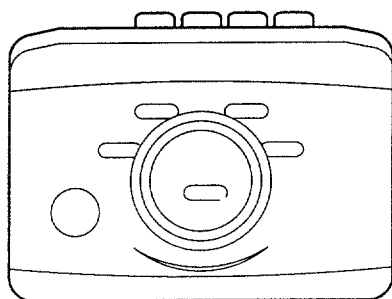


aiwa



HS-GS272 HS-GS372



STEREO CASSETTE PLAYER

• BASIC TAPE MECHANISM: 7ZM-5 P1N

• TYPE: YH,YVJ,YJ(272)

SPECIFICATIONS

Maximum output:	272 :
	20 mW + 20 mW (EIAJ 16Ω) 12 mW + 12 mW (EIAJ 32Ω)
	372 :
	15 mW + 15 mW (EIAJ 16Ω) 10 mW + 10 mW (EIAJ 32Ω)
Power source:	DC 3V using two R6 (size AA) batteries
	AC house current using an optional AC adaptor aiwa AC-300/AC-302<YVJ>
	AC house current using an optional AC adaptor aiwa AC-620/AC-302<YH,YJ>
Maximum dimensions (W x H x D):	114 x 86.4 x 32.7 mm (4 1/2 x 3 1/2 x 1 5/16 in.)
Weight:	Approx. 142 g (5 oz) (excluding batteries)

- Design and specifications are subject to change without notice.
- Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation.
"DOLBY" and the double-D symbol are trademarks of Dolby Laboratories Licensing Corporation.

ELECTRICAL MAIN PARTS LIST

If can't understand for Description please kindly refer to "REFERENCE NAME LIST".

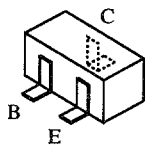
REF. NO.	PART NO.	KANRI NO.	DESCRIPTION	REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
IC				R103	87-022-198-080		C-RES,S 680-1/10W F<372 ONLY>
	87-A20-544-040		IC,MM1376AF<372 ONLY>	R104	87-022-198-080		C-RES,S 680-1/10W F<372 ONLY>
	87-A20-545-040		IC,MM1376BF<EXCEPT 372>	SFR201	87-A90-534-010		SFR,30K B VZ066L3
	87-A20-532-040		IC,LB1977M	SW1	87-A90-423-010		SW,LEAF
	87-001-875-080		C-IC,BA1106FS<372 ONLY>	SW101	87-A90-422-010		SW,SL 2-2-2
	87-017-906-080		C-IC,MM1206AFFE	SW102	87-036-123-010		C-SW,SL 1-1-2 SSSS81
TRANSISTOR				SW301	87-036-123-010		C-SW,SL 1-1-2 SSSS81<372 ONLY>
	87-026-264-080		C-TR,RN1411	TH201	87-A90-477-080		C-THMS,157-502-53002-TP
	89-327-125-080		C-TR,2SC2712GR	VR101	87-024-555-010		VR,RTRY 20KAX2 1 H XV0102G
DIODE				MSP C.B			
	87-020-027-080		C-DIODE,1SS184	C401	87-010-186-080		C-CAP,S 4700P-50 K B
MAIN C.B				C402	87-010-186-080		C-CAP,S 4700P-50 K B
C1	87-010-503-040		CAP,E 220-4 M 5L SRE	C403	87-016-491-080		C-CAP,S 0.22-16 Z F
C2	87-010-501-040		CAP,E 47-4 M 5L SRE	C404	87-016-491-080		C-CAP,S 0.22-16 Z F
C101	87-010-177-080		C-CAP,S 820P-50 J SL	C405	87-016-462-080		C-CAP,S 1-16 Z F
C102	87-010-177-080		C-CAP,S 820P-50 J SL	C406	87-016-462-080		C-CAP,S 1-16 Z F
C103	87-010-501-040		CAP,E 47-4 M 5L SRE	C407	87-010-197-080		C-CAP,S 0.01-25 K B
C104	87-010-501-040		CAP,E 47-4 M 5L SRE	C408	87-010-197-080		C-CAP,S 0.01-25 K B
C105	87-010-428-080		C-CAP,S 0.015-25 B	C409	87-010-195-080		C-CAP,S 0.068-25 Z F C2012
