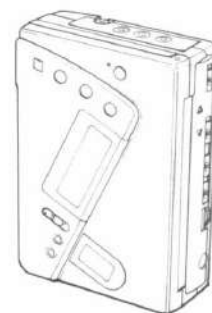


AIWA®**TP-38****SERVICE
MANUAL**

CASSETTE RECORDER

• BASIC TAPE MECHANISM : $\alpha - 2$

• TYPE. Y,YU

SPECIFICATIONS

Type	Cassette tape recorder
Power sources	Batteries, DC 3V R6P (SUM-3, AA) x 2 Household AC power (thru AC adaptor)
Output	350 mW, max.
Frequency response	150 - 8,000 Hz (4.8 cm/sec.)
Speaker	36 mm \varnothing , 8 ohms
Input terminal	EXT MIC jack 3.5 \varnothing minijack x 1
Output terminal	Earphone jack 3.5 \varnothing minijack x 1
Microphone	Electret condenser microphone
Tape speed	4.8 cm/sec.
Recording system	AC bias
Erasing system	Magnet erasure
Recording time	60 min. (two ways, C-60 cassette)
Battery life under continuous use	Using manganese R6P (equivalent SUM-3, AA) batteries: Approx. 5 h (EIAJ, recording mode) Approx. 4.5 h (EIAJ, music playback, with volume set to approx. 6) Using alkaline LR6 (equivalent AM-3, AA) batteries: Approx. 10 h (EIAJ, recording mode) Approx. 9 h (EIAJ, music playback, with volume set to approx. 6)
Dimensions	80.8 (W) x 116.1 (H) x 37.3 (D) mm
Weight	240 g (not incl. batteries)

- Design and specifications are subject to change without notice.

AIWA Co., Ltd.

Tokyo Japan

LC7600

Pin No.	Pin Name	Description																					
1 3 4 5 6 7	CNT REAL ALM SLP DVAL SEC	<p>Display mode switching inputs: The display mode is switched according to the combination shown in the table below (pins 4 and 7 are not used).</p> <table border="1"> <thead> <tr> <th></th> <th>1</th> <th>3</th> <th>4</th> <th>5</th> <th>6</th> <th>7</th> </tr> </thead> <tbody> <tr> <td>Clock</td> <td>V_{SS1}</td> <td>V_{DD}</td> <td>—</td> <td>—</td> <td>—</td> <td>—</td> </tr> <tr> <td>Counter</td> <td>V_{SS1}</td> <td>Off</td> <td>Off</td> <td>V_{DD}</td> <td>V_{DD}</td> <td>—</td> </tr> </tbody> </table> <p style="text-align: center;">— : V_{DD} or Open or V_{SS1} Off:Open or V_{SS1}</p>		1	3	4	5	6	7	Clock	V _{SS1}	V _{DD}	—	—	—	—	Counter	V _{SS1}	Off	Off	V _{DD}	V _{DD}	—
	1	3	4	5	6	7																	
Clock	V _{SS1}	V _{DD}	—	—	—	—																	
Counter	V _{SS1}	Off	Off	V _{DD}	V _{DD}	—																	
8	TH	Changes the hour's digit of the clock by one every time the button is pressed. When the button is held depressed for 2 seconds or more, the hour's digit changes continuously.																					
9	TM	Changes the minute's digit of the clock by one every time the button is pressed. When the button is held depressed for 2 seconds or more, the minute's digit changes continuously.																					
10	TS	Clears the second's digit of the clock. When 32 seconds or more are displayed, the minute's digit advances by one minute.																					
11	UP/DOWN	Counter up/down switching input. "H" input sets the counter to an up counter and "L" input sets it to a down counter.																					
12	COUNT	Counter pulse input. The counter advances every 4 pulses.																					
16~31		LCD display outputs.																					
34 35 36 37	CUP2 CUP1 V _{SS1} V _{SS2}	} These pins form a booster circuit which maintains the oscillation frequency at pin 35 at 1024.000±0.008Hz.																					
38 39	OSC OUT OSC IN	} A crystal oscillator is connected to these pins.																					
40	V _{DD}	Power supply.																					
41	24H/12H	Time display switching input which sets the 24-hour display. The V _{DD} level sets the 24-hour display and OPEN or V _{SS1} level sets the 12-hour display (unused).																					
48	RESET	Counter reset input. Resets the counter reading to "000" when V _{DD} is applied.																					
50~64		LCD display outputs.																					

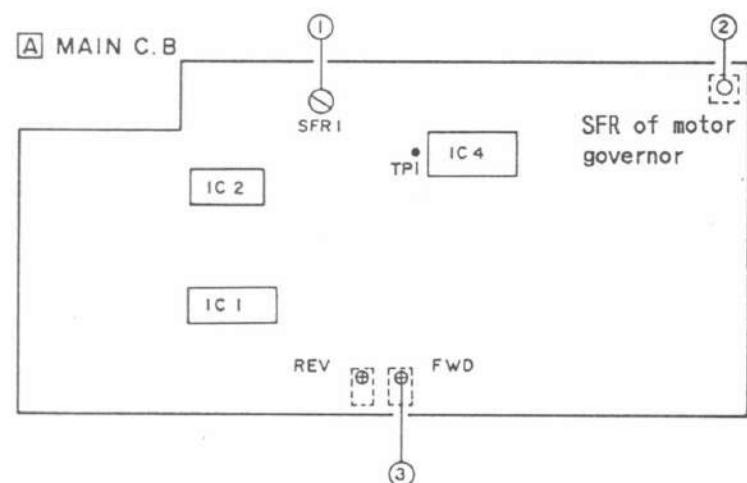
TC9311-015

Pin No.	Pin Name	Description
1	GND	Ground.
2	OSC	Generates the clock signal. Keeps the oscillation frequency at 3.2kHz +10%/-15% (Vcc=3V).
3	CL	Clear terminal which resets the IC at "L".
4	REW/PAUSE	REW key input. Active "L". / PAUSE key input. Active "L".
5	FF/PAUSE	FF key input. Active "L". / PAUSE key input. Active "L".
6	STOP/REC	STOP key input. Active "L". / REC key input. Active "L".
7	PLAY/REC	PLAY key input. Active "L". / REC key input. Active "L".
8	CASSETTE SW	Cassette switch terminal. Key inputs are accepted only when this pin is "L", and all operations are stopped when it is "H". When this pin changes from "H" to "L", the IC is reset to perform the direction switch operation.
9	AUTO	Tape end sensor input. When this pin does not change between "H" and "L" for 2.5 seconds or more, the unit enters the auto operation.
10	F/R	Forward/reverse switching terminal. "H" level sets forward running and "L" level set the reverse running.
11	MODE SW	DIRECTION MODE switching input. ↻ at "H" and ↻ at "L" during play. ↻ at "H" and ↻ at "L" during recording.
12	REV REC SW	Reverse recording prevention switch. Reverse recording is disabled at "L".
13	PLAY SW	PLAY SW terminal (malfunction preventive SW). Goes "L" only during play and recording. Goes "H" in modes other than play and recording.
14	MUTE	MUTE output. Goes "H" during the start of play, DIRECTION, FF, REW, PAUSE, etc.
15	CUE, REW MUTE	CUE/REW MUTE output. Goes "H" during CUE and REW.
16	DIR	MOTOR rotation switching output. Goes "H" only during FWD PLAY, FWD REW and REV FF. Goes "L" in other modes.
17	MOTOR	MOTOR ON/OFF switching output. "L" output stops the motor.
18	REC PL	REC plunger output. "H" output attracts the REC plunger.
19	MD PL	MD plunger output. "H" output attracts the MD plunger.
20	VDD	Power supply.

■ ACCESSORIES/PACKAGE LIST

PART NO. CHANGED TO	REF. NO.	PART NO.	DESCRIPTION	COMMON MODEL	Q, TY
	1	*84-512-904-010	INSTRUCTION BOOKLET EX	*	1
	2	*82-662-031-110	HAND STRAP		1
	3	*84-512-951-010	REMOTE CONTROLLER RC-38	*	1
	4	*84-513-951-010	STAND, MIC		1
	5	87-048-130-010	EARPHONE EP-10		1

<TAPE SECTION>



1. Mechanism Control Clock Adjustment

Settings : • Test point : TP1
• Adjustment point : SFR1

Method : Connect a $1M\Omega$ resistor between the frequency counter and TP1 and adjust so the counter reads $3000\text{Hz} \pm 50\text{Hz}$.

2. Tape Speed Adjustment

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

• Test point : EARPHONE jack

• Adjustment point : SFR1 of motor governor

Method : Play the test tape and adjust so it is 3000Hz in the forward mode and $3000\text{Hz} \pm 45\text{Hz}$ in the reverse mode.

