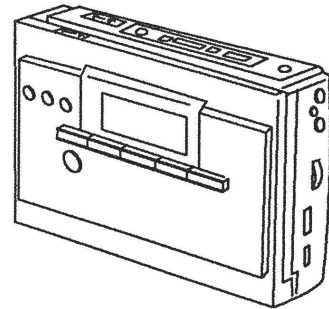


AIWA®

SERVICE MANUAL

HS-JX505 HS-JX505D



STEREO RADIO CASSETTE RECORDER

• BASIC TAPE MECHANISM : $\alpha - 2J$

• TYPE. AH,AE,AK,AZ (JX505)
AH (JX505D)

SPECIFICATIONS

Frequency range:

FM: 87.5/87.5 — 108.1/108 MHz (200/50kHz STEP)

AM: 530/531 — 1710/1602 kHz (10/9 kHz STEP)

Maximum output:

10mW + 10mW (EIAJ/32 Ω)

[(12mW + 12mW (EIAJ/16 Ω))]

Power source:

Battery DC 2V, rechargeable battery (PB-4)

Battery DC 3V, LR-03 (UM-4, AAA, R03) $\times$ 2

Domestic AC power (using optional AC adaptor)

Battery life:

Rechargeable battery (PB-4)

Approx. 2 hours (EIAJ, REC/1 hour recharging)

Approx. 2 hours (EIAJ, PB 1mW/10 minutes recharging)

Approx. 3.5 hours (EIAJ, PB 1mW/1 hour recharging)

Dimensions:

77.7(W) $\times$ 108(H) $\times$ 28.8(D) mm

Weight:

Approx. 240 g incl. rechargeable battery

<Charger stand>

Rated voltage:

AC-208H AC 115V/230V, switchable

AC-208E AC 220V

AC-208K AC 240V

Rated input:

10 VA 50/60 Hz

Usable Batteries:

AIWA rechargeable battery (PB-4)

Rated output:

DC 2V 350mA

- Design and specifications are subject to change without notice.
- Noise reduction system manufactured under license from Dolby Laboratories Licensing Corporation.
- "Dolby", the double-D symbol are trademarks of Dolby Laboratories Licensing Corporation.
- The word "BBE" and the "BBE symbol" are trademarks of BBE Sound, Inc.
- Under license from BBE Sound, Inc.

AIWA Co., Ltd.

Tokyo Japan

Printed in Japan

DISASSEMBLY INSTRUCTIONS

1. "Rear Cabinet ASSY" and "Panel, Button" Removal (See Figure - 1)

- 1) Remove 7 screws (A×1, B×1, C×2, D×3) and remove the "Rear Cabinet ASSY" and "Panel, Button".

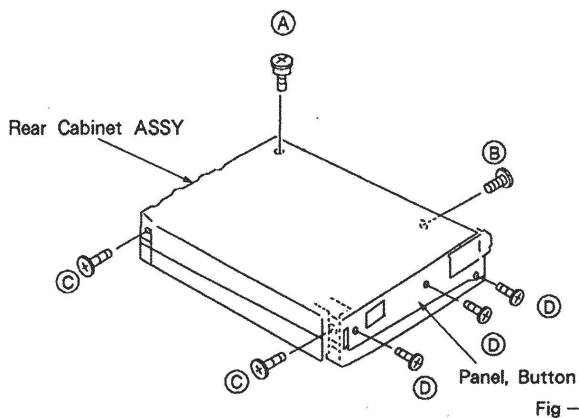


Fig - 1

2. "Frame, Center" Removal (See Figure - 2)

- 1) While moving the "Frame, Center" in the direction of arrow ①, press the "Button, Stop" in the direction of the arrow ② to release the hook in the direction of the arrow ③, and remove the "Frame, Center".

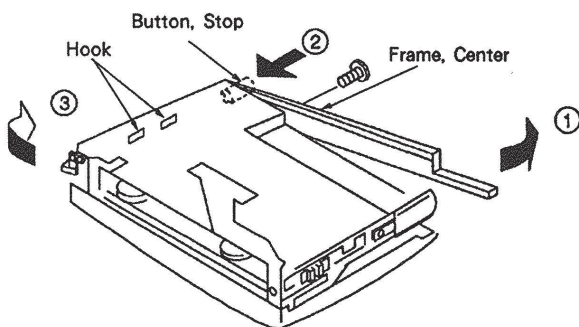


Fig - 2

3. "Main Circuit Board" Removal (See Figure - 3)

- 1) Remove 4 screws (A×1, B×2, C×1) and remove the "Main Circuit Board".

Note) Connecting a power supply :

This unit does not have an external DC jack.

To check the operation (turning on) while the "Main Circuit Board" is opened, stand pins on the pattern (+B, GND) and supply the power using an alligator clip, etc.

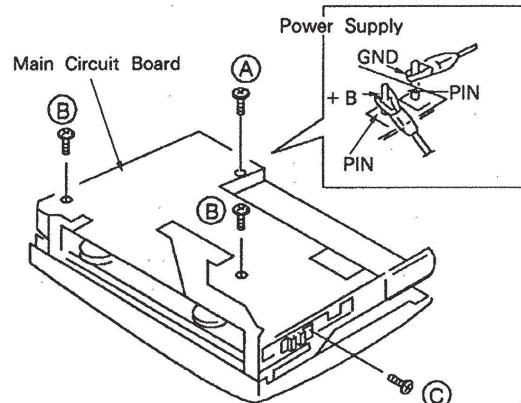


Fig - 3

4. "Tuner Circuit Board" Removal

- 1) Remove 2 screws (A×1, B×1) and remove the "Lid Cassette ASSY". (See Figure - 4)
- 2) Remove 7 screws (C×4, D×3) and remove the "Lid Cassette ASSY" and "Tuner Circuit Board". (See Figure - 5)

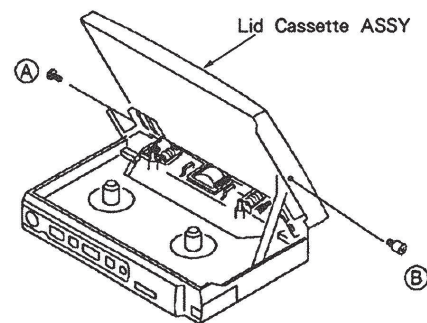


Fig - 4

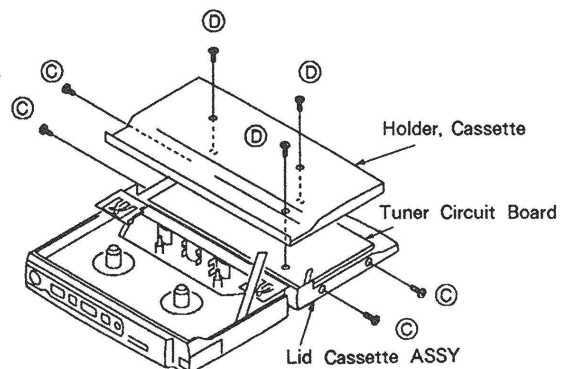


Fig - 5

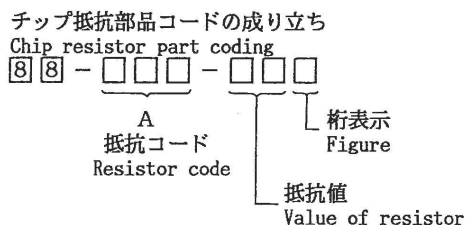
ELECTRICAL MAIN PARTS LIST

REF.NO.	PART NO.	DESCRIPTION	REF.NO.	PART NO.	DESCRIPTION
--- IC ---			C17	*87-010-640-010	CAP,CHIP TANTALUM 22-4
	87-001-808-010	IC,ASP5410	C18	*87-010-640-010	CAP,CHIP TANTALUM 22-4
	87-020-498-010	IC,BA3818F	C19	*87-010-197-010	CAP,CHIP S 0.01-25 B
	87-020-224-010	IC,NJM2063A	C20	*87-010-197-010	CAP,CHIP S 0.01-25 B
	87-020-234-010	IC,TA7688F(S)	C21	*87-010-640-010	CAP,CHIP TANTALUM 22-4
	87-001-145-010	IC,TA8126F	C23	*87-010-746-010	CAP,CHIP TANTALUM 10-4
	87-001-548-010	IC,TA8132AF	C24	*87-010-198-010	CAP,CHIP S 0.022-25 B
	87-001-931-010	IC,TA8152AFN	C25	*87-010-197-010	CAP,CHIP S 0.01-25 B
	87-001-894-010	IC,TA8155FN	C26	*87-010-174-010	CAP,CHIP S 470P-50 SL
	87-001-550-010	IC,TC7S04F	C27	*87-010-197-010	CAP,CHIP S 0.01-25 B
	87-001-585-010	IC,TC7S32F	C28	*87-010-182-010	CAP,CHIP S 2200P-50 B
	87-001-972-010	IC,TC9308AF-029	C29	*87-010-803-010	CAP,CHIP TANTALUM 3.3-4
	87-001-513-010	IC,TC9311F-014	C30	*87-010-197-010	CAP,CHIP S 0.01-25 B
	87-001-151-010	IC,TD6134F1	C31	*87-010-183-010	CAP,CHIP 2700P-50 B
--- TRANSISTOR ---			C32	*87-010-197-010	CAP,CHIP S 0.01-25 B
	89-508-804-010	FET,2SK880Y	C33	*87-010-746-010	CAP,CHIP TANTALUM 10-4
	89-508-824-010	FET,2SK882Y	C34	*87-010-746-010	CAP,CHIP TANTALUM 10-4
	89-112-134-010	TRANSISTOR,2SA1213Y	C35	*87-010-188-010	CAP,CHIP 6800P-50 B
	89-113-625-010	TRANSISTOR,2SA1362GR	C36	*87-010-188-010	CAP,CHIP 6800P-50 B
	89-115-864-010	TRANSISTOR,2SA1586Y	C37	*87-010-193-010	CAP,CHIP S 0.033-25 F
	89-115-884-010	TRANSISTOR,2SA1588Y	C38	*87-010-193-010	CAP,CHIP S 0.033-25 F
	89-341-165-010	TRANSISTOR,2SC4116GR	C39	*87-010-194-010	CAP,CHIP S 0.047-25 F
	89-342-132-010	TRANSISTOR,2SC4213B	C40	*87-010-194-010	CAP,CHIP S 0.047-25 F
	89-342-153-010	TRANSISTOR,2SC4215(O)	C41	*87-010-214-010	CAP,CHIP TANTALUM 0.68-16
	87-026-342-010	TRANSISTOR,DTC144EU	C42	*87-010-214-010	CAP,CHIP TANTALUM 0.68-16
	87-026-467-010	TRANSISTOR,HN1C01F(GR)	C43	*87-010-186-010	CAP,CHIP 4700P-50 B
	87-026-470-010	TRANSISTOR,HN1C03F(B)	C44	*87-010-186-010	CAP,CHIP 4700P-50 B
	87-026-358-010	TRANSISTOR,1MD6	C45	*87-010-196-010	CAP,CHIP S 0.1-25 F
	87-026-411-010	TRANSISTOR,RN1304	C46	*87-010-587-010	CAP,ELECT 100-2
	87-026-414-010	TRANSISTOR,RN1307	C47	*87-010-805-010	CAP,CHIP S 1-16 F
	87-026-417-010	TRANSISTOR,RN1310	C48	*87-010-805-010	CAP,CHIP S 1-16 F
	87-026-475-010	TRANSISTOR,RN1607	C49	*87-010-197-010	CAP,CHIP S 0.01-25 B
	87-026-476-010	TRANSISTOR,RN1610	C50	*87-010-197-010	CAP,CHIP S 0.01-25 B
	87-026-428-010	TRANSISTOR,RN2310	C51	*87-010-194-010	CAP,CHIP S 0.047-25 F
	87-026-479-010	TRANSISTOR,RN2610	C52	*87-010-194-010	CAP,CHIP S 0.047-25 F
	87-026-482-010	TRANSISTOR,RN4610	C53	*87-010-194-010	CAP,CHIP S 0.047-25 F
--- DIODE ---			C54	*87-010-194-010	CAP,CHIP S 0.047-25 F
	87-001-599-010	DIODE,CHIP 1MN11	C55	*87-010-194-010	CAP,CHIP S 0.047-25 F
	87-001-166-010	DIODE,CHIP 1SS301	C56	*87-010-194-010	CAP,CHIP S 0.047-25 F
	87-001-167-010	DIODE,CHIP 1SS302	C57	*87-010-164-010	CAP,CHIP S 68P-50 SL
	87-001-221-010	DIODE,CHIP 1SS319	C58	*87-010-164-010	CAP,CHIP S 68P-50 SL
	87-001-553-010	DIODE,CHIP 1SS322	C59	*87-010-802-010	CAP,CHIP TANTALUM 2.2-4
	87-001-235-010	DIODE,CHIP MA728	C60	*87-010-802-010	CAP,CHIP TANTALUM 2.2-4
--- MAIN CIRCUIT BOARD SECTION ---			C61	*87-010-767-010	CAP,CHIP TANTALUM 4.7-4
C1	*87-010-173-010	CAP,CHIP S 390P-50 SL	C62	*87-010-767-010	CAP,CHIP TANTALUM 4.7-4
C2	*87-010-173-010	CAP,CHIP S 390P-50 SL	C63	*87-012-142-010	CAP,CHIP S 0.33-16 F
C3	*87-012-141-010	CAP,CHIP S 0.22-16 F	C64	*87-012-142-010	CAP,CHIP S 0.33-16 F
C4	*87-012-141-010	CAP,CHIP S 0.22-16 F	C65	*87-010-177-010	CAP,CHIP S 820P-50 SL
C5	*87-010-198-010	CAP,CHIP S 0.022-25 B	C66	*87-010-177-010	CAP,CHIP S 820P-50 SL
C6	*87-010-198-010	CAP,CHIP S 0.022-25 B	C67	*87-010-805-010	CAP,CHIP S 1-16 F
C7	*87-010-805-010	CAP,CHIP S 1-16 F	C68	*87-010-805-010	CAP,CHIP S 1-16 F
C8	*87-010-805-010	CAP,CHIP S 1-16 F	C69	*87-010-767-010	CAP,CHIP TANTALUM 4.7-4
C9	*87-010-805-010	CAP,CHIP S 1-16 F	C70	*87-010-746-010	CAP,CHIP TANTALUM 10-4
C10	*87-010-805-010	CAP,CHIP S 1-16 F	C71	*87-010-195-010	CAP,CHIP S 0.068-25 F
C11	*87-010-178-010	CAP,CHIP S 1000P-50 B	C72	*87-010-195-010	CAP,CHIP S 0.068-25 F
C12	*87-010-178-010	CAP,CHIP S 1000P-50 B	C73	*87-010-805-010	CAP,CHIP S 1-16 F
C13	*87-010-805-010	CAP,CHIP S 1-16 F	C74	*87-010-805-010	CAP,CHIP S 1-16 F
C14	*87-010-805-010	CAP,CHIP S 1-16 F	C75	*87-010-174-010	CAP,CHIP S 470P-50 SL
C15	*87-010-166-010	CAP,CHIP S 100P-50 SL	C76	*87-010-174-010	CAP,CHIP S 470P-50 SL
C16	*87-010-166-010	CAP,CHIP S 100P-50 SL	C77	*87-010-805-010	CAP,CHIP S 1-16 F
			C78	*87-010-805-010	CAP,CHIP S 1-16 F
			C79	*87-010-196-010	CAP,CHIP S 0.1-25 F
			C80	*87-010-196-010	CAP,CHIP S 0.1-25 F
			C81	*87-015-923-010	CAP,CHIP TANTALUM 0.22-35

