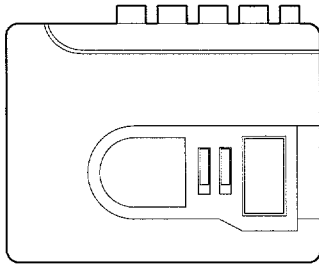


aiwa



TP-VS710



CASSETTE RECORDER

• BASIC TAPE MECHANISM : 7ZM-5 M1N

• TYPE: Y, YJ

SPECIFICATIONS

Track system :	2 tracks 1 channel, monaural
Frequency response :	250 - 8,000Hz (4.8 cm/sec) EIAJ
Microphone :	Electret condenser microphone (monaural)
Maximum output:	360 mW (EIAJ/DC)
Input jack :	EXT MIC jack (monaural mini-jack) (1)
Output jack :	EARPHONE jack (monaural mini-jack) (1)
Other jack :	DC 3V jack
Speaker :	Diameter 50 mm, 8 ohms
Recording system :	DC bias
Erasing system :	DC bias
Power source :	DC 3V using two R6 (size AA) dry cell batteries Domestic AC power using an optional AC adaptor (Aiwa AC-302/AC-300)<Y> (Aiwa AC-620/AC-302)<YJ>
Battery life :	See " Battery life " above.
Dimensions (W x H x D) :	89.8 x 112.4 x 37.6 mm (3 ⁵ / ₈ x 4 ¹ / ₂ x 1 ¹ / ₂ in)
Weight :	Approx. 204 g, 7.1oz (excluding batteries)

• Design and specifications are subject to change without notice.

MANUAL
SERVICE

ELECTRICAL MAIN PARTS LIST

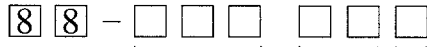
If can't understand for Description please kindly refer to "REFERENCE NAME LIST".

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION	REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
IC				C210	87-010-503-010		CAP,E 220-4 GAS
	87-A20-792-040		C-IC,AN7085NS	C211	87-010-746-080		CAP, TANTAL 10-4
	87-020-326-080		IC,BA5208AF	C212	87-A10-264-080		C-CAP,S 0.1-16ZF
	87-A20-532-040		IC,LB1977M	C213	87-010-195-080		C-CAP,S 0.068-25 F
	87-017-643-080		IC,MM1206XF	C301	87-A10-219-040		CAP,E 470-4
TRANSISTOR				C302	87-A10-264-080		C-CAP,S 0.1-16ZF
	87-026-411-080		C-TR RN1304	C303	87-016-669-080		C-CAP,S 0.1-25 K B
	89-333-266-080		CHIP TR,2SC3326B	C304	87-016-669-080		C-CAP,S 0.1-25 K B
	87-026-414-080		C-TR RN1307	C305	87-016-669-080		C-CAP,S 0.1-25 K B
	89-341-165-080		CHIP TRANSISTOR 2SC4116GR	C307	87-A10-201-080		C-CAP,S0.33-16 KB
	87-026-417-080		TR,RN1310	C308	87-016-669-080		C-CAP,S 0.1-25 K B
	89-342-132-080		TR,2SC4213	C309	87-A10-264-080		C-CAP,S 0.1-16ZF
	87-A30-184-070		C-FET,2SJ106Y	C310	87-016-526-080		C-CAP,S 0.47-16 BK
	87-A30-179-080		FET,2SJ107GR	C311	87-010-992-080		C-CAP,S 0.047-25 B
MAIN C.B				C312	87-A10-219-040		CAP,E 470-4
C101	87-010-943-180		C-CAP,E 100-4 M MV	J101	84-TM1-630-010		JACK,3.5 H5J1493-05
C102	87-010-992-080		C-CAP,S 0.047-25 B	J102	84-TM1-640-010		JACK,3.5 H5J1494-02
C103	87-010-505-080		CA, CHIP TANTALUM 1-16	J103	87-A60-352-010		JACK,DC 3.8 MJC003-A
C104	87-010-198-080		CAP, CHIP 0.022	MIC101	82-TP3-609-010		ECM
C105	87-010-186-080		CAP,CHIP 4700P	SFR301	87-024-315-080		C-SFR,K 33K H RH03APA
C106	87-010-522-080		CAP, TANTAL 2.2-10V	SFR302	87-A90-716-080		C-SFR,15K H RH03APA
C107	87-010-186-080		CAP,CHIP 4700P	SP101	87-A90-568-010		SPKR,DIA 50 80HM
C108	87-010-522-080		CAP, TANTAL 2.2-10V	SW101	87-A90-422-010		SW,SL 2-2-2
C109	87-016-296-080		C-CAP,TN 22-4SV(A)	SW102	87-A90-725-010		SW,SL 2-2-2
C110	87-010-424-080		CAPACTOR,TANTAL 4.7-4	SW131	87-036-304-080		C-SW,SL 1-1-2
C111	87-010-992-080		C-CAP,S 0.047-25 B	SW141	87-036-304-080		C-SW,SL 1-1-2
C112	87-010-746-080		CAP, TANTAL 10-4	SW151	87-036-304-080		C-SW,SL 1-1-2
C113	87-010-198-080		CAP, CHIP 0.022	SW161	87-A90-564-010		SW,LEAF MUTE
C114	87-016-462-080		C-CAP,S 1-16 F	SW301	87-A90-423-010		SW,LEAF
C121	87-010-186-080		CAP,CHIP 4700P	TH301	87-A90-542-080		C-THMS,NTH5G2M35A472K04TE
C122	87-016-491-080		C-CAP,S 0.22-16 FZ	TH302	87-A90-542-080		C-THMS,NTH5G2M35A472K04TE
C123	87-010-424-080		CAPACTOR,TANTAL 4.7-4	VR101	87-024-655-010		VR,20KC DIA14
C124	87-010-746-080		CAP, TANTAL 10-4	VR303	87-A90-604-010		VR,RTRY 10KB H KV81
C127	87-010-588-010		ELECT 220-2	LED C.B			
C128	87-010-503-010		CAP,E 220-4 GAS	C401	87-016-462-080		C-CAP,S 1-16 F
C129	87-016-436-080		C-CAP,TN 47-4(B2)	LED402	87-017-828-070		C-LED,SEL 1401C GRN
C141	87-010-502-010		CAP GAS 100-4	LED403	87-017-829-070		C-LED,SEC 1901C ORN
C142	87-A10-264-080		C-CAP,S 0.1-16ZF	LED404	87-017-827-070		C-LED,SEC 1201C RED
C151	87-015-922-080		C-CAP,TN 0.1-35	SW103	87-036-304-080		C-SW,SL 1-1-2
C152	87-010-746-080		CAP, TANTAL 10-4	SW302	87-036-304-080		C-SW,SL 1-1-2
C153	87-016-462-080		C-CAP,S 1-16 F	HEAD FLEX C.B			
C201	87-016-462-080		C-CAP,S 1-16 F		87-A90-658-110		HEAD ASSY,7HT6
C202	87-010-322-080		C-CAP,S 100P-50 CH				
C203	87-010-502-010		CAP GAS 100-4				
C204	87-016-296-080		C-CAP,TN 22-4SV(A)				
C205	87-010-504-080		CAP, CHIP TANTALUM 0.47-25				
C206	87-010-504-080		CAP, CHIP TANTALUM 0.47-25				
C207	87-010-424-080		CAPACTOR,TANTAL 4.7-4				
C208	87-010-424-080		CAPACTOR,TANTAL 4.7-4				
C209	87-016-491-080		C-CAP,S 0.22-16 FZ				

