)
17	VDD	I	Power supply (+5 V input)
18	TRV	O	Traverse servo control output
19	VTD	O	Traverse drive output
20	FOD	O	Focus drive output
21	TRD	O	Tracking drive output
22	KICK	O	Track kick signal output

●IC705 (MN6475)

Pin No.	Mark	I/O Division	Function
1	LRCK	I	Clock input
2	BCLK	I	Serial data bit clock input
3	SRDATA	I	Serial data input
4	COT1	—	Ground
5	COT2		
6	TEST		
7	VDD	I	Power supply (+5 V input)
8	X2	—	Clock (f=33.8688 MHz)
9	X1		
10	VSS	—	Ground
11	AVDDL	I	Power supply (+5 V input)
12	OUT.L	O	AF signal output (Lch)

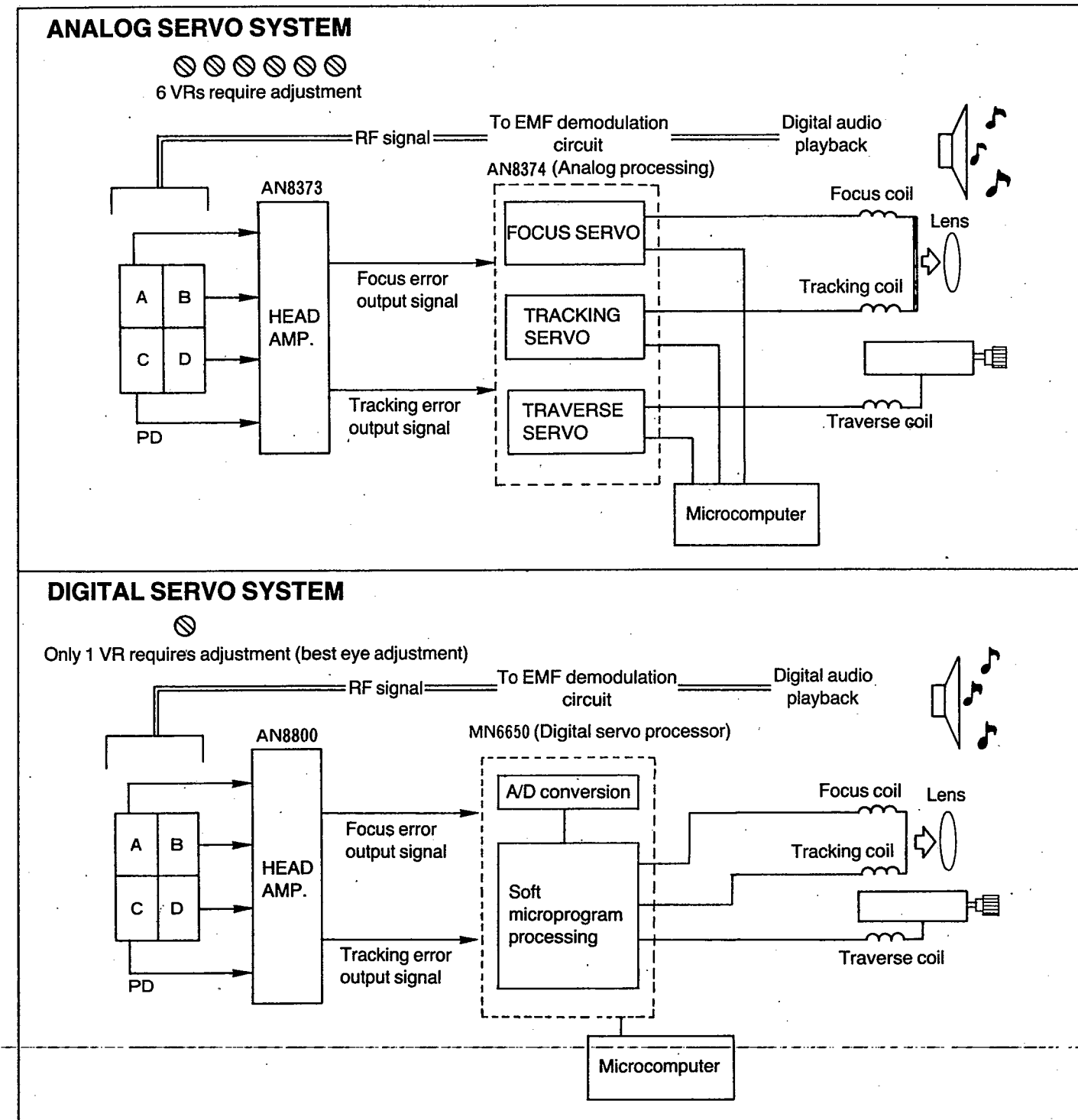
Pin No.	Mark	I/O Division	Function
23	/TEST	I	+5 V input
24	VSS	—	Ground
25	CLVS	I	Spindle servo signal input
26	/TRON	O	Tracking servo signal output
27	MDATA	I	Command data input
28	MCLK	I	Command clock signal input
29	MLD	I	Command load signal input
30	SENSE	O	Sense signal output
31	/FLOCK	O	Focus servo signal output
32	/TLOCK	I	Tracking servo signal output
33	/RST	I	Reset signal input (L: Reset)
34	XI	I	Clock input (fXI=16.9344 MHz)
35	TO	—	Open
36	T1		
37	T2		
38	T3	—	Ground
39	T4		
40	T5		
41	T6	—	Ground
42	VDET		
43	TBAL	O	Tracking balance adjustment output
44	TRCRS	I	Track cross signal input

Pin No.	Mark	I/O Division	Function
13	AVSS.L	—	Ground
14	AVSS.R	—	Ground
15	OUT.R	O	AF signal output (Rch)
16	AVDD.R	I	Power supply input
17	/RST	I	Reset signal input
18	PWM	—	—
19	TP	—	Ground
20	WVEL	I	High speed status signal input
21	DEMPH	I	De-emphasis signal input
22	CSEL	I	+5 V input
23	192FS	—	—
24	768FS	O	Clock output (f=16.9344 MHz)

DIGITAL SERVO SYSTEM

The newly-developed digital servo system is adopted in the servo circuit of the unit's CD player instead of the ordinary analog servo system.

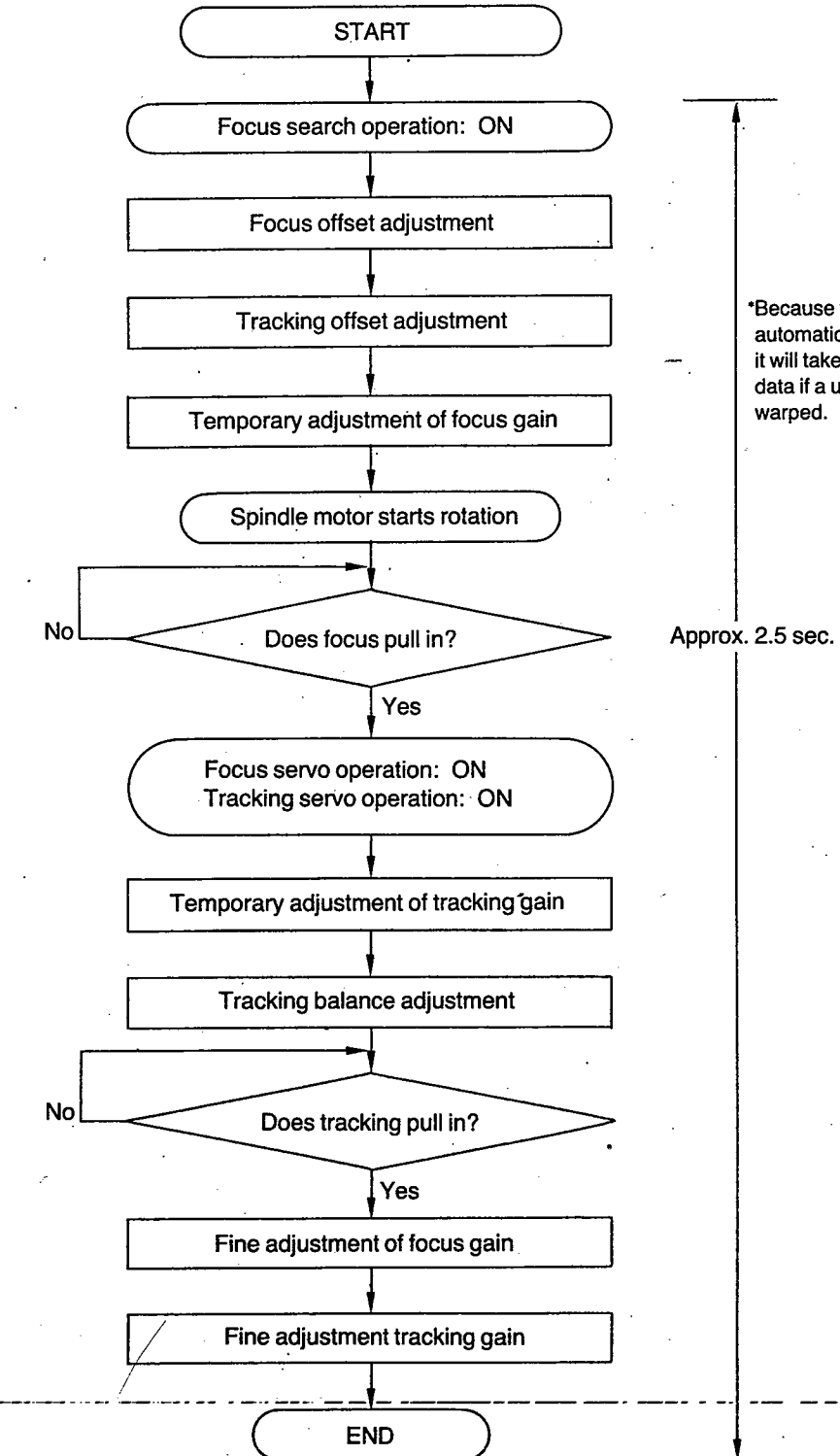
- The diagrams shown below represent differences between the analog servo and digital servo systems. The HEAD AMP. output signals (i.e., focus error and tracking error output signals) are analog. These analog signals are converted to the 8-bit digital signals through the MN6650. The MN6650 performs the following adjustments automatically; focus offset, tracking offset, focus gain, tracking gain, and tracking balance adjustments. The outputs from the MN6650 such as the focus coil driving signal, tracking coil driving signal, and traverse motor driving signal are converted to analog signals again and sent to the coils and motor to perform proper servo control for a disc.



- The servo processor IC MN6650 of the newly-developed digital servo circuit automatically performs the following adjustments which were originally adjusted in the conventional analog servo circuit: (1) Focus offset, (2) Tracking offset, (3) Focus gain, (4) Tracking gain, and (5) Tracking balance. Therefore, you do not have to perform not the above-mentioned electrical adjustments manually. Only the best eye (PD balance) needs to be adjusted adjustment. You can obtain an optimum servo control for a disc to be played. [You must perform the best eye (PD balance) adjustment manually.]

The following flow chart shows the sequence of automatic adjustments.