3. Azimuth Adjustment

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

• Test point : EARPHONE jack

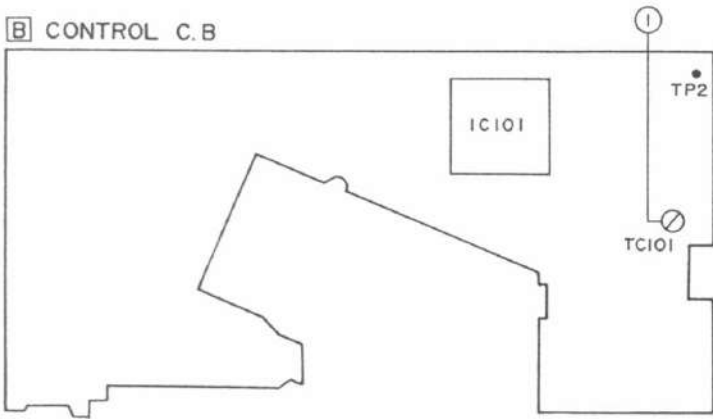
• Adjustment point : Azimuth adjustment screw

Method : Play the test tape and adjust so that the output is maximum in both the forward and reverse modes.

4. Motor Load Adjustment

Refer to the motor load adjustment on page 11 of the HS-PX30, 303, 900.

B CONTROL C.B



1. Control Clock Adjustment

Settings : • Test point : TP2

• Adjustment point : TC101

Method : Connect the frequency counter to TP2 and adjust TC101 so that the counter reads $1024.007 \pm 0.005\text{Hz}$.

[Simplified Adjustment]

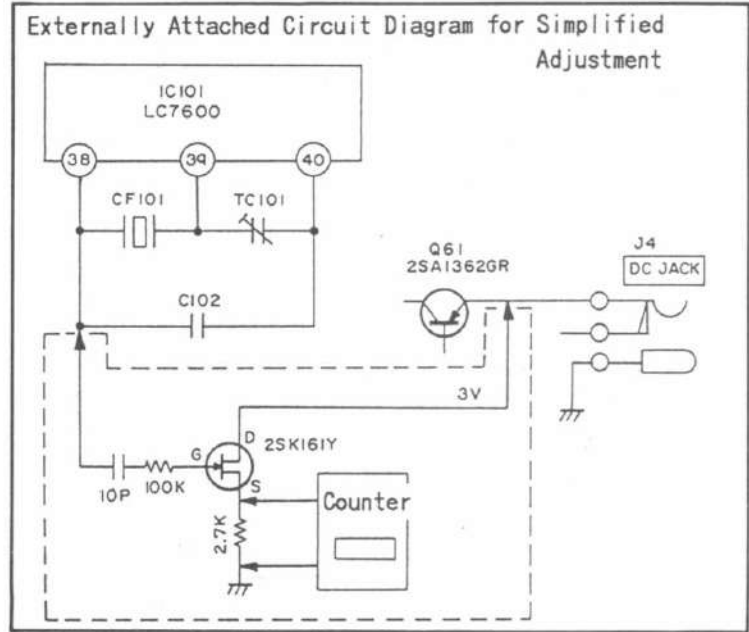
A frequency counter which can measure to an accuracy of $1/10,000\text{Hz}$ is required for the above adjustment.

If such a counter is not available, adjust as follows.

1. Attach the following circuits externally as a buffer and connect the frequency counter.
2. Adjust TC101 so that the counter reads 32.7679kHz.
3. After adjustment is completed, remove the externally attached circuits.

Codes on parts in the externally attached circuits

2SK161Y 89-501-614



10P 87-018-104

100K 88-122-104

2.7K 88-122-272

Reference

32.7679kHz...Center frequency

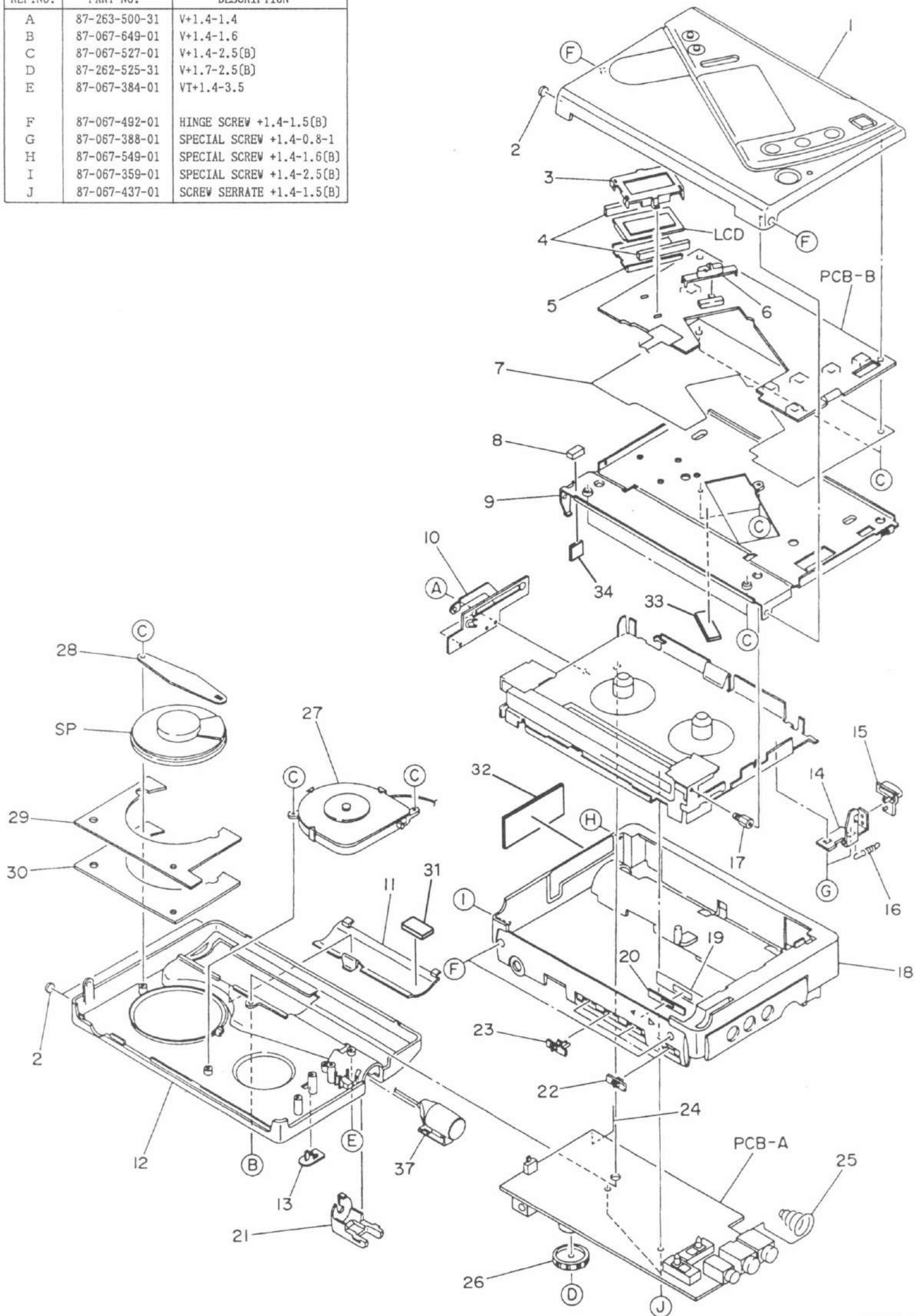
32.7676kHz...Difference in monthly rate : -30 seconds

