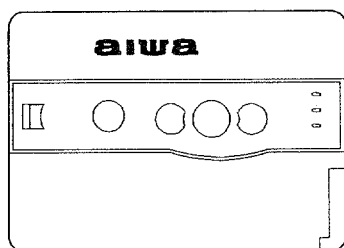


aiwa



HS-GX3000



STEREO CASSETTE PLAYER

• BASIC TAPE MECHANISM : 5ZM-2 P1

• TYPE: AE

SPECIFICATIONS

Maximum output :	5 mW + 5 mW (EIAJ 32Ω)
Power sources :	DC 1.2 V using the supplied rechargeable battery NB-5G, DC 1.5 V using an R6 (size AA) dry cell battery, AC house current using an optional AC adaptor
Battery life (EIAJ 1mW) :	Fully recharged NB-5G rechargeable battery : Approx. 9 hrs Alkaline (LR6, size AA) battery : Approx. 31.0 hrs
Maximum dimensions :	111.3 (W) x 81.2 (H) x 20.4 (D) mm (4 1/2 x 3 1/4 x 13/16 in.)
Weight :	Approx. 188g, 6.6 oz (including the rechargeable battery, excluding the battery case)

<Battery charger RB-107E>

Rated voltage : AC 230 V, 50Hz

- 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.

MANUAL
SERVICE

CAUTION WHEN SERVICING

If the main board is opened while repairing the unit, operations cannot be checked since the motor terminals, etc. are soldered.

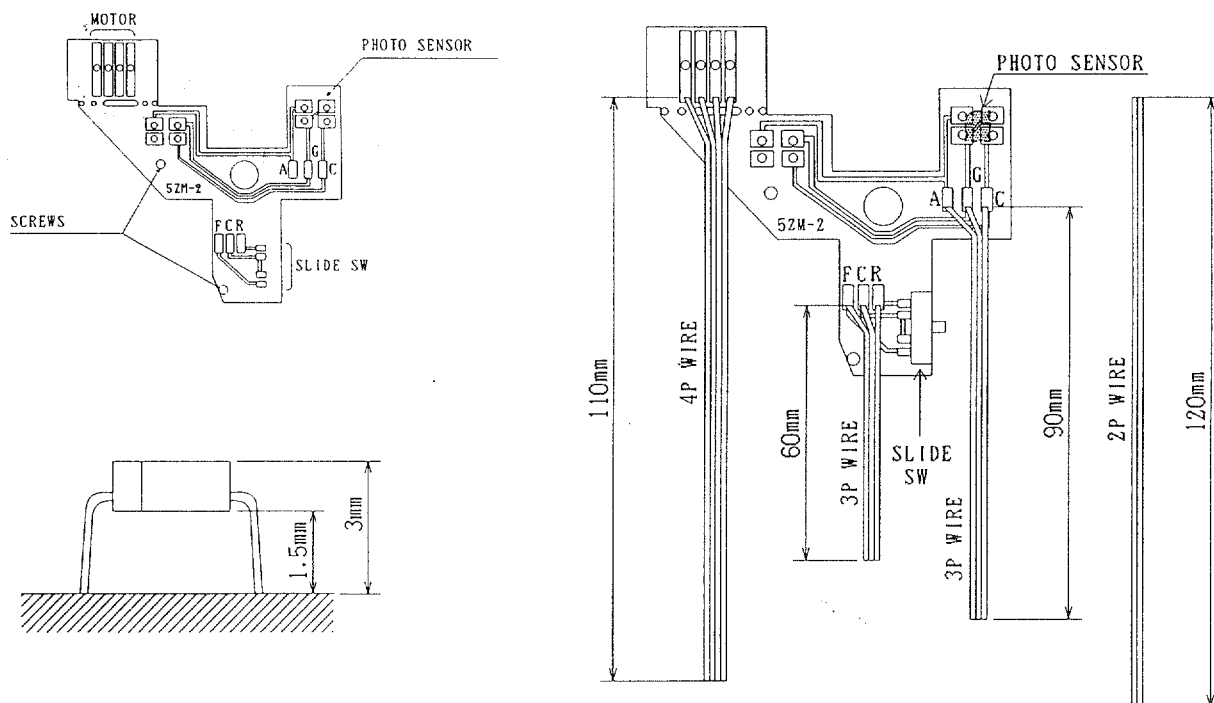
Use a jig (for the 5ZM-2) to check operation with the main board opened.

Part Name: JIG, KIT 5ZM-2 Part No.: SV-J00-006-010

1) Assembling the Jig

Assemble the jig, referring to the following diagram.

- ① Divide the 12-pin cable to create one 4-pin wire, two 3-pin wires and one 2-pin wire.
- ② Solder a photosensor to the jig board lifting it approx. 1.5mm above the board.
- ③ Solder a slide SW (F/R SW) to the jig board.
- ④ Solder each wire to the soldered sections as shown in the diagram.



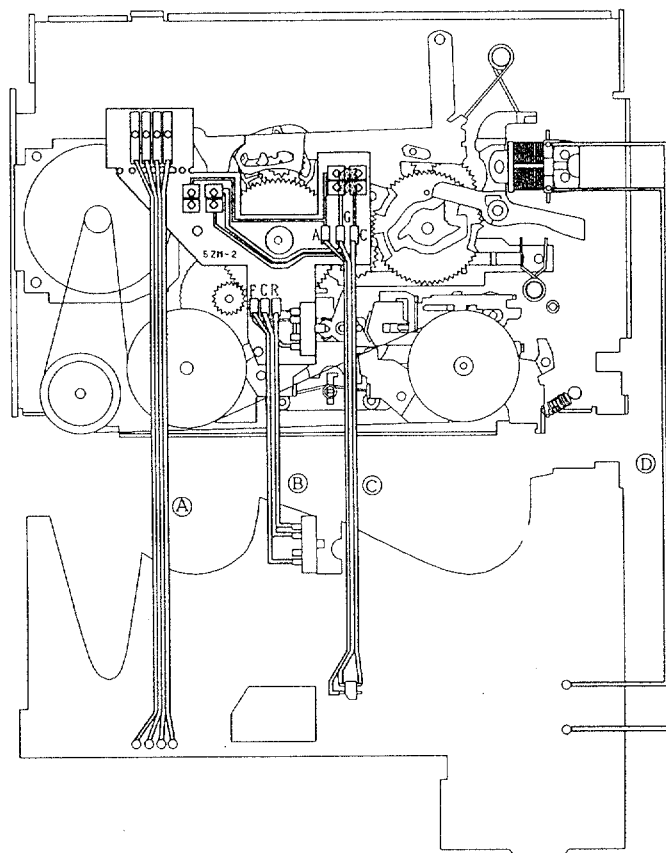
2) Attaching the Jig

- ① Fix the jig board to mechanism using the main board retaining screws.
- ② Solder the motor terminals.
- ③ Solder wire ① for the motor to the motor terminals.
- ④ Solder wire ② for the F/R SW to each terminal (FCR) of the F/R SW on the main board.
- ⑤ Solder wire ③ for the photosensor to the photosensor on the main board.
- ⑥ Solder 2-pin wire ④ to the plunger and the plunger terminal on the main board.

3) Using the Jig

When the board is opened, the operation switches are at the back of the board. To increase working efficiency, use the remote control to operate the unit.

- ① Connect the remote control to the main unit.
- ② Short the cassette switch terminals.
- ③ Slide the F/R SW on the main board to its center.



Caution: Tighten the screws so the board is parallel to the mechanism. If the board is not flat the photosensor may not operate.