REF.NO.	PART NO.	DESCRIPTION	REF.NO.	PART NO.	DESCRIPTION
C82	*87-015-923-010	CAP,CHIP TANTALUM 0.22-35	C217	*87-010-829-010	CAP,CHIP U 0.047-16F
C83	*87-010-588-010	CAP,ELECT 220-2	C218	*87-012-286-010	CAP,CHIP U 0.01-25 B
C84	*87-010-588-010	CAP,ELECT 220-2	C219	*87-012-273-010	CAP,CHIP U 820P-50 B
C85	*87-010-587-010	CAP,ELECT 100-2	C220	*87-010-787-010	CAP,CHIP U 0.022-25 B
C86	*87-010-082-010	CAP,ELECT 220-4 5L	C221	*87-010-829-010	CAP,CHIP U 0.047-16F
C87	*87-010-082-010	CAP,ELECT 220-4 5L	C223	*87-012-274-010	CAP,CHIP U 1000P-50 B
C88	*87-010-197-010	CAP,CHIP S 0.01-25 B	C224	*87-010-805-010	CAP,CHIP S 1-16 F
C89	*87-010-115-010	CAP,ELECT 100-4	C225	*87-010-830-010	C-CAP,U 0.068-16F
C90	*87-010-746-010	CAP,CHIP TANTALUM 10-4	C226	*87-010-831-010	CAP,CHIP U 0.1-16 F
C91	*87-010-114-010	CAP,ELECT 47-4	C227	*87-010-831-010	CAP,CHIP U 0.1-16 F
C92	*87-010-805-010	CAP,CHIP S 1-16 F	C228	*87-012-286-010	CAP,CHIP U 0.01-25 B
C93	*87-010-805-010	CAP,CHIP S 1-16 F	C229	*87-010-746-010	
C94	*87-010-197-010	CAP,CHIP S 0.01-25 B	C230	*87-012-282-010	CAP,CHIP U 4700P-50 B
C101	*87-010-114-010	CAP,ELECT 47-4	C231	*87-012-286-010	CAP,CHIP U 0.01-25 B
C102	*87-010-082-010	CAP,ELECT 220-4 5L	C232	*87-012-286-010	CAP,CHIP U 0.01-25 B
C103	*87-010-196-010	CAP,CHIP S 0.1-25 F	C233	*87-012-270-010	CAP,CHIP U 470-50 B
C104	*87-010-805-010	CAP,CHIP S 1-16 F	C234	*87-010-831-010	CAP,CHIP U 0.1-16 F
C105	*87-010-186-010	CAP,CHIP 4700P-50 B	C235	*87-012-252-010	CAP,CHIP U 30P-50 UJ
C106	*87-015-923-010	CAP,CHIP TANTALUM 0.22-35	C237	*87-010-483-010	CAP,ELECT 220-4
C107	*87-010-195-010	CAP,CHIP S 0.068-25 F	C238	*87-010-829-010	CAP,CHIP U 0.047-16F
C108	*87-010-193-010	CAP,CHIP S 0.033-25 F	C239	*87-010-828-010	CAP,CHIP U 0.033-25 F
C109	*87-010-178-010	CAP,CHIP S 1000P-50 B	C240	*87-010-424-010	CAP,CHIP TANTALUM 4.7-4
C110	*87-010-178-010	CAP,CHIP S 1000P-50 B	C245	*87-012-275-010	CAP,CHIP U 1200P-50 B
C111	*87-010-195-010	CAP,CHIP S 0.068-25F	C246	*87-012-275-010	CAP,CHIP U 1200P-50 B
C154	*87-010-186-010	CAP,CHIP S 4700P-50 B	C247	*87-012-142-010	CAP,CHIP S 0.33-16 F
CP1	*87-026-504-010	PHOTE SENSER NJL5146KF1-Q2	C248	*87-012-142-010	CAP,CHIP S 0.33-16 F
J2	87-009-218-010	JACK,3.5 BK(REMOTE/MIC)	C249	*87-012-274-010	CAP,CHIP U 1000P-50 B
L1	*87-007-270-010	COIL,CHIP OSC BIAS	C256	*87-012-286-010	CAP,CHIP U 0.01-25 B
L2	*87-003-240-010	COIL,CHIP S 3.3 UH	C257	*87-010-805-010	CAP,CHIP S 1-16 F
L3	*87-003-240-010	COIL,CHIP S 3.3 UH	C258	*87-012-199-010	CAP,CHIP U 220P-50 CH
L4	*87-003-240-010	COIL,CHIP S 3.3 UH	C259	*87-012-286-010	CAP,CHIP U 0.01-25 B
L100	*87-003-240-010	COIL,CHIP S 3.3 UH	C260	*87-012-142-010	CAP,CHIP S 0.33-16 F
L101	*80-HJ1-614-010	COIL,LOADING DIA 1.8	C261	*87-012-172-010	CAP,CHIP U 10P-50 CH
S1	87-036-152-010	SLIDE SW(FWD/PLAY)	C262	*87-012-276-010	CAP,CHIP U 1500P-50 B
S2	87-036-143-010	SLIDE SW(REC/PLAY)	C263	*87-010-226-010	CAP,TANTALUM 47-4
S3	87-036-123-010	SLIDE SW,CHIP(TAPE)	C264	*87-012-286-010	CAP,CHIP U 0.01-25 B
S4	87-036-123-010	SLIDE SW,CHIP(DOLBY NR)	C265	*87-012-286-010	CAP,CHIP U 0.01-25 B
S106	87-036-123-010	SLIDE SW,CHIP(REVERSE MODE)	C266	*87-012-286-010	CAP,CHIP U 0.01-25 B
S107	87-036-144-010	PUSH SW(CASSETTE DIRECTION)	C267	*87-012-286-010	CAP,CHIP U 0.01-25 B
SFR1	*87-024-308-010	SFR,CHIP 470	C268	*87-012-286-010	CAP,CHIP U 0.01-25 B
SFR2	*87-024-308-010	SFR,CHIP 470	C269	*87-012-195-010	CAP,CHIP U 100P-50 CH
TM1	*87-033-201-010	CONNECTOR ASSY BATT	C270	*87-012-195-010	CAP,CHIP U 100P-50 CH
VR1	*87-024-089-010	VR,CHIP 20KA(VOLUME)	C271	*87-012-184-010	CAP,CHIP U 33P-50 CH
			C272	*87-012-168-010	CAP,CHIP U 6P-50 CH
=== SWITCH CIRCUIT BOARD SECTION ===					
S6	87-036-123-010	SLIDE SW,CHIP(DSL)	C273	*87-012-286-010	CAP,CHIP U 0.01-25 B
S108	87-036-145-010	SLIDE SW,CHIP(REMOTE)	C274	*87-010-831-010	CAP,CHIP U 0.1-16 F
			C275	*87-010-831-010	CAP,CHIP U 0.1-16 F
			C276	*87-012-286-010	CAP,CHIP U 0.01-25 B
=== TUNER CIRCUIT BOARD SECTION ===					
	*84-462-614-010	CELL BATT	C277	*87-012-286-010	CAP,CHIP U 0.01-25 B
BPF201	*87-008-406-010	FILTER,GFMB1	C278	*87-012-199-010	CAP,CHIP U 220P-50 CH
C200	*87-010-746-010	CAP,CHIP TANTALUM 10-4	C279	*87-012-197-010	CAP,CHIP U 150P-50 CH
C201	*87-012-195-010	CAP,CHIP U 100P-50 CH	C280	*87-010-787-010	CAP,CHIP U 0.022-25 B
C203	*87-012-162-010	CAP,CHIP U 1P-50 CK	C281	*87-010-799-010	CAP,CHIP TANTALUM 0.68-16
C204	*87-012-271-010	CAP,CHIP U 560P-50 B	C282	*87-010-829-010	CAP,CHIP U 0.047-16F
C205	*87-012-275-010	CAP,CHIP U 1200P-50 B	C284	*87-010-831-010	CAP,CHIP U 0.1-16 F
C206	*87-012-286-010	CAP,CHIP U 0.01-25B	C285	*87-012-282-010	CAP,CHIP U 4700P-50 B
C207	*87-012-337-010	CAP,CHIP U 56P-50 CH	C286	*87-012-282-010	CAP,CHIP U 4700P-50 B
C209	*87-012-286-010	CAP,CHIP U 0.01-25 B	C288	*87-010-424-010	CAP,CHIP TANTALUM 4.7-4
C211	*87-012-184-010	CAP,CHIP U 33P-50 CH	C289	*87-010-424-010	CAP,CHIP TANTALUM 4.7-4
C213	*87-012-286-010	CAP,CHIP U 0.01-25 B	C290	*87-012-275-010	CAP,CHIP U 1200P-50 B
C214	*87-010-829-010	CAP,CHIP U 0.047-16F	C291	*87-012-274-010	CAP,CHIP U 1000P-50 B
C215	*87-012-286-010	CAP,CHIP U 0.01-25 B	C292	*87-010-173-010	CAP,CHIP S 390P-50 SL
C216	*87-012-337-010	CAP,CHIP U 56P-50 CH	C294	*87-012-167-010	CAP,CHIP U 5P-50 CH
			C295	*87-012-337-010	CAP,CHIP U 56P-50 CH