32.7681kHz...Difference in monthly rate : +30 seconds

Note

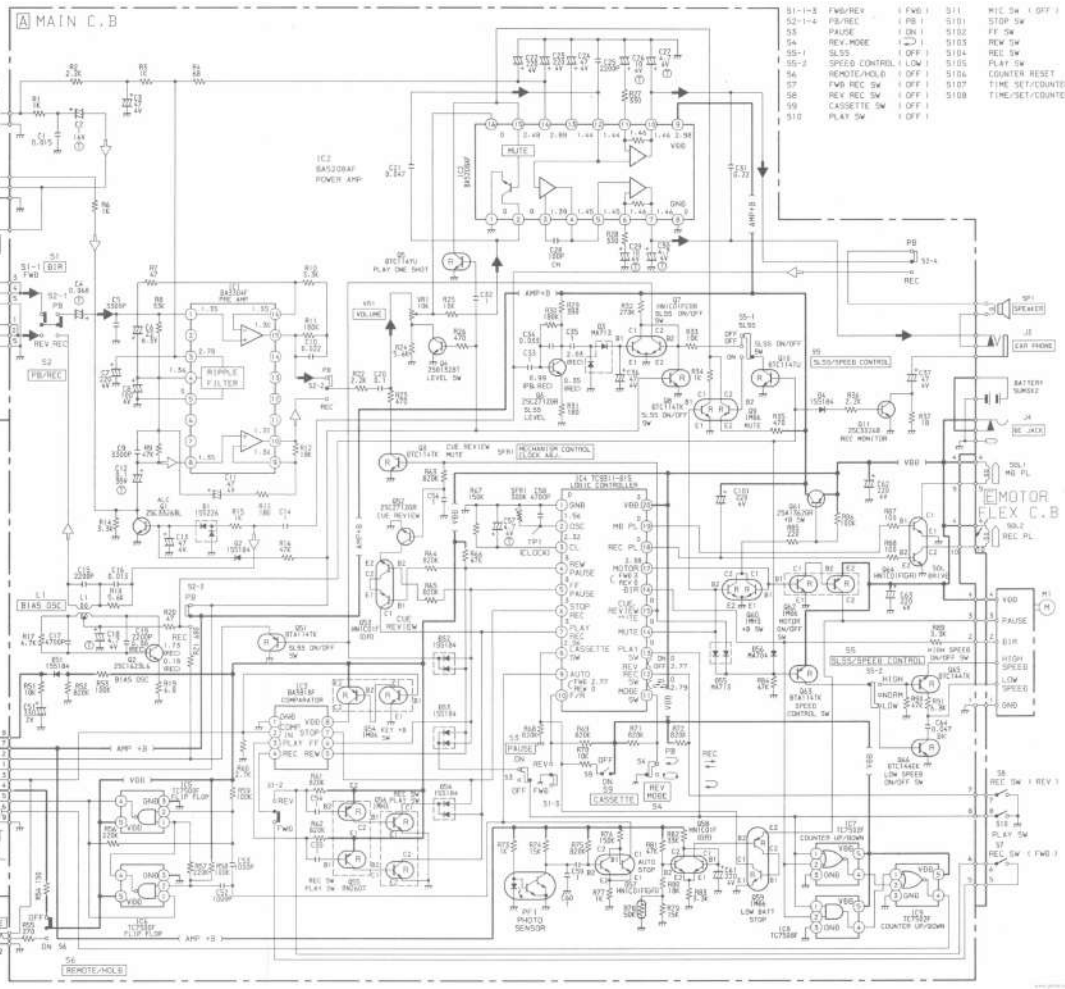
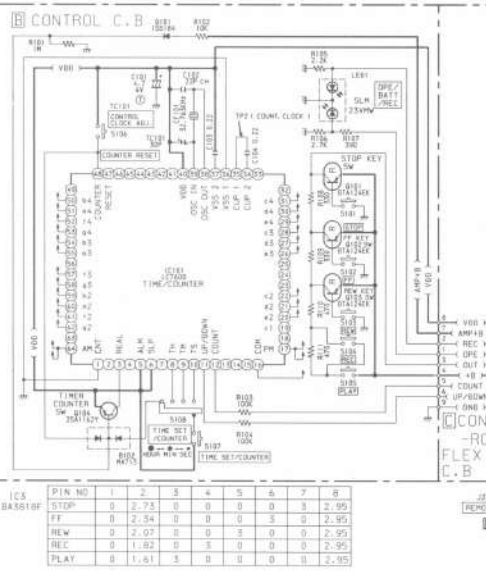
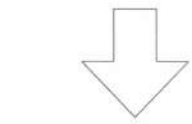
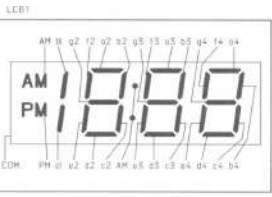
The oscillation frequency becomes unstable due to heat generated when soldering the externally attached circuits. Leave the unit until the frequency becomes stable, then adjust it.

REF.NO.	PART NO.	DESCRIPTION
A	87-263-500-31	V+1.4-1.4
B	87-067-649-01	V+1.4-1.6
C	87-067-527-01	V+1.4-2.5(B)
D	87-262-525-31	V+1.7-2.5(B)
E	87-067-384-01	VT+1.4-3.5
F	87-067-492-01	HINGE SCREW +1.4-1.5(B)
G	87-067-388-01	SPECIAL SCREW +1.4-0.8-1
H	87-067-549-01	SPECIAL SCREW +1.4-1.6(B)
I	87-067-359-01	SPECIAL SCREW +1.4-2.5(B)
J	87-067-437-01	SCREW SERRATE +1.4-1.5(B)



MECHANICAL PARTS LIST

PART NO. CHANGED TO	REF. NO.	PART NO.	DESCRIPTION	COMMON MODEL	Q, TY
	1-1	*09-027-727-010	CASSETTE LID ASSY	*	1
	1-2	*84-431-026-010	FOOT RUBBER		3
	1-3	*84-512-209-010	HOLDER LCD	*	1
	1-4	*84-512-210-010	CONNECTOR RUBBER	*	2
	1-5	*84-512-208-010	COVER LCD	*	1
	1-6	*84-512-012-010	SLIDE KNOB B	*	1
	1-7	*84-512-220-010	INSULATION SHEET	*	1
	1-8	*84-512-225-010	CUSHION F	*	1
	1-9	*84-512-201-010	CASSETTE HOLDER	*	1
	1-10	*84-512-202-010	ARM SLIDE ASSY	*	1
	1-11	84-512-010-010	LID, BATTERY	*	1
	1-12	*84-512-003-010	REAR CABINET	*	1
	1-13	*84-512-014-010	MIC KNOB	*	1
	1-14	*84-500-203-110	LEVER OPEN		1
	1-15	*84-512-009-010	EJECT KNOB	*	1
	1-16	*84-500-217-010	E-SPRING, OPEN		1
	1-17	*84-512-224-010	SHAFT CASSETTE LID	*	1
	1-18	*84-512-002-010	CENTER FRAME	*	1
	1-19	*84-512-223-010	MYLAR DIRECTION	*	1
	1-20	*84-512-015-010	DIRECTION PLATE	*	1
	1-21	*84-512-011-010	MIC COVER	*	1
	1-22	*84-512-008-010	SLIDE KNOB A	*	3
	1-23	*84-512-016-010	SLIDE KNOB C	*	1
	1-24	*84-512-207-010	BATTERY TERMINAL	*	1
	1-25	*84-512-205-010	C-SPRING, BATTERY	*	1
	1-26	*84-512-020-010	VOLUME KNOB A	*	1
	1-27	84-513-221-010	REEL MIC ASSY		1
	1-28	*84-512-206-010	SPEAKER HOLDER	*	1
	1-29	*84-512-222-010	MYLAR SHEET	*	1
	1-30	*84-512-221-010	PLATE SHEET	*	1
	1-31	*84-512-238-010	S CUSHION	*	1
	1-32	*84-512-021-110	LABEL SPEC	*	1
	1-33	*84-512-236-010	G CUSHION 30-5-2.5	*	1
	1-34	*84-512-234-010	SHEET CASSETTE	*	1
		*09-027-728-010	APPEARANCE SCREW KIT	*	1



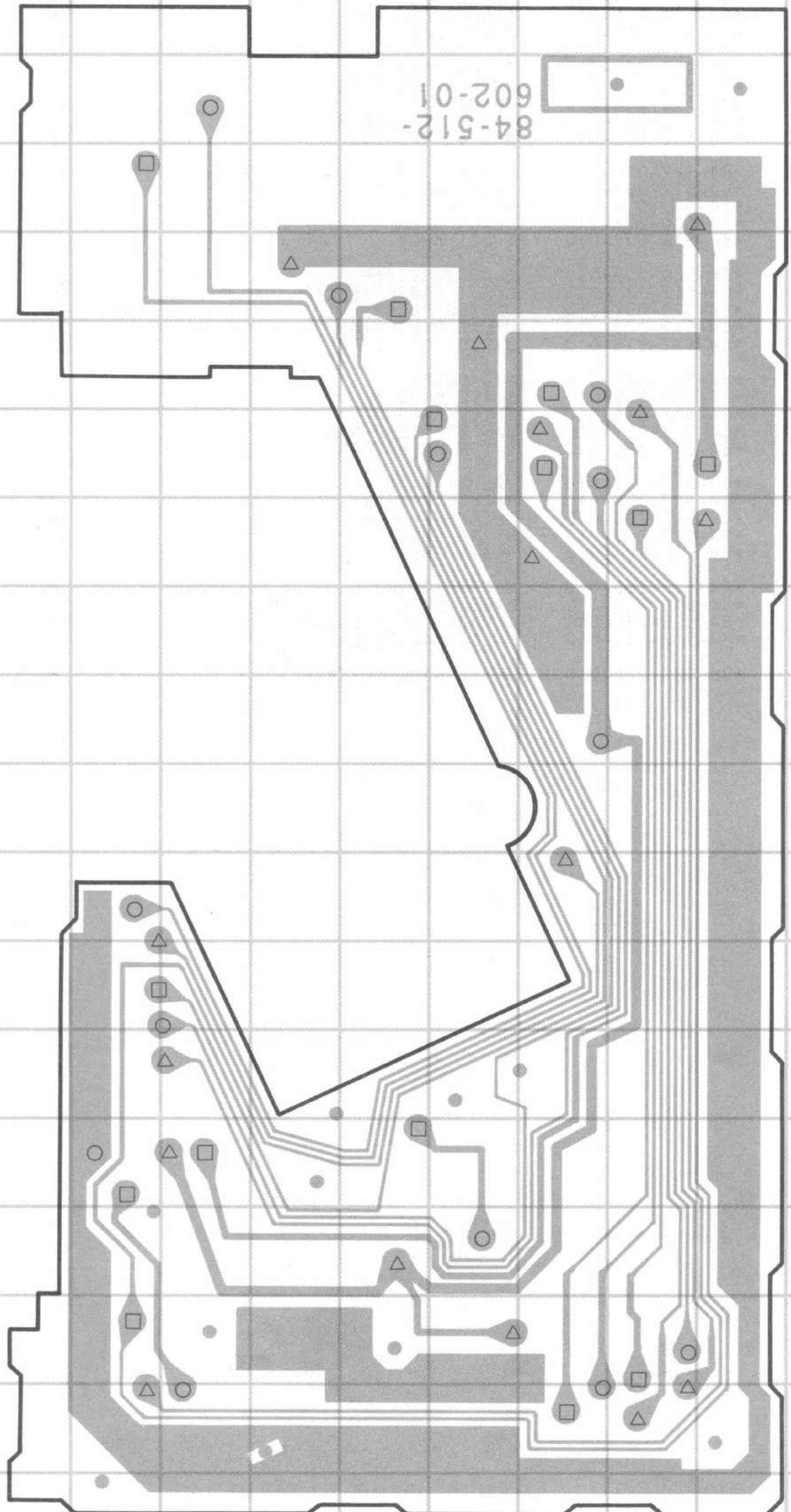
51-1-8	FWD/REV	(FWD)	511	REC SW (OFF)
52-1-4	PAUSE	(PB)	510	STOP SW
53	PAUSE	(ON)	5102	FF SW
54	REV/MODE	(C)	5103	REW SW
55-1	SLSS	(OFF)	5104	REC SW
56-2	SPEED CONTROL	(LOW)	5105	PLAY SW
57	REMOTE/HOLD	(OFF)	5106	COUNTER RESET
58	FWD REC SW	(OFF)	5107	TIME SET/COUNTER
59	REV REC SW	(OFF)	5108	TIME SET/COUNTER
510	PLAY SW	(OFF)		