○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



A
抵抗部品コード
Resistor Code

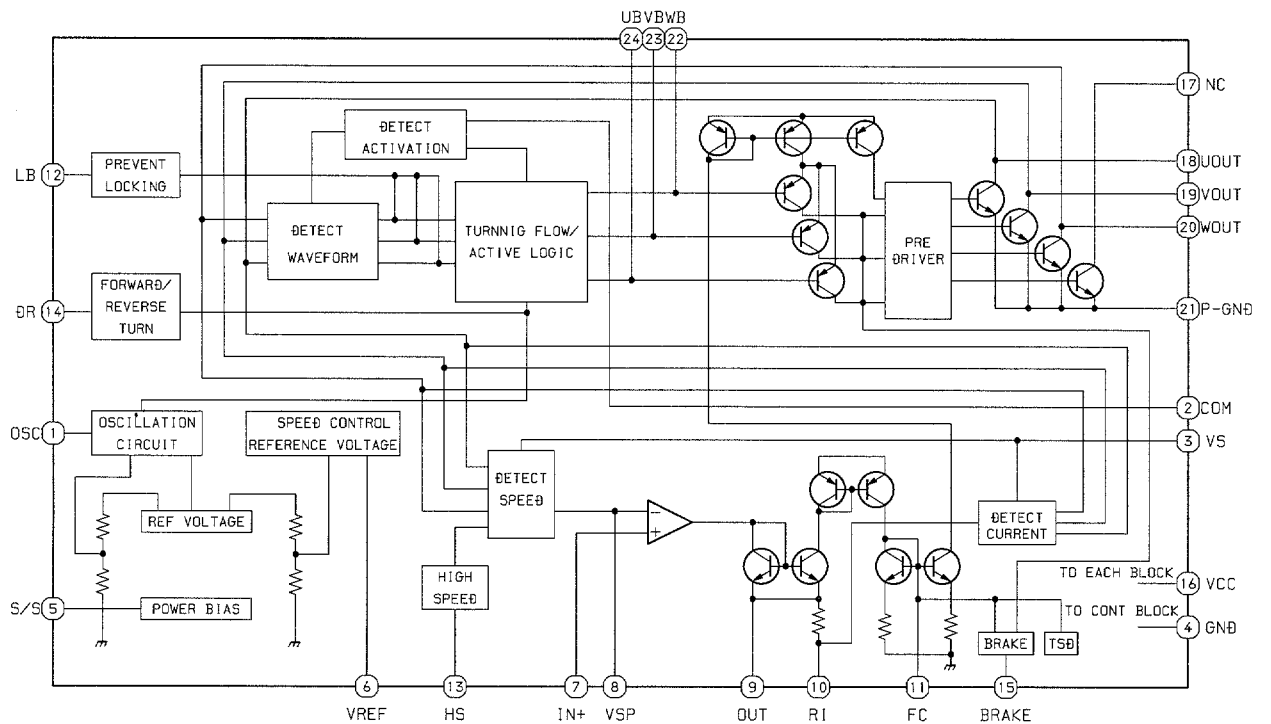
桁表示
Figure
抵抗値
Value of resistor

チップ抵抗
Chip resistor

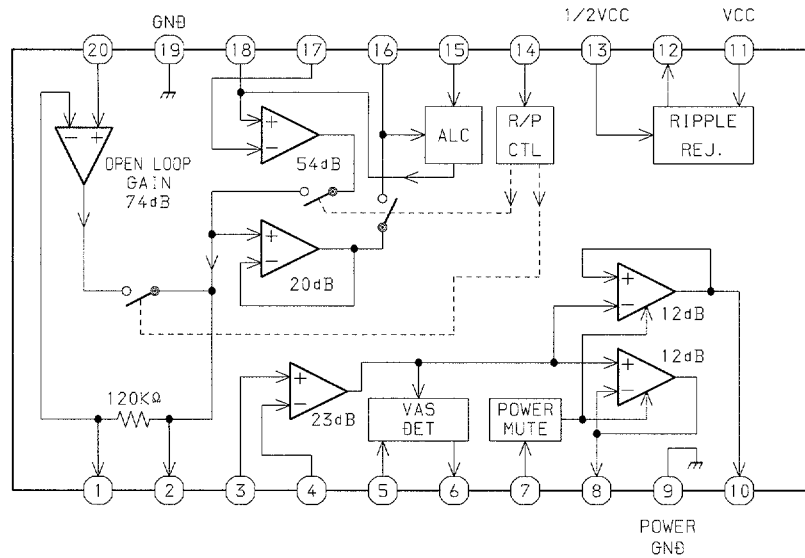
容量 Wattage	種類 Type	許容誤差 Tolerance	記号 Symbol	寸法/Dimensions (mm)			抵抗コード : A Resistor Code : A	
				外形/Form	L	W		t
1/16W	1608	± 5%	CJ		1.6	0.8	0.45	108
1/10W	2125	± 5%	CJ		2	1.25	0.45	118
1/8W	3216	± 5%	CJ		3.2	1.6	0.55	128

IC BLOCK DIAGRAM

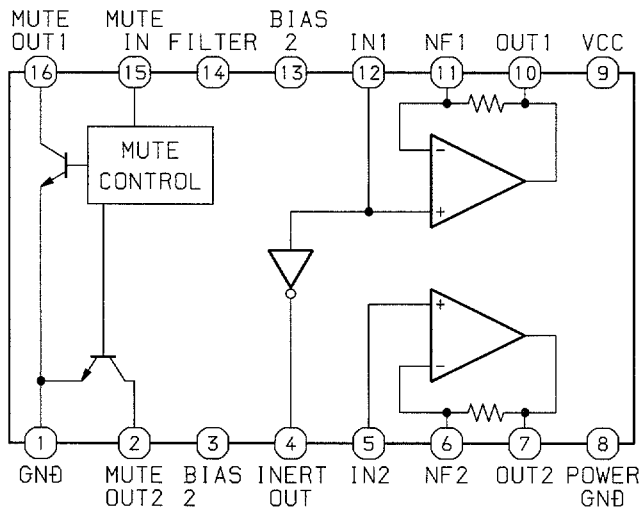
IC, LB1977M



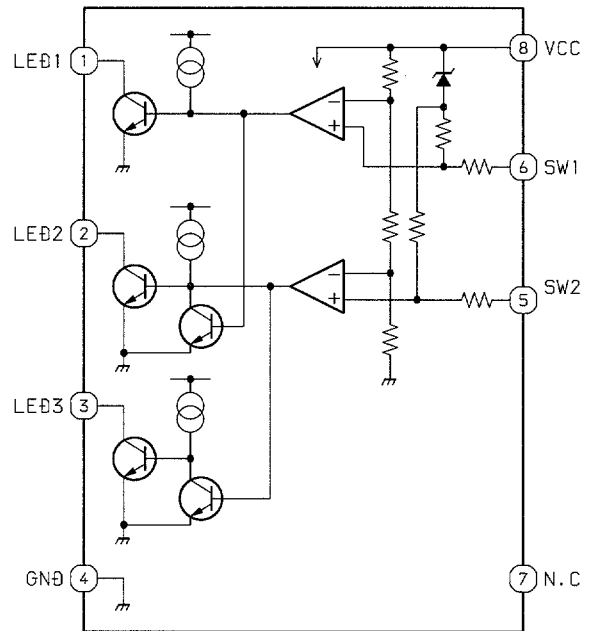
IC, AN7085NS



IC, BA5208AF

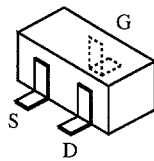
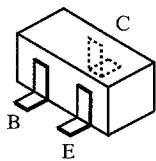


