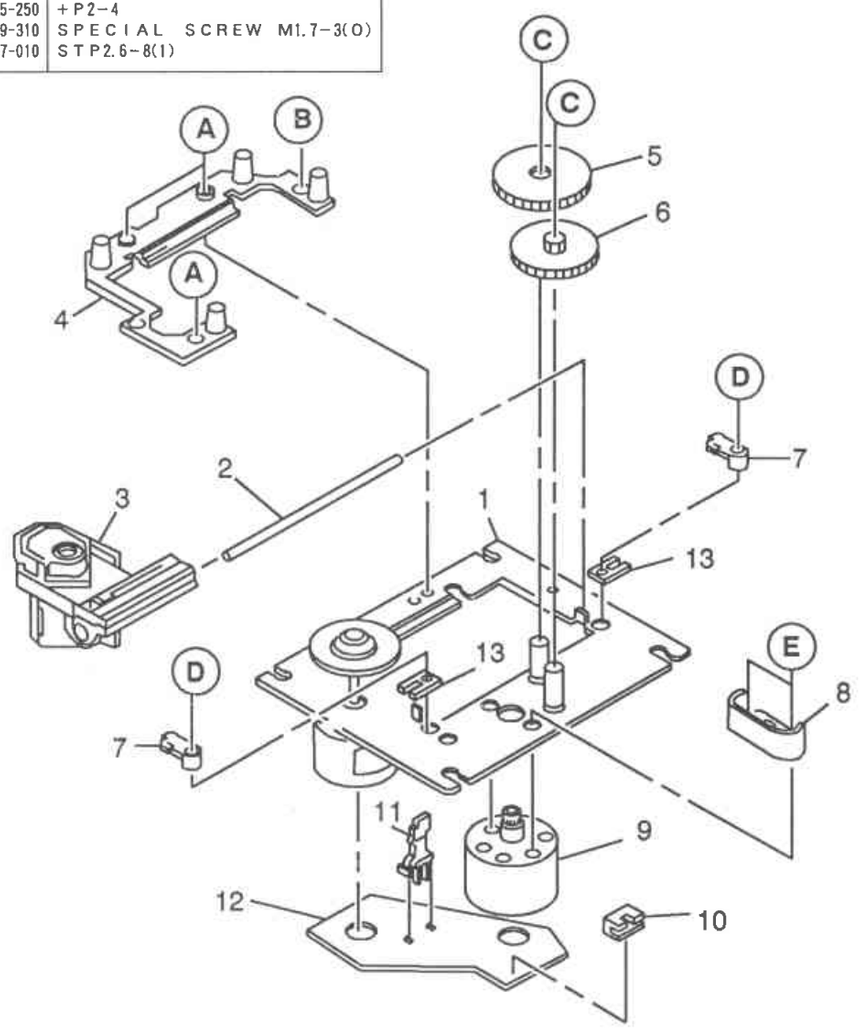
■ ACCESSORIES/PACKAGE LIST

PART NO. CHANGED TO	REF. NO.	PART NO.	DESCRIPTION	COMMON MODEL	Q'TY
	1	★ 89 – CD6 – 903 – 019	INSTRUCTION BOOKLET, H (H, U, C)	※	1
	2	★ 89 – CD6 – 905 – 019	INSTRUCTION BOOKLET, E (E, K, Z)	※	1
	3	★ 87 – 042 – 062 – 019	PLUG, ADPIR S – I6115 (H)		1
	4	★ 87 – 034 – 594 – 019	AC CORD SET, E (H, E, Z)		1
	5	★ 87 – 034 – 999 – 010	AC CORD ASSY, UK (K)		1
	6	★ 87 – 034 – 750 – 019	AC CORD ASSY, U (U, C)		1

EXPLODED VIEW – 3

REF. NO.	PART NO.	DESCRIPTION
A	97-621-255-450	+ P T T 2 – 6
B	97-621-255-250	+ P 2 – 4
C	93-303-809-310	S P E C I A L S C R E W M1.7 – 3(O)
D	92-641-447-010	S T P 2.6 – 8(1)



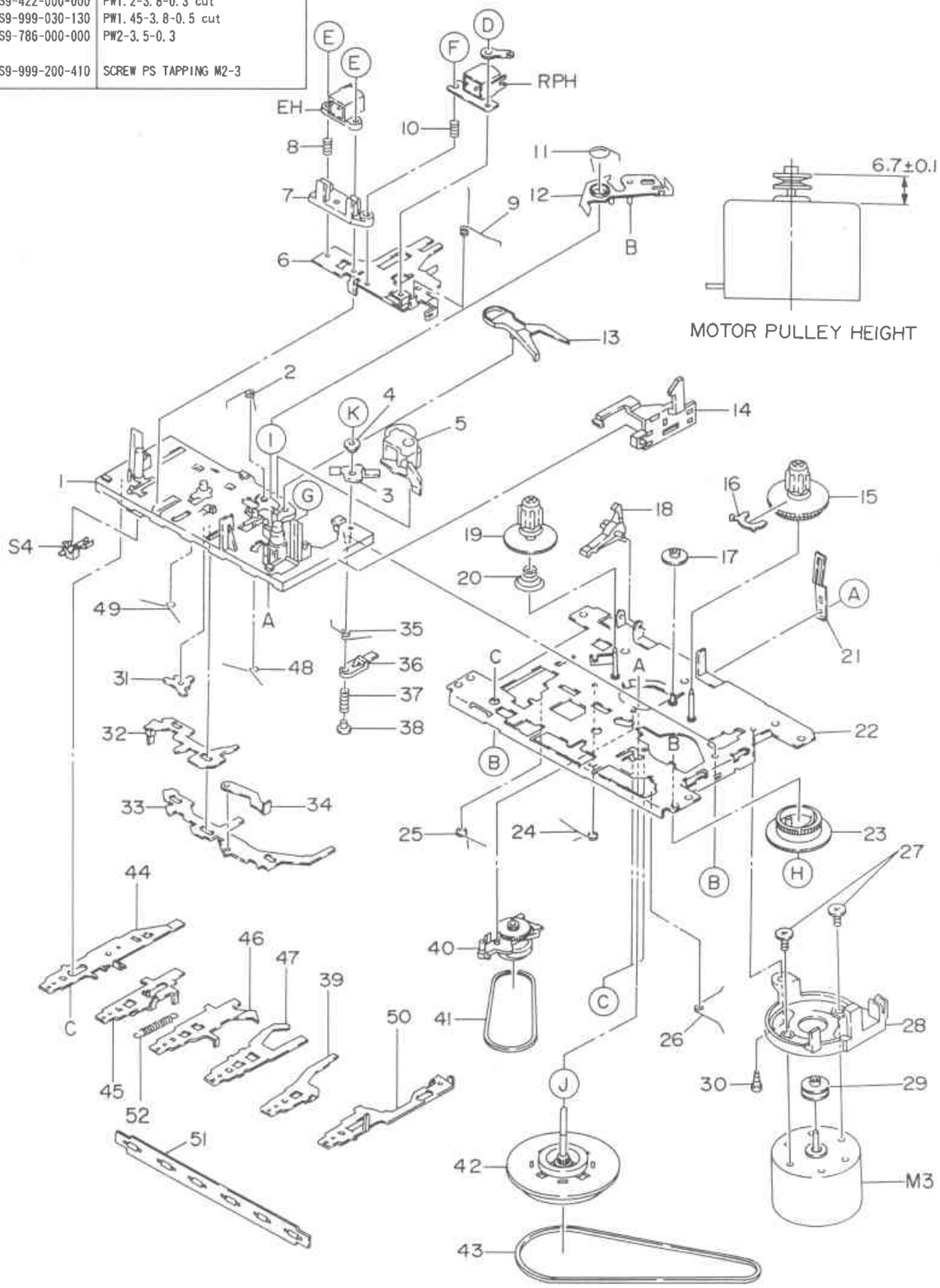
PART NO. CHANGED TO	REF. NO.	PART NO.	DESCRIPTION	COMMON MODEL	Q'TY
	※ 3-1	9X-264-134-110	MOTOR ASSY (W/CHASSIS T.T)(RF310T11400)(DISC)		1
	※ 3-1	9X-264-134-610	MOTOR ASSY (W/CHASSIS T.T)(MDN4RA3NTAS)(DISC)		1
	3-2	★94-910-431-010	SHAFT, SLIDE		1
	3-3	98-848-070-210	KSS-150B (J)		1
	3-4	★92-641-444-010	HOLDER, CHASSIS (J)		1
	3-5	9X-264-076-910	GEAR, A		1
	3-6	★92-641-403-050	GEAR, B		1
	3-7	★92-641-448-020	SHAFT, CLAMP		2
	3-8	★92-641-434-010	COVER, GEAR		1
	※ 3-9	9X-264-077-010	MOTOR ASSY (RF310T11400)(SLED)		1
	※ 3-9	9X-264-134-410	MOTOR ASSY (MDN4RA3ETA)(SLED)		1
	3-10	★91-564-722-110	CONNECTOR, PIN 6P		1
	3-11	91-570-822-210	SWITCH, LEAF (LIMIT SW)		1
	※ 3-12	★91-623-947-110	MOTOR CB (RF310T11400)		1
	※ 3-12	★91-628-264-110	MOTOR CB (MDN4RA3ETA)(MDN4RA3NTAS)		1
	3-13	81-590-292-010	SPACER, SHAFT 0.2		2

※Caution
Two types of the spindle (DISC) motor and sled motor are used, but they are not compatible.
Check the part numbers (MDN ••••, RF ••••) on the labels of motors and replace motors with the same one.

PART NO. CHANGED TO	REF. NO.	PART NO.	DESCRIPTION	COMMON MODEL	Q'TY
	2-1	★S1-921-143-160	BASE ASSY		1
	2-2	★S1-921-140-180	SPRING,M CONTROL		1
	2-3	★S1-921-140-340	ARM,P		1
	2-4	★S1-921-140-370	COLLAR,P ARM		1
	2-5	★S1-921-043-040	PINCH ROLLER ARM ASSY		1
	2-6	★S1-921-030-140	PANEL,HEAD		1
	2-7	★S1-921-030-060	BASE,HEAD		1
	2-8	★S1-821-030-080	SPRING,EH		1
	2-9	★S1-921-030-090	P-SPRING,PANEL		1
	2-10	★S1-821-030-070	SPRING,AZIMUTH		1
	2-11	★S1-921-260-050	SPRING,GEAR PLATE		1
	2-12	★S1-921-265-020	GEAR PLATE ASSY		1
	2-13	★S1-921-260-4A0	LEVER,SENSING		1
	2-14	★S1-921-130-010	LEVER,EJECT SLIDE		1
	2-15	S1-921-053-030	TAKE UP REEL ASSY		1
	2-16	★S1-921-050-050	SENSOR		1
	2-17	★S1-821-100-700	GEAR,FF		1
	2-18	★S1-821-100-690	LEVER,RECORD SAFETY		1
	2-19	S1-921-053-040	SUPPLY REEL ASSY		1
	2-20	★S1-821-100-990	SPRING,BACK TENSION		1
	2-21	★S1-821-100-930	SPRING,PACK		1
	2-22	★S1-921-015-010	CHASSIS ASSY		1
	2-23	★S1-921-260-020	GEAR,CAM		1
	2-24	★S1-921-140-210	SPRING,REC BUTTON LEVER		1
	2-25	★S1-921-140-170	SPRING,P.S.LEVER		1
	2-26	★S1-921-140-160	SPRING,E ACTUATOR		1
	2-27	★S1-921-120-020	SCREW,MOTOR COLLAR		2
	2-28	★S1-821-128-9A0	BRACKET,MOTOR		1
	2-29	★S1-921-120-010	PULLEY,MOTOR		1
	2-30	★S1-921-120-030	SCREW,MB		1
	2-31	★S1-921-140-200	STOPPER,PR		1
	2-32	★S1-921-140-090	ACTUATOR,SWITCH		1
	2-33	★S1-921-140-080	ACTUATOR,PUSH BUTTON		1
	2-34	★S1-921-140-640	LEVER,E KICK		1
	2-35	★S1-921-141-3A0	SPRING,P CONTROL		1
	2-36	★S1-921-140-550	LEVER,PAUSE		1
	2-37	★S1-921-140-120	SPRING,PAUSE LEVER		1
	2-38	★S1-921-140-110	STOPPER,PAUSE		1
	2-39	★S1-921-140-650	LEVER,STOP BUTTON		1
	2-40	★S1-921-073-010	RF CLUTCH ASSY		1
	2-41	S1-821-070-110	BELT,RF		1
	2-42	S1-921-093-050	FLYWHEEL ASSY		1
	2-43	S1-921-090-040	BELT,MAIN		1
	2-44	★S1-921-140-030	LEVER,REC BUTTON		1
	2-45	★S1-921-140-190	LEVER,PLAY BUTTON		1
	2-46	★S1-921-140-040	LEVER,REW BUTTON		1
	2-47	★S1-921-140-050	LEVER,FF BUTTON		1
	2-48	★S1-921-140-150	SPRING,BUTTON LEVER B		1
	2-49	★S1-921-140-140	SPRING,BUTTON LEVER A		1
	2-50	★S1-921-140-600	LEVER,PAUSE BUTTON		1
	2-51	★S1-821-011-580	PLATE,CONTROL		1
	2-52	★S1-821-010-500	SPRING,PLAY BUTTON		1

EXPLODED VIEW – 2

REF. NO.	PART NO.	DESCRIPTION
A	S9-179-000-000	SCREW C TAPPING M2-3
B	S9-679-000-000	SCREW P TAPPING M2-5 BIND D
C	S9-999-180-090	SCREW CAMERA TAPPING M2-4.5
D	S9-115-000-000	SCREW ⊕ M2-3 BIND
E	S9-223-000-000	SCREW CAP ⊕⊖ M2-7.5
F	S9-922-000-000	SCREW AZIMUTH M2-7
G	S9-182-000-000	SCREW C TAPPING M2-6
H	S9-422-000-000	PW1.2-3.8-0.3 cut
I	S9-999-030-130	PW1.45-3.8-0.5 cut
J	S9-786-000-000	PW2-3.5-0.3
K	S9-999-200-410	SCREW PS TAPPING M2-3