ELECTRICAL MAIN PARTS LIST

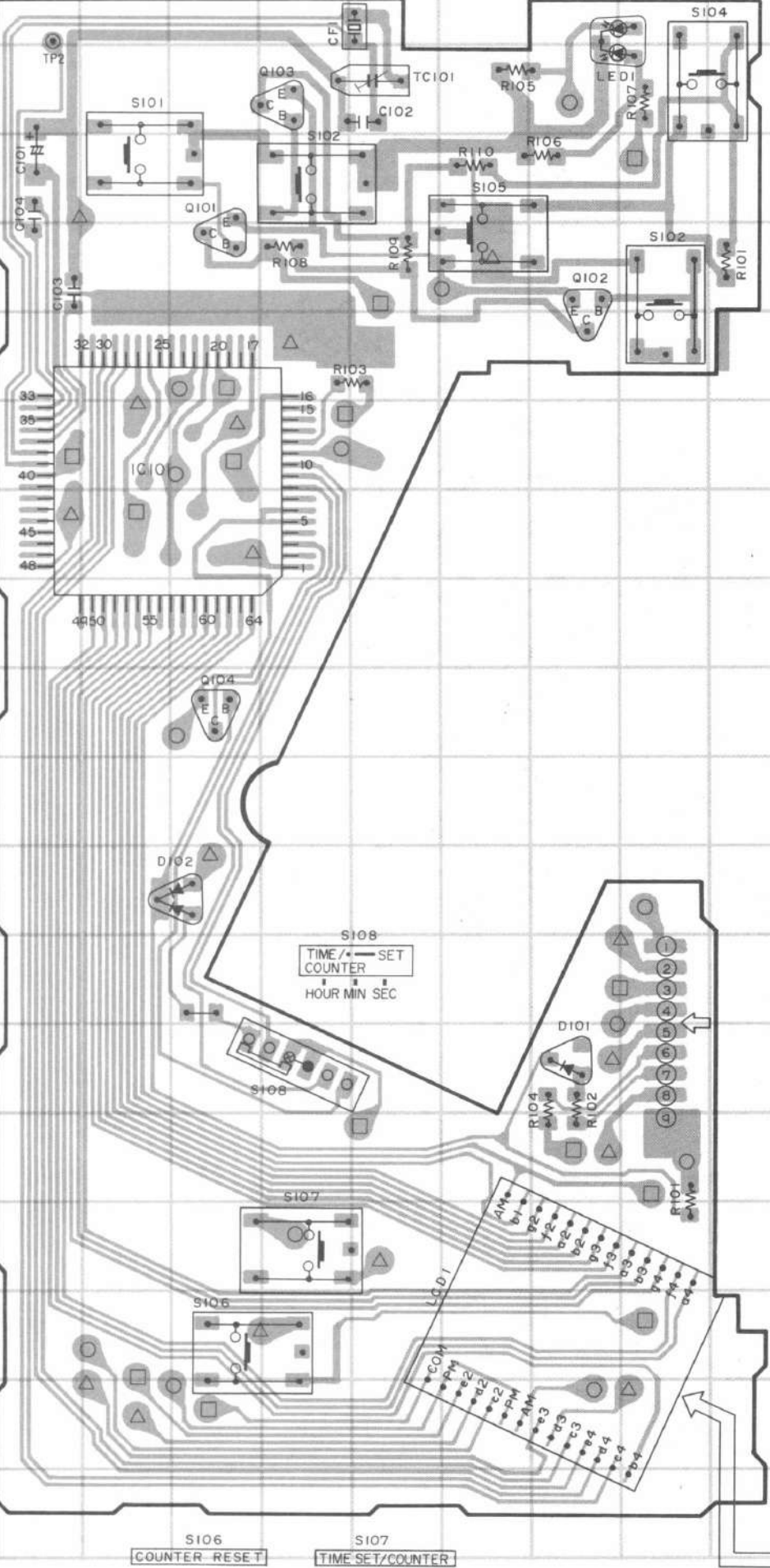
REF.NO.	PART NO.	DESCRIPTION	REF.NO.	PART NO.	DESCRIPTION
--- IC ---			C32	*87-010-452-010	CAP,CHIP 1-16 F
	87-020-912-010	IC,BA3304F	C33	*87-010-452-010	CAP,CHIP 1-16 F
	87-020-498-010	IC,BA3818F	C34	*87-010-193-010	CAP,CHIP S 0.033-25 F
	87-020-326-010	IC,BA5208AF	C35	*87-010-452-010	CAP,CHIP 1-16 F
	87-001-621-010	IC,LC7600	C36	*87-010-473-010	CAP,CHIP ELECT 47-4
	87-001-583-010	IC,TC7S00F	C37	*87-010-732-010	CAP,CHIP ELECT 47-4
	87-001-584-010	IC,TC7S02F	C51	*87-010-701-010	CAP,CHIP ELECT 330-2
	87-001-551-010	IC,TC7S08F	C52	*87-010-178-010	CAP,CHIP S 1000P-50 B
	87-001-625-010	IC,TC9311F-015	C53	*87-010-178-010	CAP,CHIP S 1000P-50 B
--- TRANSISTOR ---			C54	*87-010-452-010	CAP,CHIP 1-16 F
	89-111-624-010	TRANSISTOR,2SA1162Y(TE-85R)	C55	*87-010-452-010	CAP,CHIP 1-16 F
	89-113-625-010	TRANSISTOR,2SA1362GR	C56	*87-010-452-010	CAP,CHIP 1-16 F
	89-316-236-010	TRANSISTOR,2SC1623L6	C57	*87-010-424-010	CAP,CHIP TANTAL 4.7-4
	89-327-125-010	TRANSISTOR,2SC2712 GR	C58	*87-010-186-010	CAP,CHIP S 4700P-50 B
	89-333-266-010	TRANSISTOR,2SC3326B	C59	*87-010-452-010	CAP,CHIP 1-16 F
	89-413-284-010	TRANSISTOR,2SD1328T	C60	*87-010-452-010	CAP,CHIP 1-16 F
	87-026-233-010	TRANSISTOR,DTA114TK	C61	*87-010-477-010	CAP,CHIP ELECT 220-4
	87-026-228-010	TRANSISTOR,DTA124EK	C62	*87-010-477-010	CAP,CHIP ELECT 220-4
	87-026-239-010	TRANSISTOR,DTC114TK	C63	*87-010-477-010	CAP,CHIP ELECT 220-4
	87-026-350-010	TRANSISTOR,DTC114TU	C64	*87-010-749-010	CAP,S 0.047-25 B
	87-026-295-010	TRANSISTOR,DTC144TK	J1	87-049-042-010	MIC JACK(MIC)
	87-026-467-010	TRANSISTOR,HN1C01F GR	J2	87-049-724-010	JACK,DIA3.5(BLK)(REMOTE)
	87-026-358-010	TRANSISTOR,IMD6	J3	87-049-042-010	MIC JACK(EARPHONE)
	87-026-461-010	TRANSISTOR,IMH3	J4	87-049-859-010	JACK,DC(DC JACK)
	87-026-478-010	TRANSISTOR,RN2607	L1	87-007-193-010	COIL,OSC BIAS
--- DIODE ---			PF1	87-001-367-010	PHOTO SENSOR SP1315-05-CD
	87-020-027-010	DIODE,CHIP 1SS184	R78	*87-026-244-010	THERMISTOR,NTH 1021A
	87-020-339-010	DIODE,CHIP 1SS226	S1	84-438-611-010	SLIDE SW(FWD/REV)
	87-020-734-010	DIODE,CHIP MA704	S2	84-438-611-010	SLIDE SW(PB/REC)
	87-020-737-010	DIODE,CHIP MA713	S3	87-036-123-010	SLIDE SW(PAUSE)
--- MAIN CIRCUIT BOARD SECTION ---			S4	87-036-123-010	SLIDE SW(REV MODE)
C1	*87-012-287-010	CAP,CHIP SS 0.015-25 F	S5	87-036-154-010	SLIDE SW(SLSS/SPEED CONTROL)
C2	*87-010-505-010	CAP,CHIP TANTAL 1-16	S6	87-036-123-010	SLIDE SW(REMOTE/HOLD)
C3	*87-010-473-010	CAP,CHIP ELECT 47-4	S9	87-036-144-010	PUSH SW(CASSETTE)
C4	*87-010-273-010	CAP,CHIP TANTAL 0.068-35	SFR1	*87-001-622-010	SFR 300K
C5	*87-010-184-080	CAP,CHIP S 3300P-50 B	VR1	87-024-046-010	VOLUME,10KA(VOLUME)
C6	*87-010-662-080	CAP,CHIP ELECT 22-6.3	--- CONTROL CIRCUIT BOARD SECTION ---		
C7	*87-010-477-010	CAP,CHIP ELECT 220-4	C101	*87-010-424-010	CAP,CHIP TANTAL 4.7-4
C8	*87-010-476-010	CAP,CHIP ELECT 100-4	C102	*87-010-314-010	CAP,CHIP S 22P-50 CH
C9	*87-010-193-010	CAP,CHIP S 0.033-25 F	C103	*87-012-141-010	CAP,CHIP S 0.22
C10	*87-010-198-010	CAP,CHIP S 0.022-25 B	C104	*87-012-141-010	CAP,CHIP S 0.22
C11	*87-010-473-010	CAP,CHIP ELECT 47-4	CF101	*81-583-636-010	XTAL 32.768KHZ
C12	*87-015-922-010	CAP,CHIP TANTAL 0.1-35	LCD1	84-512-611-010	LCD(DISPLAY)
C13	*87-010-473-010	CAP,CHIP ELECT 47-4	LED1	87-020-510-010	LED SLM-23VM(OPE/BATT)
C14	*87-010-452-010	CAP,CHIP 1-16 F	S101	87-030-152-010	TACT SW(STOP)
C15	*87-010-182-010	CAP,CHIP S 2200P-50 B	S102	87-030-152-010	TACT SW(FF)
C17	*87-010-186-010	CAP,CHIP S 4700P-50 B	S103	87-030-152-010	TACT SW(REW)
C18	*87-010-424-010	CAP,CHIP TANTAL 4.7-4	S104	87-030-152-010	TACT SW(REC)
C19	*87-010-182-010	CAP,CHIP S 2200P-50 B	S105	87-030-152-010	TACT SW(PLAY)
C20	*87-010-196-010	CAP,CHIP S 0.1-25 F	S106	87-030-152-010	TACT SW(COUNTER SET)
C21	*87-010-757-010	CAP,CHIP SS 0.047-25F	S107	87-030-152-010	TACT SW(TIME SET)
C22	*87-010-477-010	CAP,CHIP ELECT 220-4	S108	87-036-146-010	SLIDE SW(TIME SET)
C23	*87-010-477-010	CAP,CHIP ELECT 220-4	TC101	*87-011-192-010	TRIMER,CHIP CTZ30C
C24	*87-010-473-010	CAP,CHIP ELECT 47-4	--- HEAD FLEX. CIRCUIT BOARD SECTION ---		
C25	*87-010-182-010	CAP,CHIP S 2200P-50 B		84-497-609-010	HEAD FLEXIBLE CIRCUIT BOARD
C26	*87-010-746-010	CAP,CHIP TANTAL 10-4		84-550-602-010	HEAD ASSY
C27	*87-010-424-010	CAP,CHIP TANTAL 4.7-4	RPH	84-497-607-010	HEAD ASSY(W/PCB-D)
C28	*87-010-322-010	CAP,CHIP S 100P-50 CH	--- MOTOR GOVERNOR CIRCUIT BOARD SECTION ---		
C29	*87-010-746-010	CAP,CHIP TANTAL 10-4	M1	M8-655-412-010	ABL-3M(W/PCB-H)
C30	*87-010-424-010	CAP,CHIP TANTAL 4.7-4	--- MISCELLANEOUS ---		
C31	*87-012-141-010	CAP,CHIP S 0.22			