IC, MM1206XF



BATTERY REMAIN VOLUME	2.50V 2.25V		
	LED1	L	H
LED2	H	L	H
LED3	H	H	L

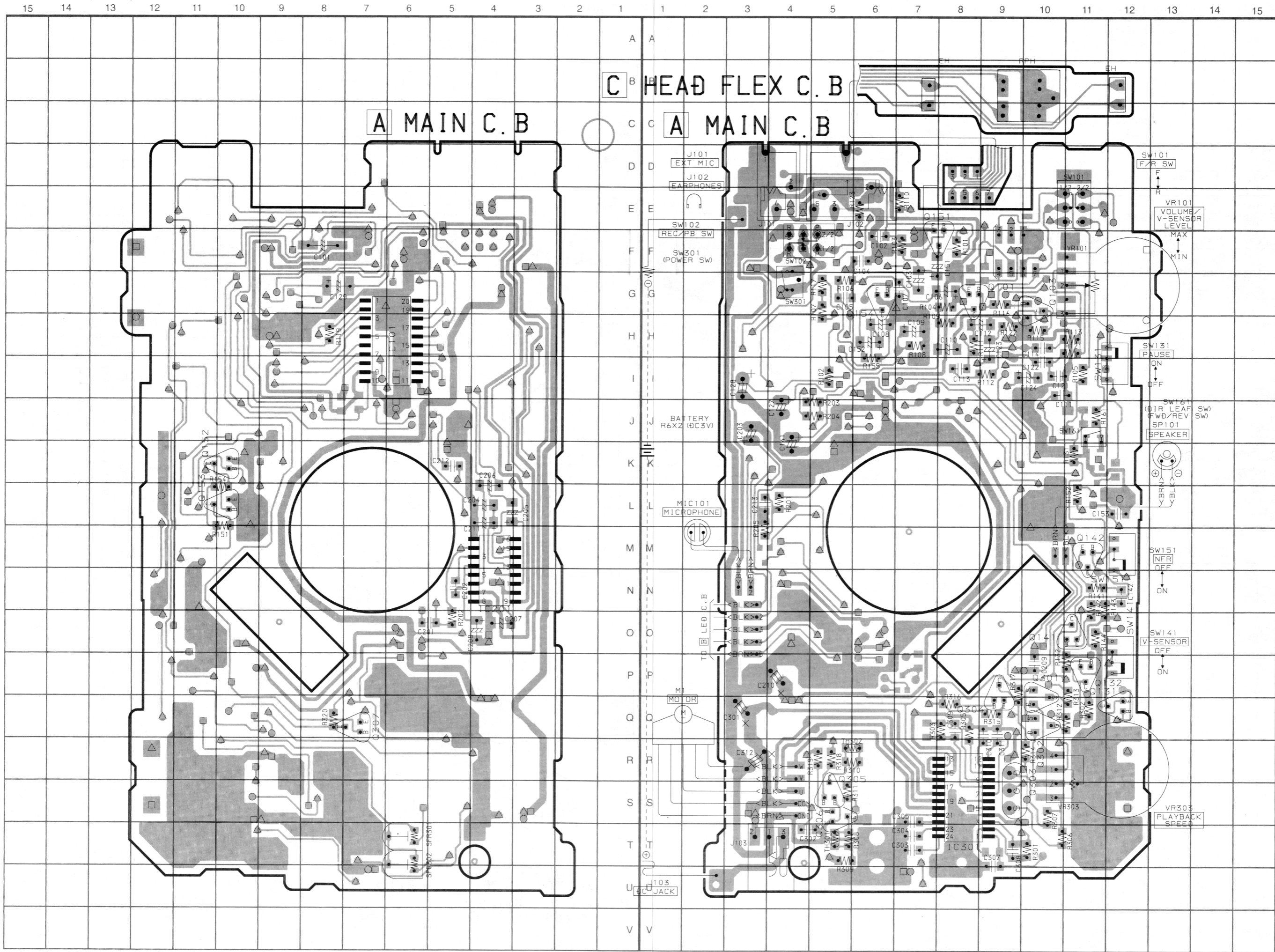
TRANSISTOR ILLUSTRATION



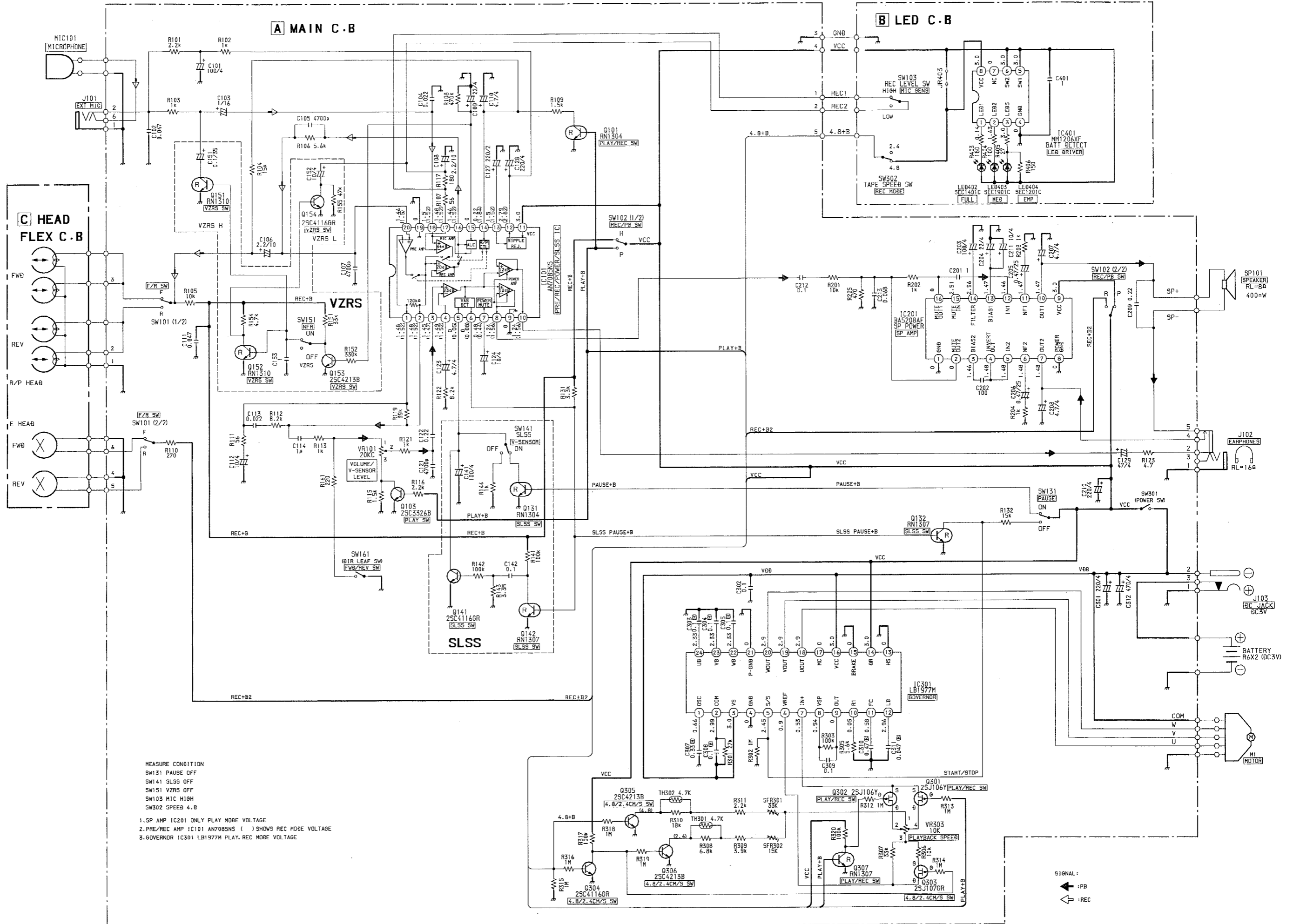
2SC3326 RN1304
 2SC4116 RN1307
 2SC4213 RN1310