C106	87-010-428-080		C-CAP,S 0.015-25 B	C410	87-010-195-080		C-CAP,S 0.068-25 Z F C2012
C107	87-016-462-080		C-CAP,S 1-16 Z F	C411	87-010-188-080		C-CAP,S 6800P-50 K B
C108	87-016-462-080		C-CAP,S 1-16 Z F	C412	87-010-188-080		C-CAP,S 6800P-50 K B
C109	87-016-462-080		C-CAP,S 1-16 Z F	C413	87-015-969-040		CAP,E 10-6.3 M 5L SRE
C110	87-016-462-080		C-CAP,S 1-16 Z F	C451	87-A10-264-080		C-CAP,S 0.1-16 Z F
C111	87-010-180-080		C-CAP,S 1500P-50 K B	C452	87-016-462-080		C-CAP,S 1-16 Z F<372 ONLY>
C112	87-010-180-080		C-CAP,S 1500P-50 K B	LED471	87-A90-276-080		C-LED,SML-210MT GRN
C118	87-A10-264-080		C-CAP,S 0.1-16 Z F	LED472	87-A90-277-080		C-LED,SML-210DT ORN
C119	87-010-499-040		CAP,E 22-6.3 M 5L SRE	LED473	87-A90-278-080		C-LED,SML-210VT RED
C120	87-010-194-080		C-CAP,S 0.047-25 Z F	SW401	87-036-146-080		C-SW,SL 1-1-4 SSSS81
C121	87-010-503-040		CAP,E 220-4 M 5L SRE	HEAD FLEX C.B			
C122	87-010-197-080		C-CAP,S 0.01-25 K B	PH1	87-A90-435-010		HEAD ASSY 7ZM-5
C123	87-012-158-080		C-CAP,S 390P-50 J CH GRM				
C124	87-012-158-080		C-CAP,S 390P-50 J CH GRM				
C125	87-010-197-080		C-CAP,S 0.01-25 K B				
C151	87-A10-264-080		C-CAP,S 0.1-16 Z F				
C202	87-A10-264-080		C-CAP,S 0.1-16 Z F				
C203	87-016-526-080		C-CAP,S 0.47-16 BK				
C204	87-010-992-080		C-CAP,S 0.047-25 K B MK212				
C205	87-016-669-080		C-CAP,S 0.1-25 K B				
C206	87-016-669-080		C-CAP,S 0.1-25 K B				
C207	87-016-669-080		C-CAP,S 0.1-25 K B				
C208	87-010-503-040		CAP,E 220-4 M 5L SRE				
C209	87-A10-201-080		C-CAP,S 0.33-16 K B				
C210	87-A10-264-080		C-CAP,S 0.1-16 Z F				
C221	87-016-669-080		C-CAP,S 0.1-25 K B				
C301	87-010-193-080		C-CAP,S 0.033-25 Z F<372 ONLY>				
C302	87-010-193-080		C-CAP,S 0.033-25 Z F<372 ONLY>				
C303	87-010-186-080		C-CAP,S 4700P-50 K B<372 ONLY>				
C304	87-010-186-080		C-CAP,S 4700P-50 K B<372 ONLY>				
C305	87-010-197-080		C-CAP,S 0.01-25 K B<372 ONLY>				
C306	87-010-197-080		C-CAP,S 0.01-25 K B<372 ONLY>				
C307	87-010-193-080		C-CAP,S 0.033-25 Z F<372 ONLY>				
C308	87-010-193-080		C-CAP,S 0.033-25 Z F<372 ONLY>				
C309	87-A10-264-080		C-CAP,S 0.1-16 Z F<372 ONLY>				
C310	87-A10-264-080		C-CAP,S 0.1-16 Z F<372 ONLY>				
C311	87-016-462-080		C-CAP,S 1-16 Z F<372 ONLY>				
C312	87-016-462-080		C-CAP,S 1-16 Z F<372 ONLY>				
C313	87-010-501-040		CAP,E 47-4 M 5L SRE<372 ONLY>				
C901	87-016-526-080		C-CAP,S 0.47-16 BK				
J1	87-A60-122-010		JACK,DC 3.8 W/SW				
J101	85-HRL-623-010		JACK,3.5 BLK ST BLK				
R101	87-022-340-080		C-RES,S 470-1/10W F<372 ONLY>				
R102	87-022-340-080		C-RES,S 470-1/10W F<372 ONLY>				