ELECTRICAL MAIN PARTS LIST

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

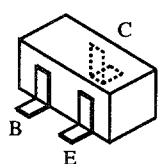
REF. NO.	PART NO.	KANRI NO.	DESCRIPTION	REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
IC	87-A20-441-010	C-IC, BA3632K		C136	87-A10-418-080		C-CAP, TN 22-4 A TCF
	87-A20-339-040	C-IC, NJM2185V		C137	87-A10-263-080		C-CAP, U 0.1-16 Z F
	87-A20-443-010	C-IC, MB89133L-358		C138	87-A10-263-080		C-CAP, U 0.1-16 Z F
	87-A20-089-040	C-IC, PST9011		C151	87-012-393-080		C-CAP, S 0.22-16 K W5R CM/CB
	87-A20-090-040	C-IC, PST9010		C152	87-012-393-080		C-CAP, S 0.22-16 K W5R CM/CB
	87-A20-088-080	C-IC, PST9017		C153	87-A10-369-080		C-CAP, S 0.47-16 K B
	87-070-449-040	C-IC, LBI679V		C154	87-A10-369-080		C-CAP, S 0.47-16 K B
	87-070-450-040	C-IC, MM1209XWBE		C155	87-016-462-080		C-CAP, S 1-16 Z F
	87-A20-454-040	C-IC, XC6371A221P		C156	87-A10-263-080		C-CAP, U 0.1-16 Z F
				C157	87-A10-422-080		C-CAP, TN 10-4 A TCF
TRANSISTOR	87-026-475-080	C-TR, RN1607		C158	87-A10-418-080		C-CAP, TN 22-4 A TCF
	89-341-165-080	C-TR, 2SC4116GR		C159	87-016-462-080		C-CAP, S 1-16 Z F
	89-113-625-080	C-TR, 2SA1362GR		C160	87-016-462-080		C-CAP, S 1-16 Z F
	87-026-411-080	C-TR, RN1304		C161	87-016-462-080		C-CAP, S 1-16 Z F
	87-026-476-080	C-TR, RN1610		C162	87-016-462-080		C-CAP, S 1-16 Z F
	87-026-481-080	C-TR, RN4607		C181	87-016-462-080		C-CAP, S 1-16 Z F
	87-A30-025-070	C-TR, 2SD1935-6		C182	87-016-462-080		C-CAP, S 1-16 Z F
	87-A30-024-080	C-TR, 2SB1302S		C183	87-016-462-080		C-CAP, S 1-16 Z F
	89-212-184-080	C-TR, 2SB1218A		C184	87-016-462-080		C-CAP, S 1-16 Z F
	87-026-418-080	C-TR, RN1311		C185	87-016-436-080		C-CAP, TN 47-4 B2
DIODE	87-026-412-080	C-TR, RN1305		C186	87-016-118-080		C-CAP, U 0.022-25 J B
	87-026-470-080	C-TR, HNIC03FB		C202	87-A10-263-080		C-CAP, U 0.1-16 Z F
	87-001-166-080	C-DIODE, 1SS301		C203	87-A10-263-080		C-CAP, U 0.1-16 Z F
	87-001-553-080	C-DIODE, 1SS322		C204	87-A10-263-080		C-CAP, U 0.1-16 Z F
	87-001-167-080	C-DIODE, 1SS302		C205	87-016-118-080		C-CAP, U 0.022-25 J B
				C206	87-016-118-080		C-CAP, U 0.022-25 J B
				C207	87-012-274-080		C-CAP, U 1000P-50 K B
				C208	87-012-274-080		C-CAP, U 1000P-50 K B
				C209	87-012-274-080		C-CAP, U 1000P-50 K B
				C210	87-A10-263-080		C-CAP, U 0.1-16 Z F
MAIN C.B				C211	87-A10-263-080		C-CAP, U 0.1-16 Z F
				C212	87-A10-263-080		C-CAP, U 0.1-16 Z F
				C251	87-016-180-080		C-CAP, S 0.047-25 J W5R
				C252	87-010-989-080		C-CAP, S 2200P-50 J CH
				C254	87-A10-263-080		C-CAP, U 0.1-16 Z F
	C101	87-012-273-080	C-CAP, U 820P-50 K B	C255	87-010-784-080		C-CAP, U 0.012-25 K B
	C102	87-012-273-080	C-CAP, U 820P-50 K B	C256	87-010-784-080		C-CAP, U 0.012-25 K B
	C103	87-012-273-080	C-CAP, U 820P-50 K B	C257	87-010-784-080		C-CAP, U 0.012-25 K B
	C104	87-012-273-080	C-CAP, U 820P-50 K B	C258	87-012-278-080		C-CAP, U 2200P-50 K B
	C105	87-016-117-080	C-CAP, U 0.018-25 J B	C259	87-A10-260-080		C-CAP, U 0.1-16 K B
	C106	87-016-117-080	C-CAP, U 0.018-25 J B	C260	87-A10-466-080		C-CAP, TN 3.3-6.3 A TCF
	C107	87-A10-418-080	C-CAP, TN 22-4 A TCF	C261	87-016-180-080		C-CAP, S 0.047-25 J W5R
	C108	87-A10-418-080	C-CAP, TN 22-4 A TCF	C281	87-016-462-080		C-CAP, S 1-16 Z F
	C109	87-010-828-080	C-CAP, U 0.033-16 Z F	C301	87-016-462-080		C-CAP, S 1-16 Z F
	C110	87-010-828-080	C-CAP, U 0.033-16 Z F	C302	87-A10-422-080		C-CAP, TN 10-4 A TCF
	C111	87-012-272-080	C-CAP, U 680P-50 K B GRM	C351	87-A10-418-080		C-CAP, TN 22-4 A TCF
	C112	87-012-272-080	C-CAP, U 680P-50 K B GRM	C352	87-A10-034-080		C-CAP, TN 33-10 M (B2)
	C113	87-016-462-080	C-CAP, S 1-16 Z F	C353	87-016-462-080		C-CAP, S 1-16 Z F
	C114	87-016-462-080	C-CAP, S 1-16 Z F	J101	85-HK3-605-010		JACK, DIA3.5 BLK ST 5P
	C115	87-016-081-080	C-CAP, S 0.1-16 K R	L351	87-A50-174-080		C-COIL, 82UH 7004-2
	C116	87-016-081-080	C-CAP, S 0.1-16 K R	LED301	87-A40-338-070		C-LED, LNJ308G8LRA G
	C117	87-A10-004-080	C-CAP, TN 220-2.5 M (C)	LED302	87-A40-339-070		C-LED, LNJ808K8SRA O
	C118	87-A10-004-080	C-CAP, TN 220-2.5 M (C)	LED303	87-A40-340-070		C-LED, LNJ808R8ERA R
	C119	87-A10-421-080	C-CAP, TN 2.2-10 A TCF	PS281	87-A90-273-010		SNSR, 5164KN -F1
	C120	87-A10-418-080	C-CAP, TN 22-4 A TCF	R103	87-022-215-080		C-RES, U 1K-1/16W F
	C121	87-012-196-080	C-CAP, U 120P-50 J CH	R104	87-022-215-080		C-RES, U 1K-1/16W F
	C122	87-010-787-080	C-CAP, U 0.022-25 K B	R105	87-022-428-080		C-RES, U 180-1/16W F
	C123	87-A10-263-080	C-CAP, U 0.1-16 Z F	R106	87-022-428-080		C-RES, U 180-1/16W F
	C124	87-A10-263-080	C-CAP, U 0.1-16 Z F	R151	87-022-252-080		C-RES, U 36K-1/16W F
	C125	87-A10-420-080	C-CAP, TN 4.7-4 A TCF	R201	87-022-215-080		C-RES, U 1K-1/16W F
	C126	87-016-491-080	C-CAP, S 0.22-16 Z F C2021	R202	87-022-215-080		C-RES, U 1K-1/16W F
	C127	87-010-829-080	C-CAP, U 0.047-16 Z F	R203	87-022-215-080		C-RES, U 1K-1/16W F
	C128	87-A10-418-080	C-CAP, TN 22-4 A TCF	R204	87-022-219-080		C-RES, U 1.5K-1/16W F
	C129	87-A10-263-080	C-CAP, U 0.1-16 Z F	R205	87-022-247-080		C-RES, U 22K-1/16W F
	C130	87-016-436-080	C-CAP, TN 47-4 B2	R208	87-022-247-080		C-RES, U 22K-1/16W F
	C131	87-A10-418-080	C-CAP, TN 22-4 A TCF	SFR251	87-A90-028-080		C-SFR, 330K H CVR-32(STD)
	C132	87-A10-466-080	C-CAP, TN 3.3-6.3 A TCF	SW101	85-HK3-606-010		SW, LEAF (5ZM-2)
	C133	87-A10-263-080	C-CAP, U 0.1-16 Z F	SW102	87-036-427-180		C-SW, SL 1-1-3 MHT
	C134	87-010-504-080	C-CAP, TN 0.47-25 M ECS	SW151	87-036-428-180		C-SW, SL 1-1-2 SSQ
	C135	87-A10-031-080	C-CAP, U 0.01-25 K B	SW201	87-036-308-180		C-SW, TACT 112HST