2SJ106

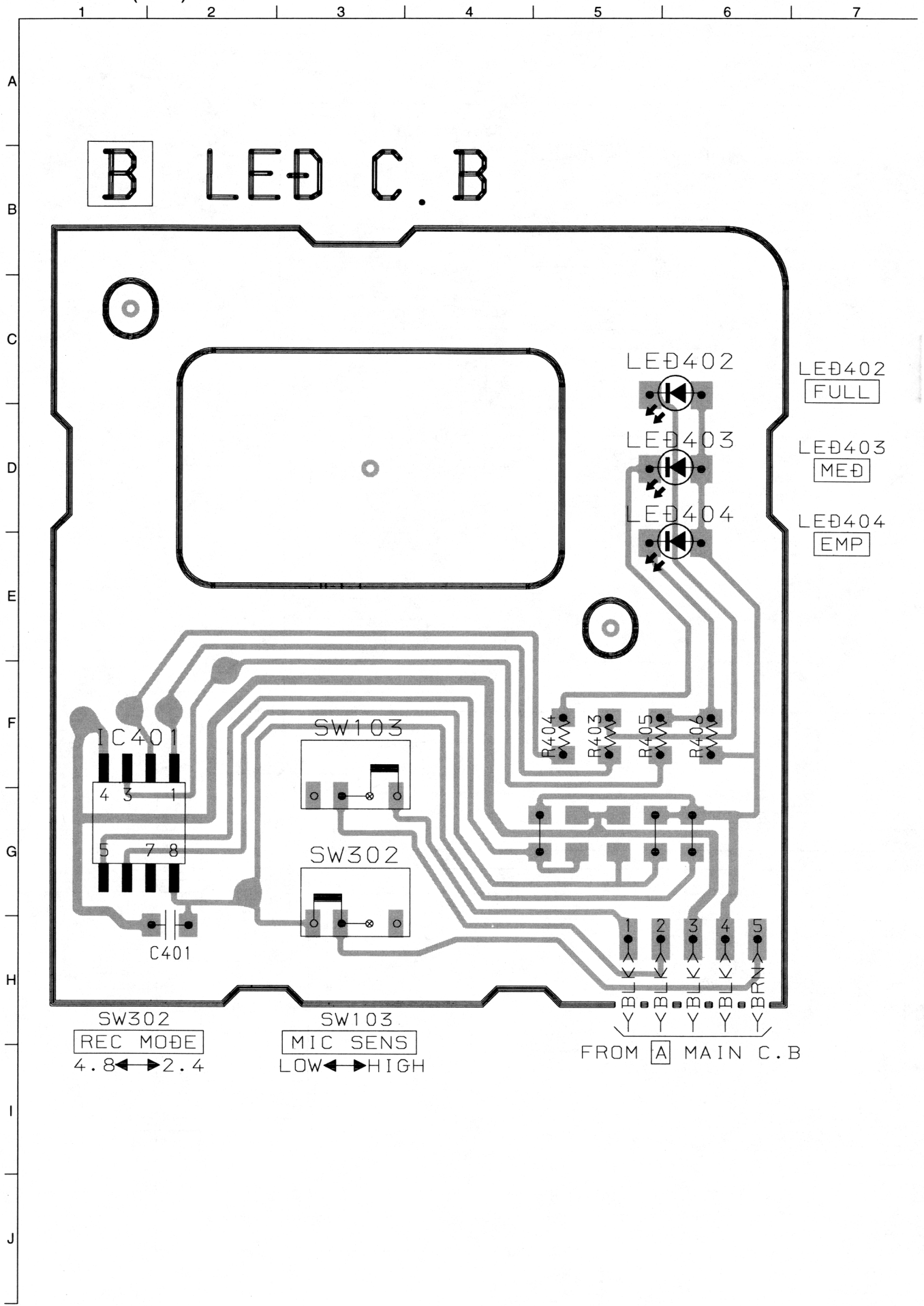
D G S
 2SJ107



SCHEMATIC DIAGRAM (MAIN / LED)



WIRING - 2 (LED)

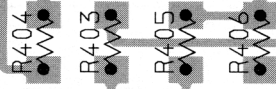
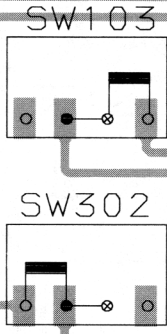
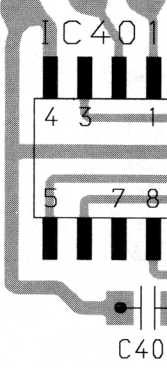