ACCESSORIES / PACKAGE LIST

If can't understand for Description please kindly refer to "REFERENCE NAME LIST".

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	87-HG6-903-010		IB, EX-ERPOHCZ<YVJ>
1	87-HG7-902-010		IB, EX-ESC<272YH, YJ>
1	87-HG6-902-010		IB, EX-ESC<372YH>
2	87-080-029-010		CLIP ASSY, BELT
3	87-B30-042-010		HEADPHONE, HP-24NSH<EXCEPT YVJ>
3	87-B30-081-010		HEADPHONE, HP-M009(S)<YVJ ONLY>

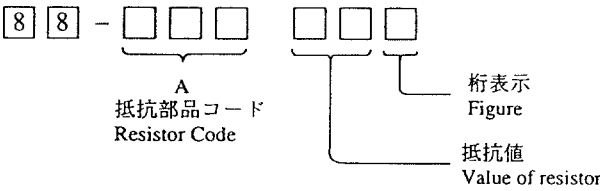
TRANSISTOR ILLUSTRATION



2SC2712
RN1411

○ チップ抵抗部品コード / CHIP RESISTOR PART CODE

チップ抵抗部品コードの成り立ち
Chip Resistor Part Coding

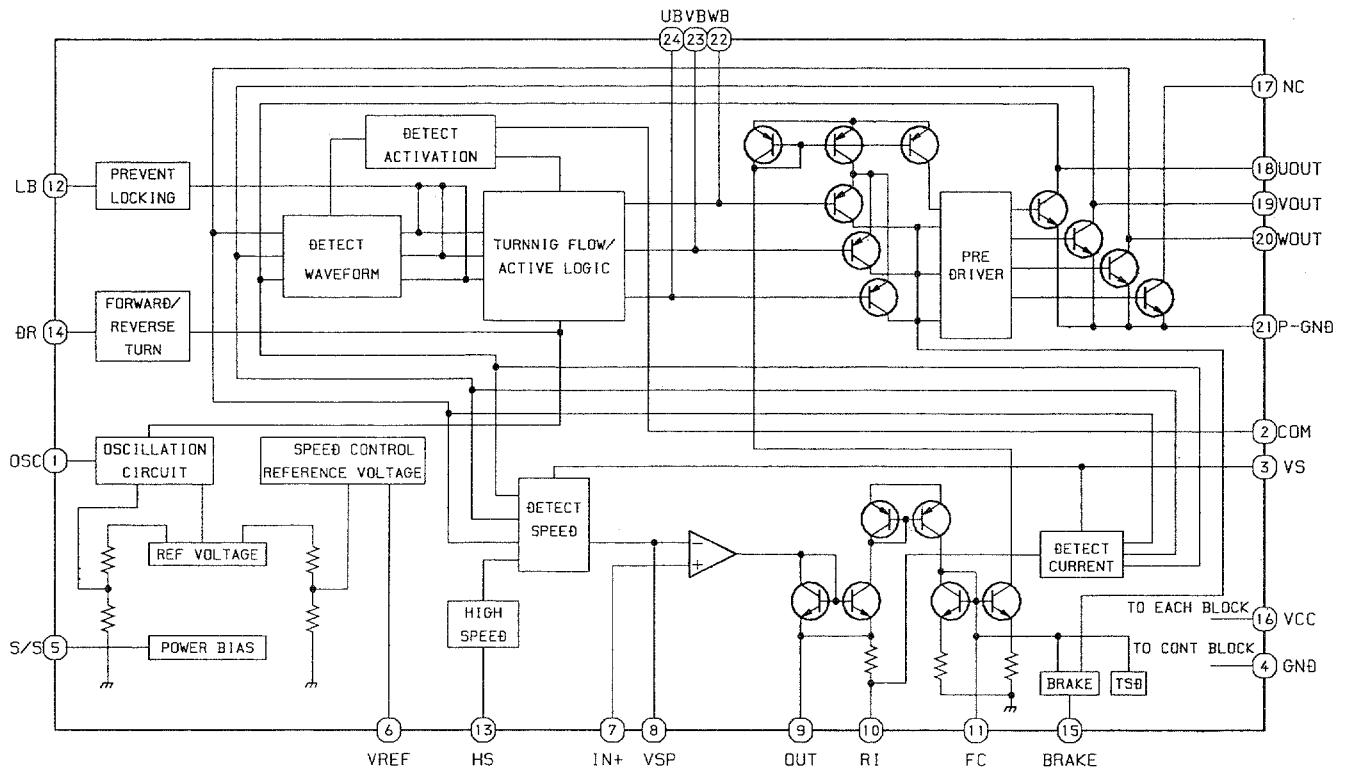


チップ抵抗
Chip resistor

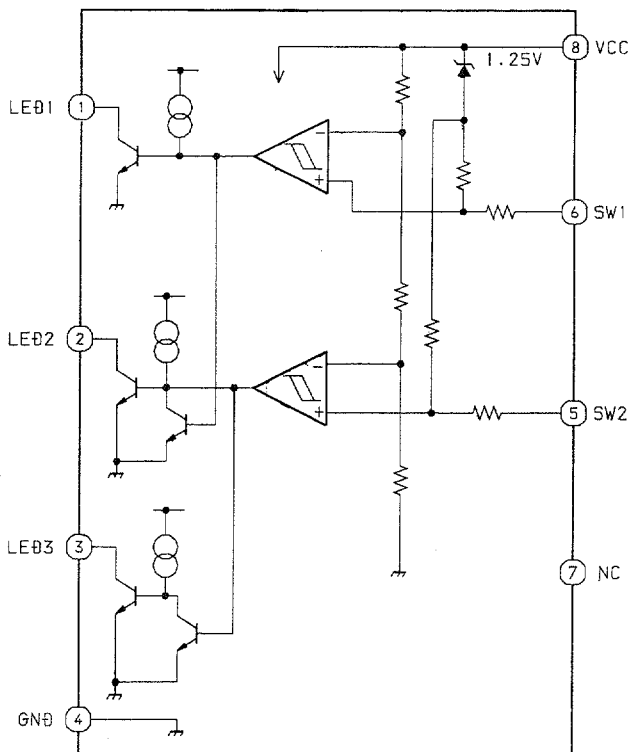
容量 Wattage	種類 Type	許容誤差 Tolerance	記号 Symbol	寸法 / Dimensions (mm)				抵抗コード : A Resistor Code: A
				外形 / Form	L	W	t	
1 / 16W	1608	± 5 %	CJ		1.6	0.8	0.45	108
1 / 10W	2125	± 5 %	CJ		2	1.25	0.45	118
1 / 8W	3216	± 5 %	CJ		3.2	1.6	0.55	128