REF.NO.	PART NO.	DESCRIPTION	REF.NO.	PART NO.	DESCRIPTION
CD201	*87-008-442-010	FILTER,CHIP CD 10.7 AE	=== MOTOR FLEX CIRCUIT BOARD SECTION ===		
CF201	+++	FILTER,CHIP CF 10.7 AE	PCB-F	80-HJ1-615-010	MOTOR FLEXIBLE CIRCUIT BOARD
CF202	+++	FILTER,CHIP CF 10.7 AE	=== HEAD FLEX CIRCUIT BOARD SECTION ===		
CF203	*87-008-396-010	FILTER,CHIP CF 450KHZ			
CR456	*87-008-397-010	FILTER,SAW,456,F18			
CT2203	*87-011-189-010	TRIMMER,CHIP 10P		84-502-606-010	RP HEAD(A) ASSY(W/PCB-G)
D208	87-001-945-010	LED,CHIP 1PR51(OPE/BATT)		84-497-609-010	HEAD FLEXIBLE CIRCUIT BOARD
L202	*80-HJ1-610-010	COIL,FM RF DIA1.6	RPH	84-497-607-010	RP HEAD(A)
L204	*80-HJ1-619-010	COIL,FM OSC	=== MOTOR GOVERNOR CIRCUIT BOARD SECTION ===		
L205	*87-006-168-010	COIL,CHIP IFT FM	C10	*87-010-226-010	CAP,ELECT 47-4
L206	*87-008-420-010	IFT,CHIP 450K AM	M1	M8-655-410-010	MOTOR ASSY ABL-3(W/PCB-H)
L207	*80-HJ1-613-010	BAR ANTENNA ASSY	=== LCD FLEX CIRCUIT BOARD SECTION ===		
L208	*87-003-247-010	COIL,CHIP 100 UH J	LCD201	80-HJ1-607-010	LCD ASSY,019(W/PCB-I)(DISPLAY)
L209	*87-003-241-010	COIL,CHIP S 4.7 U	=== HP FLEX CIRCUIT BOARD SECTION ===		
L210	*87-006-173-010	COIL,CHIP DD 5CDL	PCB-J	*80-HJ1-616-010	HP FLEXIBLE CIRCUIT BOARD
L211	*87-003-243-010	COIL,CHIP S 10 UH K	J1	87-009-218-010	JACK,3.5 BK(PHONES)
S201	87-036-146-010	SLIDE SW,CHIP(FUNCTION)	=== CONTROL CIRCUIT BOARD SECTION ===		
S202	87-036-123-010	SLIDE SW,CHIP(FM/AM STEP)	PCB-K	80-HJ1-606-010	CONTROL ASSY(J)
S203	87-030-152-010	TACT SW,CHIP(AUTO PRESET)	S5	+++	SLIDE SW CHIP(BBE)
S204	87-030-152-010	TACT SW,CHIP(PRESET/CLOCK1)	S101	+++	TACT SW(PLAY/DIRECTION)
S205	87-030-152-010	TACT SW,CHIP(PRESET/CLOCK2)	S102	+++	TACT SW(RECORD)
S206	87-030-152-010	TACT SW,CHIP(PRESET/CLOCK3)	S103	+++	TACT SW(REW)
S207	87-030-152-010	TACT SW,CHIP(PRESET/CLOCK4)	S104	+++	TACT SW(F FWD)
S208	87-030-152-010	TACT SW,CHIP(PRESET/CLOCK5)	S105	+++	TACT SW(STOP/DIRECTION)
S209	87-030-152-010	TACT SW,CHIP(ALARM/SLEEP)	S110	*86-550-603-010	LEAF SW(REV)
S210	87-030-152-010	TACT SW,CHIP(TIMER)	S111	*86-550-603-010	LEAF SW(FWD)
S211	87-030-152-010	TACT SW,CHIP(TUNING,UP/HOUR)	=== MISCELLANEOUS ===		
S212	87-030-152-010	TACT SW,CHIP(TUNING,DOWN/MIN)	EH1	86-550-349-010	ARM EH L ASSY(W/EH)
S213	87-030-152-010	TACT SW,CHIP(MEMORY/SET)	EH2	86-550-350-010	ARM EH R ASSY(W/EH)
VC202	87-001-708-010	VARACTOR,CHIP 1SV228	S109	86-536-468-010	LEAF SW(HEAD UP)
VC204	87-001-708-010	VARACTOR,CHIP 1SV228	SOL101	86-550-499-010	SOLENOID(MD)
VC205	87-026-435-010	VARICAP,CHIP KV1560	SOL102	86-536-477-010	SOLENOID(REC)
XT201	*87-030-180-010	CRYSTAL RESONATOR KF-38R5,8A			
=== REGULATOR CIRCUIT BOARD SECTION ===					
C263	*84-439-620-010	CAP,ELECT 470-4			
J3	87-049-549-010	JACK,DC(DC2V)			
TM2	*84-435-246-010	CONNECTOR ASSY(BATT TERMINAL)			
=== RELAY FLEX CIRCUIT BOARD SECTION ===					
PCB-E	*80-HJ1-605-010	RELAY FLEXIBLE CIRCUIT BOARD			

チップ抵抗部品コード/CHIP RESISTOR PART CODE

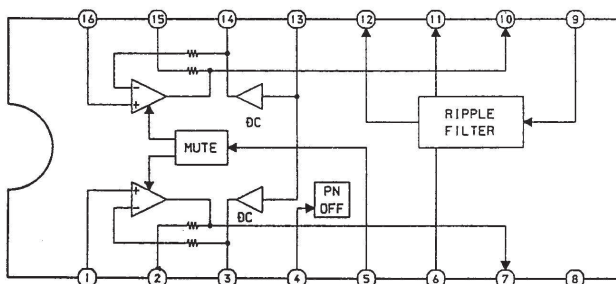


チップ抵抗 Chip resistor

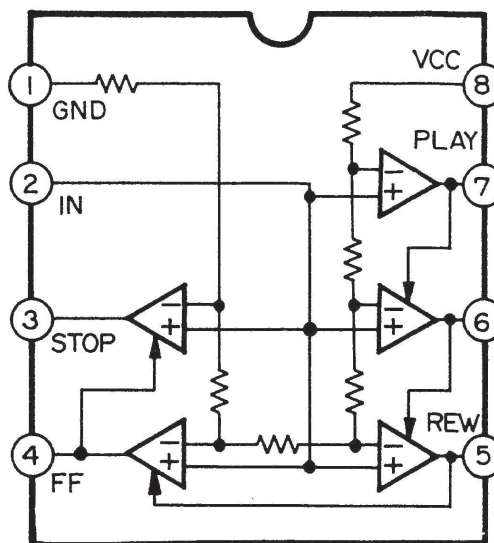
Chip Resistor				Dimensions / 寸法 (mm)				Resistor Code : A
Wattage 容量	Type 種類	Tolerance 許容誤差	Symbol 記号	Form/外形	L	W	t	抵抗コード : A
1/32W	1608	±5%	CJ		1.6	0.8	0.35	108
1/10W	2125	±5%	CJ		2	1.25	1.45	118
1/8W	3216	±5%	CJ		3.2	1.6	0.5 ~0.7	128

IC BLOCK DIAGRAM

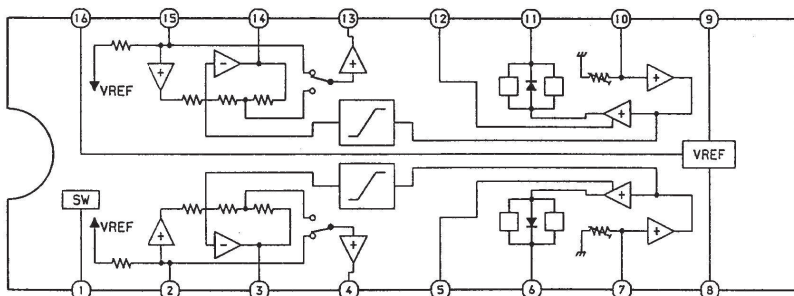
IC,TA7688F



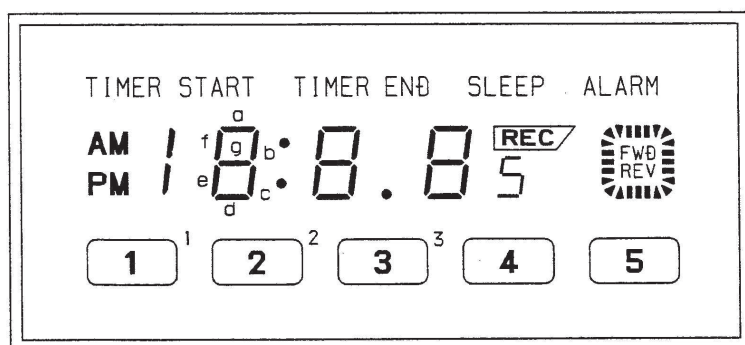
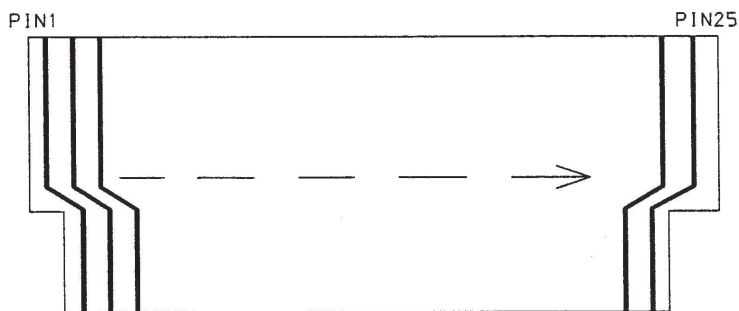
IC,BA3818F



IC,NJM2063A



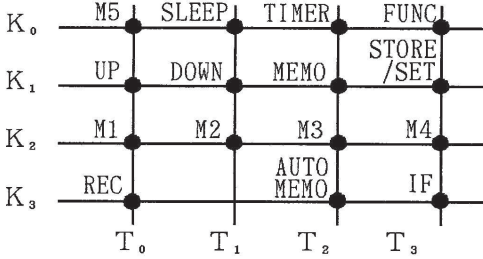
LCD CONNECTION



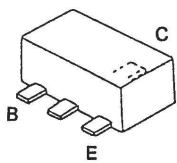
NO.	COM.1	COM.2
1	COM.1	
2	1	2
3	PM	3
4	1	AM
5	1d	1e
6		TIMER START
7	1g	1f
8	1b	1a
9	1c	•
10	2d	2e
11	2g	2f
12	2b	2a
13	2c	•
14	TIMER END	
15	3d	3e
16	3a	3f
17	3g	3b
18	3c	5
19	REC	SLEEP
20	1/2	1/2
21	ALARM	FWD
22	1/2	1/2
23		REV
24	4	5
25		COM.2

IC DESCRIPTION

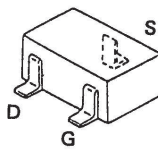
TC9308AF-029

Pin No.	Pin Name	I/O	Description				
58	COM1	O	Common output.		} LCD drive outputs.		
19	COM2	O	Common output.				
59,60 1~18	S1~20	O	Segment outputs.				
20	K ₀	I	Key return signal inputs for the key matrix.				
21	K ₁	I					
22	K ₂	I					
24	K ₃	I					
23	NC	—	Unused.				
25	T ₀	O	Key return signal outputs for the key matrix.				
26	T ₁	O					
27	T ₂	O					
28	T ₃	O					
29,30	I ₀₀ , I ₀₁	I	I ₀₀	I ₀₁			Mode
			H	H	10kHz	AM	
			H	L	9kHz		
			L	H	FM1		
			L	L	FM2		
} Band switching input pins.							
31,32	E ₀ , E ₁	I	Pins to select bandwidth and tuning step.				
33	DIRECTION	I	Goes "HIGH" during fast forward (in the forward direction) and rewind (in the reverse direction). Goes "LOW" in modes other than above.				
34	STOP IN	I	Goes "HIGH" when the motor rotates and "LOW" when it is stopped.				
35	PLAY IN	I	Mechanism HEAD UP. Goes "LOW" when switched on.				
36	F/R IN	I	Goes "LOW" when the tape runs forward and "HIGH" when it runs in reverse.				
37	ALARM OUT	O	Buzzer output.				
38	MUTE OUT	O	Muting output. "HIGH" level mutes a signal.				
39	SLEEP OUT	O	Goes "LOW" in the timer standby mode and when SLEEP is flashing. This pin outputs SLEEP signal.				
40	REC OUT	O	Recording output. Goes "HIGH" in the record mode.				
41	IF IN	I	Auto stop input. A signal is input in the MUTE ON mode.				
42	D ₀₁	—	Unused.				
43	D ₀₂	O	Error output of phase detector. Applies a pulse to the LPF.				
44	AM IN	I	AM OSC input.				
45	PSC	O	PSC output.				
46	FM IN	I	Receives the prescaler output.				
47	GND	—	Ground pin.				
48	INH	O	Goes "LOW" when activating the PLL. Goes "LOW" when stopping the PLL (backup mode).				
49	TEST	—	Unused.				
50,51	XT, XT		A crystal oscillator is connected to these pins.				
52	INT	I	Pin to initialize the IC. "L" input initializes the IC to restore the initial set value and also erases the data from the memory.				
53	VDD	—	Connected to a power supply.				
54	VLCD	—	LCD boosting power supply.				
55~57	C1~C3	—	Capacitors are connected to these pins for an LCD boosting power supply.				

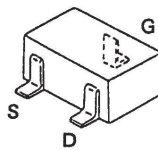
Pin No.	Pin Name	I/O	Description
1	GND	—	Ground terminal.
2	OSC	—	Clock oscillation terminal. Generates a $2.85\text{kHz} \pm 50\text{Hz}$ clock signal at V_{CC} (2V).
3	CL	I	Reset terminal. "LOW" level resets the IC.
4	REW	I	REW key input. Active "LOW".
5	FF	I	FF key input. Active "LOW".
6	STOP	I	STOP key input. Active "LOW".
7	PLAY	I	PLAY key input. Active "LOW".
8	REC SW	I	REC key input. Active "LOW".
9	AUTO	I	Tape end sensor input. Performs the AUTO operation when there is no change between "HIGH" and "LOW" for 2.5 seconds.
10	C-SW	I	Cassette switch terminal. An input key is accepted only at "LOW"; all operations are stopped at "HIGH". The reset and direction operations are performed when "HIGH" changes to "LOW".
11	PLAY SW	I	PLAY SW terminal (Malfunction prevention terminal). "LOW" during play and "HIGH" in other modes.
12	F/R	I	FWD/REV terminal. FWD at "HIGH" and REV at "LOW".
13	REV MODE	I	Determines the tape running mode (↺, ↻). ↻ at "HIGH" and ↺ at "LOW".
14	MUTE	O	MUTE output. "HIGH" : Start of PLAY, DIRECTION, FF, REW, "LOW" : in other modes.
15	DIRECTION	O	Motor rotation direction switching output. "HIGH" : FF, "LOW" : in other modes.
16	MOTOR	O	Motor on/off switching output. The motor stops at "LOW".
17	—	—	Unused.
18	REC PL	O	REC plunger output. "HIGH" output sets the unit to the record mode.
19	MD PL	O	MD plunger output. "HIGH" output attracts the MD plunger and "LOW" output releases it.
20	VDD	—	Power terminal.