B LED C.B

LED402
FULL

LED403
MED

LED404
EMP



SW302
REC MODE
4.8 ← → 2.4

SW103
MIC SENS
LOW ← → HIGH

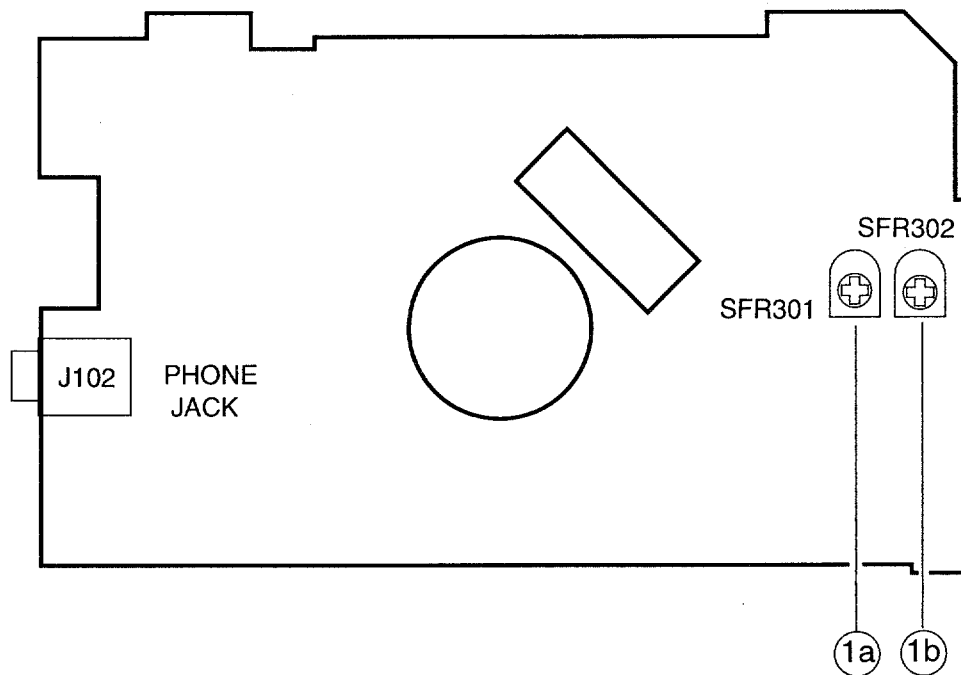
1 2 3 4 5

Y Y Y Y Y

FROM MAIN C.B

ADJUSTMENT

A MAIN C.B



PRACTICAL SERVICE FIGURE

1a. Tape Speed Adjustment 1

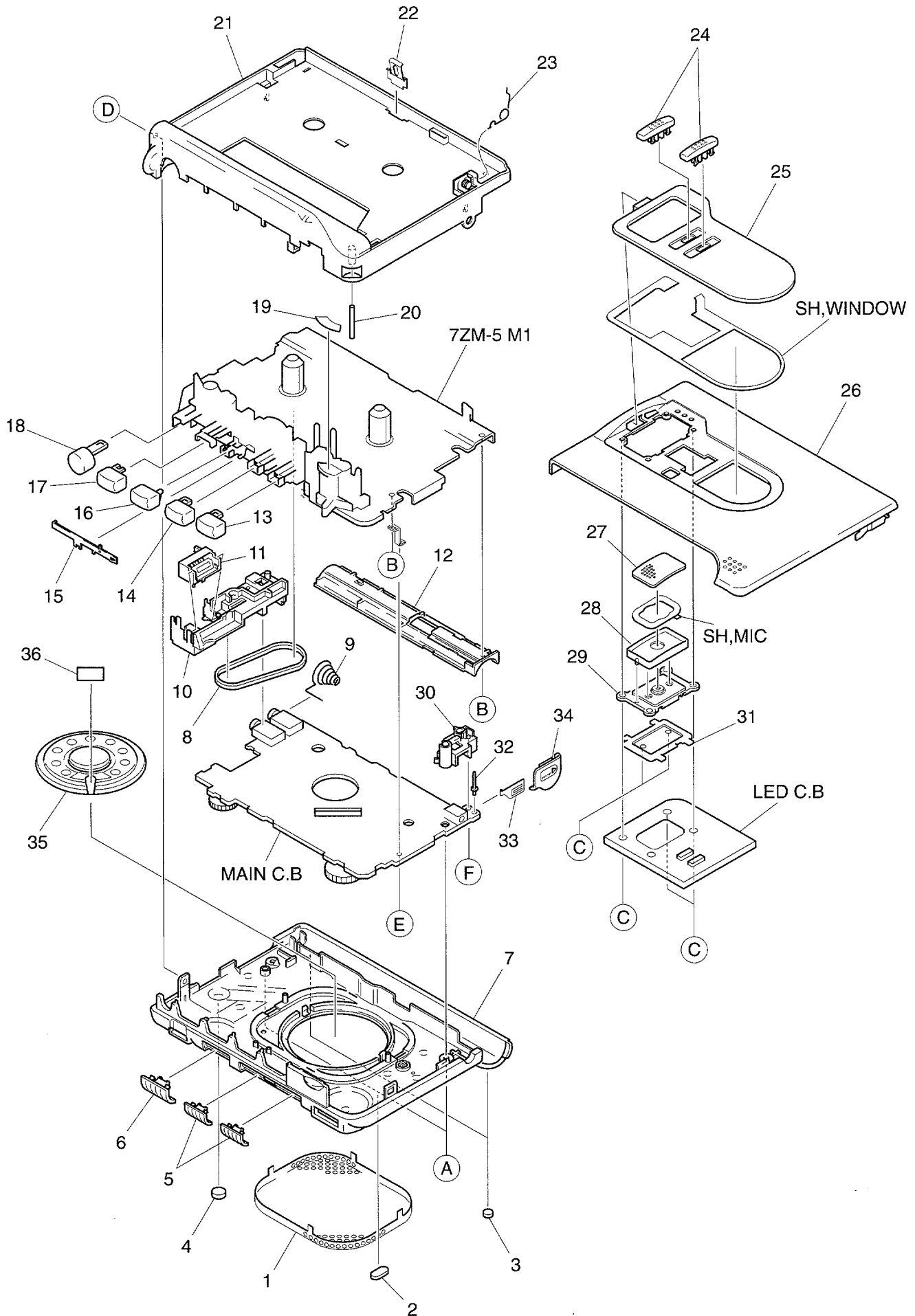
- Settings:
- Test tape : TTA-100 (TAPE CENTER)
 - Test point : PHONES JACK (J102)
 - Adjustment location : SFR301
 - PAUSE : OFF
 - REC MODE SW : NORM (4.8 cm/s)
 - VOLUME : Maximum
 - TAPE SPEED : Normal (Speed volume center)
- Method: Play back the test tape, adjust SFR301 for 3000Hz \pm 10 Hz, and then confirm reverse side difference speed (FWD to REV) is less than 45 Hz.

1b. Tape Speed Adjustment 2

- Settings:
- Test tape : TTA-160 (TAPE CENTER)
 - Test point : PHONES JACK (J102)
 - Adjustment location : SFR302
 - PAUSE : OFF
 - REC MODE SW : EXT (2.4 cm/s)
 - VOLUME : Maximum
 - TAPE SPEED : Normal (Speed volume center)
- Method: Play back the test tape, adjust SFR302 for 3000Hz \pm 10 Hz.

Tape speed :	3000 Hz \pm 60 Hz
Wow & flutter :	Less than 0.50 % (RMS)
Take-up torque :	23 ~ 40 g-cm (FWD, REV)
F. F torque :	80 ~ 150 g-cm
REW torque :	80 ~ 150 g-cm
Back tension :	1.5 ~ 4.5 g-cm (FWD, REV)
S/N ratio :	48 ~ 53 dB (DC, PB)
	29 ~ 33 dB (DC, R/PB)
Distortion :	1.0 ~ 3.0 % (DC, PB)
	7.5 ~ 10.0 % (DC, R/PB)
Noise level :	2.5 ~ 4.0 mV (Vol MAX, DC, PB)
	14 ~ 18 mV (Vol MAX, DC, R/PB)
	0.3 ~ 0.5 mV (Vol MIN, DC, PB)
Erasing ratio :	45~ 49 dB (1kHz)
Frequency response :	63 Hz -19/-27 dB ~ 8 kHz +3/-5 dB (NORMAL, PB)
	250 Hz -4/-12 dB ~ 3 kHz +5/-3 dB (NORMAL, R/PB)
Test tape :	TTA-320 (NORMAL)
	TTA-601 (NORMAL)