B CONTROL C.B

84-512-
602-01

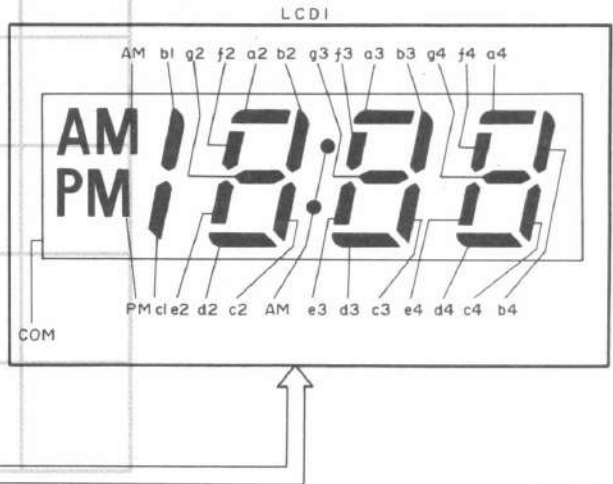
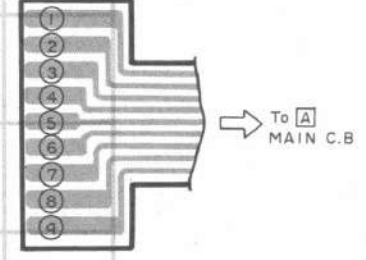


B CONTROL C.B

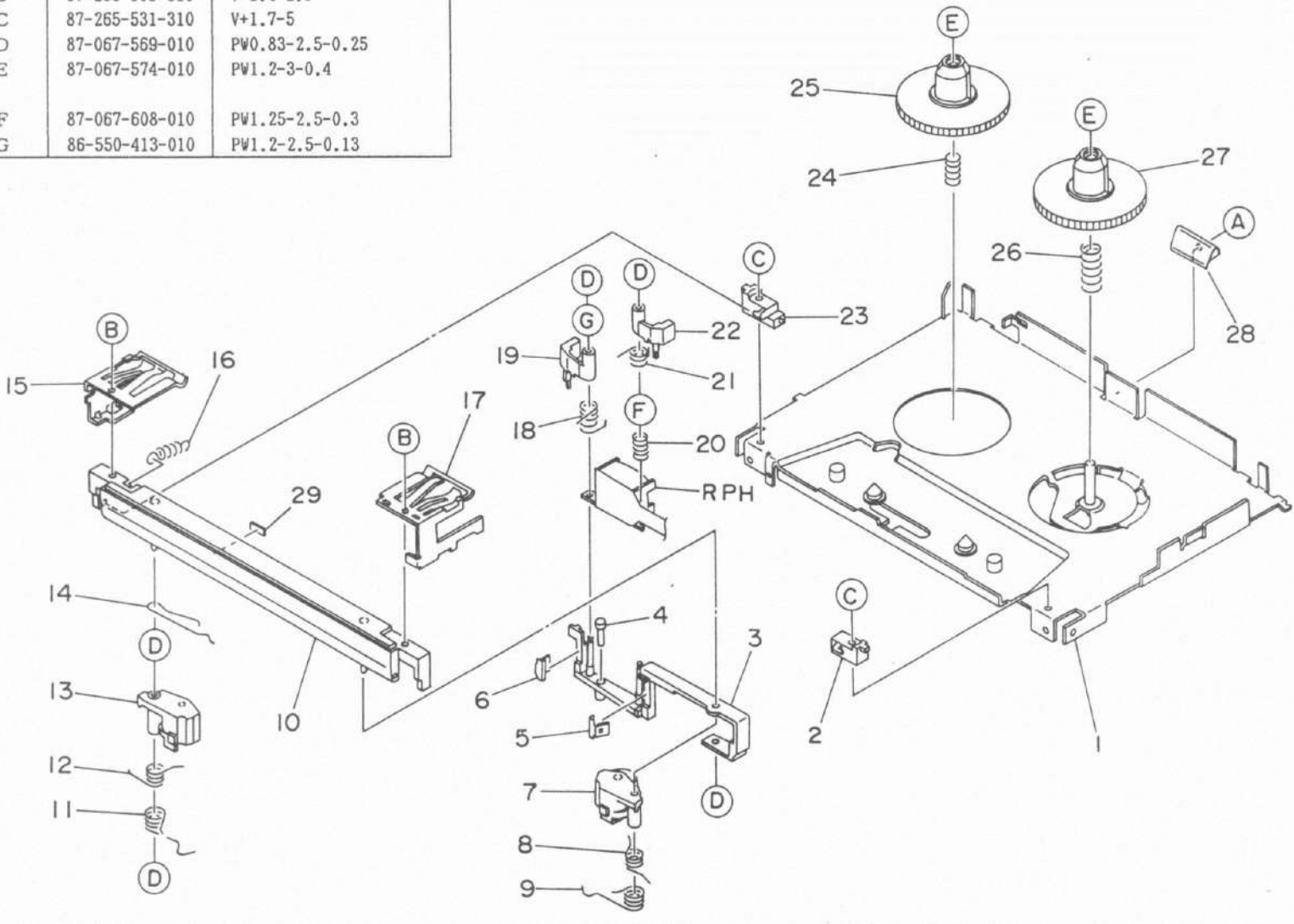


- S104 RECORD
- LED1 OPE/BATT/REC
- S101 STOP/DIR
- S105 PLAY/DIR
- S103 REW/REVIEW
- S102 FF/CUE

C CONTROL FLEX. CB (2/2)