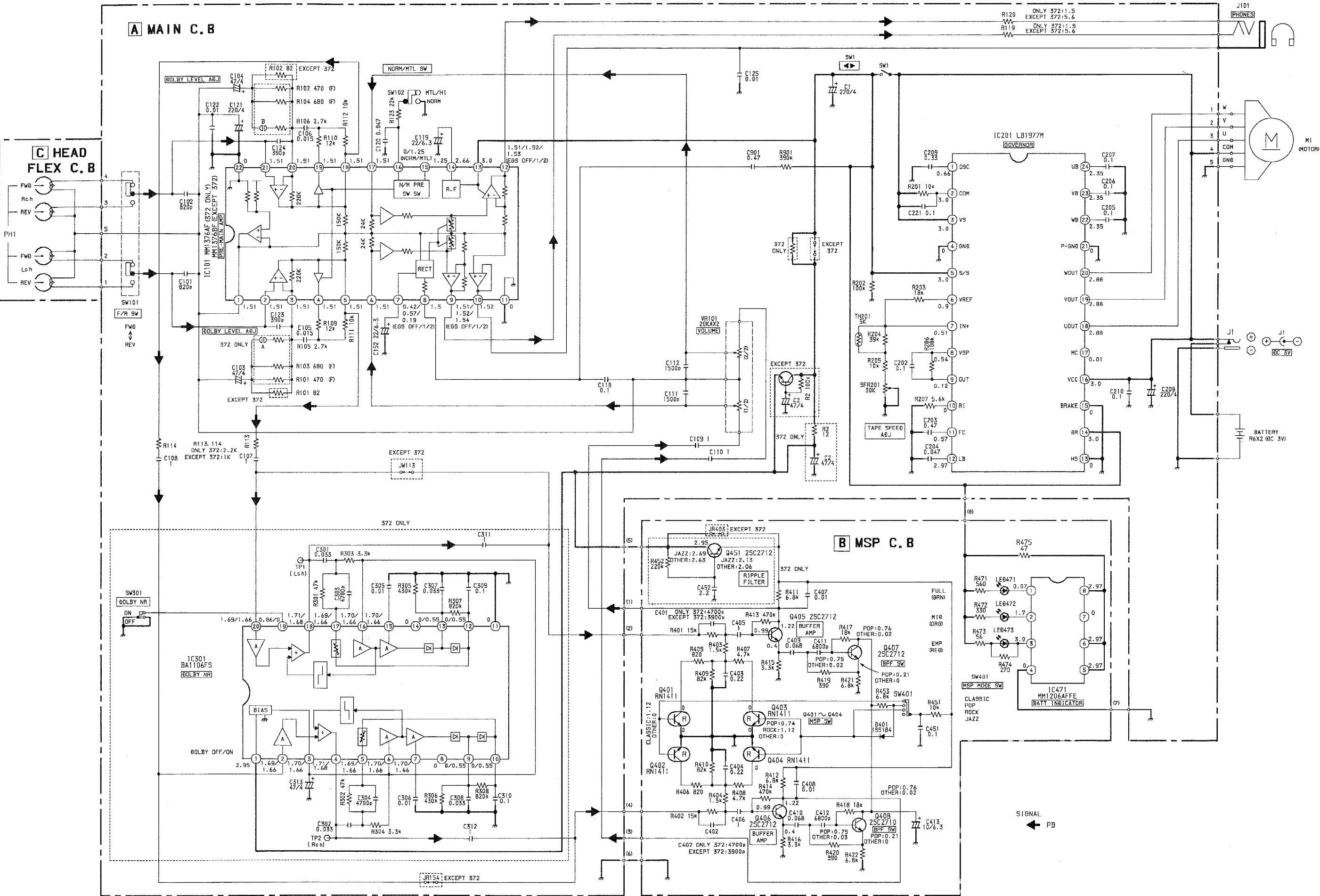
IC BLOCK DIAGRAM

IC, LB1977M



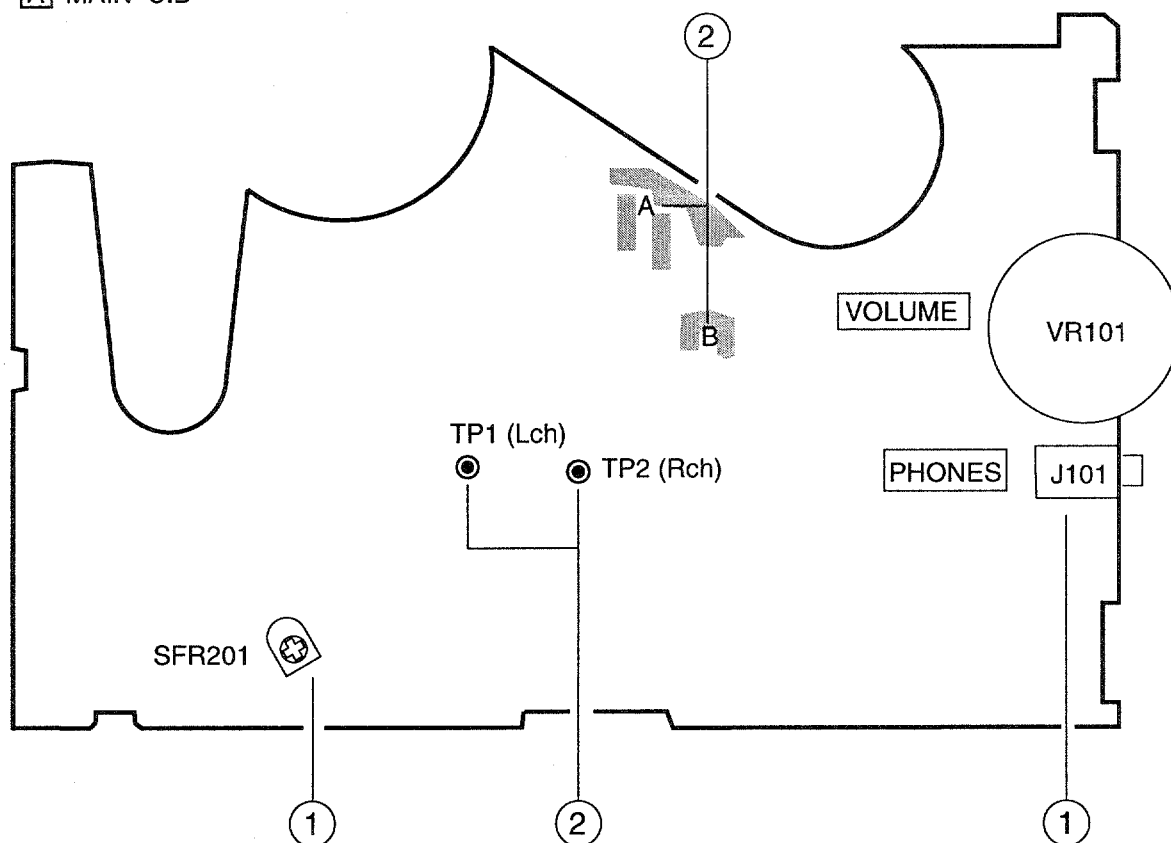
IC, MM1206AFFE





ADJUSTMENT

A MAIN C.B



<TAPE PLAYER SECTION>

1. Tape Speed Adjustment

- Settings :
- Test tape : TTA-100
 - Test point : PHONES JACK (J101)
 - Adjustment location : SFR201
 - MSP : CLASSIC
 - DOLBY NR : OFF
 - (372 ONLY)
 - TAPE SELECTOR : NORM
 - DIRECTION : FWD
 - VOLUME : MAX

Method : Play back the test tape and adjust for $3015 \pm 10\text{Hz}$.

2. Dolby Level Adjustment (372 ONLY)

- Settings :
- Test tape : TTA-200