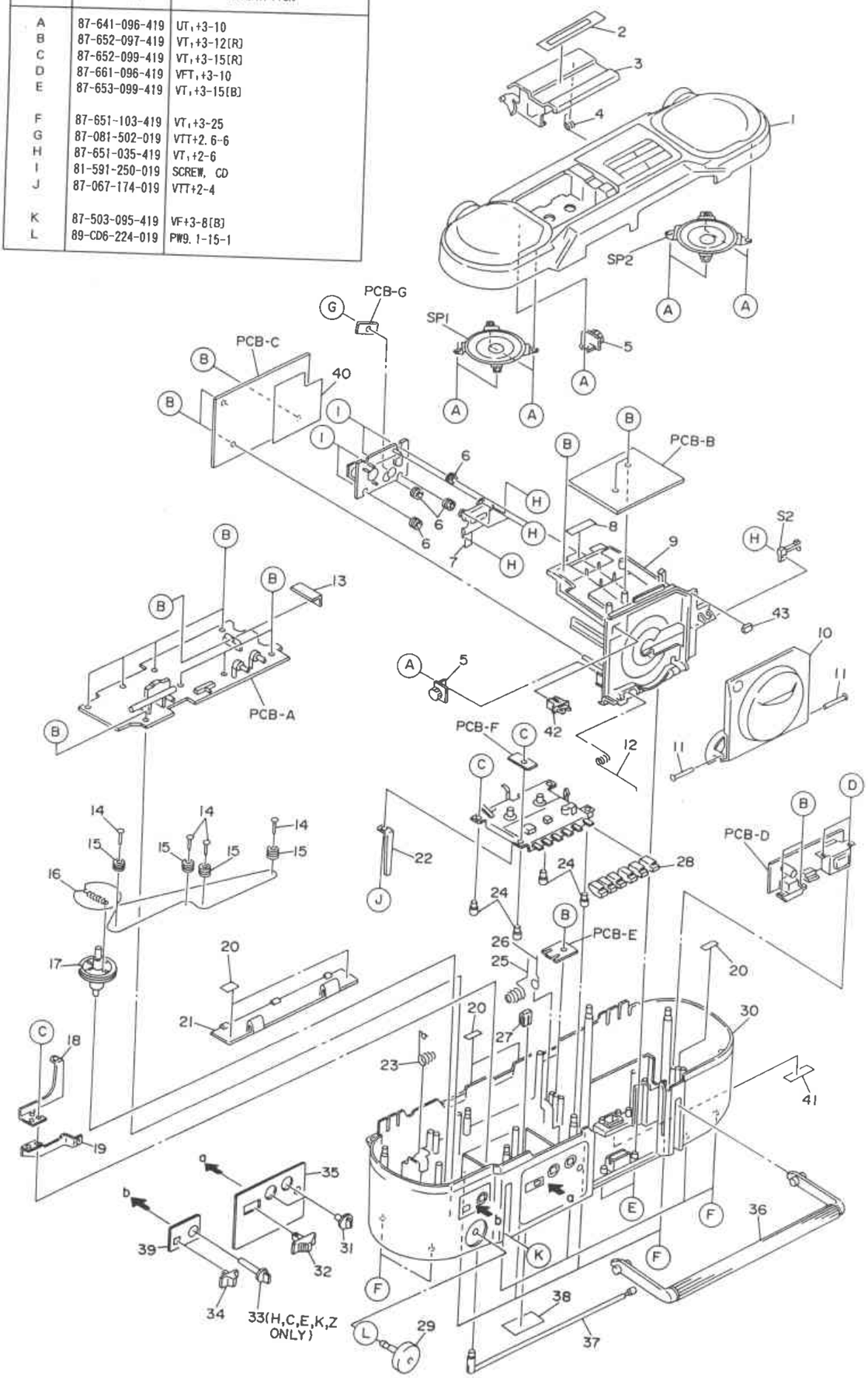


MECHANICAL PARTS LIST

PART NO. CHANGED TO	REF. NO.	PART NO.	DESCRIPTION	COMMON MODEL	Q'TY
	1-1	★09-018-373-010	FRONT CABINET ASSY (H,C,E,K,Z)	※	1
	1-1	★09-018-374-010	FRONT CABINET ASSY (U)	※	1
	1-2	★89-CD6-020-019	PLATE,CASSETTE	※	1
	1-3	89-CD6-010-019	BOX,CASSETTE	※	1
	1-4	★89-CD6-213-019	T-SPRING,CASSETTE		2
	1-5	★87-064-112-019	DAMPER,OIL 75		4
	1-6	★81-592-221-010	CUSHION,CD		1
	1-7	★89-CD3-045-019	PANEL,CD	※	1
	1-8	★89-CD6-599-019	HIMERON,10-70	※	1
	1-9	★89-CD6-045-019	CD CHASSIS ASSY	※	1
	1-10	★09-018-375-010	CD LID ASSY	※	2
	1-11	★89-CD6-219-019	SHAFT,CD	※	1
	1-12	★89-CD6-212-019	T-SPRING,CD		1
	1-13	---	HEAT SINK	※	4
	1-14	★89-CD6-202-019	PIN,ROLLER	※	4
	1-15	★89-CD6-201-019	ROLLER,DIA 7	※	1
	1-16	★89-CD6-205-019	DIAL STRING ASSY	※	1
	1-17	★89-CD6-203-019	DRUM,DIAL 80	※	1
	1-18	★89-CD6-209-019	HOLDER,B ANTENNA	※	1
	1-19	★89-CD6-208-019	HOLDER,A ANTENNA		5
	1-20	★81-582-229-019	HIMERON,15-10-0.2	※	1
	1-21	89-CD6-007-019	LID,BATTERY	※	1
	1-22	★89-CD6-210-019	P-SPRING,REC	※	1
	1-23	★89-CD6-216-019	C-SPRING,BATTERY +-	※	4
	1-24	★89-CD6-211-019	COLLAR,7-10-9	※	1
	1-25	★89-CD6-215-019	C-SPRING,BATTERY -	※	1
	1-26	★89-CD6-214-019	C-SPRING,BATTERY +	※	1
	1-27	★89-CD6-044-019	POINTER,TUNING	※	6
	1-28	★89-CD6-016-019	KEY,CASSETTE	※	1
	1-29	★89-CD6-013-019	KNOB,TUNING	※	1
	1-30	★89-CD6-005-019	CABINET,REAR (H,E,K,Z)	※	1
	1-30	★89-CD6-054-019	CABINET,REAR (U,C)		2
	1-31	★81-585-010-010	KNOB,VOLUME 001	※	1
	1-32	★89-CD6-017-019	KNOB,SLIDE A	※	1
	1-33	★89-CD6-019-019	KNOB,SELECTOR (H,C,E,K,Z)	※	1 (H,C,E,K,Z) 2 (U)
	1-34	★89-CD6-018-019	KNOB,SLIDE B	※	1
	1-35	★89-CD6-025-019	PLATE,DIAL (H)	※	1
	1-35	★89-CD6-024-019	PLATE,DIAL (U,C)	※	1
	1-35	★89-CD6-026-019	PLATE,DIAL (E,K,Z)	※	1
	1-36	★89-CD6-046-019	HANDLE ASSY		1
	1-37	87-043-105-019	ANTENNA,ROD	※	1
	1-38	★89-CD6-033-019	PLATE,SPEC (U)	※	1
	1-38	★89-CD6-041-119	PLATE,SPEC (C)	※	1
	1-38	★89-CD6-035-019	PLATE,SPEC (E)	※	1
	1-38	★89-CD6-036-019	PLATE,SPEC (K)	※	1
	1-38	★89-CD6-037-019	PLATE,SPEC (Z)	※	1
	1-39	★89-CD6-029-019	PLATE,BAND (H)	※	1
	1-39	★89-CD6-042-019	PLATE,BAND (U,C)	※	1
	1-39	★89-CD6-030-019	PLATE,BAND (E,K,Z)	※	1
	1-40	★89-CD6-671-019	PLATE,SHIELD CD	※	1
	1-41	★89-CD6-038-019	PLATE,AC (U,C,E,K,Z)		1
	1-42	★87-064-108-010	LATCH,NC		1
	1-43	★81-569-220-019	CUSHION,S 4-5-10		1

EXPLODED VIEW – 1

REF. NO.	PART NO.	DESCRIPTION
A	87-641-096-419	UT1+3-10
B	87-652-097-419	VT1+3-12[R]
C	87-652-099-419	VT1+3-15[R]
D	87-661-096-419	VFT1+3-10
E	87-653-099-419	VT1+3-15[B]
F	87-651-103-419	VT1+3-25
G	87-081-502-019	VTT+2.6-6
H	87-651-035-419	VT1+2-6
I	81-591-250-019	SCREW, CD
J	87-067-174-019	VTT+2-4
K	87-503-095-419	VF+3-8[B]
L	89-CD6-224-019	PW9.1-15-1



Note: BUS1 through BUS3 are used as the signals below during PLAY.
They do not conform to the signal contents described below in mode other than PLAY.

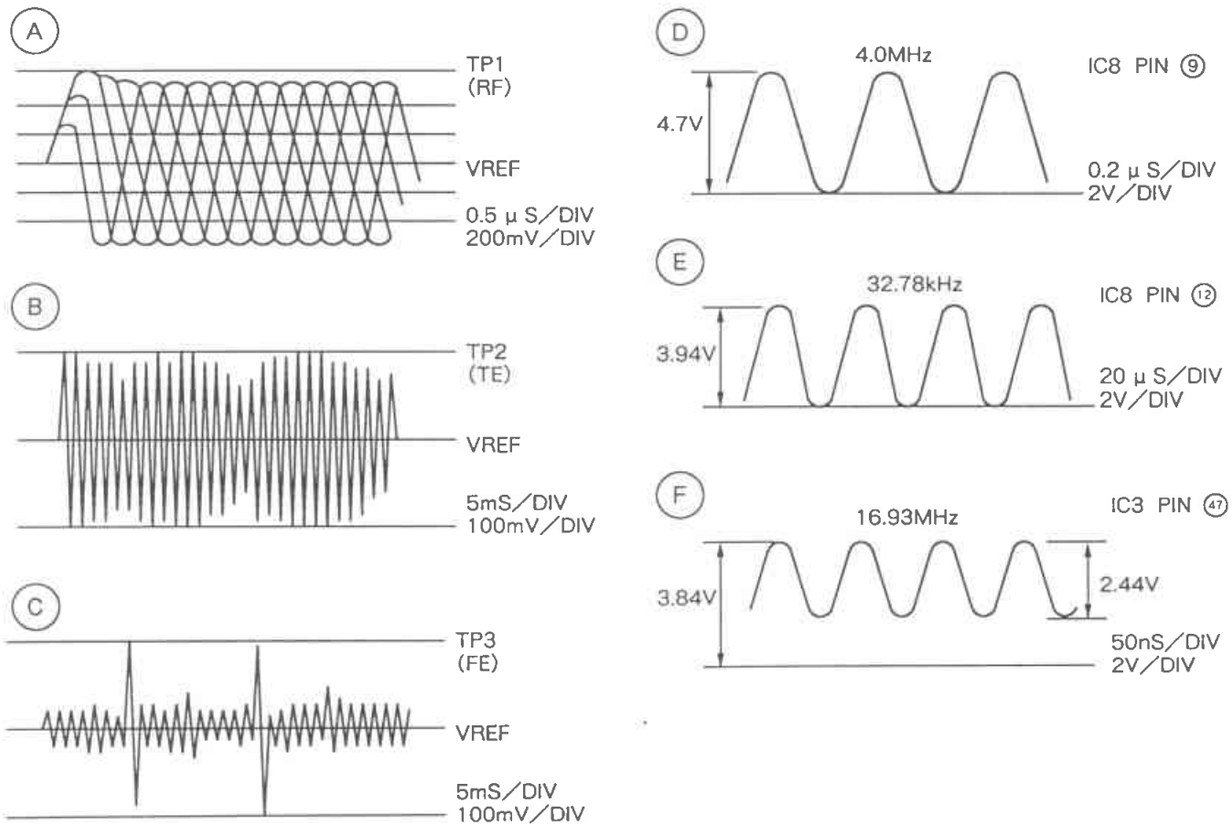
BUS 1 ($\overline{AFCS}$) : CLV servo mode select signal.
"High" during CLV servo, and "Low" during coarse servo.

BUS 2 ($\overline{QDRE}$) : Sibcode Q data and read enable signal.
"Low" during read enable.

BUS 3 (FOK) : Focus OK signal.
"High" during focus ON.

See the CSD – 707 for the IC description below		
	CSD – XL202	CSD – 707
①	TA8101F	TA8101N
②	TD6710AF	TD6710N
③	TC9200BF	TC9200AF
④	TC9201BF	TC9201AF

WAVE FORM



IC DESCRIPTION

I C, TMP 4 7 C 4 2 5 AF

Pin No.	Pin Name	I/O	Description
1, 5 7, 8	NC	—	Not used.
2	COM1	O	LCD indication. Common output driver.
3	COM2		
4	COM3		
6	Vcc	I	LCD driver power. Connected to GND.
9	X OUT	O	4MHz clock oscillation output.
10	X IN	I	4MHz clock oscillation input.
11	Vss	—	Power input. Connected to GND.
12	XT IN	I	32.768KHz clock oscillation input.
13	XT OUT	O	32.768KHz clock oscillation output.
14 ∫ 17	KO0 ∫ KO3	I	Keyboard and matrix input ports. Varies depending on its status.
18	TEST	—	Connected to GND.
19	$\overline{\text{RESET}}$	I	Reset signal input ("Low" during reset).
20	$\overline{\text{RESET}}$	I	
21	PW CON	—	Not used.
22	POWER	I	Power ON/OFF detection. (+5V)
23	TIMER ON	—	Connected to GND.
24	BACK SKIP	—	
25	REC	I	REC detection input. ("High" during REC.)
26, 31	NC	—	Not used.
27	VDD	—	Power input (+5V)
28 ∫ 30	KBD0 ∫ KBD2	O	Keyboard and matrix output ports. Varies depending on its status.
32 ∫ 35	BUS0 ∫ BUS3	I/O	Command and data sending/receiving bus line. Varies depending on its status (see the Note).
36	DA/CO	I/O	Command and data processing control I/O. Varies depending on its status.
37	BUCK	O	Command and data sending/receiving clock output. Varies depending on its status.
38	MUTE	O	Audio system muting output. "High" during muting.
39	SYNC	—	Not used.
40	$\overline{\text{PU INNER}}$	I	Pick-up's innermost circumference detection. Innermost circumference when "Low".
41	DOOR	I	CD door OPEN/CLOSE detection. Closed when "Low".
42	$\overline{\text{CD}}$	I	Connected to GND.
43	CD PWR	I	CD circuit's power ON/OFF detection. "High" when on.
44 ∫ 60	SEG0 ∫ SEG16	O	LCD indication. Segment output driver.
61	VDD	—	Power input. (+5V)
62	SEG17	O	LCD indication. Segment output driver.
63~67	NC	—	Not used.

5. Laser Power Adjustment
   (1) Connect an oscilloscope to TP1 (RF) and TP4 (VREF).
   (2) Insert the disc YEDS-18 (YEDS-1) and push the PLAY button.
   (3) Adjust VR1 on the optical block to 1.2Vp-p amplitude.

200mV/DIV
0.5μS/DIV

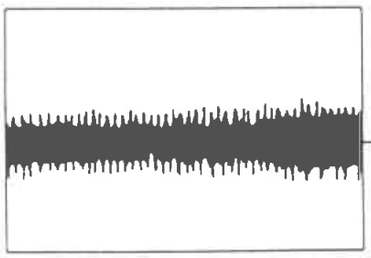
Note : Check the laser current at TP5 (across R31, 10 ohm). The current must fall within ±6.0mA of the value shown in the label on laser pick-up.

$$\text{Laser current Iop} = \frac{\text{Voltage across R31}}{10\,\Omega}$$

6. Tracking Gain Adjustment
   (1) Connect an oscilloscope to TP2 (TE) and TP4 (VREF).
   (2) Insert the disc YEDS-18 (YEDS-1) and push the PLAY button.
   (3) Turn SFR4 (TG) fully clockwise and waveform shown in Fig.1 will appear.
   (4) Then turn SFR4 (TG) counterclockwise to the point where the waveform suddenly rises.(Fig.2)
   Set SFR4 (TG) to the foot of the rise.(Fig.3)
   (5) Recheck the Tracking balance after tracking gain adjustment.

VOLT/DIV : 0.5V
TIME/DIV : 2mS

Fig-1



VOLT/DIV : 0.5V
TIME/DIV : 2mS

Fig-2

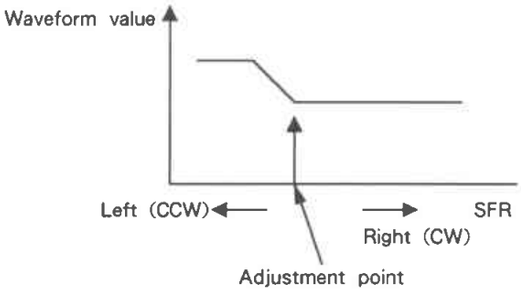
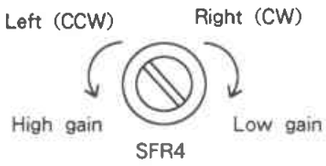


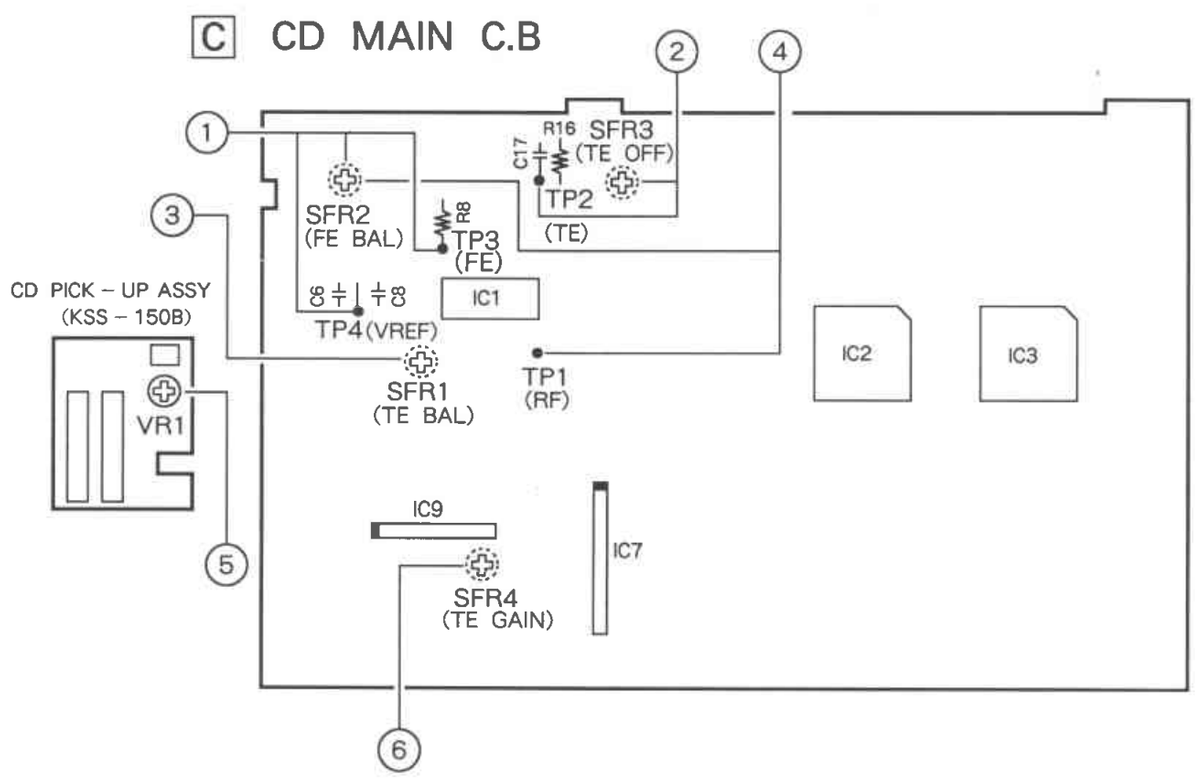
Fig – 3



[Tracking gain and sound skip]
Normally when the tracking gain is adjusted high, it reinforces the unit against mechanical vibration, while when the gain is set low it reduces sound skip due to cracks on disc surface. CD player must compromise with the two contradictions.