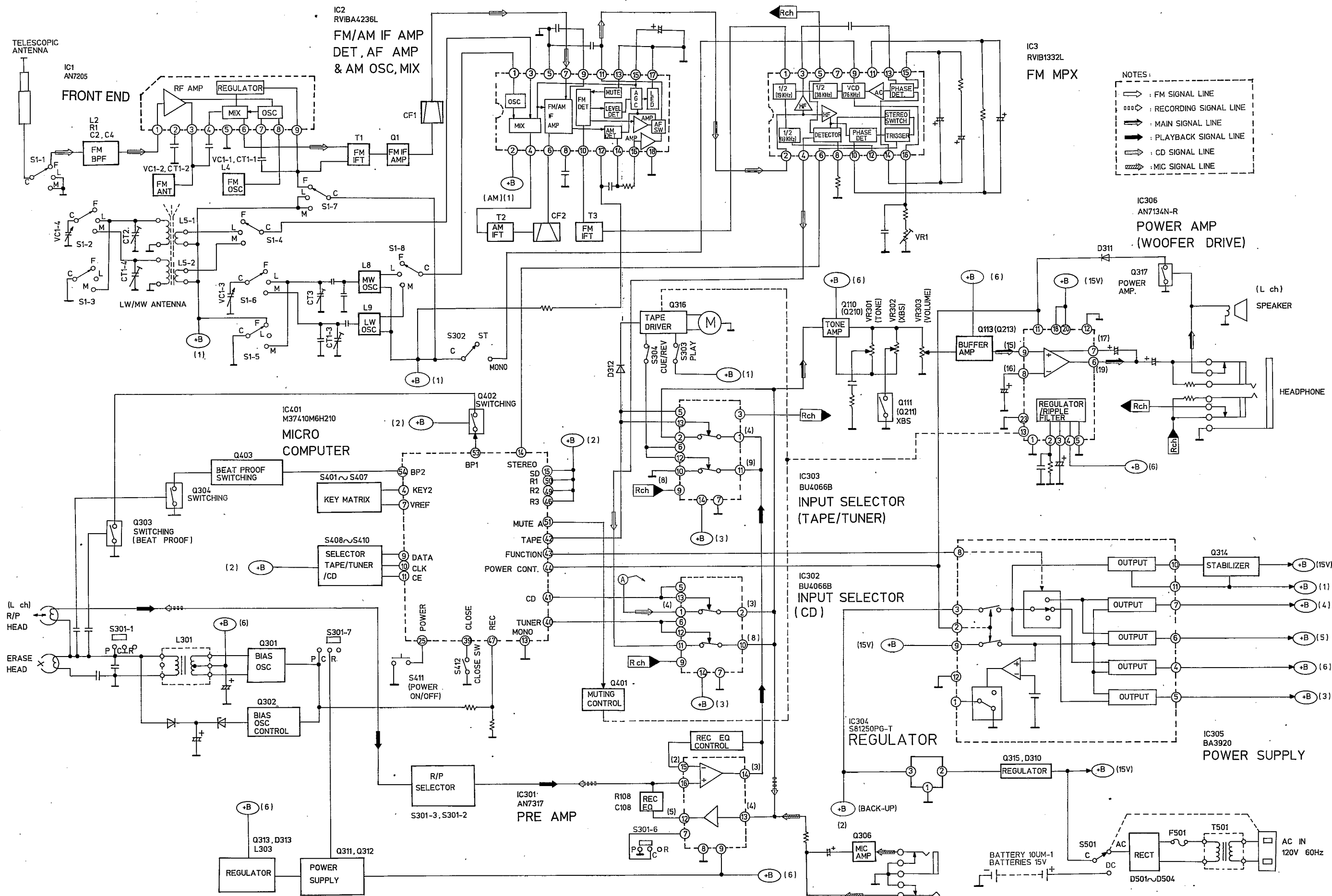
Flow chart on automatic adjustment sequence



■ BLOCK DIAGRAM : OVERALL CIRCUIT EXCEPT CD

RX-DS101

RX-DS101

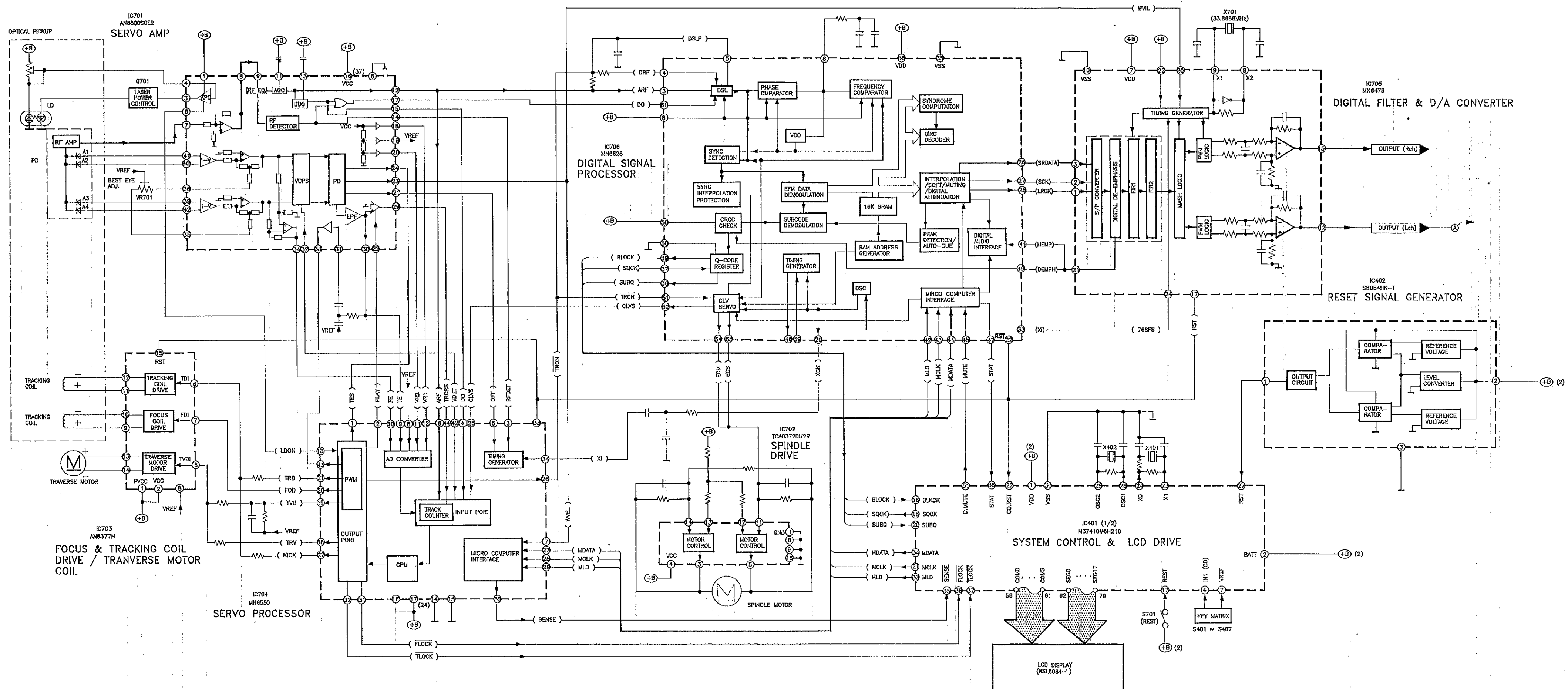


■ BLOCK DIAGRAM : CD CIRCUIT

RX-DS101

RX-DS101

RX-DS101



Caution:

- It is very dangerous to look at or touch the laser beam. (Laser radiation is invisible.) With the unit turned "on", laser radiation is emitted from the pickup lens. Avoid exposure to the laser beam, especially when performing adjustments.

Measuring Instruments and Special Tools

• Test disc

1. Playability test disc (SZZP1054C)
2. Uneven test disc (SZZP1056C)

• Allen wrench (M2.0) (SZZP1101C)

- Oscilloscope
- Lock paint (RZZOL01)

(1) MECHANICAL ADJUSTMENT

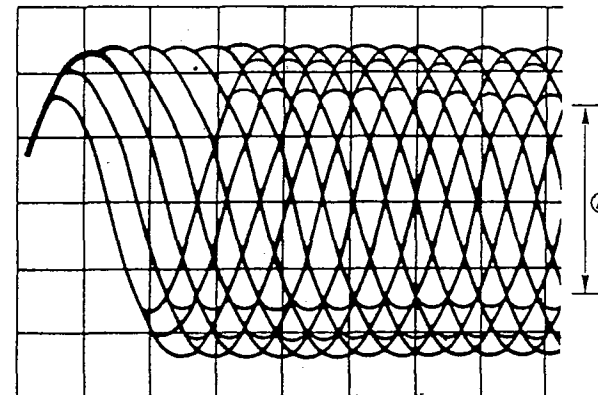
- When the traverse deck is replaced, making adjustments is not necessary. (The traverse deck ass'y is already adjusted.)
- Make adjustments to improve playability when the traverse deck has not been replaced. Make the electrical adjustments first.

1. Connect the oscilloscope's CH. 1 probe across **TP702** (+) and **TP703** (V-REF) on the Servo P.C.B.

Oscilloscope setting:

VOLT 200 mV
 SWEEP 0.5 μ sec
 Input coupling AC

2. Switch the player power **ON**, and play track 19 on the test disc (SZZP1056C).
3. Leave the player in Play mode and place it as shown in the figure on the right.
4. Alternately adjust the two mechanical adjusting screws with the 2.0 mm allen wrench (SZZP1101C) until the RF signal amplitude variation on the oscilloscope is minimized. (Shown in Fig. 2, page 40)
5. After completing the adjustment, lock the **mechanical adjustments** with lock paint (RZZOL01).



A Minimize the variation of amplitude.

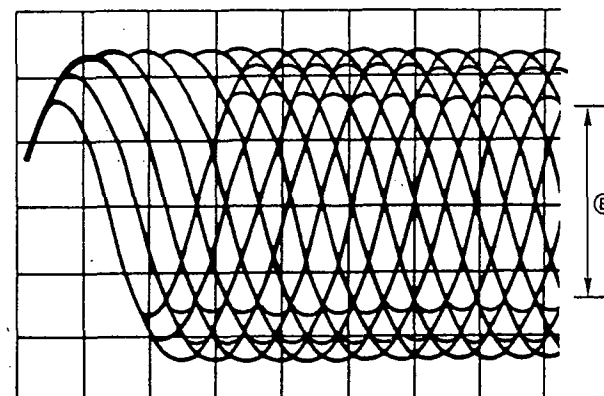
(2) BEST EYE (PD BALANCE) ADJUSTMENT

1. Connect the oscilloscope's CH. 1 probe across **TP702** (+) and **TP703** (V-REF) on the Servo P.C.B.

Oscilloscope setting:

VOLT 200 mV
 SWEEP 0.5 μ sec
 Input coupling AC

2. Switch the player power **ON**, and play the 1 kHz (track 1) on test disc (SZZP1054C).
3. Adjust **VR701** until the RF signal eye pattern amplitude is maximized.



B Maximize the amplitude

(3) CHECK OF PLAY OPERATION AFTER ADJUSTMENT***Checking Skip Search**

1. Play an ordinary musical program disc.
2. Press the skip button to check for normal skip search operation (in both the forward and reverse directions).

***Checking Manual Search**

1. Play an ordinary musical program disc.
2. Press the manual search button to check for smooth manual search operations at either low or high speed (in both the forward and reverse directions).

***Checking Playability**

1. Play the 0.7 mm black dot and the 0.7 mm wedge on the test disc (SZZP1054C) and verify that no sound skip or noise occurs.
2. Play the middle tracks of the uneven test disc and verify that no sound skip or noise occurs.

MEASUREMENTS AND ADJUSTMENTS**ALIGNMENT INSTRUCTIONS**

READ CAREFULLY BEFORE ATTEMPTING ALIGNMENT

1. Set volume control to maximum.
2. Set band selector switch to MW, LW OR FM.
3. Set function selector to TUNER/B.P or TAPE.
4. Set power source voltage to 15V DC.
5. Set tone control to center.
6. Set XBS level control to minimum.
7. Output of signal generator should be no higher than necessary to obtain an output reading.

AM-IF ALIGNMENT

SIGNAL GENERATOR or SWEEP GENERATOR		RADIO DIAL SETTING	INDICATOR (ELECTRONIC VOLTMETER or OSCILLOSCOPE)	ADJUSTMENT (Shown in Fig. 1)	REMARKS
CONNECTIONS	FREQUENCY				
Fashion a loop of several turns of wire and radiate a signal into the loop ant. of receiver.	459 kHz 30% Mod. at 400Hz	Point of non-interference. (on/about 600Hz)	Headphones Jack (32 Ω) (Fabricate the plug as shown in Fig. 2 and then connect the lead wires of the plug to the measuring instrument.)	T2 (AM IFT)	Adjust for maximum output.