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
SW202	87-036-308-180	C-SW, TACT 112HST	
SW203	87-036-308-180	C-SW, TACT 112HST	
SW204	87-036-308-180	C-SW, TACT 112HST	
SW205	87-036-203-180	C-SW, SL 1-1-3 SSSS81NC	
SW206	87-036-428-180	C-SW, SL 1-1-2 SSQ	
SW207	87-036-426-080	C-SW, PUSH-2-7 SPPW9	
SW208	87-A90-214-080	C-SW, SL 1-1-2 SSSS8A2-B	
VR101	87-A90-342-080	C-VR, RTRY 50KCX2 V XV0103	
X201	87-A70-008-080	C-VIB, CER 3.00MHZ CSTCS-MG0C5	

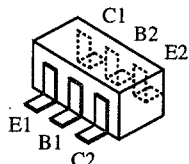
HEAD FLEX C.B

PH 85-HK3-608-010 HEAD ASSY

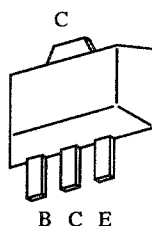
TRANSISTOR ILLUSTRATION



2SA1362
2SC4116
RN1304
2SD1935
2SB1218
RN1311
RN1305



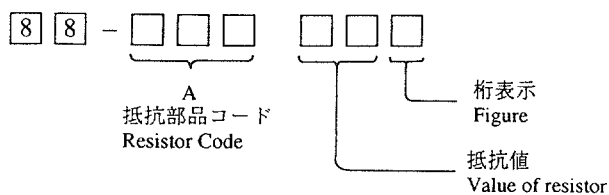
RN1610
RN4607
RN1607
HN1C03



2SB1302

○ チップ抵抗部品コード／CHIP RESISTOR PART CODE

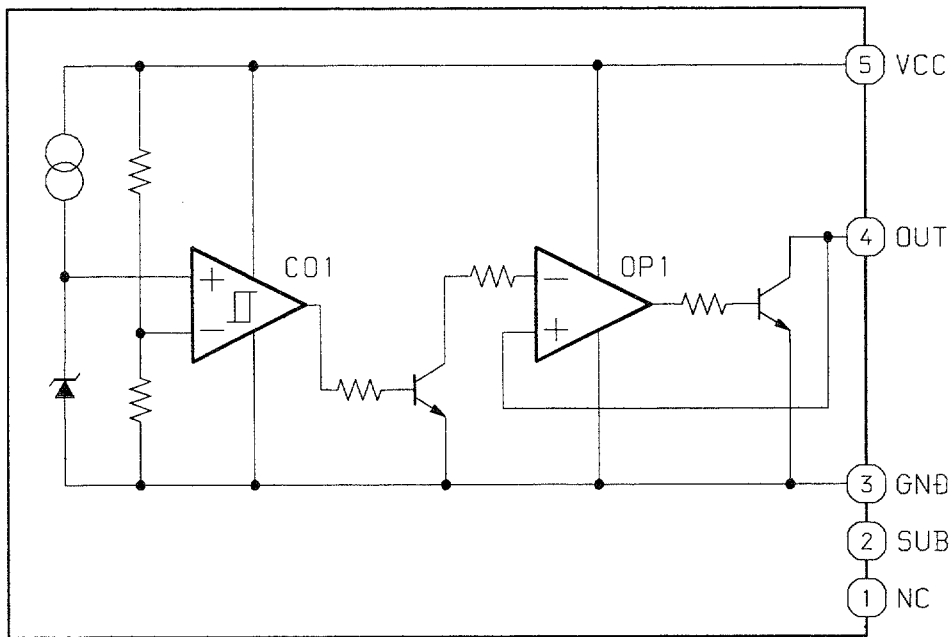
チップ抵抗部品コードの成り立ち
Chip Resistor Part Coding