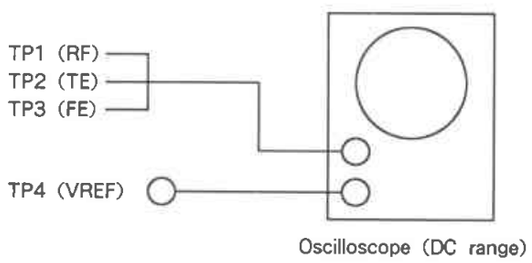
Since the unit comprises internal speakers which can cause mechanical vibration, the tracking is set rather higher than that of console type CD player.

Adjust SFR4	Tracking Gain	sound skip due to mechanical vibration	sound skip due to crack on disc
Left	High	reinforce	enfeeble
Right	Low	enfeeble	reinforce



< CD PLAYER SECTION >

Connecting the oscilloscope

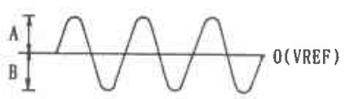


Connect the nagative side (−) of an oscilloscope to TP4 (VREF) when making adjustment.

1. Focus Balance Coarse Adjustment
   Note : If the reproduction is stable, no need to adjust.
   (1) Set the FUNCTION SW to CD.
   (2) Connect an oscilloscope to TP3 (FE) and TP4 (VREF).
   (3) Adjust SFR2 (FB) to 0 ± 50mV.

2. Tracking Offset Adjustment
   (1) Connect an oscilloscope to TP2 (TE) and TP4 (VREF).
   (2) Adjust SFR3 (T.OFF) to 0 ± 5mV.

3. Tracking Balance Adjustlment
   (1) Connect an oscilloscope to TP2 (TE) and TP4 (VREF).
   (2) Insert the disc YEDS-18 (YEDS-1) and push the PLAY button.
   (3) Push PEPEAT button to set to REPEAT mode.
   (4) Push and hold button. (MS mode).
   (5) Adjust SFR1 (TB) to symmetrize traverse waveform to base line.



A=B

200mV/DIV
1mS/DIV

4. Focus Balance Adjustment
   (1) Connect an oscilloscope to TP1 (RF) and TP4 (VREF).
   (2) Insert the disc YEDS-18 (YEDS-1) and push the PLAY button.
   (3) Adjust SFR2 (FB) for maximum amplitude of oscilloscope waveform.

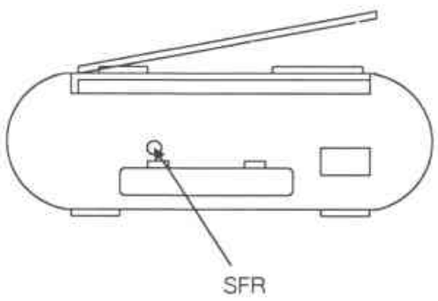
200mV/DIV
0.5μS/DIV

ADJUSTMENT

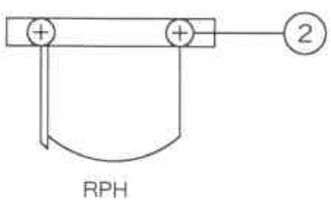
< TAPE RECORDER SECTION >

1. Tape Speed Adjustment
   Settings : • Test tape : TTA – 100 (TTA – 111S)
   • Adjustment location : SFR inside motor
   Method : Play back the test tape, adjust for 3000Hz.

   ※ Speed Adjustment without Opening the Cabinet
   Note : The tape speed can be adjusted without removing the cabinet.



2. Head Azimuth Adjustment
   Settings : • Test tape : TTS – 320
   (TTA – 113B, TCC – 152)
   • Adjustment location : Azimuth adjustment screw
   Method : Play back the test tape, and adjust so that the output becomes maximum.

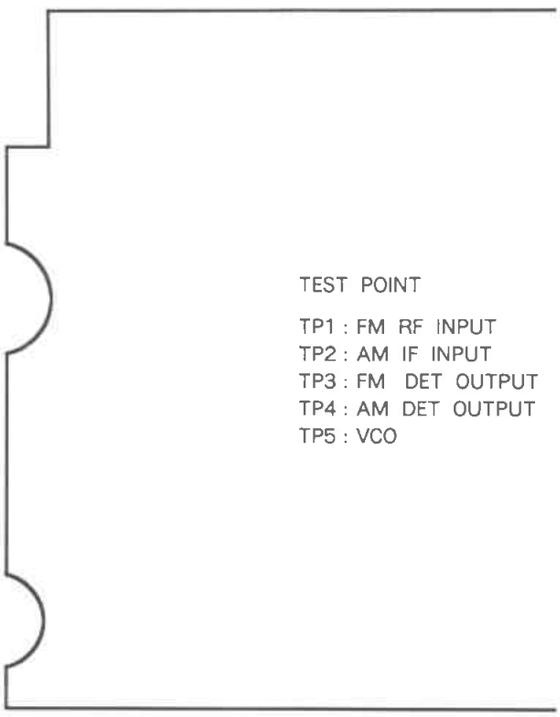


< RADIO SECTION >

3. AM IF Adjustment
   IFT3 ····· 468kHz

4. FM IF Adjustment
   IFT1, IFT2 ····· 10.7MHz

A MAIN C.B



5. MW Frequency Range Adjustment (H)
   L8 ····· 517kHz
   TC8 ····· 1635kHz

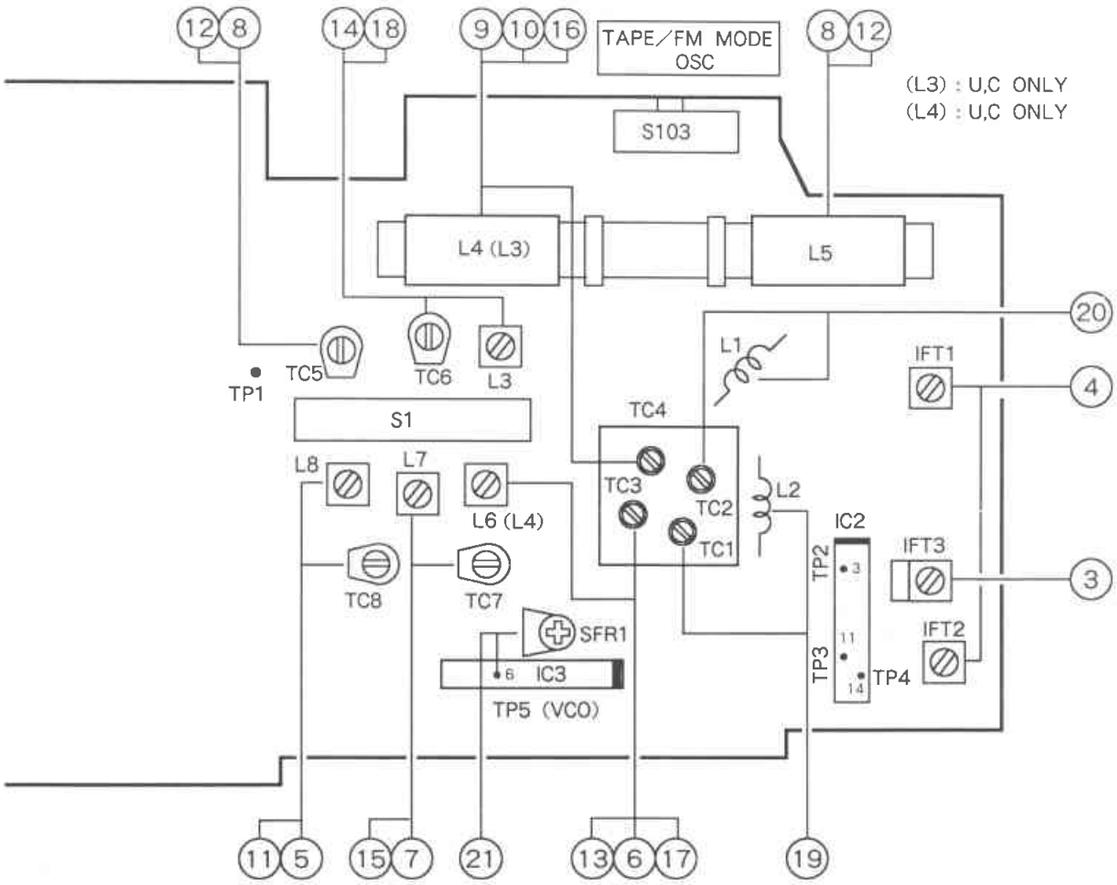
6. AM Frequency Range Adjustment (U,C)
   L4 ····· 517kHz
   TC3 ····· 1750kHz

7. MW Frequency Range Adjustment (E,K,Z)
   L7 ····· 515kHz
   TC7 ····· 1635kHz

8. MW Tracking Adjustment (H)
   L5 ····· 600kHz
   TC5 ····· 1400kHz

9. AM Tracking Adjustment (U,C)
   L3 ····· 600kHz
   TC4 ····· 1400kHz

10. MW Tracking Adjustment (E,K,Z)
    L4 ····· 600kHz
    TC4 ····· 1400kHz



11. LW Frequency Range Adjustment (E,K,Z)
    - L8 ····· 145kHz
    - TC8 ····· 295kHz

12. LW Tracking Adjustment (E,K,Z)
    - L5 ····· 150kHz
    - TC5 ····· 290kHz

13. SW2 Frequency Range Adjustment (H)
    - L6 ····· 6.8MHz
    - TC3 ····· 22.5MHz

14. SW2 Tracking Adjustment (H)
    - L3 ····· 7.0MHz
    - TC6 ····· 22.0MHz

15. SW1 Frequency Range Adjustment (H)
    - L7 ····· 2.1MHz
    - TC7 ····· 7.3MHz

16. SW1 Tracking Adjustment (H)
    - L4 ····· 2.3MHz
    - TC4 ····· 7.0MHz

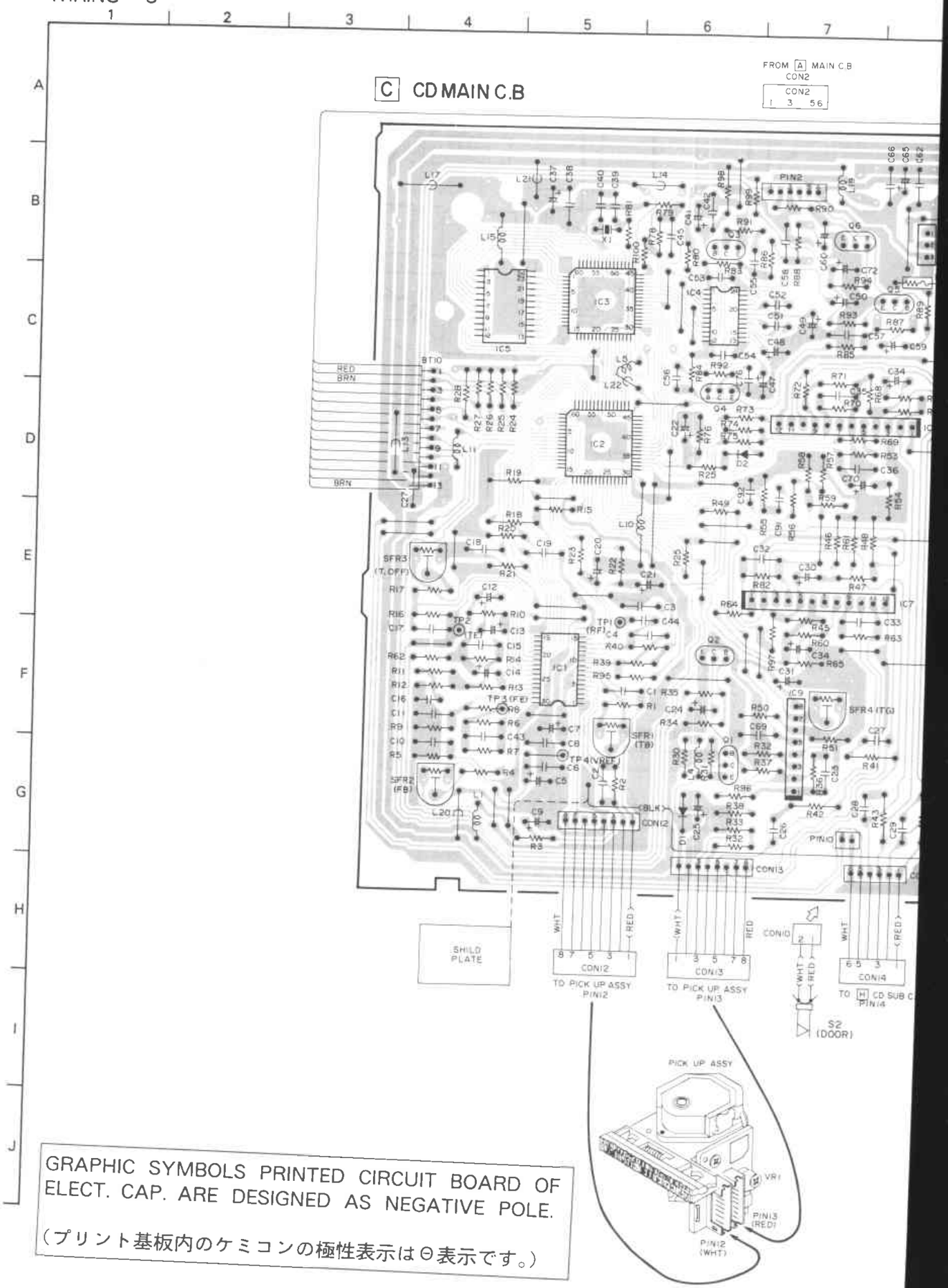
17. SW Frequency Range Adjustment (E,K,Z)
    - L6 ····· 5.8MHz
    - TC3 ····· 18.5MHz

18. SW Tracking Adjustment (E,K,Z)
    - L3 ····· 5.9MHz
    - TC6 ····· 18.0MHz

19. FM Frequency Range Adjustment
    - L2 ····· 87MHz
    - TC1 ····· 109MHz

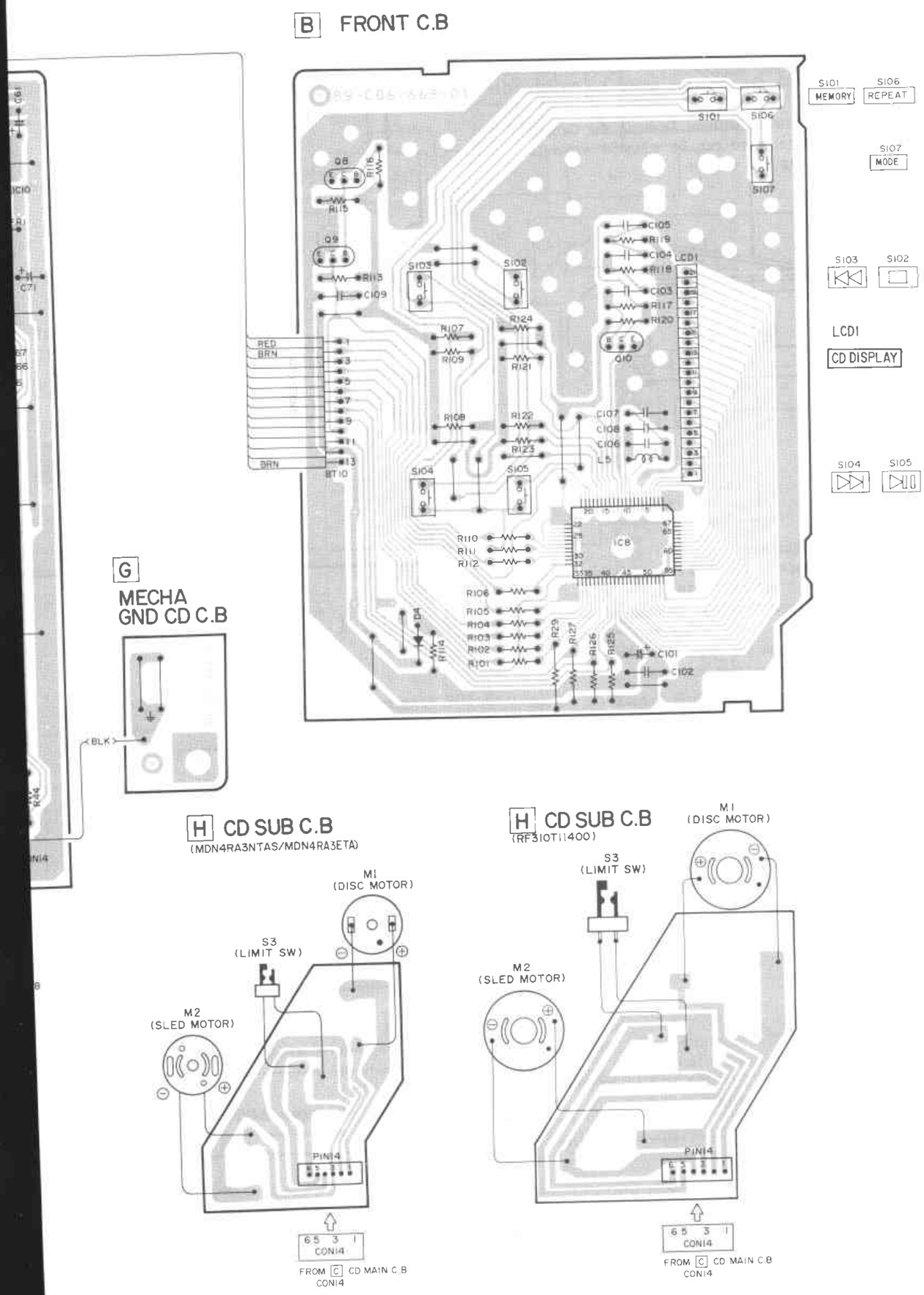
20. FM Tracking Adjustment
    - L1 ····· 88MHz
    - TC2 ····· 108MHz

21. FM VCO Adjustment
    Settings : • Test point : TP5 (IC3 (PIN⑥))
    • Adjustment location : SFR1
    Method : Adjust SFR1 so that the frequency at test point is 38kHz ± 40Hz.