MECHANICAL EXPLODED VIEW 1/1

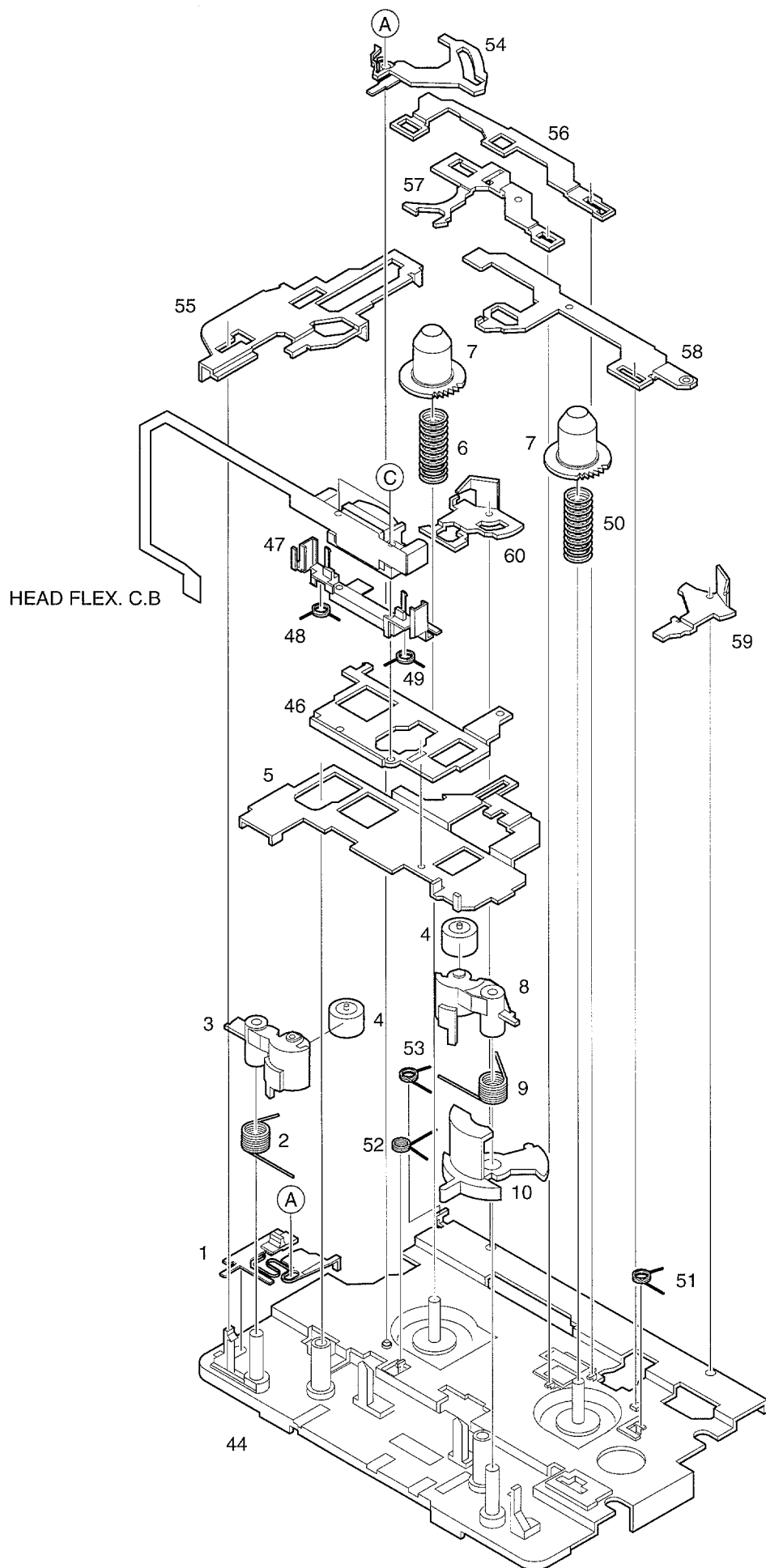


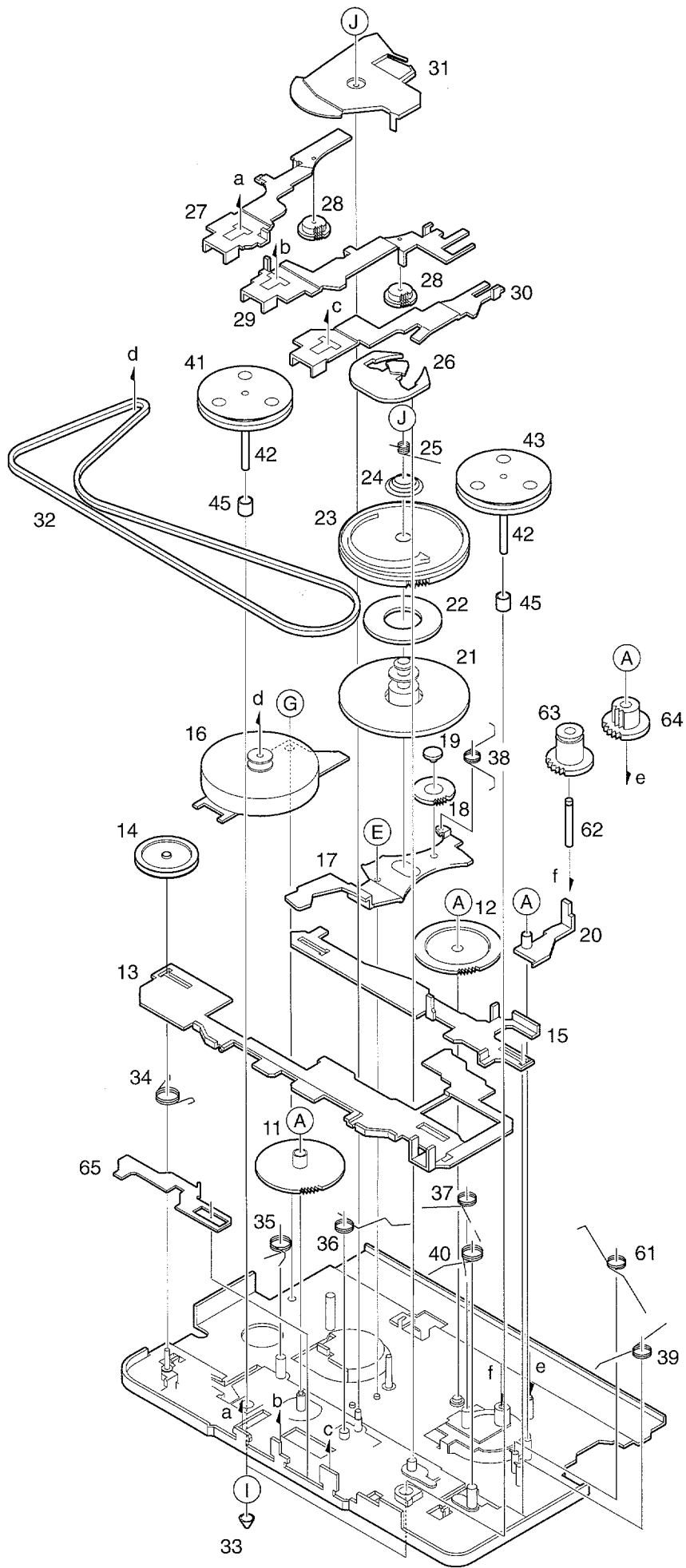
MECHANICAL PARTS LIST 1 / 1

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

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION	REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	87-HT6-107-010		GRILLE, SPEAKER	26	87-HT6-122-010		LID, CASS Y
2	87-HT6-215-010		FOOT, B	27	87-HT6-104-010		PANEL, MIC
3	87-HT6-216-010		FOOT, C	28	87-HT6-103-010		FRAME, MIC
4	87-HT6-214-010		FOOT, A	29	87-HT6-201-010		COVER, MIC
5	87-HT6-116-010		KNOB, SL SLSS/VZRS	30	87-HT6-206-010		HLDR, JACK DC
6	87-HT6-115-010		KNOB, SL PAUSE	31	87-HT6-202-010		PLATE, COVER
7	87-HT6-125-010		CABI, REAR Y	32	87-HT6-210-010		SHAFT, HINGE
8	87-HT6-222-010		BELT, COUNTER	33	87-HT6-209-010		HINGE, BAT(+)
9	87-HT6-211-010		BAT-CONTACT, (-)	34	87-HT6-108-010		LID, BAT
10	87-HT6-207-010		HLDR, COUNTER	35	87-A90-568-010		SPKR, DIA 50 8OHM
11	87-HT6-221-010		COUNTER, MU331-001	36	82-299-509-010		HIMERON, 7-14
12	87-HT6-208-010		HLDR, BAT	A	87-B10-112-010		VT2+2-14 BLACK
13	87-HT6-112-010		BTN, FF	B	87-HT6-218-010		S-SCREW, STP+1.4-2.5
14	87-HT6-113-010		BTN, REW	C	87-B10-113-010		QT2+1.7-3 BLACK
15	87-HT6-205-010		LEVER, PAUSE	D	87-352-508-310		VT2+1.4-3.5 BLK
16	87-HT6-110-010		BTN, STOP	E	87-067-746-010		SCREW, M 1.4-2 (H0.5)
17	87-HT6-111-010		BTN, PLAY	F	87-067-534-010		SCREW, VT-1.4-6
18	87-HT6-109-010		BTN, REC				
19	87-HT6-118-010		SEAL, DIR				
20	87-HT6-223-010		SHAFT, STRAP				
21	87-HT6-124-010		FRAME, CENTER Y				
22	87-HT6-212-010		SPR-P, CASS				
23	87-HT6-213-010		SPR-T, CASS				
24	87-HT6-114-010		KNOB, SL MIC/SPEED				
25	87-HT6-123-010		WINDOW, CASS Y				