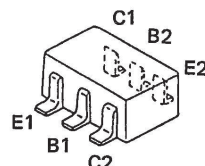
2SA1213



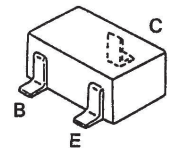
2SK882



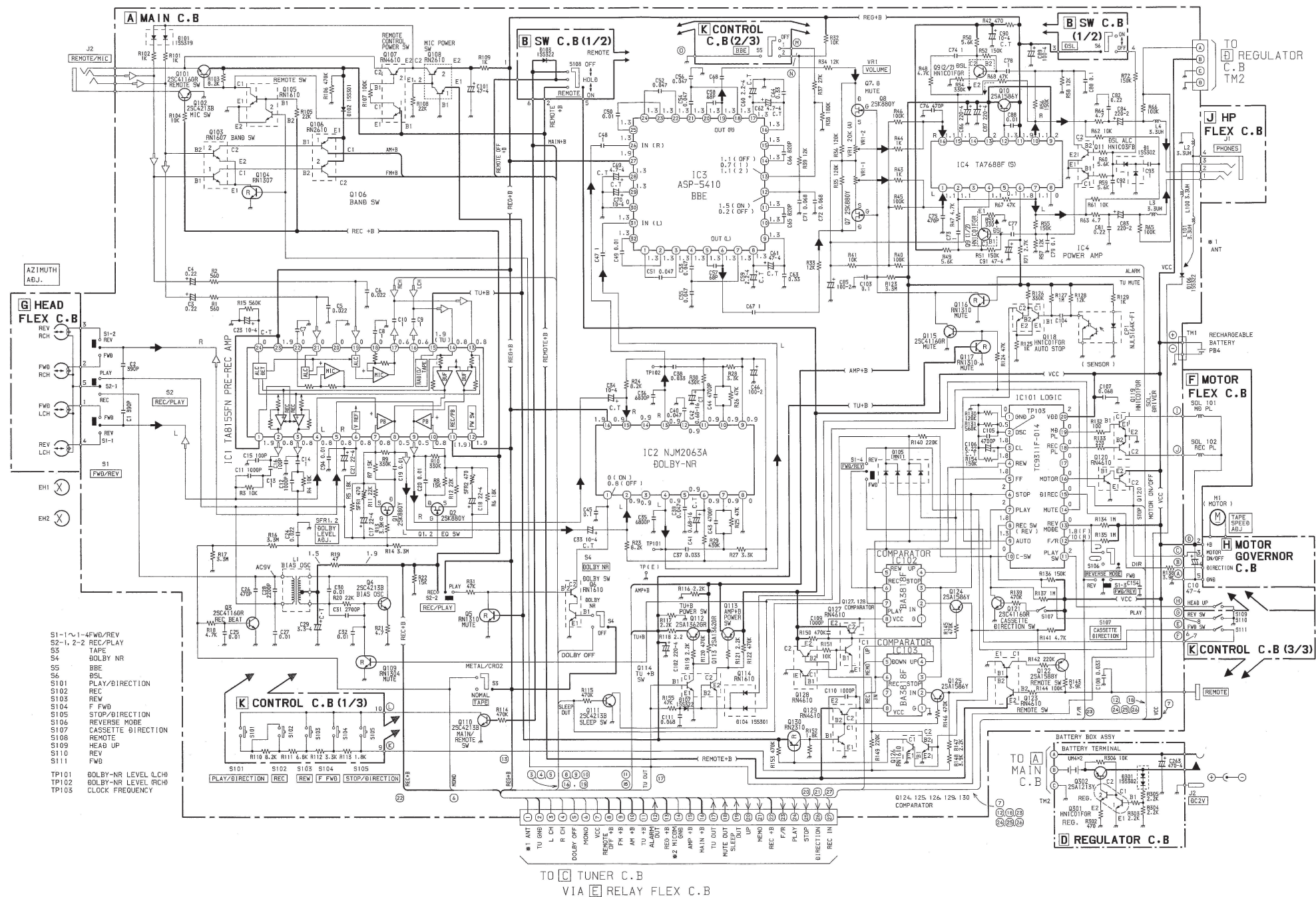
2SK880

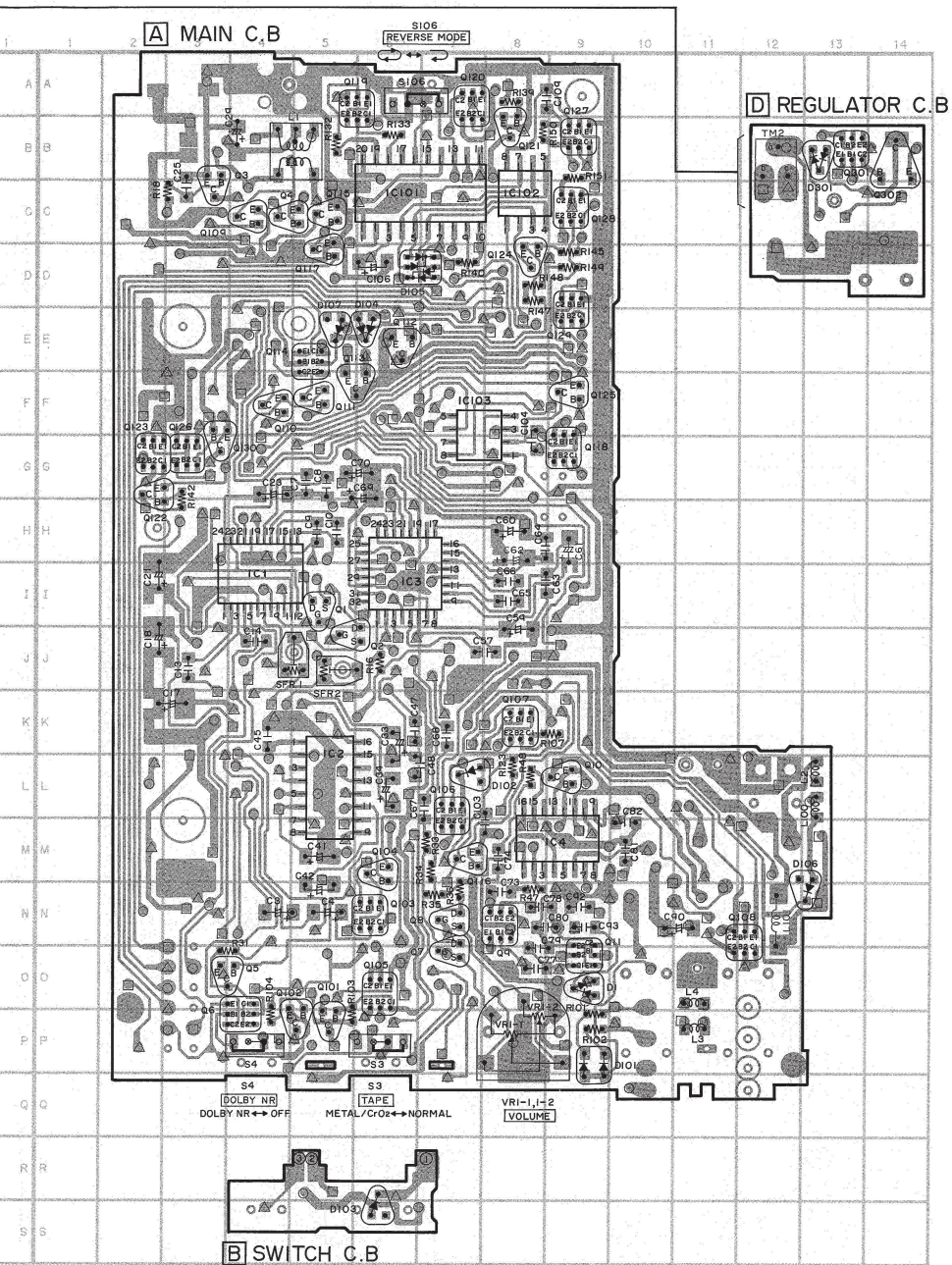
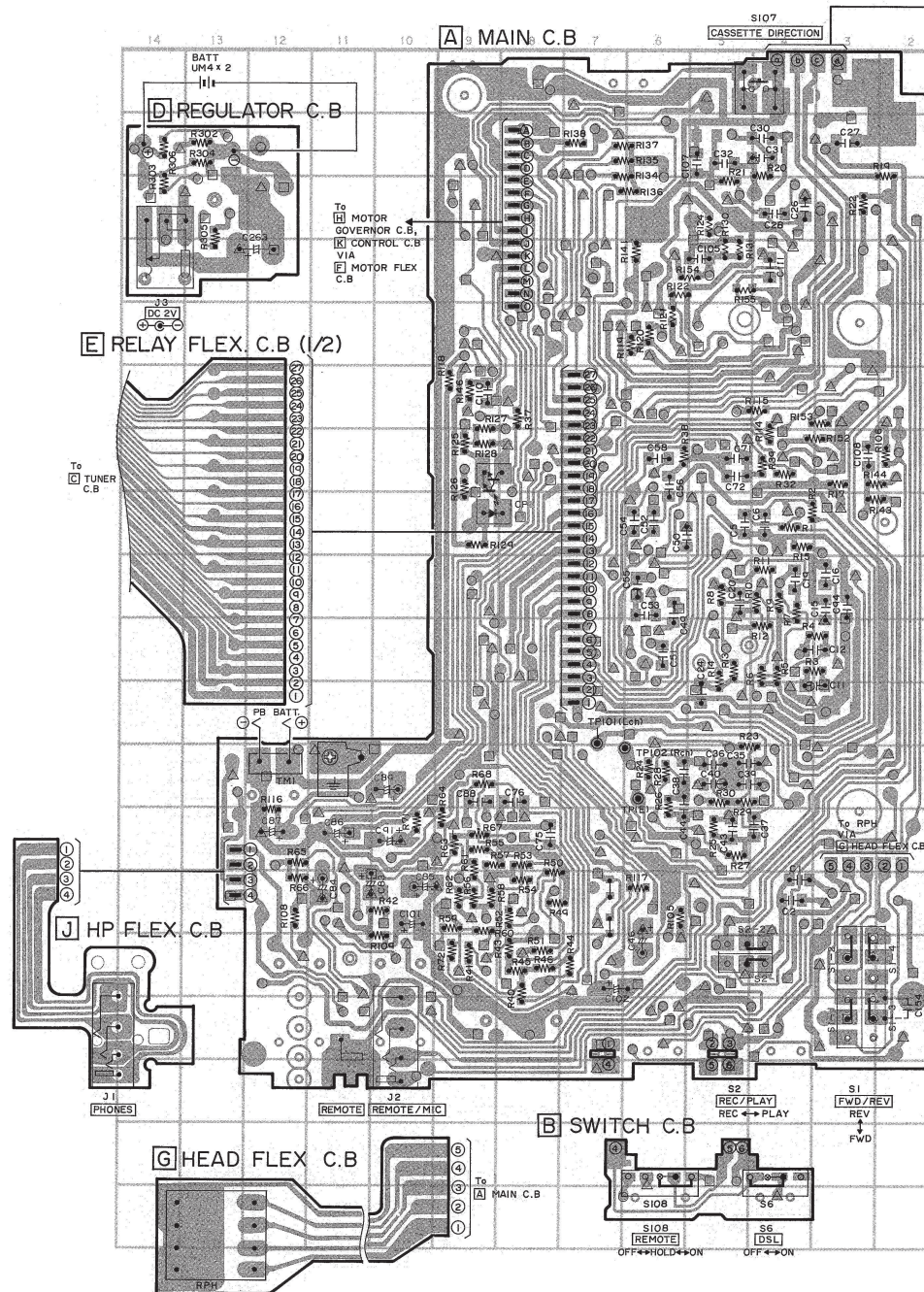


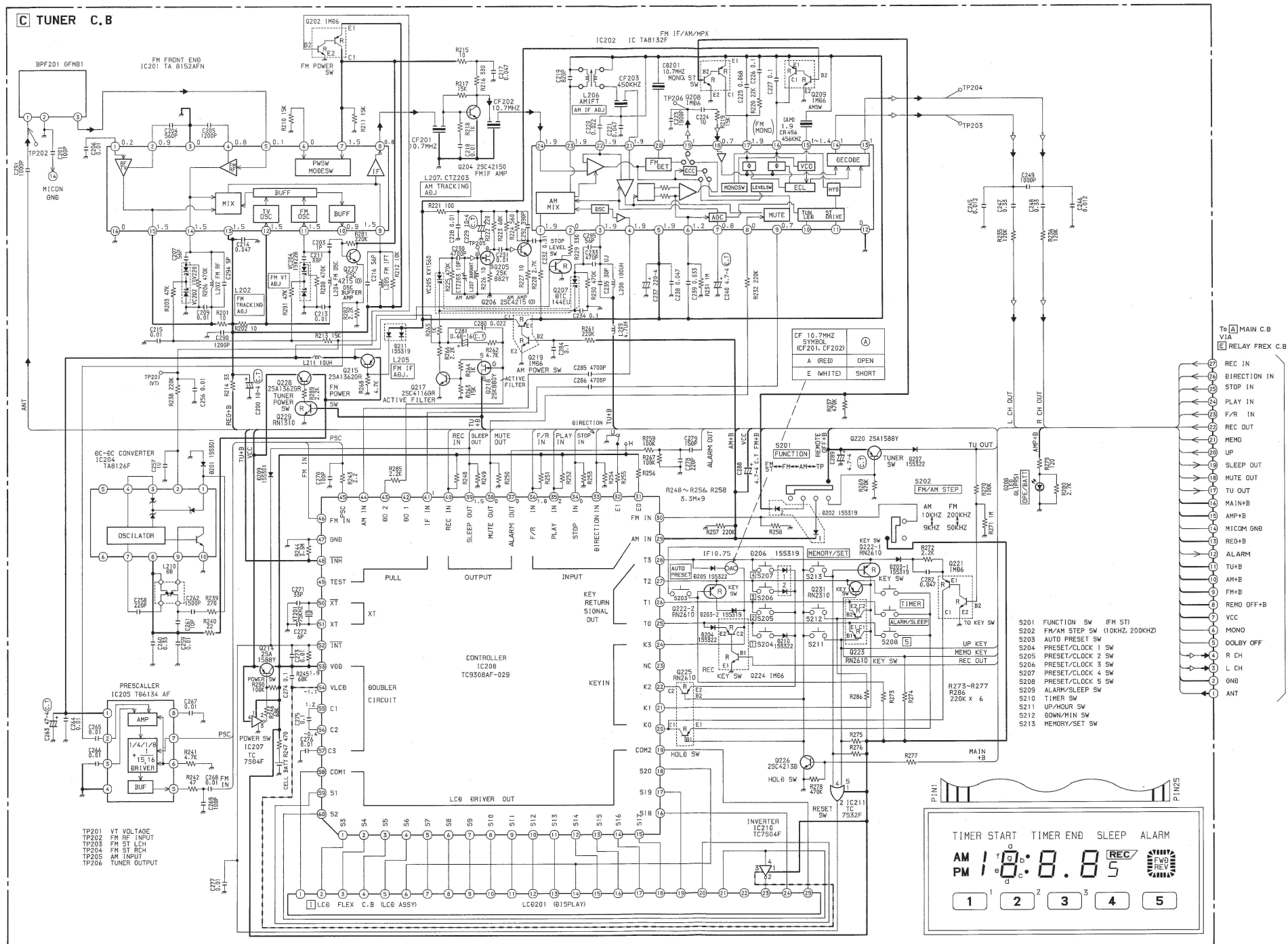
IMD6
HN1C01
HN1C03
RN1607
RN1610
RN2610
RN4610