 - Test point : TP1 (Lch), TP2 (Rch)
 - Adjustment location : A (Lch)
B (Rch)
 - DOLBY NR : OFF
 - TAPE SELECTOR : NORM
 - DIRECTION : FWD
 - VOLUME : MIN "0"

Method : Connect a coupling capacitor ($10\mu\text{F}/16\text{V}$) between the test point and AC volt meter about. Check the the test point voltage for $100\text{mV} \pm 1\text{dB}$.

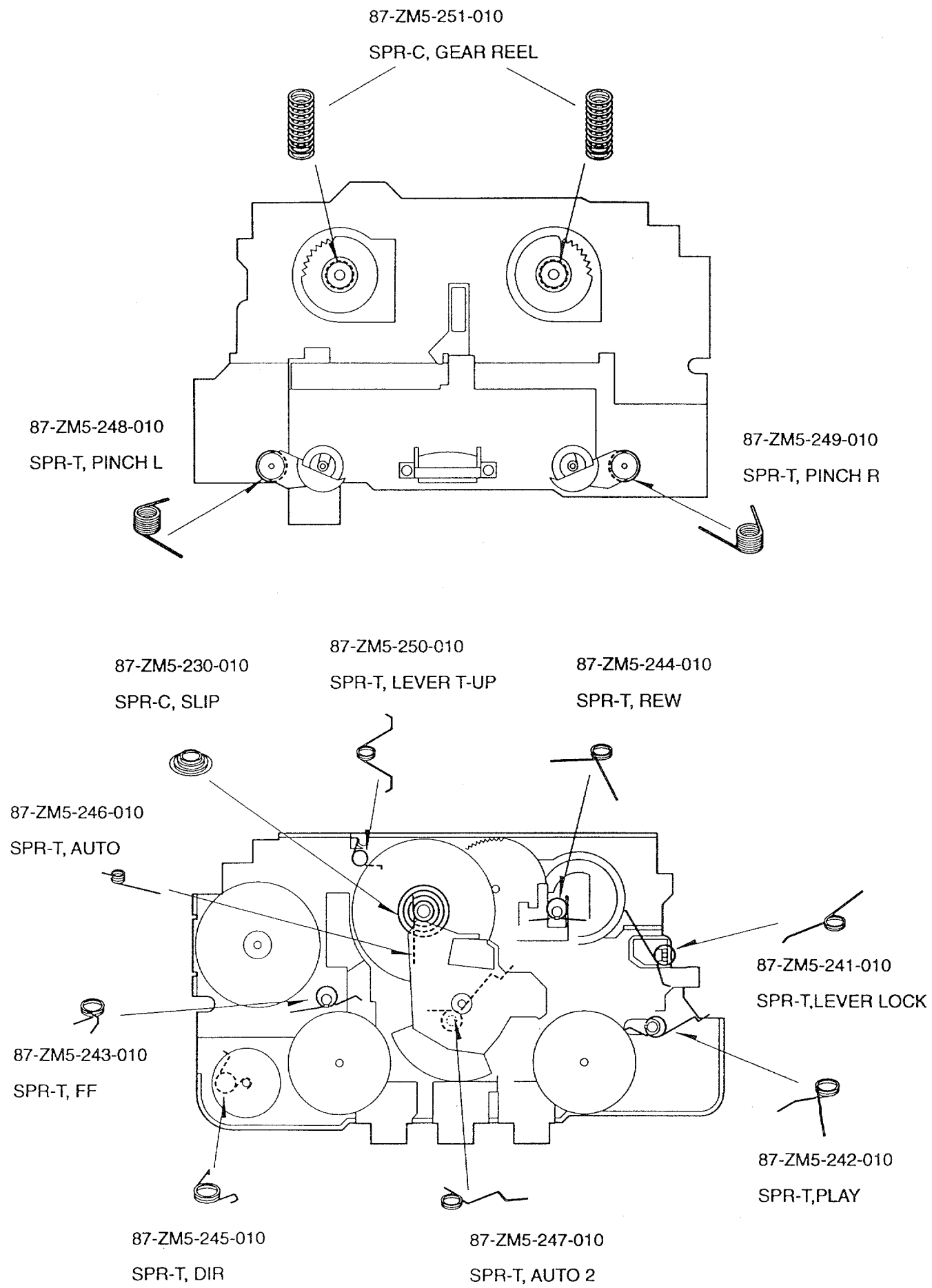
- 1) If TP1 (Lch) level is higher than limit,descolder the A (Lch) shorting point.
- 2) If TP2 (Rch) level is higher than limit,descolder the B (Rch) shorting point.