LW-RF ALIGNMENT

Fashion a loop of several turns of wire and radiate a signal into the loop ant. of receiver.	136kHz...(E,EB,GN) 137 $\pm$ 5kHz...(EG)	Tuning capacitor fully closed.	"	L8 (LW OSC Coil)	Adjust for maximum output.
"	297kHz...(E,EB,GN) 297 $\pm$ 5kHz...(EG)	Tuning capacitor fully closed.	"	CT3(LW OSC Trimmer)	Adjust for maximum output.
"	145 kHz	Tune to signal	"	(*1) L5-2(LW ANT Coil)	Adjust for maximum output. Adjust L5-2 by moving coil along the ferrite core.
"	285 kHz	"	"	CT2 (LW ANT Trimmer)	Adjust for maximum output.

(*1) Fix antenna coil with wax after completing alignment.

MW-RF ALIGNMENT

Fashion a loop of several turns of wire and radiate a signal into the loop ant. of receiver.	511kHz...(E,EB,GN) 514 $\pm$ 3kHz(EG)	Tuning capacitor fully closed.	"	L9 (MW OSC Coil)	Adjust for maximum output.
"	1650kHz(E,EB,GN) 1639 $\pm$ 5kHz...(EG)	Tune to signal	"	CT1-3(MW OSC Trimmer))	Adjust for maximum output.
"	550kHz	"	"	(*2) L5-1(MW ANT Coil)	Adjust for maximum output. Adjust L5-1 by moving coil along the ferrite core.
"	1500kHz	"	"	CT1-4 (MW ANT Trimmer)	Adjust for maximum output.

(*2) Fix antenna coil with wax after completing alignment.

FM-IF ALIGNMENT

SIGNAL GENERATOR or SWEEP GENERATOR		RADIO DIAL SETTING	INDICATOR (ELECTRONIC VOLTMETER or OSCILLOSCOPE)	ADJUSTMENT (Shown in Fig. 1)	REMARKS
CONNECTIONS	FREQUENCY				
Connect to test point TP3 through ceramic capacitor(0.001 μ F) Negative side to test point TP2 .	10.7 MHz (SWEEP)	Point of interference. (on/about 90 MHz)	Connect vert. amp. scope to test point TP4 . Negative side to test point TP5 .	T1 (FM 1st)	Wave form is shown in Fig. 3.
"	"	"	"	T3 (FM 2nd)	Wave form is shown in Fig. 4.

FM-RF ALIGNMENT

Connect to test point TP1 through FM dummy antenna. Negative side to test point TP2 .	86.2 MHz... (E,EB,GN) 87.35 MHz $\pm$ 50kHz...(EG)	Variable capacitor fully closed.	Headphones Jack (32 Ω) (Fabricate the plug as shown in Fig. 2 and then connect the lead wires of the plug to the measuring instrument.)	L4 (FM OSC Coil)	(*3) Adjust for maximum output.
	109.2MHz... (E,EB,GN) 108.25MHz $\pm$ 50kHz...(EG)	Variable capacitor fully open.		CT1-1 (FM OSC Trimmer)	
	106 MHz	Tune to signal		CT1-2 (FM ANT Trimmer)	

(*3) Three output responses will be present; Proper tuning is the center frequency.

SEPARATION ALIGNMENT

SIGNAL GENERATOR or SWEEP GENERATOR	EQUIPMENT CONNECTION ELECTRONIC COUNTER	ADJUSTMENT (Shown in Fig. 1)	SPECIFICATION	REMARKS
98 MHz, 60 dB(CW) Connect to test point TP1 through FM dummy antenna. Negative side to TP2	TP7 ... (+) TP8 ... (-)	VR1	19KHz	Adjust VR1, for 19kHz $\pm$ 50Hz reading on frequency counter.

HEAD AZIMUTH ALIGNMENT

TEST TAPE	EQUIPMENT CONNECTION ELECTRONIC COUNTER	ADJUSTMENT	SPECIFICATION	REMARKS
QZZCFM (8kHz, -20dB)	Headphones Jack (32 Ω) (Fabricate the plug as shown in Fig. 2 and then connect the lead wires of the plug to the measuring instrument.)	Azimuth screw (Shown in Fig. 5)	Maximum output	Playback mode.

TAPE SPEED ALIGNMENT

TEST TAPE	EQUIPMENT CONNECTION ELECTRONIC COUNTER	ADJUSTMENT	SPECIFICATION	REMARKS
QZZCFM (3 kHz)	Headphones Jack (32 Ω) (Fabricate the plug as shown in Fig. 2 and then connect the lead wires of the plug to the measuring instrument.)	Motor VR (Shown in Fig. 6)	3000 $\pm$ 50Hz	1. Playback mode. 2. Adjust motor VR, for 3000 $\pm$ 50Hz reading on frequency counter.

RECORD BIAS VOLTAGE & FREQUENCY CHECK

TEST TAPE	EQUIPMENT CONNECTION ELECTRONIC COUNTER	ADJUSTMENT	SPECIFICATION	REMARKS
Use Normal tape	TP301 ... (+) TP302 ... (-)	—	16.0 $\pm$ 2mV	•Record mode
Use Normal tape	TP301 ... (+) TP302 ... (-)	—	100 $\pm$ 10KHz	•Record mode

BEATPROOF CHECK

TEST TAPE	EQUIPMENT CONNECTION ELECTRONIC COUNTER	ADJUSTMENT	SPECIFICATION	REMARKS
Use Normal tape	TP301 ... (+) TP302 ... (-) (Refer to Fig. 7)	—	1.8 ~ 3.8KHz	1. Set the function selector to tuner position and the tape operation to record mode. 2. Press the tuner buttons 1, 2 & 3 times. 3. Confirm the osc-wave to be sine wave without distortion and abnormal oscillation.

ALIGNMENT POINT

- Please refer to Circuit Board and Wiring Connection Diagram for test point locations