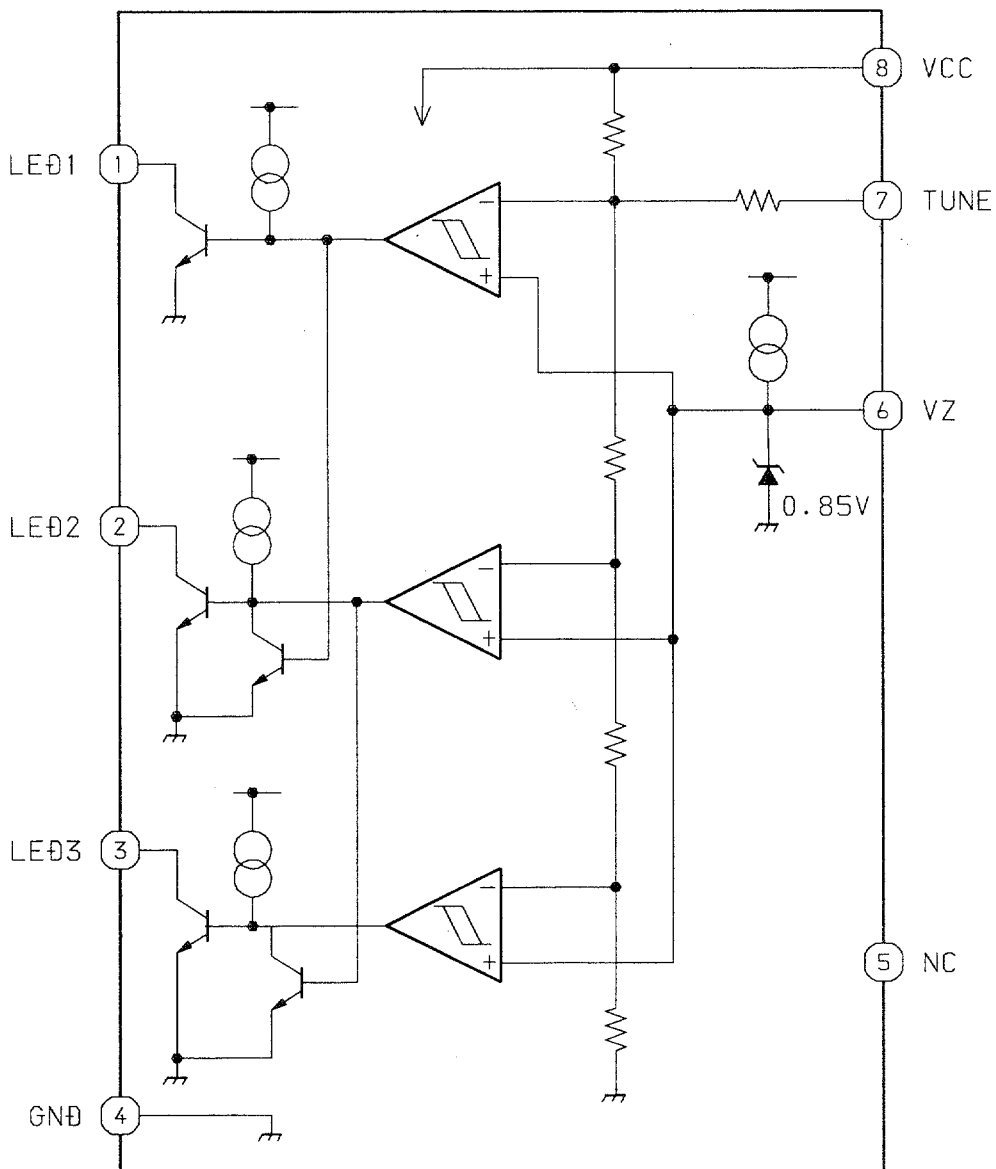
チップ抵抗
Chip resistor

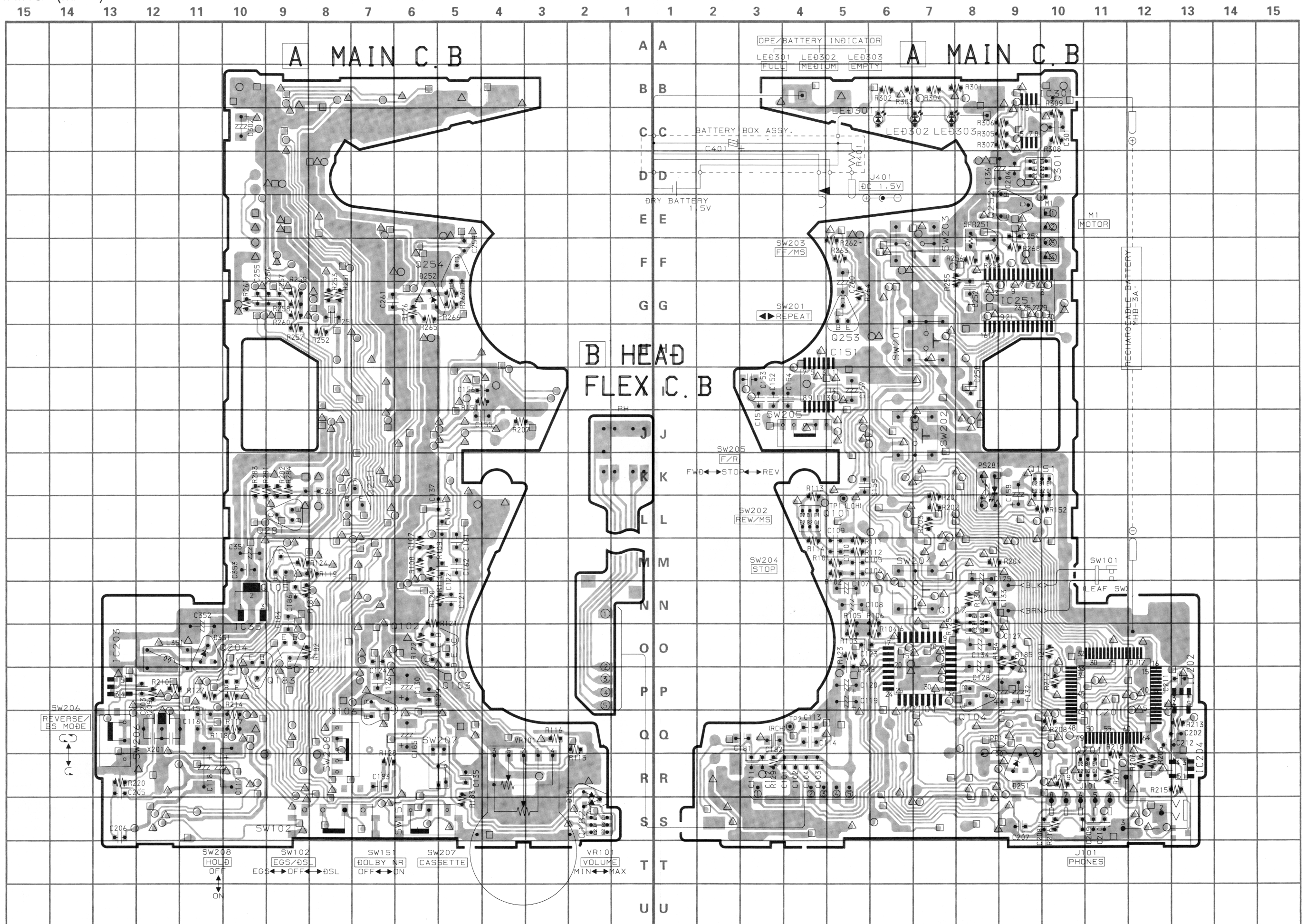
容量 Wattage	種類 Type	許容誤差 Tolerance	記号 Symbol	寸法／Dimensions (mm)				抵抗コード : A Resistor Code: A
				外形／Form	L	W	t	
1／16W	1608	±5%	CJ		1.6	0.8	0.45	108
1／10W	2125	±5%	CJ		2	1.25	0.45	118
1／8W	3216	±5%	CJ		3.2	1.6	0.55	128

IC BLOCK DIAGRAM
IC,PST9010/9011/9017



IC,MM1209XWBE





IC DESCRIPTIONS

IC,MB89133L-358

Pin No.	Pin Name	I/O	Description
1	AVCC	–	Power supply terminal for A/D converter.
2	RST	I	Reset input terminal.
3	MOD 0	I	Operation-mode specification input terminal. Connected to GND.
4	MOD 1	I	Operation-mode specification input terminal. Connected to GND.
5	X0	–	Oscillator connection terminal. 3MHz for Oscillator frequency.
6	NC	–	Not used.
7	XC	–	Not used.
8	XI	–	Oscillator connection terminal. 3MHz for Oscillator frequency.
9	VCC	–	Power supply terminal.
10	XOA	–	Not used.
11	NC	–	Not used.
12	NC	–	Not used.
13	X1A	–	Not used.
14	NC	–	Not used.
15	GAIN CUT	O	Not used.
16	BRAKE	O	H: MOTOR BRAKE ON L: MOTOR BRAKE OFF
17	NC	–	Not used.
18	D/D CTRL	O	DC/DC converter control terminal.
19	POWER	O	H: POWER ON L: POWER OFF
20	MUTE	O	H: MUTE OFF L: MUTE ON
21	NC	–	Not used.
22	F/R CTRL	O	H: FWD direction rotating L: REV direction rotating.
23	AF CTRL	O	Not used.
24	AF IN	I	H: with music L: without music.
25	VSS	–	Power (GND) terminal.
26	MOTOR W	I/O	Control motor W phase with 3 levels.
27	MOTOR V	I/O	Control motor V phase with 3 levels.
28	NC	–	Not used.
29	MOTOR U	I/O	Control motor U phase with 3 levels.
30	CTRL2	I/O	Control governor circuit by CTRL1, 2 logic.
31	CTRL1	I/O	Control governor circuit by CTRL1, 2 logic.
32	NC	–	Not used.
33	AUTO STOP	I	Detect tape end by AC level input.
34	HOLD	I	Not used. (fixed at H level).
35	C-SW IN	I	H: with cassette L: without cassette
36	TU IN	I	Not used. (fixed at L level).
37	LV SET STOP	I	Tape stop in power reduction L: Tape STOP.
38	NC	–	Not used.
39	NC	–	Not used.
40	REV BS SW IN	I	H: continuous play, BS mode L: reverse play, prohibit BS mode.
41	WAKE UP (B)	I	Not used. (fixed at H level.)
42	BATT EMP	I	L: transfer display data of BATT EMPTY.

Pin No.	Pin Name	I/O	Description
43	BATT MID	I	L: transfer display data of BATT MID.
44	NC	–	Not used.
45	NC	–	Not used.
46	BATT FULL	I	L: transfer display data of BATT FULL.
47	BUZZER	O	Output operation setting alarm.
48	WAKE UP (R)	I	Mechanical computer wake up-operation terminal..
49	NC	–	Not used.
50	WAKE UP (M)	I	Mechanical computer wake up-operation terminal.
51	P SIG	I	Detect motor-wake up-operation cycle by pulse-wave input.
52	WOLT DETECT	I	Detection terminal for power voltage L: power reducing.
53	REP/FUNC	I	Not used. (Fixed at L level.)
54	SDATA OUT (M)	O	Serial data output.
55	SCLK (M)	I	Serial correspondence clock.
56	NC	–	Not used.
57	AVSS	–	Power (GND) terminal for A/D converter.
58	NC	–	Not used.
59	AVR	I	Reference voltage input terminal for A/D converter.
60	F/R SW IN	I	H: STOP M: FWD mode L: REV omode.
61	KEY IN (R)	I	Removal control KEY input terminal.
62	KEY IN (M)	I	Main control KEY input terminal.
63	MOTOR START	O	GAIN control in MOTOR driving
64	NC	–	Not used.