PRACTICAL SERVICE FIGURE

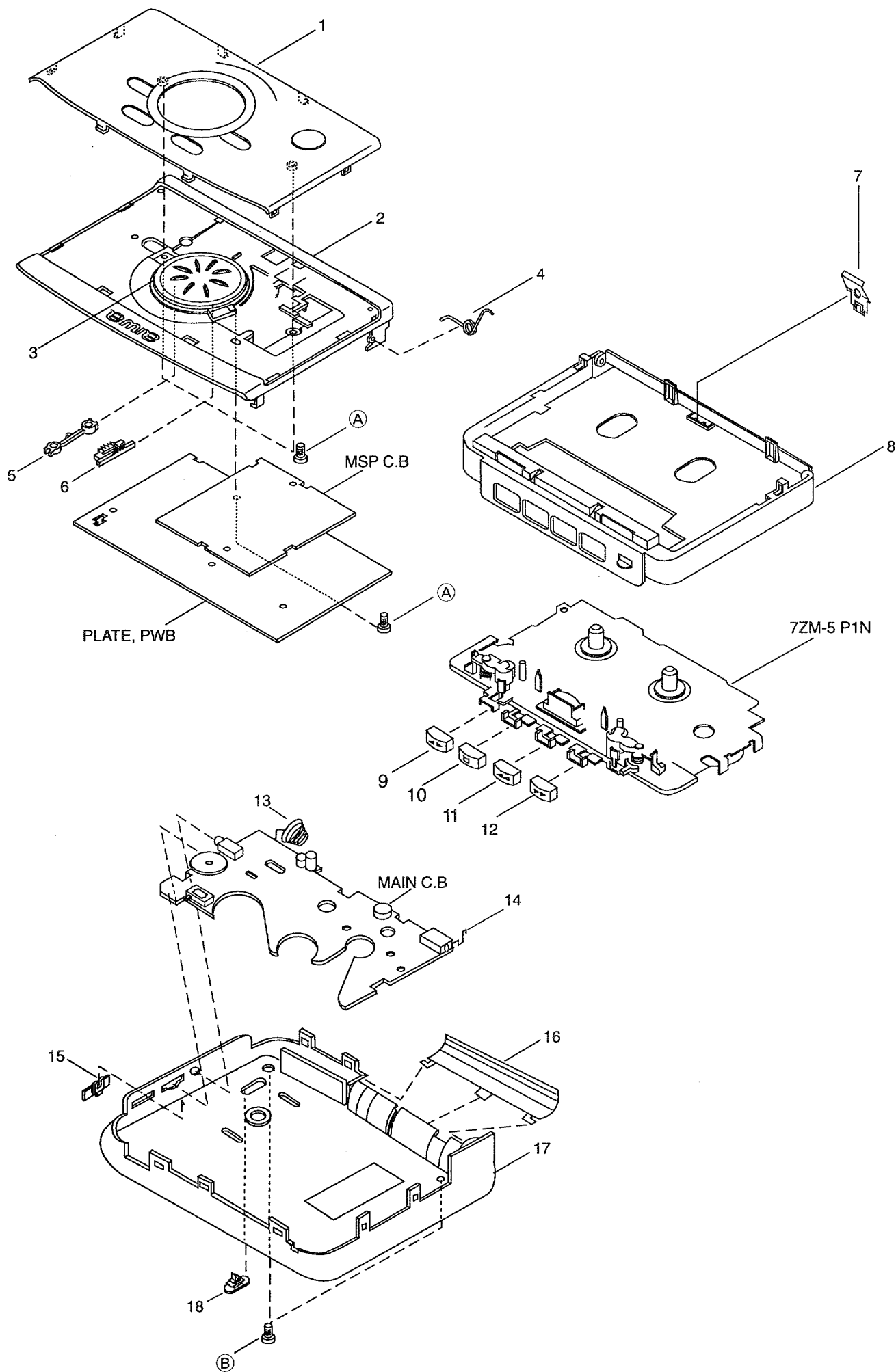
<TAPE SECTION>

Tape speed :	$3015\text{Hz} \pm 50\text{Hz}$
Wow & flutter :	Less than 0.50% (RMS)
Take-up torque :	27 ~ 35g-cm (FWD, REV)
F.F torque :	70 ~ 150g-cm
Rew torque :	70 ~ 150g-cm
Back tension :	1.5 ~ 4g-cm (FWD, REV)
S/N ratio :	More than 42dB (PB, DC)
Distortion :	Less than 3.0% (PB, DC)
Noise level :	Less than 5.0mV (Vol MAX, PB, DC)
Frequency response :	$63\text{Hz} +2/-6 \text{ dB} \sim 8\text{kHz} \pm 4\text{dB}$ (NORMAL)
	$63\text{Hz} +2/-6 \text{ dB} \sim 10\text{kHz} \pm 4\text{dB}$ (CrO2, METAL)
Test tape :	MTT- 15070 (372 ONLY)
	TTA- 100
	TTA- 200 (372 ONLY)
	TTA- 210
	TTA- 320 (120 μ)/310 (70 μ)