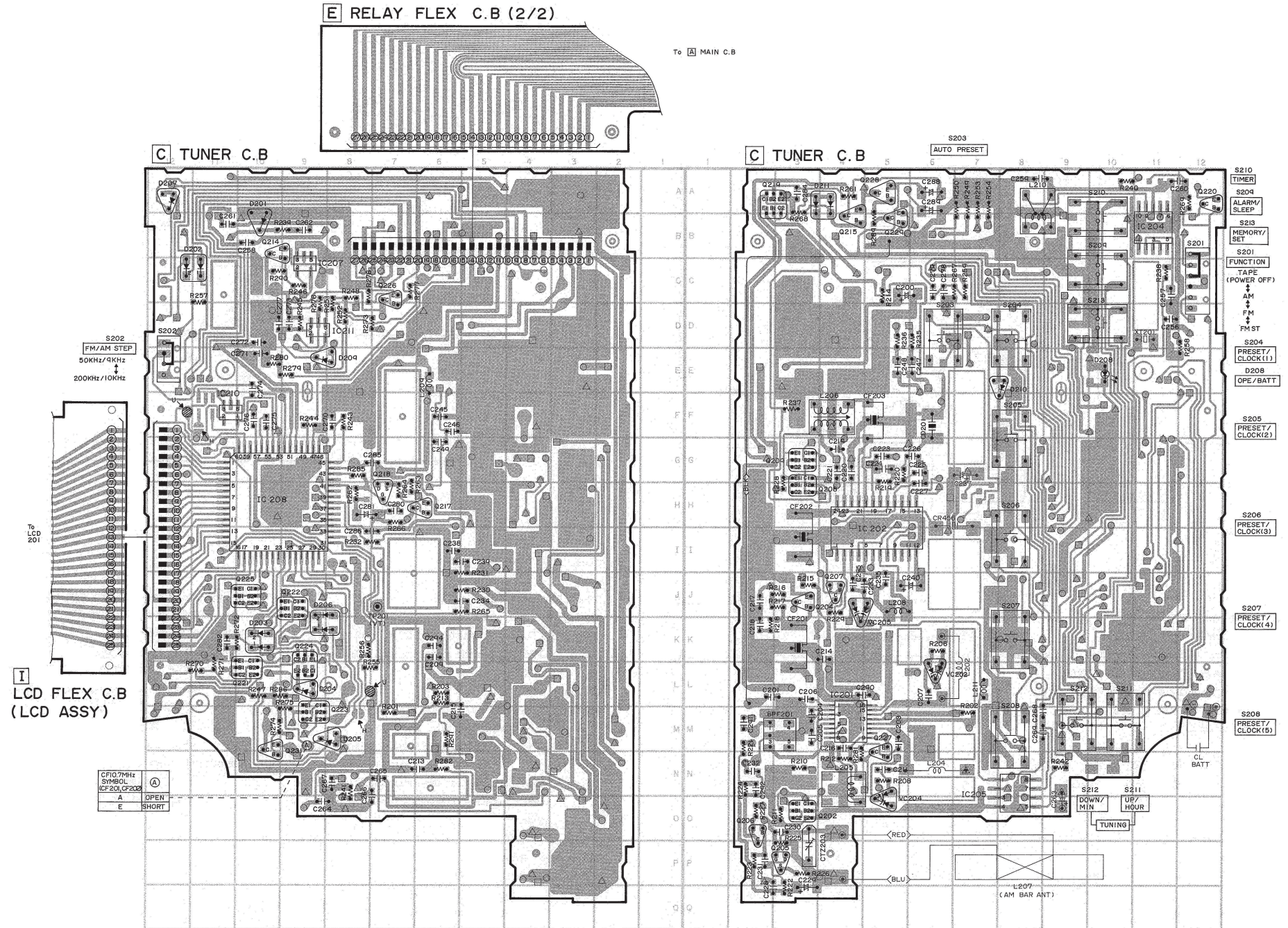


2SA1362
2SA1586
2SA1588
2SC4116
2SC4213
2SC4215
DTC144
RN1304
RN1307
RN1310
RN2310

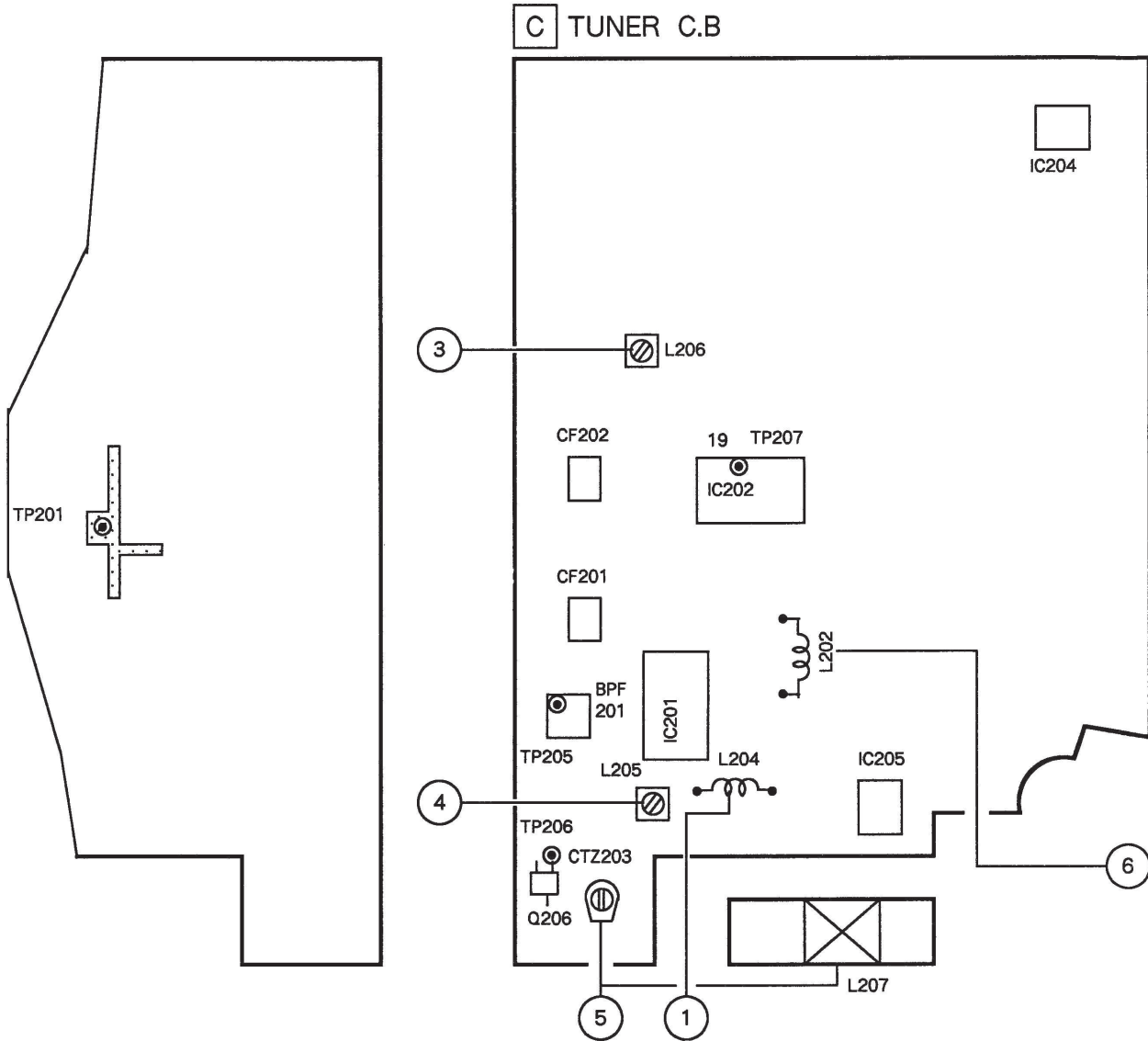








ADJUSTMENT



< RADIO SECTION >

1. FM VT Adjustment

Settings : • Test point : TP201

• Adjustment location : L204

Method : • Tune to FM 87.5MHz and adjust L204 so that the voltage at TP201 is 0.9V~1.2V.

After adjustment is completed, check that it is 7.5V~9.0V, or more at TP201 with the FM 108MHz signal.

2. AM VT Check

Check that it is 7.50V~9.0V (0.65V~1.15V) or less at TP201 with the AM 1629kHz (522kHz) signal.

3. AM IF Adjustment

L206..... 450kHz

4. FM IF Adjustment

L205.....10.7MHz

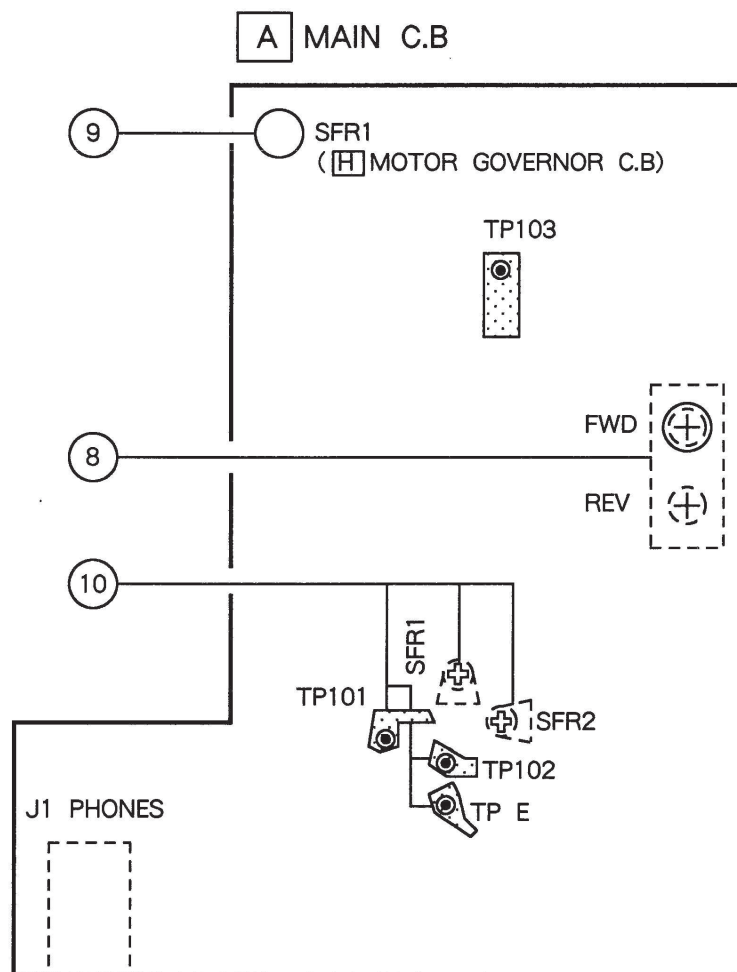
5. AM Tracking Adjustment

L207..... 630kHz

CTZ203.....1440kHz

6. FM Tracking Adjustment

L202.....87.5MHz



< TAPE RECORDER SECTION >

7. Clock Frequency Check

Settings : • Test point : TP103

Method : • Connect a resistor (1M Ω) to counter and TP103 Check the frequency at TP103 is 2650Hz $\pm$ 250Hz.

8. Azimuth Adjustment

Settings : • Test tape : TTS - 320 (TTA - 113B, TCC - 152)

- Test point : PHONES JACK
- Adjustment location : Azimuth adjustment screw

Method : • Play back the test tape, and adjust so that the output becomes maximum at FWD or REV mode.

9. Tape Speed Adjustment

Settings : • Test tape : TTA - 100 (TTA - 111S)

- Test point : PHONES JACK
- Adjustment location : SFR1 of motor governor

Method : • Play back the test tape, adjust for 3000Hz at FWD and $\pm$ 45Hz at REV.

10. Dolby Level Adjustment

Settings : • Test tape : TTS - 200 (TTA - 161, TCC - 130)

- Test point : TP101 (Lch), TP102 (Rch)
- Adjustment location : SFR1 (Lch), SFR2 (Rch)
- DOLBY SW : OFF
- DSL SW : OFF
- BBE SW : OFF

Method : • Connect an electrolytic capacitor (10 μ F /16V) to measured equipment and TP101 (102), adjust for 100mV $\pm$ 10mV.