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	87-067-574-010	PW1.2-3-0.4
F	87-067-608-010	PW1.25-2.5-0.3
G	86-550-413-010	PW1.2-2.5-0.13



PART NO. CHANGED TO	REF. NO.	PART NO.	DESCRIPTION	COMMON MODEL	Q, TY
	2-1	*86-550-360-110	CHASSIS ASSY	*	1
	2-2	*86-550-289-110	HOLDER R	*	1
	2-3	*86-550-333-010	ARM HEAD REC ASSY	*	1
	2-4	*86-550-335-010	SHAFT AZIMUTH	*	1
	2-5	*86-550-359-010	SHEET EH R	*	1
	2-6	*86-550-352-010	SHEET EH L	*	1
	2-7	86-550-224-010	PINCH R ASSY	*	1
	2-8	*86-550-275-010	T-SPRING,PLAY BACK R	*	1
	2-9	*86-550-346-010	T-SPRING,PINCH RJ	*	1
	2-10	*86-550-219-010	CASSETTE HOLDER ASSY	*	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	86-550-222-010	PINCH LEVER L ASSY	*	1
	2-14	*86-550-343-010	T-SPRING,HEAD BACK	*	1
	2-15	*86-550-216-010	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	*86-550-319-010	T-SPRING,AZIMUTH	*	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 R	*	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	*86-550-240-010	GEAR REEL L	*	1
	2-26	*86-550-374-010	C-SPRING,REEL GEAR R	*	1
	2-27	*86-550-285-010	GEAR REEL R	*	1
	2-28	*86-550-218-010	P-SPRING,CASSETTE	*	1
	2-29	*87-063-148-010	PINCH CUSHION	*	1

DISASSEMBLY INSTRUCTIONS

1. Rear Cabinet Removal (see Figure 1)

- 1) Pull out the reel microphone and remove the microphone holder in the direction of arrow ① using tweezers, etc.
- 2) Remove 5 screws (A) × 2, (B) × 2, (C) × 1 and then remove the rear cabinet in the direction of arrow ②.

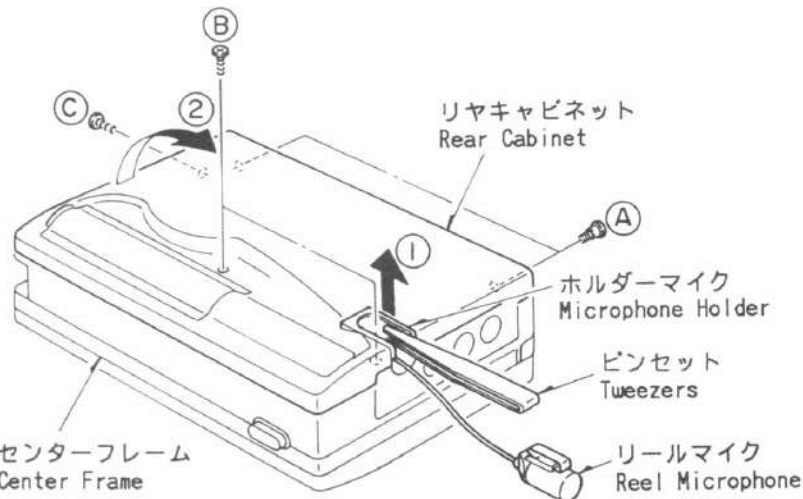


Fig-1

2. Main Circuit Board Removal (See Figure 2)

- 1) Remove 2 screws (A).
- 2) Remove the jack section, and, while pulling the center frame in the direction of arrow ①, remove the knobs from the switches, then lift the main circuit board in the direction of arrow ②.

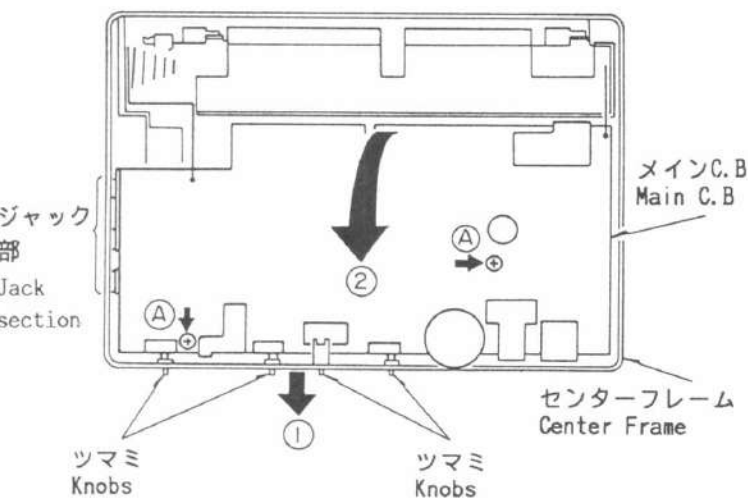


Fig-2

3. Center Frame Removal (see Figure 3)

- 1) Remove 2 screws (A) × 1, (B) × 1 and then remove the center frame in the direction of arrow ①.

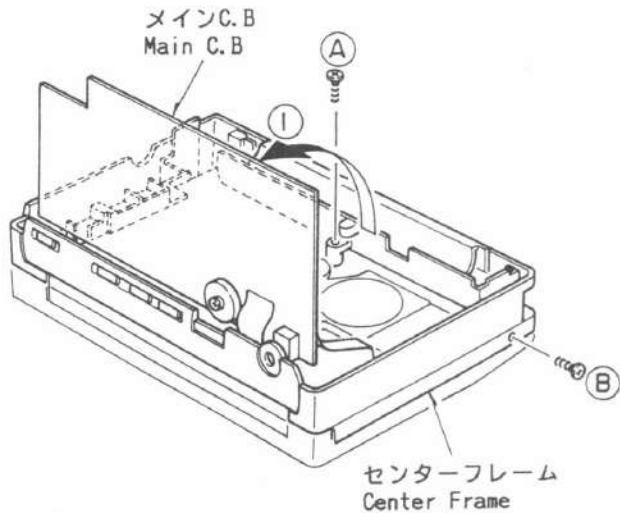
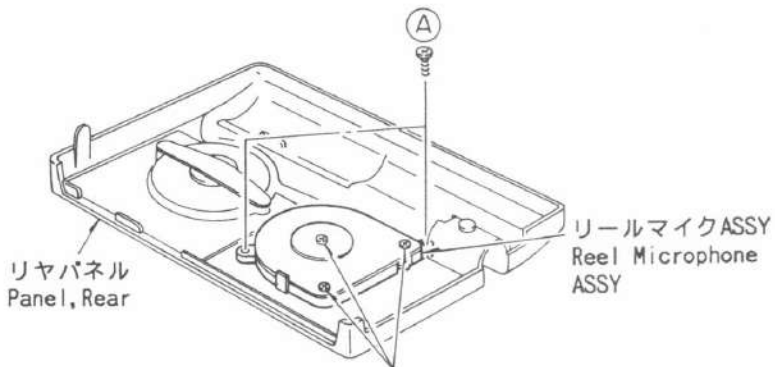


Fig-3

4. Reel Microphone ASSY Removal (see Figure 4)

- 1) Remove 2 screws (A) and remove the reel microphone ASSY.