SPRING APPLICATION POSITION



MECHANICAL EXPLODED VIEW 1 / 1

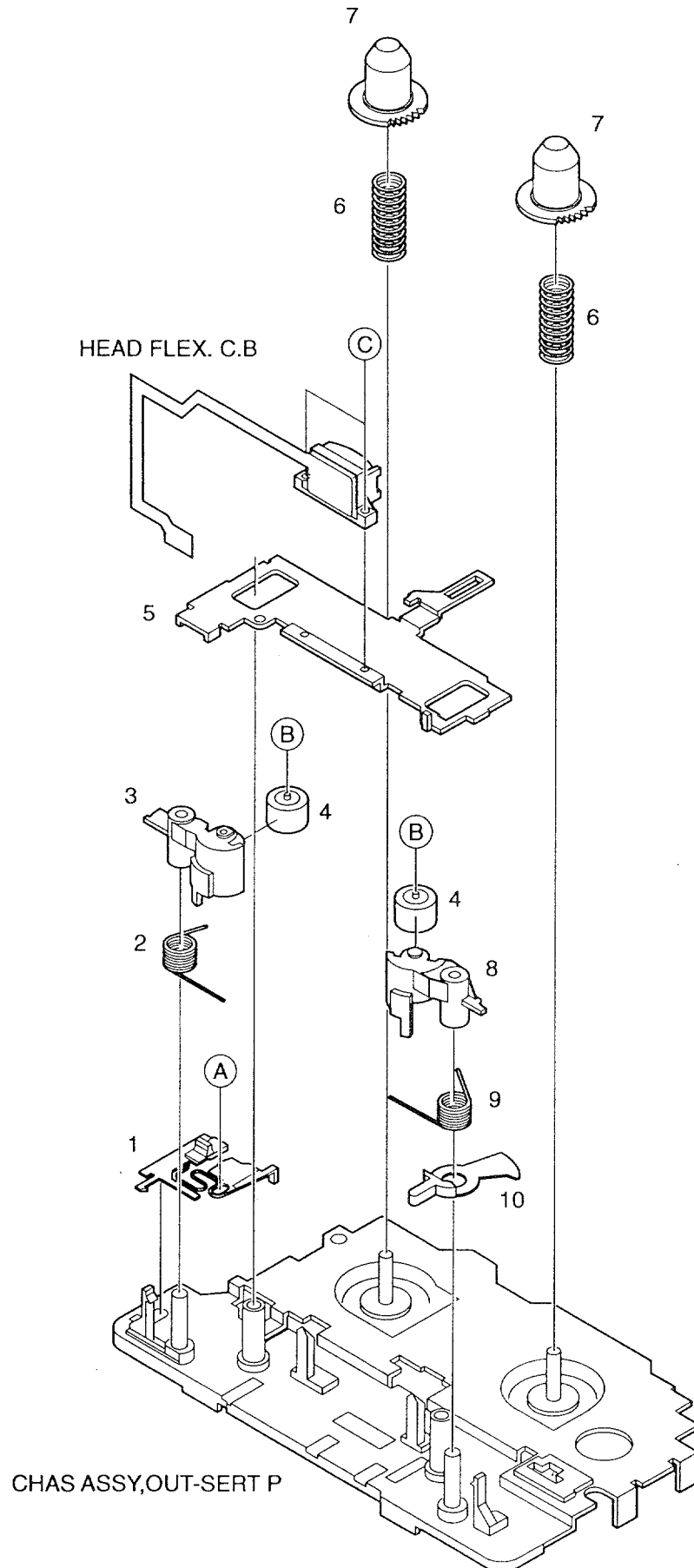


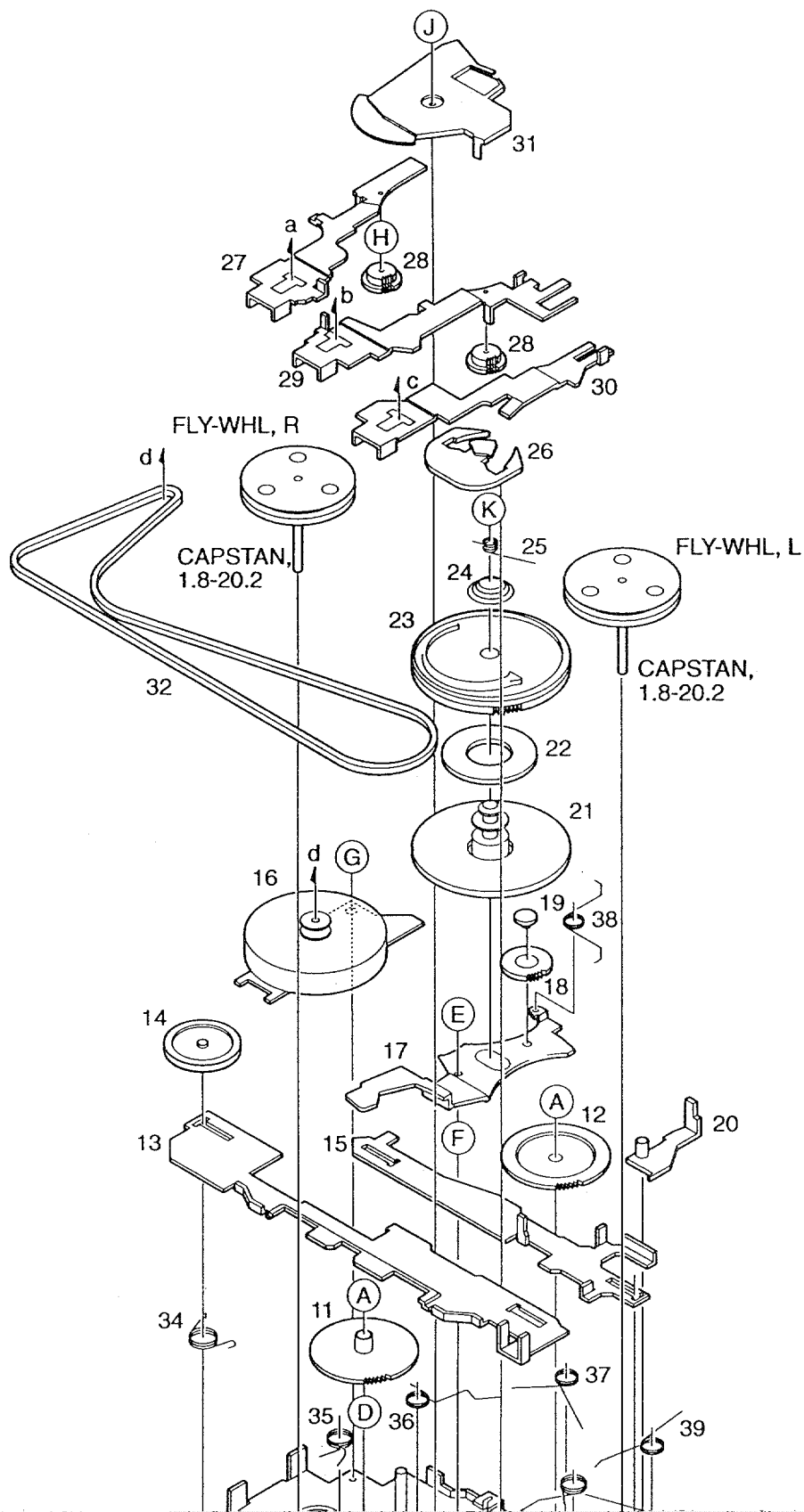
MECHANICAL PARTS LIST 1 / 1

If can't understand for Description please kindly refer to "REFERENCE NAME LIST".

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	87-HG6-018-010		PANEL, CASS (YJ)<372>
1	87-HG7-009-010		PANEL, CASS (YJ)<272>
2	87-HG7-001-010		LID, CASS
3	87-HG7-003-010		KNOB, RTRY MSP
4	87-HG6-203-010		SPR-T, CASS
5	85-HG8-203-010		SPR, CLICK
6	87-HG7-201-010		GEAR, MSP
7	87-HG6-204-010		SPR-P, CASS
8	87-HG6-019-010		FRAME, CENTER (YJ)
9	87-HG6-006-010		BTN, PLAY
10	87-HG6-007-010		BTN, STOP
11	87-HG6-008-010		BTN, REW
12	87-HG6-009-010		BTN, FF
13	87-HG6-202-010		BAT-CONTACT, (-)
14	87-HG6-201-010		BAT-CONTACT, (+)
15	87-HG6-016-010		KNOB, SL TP
16	87-HG6-005-010		LID, BATT
17	87-HG6-017-010		CABI, REAR (YJ)<372>
17	87-HG7-006-010		CABI, REAR (YJ)<272>

TAPE MECHANISM EXPLODED VIEW 1 / 1





TAPE MECHANISM PARTS LIST 1 / 1

If can't understand for Description please kindly refer to " REFERENCE NAME LIST ".