NOTE ON REPLACING THE MOTOR

MOTOR LOAD ADJUSTMENT

The following adjustment should be made after replacing a motor.

As shown figure, connect the counter, ampere meter and power supply.

- (1) Adjust SFR1 to be $153\text{Hz} \pm 2\text{Hz}$.
- (2) Restrain the motor manually and check that the resultant current is $250\text{mA} \begin{smallmatrix} +10 \\ -20 \end{smallmatrix} \text{mA}$.
If the current reading does not satisfy the specification, make the adjustment as shown in Table 1.
- (3) Check that the nonload current is 20mA or less.
- (4) Connect the plus (+) pin of power supply to the DIRECTION terminal to rotate the motor in reverse and check Steps (2) and (3).
- (5) Check that Step (3) is satisfied when the motor is rotated in the forward or reverse direction at a supply voltage of 1.7V .

Table 1

CURRENT CHANGE WITH SLITS ①, ② AND ③ SET TO OPEN	SLITS NO.		
	①	②	③
OPEN	OPEN	OPEN	OPEN
+19 mA	OPEN	OPEN	SHORT
+25 mA	OPEN	SHORT	OPEN
+35 mA	OPEN	SHORT	SHORT
+47 mA	SHORT	OPEN	OPEN
+50 mA	SHORT	OPEN	SHORT
+62 mA	SHORT	SHORT	OPEN
+68 mA	SHORT	SHORT	SHORT

PRACTICAL SERVICE FIGURE

< RADIO SECTION >

Sensitivity :

(IHF THD 3%) FM Less than 20dB (98.0MHz)

(S/N 10dB) AM Less than 60dB (999Hz)

Intermediate frequency : FM 10.7MHz

AM 450kHz

FM stereo separation : FM More than 17dB (1kHz)

< TAPE RECORDER SECTION >

Wow & flutter : Less than 0.4% (RMS)

Pinch roller press : $150 \pm 15\text{-cm}$

Take-up torque : $31 \pm 6\text{-cm}$ (FWD, REV)

F.F & Rew torque : $120 \pm 45\text{-cm}$

S/N ratio : More than 44dB (PB)

More than 30dB (REC/PB)

Distortion : Less than 3.0% (PB)

Less than 10.0% (REC/PB)

Noise level : Less than 4.0mV (VOL MAX PB)

Less than 18.0mV

(VOL MAX REC/PB)

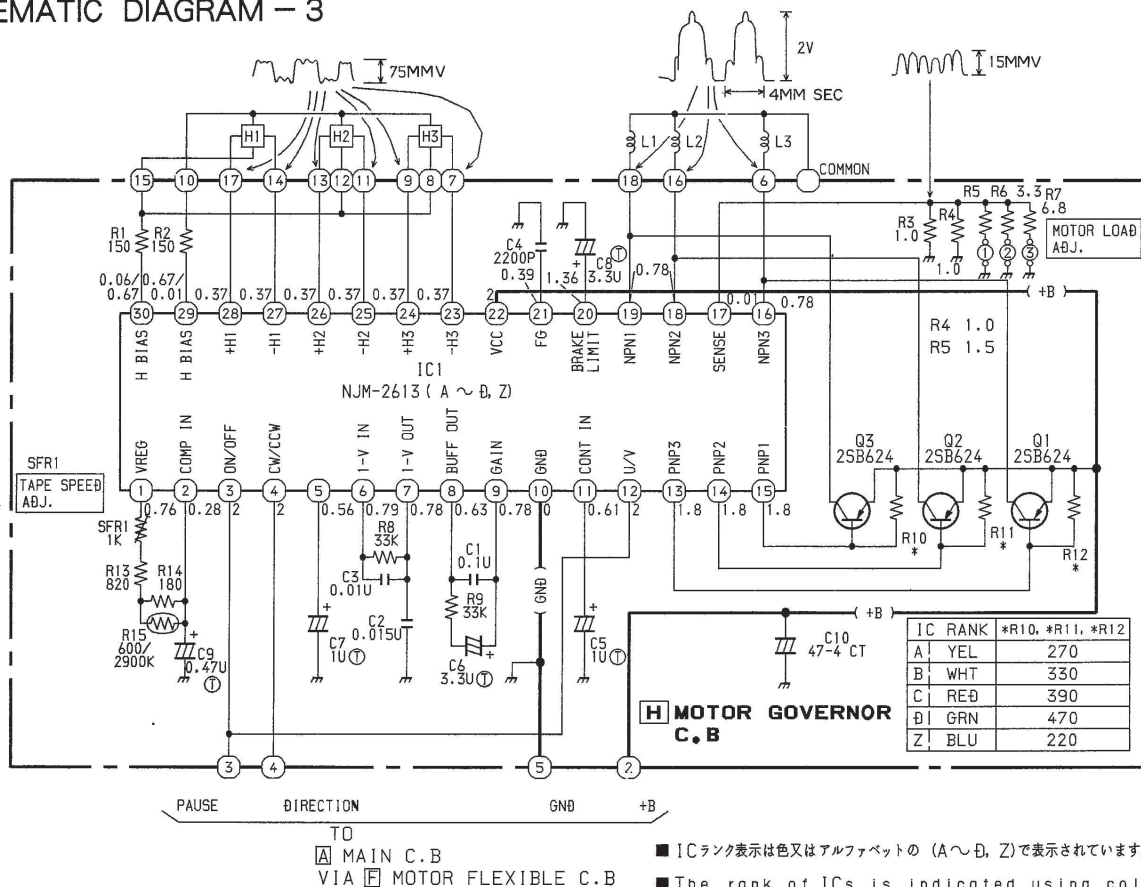
Bias frequency : 50kHz

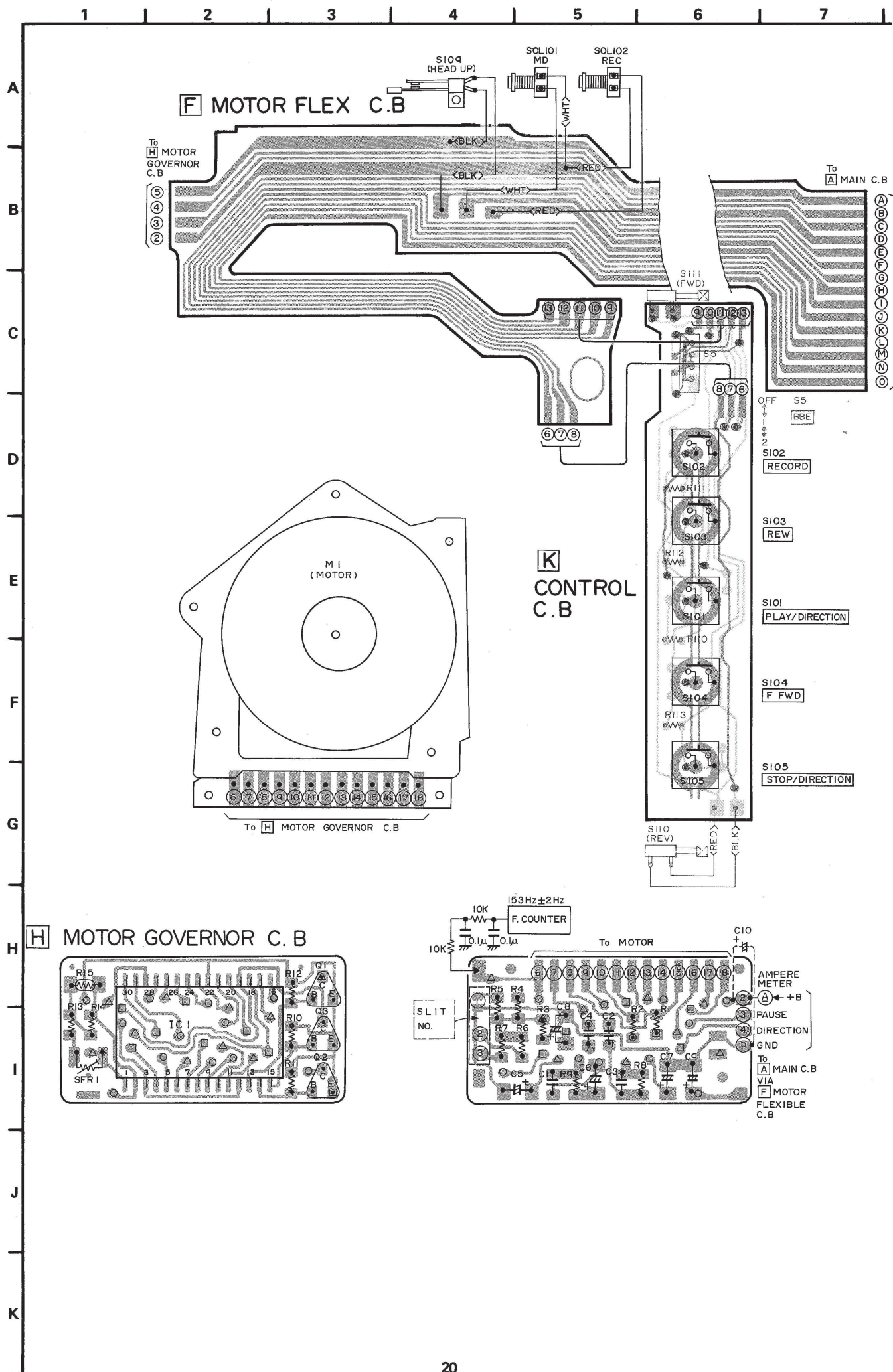
Frequency response : $63\text{Hz} \sim 8\text{kHz} \pm 4.5\text{dB}$ (NORMAL)

$63\text{Hz} \sim 12.5\text{kHz} \pm 5.0\text{dB}$

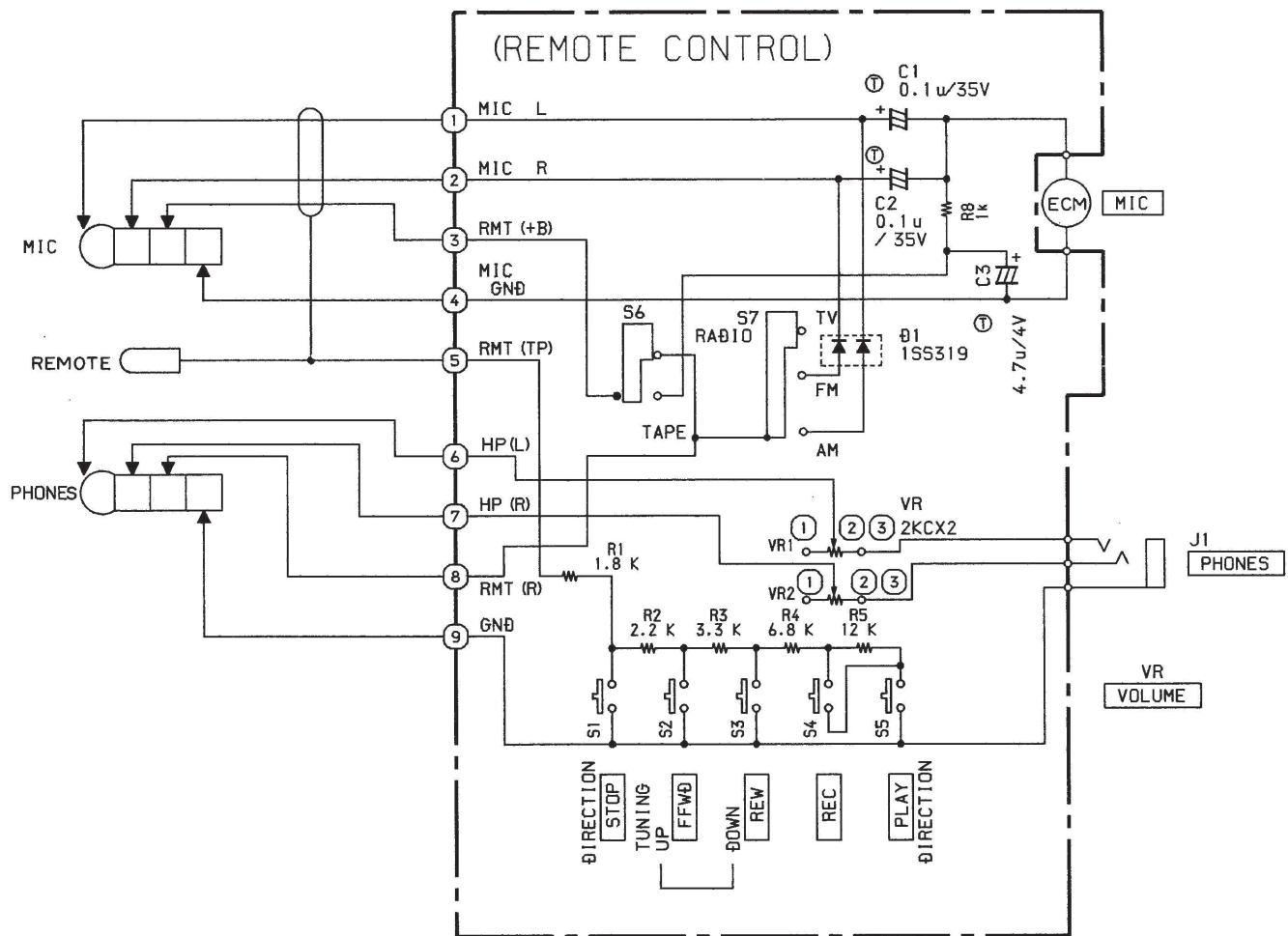
(CrO₂, METAL)