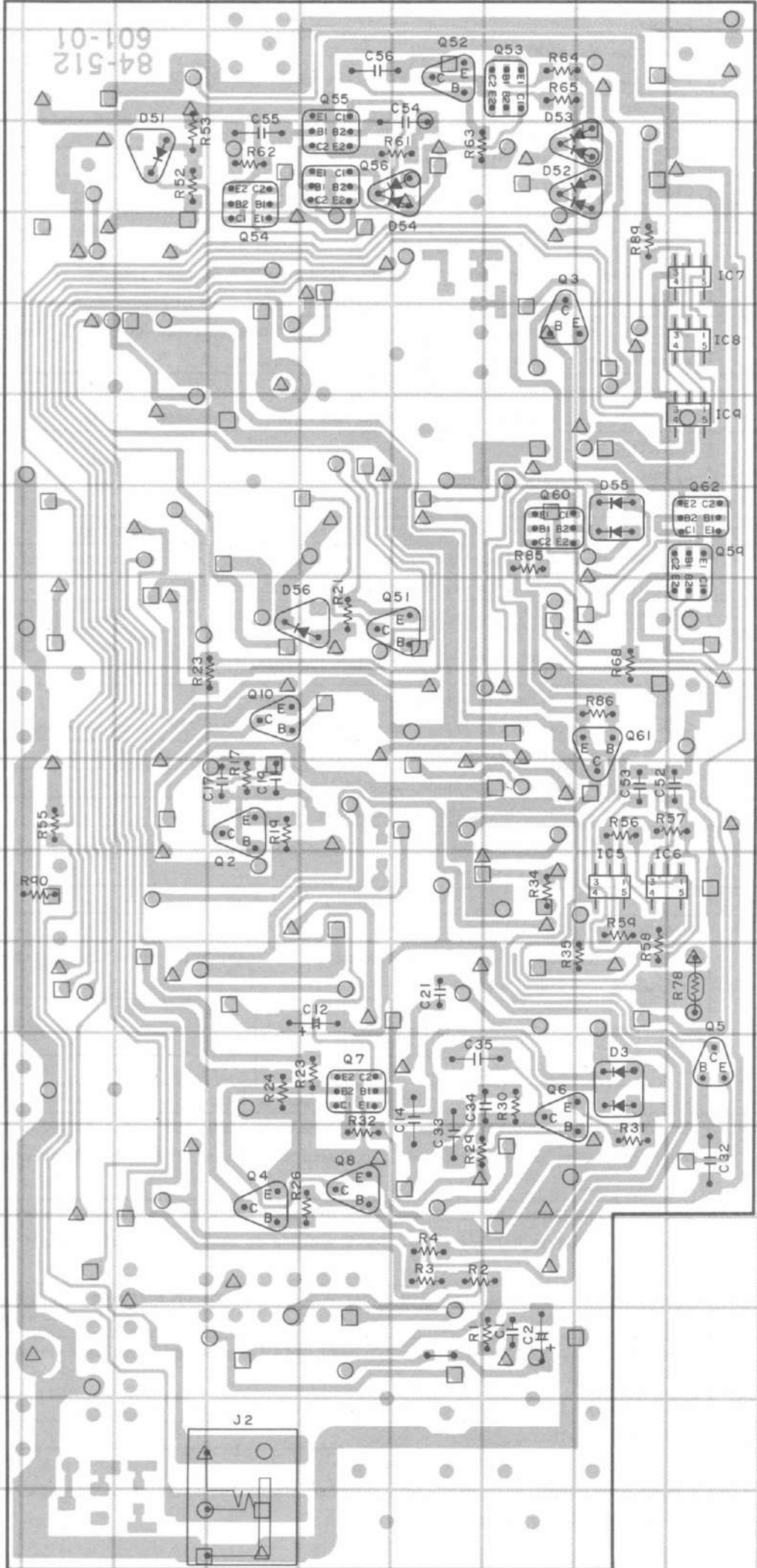
注) このビスははずさないで下さい。
Note) Do not remove this screw.

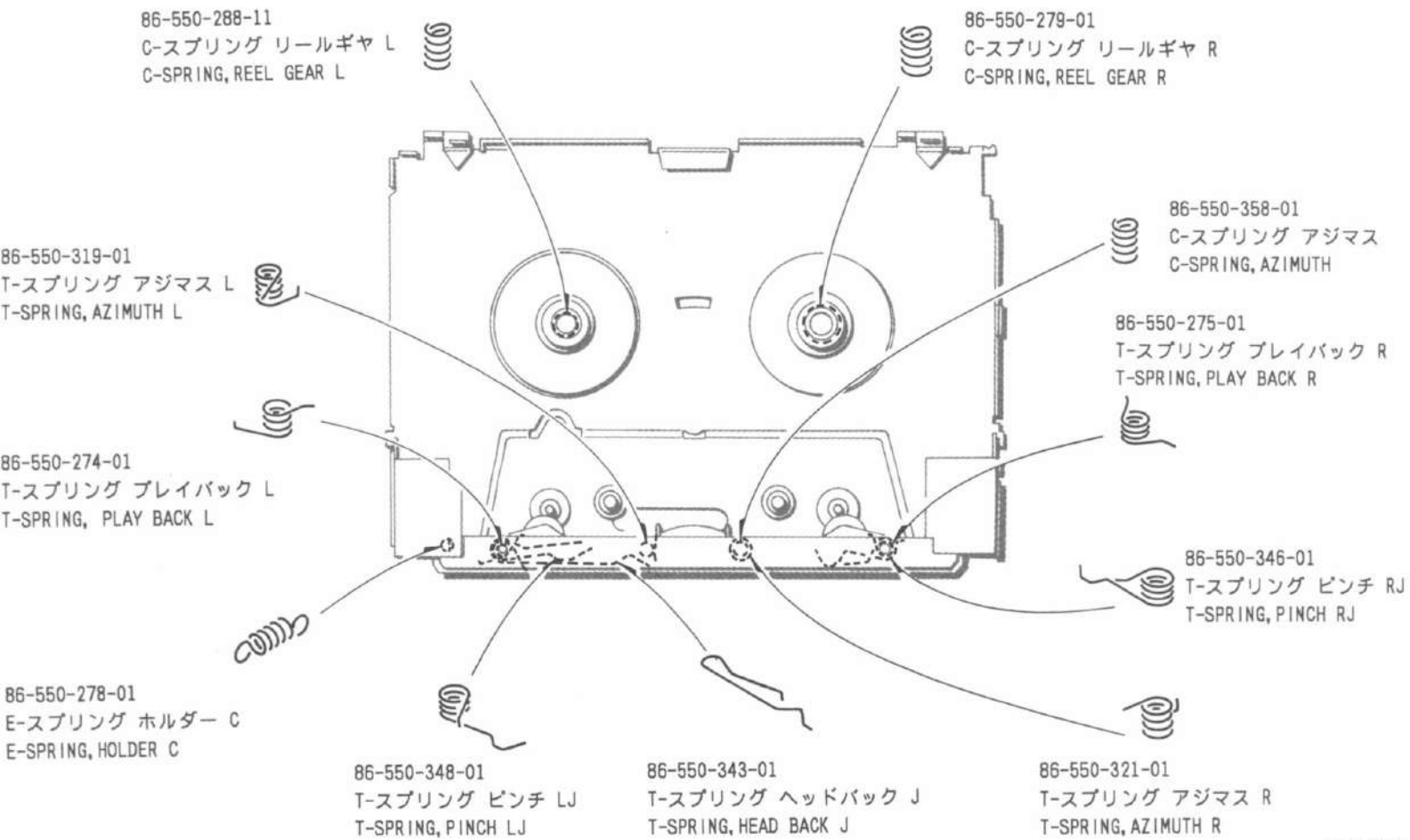
Fig-4

5. How to replace the motor and adjust the azimuth

- 1) Refer to items 4 and 5 in the chapter on disassembly of the HS-PX30, 303, 900.