REF.NO.	PART NO.	KANRI NO.	DESCRIPTION
1	87-ZM5-218-010		LEVER,MOD SEL 2
2	87-ZM5-248-010		SPR-T,PINCH L
3	87-ZM5-232-010		ARM,PINCH L
4	87-ZM5-255-010		ROLLER ASSY,PINCH
5	87-ZM5-210-010		LEVER,PLAY
6	87-ZM5-251-010		SPR-C,GEAR REEL
7	87-ZM5-224-010		GEAR,REEL
8	87-ZM5-233-010		ARM,PINCH R
9	87-ZM5-249-010		SPR-T,PINCH R
10	87-ZM5-219-010		BTN,DIR KNOB
11	87-ZM5-221-010		GEAR,IDL A
12	87-ZM5-222-010		GEAR,IDL B
13	87-ZM5-212-010		LEVER,DIR P
14	85-ZM1-212-010		PULLY PM 2
15	87-ZM5-213-010		LEVER,LOCK
16	M8-6ZS-390-000		ABL-63A
17	87-ZM5-208-010		LEVER ASSY,T-UP
18	87-ZM5-223-010		GEAR,PLAY
19	87-ZM5-259-010		CAP,PLAY
20	87-ZM5-216-010		LEVER,PLAY SW
21	87-ZM5-228-010		GEAR,SLIP B

REFERENCE NAME LIST

ELECTRICAL SECTION

DESCRIPTION	REFERENCE NAME
ANT	ANTENNAS
C-	CHIP
C-CAP	CAP, CHIP
C-CAP TN	CAP, CHIP TANTALUM
C-COIL	COIL, CHIP
C-DI	DIODE, CHIP
C-DIODE	DIODE, CHIP
C-FET	FET, CHIP
C-FOTR	FILTER, CHIP
C-IND	INDUCTOR, CHIP

MECHANICAL SECTION

DESCRIPTION	REFERENCE NAME
ADHESHIVE	SHEET ADHESHIVE
AZ	AZIMUTH
BAR-ANT	BAR-ANTENNA
BAT	BATTERY
BATT	BATTERY
BRG	BEARING
BTN	BUTTON
CAB	CABINET
CASS	CASSETTE
CLAC	CLASSED