SCHEMATIC DIAGRAM - 3



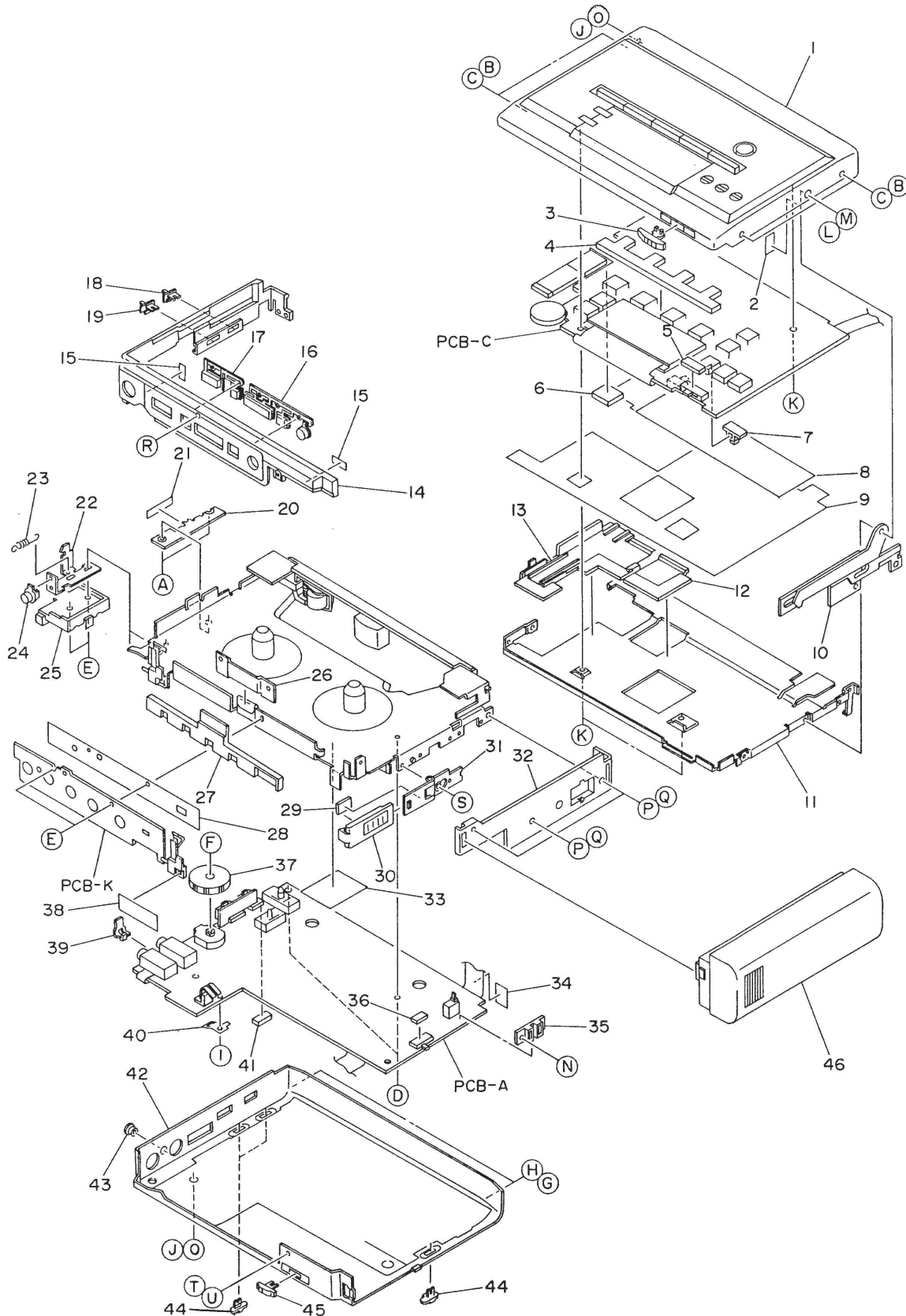


SCHEMATIC DIAGRAM – 4



EXPLODED VIEW – 1

REF.NO.	PART NO.	DESCRIPTION	REF.NO.	PART NO.	DESCRIPTION	REF.NO.	PART NO.	DESCRIPTION
A	87-261-500-310	V+1.4-1.4(B)	H	87-067-631-010	V+1.4-3(B) NLOCK	O	87-067-595-010	SCREW HINGE M1.4(B) NL
B	87-067-588-010	V+1.4-1.4 CR NL	I	87-067-437-010	SCREW M1.4-2(SERRATE)	P	87-067-480-010	S-SCREW 1.4-3
C	87-067-589-010	V+1.4-1.4(B) NL	J	87-067-594-010	SCREW HINGE M1.4 CR NL	Q	87-067-596-010	S-SCREW 1.4-3 CR
D	87-263-501-310	V+1.4-1.6 CR	K	87-067-384-010	VT+1.4-3.5 HL	R	87-067-733-010	SPECIAL SCREW 1.4-4(B)
E	87-261-503-310	V+1.4-2(B)	L	87-067-627-010	S-SCREW 1.4-1	S	87-067-319-010	SCREW HINGE M1.4-1
F	87-262-507-310	V+1.4-3(B)	M	87-067-628-010	S-SCREW 1.4-1(B)	T	87-067-606-010	V+1.4-3.5 CR NLOCK
G	87-067-630-010	V+1.4-3 CR NLOCK	N	87-067-501-010	S-SCREW 1.4-1.4(B)	U	87-067-607-010	V+1.4-3.5(B) NLOCK

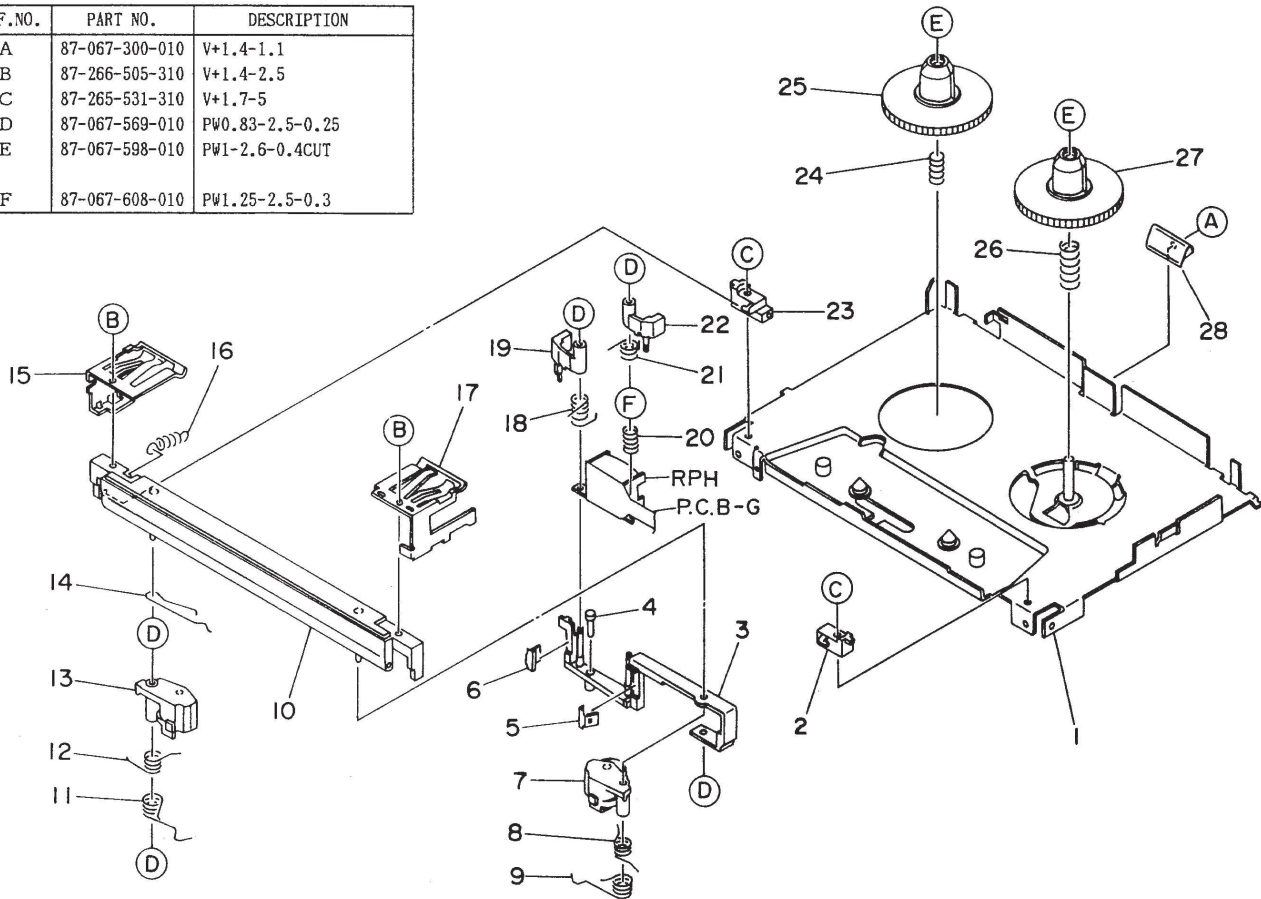


MECHANICAL PARTS LIST

PART NO. CHANGED TO	REF. NO.	PART NO.	DESCRIPTION	COMMON MODEL	Q, TY
1-1		*09-027-822-010	LID CASSETTE ASSY(B) (JX505)	*	1
1-1		*09-027-824-010	LID CASSETTE ASSY(B) (JX505D)	*	1
1-1		*09-027-823-010	LID CASSETTE ASSY(S) (JX505)	*	1
1-2		*80-HF1-214-010	SHEET,PVC 7-3-0.6		1
1-3		*80-HJ1-021-010	KNOB,SLIDE FK	*	1
1-4		*80-HJ1-217-010	SHEET,PRESET	*	1
1-5		*80-HJ1-219-010	G-CUSHION,FK	*	1
1-6		*80-HJ1-222-010	CUSHION,ANTENNA	*	1
1-7		*84-500-020-010	KNOB,SLIDE D		1
1-8		*80-HJ1-218-010	SHEET,TUNER PCB B	*	1
1-9		*80-HJ1-209-110	SHEET,TUNER PCB	*	1
1-10		*80-HF1-209-010	HOLDER ASSY		1
1-11		*80-HJ1-213-010	HOLDER,CASSETTE	*	1
1-12		*80-HJ1-029-210	COVER,HOLDER B	*	1
1-13		*80-HJ1-028-110	COVER,HOLDER A	*	1
1-14		*80-HJ1-004-010	FRAME,CENTER	*	1
1-15		*84-500-223-010	MYLAR,FRAME		2
1-16		*80-HJ1-026-010	KEY,CONTROL A	*	1
1-17		*80-HJ1-027-010	KEY,CONTROL B	*	1
1-18		*80-HJ1-023-010	KNOB,SLIDE B	*	1
1-19		*80-HJ1-022-010	KNOB,SLIDE A	*	1
1-20		*80-HJ1-203-010	HOLDER,SW	*	1
1-21		*80-HJ1-207-110	SHEET,SW	*	1
1-22		*80-HJ1-215-010	LEVER,OPEN D	*	1
1-23		*84-500-217-010	E-SPRING,OPEN		1
1-24		*80-HJ1-019-010	BUTTON,OPEN	*	1
1-25		*80-HJ1-214-010	HOLDER,JACK D	*	1
1-26		*80-HJ1-202-010	HOLDER,TACK B	*	1
1-27		*80-HJ1-201-010	HOLDER,TACK A	*	1
1-28		*80-HJ1-205-010	SHEET,PCB	*	1
1-29		*84-497-230-010	G-CUSHION,BATTERY		1
1-30		80-HJ1-009-110	LID,BATTERY(B)	*	1
1-30		80-HJ1-038-110	LID,BATTERY(S)	*	1
1-31		*89-HK2-217-010	HINGE BATTERY ASSY		1
1-32		*80-HJ1-008-110	PANEL,BOTTOM(B)	*	1
1-32		*80-HJ1-034-110	PANEL,BOTTOM(S)	*	1
1-33		*86-550-367-210	MYLAR,14-17-0.05		1
1-34		*80-HJ1-223-010	SHEET,FLEX	*	1
1-35		*89-HK2-215-110	BATTERY CONTACT ASSY		1
1-36		*80-HJ1-220-010	G-CUSHION,A	*	1
1-37		*84-438-009-110	KNOB,VOLUME		1
1-38		*84-500-235-010	SHEET,FLEX		1
1-39		*84-500-219-010	P-SPRING,JACK		1
1-40		*89-HK2-212-110	P-SPRING,EARTH		1
1-41		*80-HJ1-224-010	G-CUSHION,B	*	1
1-42		*80-HJ1-041-010	CABINET REAR ASSY(B) (JX505H,E,K,Z)	*	1
1-42		*80-HJ1-046-010	CABINET REAR ASSY(B) (JX505D)	*	1
1-42		*80-HJ1-049-010	CABINET REAR ASSY(S) (JX505)	*	1
1-43		*84-500-021-110	SPACER,JACK		1
1-44		*80-HJ1-024-110	KNOB,SLIDE C	*	3
1-45		*80-HJ1-020-110	KNOB,SLIDE BBE	*	1
1-46		*09-027-698-010	BOX BATTERY ASSY	*	1