IC,NJM2185

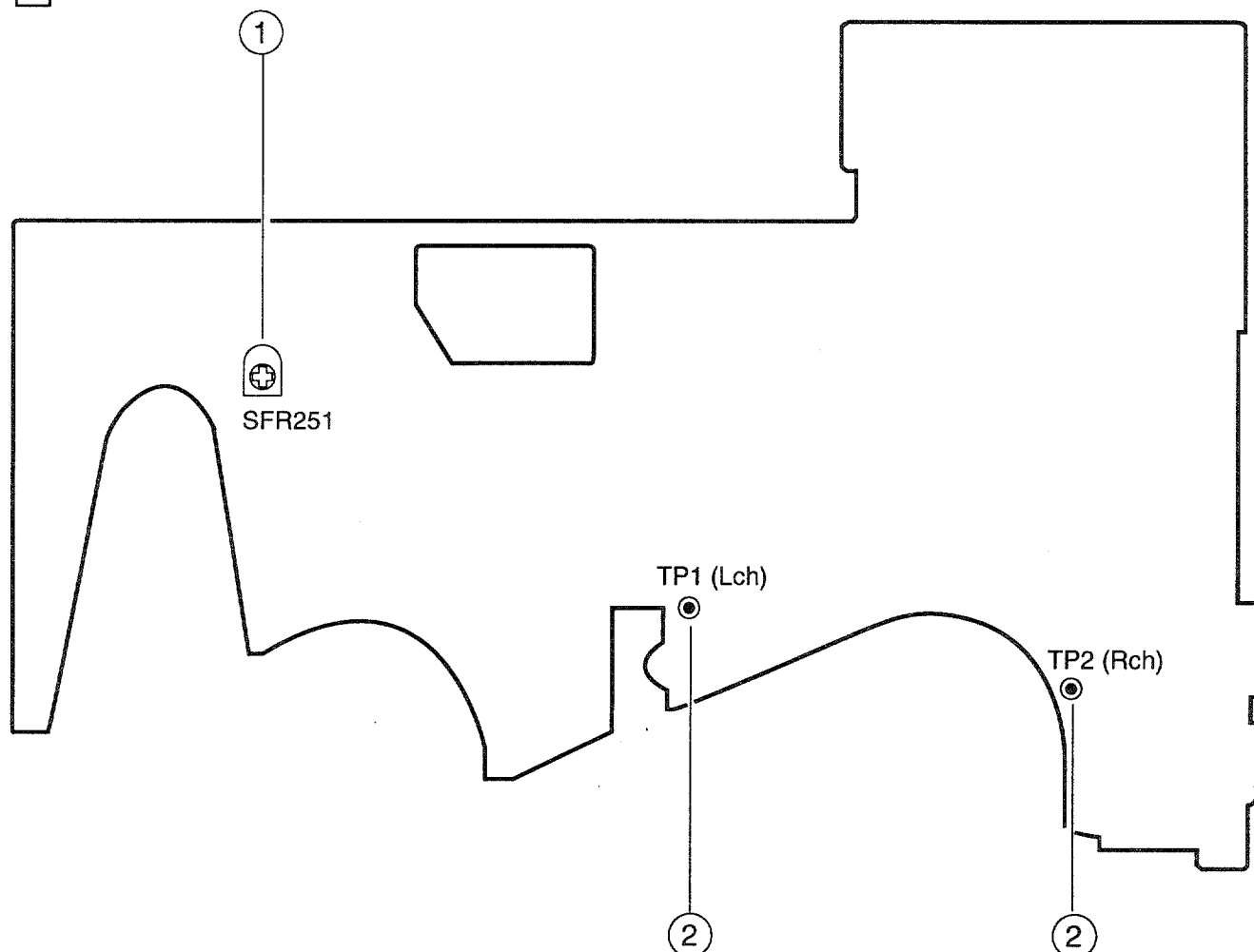
Pin No.	Pin Name	I/O	Description
1	GND	–	Power (GND) terminal.
2	IREF	–	Reference current terminal.
3	VREF	–	Reference voltage terminal.
4	IN L	I	Dolby input Lch.
5	OUT L	O	Dolby output Lch.
6	DC L	–	Waiting filter Lch.
7	DET L	O	Detect output Lch.
8	DET R	O	Detect output Rch.
9	DC R	–	Waiting filter Rch.
10	OUT R	O	Dolby output Rch.
11	IN R	I	Dolby input Rch.
12	V EXT	I	External reference voltage input terminal.
13	SW	I	OPEN: Dolby OFF L: Dolby ON.
14	VCC	–	Power supply terminal.

Pin No.	Pin Name	I/O	Description
1	V OUT	O	V phase output.
2	V OUT	O	U phase output.
3	U SOFT	O	U-phase soft switching terminal.
4	V SOFT	O	V-phase soft switching terminal.
5	W SOFT	O	W-phase soft switching terminal.
6	VCC1	–	Power supply terminal 1, 0.9V~1.8V.
7	PL	O	PL-driver output terminal.
8	VCC2	–	Power supply terminal 2, VCCX2=1.8~3.6V.
9	HALL	O	HALL-element bias output terminal.
10	MC	O	External TR drive terminal.
11	LED	O	LED driver output terminal.
12	VREF	–	Reference voltage 1.1V.
13	CL	I	Comparator input terminal.
14	HS	O	CI charge power terminal in half-wave driving.
15	PW	O	Comparator output terminal.
16	VC	O	Buffer output terminal.
17	IV	O	VI switching output terminal.
18	VI	O	IV switching output terminal.
19	CTR2	I	Switching terminal for START/STOP and LED/PL.
20	CTR1	I	Switching terminal for START/STOP and LED/PL.
21	PSU	O	Comparator output terminal for MCENTER and U-phase output.
22	P-SIG	O	PSIG output terminal.
23	CENTER	I	Midpoint-voltage input terminal for motor in PSIG.
24	GND	–	GND terminal.
25	IE	O	Control voltage of soft switching terminal by external resistance.
26	WIN	I	W-phase input.
27	VIN	I	V-phase input.
28	UIN	I	U-phase input.
29	W OUT	O	W-phase output.
30	P GND	–	POWER block. GND terminal.

Pin No.	Pin Name	I/O	Description
1	VCC	–	Power supply terminal.
2	POWER OUT L	O	Power output: Lch.
3	POWER NF	–	Power amplifier NF.
4	BST OUT	O	Boost amplifier output.
5	GND	–	Ground for VCC terminal.
6	POWER OUT R	O	Power output: Rch.
7	AGC TAU	–	Value when Boost AGC setting.
8	LPF2	–	Boost amplifier LPF2 terminal.
9	BST NF	–	Boost amplifier NF.
10	POWER IN R	I	Power amplifier input: Rch
11	LPF1	–	Boost amplifier LPF1 terminal.
12	POWER IN L	I	Power amplifier: Lch.
13	PRE NF L	–	Pre-amplifier NF: Lch.
14	PRE OUT L	O	Pre-amplifier output: Lch.
15	AMS DET	I	AMS signal input.
16	PRE OUT R	O	Pre-amplifier output: Rch.
17	PRE NF R	–	Pre-amplifier NF: Rch.
18	REV L IN	I	Head input REV Lch.
19	REV R IN	I	Head input REV Rch.
20	FWD R IN	I	Head input FWD Rch.
21	FWD L IN	I	Head input FWD Lch.
22	BIAS OUT	O	Reference voltage output terminal.
23	BIAS IN	I	Reference voltage input terminal.
24	AMS OUT	O	AMS comparator output.
25	PRE MUTE	I	Not used. (Fixed to L level)
26	FWD/REV	I	H: FWD operation L: REV operation
27	BST SW	I	Boost circuit switch.
28	POWER MUTE	I	H: MUTE OFF L: MUTE ON
29	POWER SW	I	H: POWER OFF L: POWER ON.
30	FR IN	I	Ripple-filter circuit filter terminal.
31	RF OUT	O	Ripple filter output.
32	RF BASE	O	TR base-bias terminal for ripple filter.