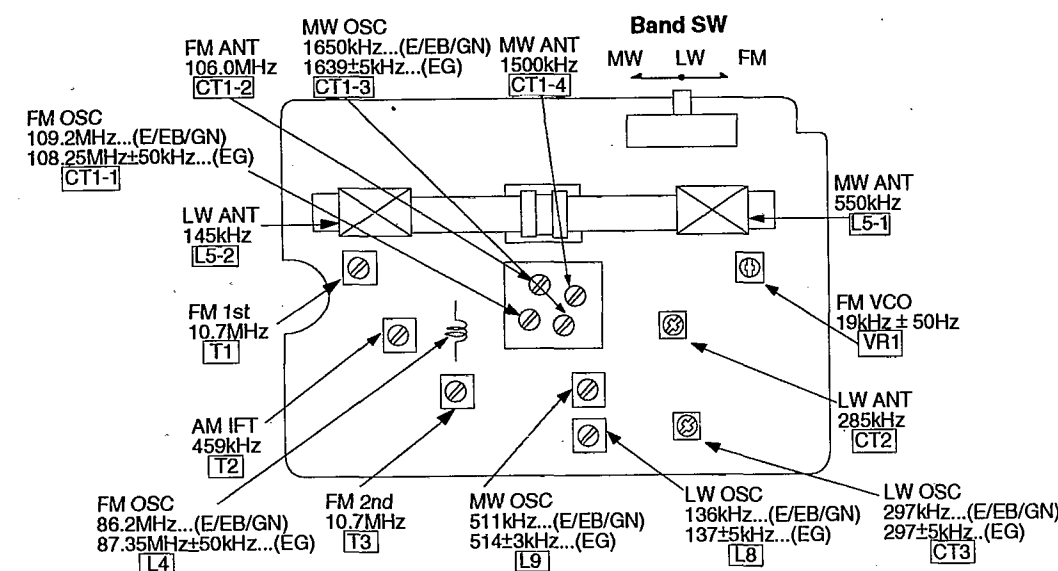


Fig. 1

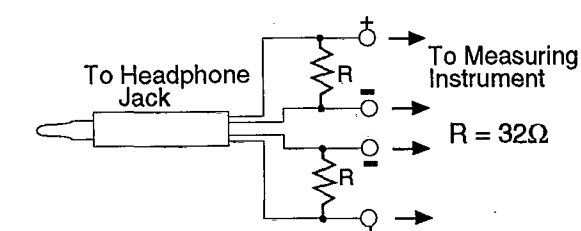


Fig. 2

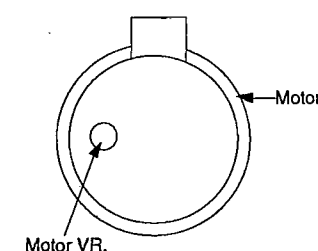


Fig. 6

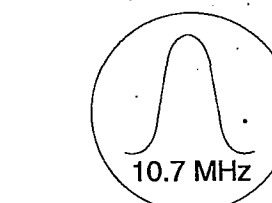


Fig. 3

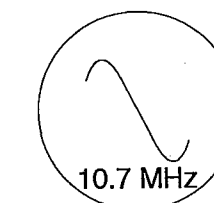


Fig. 4

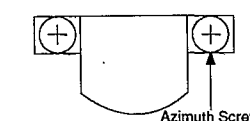


Fig. 5

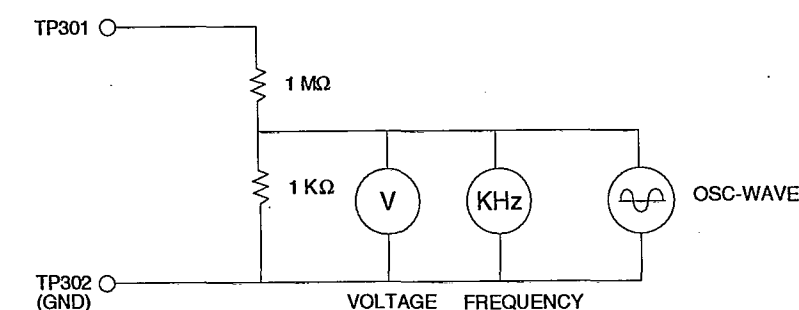
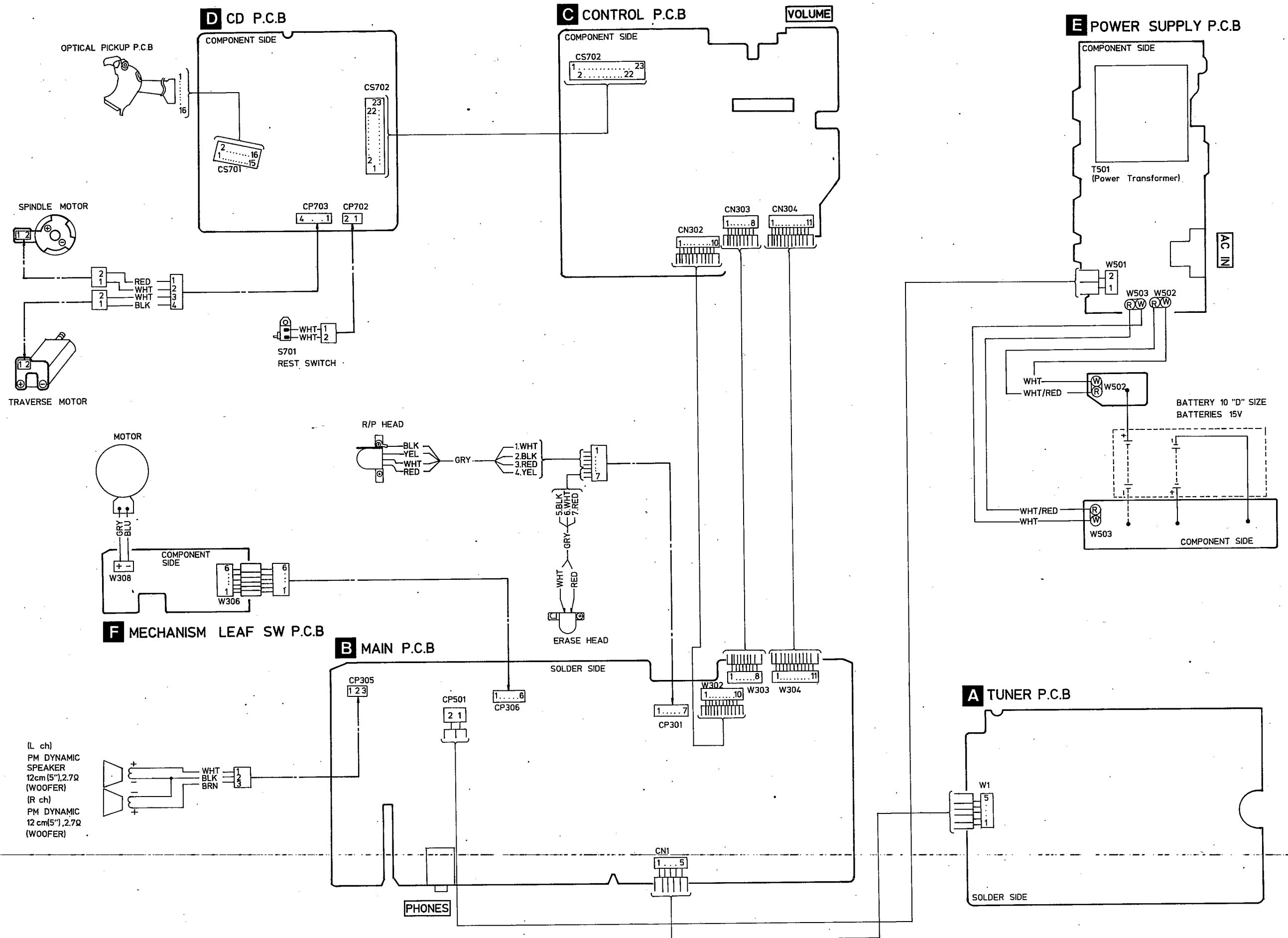
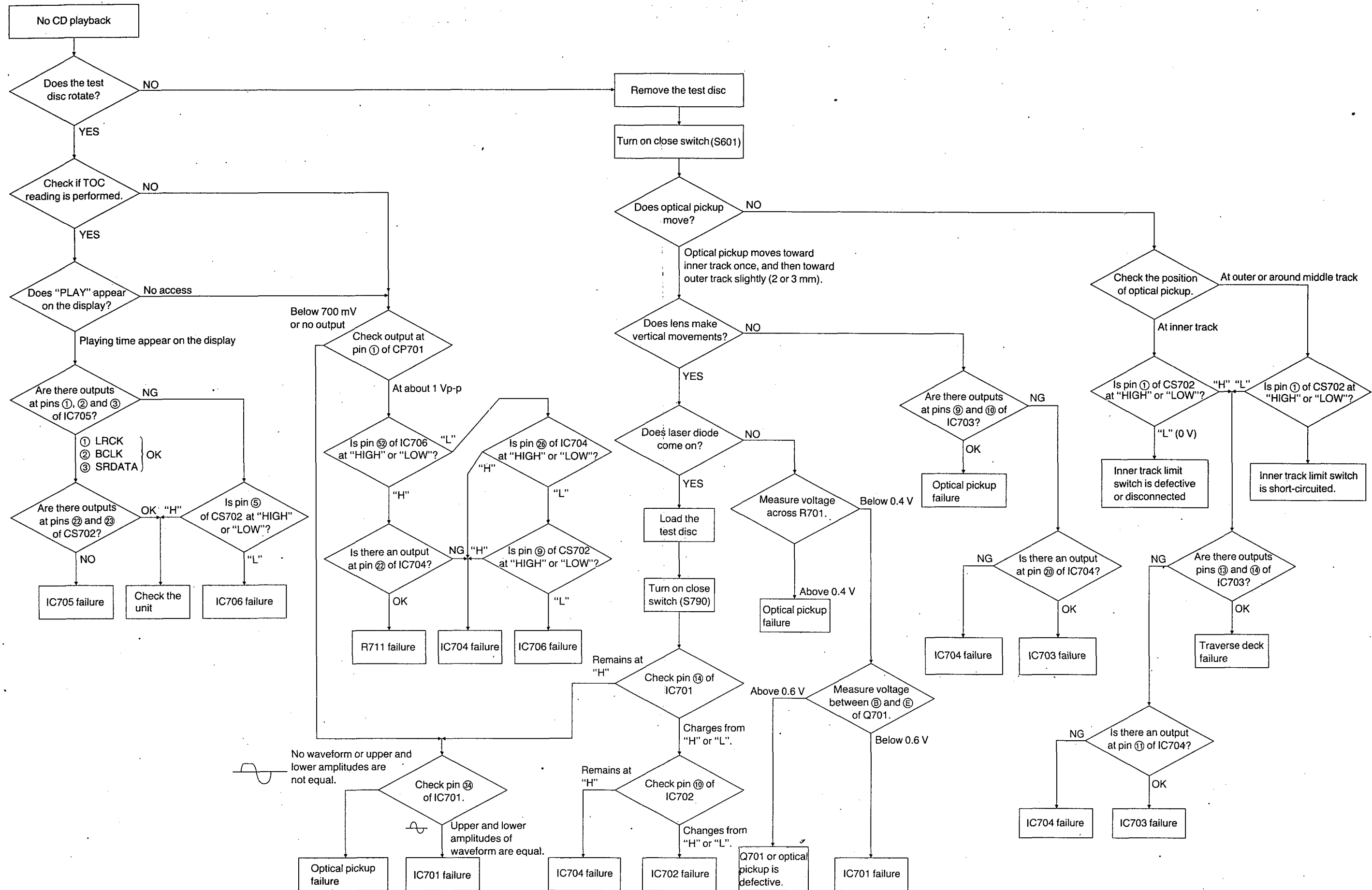