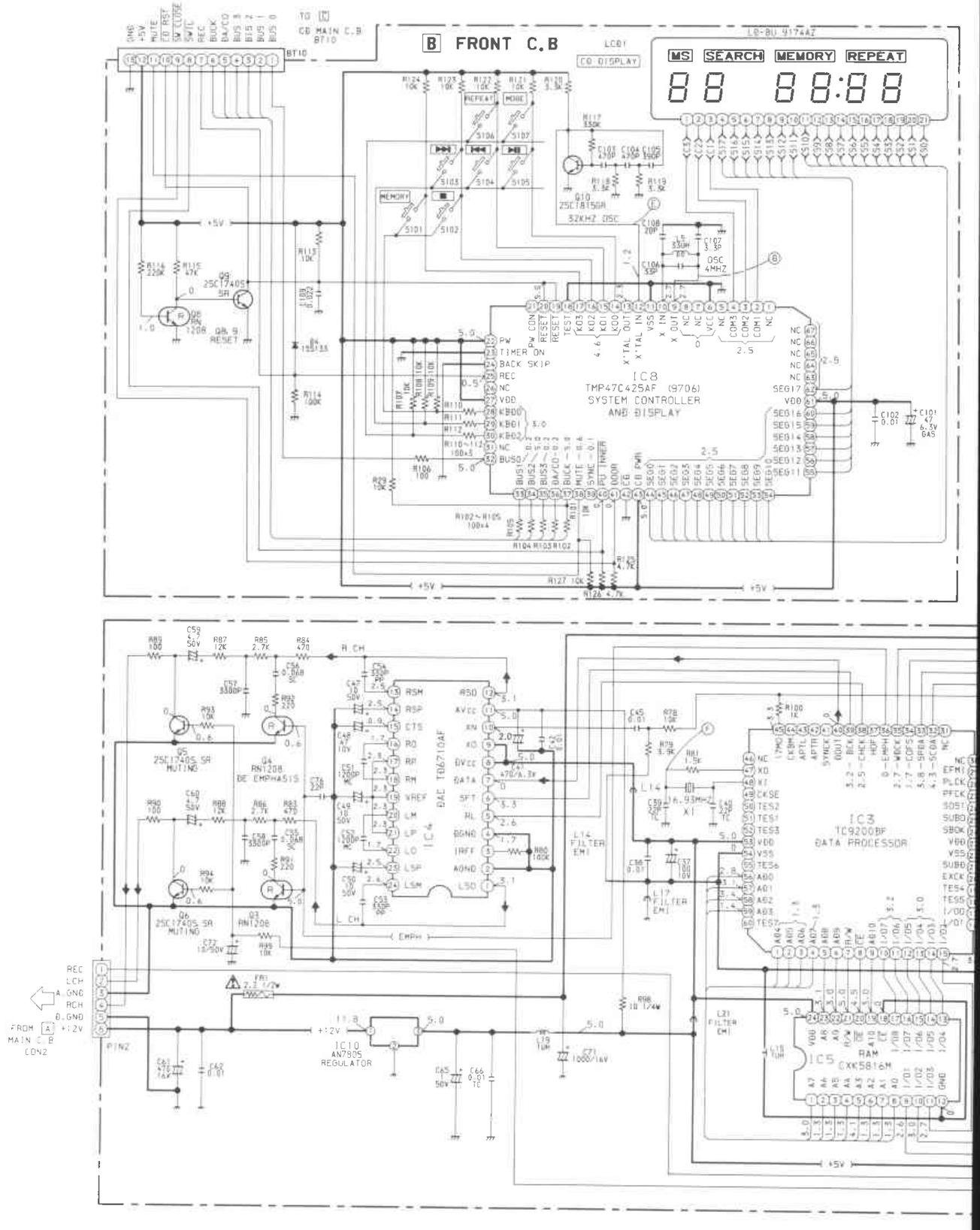


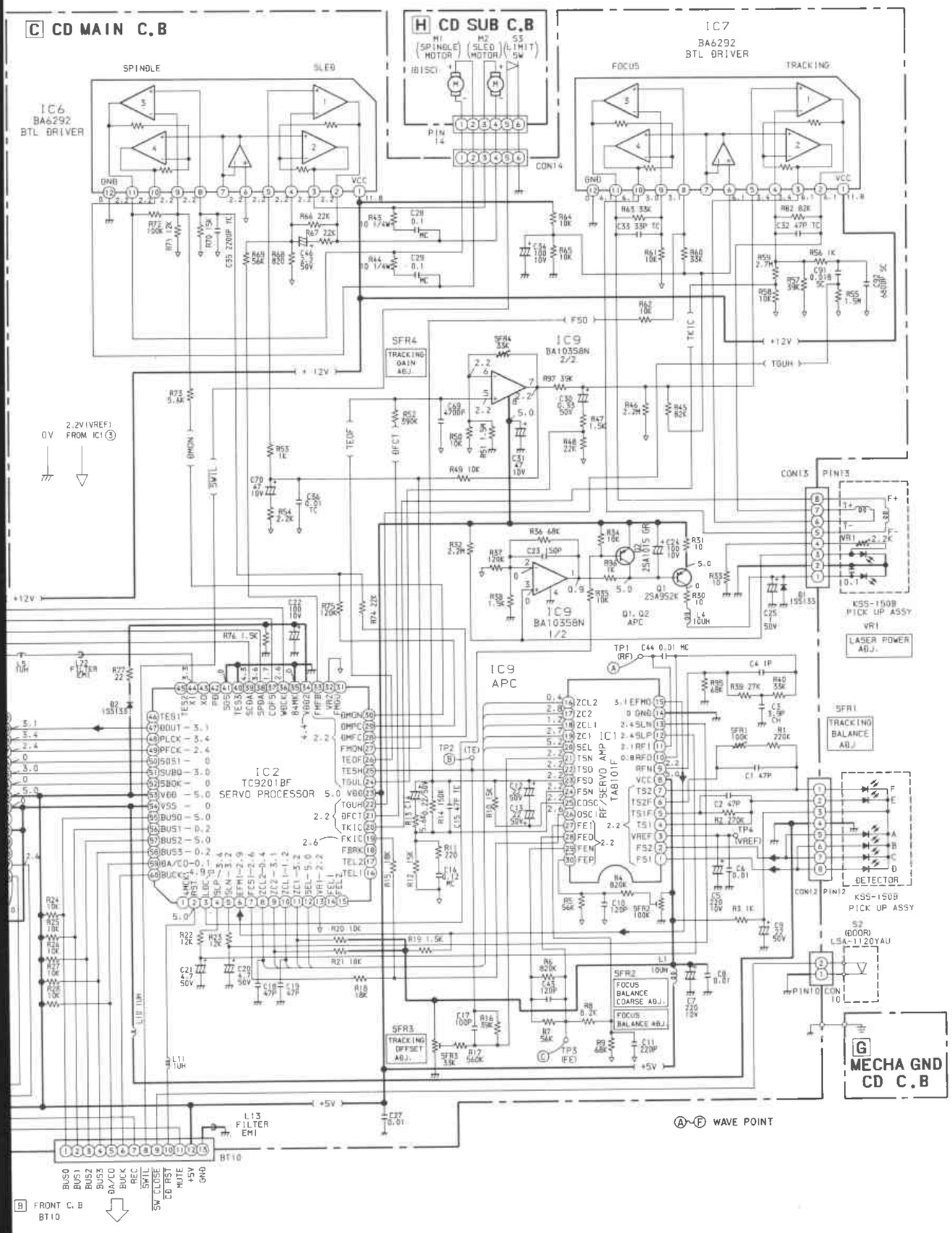
GRAPHIC SYMBOLS PRINTED CIRCUIT BOARD OF ELECT. CAP. ARE DESIGNED AS NEGATIVE POLE.

（プリント基板内のケミコンの極性表示はΘ表示です。）

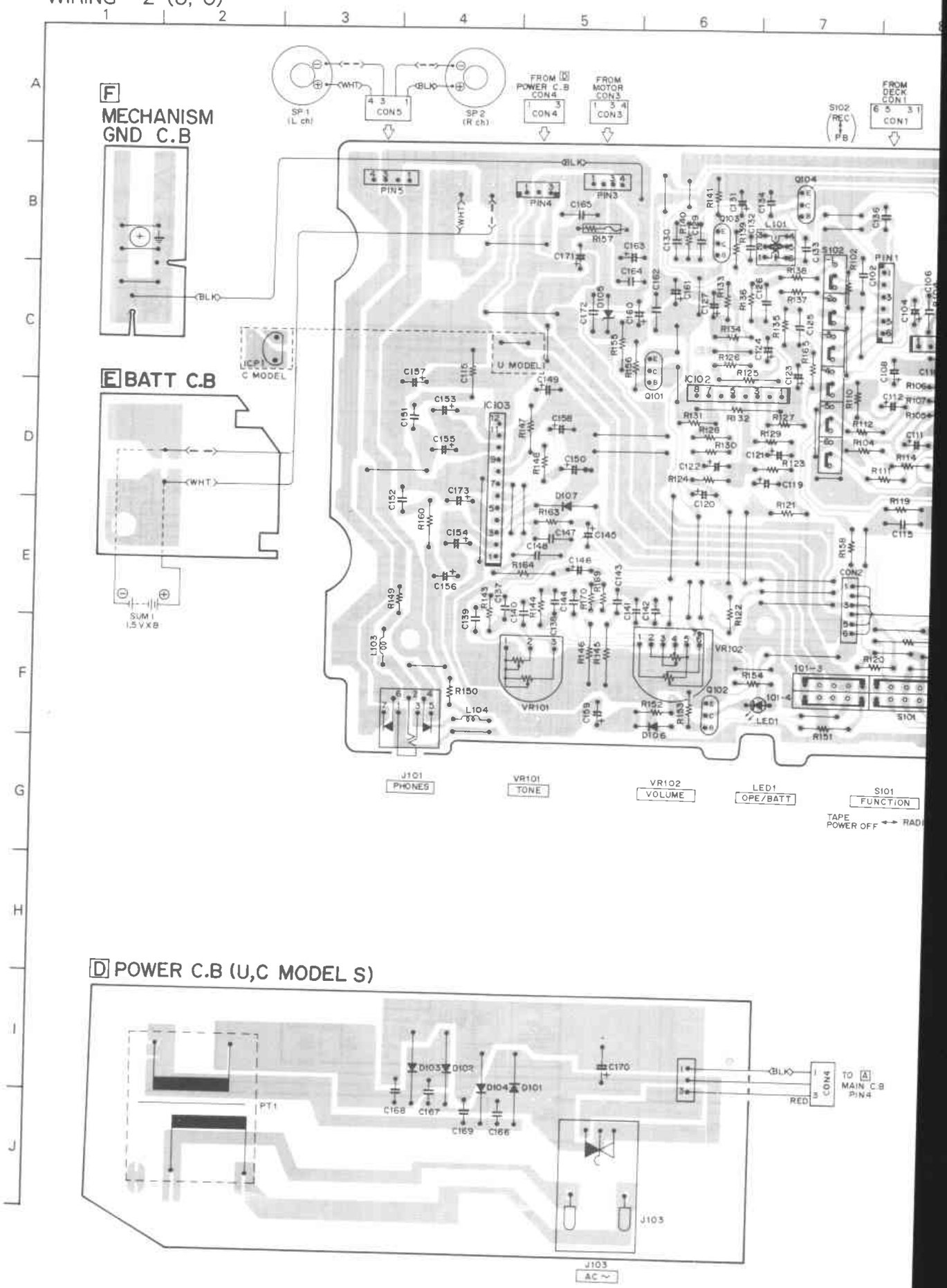

B FRONT C.B
S101
MEMORY
S106
REPEAT
S107
MODE
S103
S102
LCD1
CD DISPLAY
S104
S105
G
MECHA
GND CD C.B
BLK
H CD SUB C.B
(MDN4RA3NTAS/MDN4RA3ETA)
M1
(DISC MOTOR)
S3
(LIMIT SW)
M2
(SLED MOTOR)
PIN14
6 5 3 1
CON14
FROM C CD MAIN C.B
CON14
H CD SUB C.B
(RF3I0T11400)
M1
(DISC MOTOR)
S3
(LIMIT SW)
M2
(SLED MOTOR)
PIN14
6 5 3 1
CON14
FROM C CD MAIN C.B
CON14

SCHEMATIC DIAGRAM – 3




C CD MAIN C.B
H CD SUB C.B
M1 (SPINDLE MOTOR)
M2 (SLED MOTOR)
S3 (LIMIT SW)
(DISC)
PIN 14
CON14
IC6
BA6292
BTL DRIVER
SPINDLE
SLED
IC7
BA6292
BTL DRIVER
FOCUS
TRACKING
GND
VCC
2.2V(VREF)
0V
FROM IC1 ③
SFR4
TRACKING GAIN ADJ.
IC9
BA10358N
1/2
FDO
TGUH
+12V
TKIC
TEDF
BFCT
SWIL
BMON
CON13
PIN13
KSS-150B
PICK UP ASSY
VR1
LASER POWER ADJ.
Q1, Q2
APC
2SA952K
2SC1815
IC9
APC
TP1 (RF)
C44 0.01 MC
IC2
TC9201BF
SERVO PROCESSOR
IC1
RF/SERVO AMP
TA8101F
SFR1
TRACKING BALANCE ADJ.
(VREF)
DETECTOR
CON12
PIN12
KSS-150B
PICK UP ASSY
S2
(DOOR)
LSA-1120YAU
PIN10 CON 10
SFR2
FOCUS BALANCE COARSE ADJ.
FOCUS BALANCE ADJ.
SFR3
TRACKING OFFSET ADJ.
TP3 (FE)
+5V
G
MECHA GND
CD C.B
L13
FILTER
EMI
BT10
BUS0
BUS1
BUS2
BUS3
DA/CO
BUCK
REC
SWIL
SW CLOSE
CD RST
MUTE
+5V
GND
B FRONT C.B
BT10
A~F WAVE POINT

WIRING – 2 (U, C)