A MAIN C.B





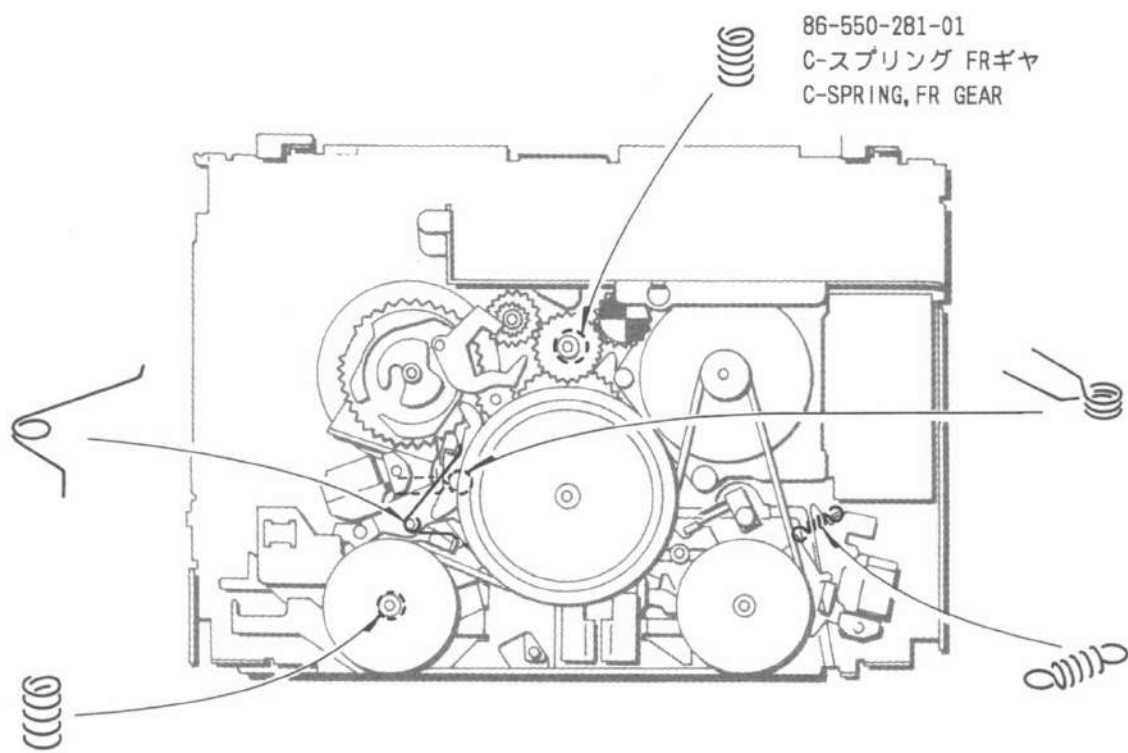
86-550-271-11
T-スプリング LS
T-SPRING, LS

86-550-372-01
C-スプリング フライホイール F
C-SPRING, FLYWHEEL F

86-550-281-01
C-スプリング FRギヤ
C-SPRING, FR GEAR

86-550-270-01
T-スプリング LP
T-SPRING, LP

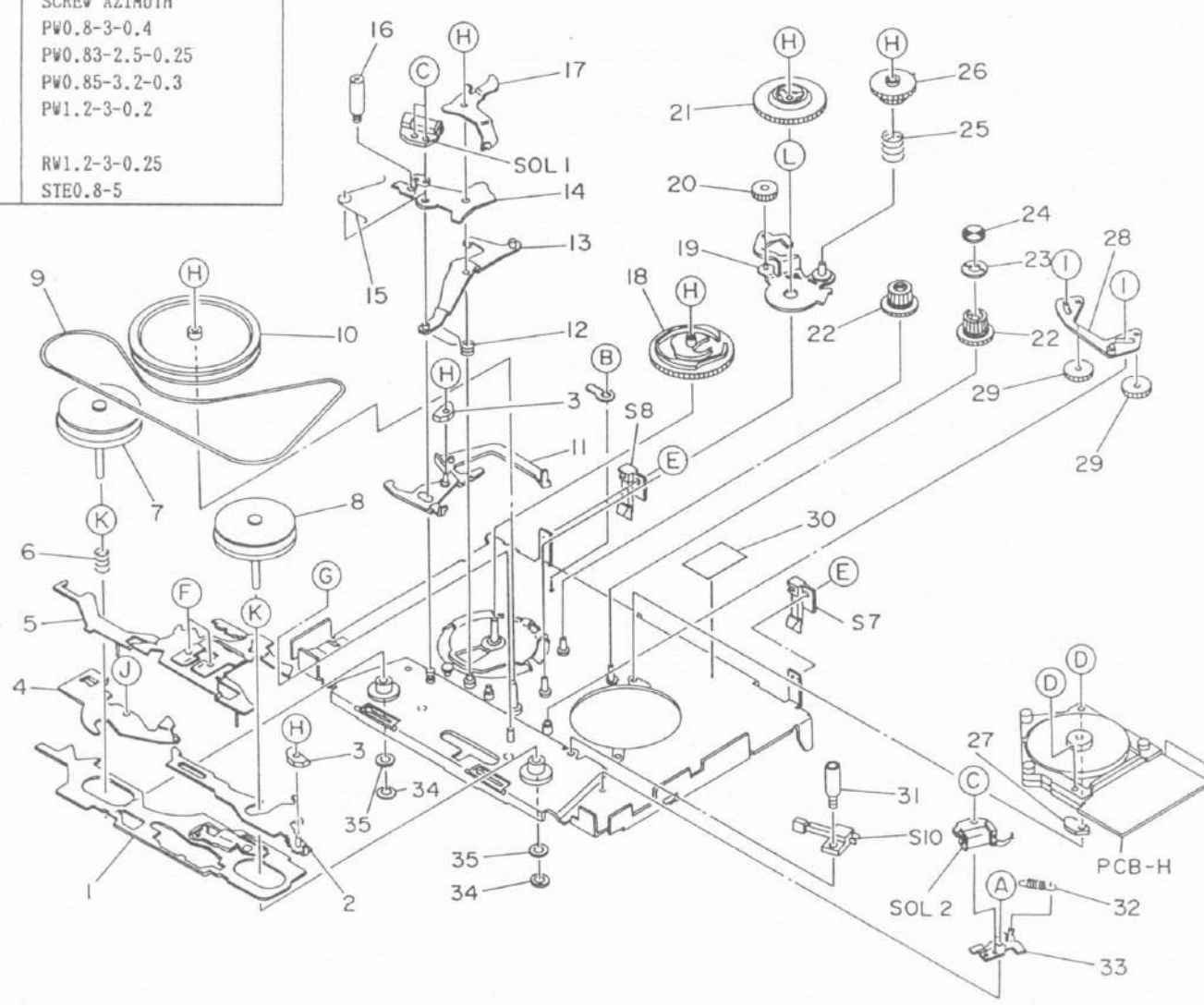
86-550-312-01
E-スプリング REC
E-SPRING, REC



ECM1	84-513-221-010	REEL MIC(W/MIC)
S7	86-550-603-010	LEAF SW(REC SW)
S8	86-550-603-010	LEAF SW(REC SW)
S10	86-536-468-010	LEAF SW(PLAY SW)
S11	87-036-144-010	PUSH SW(MIC SW)
SOL1	86-536-477-010	SOLENOID(MD PL)
SOL2	86-536-477-010	SOLENOID(REC PL)
SP1	84-512-612-010	SPEAKER DIA36

Wow & flutter :	Less than 0.45% (RMS)
Pinch roller pressure :	150±15 g-cm
Take up torque :	27+10 g-cm (FWD, REV)
FF torque :	80+70 g-cm
Rew torque :	80+70 g-cm
Back tension :	3±1 g-cm
S/N ratio :	More than 50dB
Distortion :	Less than 5%
Noise level :	4.5±2mV (VOL MAX)

REF.NO.	PART NO.	DESCRIPTION
A	87-067-300-11	V+1.4-1.1(B)
B	87-261-500-31	V+1.4-1.4
C	87-067-560-01	V+1.4-2.5
D	87-262-510-31	V+1.4-4.5(B)
E	87-067-511-01	SPECIAL SCREW M1.4-2
F	86-550-341-01	SCREW AZIMUTH
G	87-067-609-01	PW0.8-3-0.4
H	87-067-569-01	PW0.83-2.5-0.25
I	87-067-623-01	PW0.85-3.2-0.3
J	87-067-563-01	PW1.2-3-0.2
K	87-067-370-01	RW1.2-3-0.25
L	86-550-268-01	STE0.8-5



PART NO. CHANGED TO	REF. NO.	PART NO.	DESCRIPTION	COMMON MODEL	Q, TY
	3-1	*86-550-338-010	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	*86-550-311-010	LINK REC SW ASSY	*	1
	3-5	*86-550-304-010	LEVER HT M ASSY	*	1
	3-6	*86-550-372-010	C-SPRING, FLYWHEEL F	*	1
	3-7	*86-550-354-010	FLYWHEEL REC-T ASSY	*	1
	3-8	86-550-315-010	FLYWHEEL REC ASSY	*	1
	3-9	86-550-325-010	BELT J	*	1
	3-10	*86-550-242-010	GEAR PULLEY	*	1
	3-11	*86-550-211-110	LEVER SOLENOID ASSY	*	1
	3-12	*86-550-270-010	T-SPRING, L PCL	*	1
	3-13	*86-550-334-010	LEVER PLAY CL J ASSY	*	1
	3-14	*86-550-286-310	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	*86-550-204-110	LEVER LOCK	*	1
	3-18	*86-550-347-010	GEAR CAM REC	*	1
	3-19	*86-550-368-110	LEVER FR ASSY J	*	1
	3-20	*86-550-241-010	GEAR CAM C	*	1
	3-21	*86-550-232-010	GEAR SLIP ASSY	*	1
	3-22	*86-550-237-010	GEAR FR C	*	2
	3-23	*86-550-236-110	DISC AUTO M	*	1
	3-24	*86-550-610-010	SHEET AUTO M	*	1
	3-25	*86-550-281-010	C-SPRING, FR GEAR	*	1
	3-26	*86-550-238-010	GEAR FR	*	1
	3-27	*86-554-019-010	SPACER B		1
	3-28	*86-550-336-010	LEVER PLAY J ASSY	*	1
	3-29	*86-550-239-010	GEAR PLAY	*	2
	3-30	*86-550-367-010	MYLAR 14-17-0.05	*	1
	3-31	*86-550-292-110	SHAFT P SWITCH	*	1
	3-32	*86-550-312-010	E-SPRING, REC	*	1
	3-33	*86-550-317-010	REC PLATE SOLENOID	*	1
	3-34	*87-067-571-010	SOMA SHEET 0.8-2.6-0.3		2
	3-35	*87-067-656-010	SHEET 1.2-2.5-0.05		1