Fig. 7

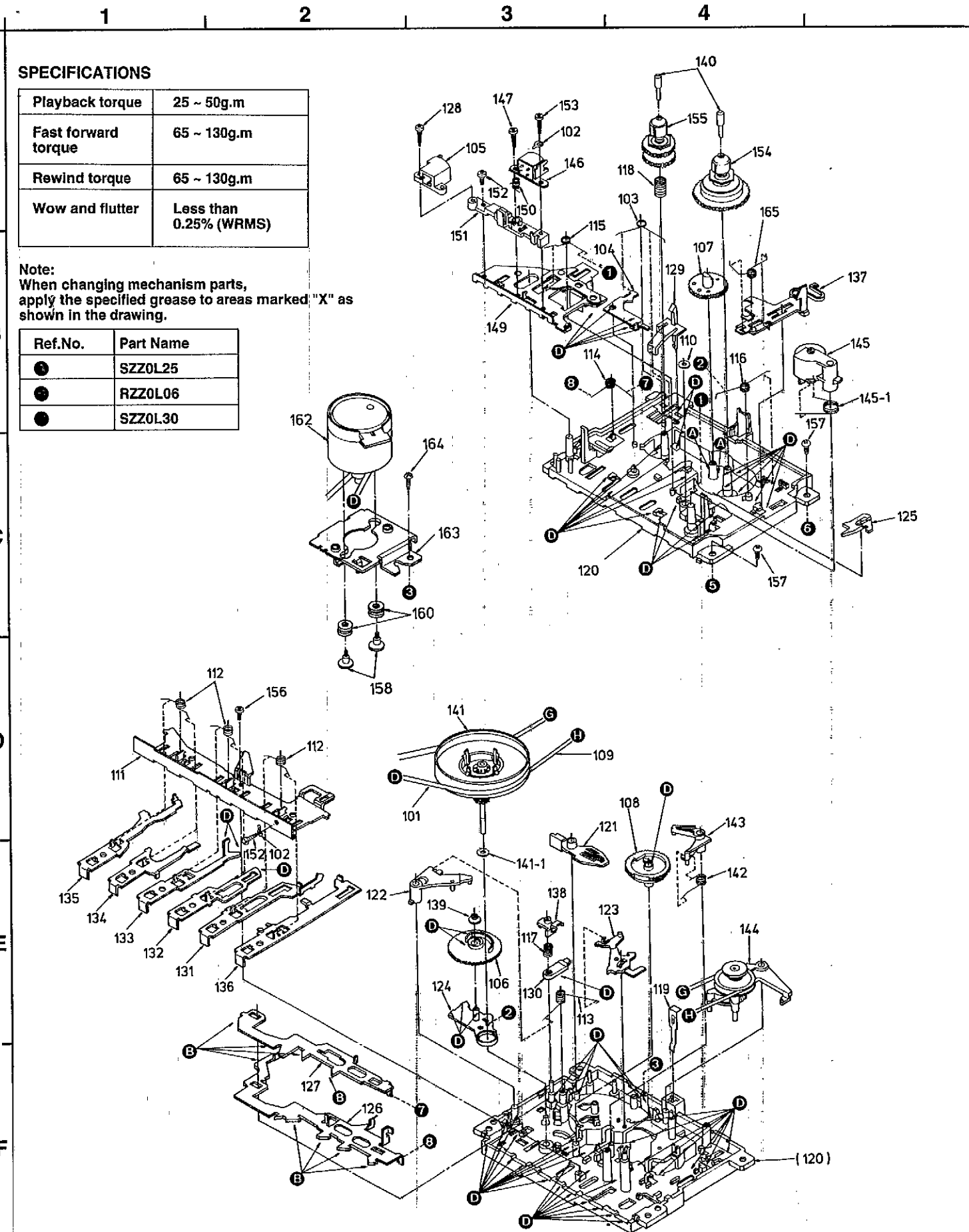
■ WIRE CONNECTION DIAGRAM



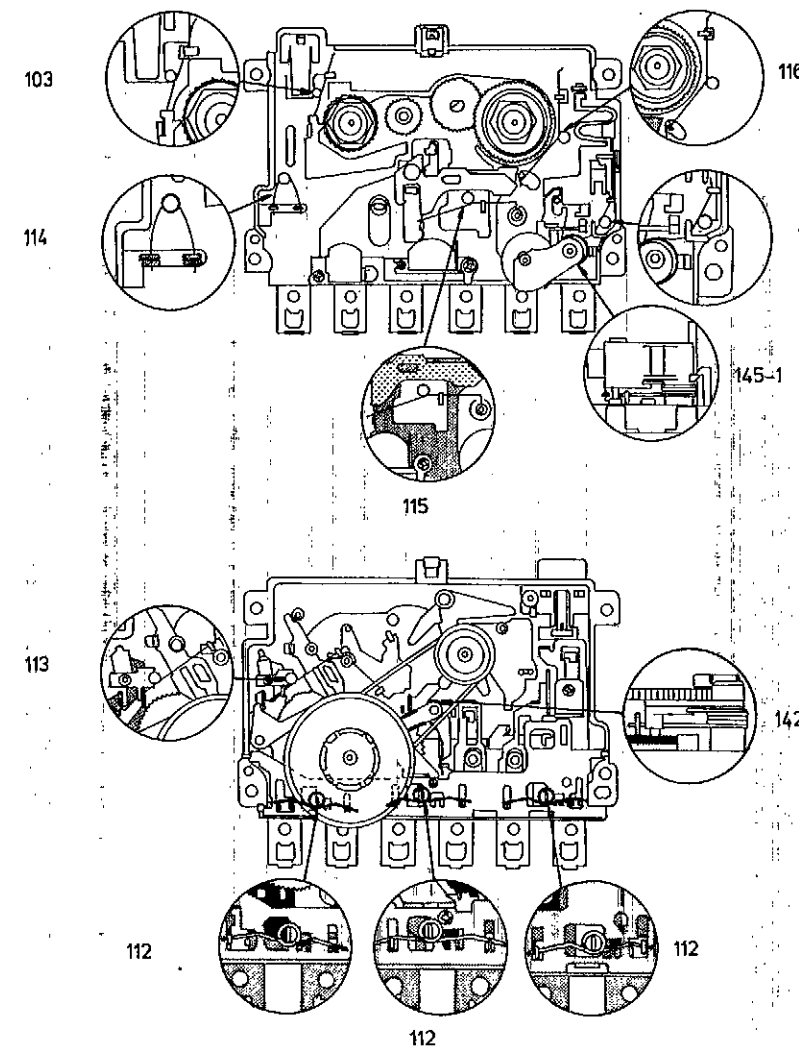
TROUBLESHOOTING GUIDE



MECHANISM PARTS LOCATION

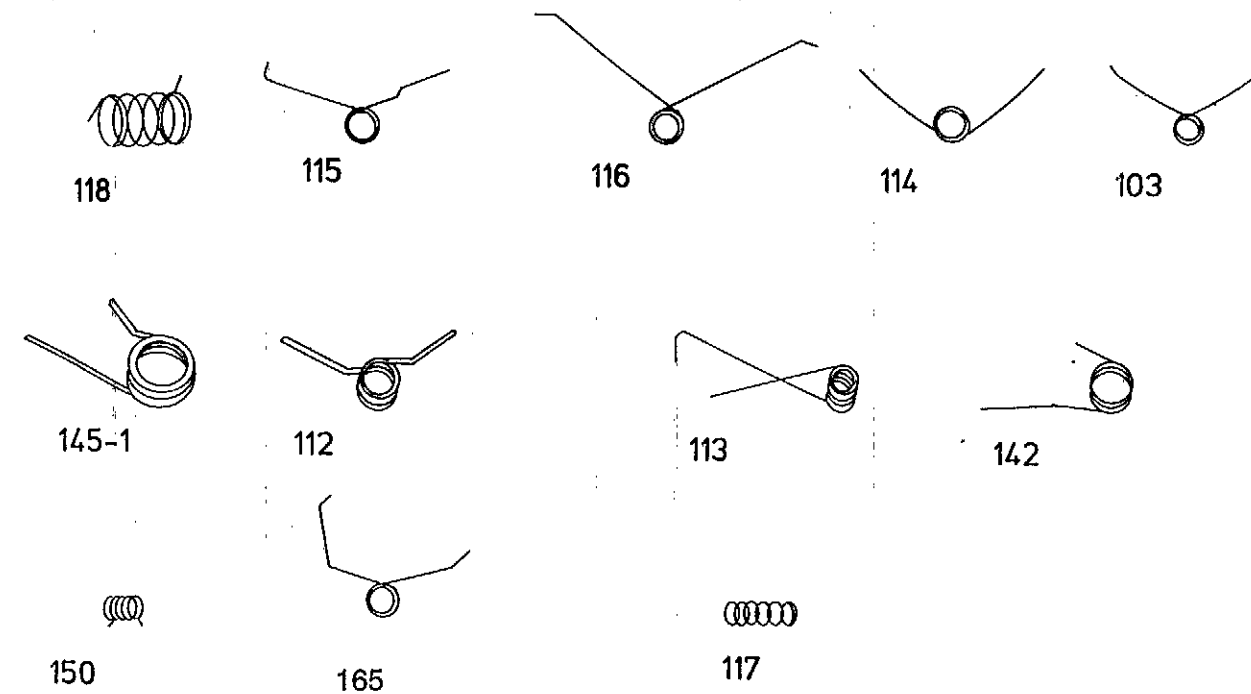


SPRING LOCATION



SPRING ILLUSTRATION

- The illustration shows the actual size of the springs so it can be used to check their shapes. (The illustration shows the springs separated from the mechanism).

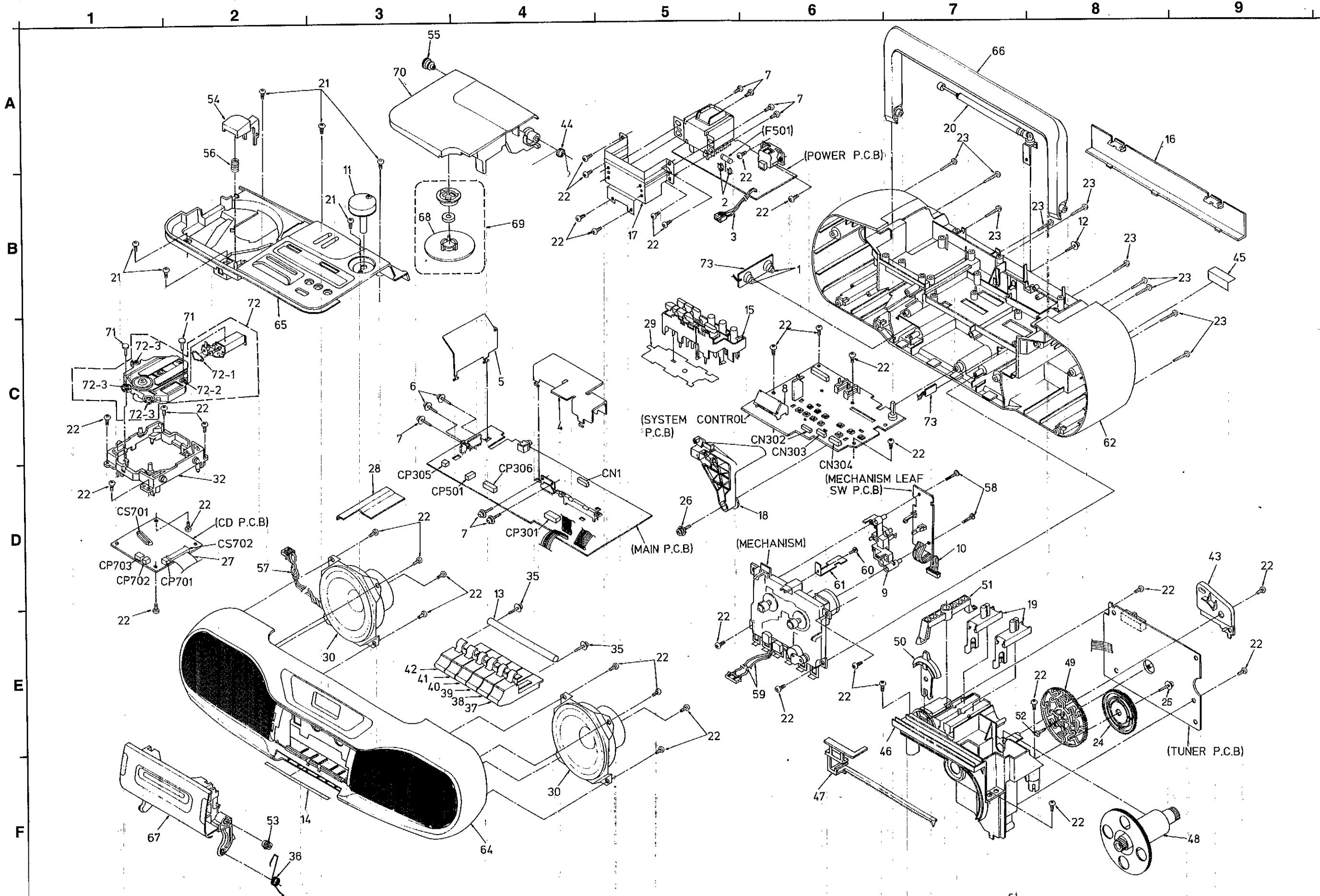


REPLACEMENT PARTS LIST

Ref No.	Part No.	Part Name & Description	Remarks
		MECHANISM	
101	RDV0007	MAIN BELT	[M]
102	RJR0033	TERMINAL	[M]
103	RMB0109-1	SPRING	[M]
104	RML0116	ARM	
105	RBR2CG002-S	E HEAD	[M]
106	RDG0057	GEAR	[M]
107	RDG0059	GEAR	[M]
108	RDK0005	GEAR	[M]
109	RDV0006-1	BELT	[M]
110	RHW16009	WASHER	[M]
111	RMA0109	ANGLE	[M]
112	RMB0043-1	SPRING	[M]
113	RMB0045	SPRING	[M]
114	RMB0046-1	SPRING	[M]
115	RMB0047	SPRING	[M]
116	RMB0048	SPRING	[M]
117	RMB0053	SPRING	[M]
118	RMB0125	SPRING	[M]
119	RMC0061	SPRING	[M]
120	RFRCT090P-K	CHASSIS ASS'Y	[M]
121	RML0071	LEVER	[M]
122	RML0072	LEVER	[M]
123	RML0073-1	LEVER	[M]
124	RML0074	LEVER	[M]
125	RML0076	LEVER	[M]
126	RML0077	LEVER	[M]
127	RML0078	LEVER	[M]
128	XTB2+7F	SCREW	[M]
129	RML0081-1	LEVER	[M]
130	RML0082	LEVER	[M]
131	RMM0023	PLAY ROD	[M]
132	RMM0024	REW ROD	[M]
133	RMM0025	FF ROD	[M]
134	RMM0026	STOP ROD	[M]
135	RMM0027	PAUSE ROD	[M]
136	RMM0028	REC ROD	[M]
137	RMM0029	EJECT ROD	[M]
138	RMR0211	STOPPER	[M]
139	RMR0227	STOPPER	[M]
140	RMS0055	PIN	[M]
141	RXP0012	FLYWHEEL ASS'Y	[M]
141-1	RHW21008	WASHER	[M]
142	RMB0044	SPRING	[M]
143	RML0075	LEVER	[M]
144	RXP0014	PULLEY ASS'Y	[M]

Ref No.	Part No.	Part Name & Description	Remarks
145	RXP0015	ROLLER ASS'Y	[M]
145-1	RMB0049	SPRING	[M]
146	RJH4C29MZAS	R/P HEAD	[M]
147	RHD20003	SCREW	[M]
149	RMA0107	HEAD BASE	[M]
150	RMB0059	SPRING	[M]
151	RMR0159	GUIDE	[M]
152	XTN2+4F	SCREW	
153	XTN2+8F	SCREW	
154	RXR0004	TAKE-UP REEL ASS'Y	[M]
155	RXR0005	SUPPLY REEL ASS'Y	[M]
156	XTN2+6J	SCREW	
157	XTW26+8L	SCREW	
158	RHD26002	SCREW	
160	RMG0102	RUBBER SPACER	[M]
162	RFPXDS101PK	DC MOTOR ASS'Y	[M]
163	RMA0108	MOTOR ANGLE	[M]
164	XTN26+8J	SCREW	
165	RME0098-2	SPRING	[M]

CABINET PARTS LOCATION



REPLACEMENT PARTS LIST

Notes: * Important safety notice:
Components identified by Δ mark have special characteristics important for safety.
Furthermore, special parts which have purposes of fire-retardant (resistors), high-quality sound (capacitors), low-noise (resistors), etc. are used.
When replacing any of these components, be sure to use only manufacturer's specified parts shown in the parts list.
* The parenthesized indications in the Remarks columns specify the areas. (Refer to the cover page for area)
Parts without these indications can be used for all areas.
* [M] Indicates in the Remarks columns indicates parts supplied by MESA.