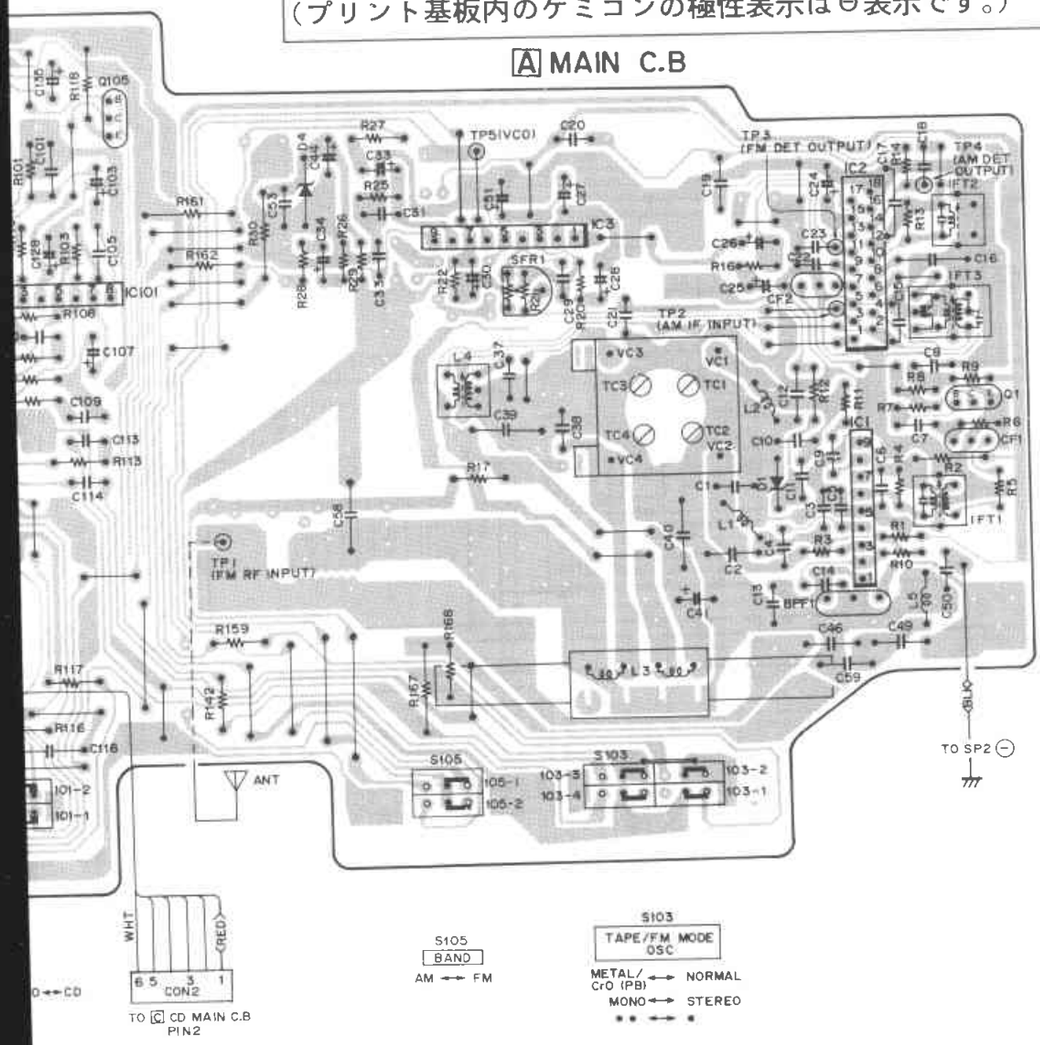


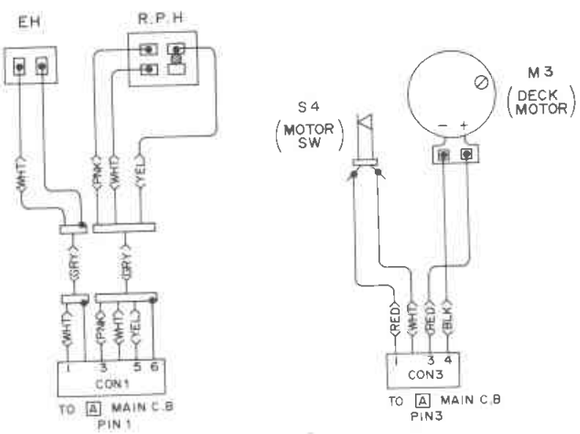
D POWER C.B (U,C MODEL S)

GRAPHIC SYMBOLS PRINTED CIRCUIT BOARD OF ELECT. CAP. ARE DESIGNED AS NEGATIVE POLE.

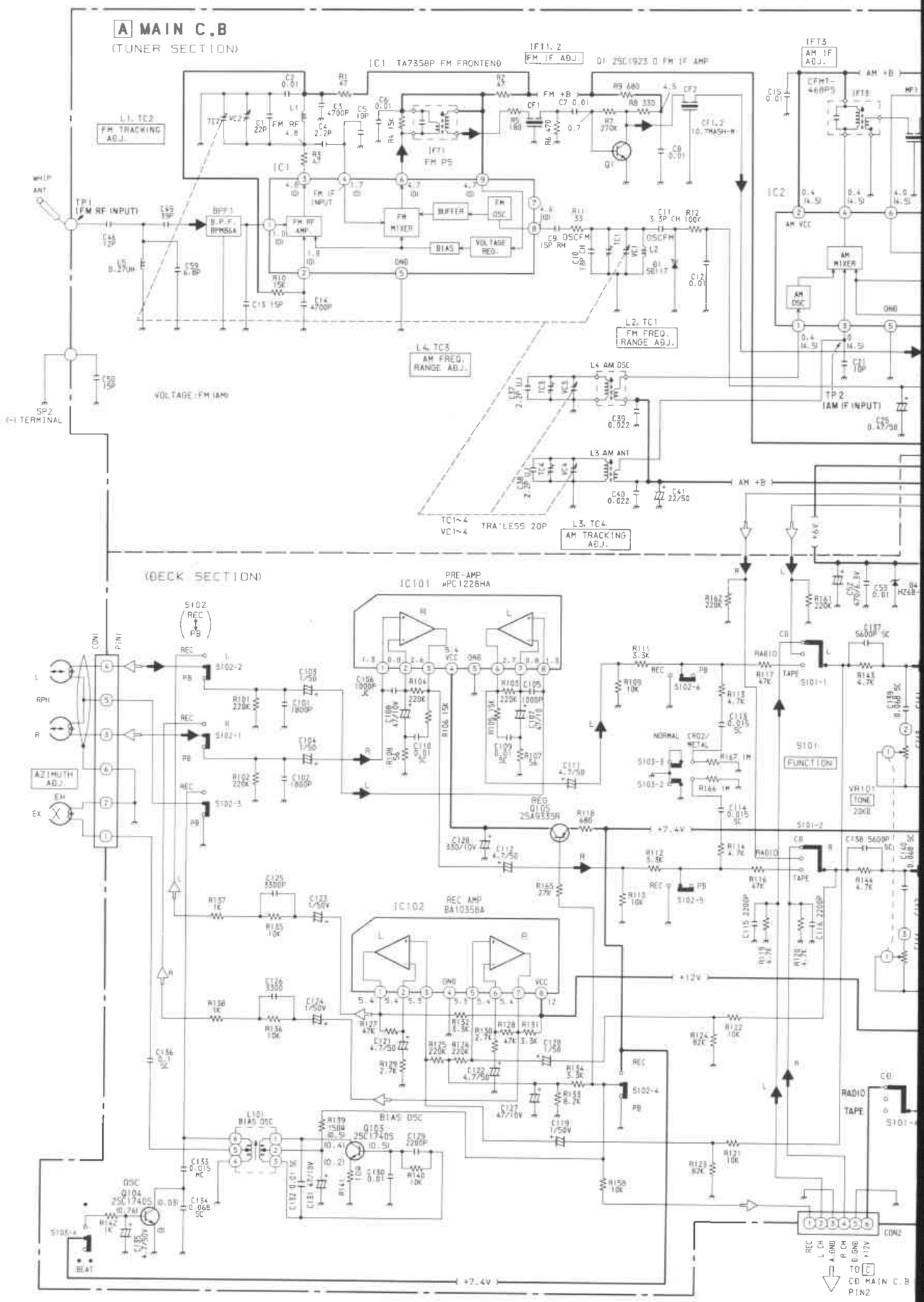
（プリント基板内のケミコンの極性表示はθ表示です。）

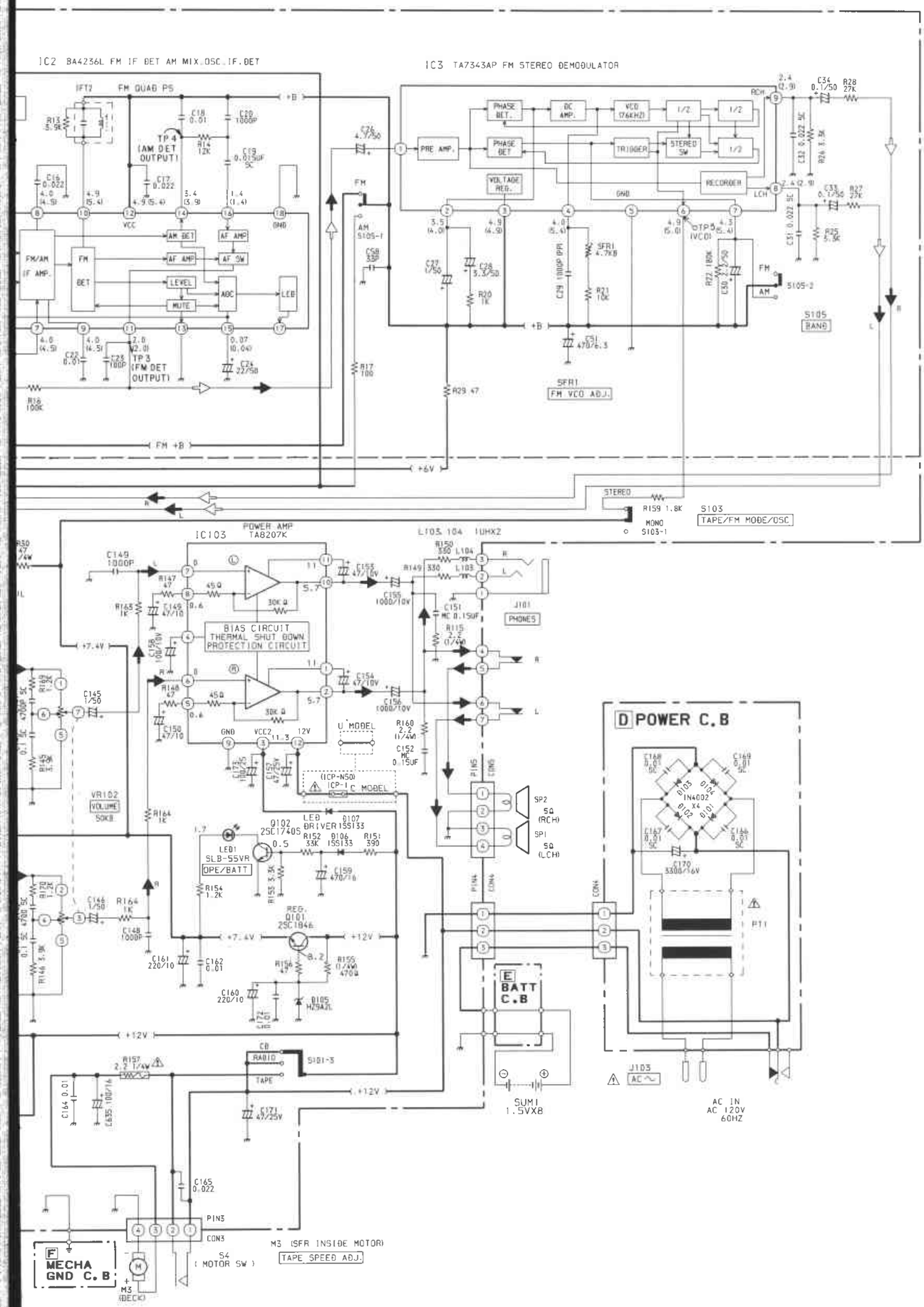
Ⓐ MAIN C.B



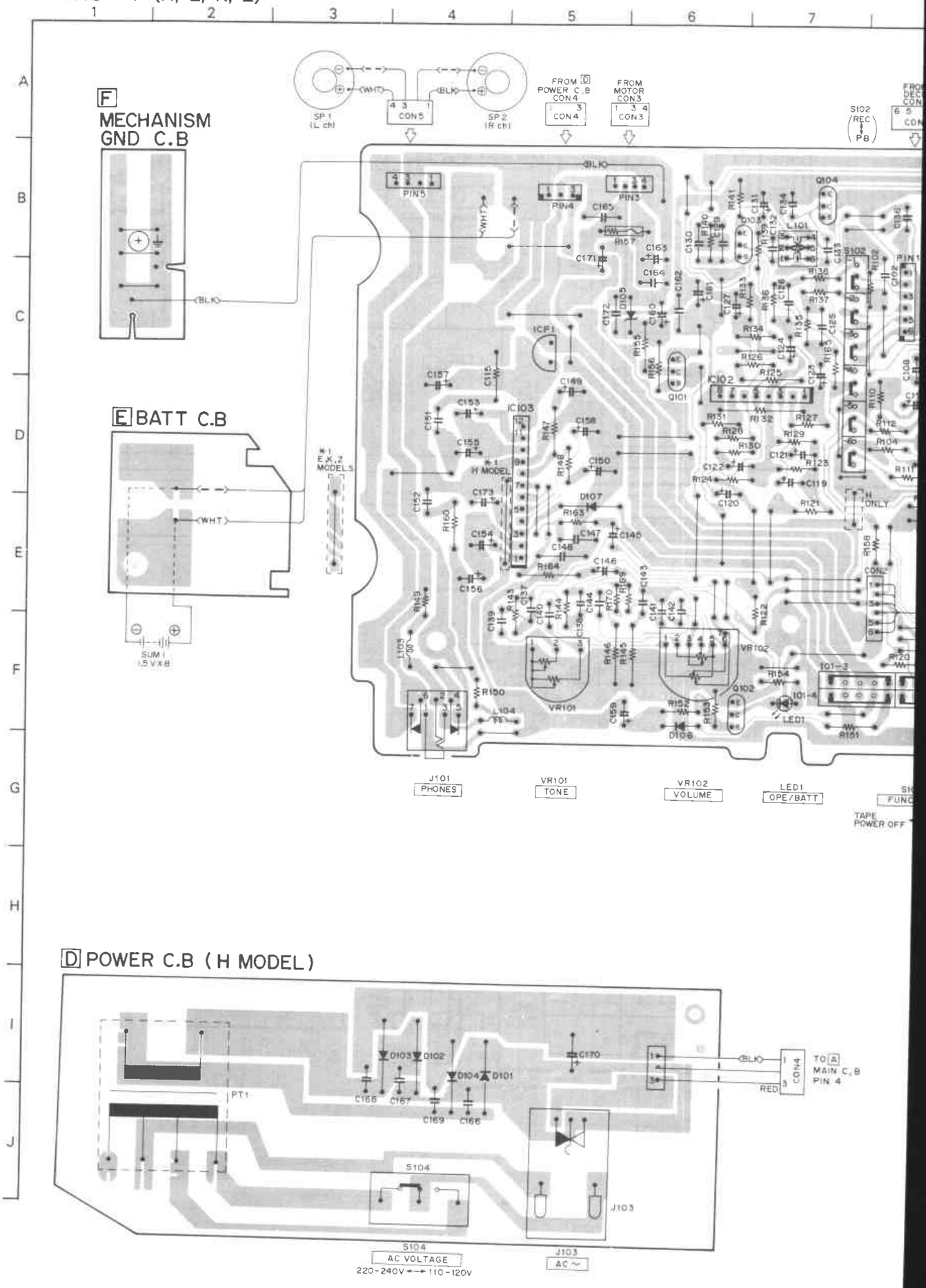


SCHEMATIC DIAGRAM – 2 (U, C)




IC2 BA4236L FM IF DET AM MIX.OSC.IF.DET
IC3 TA7343AP FM STEREO DEMODULATOR
IFT2
FM QUAD PS
TP4 (AM DET OUTPUT)
TP3 (FM DET OUTPUT)
PRE AMP.
PHASE DET.
DC AMP.
VCO (76KHZ)
1/2
STEREO SW
TRIGGER
VOLTAGE REG.
RECORDER
FM/AM IF AMP.
FM DET
AM DET
AF AMP
AF SW
LEVEL
MUTE
AGC
LED
VCC
GND
FM +B
+6V
SFR1
FM VCO ADJ.
S105
BAND
S103
TAPE/FM MODE/OSC
STEREO
MONO
POWER AMP
IC103
TA8207K
L105, 104
10UHX2
BIAS CIRCUIT
THERMAL SHUT DOWN
PROTECTION CIRCUIT
J101
PHONES
U MODEL
(CP-N50)
CP-1 C MODEL
VR102
VOLUME
50KB
LED1
SLR-55VR
OPE/BATT
Q102
2SC1740S
Q107
DRIVER
Q101
2SC1846
D105
MTZ9.1JL
+7.4V
+12V
CB
RADIO
TAPE
S101-3
M3 (SFR INSIDE MOTOR)
TAPE SPEED ADJ.
S4
(MOTOR SW)
M3
(DECK)
MECHA GND C.B
D POWER C.B
D101-4
IN4002
PT1
J103
AC
AC IN
AC 120V
60HZ
E
BATT C.B
SUM1
1.5VX8
SP2
5Ω
(RCH)
SP1
5Ω
(LCH)
PIN5
CON5
PIN4
CON4
PIN3
CON3

WIRING – 1 (H, E, K, Z)