ADJUSTMENT

A MAIN C.B



<TAPE PLAYER SECTION>

1. Tape Speed Adjustment

- Settings:
- Test tape : TTA - 100
 - Test point : Phones jack (J101)
 - Adjustment location : SFR251
 - DOLBY NR : OFF
 - DSL / EAR GUARD : OFF

Method: Play back the test tape, adjust for $3015\text{Hz} \pm 10\text{Hz}$ at FWD and difference of speed (FWD to REV) is $\pm 45\text{Hz}$.

2. Dolby Level Check

- Settings:
- Test tape : TTA - 200
 - Test point : TP1 (Lch), TP2 (Rch)
 - DOLBY SW : OFF
 - DSL / EAR GUARD : OFF
 - VOLUME : MIN

Method : Connect an electrolytic capacitor ($10\mu\text{F} / 16\text{V}$) between equipment and test point, check the voltage for $32\text{mV} \pm 1\text{dB}$.

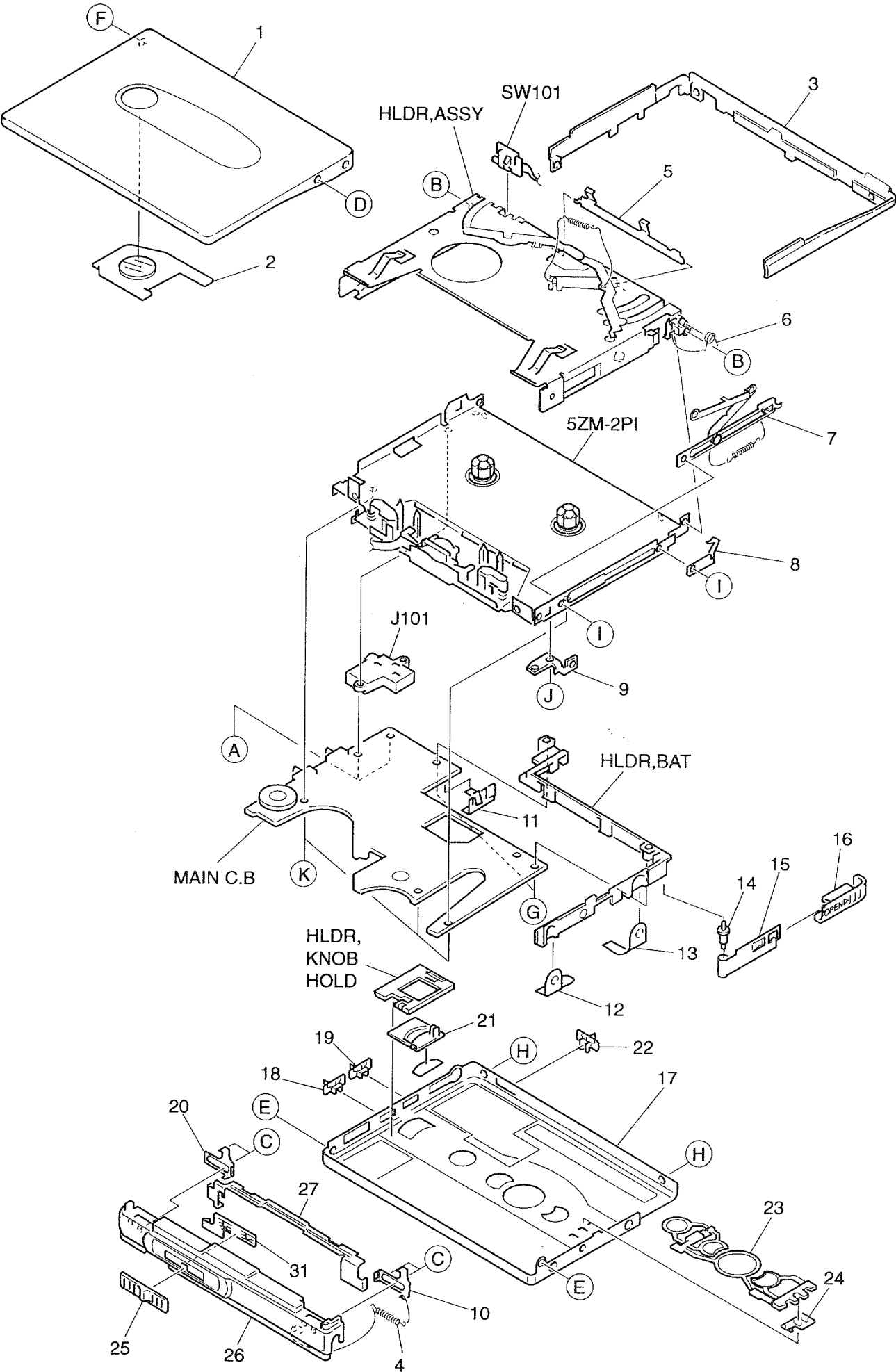
3. Azimuth Adjustment.

This model doesn't have azimuth adjustment.

PRACTICAL SERVICE FIGURE

Tape speed :	$3015\text{Hz} \pm 60\text{Hz}$
Wow & flutter :	Less than 0.47% (RMS)
Take-up torque :	$18 \sim 23\text{g-cm}$ (FWD, RVS)
Back tension :	$1.5\text{g-cm} \pm 0.5\text{g-cm}$ (FWD, RVS)
F.F torque :	$55\text{g-cm} +35/-15\text{g-cm}$
REW torque :	$55\text{g-cm} +35/-15\text{g-cm}$
S/N ratio :	More than 43dB (DC, PB)
Distortion :	Less than 3.0% (DC, PB)
Noise level :	Less than 3.0mV (PB, Vol MAX., DC)
	Less than 0.3mV (PB, Vol Min, DC)
Frequency response :	$63\text{Hz} \pm 4\text{dB} \sim 8\text{kHz} \pm 4\text{dB}$
	(NORMAL)
	$63\text{Hz} \pm 4\text{dB} \sim 10\text{kHz} +4/-6\text{dB}$
	(CrO2, METAL)