TAPE MECHANISM EXPLODED VIEW 1/1



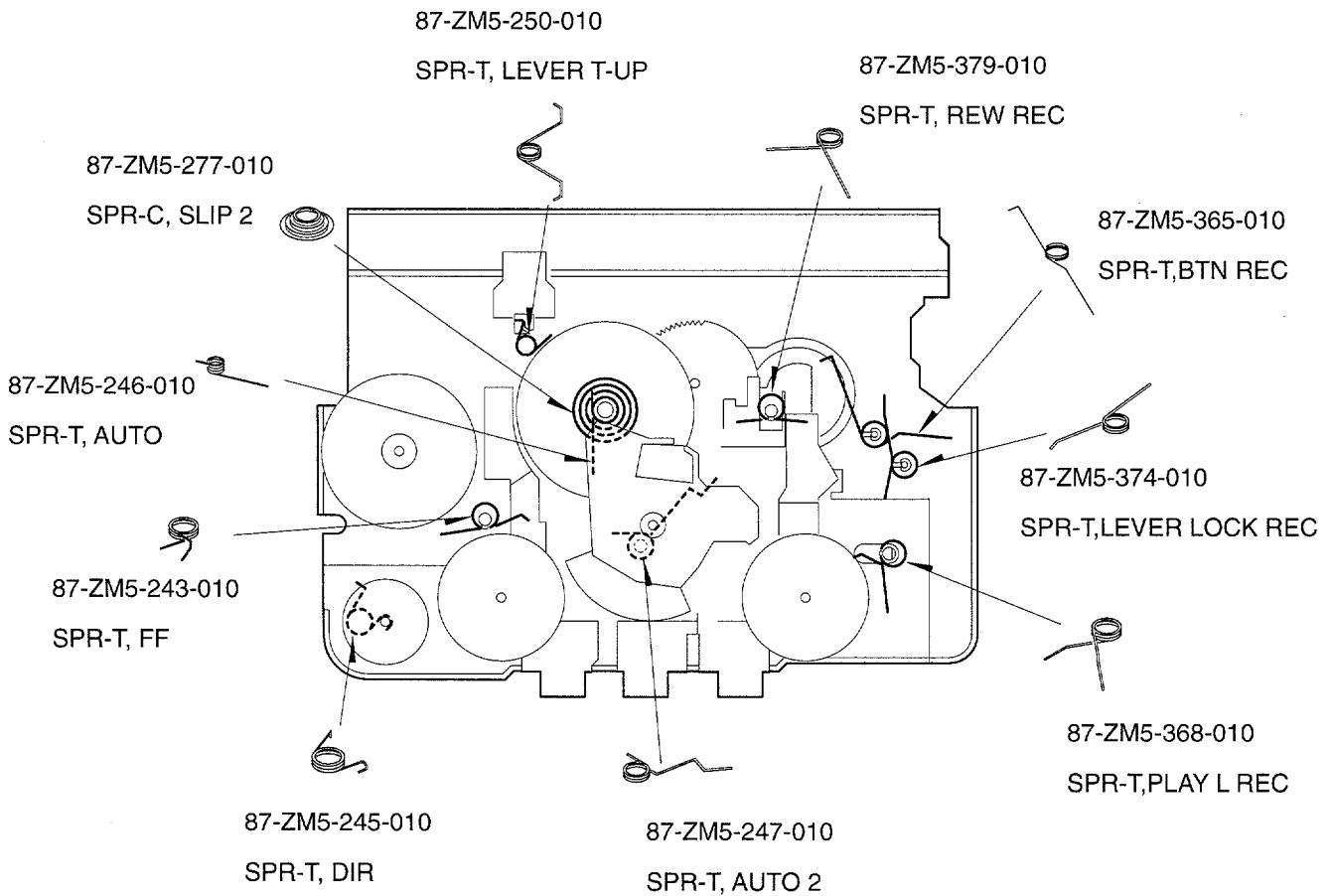
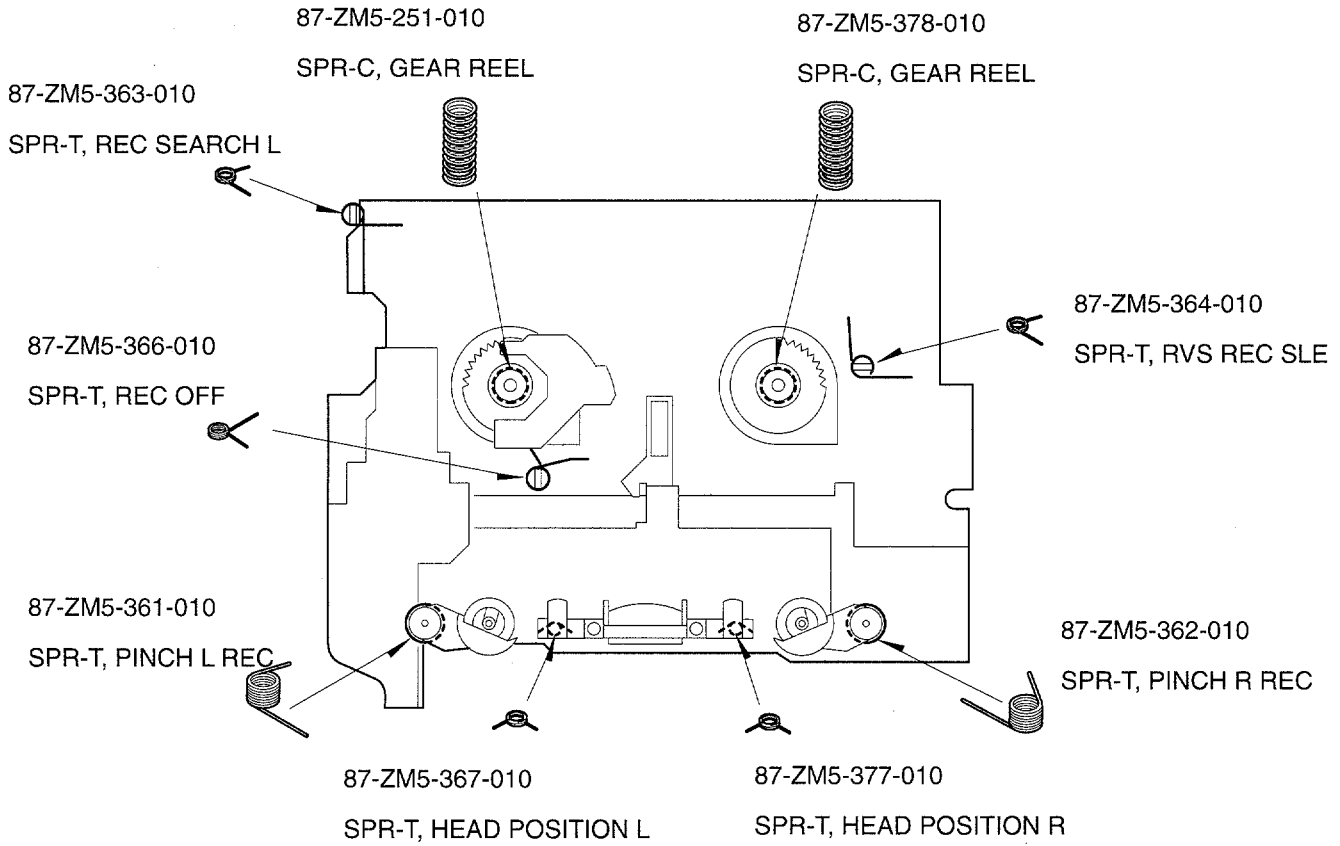