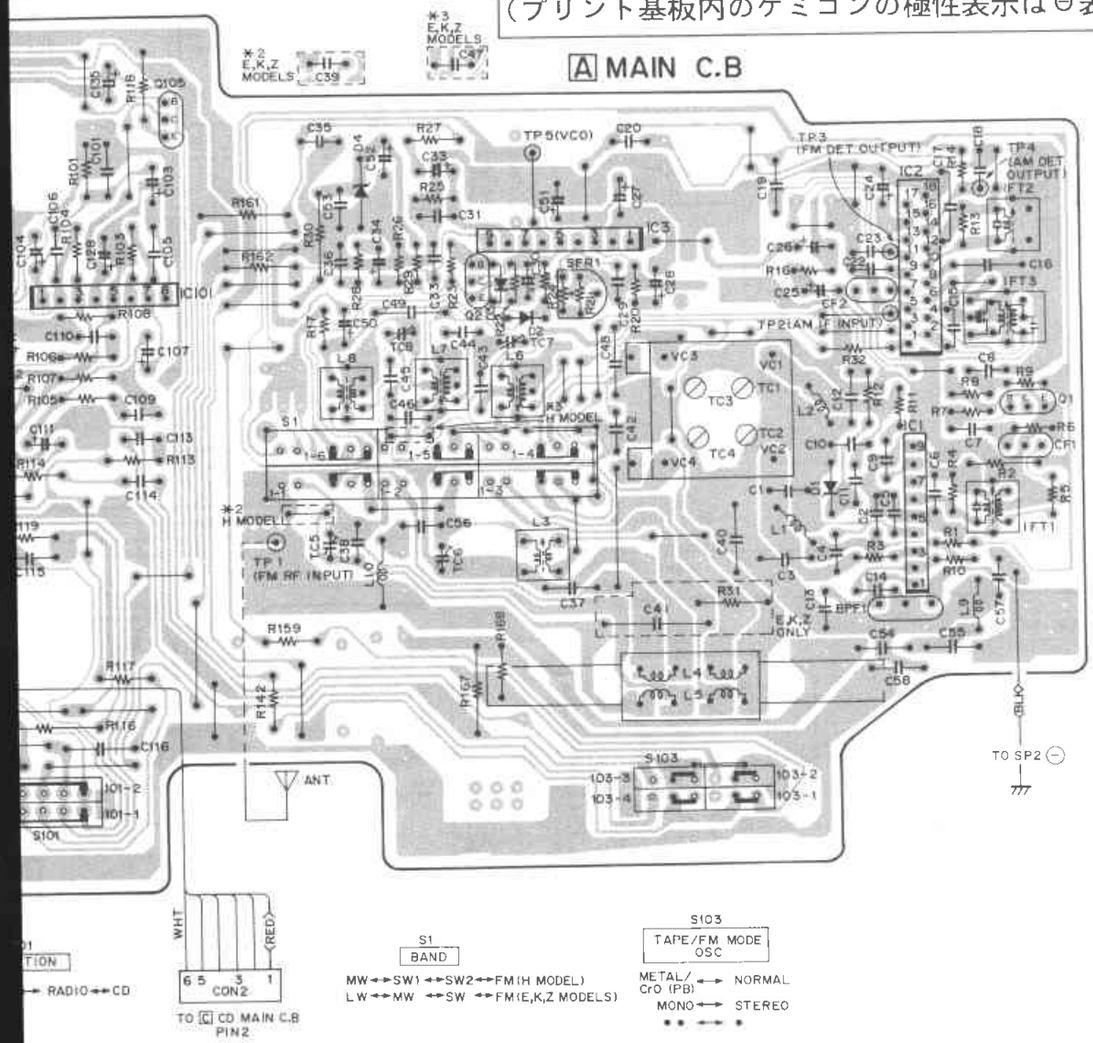


D POWER C.B (H MODEL)

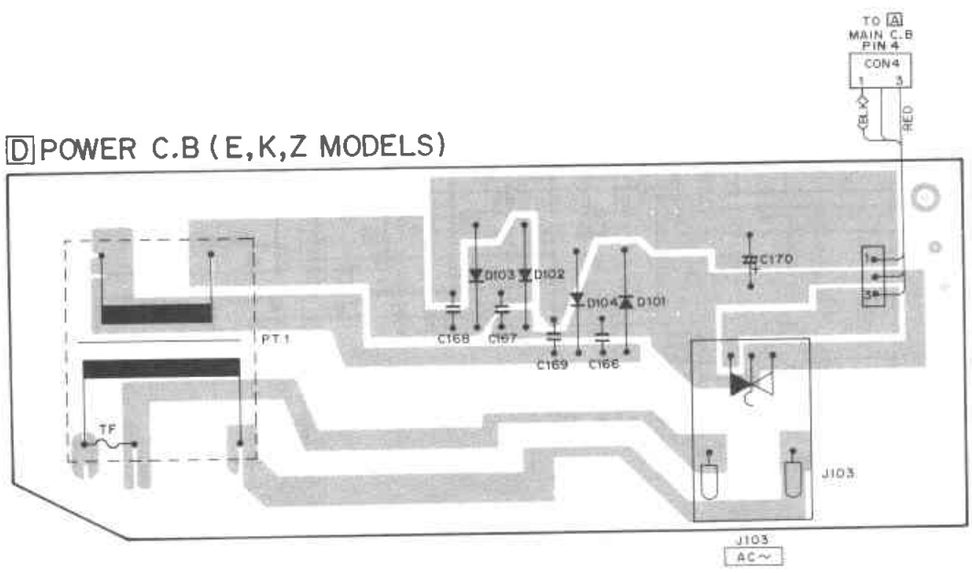
GRAPHIC SYMBOLS PRINTED CIRCUIT BOARD OF ELECT. CAP. ARE DESIGNED AS NEGATIVE POLE.

(プリント基板内のケミコンの極性表示はΘ表示です。)

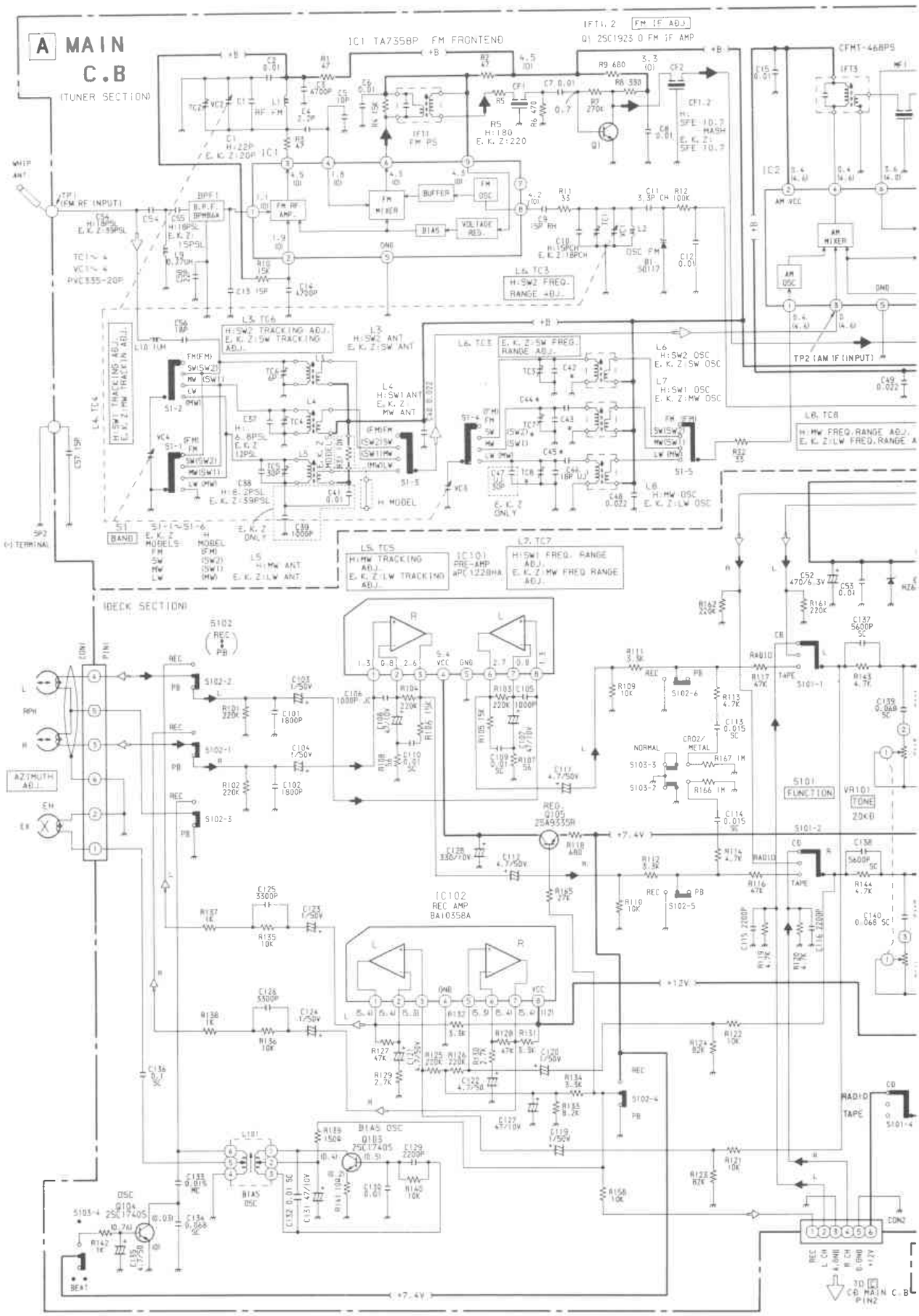
A MAIN C.B

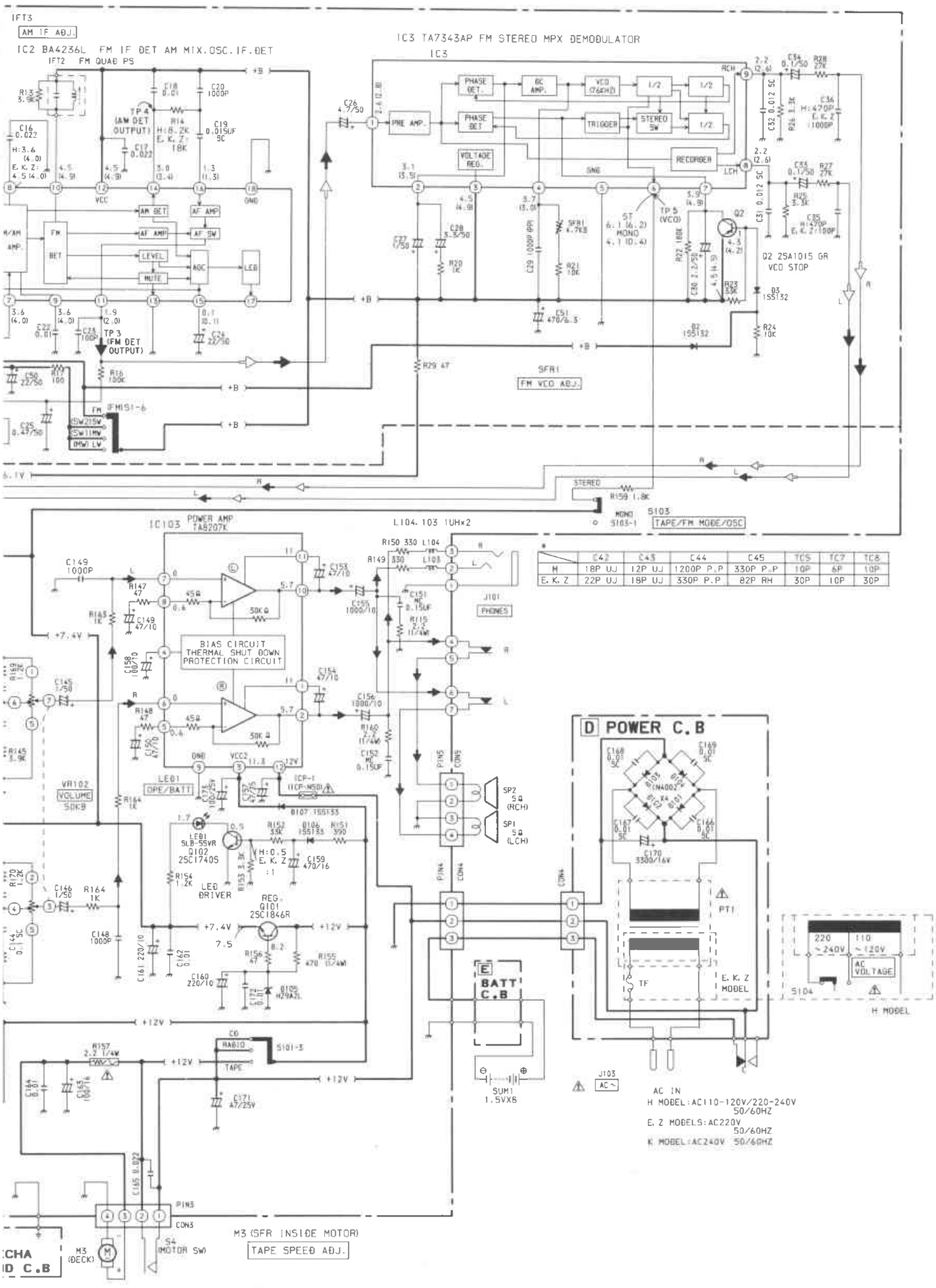


D POWER C.B (E,K,Z MODELS)



SCHEMATIC DIAGRAM – 1 (H, E, K, Z)





	C42	C43	C44	C45	TC5	TC7	TC8
H	18P UJ	12P UJ	1200P P.P	330P P.P	10P	6P	10P
E. K. Z	22P UJ	18P UJ	330P P.P	82P RH	30P	10P	30P

REF. NO.	PART NO.	DESCRIPTION
C27	*87-018-134-019	CAP, CERA-SOL SS 0.01-16
C30	*87-010-546-019	CAP, ELECT 0.33-50 SME
C31	*87-010-374-019	CAP, ELECT 47-10
C32	*87-018-115-019	CAP, CERA-SOL SS 47P-50 SL
C33	*87-018-113-019	CAP, CERA-SOL SS 33P-50 SL
C34	*87-010-263-019	CAP, ELECT 100-10
C35	*87-018-132-019	CAP, CERA-SOL SS 2200P-16
C36	*87-018-134-019	CAP, CERA-SOL SS 0.01-16
C37	*87-010-263-019	CAP, ELECT 100-10
C38	*87-018-134-019	CAP, CERA-SOL SS 0.01-16
C39	*87-018-109-019	CAP, CERA-SOL SS 22P-50 SL
C40	*87-018-109-019	CAP, CERA-SOL SS 22P-50 SL
C41	*87-010-371-019	CAP, ELECT 470-6.3
C42	*87-018-134-019	CAP, CERA-SOL SS 0.01-16
C43	*87-018-120-019	CAP, CEAR-SOL SS 120P-50
C45	*87-018-134-019	CAP, CERA-SOL SS 0.01-16
C46	*87-010-402-019	CAP, ELECT 2.2-50 SME
C47	*87-010-405-019	CAP, ELECT 10-50 SME
C48	*87-010-374-019	CAP, ELECT 47-10
C49	*87-010-405-019	CAP, ELECT 10-50 SME
C50	*87-010-405-019	CAP, ELECT 10-50 SME
C53	*87-014-045-019	CAP, PP 330P-100
C54	*87-014-045-019	CAP, PP 330P-100
C57	*87-018-199-019	CAP, CERA-SOL SS 3300P-16
C58	*87-018-199-019	CAP, CERA-SOL SS 3300P-16
C59	*87-010-404-019	CAP, ELECT 4.7-50 SME
C60	*87-010-404-019	CAP, ELECT 4.7-50 SME
C61	*87-010-235-019	CAP, ELECT 470-16 SME
C62	*87-018-134-019	CAP, CERA-SOL SS 0.01-16
C65	*87-010-401-019	CAP, ELECT 1-50 SME
C66	*87-018-134-019	CAP, CERA-SOL SS 0.01-16
C69	*87-018-133-019	CAP, CERA-SOL SS 4700P-16
C70	*87-010-374-019	CAP, ELECT 47-10
C71	*87-010-237-019	CAP, ELECT 1000-16 SME
C72	*87-010-405-019	CAP, ELECT 10-50 SME
C76	*87-018-109-019	CAP, CERA-SOL SS 22P-50 SL
⚠FR1	87-029-019-019	RES, FUSE 2.2-1/2W
L1	*87-003-102-019	COIL, 10UH
L4	*87-003-102-019	COIL, 10UH
L5	*87-003-097-019	COIL, 1UH
L10	*87-003-097-019	COIL, 1UH
L11	*87-003-097-019	COIL, 1UH
L13	*87-008-372-019	FILTER EMI BL OIRNI
L14	*87-008-372-019	FILTER EMI BL OIRNI
L15	*87-003-097-019	COIL, 1UH
L17	*87-008-372-019	FILTER EMI BL OIRNI
L19	*87-003-097-019	COIL, 1UH S
L21	*87-008-372-019	FILTER EMI BL OIRNI
L22	*87-008-372-019	FILTER EMI BL OIRNI
S2	81-590-677-019	LEAF SW(DOOR)
SFR1	*87-021-828-019	SFR 100K
SFR2	*87-024-176-019	SFR 100K
SFR3	*87-024-174-019	SFR 33K
SFR4	*87-024-174-019	SFR 33K
X1	*81-592-641-019	CERALOCK 16.93MX
	===POWER CIRCUIT BOARD SECTION===	
C170	*87-010-262-019	CAP, ELECT 3300-16 SME
⚠J103	87-049-784-019	JACK AC E(AC～)(H, E, K, Z)
⚠J103	87-049-783-019	JACK AC D(AC～)(U, C)
⚠PT1	89-CD6-621-019	POWER TRANSFORMER H(H)
⚠PT1	89-CD6-623-019	POWER TRANSFORMER U(U, C)
⚠PT1	89-CD6-622-019	POWER TRANSFORMER E, K, Z(E, K, Z)
⚠S104	87-031-780-019	SLIDE SW(AC VOLTAGE)(H)
	===BATT CIRCUIT BOARD SECTION===	
	===MECHA GND CIRCUIT BOARD SECTION===	

REF. NO.	PART NO.	DESCRIPTION
	===MECHA GND CD CIRCUIT BOARD SECTION===	
	===CD SUB CIRCUIT BOARD SECTION===	
※PCB-H	*91-623-947-110	MOTOR C. B(RF310T11400)
※PCB-H	*91-628-264-110	MOTOR C. B(MDN4RA3NTAS/MDN4RA3ETA)
※M1	9X-264-134-110	MOTOR ASSY(W/CHASSIS T. T)(RF310T11400)(DISC)
※M1	9X-264-134-610	MOTOR ASSY(W/CHASSIS T. T)(MDN4RA3NTAS)(DISC)
※M2	9X-264-077-010	MOTOR ASSY(RF310T11400)(SLED)
※M2	9X-264-134-410	MOTOR ASSY(MDN4RA3ETA)(SLED)
S3	91-570-822-210	LEAF SW(LIMIT)
	===MISCELLANEOUS===	
	98-848-070-210	OPTICAL PICK UP KSS-150B(J)
CON1	89-CD6-628-019	CONN ASSY 6P RPEH
EH	*S6-202-140-190	E. HEAD
M3	S6-002-630-220	MOTOR(DECK)
R. P. H	S6-202-010-750	R. P. HEAD
S4	S6-401-011-520	LEAF SW(MOTOR)
SP1	89-CD6-639-019	SPEAKER, W(Lch)
SP2	89-CD6-639-019	SPEAKER, W(Rch)

※Caution

Two Types of the spindle (DISC) motor and sled motor are used, but they are not compatible.
Check the part numbers (MDN ····, RF ····) on the labels of motors and replace motors with the same one.