MECHANICAL EXPLODED VIEW 1 / 1

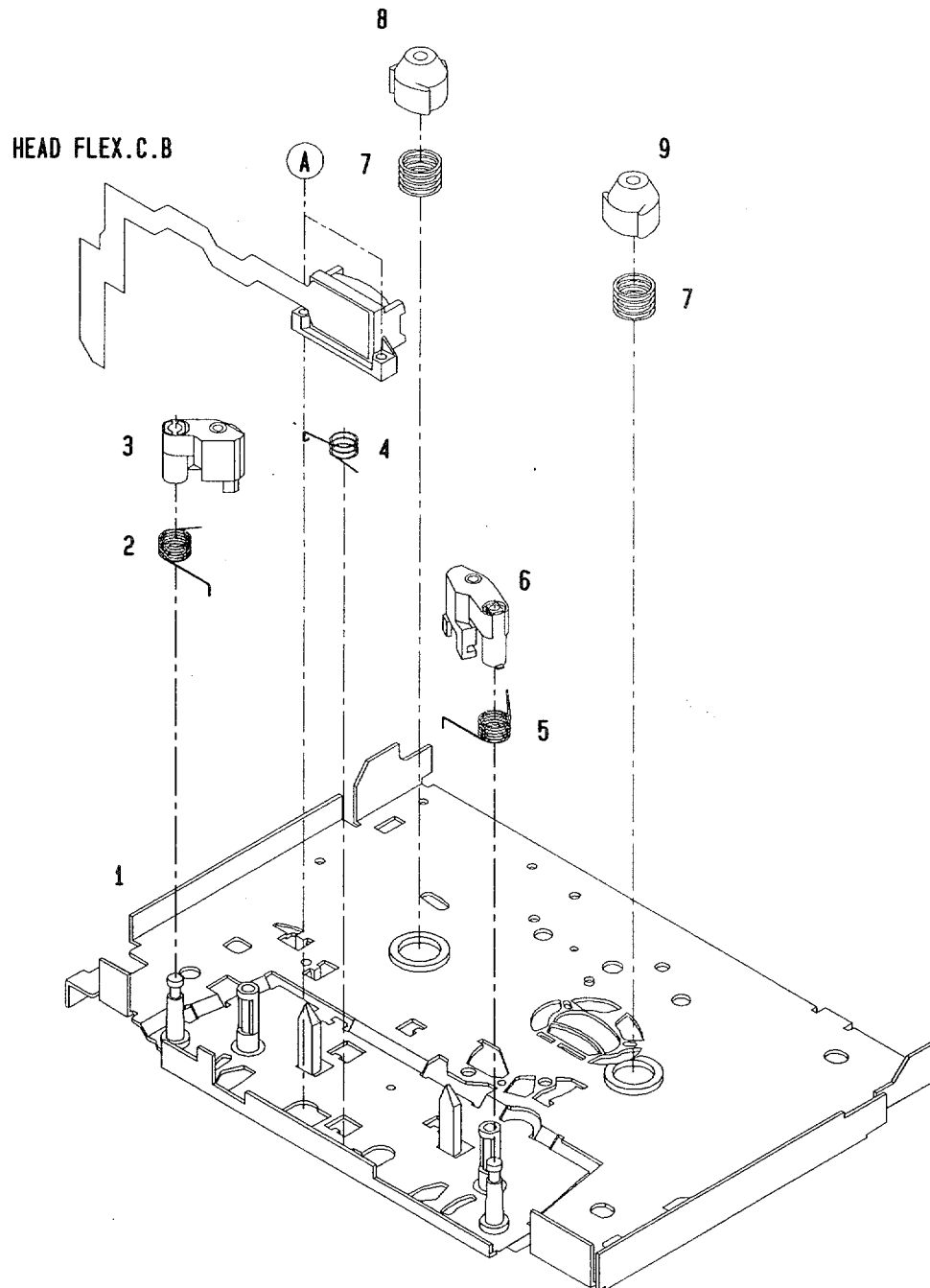


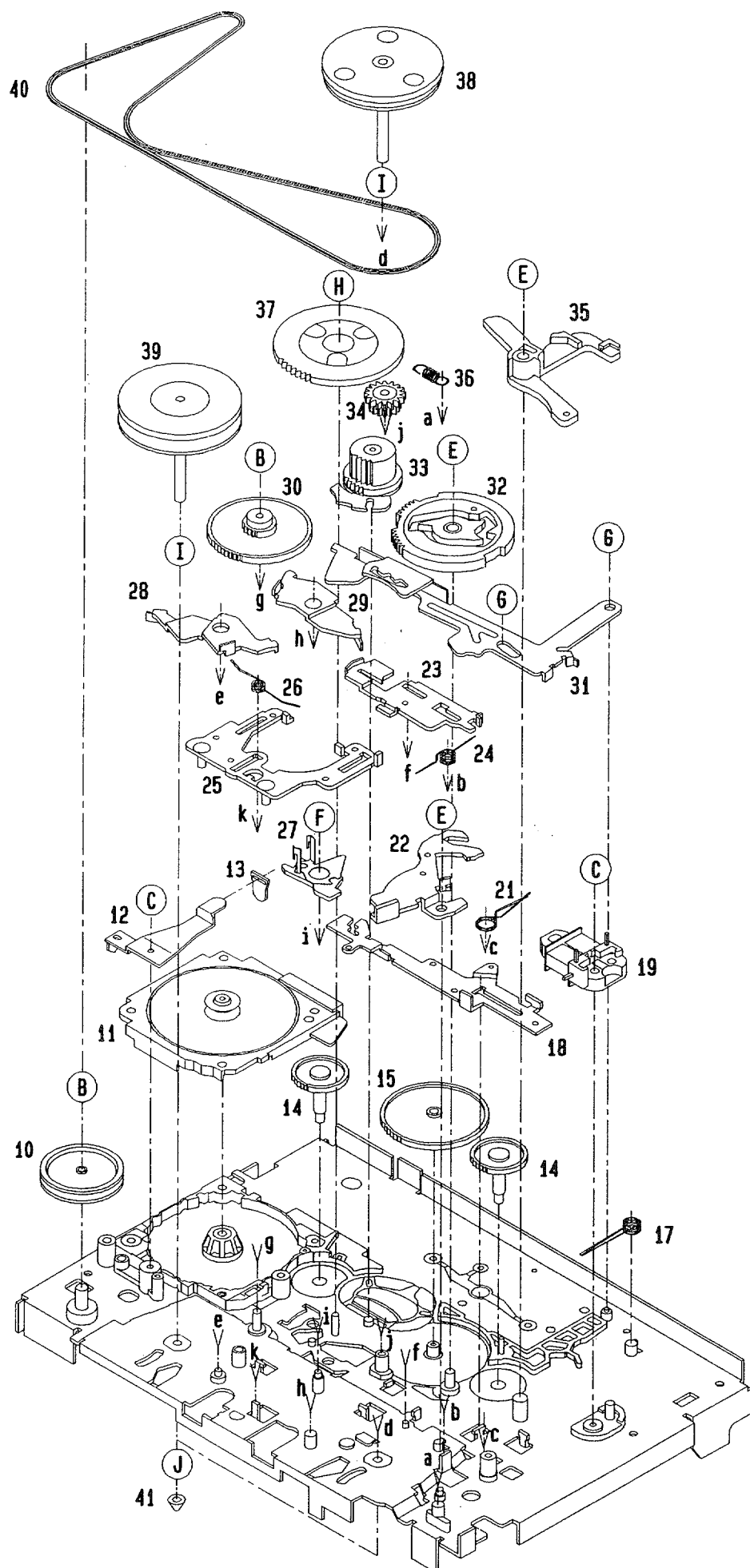
MECHANICAL PARTS LIST 1 / 1

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	86-HK3-037-010		LID,CASS ASSY EX	21	86-HK3-012-010		KNOB,SL HOLD
2	86-HK3-007-010		WINDOW,CASS	22	86-HK3-028-010		KNOB,SL BS SIL
3	86-HK3-040-010		FRAME,CENTER EX	23	86-HK3-013-010		KEY,CONT
4	85-HK3-227-110		E-SP,LOCK	24	86-HK3-014-010		LENS,LED
5	85-HK3-245-210		P-SP,CASS PUSH	25	86-HK3-008-010		KNOB,SL OPEN
6	86-HK3-219-010		SPR-T,STOPPER	26	86-HK3-021-010		PANEL,LOCK BLK
7	85-HK3-213-010		HINGE ASSY	27	85-HK3-226-110		LINK,LOCK
8	85-HK3-212-210		P-SP,STOPPER	A	87-067-480-010		S-SCREW,+1.4-3 SWCH/CR BLK
9	85-HK3-230-010		NUT,B-BOX	B	87-078-221-010		S-SCREW,1.4-0.6 S
10	85-HK3-224-210		PLATE,LOCK L	C	87-HK5-235-010		S-SCREW,1.4-0.6-2.5
11	85-HK3-221-010		BAT,CONT M	D	85-HK3-240-010		SCRW-SR,1.4-1.4CR L
12	85-HK3-229-010		TERM,BAT M	E	87-078-153-010		S-SCREW,SERR1.4-2.5 CR
13	85-HK3-228-110		TERM,BAT P	F	87-078-108-010		S-SCREW,+1.4-0.7-1.3 SWCH/CR C
14	85-HK3-222-010		SHAFT,BAT	G	87-078-218-010		S-SCREW,SERR1.4-5.3
15	85-HK3-220-110		BAT,CONT P	H	85-HK3-241-010		SCRW-SR,1.4-3CR L
16	86-HK3-025-010		LID,BAT SIL	I	87-261-500-310		V+1.4-1.4 BLK
17	86-HK3-041-010		CABI,REAR GX3000	J	87-261-502-310		V+1.4-1.8
18	86-HK3-027-010		KNOB,SL DOLBY SIL	K	87-067-732-010		VT2+1.4-3 CR BLK HL
19	86-HK3-026-010		KNOB,SL DSL SIL				
20	85-HK3-225-210		PLATE,LOCK R				