Ref No.	Part No.	Part Name & Description	Remarks	Ref No.	Part No.	Part Name & Description	Remarks
CABINET & CHASSIS				44	RME0103	CD OPEN SPRING	[M]
				45	RMQ0301	COVER SHEET	[M]
1	RJC511ZBS	UM-1 BATT SPRING	[M]	46	RMK0153	DIAL CHASSIS	[M]
2	RJF28ZA	FUSE HOLDER		47	RGJ0011-W	POINTER	[M]
3	REX0446-1	WIRE ASS'Y	[M]	48	RGW0143-K	TUNING KNOB	[M]
4	RMV0093	HEAT SINK(A)	[M]	49	RDG5845ZAB	VARICON GEAR	[M]
5	RMV0098	HEAT SINK(B)	[M]	50	RGV0093-K	BAND KNOB	[M]
6	XTW3+10F	SCREWS		51	RMA0554	BAND LEVER	[M]
7	XTV3+8F	SCREWS		52	XYN26+C6	VARICON SCREW	
8	RMN0167	LCD HOLDER	[M]	53	RDG5782YC	CD DAMPER GEAR	[M]
9	RMR0368	CHASSIS	[M]	54	RGU0716-H	CD EJECT BUTTON	[M]
10	REX0429	WIRE ASS'Y	[M]	55	RDG5782YC	CASSETTE DAMPER GEAR	[M]
11	RGW0142-II	VOL. KNOB	[M]	56	RMB0244	EJECT SPRING	[M]
12	XYN3+88FY	SCREW		57	REX0430	SP WIRE	[M]
13	SUX102	MECHA BUTTON SHAFT	[M]	58	XTN2+16GFZ	SCREWS	
14	RMQ0305	BUTTON SHEET		59	REX0439-1	WIRE ASS'Y	[M]
15	RGZ0011-K	CD OPR BUTTON	[M]	60	XTN2+3F	SCREW	
16	RKK347ZB-7	BATT COVER	[M]	61	RMC0148	REC SPRING	[M]
17	RMA0552-1	P.T ANGLE PLATE	[M]	62	RFKHXDS101EK	BACK CABINET ASS'Y	[M](E)
18	RML0242	REC LEVER	[M]	62	RFKHXDS101EB	BACK CABINET ASS'Y	[M](EB,GN)
19	RGV0094-K	SLIDE KNOB	[M]	62	RFKHXDS101EG	BACK CABINET ASS'Y	[M](EG)
20	XEARR175FD-Y	ROD ANTENNA	[M]	64	RFKGXDS101P	FRONT CABINET ASS'Y	[M]
21	XTN3+10CFZ	SCREWS		65	RFKKXDS101EK	TOP CABINET ASS'Y	[M](E,EB)
22	XTV3+12G	SCREWS		65	RFKKXDS101EG	TOP CABINET ASS'Y	[M](EG)
23	XTV3+20G	SCREWS		65	RFKKXDS101GN	TOP CABINET ASS'Y	[M](GN)
24	RDG0187	GEAR	[M]	66	RFKNXDS101PK	HANDLE ASS'Y	[M]
25	XTWS3+10Q	GEAR SCREW		67	RFKLXDS101PK	CASS.HOLDER ASS'Y	[M]
26	XTW3+12Q	SCREWS		68	RFKNXDT680PA	DISC PAD ASS'Y	[M]
27	REB0388	FEC WIRE	[M]	69	RFKNXDT680PB	DISC HOLDER ASS'Y	[M]
28	RMQ0284	PVC SAFETY COVER	[M]	70	RFKKXDS101PB	CD COVER ASS'Y	[M]
29	RMQ0304	BUTTON SHEET	[M]	71	RMS0123-1	PIN	
30	EAS10P542K-G	SPEAKER	[M]	72	SODD110Z	TRAVERSE DECK ASS'Y	
32	RMK0105	CHASSIS		72-1	RDV0014	BELT	
35	XTWS3+8T	SCREWS		72-2	SHGD112	RUBBER	
36	RME0104	CASSETTE OPEN SPRING	[M]	72-3	SHGD113-1	RUBBER	
37	RGU0731-H	PAUSE BUTTON	[M]	73	RJB0566N	P.C.B	[M]
38	RGU0732-H	STOP/EJECT BUTTON	[M]	INTEGRATED CIRCUIT(S)			
39	RGU0733-H	FF/CUE BUTTON	[M]				
40	RGU0734-H	REW/REV BUTTON	[M]				
41	RGU0735-H	PLAY BUTTON	[M]	IC 1	AN7205	I.C. RF	
42	RGU0736-H	RECORD BUTTON	[M]	IC 2	RVIBA4236L	I.C. IF	
43	RMK0162	SUB CHASSIS	[M]	IC 3	RVIBA1332L	I.C. MPX	

Ref No.	Part No.	Part Name & Description	Remarks
IC301	AN7317	I.C, REC/PLAY AMP	[M]
IC302	BU4066B	I.C, ANALOG SW	
IC303	BU4066B	I.C, ANALOG SW	
IC304	S81250PG-T	I.C, REGULATOR	[M]
IC305	BA3920	I.C, REGULATOR	
IC306	AN7134N-R	I.C, POWER AMP	
IC401	M37410M6H220	I.C, MICRO COMPUTER	[M]
IC402	S8054HN-T	I.C, RESET	
IC701	AN8800SCE2	I.C, SERVO AMP	
IC702	TCA0372DM2R	I.C, SPLINDLE M.DRIVE	
IC703	AN8377N	I.C, TRAVERSE M.DRIVE	
IC704	MN6650	I.C, DIGITAL SERVO PRO.	
IC705	MN6475	I.C, DIGITAL FILTER	
IC706	MN6626	I.C, DIGITAL SIGNAL PRO.	
		IC PROTECTOR	
ICP302	SRUN5T	IC PROTECTOR N5	⚠
ICP303	SRUN20T	IC PROTECTOR N20	⚠
ICP304	SRUN5T	IC PROTECTOR N5	⚠
ICP305	SRUN5T	IC PROTECTOR N5	⚠
ICP401	SRUN5T	IC PROTECTOR N5	⚠
		TRANSISTOR(S)	
Q 1	2SC829BTA	TRANSISTOR	
Q110	2SC1684HSTA	TRANSISTOR	[M]
Q111	2SC1684HSTA	TRANSISTOR	[M]
Q112	2SC2001L1TA	TRANSISTOR	
Q113	2SC1684HRTA	TRANSISTOR	
Q210	2SC1684HSTA	TRANSISTOR	[M]
Q211	2SC1684HSTA	TRANSISTOR	[M]
Q212	2SC2001L1TA	TRANSISTOR	
Q213	2SC1684HRTA	TRANSISTOR	
Q301	2SC2001L1TA	TRANSISTOR	
Q302	2SC1684STA	TRANSISTOR	
Q303	2SC1685RTA	TRANSISTOR	[M]
Q304	2SC1685RTA	TRANSISTOR	[M]
Q306	2SC1684HRTA	TRANSISTOR	
Q311	RVTDTA144EST	TRANSISTOR	
Q312	RVTDTA114EST	TRANSISTOR	
Q313	2SC2001L1TA	TRANSISTOR	
Q314	2SB1185E	TRANSISTOR	
Q315	2SC2785FTA	TRANSISTOR	
Q316	2SA564RTA	TRANSISTOR	
Q317	2SC1684RTA	TRANSISTOR	
Q401	RVTDTA144EST	TRANSISTOR	

Ref No.	Part No.	Part Name & Description	Remarks
Q402	RVTDTA144EST	TRANSISTOR	
Q403	RVTDTA144EST	TRANSISTOR	
Q701	2SB709S	TRANSISTOR	
		DIODE(S)	
D 1	RVD1SS133TA	DIODE	
D301	RVD1SS133TA	DIODE	
D302	RVDMTZ18BTA	DIODE	[M]
D306	RVDMTZ4R7BTA	DIODE	
D307	RVD1SS133TA	DIODE	
D309	RVDMTZ6R8BTA	DIODE	
D310	RVDMTZ11BTA	DIODE	
D311	RVD1SS133TA	DIODE	
D312	RVD1SS133TA	DIODE	
D313	RVDMTZ6R8BTA	DIODE	
D401	RVD1SS133TA	DIODE	
D402	RVD1SS133TA	DIODE	
D403	RVDMTZ6R2BTA	DIODE	
D404	RVD1SS133TA	DIODE	
D501	1N5402BM21	DIODE	
D502	1N5402BM21	DIODE	
D503	1N5402BM21	DIODE	
D504	1N5402BM21	DIODE	
D701	MA110TW	DIODE	
		VARIABLE RESISTOR(S)	
VR 1	RVNCA14B1T-A	V.R, MPX ADJ	[M]
VR301	EWAGQ6C14G54	V.R, TONE VOLUME	[M]
VR302	EWAGS6C14C54	V.R, XBS VOLUME	[M]
VR303	EWCT5AF20B54	V.R, MAIN VOLUME	[M]
VR701	EVNDXAA00B14	VR, BEST EYE ADJ.	
		COMPONENT COMBINATION(S)	
Z401	RSL5064-L	LCD	[M]
		VARIABLE CAPACITOR(S)	
VC1	RCV4RC2V2K-M	VARIABLE CAPACITOR	
		COIL(S)	
L 2	RLQY30S1W	COIL	[M]
L 4	RLD4Y53W	COIL	[M]
L 5	RLD4Y53W	COIL, ANT	[M] (E,EB,GN)

Ref No.	Part No.	Part Name & Description	Remarks
L 5	RL04N233-0	COIL, ANT	(EG)
L 8	RL01B13-M	COIL, OSC	
L 9	RL02B108-M	COIL, OSC	
L101	RLQZP101KT-Y	COIL, RF CHOKE	
L201	RLQZP101KT-Y	COIL, RF CHOKE	
L301	RL08R001-T	COIL, BIAS OSC	[M]
L302	RLQZB470KT-D	COIL, R CHOKE	
L303	RLQZP101KT-Y	COIL, A CHOKE	
L304	RLQZP101KT-Y	COIL, RF CHOKE	
L401	RLQZP101KT-Y	COIL, RF CHOKE	
L402	RLQZP101KT-Y	COIL, RF CHOKE	(EG)
L501	RLQZB220KT-D	COIL, RF CHOKE	(E,EB,GN) ⚠
L501	RLL500050T-Y	COIL, RF CHOKE	(EG) ⚠
L502	RLQZB220KT-D	COIL, RF CHOKE	(E,EB,GN) ⚠
L502	RLL500050T-Y	COIL, RF CHOKE	(EG) ⚠
		TRANSFORMER(S)	
T 1	RLI4B153-M	FM IFT	
T 2	RLI2B153-M	AM IFT	
T 3	RLI4B153-M	FM IFT	
T501	RTP1L1B004-S	POWER TRANSFORMER	[M] ⚠
		FILTER(S)	
CF1	RVF107WDZT	CERAMIC FILTER	
CF2	RVFSFZ459JL	CERAMIC FILTER	[M]
		OSCILLATOR(S)	
X401	RSXB32K7S01	CRYSTAL RESONATOR	
X402	RSXY4M19M03T	CERAMIC RESONATOR	[M]
X701	RSXZ33M8M01T	OSCILLATOR	
		FUSE(S)	
F501	XBA2C31TB0	FUSE	⚠
		SWITCH(ES)	
S 1	RSS3H001-H	SW, BAND	[M]
S301	RSH2G03VA-A	SW, REC	[M]
S302	RSS2A56ZA-H	SW, MONO/ST.	[M]
S303	RSH1A013-J	SW, TAPE MOTOR	[M]
S304	RSH1A004-1	SW, PLAYBACK	[M]
S401	EVQ21405R	SW, PLAY/PAUSE	
S402	EVQ21405R	SW, STOP/CLEAR	