PRACTICAL SERVICE FIGURE

< RADIO SECTION >

< H Model >

Sensitivity :	
(IHF,THD 3%)	FM 18 ± 4dB (100MHz)
(S/N 10dB)	SW2 23 ± 5dB (14MHz)
(S/N 10dB)	SW1 40 ± 4dB (4MHz)
(S/N 10dB)	MW 44 ± 4dB (1000kHz)

< U, C Models >

Sensitivity :	
(IHF,THD 3%)	FM 16 ± 4dB (98MHz)
(S/N 10dB)	AM 42 ± 4dB (1000kHz)

< E, K, Z Models >

Sensitivity :	
(IHF,THD 3%)	FM 16 ± 4dB (98MHz)
(S/N 10dB)	SW 28 ± 4dB (10MHz)
(S/N 10dB)	MW 44 ± 4dB (1000kHz)
(S/N 10dB)	LW 50 ± 4dB (200kHz)

Intermediate frequency :	FM 10.7MHz
	AM 468kHz
FM stereo separation :	28 ± 5dB (100MHz)

< TAPE RECORDER SECTION >

Recording bias frequency :	60~74kHz
Erasing ratio :	More than 55dB (125Hz)
Distortion :	Less than 2.0% (PB)
	Less than 5.0% (REC/PB)
S/N ratio :	45 ± 4dB (DC, PB)
	45 ± 4dB (AC, PB)
Noise (PB) :	Less than 20mV
	(DC, PB MAX)
	Less than 25mV
	(AC, PB MAX)
Tape speed :	3000Hz ± 3.0%
TTA-100 (TTA-111S)	
Wow & flutter :	Less than 0.4% (JIS, RMS)
Take-up torque :	28~60g-cm
F.F & REW torque :	60~140g-cm
Back tension :	2~5g-cm
Test tape :	NORMAL TTA-600
	(TTA-119K)

E C B

2SA1015
2SA933
2SA952
2SC1740
2SC1815
2SC1923

E C B

2SC1846

B C E

RN1208

REF. NO.	PART NO.	DESCRIPTION
C130	*87-018-134-019	CAP, CERA-SOL SS 0.01-16
C131	*87-010-374-019	CAP, ELECT 47-10
C135	*87-010-404-019	CAP, ELECT 4.7-50 SME
C145	*87-010-401-019	CAP, ELECT 1-50 SME
C146	*87-010-401-019	CAP, ELECT 1-50 SME
C147	*87-018-131-019	CAP, CERA-SOL SS 1000P-50
C148	*87-018-131-019	CAP, CERA-SOL SS 1000P-50
C149	*87-010-374-019	CAP, ELECT 47-10
C150	*87-010-374-019	CAP, ELECT 47-10
C153	*87-010-374-019	CAP, ELECT 47-10
C154	*87-010-374-019	CAP, ELECT 47-10
C155	*87-010-236-019	CAP, ELECT 1000-10
C156	*87-010-236-019	CAP, ELECT 1000-10
C157	*87-010-260-019	CAP, ELECT 47-25 SME
C158	*87-010-263-019	CAP, ELECT 100-10
C159	*87-010-235-019	CAP, ELECT 470-16
C160	*87-010-248-019	CAP, ELECT 220-10 SME
C161	*87-010-248-019	CAP, ELECT 220-10 SME
C162	*87-018-134-019	CAP, CERA-SOL SS 0.01-16
C163	*87-010-112-019	CAP, ELECT 100-16
C164	*87-018-134-019	CAP, CERA-SOL SS 0.01-16
C165	*87-012-105-019	CAP, CERA-SOL 0.022-16
C171	*87-010-260-019	CAP, ELECT 47-25 SME
C172	*87-018-134-019	CAP, CERA-SOL SS 0.01-16
C173	*87-010-384-019	CAP, ELECT 100-25 SME
CF1	*87-008-369-019	FILTER SFE10.7MA5H(H, U, C)
CF1	*87-008-371-019	FILTER SFE10.7(E, K, Z)
CF2	*87-008-369-019	FILTER SFE10.7MA5H(H, U, C)
CF2	*87-008-371-019	FILTER SFE10.7(E, K, Z)
D1	*87-017-004-019	VARI-CAP, SD-117
IFT1	*87-008-292-019	IFT, FM PS
IFT2	*87-008-293-019	IFT, FM(QUAD)PS
IFT3	*87-008-370-019	FILTER CFMT-468, PS
J101	*87-009-216-019	JACK 3.5 STS(PHONES)
L1	*87-006-084-019	COIL, RF FM
L2	*87-007-162-019	COIL, OSC FM
L3	*87-006-109-019	COIL, ANT SW2(H)
L3	*89-CD5-624-019	ANT, BAR AM-10S SP(U, C)
L3	*87-006-108-019	COIL, ANT SW-L(E, K, Z)
L4	*89-CD6-636-019	ANT, BAR SW1(H)
L5	+ + +	ANT, BAR MW(H)
L4	*87-007-150-019	COIL, OSC AM-PS(U, C)
L5	*87-003-118-019	COIL, 0.27UH(U, C)
L4	*89-CD6-635-019	ANT, BAR MW(E, K, Z)
L5	+ + +	ANT, BAR LW(E, K, Z)
L6	*87-007-157-019	COIL, OSC SW2 PS(H)
L6	*87-007-156-019	COIL, OSC SW PS(E, K, Z)
L7	*87-007-155-019	COIL, OSC SW1 PS(H)
L7	*87-007-154-019	COIL, OSC MW PS(E, K, Z)
L8	*87-007-154-019	COIL, OSC MW PS(H)
L8	*87-007-187-019	COIL, OSC LW ZX PS(E, K, Z)
L9	*87-003-118-019	COIL, 0.27UH(H, E, K, Z)
L10	*87-005-165-019	COIL, 1UH(H, E, K, Z)
L101	*81-583-623-019	COIL, OSC BIAS
L103	*87-003-097-019	COIL, 1UH
L104	*87-003-097-019	COIL, 1UH
LED1	87-001-705-019	LED SLB-55VR 70F130(OPE/BATT)
⚠R157	87-029-124-019	RES, FUSE 2.2-1/4W
S1	89-CD6-637-019	ROTARY SW(BAND)(H, E, K, Z)
S101	89-CD6-638-019	SLIDE SW(FUNCTION)
S102	89-CD6-627-019	SLIDE SW(PB↔REC)
S103	89-CD6-626-019	SLIDE SW(MODE)
S105	*87-036-140-019	SLIDE SW(BAND)(U, C)
SFR1	*87-021-741-019	SFR 4.7K
TC1	*87-011-230-019	PVC 335-20P(H, E, K, Z)
TC2	* + + +	PVC 335-20P(H, E, K, Z)
TC3	* + + +	PVC 335-20P(H, E, K, Z)
TC4	* + + +	PVC 335-20P(H, E, K, Z)
VC1	* + + +	PVC 335-20P(H, E, K, Z)
VC2	* + + +	PVC 335-20P(H, E, K, Z)
VC3	* + + +	PVC 335-20P(H, E, K, Z)
VC4	* + + +	PVC 335-20P(H, E, K, Z)
TC1	*87-011-225-019	PVC TRA'LESS 20P (TWD)(U, C)
TC2	* + + +	PVC TRA'LESS 20P (TWD)(U, C)
TC3	* + + +	PVC TRA'LESS 20P (TWD)(U, C)
TC4	* + + +	PVC TRA'LESS 20P (TWD)(U, C)
VC1	* + + +	PVC TRA'LESS 20P (TWD)(U, C)
VC2	* + + +	PVC TRA'LESS 20P (TWD)(U, C)
VC3	* + + +	PVC TRA'LESS 20P (TWD)(U, C)
VC4	* + + +	PVC TRA'LESS 20P (TWD)(U, C)
TC5	*87-011-155-019	CAP, TRIMMER 10P(H)
TC5	*87-011-164-019	CAP, TRIMMER 30P(E, K, Z)
TC6	*87-011-154-019	CAP, TRIMMER 6P(H, E, K, Z)
TC7	*87-011-154-019	CAP, TRIMMER 6P(H)
TC7	*87-011-155-019	CAP, TRIMMER 10P(E, K, Z)
TC8	*87-011-155-019	CAP, TRIMMER 10P(H)
TC8	*87-011 164-019	CAP, TRIMMER 30P(E, K, Z)
VR101	87-024-096-019	VOLUME 20KDX2(TONE)
VR102	87-024-095-019	VOLUME 50KBX2(VOLUME)
===FRONT CIRCUIT BOARD SECTION===		
C101	*87-010-078-019	CAP, ELECT 47-6.3
C102	*87-018-134-019	CAP, CERA-SOL SS 0.01-16
C103	*87-018-127-019	CAP, CERA-SOL SS 470P-50
C104	*87-018-127-019	CAP, CERA-SOL SS 470P-50
C105	*87-018-126-019	CAP, CERA-SOL SS 390P-50
C106	*87-018-113-019	CAP, CERA-SOL SS 33P-50 SL
C107	*87-018-098-019	CAP, CERA-SOL SS 3.3P-50 SL
C108	*87-018-108-019	CAP, CERA-SOL SS 20P-50 SL
C109	*87-012-105-019	CAP, CERA-SOL 0.022-16
L5	*87-003-148-019	COIL, 33UH
LCD1	81-591-610-019	LCD BU9174AZ(CD DISPLAY)
S101	87-036-142-019	TACT SW(MEMORY)
S102	87-036-142-019	TACT SW(■)
S103	87-036-142-019	TACT SW(▶▶)
S104	87-036-142-019	TACT SW(◀◀)
S105	87-036-142-019	TACT SW(▶II)
S106	87-036-142-019	TACT SW(REPEAT)
S107	87-036-142-019	TACT SW(MODE)
===CD MAIN CIRCUIT BOARD SECTION===		
C1	*87-018-115-019	CAP, CERA-SOL SS 47P-50 SL
C2	*87-018-115-019	CAP, CERA-SOL SS 47P-50 SL
C3	*87-018-142-019	CAP, CERA-SOL SS 3.9P-50 CH
C4	*87-018-139-019	CAP, CERA-SOL SS 1P-50 CH
C5	*87-010-248-019	CAP, ELECT 220-10 SME
C6	*87-018-134-019	CAP, CERA-SOL SS 0.01-16
C7	*87-010-248-019	CAP, ELECT 220-10 SME
C8	*87-018-134-019	CAP, CERA-SOL SS 0.01-16
C9	*87-010-406-019	CAP, ELECT 22-50 SME
C10	*87-018-120-019	CAP, CEAR-SOL SS 120P-50
C11	*87-018-123-019	CAP, CERA-SOL SS 220P-50
C12	*87-010-406-019	CAP, ELECT 22-50 SME
C13	*87-010-406-019	CAP, ELECT 22-50 SME
C14	*87-010-545-019	CAP, ELECT 0.22-50 SME
C15	*87-018-115-019	CAP, CERA-SOL SS 47P-50 SL
C17	*87-018-119-019	CAP, CERA-SOL SS 100P-50
C18	*87-018-115-019	CAP, CERA-SOL SS 47P-50 SL
C19	*87-018-115-019	CAP, CERA-SOL SS 47P-50 SL
C20	*87-010-404-019	CAP, ELECT 4.7-50 SME
C21	*87-010-404-019	CAP, ELECT 4.7-50 SME
C22	*87-010-263-019	CAP, ELECT 100-10
C23	*87-018-121-019	CAP, CERA-SOL SS 150P-50
C24	*87-010-263-019	CAP, ELECT 100-10
C25	*87-010-401-019	CAP, ELECT 1-50 SME