TAPE MECHANISM PARTS LIST 1/1

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

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION	REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	87-ZM5-314-010		LEVER, MODE SEL REC	41	87-ZM5-236-010		FLY-WHL, R
2	87-ZM5-361-010		SPR-T, PINCH L REC	42	87-ZM5-345-010		CAPSTAN, REC 1.8-0
3	87-ZM5-351-010		ARM, PINCH L REC	43	87-ZM5-235-010		FLY-WHL, L
4	87-ZM5-346-010		ROLLER ASSY, PINCH REC	44	87-ZM5-304-010		CHAS ASSY, OUTSERT REC
5	87-ZM5-324-010		LEVER, PLAY MS	45	87-ZM5-260-010		CLR, BEARING
6	87-ZM5-251-010		SPR-C, GEAR REEL	46	87-ZM5-329-010		LEVER, HEAD
7	87-ZM5-354-010		GEAR, REEL REC	47	87-ZM5-313-010		HLDR HEAD
8	87-ZM5-352-010		ARM, PINCH R REC	48	87-ZM5-367-010		SPR-T, HEAD POSITION L
9	87-ZM5-362-010		SPR-T, PINCH R REC	49	87-ZM5-377-010		SPR-T, HEAD POSITION R
10	87-ZM5-355-010		BTN, DIR KNOB TP	50	87-ZM5-378-010		SPR-C, BT REC
11	87-ZM5-221-010		GEAR, IDL A	51	87-ZM5-364-010		SPR-T, RVS REC SLE
12	87-ZM5-222-010		GEAR, IDL B	52	87-ZM5-366-010		SPR-T, REC OFF
13	87-ZM5-339-010		LEVER ASSY, DIR TP	53	87-ZM5-363-010		SPR-T, REC SEARCH L
14	85-ZM1-212-010		PULLY PM 2	54	87-ZM5-311-010		LEVER, REC OFF
15	87-ZM5-335-010		LEVER, LOCK REC	55	87-ZM5-336-010		LEVER, BTN TP REC
16	M8-6ZS-391-000		ABL-63B	56	87-ZM5-323-010		LEVER, REC GUARD
17	87-ZM5-208-010		LEVER ASSY, T-UP	57	87-ZM5-328-010		LEVER, TRANSMIT
18	87-ZM5-223-010		GEAR, PLAY	58	87-ZM5-327-010		LEVER, RVS REC SEL
19	87-ZM5-259-010		CAP, PLAY	59	87-ZM5-322-010		LEVER, REC SEARCH R
20	87-ZM5-216-010		LEVER, PLAY SW	60	87-ZM5-321-010		LEVER, REC SEARCH L
21	87-ZM5-359-010		GEAR, SLIP REC	61	87-ZM5-365-010		SPR-T, BTN REC
22	87-ZM5-229-010		FELT, CLUTCH	62	87-ZM5-342-010		SHAFT, COUNTER PULLEY
23	87-ZM5-344-010		GEAR, SLIP REC	63	87-ZM5-316-010		GEAR, COUNTER PULLEY
24	87-ZM5-277-010		SPR-C, SLIP 2	64	87-ZM5-315-010		GEAR, COUNTER REEL
25	87-ZM5-246-010		SPR-T, AUTO	65	87-ZM5-330-010		LEVER, CUE REV
26	87-ZM5-214-010		LEVER, AUTO	A	87-B10-136-010		W-P, 1.09-3.1-0.4
27	87-ZM5-204-010		LEVER ASSY, FF	C	87-ZM5-385-010		S-SCREW, EH+1.4-10.1
28	87-ZM5-225-010		GEAR, FF/REW	E	87-B10-135-010		W-P, 1.17-3-0.35
29	87-ZM5-349-010		LEVER ASSY, REW REC	G	87-ZM5-271-010		S-SCREW, 1.4-2.6-STP
30	87-ZM5-332-010		LEVER, STOP REC	I	87-B10-070-010		W-P, 1.55-2.9-0.25 SLIT
31	87-ZM5-261-010		LEVER, AUTO 2S	J	87-B10-135-010		W-P, 1.17-3-0.35
32	87-ZM5-253-010		BELT, MAIN				
33	87-ZM5-258-010		CAP, CAPSTAN				
34	87-ZM5-245-010		SPR-T, DIR				
35	87-ZM5-243-010		SPR-T, FF				
36	87-ZM5-247-010		SPR-T, AUTO 2				
37	87-ZM5-379-010		SPR-T, REW REC				
38	87-ZM5-250-010		SPR-T, LEVER T-UP				
39	87-ZM5-374-010		SPR-T, LEVER LOCK REC				
40	87-ZM5-368-010		SPR-T, PLAY L REC				

SPRING APPLICATION POSITION



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-HT6-903-010		IB,EX-ESC<YJ>
1	87-HT6-904-010		IB,EX-GFI<Y>
2	87-048-286-010		HP-255 NS
3	87-PD3-050-010		STRAP,HAND

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-JACK	JACK, CHIP
C-LED	LED, CHIP
C-RES	RES, CHIP
C-SFR	SFR, CHIP
C-SLIDE SW	SLIDE SWITCH, CHIP
C-SW	SWITCH, CHIP
C-TR	TRANSISTOR, CHIP
C-VR	VOLUME, CHIP
C-ZENER	ZENER, CHIP
CAP, CER	CAP, CERA-SOL
CAP, E	CAP, ELECT
CAP, M/F	CAP, FILM
CAP, TC	CAP, CERA-SOL
CAP, TC-U	CAP, CERA-SOL SS
CAP, TN	CAP, TANTALUM
CERA FIL	FILTER, CERAMIC
CF	FILTER, CERAMIC
DL	DELAY LINE
E/CAP	CAP, ELECT
FILT	FILTER
FLTR	FILTER
FUSE RES	RES, FUSE
MOT	MOTOR
P-DIODE	PHOTO DIODE
P-SNSR	PHOTO SENSER
P-TR	PHOTO TRANSISTOR
POLY VARI	VARIABLE CAPACITOR
PPCAP	CAP, PP
PT	POWER TRANSFORMER
PTR, RES	PTR, MELF
RC	REMOTE CONTROLLER
RES NF	RES. NON-FLAMMABLE
RESO	RESONATOR
SHLD	SHIELD
SOL	SOLENOID
SPKR	SPEAKER
SW, LVR	SWITCH, LEVER
SW, RTRY	SWITCH, ROTARY
SW, SL	SWITCH, SLIDE
TC CAP	CAP, CERA-SOL
THMS	THERMISTOR
TR	TRANSISTOR
TRIMER	CAP, TRIMMER
TUN-CAP	VARIABLE CAPACITOR
VIB, CER	RESONATOR, CERAMIC
VIB, XTAL	RESONATOR, CRYSTAL
VR	VOLUME
ZENER	DIODE, ZENER

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
CHAS	CHASSIS
CLR	COLLAR
CONT	CONTROL
CRSR	CURSOR
CU	CUSHION
CUSH	CUSHION
DIR	DIRECTION
DUBB	DUBBING
FL	FRONT LOADING
FLY-WHL	FLYWHEEL
FR	FRONT
FUN	FUNCTION
G-CU	G-CUSHION
HDL	HANDOL
HIMERON	CLOTH
HINGE, BAT	HINGE, BATTERY
HLDR	HOLDER
HT-SINK	HEAT SINK
IB	INSTRUCTION BOOKLET
IDLE	IDLER
IND, L-R	INDICATOR, L-R
KEY, CONT	KEY, CONTROL
KEY, PRGM	KEY, PROGRAM
KNOB, SL	KNOB, SLIDE
LBL	LABEL
LID, BATT	LID, BATTERY
LID, CASS	LID, CASSETTE
LVR	LEVER
P-SP	P-SPRING
PANEL, CONT	PANEL, CONTROL
PANEL, FR	PANEL, FRONT
PRGM	PROGRAM
PULLY, LOAD MO	PULLY, LOAD MOTOR
RBN	RIBBON
S-	SPECIAL
SEG	SEGMENT
SH	SHEET
SHLD-SH	SHIELD-SHEET
SL	SLIDE
SP	SPRING
SP-SCREW	SPECIAL-SCREW
SPACER, BAT	SPACER, BATTERY
SPR	SPRING
SPR-P	P-SPRING
SPR-PC-PUSH	P-SPRING, C-PUSH
T-SP	T-SPRING
TERM	TERMINAL
TRIG	TRIGGER
TUN	TUNING
VOL	VOLUME
W	WASHER
WHL	WHEEL
WORM-WHL	WORM-WHEEL

サービス技術ニュース

番号	連絡内容
G-	-
G-	-
G-	-

アイワ株式会社
AIWA CO.,LTD.

9630472, 750038

Tokyo Japan