EXPLODED VIEW - 2

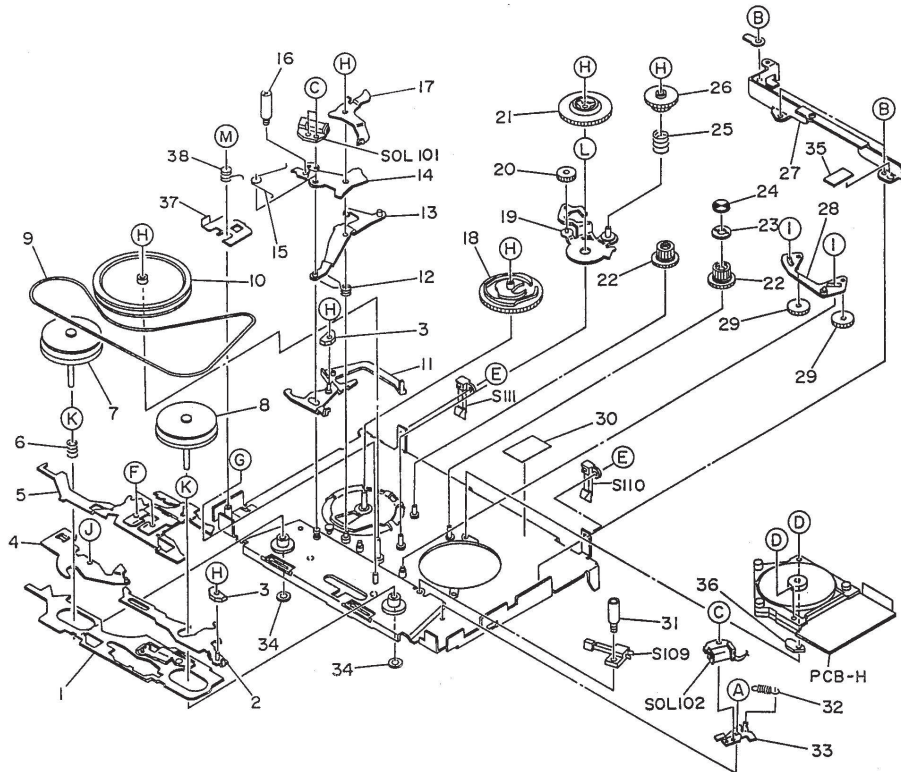
REF.NO.	PART NO.	DESCRIPTION
A	87-067-300-010	V+1.4-1.1
B	87-266-505-310	V+1.4-2.5
C	87-265-531-310	V+1.7-5
D	87-067-569-010	PW0.83-2.5-0.25
E	87-067-598-010	PW1-2.6-0.4CUT
F	87-067-608-010	PW1.25-2.5-0.3



PART NO. CHANGED TO	REF. NO.	PART NO.	DESCRIPTION	COMMON MODEL	Q, TY
	2-1	*86-550-360-510	CHASSIS REC ASSY		1
	2-2	*86-550-289-110	HOLDER, R		1
	2-3	*86-550-333-210	ARM HEAD REC ASSY		1
	2-4	*86-550-335-010	SHAFT, AZIMUTH REC		1
	2-5	*86-550-359-010	SHEET, EH R		1
	2-6	*86-550-352-110	SHEET, EH L		1
	2-7	86-550-439-110	LEVER PINCH RJ ASSY		1
	2-8	*86-550-275-110	T-SPRING, PLAY BACK R		1
	2-9	86-550-346-110	T-SPRING, PINCH RJ		1
	2-10	*86-550-421-110	HOLDER CASSETTE ASSY(B)		1
	2-10	*86-550-423-110	HOLDER CASSETTE ASSY(S)		1
	2-11	*86-550-348-010	T-SPRING, PINCH LJ		1
	2-12	*86-550-274-010	T-SPRING, PLAY BACK L		1
	2-13	86-550-427-110	LEVER PINCH LJ ASSY		1
	2-14	*86-550-343-110	T-SPRING, HEAD BACK J		1
	2-15	*86-550-216-110	P-SPRING, HOLDER L		1
	2-16	*86-550-278-010	E-SPRING, HOLDER C		1
	2-17	*86-550-217-110	P-SPRING, HOLDER R		1
	2-18	*86-550-319-110	T-SPRING, AZIMUTH L		1
	2-19	*86-550-349-010	ARM EH L ASSY(W/EH)		1
	2-20	*86-550-358-010	C-SPRING, AZIMUTH		1
	2-21	*86-550-321-010	T-SPRING, AZIMUTH		1
	2-22	*86-550-350-010	ARM EH R ASSY(W/EH)		1
	2-23	*86-550-290-110	HOLDER, L		1
	2-24	*86-550-288-110	C-SPRING, REEL GEAR L		1
	2-25	*86-550-240-110	GEAR, REEL L		1
	2-26	*86-550-374-110	C-SPRING, GEAR RJ		1
	2-27	*86-550-285-010	GEAR, REEL R		1
	2-28	*86-550-218-010	P-SPRING CASSETTE ASSY		1

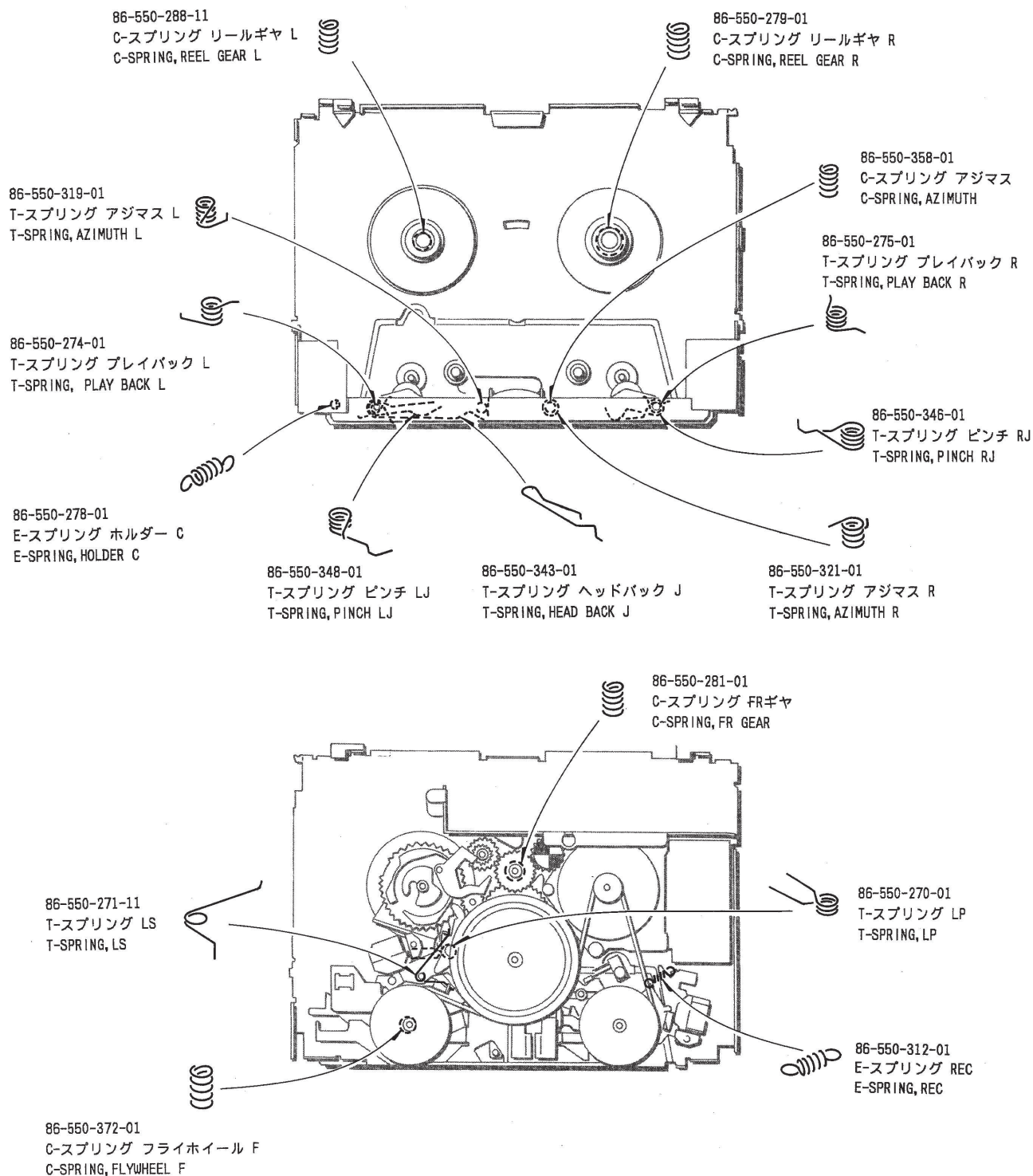
EXPLODED VIEW - 3

REF.NO.	PART NO.	DESCRIPTION	REF.NO.	PART NO.	DESCRIPTION	REF.NO.	PART NO.	DESCRIPTION
A	87-067-300-110	V+1.4-1.1	F	86-550-341-010	SCREW AZIMUTH	K	87-067-370-010	RW1.2-3-0.25
B	87-261-500-310	V+1.4-1.4	G	87-067-683-010	PW0.8-3-0.5CUT	L	86-550-268-010	STE0.8-5
C	87-067-560-010	V+1.4-2.5	H	87-067-569-010	PW0.83-2.5-0.25	M	86-550-378-010	PW1.7-3.5-0.25CUT
D	87-262-510-310	V+1.4-4.5(B)	I	87-067-623-010	PW0.85-3.2-0.3			
E	87-067-511-010	SPECIAL SCREW M1.4-2	J	87-067-563-010	PW1.2-3-0.2			



PART NO. CHANGED TO	REF. NO.	PART NO.	DESCRIPTION	COMMON MODEL	Q, TY
	3-1	*86-550-338-110	LEVER EH ASSY		1
	3-2	*86-550-302-010	LEVER REC ASSY		1
	3-3	*86-536-467-010	PLATE,MR2		2
	3-4	*86-550-311-210	LINK REC SW ASSY		1
	3-5	*86-550-313-010	LEVER HEAD TURN J ASSY		1
	3-6	*86-550-372-010	C-SPRING, FLYWHEEL F		1
	3-7	86-550-315-010	FLYWHEEL REC ASSY		1
	3-8	*86-550-354-010	FLYWHEEL REC-T ASSY		1
	3-9	86-550-325-010	BELT, J		1
	3-10	*86-550-242-110	GEAR, PULLEY		1
	3-11	*86-550-211-210	LEVER SOLENOID ASSY		1
	3-12	*86-550-270-110	T-SPRING, L P		1
	3-13	86-550-489-010	LEVER PLAY CL J ASSY		1
	3-14	*86-550-286-410	PLATE, SOLENOID		1
	3-15	*86-550-271-110	T-SPRING, L S		1
	3-16	*86-550-293-010	SHAFT, P SOLENOID		1
	3-17	*86-550-204-310	LEVER, LOCK		1
	3-18	*86-550-347-310	GEAR, CAM REC		1
	3-19	86-550-368-210	LEVER FR J ASSY		1
	3-20	*86-550-241-010	GEAR, CAM C		1
	3-21	*86-550-232-010	SLIP GEAR ASSY		1
	3-22	*86-550-237-010	GEAR, FR C		2
	3-23	*86-550-236-210	DISK, AUTO		1
	3-24	*86-550-606-010	SHEET, AUTO		1
	3-25	*86-550-281-010	C-SPRING, FR GEAR		1
	3-26	*86-550-238-010	GEAR, FR		1
	3-27	*86-550-203-110	HOLDER, BATTERY		1
	3-28	*86-550-336-110	LEVER PLAY J ASSY		1
	3-29	*86-550-239-110	GEAR, PLAY		2
	3-30	*86-550-367-010	MYLAR, 14-17-0.05		1
	3-31	*86-550-292-110	SHAFT, P SW		1
	3-32	*86-550-312-010	E-SPRING, REC		1
	3-33	*86-550-317-010	PLATE, REC SOLENOID		1
	3-34	*86-550-455-010	SHEET, 0.87-2.25-0.25 CUT		2
	3-35	*86-550-301-110	MYLAR, 5-10-0.5		1
	3-36	*86-554-019-110	SPACER, B		1
	3-37	*87-063-149-010	CUSHION, 2-8-1.5		1
	3-38	*87-067-656-010	SHEET, 1.2-2.5-0.05		2

SPRING APPLICATION POSITION



ACCESSORIES/PACKAGE LIST

PART NO. CHANGED TO	REF. NO.	PART NO.	DESCRIPTION	COMMON MODEL	Q , TY
	1	★ 80 - HJ1 - 904 - 010	INSTRUCTION BOOKLET, EX (JX505)	※	1
	2	★ 80 - HJ1 - 905 - 010	INSTRUCTION BOOKLET, DA (JX505D)	※	1
	3	★ 80 - HJ1 - 951 - 010	CARRYING CASE EX	※	1
	4	★ 80 - HJ1 - 953 - 010	REMOTE UNIT RC - J50E	※	1
	5	★ 09 - 027 - 698 - 010	BATT BOX ASSY	※	1
	6	87 - 042 - 063 - 010	AC - 208H (AH1,DAH1)		1
	7	87 - 042 - 064 - 010	AC - 208E (AE,AZ)		1
	8	87 - 042 - 065 - 010	AC - 208K (AK1)		1
	9	87 - 047 - 107 - 010	PB - 4Y		1
	10	87 - 048 - 162 - 010	HP - 19 BK (AH1,DAH1,AK1)		1
	11	87 - 048 - 173 - 010	HP - M18 (AE,AZ)		1