ELECTRICAL MAIN PARTS LIST

REF. NO.	PART NO.	DESCRIPTION
===IC===		
	87-001-592-019	IC, AN7805
	87-001-441-019	IC, BA10358N
	87-020-864-019	IC, BA4236L
	87-001-531-019	IC, BA6292
	87-020-796-010	IC, CXK5816M
	87-001-211-019	IC, ICPN50(H, C, E, K, Z)
	87-020-446-019	IC, TA7343AP
	87-020-356-019	IC, TA7358P
	87-001-467-010	IC, TA8101F
	87-001-485-019	IC, TA8207K
	87-001-434-010	IC, TC9200BF
	87-001-470-010	IC, TC9201BF
	87-001-468-010	IC, TD6710AF
	87-001-417-010	IC, TMP47C425AF
	87-027-910-019	IC, UPC1228HA
===TRANSISTOR===		
	89-110-155-019	TRANSISTOR, 2SA1015GR
	87-026-463-019	TRANSISTOR, 2SA933S(SR)
	89-109-521-019	TRANSISTOR, 2SA952K
	87-026-462-019	TRANSISTOR, 2SC1740S(SR)
	87-026-448-019	TRANSISTOR, 2SC1740S, S
	89-318-155-019	TRANSISTOR, 2SC1815GR
	89-318-464-019	TRANSISTOR, 2SC1846R
	89-319-233-019	TRANSISTOR, 2SC1923(O)
	87-026-370-019	TRANSISTOR, RN1208
===DIODE===		
	82-596-799-019	DIODE 1N4002
	87-020-691-019	DIODE 1SS132(H, E, K, Z)
	87-020-465-019	DIODE 1SS133
	87-027-332-019	DIODE, ZENER HZ6B1L
	87-027-633-019	DIODE, ZENER HZ9A2-T2
===MAIN CIRCUIT BOARD SECTION===		
BPF1	*87-030-105-010	FILTER BPMB6A
C1	*87-018-109-019	CAP, CERA-SOL SS 22P-50 SL(H, U, C)
C1	*87-018-108-019	CAP, CERA-SOL SS 20P-50 SL(E, K, Z)
C2	*87-018-133-019	CAP, CERA-SOL SS 4700P-16
C3	*87-018-134-019	CAP, CERA-SOL SS 0.01-16
C4	*87-018-097-019	CAP, CERA-SOL SS 2.2P-50 SL
C5	*87-018-104-019	CAP, CERA-SOL SS 10P-50 SL
C6	*87-018-134-019	CAP, CERA-SOL SS 0.01-16
C7	*87-018-134-019	CAP, CERA-SOL SS 0.01-16
C8	*87-018-134-019	CAP, CERA-SOL SS 0.01-16
C9	*87-018-162-019	CAP, CERA-SOL SS 15P-50 RH
C10	*87-018-149-019	CAP, CERA-SOL SS 15P-50 CH(H)
C10	*87-018-150-019	CAP, CERA-SOL SS 18P-50(EXCEPT H)
C11	*87-018-141-019	CAP, CERA-SOL SS 3.3P-50 CH
C12	*87-018-134-019	CAP, CERA-SOL SS 0.01-16
C13	*87-018-106-019	CAP, CERA-SOL SS 15P-50 SL
C14	*87-018-133-019	CAP, CERA-SOL SS 4700P-16
C15	*87-018-134-019	CAP, CERA-SOL SS 0.01-16
C16	*87-018-205-019	CAP, CERA-SOL SS 0.022-25
C17	*87-018-205-019	CAP, CERA-SOL SS 0.022-25
C18	*87-018-134-019	CAP, CERA-SOL SS 0.01-16
C20	*87-018-131-019	CAP, CERA-SOL SS 1000P-50
C21	*87-018-104-019	CAP, CERA-SOL SS 10P-50 SL(U, C)
C22	*87-018-134-019	CAP, CERA-SOL SS 0.01-16
C23	*87-018-119-019	CAP, CERA-SOL SS 100P-50
C24	*87-010-406-019	CAP, ELECT 22-50 SME
C25	*87-010-400-019	CAP, ELECT 0.47-50 SME
C26	*87-010-404-019	CAP, ELECT 4.7-50 SME
C27	*87-010-401-019	CAP, ELECT 1-50 SME
C28	*87-010-403-019	CAP, ELECT 3.3-50 SME
C29	*87-014-057-019	CAP, PP 1000P-100
C30	*87-010-402-019	CAP, ELECT 2.2-50 SME
C33	*87-010-544-019	CAP, ELECT 0.1-50
C34	*87-010-544-019	CAP, ELECT 0.1-50
C35	*87-018-127-019	CAP, CERA-SOL SS 470P-50(H)
C35	*87-018-131-019	CAP, CERA-SOL SS 1000P-50(E, K, Z)
C36	*87-018-127-019	CAP, CERA-SOL SS 470P-50(H)
C36	*87-018-131-019	CAP, CERA-SOL SS 1000P-50(E, K, Z)
C37	*87-018-102-019	CAP, CERA-SOL SS 6.8P-50 SL(H)
C37	*87-018-164-019	CAP, CERA-SOL SS 2.2P-50 UJ(U, C)
C37	*87-018-105-019	CAP, CERA-SOL SS 12P-50 SL(E, K, Z)
C38	*87-018-103-019	CAP, CERA-SOL SS 8.2P-50 SL(H)
C38	*87-018-164-019	CAP, CERA-SOL SS 2.2P-50 UJ(U, C)
C38	*87-018-114-019	CAP, CERA-SOL SS 39P-50 SL(E, K, Z)
C39	*87-018-205-019	CAP, CERA-SOL SS 0.022-25(U, C)
C39	*87-018-131-019	CAP, CERA-SOL SS 1000P-50(E, K, Z)
C40	*87-018-205-019	CAP, CERA-SOL SS 0.022-25
C41	*87-010-406-019	CAP, ELECT 22-50 SME(U, C)
C41	*87-018-134-019	CAP, CERA-SOL SS 0.01-16(E, K, Z)
C42	*87-018-174-019	CAP, CERA-SOL SS 18P-50 UJ(H)
C42	*87-018-176-019	CAP, CERA-SOL SS 22P-50 UJ(E, K, Z)
C43	*87-018-172-019	CAP, CERA-SOL SS 12P-50 UJ(H)
C43	*87-018-174-019	CAP, CERA-SOL SS 18P-50 UJ(E, K, Z)
C44	*87-014-059-019	CAP, PP 1200P-100(H)
C44	*87-014-045-019	CAP, PP 330P-100(E, K, Z)
C45	*87-014-045-019	CAP, PP 330P-100(H)
C46	*87-018-174-019	CAP, CERA-SOL SS 18P-50 UJ(H, E, K, Z)
C46	*87-018-105-019	CAP, CERA-SOL SS 12P-50 SL(U, C)
C47	*87-018-179-019	CAP, CERA-SOL SS 30P-50 UJ(E, K, Z)
C48	*87-018-205-019	CAP, CERA-SOL SS 0.022-25(H, E, K, Z)
C49	*87-018-205-019	CAP, CERA-SOL SS 0.022-25(H, E, K, Z)
C49	*87-018-114-019	CAP, CERA-SOL SS 39P-50 SL(U, C)
C50	*87-010-406-019	CAP, ELECT 22-50 SME(H, E, K, Z)
C50	*87-018-106-019	CAP, CERA-SOL SS 15P-50 SL(U, C)
C51	*87-010-371-019	CAP, ELECT 470-6.3
C52	*87-010-371-019	CAP, ELECT 470-6.3
C53	*87-018-134-019	CAP, CERA-SOL SS 0.01-16
C54	*87-018-107-019	CAP, CERA-SOL SS 18P-50 SL(H)
C54	*87-018-114-019	CAP, CERA-SOL SS 39P-50 SL(E, K, Z)
C55	*87-018-107-019	CAP, CERA-SOL SS 18P-50 SL(H)
C55	*87-018-106-019	CAP, CERA-SOL SS 15P-50 SL(E, K, Z)
C56	*87-018-107-019	CAP, CERA-SOL SS 18P-50 SL(H, E, K, Z)
C57	*87-018-106-019	CAP, CERA-SOL SS 15P-50 SL(H, E, K, Z)
C58	*87-018-109-019	CAP, CERA-SOL SS 22P-50 SL(H, E, K, Z)
C58	*87-018-113-019	CAP, CERA-SOL SS 33P(U, C)
C59	*87-018-145-019	CAP, CERA-SOL SS 6.8P-50 CH(U, C)
C101	*87-018-197-019	CAP, CERA-SOL SS 1800P-16
C102	*87-018-197-019	CAP, CERA-SOL SS 1800P-16
C103	*87-010-401-019	CAP, ELECT 1-50 SME
C104	*87-010-401-019	CAP, ELECT 1-50 SME
C105	*87-018-131-019	CAP, CERA-SOL SS 1000P-50
C106	*87-018-131-019	CAP, CERA-SOL SS 1000P-50
C107	*87-010-374-019	CAP, ELECT 47-10
C108	*87-010-374-019	CAP, ELECT 47-10
C111	*87-010-404-019	CAP, ELECT 4.7-50 SME
C112	*87-010-404-019	CAP, ELECT 4.7-50 SME
C115	*87-018-132-019	CAP, CERA-SOL SS 2200P-16
C116	*87-018-132-019	CAP, CERA-SOL SS 2200P-16
C119	*87-010-401-019	CAP, ELECT 1-50 SME
C120	*87-010-401-019	CAP, ELECT 1-50 SME
C121	*87-010-404-019	CAP, ELECT 4.7-50 SME
C122	*87-010-404-019	CAP, ELECT 4.7-50 SME
C123	*87-010-401-019	CAP, ELECT 1-50 SME
C124	*87-010-401-019	CAP, ELECT 1-50 SME
C125	*87-018-199-019	CAP, CERA-SOL SS 3300P-16
C126	*87-018-199-019	CAP, CERA-SOL SS 3300P-16
C127	*87-010-374-019	CAP, ELECT 47-10
C128	*87-010-375-019	CAP, ELECT 330-10 SME
C129	*87-018-132-019	CAP, CERA-SOL SS 2200P-16

DISASSEMBLY INSTRUCTIONS

1. "Front Cabinet ASSY" Removal (See Figure – 1)
   1) Remove 10 screws (Ⓐ) and remove "Front Cabinet ASSY".

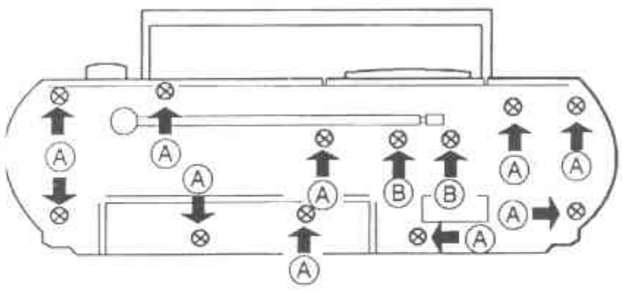


Fig – 1

2. "Mechanism ASSY" Removal (See Figure – 2)
   1) Remove 2 screws (Ⓓ) and remove "Mechanism ASSY".
3. "CD Block" Removal (See Figure – 1.3)
   1) Remove 3 screws (Ⓑ× 2,Ⓒ× 1) and remove "CD Block" in the direction of the arrow.

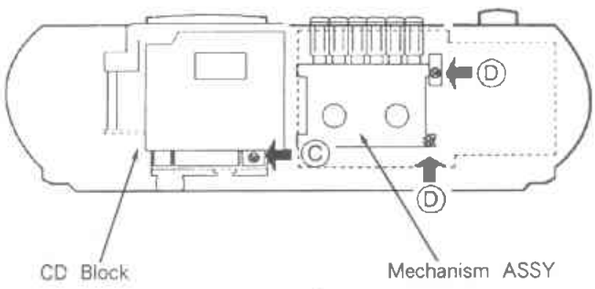


Fig – 2

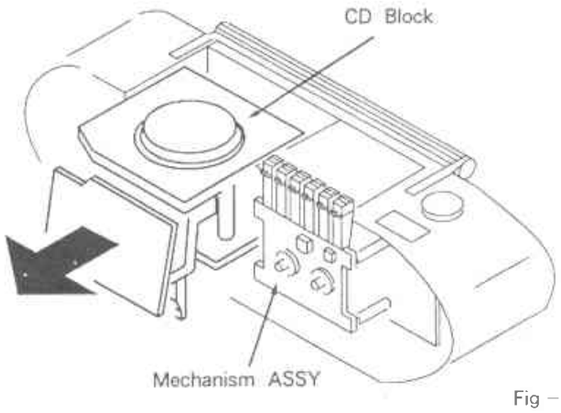
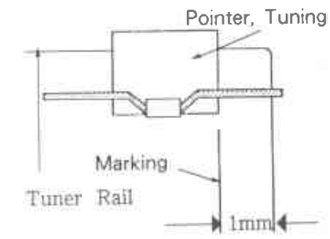
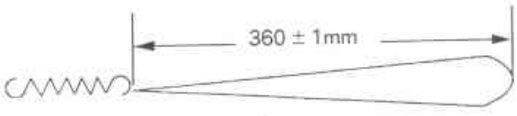


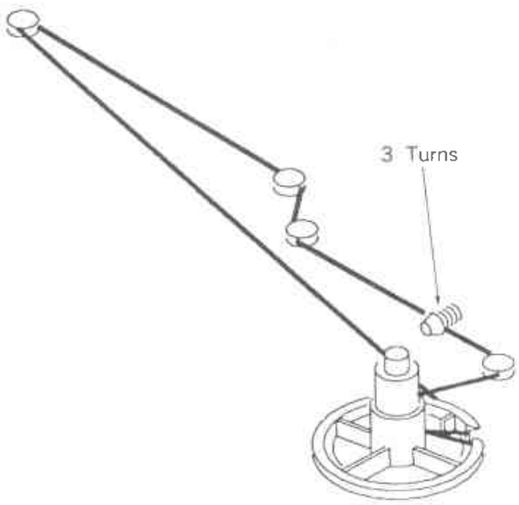
Fig – 3

DIAL CORD STRINGING

Align the right side of "Pointer, Tuning"at the distance of 1mm frome edge of Tuner Rail



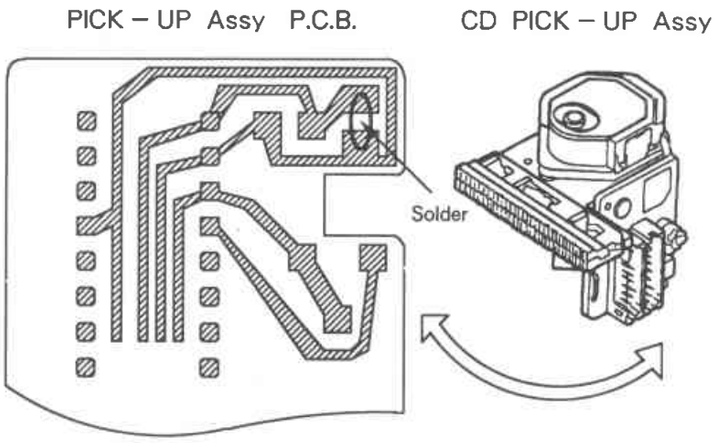




Precaution to replace Optical block (KSS – 150B)

Body or clothes electrostatic potential could ruin laser diode in the optical block. Be sure ground body and workbench, and use care the clothes do not touch the diode.

1) After the connection, remove solder shown in figure below.



PROTECTION OF EYES FROM LASER BEAM DURING SERVICING

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

WARNING!!

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

CAUTION
Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

ATTENTION
L'utilisation de commandes, réglages ou procédures autres que ceux spécifiés peut entrainer une dangereuse exposition aux radiations.

"Varoitus! Suojakoteloa ei saa avata. Laite sisältää laserdiodin, joka lahettää näkymätöntä silmille vaarallista lasersäteilyä."

This Compact Disc player is classified as a CLASS 1 LASER product.
The CLASS 1 LASER PRODUCT label is located on the rear exterior.

CLASS-1
LASER-PRODUCT

ADVARSEL!

Usynlig laserstråling ved åbning, når sikkerhedsafbrydere er ude af funktion. Undgå udsættelse for stråling.

"Denna apparat innehåller laserkomponent som avger laserstrålning som överskrider gränsen för laserklass 1."

SPECIFICATIONS

H, U, C, MODELS

Type	Compact disc stereo radio cassette recorder
Power source	Batteries, DC 12 V (R20P × 8) CSD-XL202H AC 110–120 V/220–240 V (switchable), 50/60 Hz CSD-XL202U,C AC 120 V, 60 Hz
Output	9.2 W maximum (4.6 W + 4.6 W) **FTC RULE** 2.1 watts per channel, Min. RMS, from 200 Hz to 10 kHz, with no more than 10% Total Harmonic Distortion.
Power consumption	CSD-XL202H,U 15W CSD-XL202C 16W
Speakers	100 mm cone type (2)

Tape Recorder Section

Tape speed	4.8 cm/sec ($1\frac{7}{8}$ ips)
Recording system	AC bias
Erasing system	AC erase
Recording time	90 minutes (C-90 cassette, both directions)
Frequency response	NORMAL tape: 40–12,500 Hz CrO_2 tape: 40–14,000 Hz METAL tape: 40–16,000 Hz

Compact Disc Section

Disc	Compact disc
Scanning method	Non contact optical scanner (semiconductor laser application)
Laser	Semiconductor laser (λ = 780 nm)
Rotation speed	Approx. 500 rpm–200 rpm (CLV)
Error correction	Cross Interleave, Reed Solomon Code
No. of channels	2 channels
D-A conversion	14-bit linear
Frequency response	40 Hz–20 kHz $\pm\frac{1}{6}^{0}$ dB
Harmonic distortion	0.1% (1 kHz, 0 dB)
Wow/Flutter	Unmeasurable

Radio Section

Frequency ranges	CSD-XL202H FM: 87.5–108 MHz MW: 530–1,605 kHz SW_1: 2.3–7.0 MHz SW_2: 7.0–22 MHz CSD-XL202U,C FM: 87.5–108 MHz AM: 530–1,710 kHz
Antennas	CSD-XL202H Whip antenna for FM and SW_2 Ferrite bar antenna for MW and SW_1 CSD-XL202U,C Whip antenna for FM Ferrite bar antenna for AM
Dimensions (W × H × D)	582 × 157 × 191 mm
Weight	4.4 kg (Including batteries)

E, K, Z, MODELS

Type	Compact disc stereo radio cassette recorder
Power source	Batteries, DC 12 V (R20P × 8) CSD-XL202E,Z AC 220 V, 50/60 Hz CSD-XL202K AC 240 V, 50/60 Hz
Output	9.2 W maximum (4.6 W + 4.6 W)
Power consumption	15 W
Speakers	100 mm cone type (2)

Tape Recorder Section

Tape speed	4.8 cm/sec ($1\frac{7}{8}$ ips)
Recording system	AC bias
Erasing system	AC erase
Recording time	90 minutes (C-90 cassette, both directions)
Frequency response	NORMAL tape: 40–12,500 Hz CrO_2 tape: 40–14,000 Hz METAL tape: 40–16,000 Hz

Compact Disc Section

Disc	Compact disc
Scanning method	Non contact optical scanner (semiconductor laser application)
Laser	Semiconductor laser (λ = 780 nm)
Rotation speed	Approx. 500 rpm–200 rpm (CLV)
Error correction	Cross Interleave, Reed Solomon Code
No. of channels	2 channels
D-A conversion	14-bit linear
Frequency response	40 Hz–20 kHz $\pm\frac{1}{6}^{0}$ dB
Harmonic distortion	0.1% (1 kHz, 0 dB)
Wow/Flutter	Unmeasurable

Radio Section

Frequency ranges	FM: 87.5–108 MHz MW: 530–1,605 kHz LW: 150–285 kHz SW: 5.9–18 MHz
Antennas	Whip antenna for FM and SW Ferrite bar antenna for MW and LW
Dimensions (W × H × D)	582 × 157 × 191
Weight	4.4 kg (Including batteries)

• Design and specifications are subject to change without notice.

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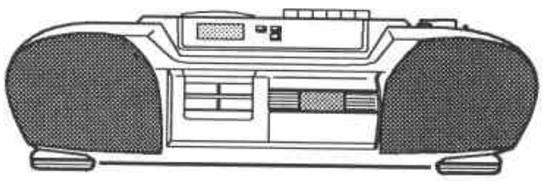
AIWA®

CSD-XL202

SERVICE MANUAL



COMPACT DISC STEREO RADIO
CASSETTE RECORDER

- BASIC TAPE MECHANISM : TN – 21ZVC
- BASIC CD MECHANISM : KSM – 150B
- TYPE. H, U, C, E, K, Z

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Tokyo Japan

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