Ref No.	Part No.	Part Name & Description	Remarks
S403	EVQ21405R	SW, REPEAT	
S404	EVQ21405R	SW, FORWARD	
S405	EVQ21405R	SW, REVERSE	
S406	EVQ21405R	SW, EDIT PAUSE	
S407	EVQ21405R	SW, PROGRAM	
S408	EVQ21405R	SW, TAPE	
S409	EVQ21405R	SW, TUNER/BP	
S410	EVQ21405R	SW, CD	
S411	EVQ21405R	SW, POWER ON/OFF	
S412	RSH1A012-U	SW, CD LEAF SW	
S413	RSH1A012-U	SW, CD LEAF SW	
S501	RJ1SE01-H	JACK W/SW (J501)	⚠
S701	SSHD5-E	SW,REST	
		JACK(S)	
J302	RJ1D25ZA-C	JACK, MIXING MIC	
J303	RJ1D7S2YA-C	JACK, H.P	
J501	RJ1SE01-H	JACK, AC IN	⚠
		CONNECTOR	
CN1	RJS6T5ZA	CONNECTOR	
CN302	RJS10T7ZA	CONNECTOR	
CN303	RJS8T7ZA	CONNECTOR	
CN304	RJS11T7ZA	CONNECTOR	
CP301	RJP7G17ZA	CONNECTOR (7P)	
CP305	RJP3G9YA	CONNECTOR (3P)	
CP306	RJP6G9YA	CONNECTOR (6P)	
CP501	RJP2G9YA	CONNECTOR (2P)	
CP701	RJP2G17ZA	PLUG	
CP702	RJP2G17ZA	PLUG	
CP703	RJP4G17ZA	PLUG	
CS701	RJU035T016-1	CONNECTOR	
CS702	RJS1A6823	CONNECTOR	
		TRIMMER	
CT2	ECRLA030E53R	TRIMMER CAPACITOR	
CT3	ECRLA020E53R	TRIMMER CAPACITOR	
		ACCESSORIES	
A1	RQT1448-G	INSTRUCTION MANUAL	[M] (E,EB,EG)
A1	REFKXDS101E	INSTR. MANUAL-ASS'Y	[M] (E)
A1	RQT1451-L	INSTRUCTION MANUAL	[M] (GN)
A2	RJA0019-U	AC POWER CORD	[M] (E,EG) ⚠

RESISTORS & CAPACITOR

Notes: * Capacitance values are in microfarads(μF) unless specified otherwise,P=Pico-farads(pF) F=Farads(F)
* Resistance values are in ohms, unless specified otherwise, 1K=1,000(OHM), 1M=1,000K(OHM)
* Bracketed indications in Ref.No. columns specify the area (Refer to the first page for area).
Parts without these indication can be used for all areas.

Ref.No.	Part No.	Values & Remarks	Ref.No.	Part No.	Values & Remarks	Ref.No.	Part No.	Values & Remarks
	RESISTOR(S)		R120	ERDS2TJ151T	150 1/4W	R262	ERDS2TJ474T	470K 1/4W
			R150	ERDS2TJ105T	1M 1/4W	R263	ERDS2TJ102T	1K 1/4W
			R151	ERDS2TJ562T	5.6K 1/4W	R301	ERDS2TJ101T	100 1/4W
R 1	ERDS2TJ330T	33 1/4W	R152	ERDS2TJ103T	10K 1/4W	R302	ERDS2TJ475T	4.7M 1/4W
R 2	ERDS2TJ101T	100 1/4W	R153	ERDS2TJ152T	1.5K 1/4W	R303	ERDS2TJ104T	100K 1/4W
R 3	ERDS2TJ8R2T	8.2 1/4W	R154	ERDS2TJ103T	10K 1/4W	R304	ERDS2TJ104T	100K 1/4W
R 4	ERDS2TJ334T	330K 1/4W	R155	ERDS2TJ391T	390 1/4W	R305	ERDS2TJ472T	4.7K 1/4W
R 5	ERDS2TJ471T	470 1/4W	R156	ERDS2TJ104T	100K 1/4W	R306	ERDS2TJ472T	4.7K 1/4W
R 6	ERDS2TJ221T	220 1/4W	R157	ERDS2TJ682T	6.8K 1/4W	R307	ERDS2TJ101T	100 1/4W
R 7	ERDS2TJ470T	47 1/4W	R158	ERDS2TJ472T	4.7K 1/4W	R308	ERDS2TJ4R7T	4.7 1/4W
R 8	ERDS2TJ332T	3.3K 1/4W	R160	ERDS2TJ103T	10K 1/4W	R309	ERDS2TJ103T	10K 1/4W
R 9	ERDS2TJ153T	15K 1/4W	R162	ERDS2TJ474T	470K 1/4W	R310	ERDS2TJ472T	4.7K 1/4W
R 10	ERDS2TJ562T	5.6K 1/4W	R163	ERDS2TJ102T	1K 1/4W	R311	ERDS2TJ103T	10K 1/4W
R 11	ERDS2TJ562T	5.6K 1/4W	R201	ERDS2TJ560T	56 1/4W	R312	ERDS2TJ102T	1K 1/4W
R 12	ERDS2TJ821T	820 1/4W	R202	ERDS2TJ472T	4.7K 1/4W	R313	ERDS2TJ473T	47K 1/4W
R 13	ERDS2TJ821T	820 1/4W	R203	ERDS2TJ123T	12K 1/4W	R314	ERDS2TJ102T	1K 1/4W
R 14	ERDS2TJ822T	8.2K 1/4W	R204	ERDS2TJ104T	100K 1/4W	R315	ERDS2TJ473T	47K 1/4W
R 15	ERDS2TJ102T	1K 1/4W	R205	ERDS2TJ822T	8.2K 1/4W	R318	ERDS2TJ222T	2.2K 1/4W
R 16	ERDS2TJ680T	68 1/4W	R206	ERDS2TJ333T	33K 1/4W	R319	ERDS2TJ105T	1M 1/4W
R 17	ERDS2TJ272T	2.7K 1/4W	R207	ERDS2TJ104T	100K 1/4W	R320	ERDS2TJ332T	3.3K 1/4W
R 18	ERDS2TJ563T	56K 1/4W	R208	ERDS2TJ183T	18K 1/4W	R321	ERDS2TJ470T	47 1/4W
R 19	ERDS2TJ680T	68 1/4W	R209	ERDS2TJ273T	27K 1/4W	R327	ERDS2TJ101T	100 1/4W
R 20	ERDS2TJ222T	2.2K 1/4W	R210	ERDS2TJ153T	15K 1/4W	R332	ERDS2TJ473T	47K 1/4W
R 22	ERDS2TJ151T	150 1/4W	R211	ERDS2TJ823T	82K 1/4W	R333	ERDS2TJ393T	39K 1/4W
R101	ERDS2TJ560T	56 1/4W	R213	ERDS2TJ823T	82K 1/4W	R335	ERDS2TJ102T	1K 1/4W
R102	ERDS2TJ472T	4.7K 1/4W	R214	ERDS2TJ822T	8.2K 1/4W	R336	ERDS2TJ333T	33K 1/4W
R103	ERDS2TJ123T	12K 1/4W	R215	ERDS2TJ473T	47K 1/4W	R337	ERDS2TJ683T	68K 1/4W
R104	ERDS2TJ104T	100K 1/4W	R216	ERDS2TJ8R2T	8.2 1/4W	R338	ERDS2TJ153T	15K 1/4W
R105	ERDS2TJ822T	8.2K 1/4W	R218	ERDS2TJ221T	220 1/4W	R340	ERDS2TJ472T	4.7K 1/4W
R106	ERDS2TJ333T	33K 1/4W	R219	ERDS2TJ224T	220K 1/4W	R342	ERDS2TJ1R5T	1.5 1/4W
R107	ERDS2TJ104T	100K 1/4W	R220	ERDS2TJ151T	150 1/4W	R344	ERDS2TJ472T	4.7K 1/4W
R108	ERDS2TJ183T	18K 1/4W	R250	ERDS2TJ105T	1M 1/4W	R345	ERDS2TJ101T	100 1/4W
R109	ERDS2TJ273T	27K 1/4W	R251	ERDS2TJ562T	5.6K 1/4W	R346	ERDS2TJ473T	47K 1/4W
R110	ERDS2TJ153T	15K 1/4W	R252	ERDS2TJ103T	10K 1/4W	R347	ERDS2TJ473T	47K 1/4W
R111	ERDS2TJ823T	82K 1/4W	R253	ERDS2TJ152T	1.5K 1/4W	R348	ERDS2TJ104T	100K 1/4W
R113	ERDS2TJ823T	82K 1/4W	R254	ERDS2TJ103T	10K 1/4W	R350	ERDS2TJ472T	4.7K 1/4W
R114	ERDS2TJ822T	8.2K 1/4W	R255	ERDS2TJ391T	390 1/4W	R351	ERDS2TJ473T	47K 1/4W
R115	ERDS2TJ473T	47K 1/4W	R256	ERDS2TJ104T	100K 1/4W	R354	ERDS2TJ473T	47K 1/4W
R116	ERDS2TJ8R2T	8.2 1/4W	R257	ERDS2TJ682T	6.8K 1/4W	R355	ERDS2TJ102T	1K 1/4W
R118	ERDS2TJ221T	220 1/4W	R258	ERDS2TJ472T	4.7K 1/4W	R356	ERDS2TJ153T	15K 1/4W
R119	ERDS2TJ224T	220K 1/4W	R260	ERDS2TJ103T	10K 1/4W	R357	ERDS2TJ330T	33 1/4W