TAPE MECHANISM EXPLODED VIEW 1 / 1



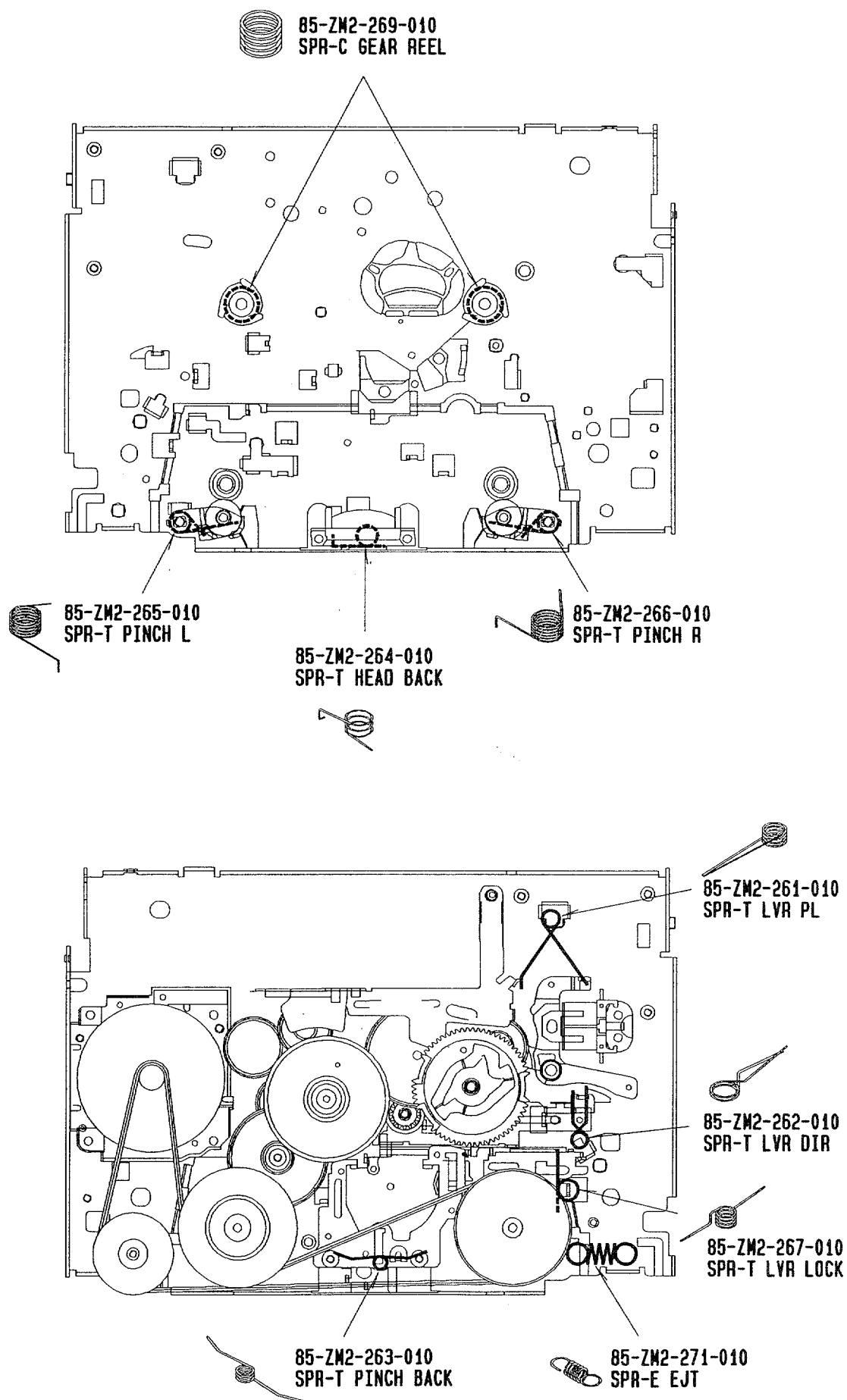


TAPE MECHANISM PARTS LIST 1 / 1

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	85-ZM2-201-110		OUT-SERT ASSY	28	85-ZM2-213-010		LVR PINCH R
2	85-ZM2-265-010		SPR-T PINCH L	29	85-ZM2-212-010		LVR PINCH L
3	85-ZM2-247-110		ARM PINCH ASSY L	30	85-ZM2-222-110		GEAR IDL A
4	85-ZM2-264-010		SPR-T HEAD BACK	31	85-ZM2-204-010		LVR FR
5	85-ZM2-266-010		SPR-T PINCH R	32	85-ZM2-221-010		GEAR CAM
6	85-ZM2-249-110		ARM PINCH ASSY R	33	85-ZM2-205-010		LVR GEAR FR ASSY
7	85-ZM2-269-010		SPR-C GEAR REEL	34	85-ZM2-227-010		GEAR CAM C
8	80-ZM4-231-210		REEL CAP, R	35	85-ZM2-207-110		LVR PL
9	80-ZM4-230-310		REAL CAP, L	36	85-ZM2-271-010		SPR-E, EJT
10	84-ZM1-280-010		PULLY PM	37	85-ZM2-232-110		GEAR SLIP ASSY
11	M8-5ZS-291-000		ABL-52 P1	38	85-ZM2-241-010		FLY-WHL ASSY L
12	85-ZM2-307-010		SPR-P, MOT(S2)	39	85-ZM2-281-010		FLY-WHL ASSY R
13	84-ZM1-383-010		THRUST PLATE(B)	40	85-ZM2-237-010		BELT
14	85-ZM2-228-110		GEAR REEL	41	85-ZM2-260-010		CAP CAPSTAN
15	85-ZM2-223-010		GEAR IDL B	A	85-ZM2-286-010		S-SCREW, V+1.4-7.5
17	85-ZM2-261-010		SPR-T LVR PL	B	87-067-693-010		PW, 3-0.8-0.25 SLT
18	85-ZM2-239-110		LVR DIR ASSY	C	87-067-815-110		VT+1.4-3(HL)
19	85-ZM2-601-010		SOL, TDK	E	87-067-972-010		PW, 1.05-3-0.25 SLT
21	85-ZM2-262-010		SPR-T LVR DIR	F	85-ZM2-312-010		PW1.1-2.5-0.25C
22	85-ZM2-219-110		LINK EJECT	G	87-067-860-010		PW, 3-0.95-0.4
23	85-ZM2-214-010		LVR LOCK	H	87-067-569-010		PW, 0.83-2.5-0.25 SLT
24	85-ZM2-267-010		SPR-T LVR LOCK	I	87-067-789-010		RW, 1.6-3.45-0.25
25	85-ZM2-211-010		LVR HEAD	J	85-ZM2-285-010		PW, 13.3-0.25 SLT
26	85-ZM2-263-010		SPR-T PINCH BACK				
27	85-ZM2-216-110		LINK HEAD ASSY				

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	86-HK3-904-010		IB, EX-EGFSI-L
2	82-HK3-951-010		CARRYING, CASE
3	86-HK3-951-010		BOX, BAT ASSY GRY
4	87-B30-038-010		BAT, NB-5G
△	5	87-B30-083-010	CHARGER, RB-107 E
6	87-B30-073-010		HEADPHONE, HP-MR005

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	
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