Ref.No.	Part No.	Values & Remarks	Ref.No.	Part No.	Values & Remarks	Ref.No.	Part No.	Values & Remarks
R358	ERDS2TJ222T	2.2K 1/4W	R715	ERJ6GEYJ223V	22K 1/10W	C 25	ECQP2A151JZT	150P 100V
R380	ERDS2TJ561T	560 1/4W	R716	ERJ6GEYJ104V	100K 1/10W	C 26	ECBT1H102KB5	0.001 50V
R401	ERDS2TJ153T	15K 1/4W	R717	ERJ6GEYJ682V	6.8K 1/10W	C 27	ECFR1C223MR	0.022 16V
R402	ERDS2TJ822T	8.2K 1/4W	R718	ERJ6GEYJ223V	22K 1/10W	C 28	ECEA1HU2R2B	2.2 50V
R403	ERDS2TJ562T	5.6K 1/4W	R719	ERJ6GEYJ123V	12K 1/10W	C 29	ECFR1C223MR	0.022 16V
R404	ERDS2TJ392T	3.9K 1/4W	R720	ERJ6GEYJ273V	27K 1/10W	C 30	ECFR1C223MR	0.022 16V
R405	ERDS2TJ272T	2.7K 1/4W	R721	ERJ6GEYJ823	82K 1/10W	C 31	ECBT1H331KB5	330P 50V
R406	ERDS2TJ222T	2.2K 1/4W	R722	ERJ6GEYJ102V	1K 1/10W	C 32	ECFR1C223MR	0.022 16V
R407	ERDS2TJ152T	1.5K 1/4W	R723,724	ERJ6GEYJ104V	100K 1/10W	C 33	ECEA0JU101B	100 6.3V
R408	ERDS2TJ153T	15K 1/4W	R725	ERJ6GEYJ471V	470 1/10W	C 34	ECBT1C103MS5	0.01 16V
R409	ERDS2TJ473T	47K 1/4W	R726	ERJ6GEYJ102V	1K 1/10W	C 35	ECFR1C223MR	0.022 16V
R410	ERDS2TJ473T	47K 1/4W	R729,730	ERJ6GEYJ102V	1K 1/10W	C 36	ECBT1C103MS5	0.01 16V
R411	ERDS2TJ473T	47K 1/4W	R731	ERJ8GEYJ470V	47 1/8W	C 37	ECEA1HU010B	1 50V
R412	ERDS2TJ102T	1K 1/4W	R732	ERJ6GEYJ562V	5.6K 1/10W	C 38	ECEA1CU100B	10 16V
R413	ERDS2TJ681T	680 1/4W	R733	ERJ6GEYJ332V	3.3K 1/10W	C 39	ECEA0JU101B	100 6.3V
R414	ERDS2TJ103T	10K 1/4W	R734	ERJ6GEYJ562V	5.6K 1/10W	C 40	ECBT1C103MS5	0.01 16V
R415	ERDS2TJ473T	47K 1/4W	R735	ERJ6GEYJ222V	2.2K 1/10W	C 41	ECQP1H102JZ3	0.001 50V [M]
R416	ERDS2TJ106T	10M 1/4W	R736	ERJ6GEYJ682V	6.8K 1/10W	C 42	ECEA1HUR47B	0.47 50V
R417	ERDS2TJ105T	1M 1/4W	R737-739	ERJ6GEYJ562V	5.6K 1/10W	C 43	ECEA1HUR47B	0.47 50V
R418	ERDS2TJ472T	4.7K 1/4W	R741-743	ERJ6GEYJ102V	1K 1/10W	C 44	ECEA1HU2R2B	2.2 50V
R419	ERDS2TJ104T	100K 1/4W	R744	ERJ6GEYJ393V	39K 1/10W	C 45	ECBT1H102KB5	0.001 50V
R420	ERDS2TJ104T	100K 1/4W	R745,746	ERJ6GEYJ102V	1K 1/10W	C101	ECBT1H102KB5	0.001 50V
R421	ERDS2TJ104T	100K 1/4W	R747	ERJ6GEYJ473V	47K 1/10W	C102	ECEA0JU101B	100 6.3V
R422	ERDS2TJ474T	470K 1/4W	R748	ERJ8GEYJ180V	18 1/8W	C103	ECFR1C273MR	0.027 16V
R423	ERDS2TJ104T	100K 1/4W				C104	ECEA1CU100B	10 16V
R425	ERDS2TJ104T	100K 1/4W		CAPACITORS		C105	ECBT1H101KB5	100P 50V
R426	ERDS2TJ473T	47K 1/4W				C106	ECEA1CU100B	10 16V
R427	ERDS2TJ682T	6.8K 1/4W	C 3	ECBT1H470J5	47P 50V	C107	ECBT1H102KB5	0.001 50V
R428	ERDS2TJ223T	22K 1/4W	C 4	ECBT1H100JC5	10P 50V	C108	ECBT1C152KR5	1500P 16V
R429	ERDS2TJ563T	56K 1/4W	C 5	ECBT1H390J5	39P 50V	C109	ECFR1C153KR	0.015 16V
R430	ERDS2TJ104T	100K 1/4W	C 6	ECBT1H4R7KC5	4.7P 50V (E,EB,GN)	C110	ECBT1H104ZF5	0.1 50V
R431	ERDS2TJ334T	330K 1/4W	C 6	ECBT1H5R6KC5	5.6P 50V (EG)	C111	ECEA1HU2R2B	2.2 50V
R432	ERDS2TJ822T	8.2K 1/4W	C 9	ECBT1H180JC5	18P 50V (E,EB,GN)	C112	ECEA1AU101B	100 10V
R433	ERDS2TJ473T	47K 1/4W	C 9	ECBT1H200JC5	20P 50V (EG)	C113	ECEA0JU101B	100 6.3V
R434	ERDS2TJ102T	1K 1/4W	C 10	ECBT1H102KB5	0.001 50V	C114	ECBT1H102KB5	0.001 50V
R701	ERJ6GEYJ100	10 1/10W	C 11	ECBT1H102KB5	0.001 50V	C116	ECQV1H224JZ3	0.22 50V
R702	ERJ6GEYJ471V	470 1/10W	C 12	ECFR1C223MR	0.022 16V	C117	ECEA1AU102B	1000 10V
R703	ERJ6GEYJ102V	1K 1/10W	C 13	ECBT1H4R7KC5	4.7P 50V	C150	ECEA1HU010B	1 50V
R704	ERJ6GEYJ103V	10K 1/10W	C 14	ECBT1H180JC5	18P 50V	C151	ECEA1HU010B	1 50V
R706	ERJ6GEYJ473V	47K 1/10W	C 15	ECBT1H470J5	47P 50V	C152	ECEA1HU010B	1 50V
R707	ERJ6GEYJ222V	2.2K 1/10W	C 16	ECBT1H150JC5	15P 50V (E,EB,GN)	C153	ECBT1C103MS5	0.01 16V
R708	ERJ6GEYJ683V	68K 1/10W	C 16	ECBT1H180JC5	18P 50V (EG)	C154	ECEA1HUR22B	0.22 50V
R709	ERJ6GEYJ122V	1.2K 1/10W	C 17	ECBT1H102KB5	0.001 50V	C155	ECFR1C104MR	0.1 16V
R710	ERJ6GEYJ182V	1.8K 1/10W	C 19	ECBT1H200JC5	20P 50V	C156	ECBT1H102KB5	0.001 50V
R711	ERJ6GEYJ473V	47K 1/10W	C 21	ECBT1C103NS5	0.01 16V	C157	ECEA1HU2R2B	2.2 50V
R712	ERJ6GEYJ471V	470 1/10W	C 22	ECQP2A221JZT	220P 100V	C158	ECBT1H102KB5	0.001 50V (E,EB,GN)
R714	ERJ6GEYJ473V	47K 1/10W	C 23	ECQP1361JZ	360P 100V	C158	ECBT1H680J5	68P 50V (EG)

Ref.No.	Part No.	Values & Remarks	Ref.No.	Part No.	Values & Remarks	Ref.No.	Part No.	Values & Remarks
C159	ECEA1HU2R2B	2.2 50V	C316	ECFR1C223MR	0.022 16V	C710	ECUV1C104MBM	0.1 16V
C160	ECBT1H331KB5	330P 50V	C317	ECFR1C683MR	0.068 16V	C711	ECUV1E103MBN	0.01 25V
C161	ECBT1H102KB5	0.001 50V	C318	ECBT1H102KB5	0.001 50V	C713	ECEA1CSN4R7I	4.7 16V
C201	ECBT1H102KB5	0.001 50V	C319	ECBT1H102KB5	0.001 50V	C714	ECEA1HKS010	1 50V
C202	ECEA0JU101B	100 6.3V	C320	ECEA1HU010B	1 50V	C715	ECUV1H472KBN	4700P 50V
C203	ECFR1C273MR	0.027 16V	C323	ECEA1AU221B	220 10V	C716	ECUV1C473KBN	0.047 16V
C204	ECEA1CU100B	10 16V	C324	ECEA0JU471B	470 6.3V	C717	ECUV1H681KBN	680P 50V
C205	ECBT1H101KB5	100P 50V	C325	ECEA1CU221B	220 16V	C718	ECEA1AKS101I	100 10V
C206	ECEA1CU100B	10 16V	C326	ECBT1H102KB5	0.001 50V	C719	ECUV1E103MBN	0.01 25V
C207	ECBT1H102KB5	0.001 50V	C329	ECEA1HU0R1B	0.1 50V	C720	ECUV1E153MBN	0.015 25V
C208	ECBT1C152KR5	1500P 16V	C332	ECEA1EU4R7B	4.7 25V	C721	ECUV1E103MBN	0.01 25V
C209	ECFR1C153KR	0.015 16V	C333	ECEA1EU4R7B	4.7 25V	C722	ECEA0JKS470	47 6.3V
C210	ECBT1H104ZF5	0.1 50V	C334	ECBT1H471KB5	470P 50V	C723	ECUV1C104MBM	0.1 16V
C211	ECEA1HU2R2B	2.2 50V	C335	ECBT1H471KB5	470P 50V	C724	ECUV1E333MBN	0.033 25V
C212	ECEA1AU101B	100 10V	C336	ECEA1CU101B	100 16V	C725	ECUV1E103MBN	0.01 25V
C213	ECEA0JU101B	100 6.3V	C337	ECEA1EU101B	100 25V	C726	ECUV1H471KBN	470P 50V
C214	ECBT1H102KB5	0.001 50V	C338	ECEA1CU471B	470 16V	C727	ECEA0JKS470	47 6.3V
C216	ECQV1H224JZ3	0.22 50V	C339	ECEA1AU101B	100 10V	C728,729	ECUV1C104MBM	0.1 16V
C217	ECEA1AU102B	1000 10V	C340	ECEA1AU470B	47 10V	C730	ECUV1C224KBM	0.22 16V
C250	ECEA1HU010B	1 50V	C342	ECA1EM332EV	3300P 25V [M]	C731	ECEA0JKS331I	330 6.3V
C251	ECEA1HU010B	1 50V	C343	ECEA1CU100B	10 16V	C732	ECUV1H102MBN	1000P 50V
C252	ECEA1HU010B	1 50V	C344	ECEA1HU010B	1 50V	C733	ECEA0JKS101I	100 6.3V
C253	ECBT1C103MS5	0.01 16V	C345	ECBT1C103MS5	0.01 16V	C734	ECUV1E223MBN	0.022 25V
C254	ECEA1HUR22B	0.22 50V	C346	ECEA1AU330B	33 10V	C735	ECUV1C224KBM	0.22 16V
C255	ECFR1C104MR	0.1 16V	C348	ECKR1H102KB5	0.001 50V	C737	ECUV1C224KBM	0.22 16V
C256	ECBT1H102KB5	0.001 50V	C380	ECEA1AU221B	220 10V	C738	ECEA0JKS101I	100 6.3V
C257	ECEA1HU2R2B	2.2 50V	C401	ECBT1C103MS5	0.01 16V	C739	ECUV1E103MBN	0.01 25V
C258	ECBT1H102KB5	0.001 50V(E,EB,GN)	C402	ECBT1H220JC5	22P 50V	C740	ECUV1H472MBN	4700P 50V
C258	ECBT1H680J5	68P 50V (EG)	C403	ECBT1H220JC5	22P 50V	C741	ECUV1C224KBM	0.22 16V
C259	ECEA1HU2R2B	2.2 50V	C404	ECEA1HU010B	1 50V	C742	ECUV1C104MBM	0.1 16V
C260	ECBT1H331KB5	330P 50V	C405	ECEA1CU100B	10 16V	C743	ECEA0JKS331I	330 6.3V
C261	ECBT1H102KB5	0.001 50V	C406	ECBT1H102KB5	0.001 50V	C744,745	ECUV1H102KBN	1000P 50V
C301	ECEA1AU220B	22 10V	C407	ECBT1H330J5	33P 50V	C746	ECEA0JKS101I	100 6.3V
C302	ECEA1AU101B	100 10V	C408	ECBT1C103NS5	0.01 16V	C747	ECUV1C104MBM	0.1 16V
C303	ECFR1C473MR	0.047 16V	C409	ECBT1C103NS5	0.01 16V	C748	ECEA1HKS010	1 50V
C304	ECEA1CU100B	10 16V	C410	ECEA0JU221B	220 6.3V	C749	ECUV1E103MBN	0.01 25V
C305	ECEA1AU470B	47 10V	C411	ECBT1H102KB5	0.001 50V	C750	ECUV1H050DCN	5P 50V
C306	ECEA1AU221B	220 10V	C412	ECBT1H102KB5	0.001 50V	C751	ECUV1C224KBM	0.22 16V
C307	ECBT1C332MR5	3300P 16V	C414	ECEA1AU471B	470 10V	C752	ECUV1C104MBM	0.1 16V
C308	ECFR1C473MR	0.047 16V	C415	ECEA1AU220B	22 10V	C753,754	ECEA1HKS010	1 50V
C309	ECEA1HU010B	1 50V	C417	ECBT1H102KB5	0.001 50V (EG)	C755	ECUV1C104MBM	0.1 16V
C310	ECQP1103JZ	0.01 100V	C418,419	ECCR1H680KC5	68P 50V (EG)	C756,757	ECUV1H050DCN	5P 50V
C311	ECQV1H474JZ3	0.47 50V	C501-504	ECQV1H683JZ3	0.068 50V	C758	ECUV1C224KBM	0.22 16V
C312	ECQP1561JZ	560P 100V	C701	ECEA0JKA220	22 6.3V	C763	ECUV1E103MBN	0.01 25V
C313	ECBT1C103MS5	0.01 16V	C702	ECEA0JKS470	47 6.3V	C764	ECUV1H331KBN	330P 50V
C314	ECQP1102JZT	0.001 100V	C703	ECEA0JKS101I	100 6.3V			
C315	ECBT1C103MS5	0.01 16V	C709	ECUV1C224KBM	0.22 16V			