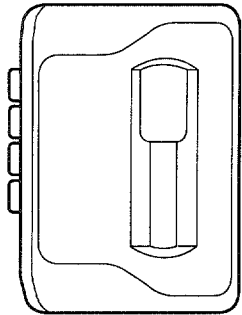


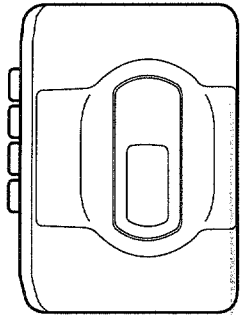
# aiwa



## HS-GM800 HS-GM600 HS-PS271



HS-GM800



HS-GM600 / PS271

STEREO CASSETTE PLAYER

• BASIC TAPE MECHANISM: 7ZM-5 P1N

• TYPE: Y, Y1(271), YZ(600)  
Y, YH, YZ(800)

### SPECIFICATIONS

<b>Maximum output:</b>	20 mW + 20 mW (EIAJ/16Ω)<271/600> 15 mW + 15 mW (EIAJ/16Ω)<800> 12 mW + 12 mW (EIAJ/32Ω)<271/600> 10 mW + 10 mW (EIAJ/32Ω)<800>
<b>Power source:</b>	DC 3V using two size AA (R6) batteries AC house current using an optional AC adaptor Aiwa AC-300/AC-302<271/600,800Y,800YZ> AC house current using an optional AC adaptor Aiwa AC-620/AC-302<800YH>
<b>Maximum dimensions</b>	114(W)X86.4(H)X32.7(D)mm(4 <sup>1</sup> / <sub>2</sub> X 3 <sup>1</sup> / <sub>2</sub> X 1 <sup>5</sup> / <sub>16</sub> in.)<271/600> 114(W)X86.4(H)X31.9(D)mm(4 <sup>1</sup> / <sub>2</sub> X 3 <sup>1</sup> / <sub>2</sub> X 1 <sup>5</sup> / <sub>16</sub> in.)<800>
<b>Weight</b>	Approx. 148g (5.2oz) (excluding batteries)<800> Approx. 110g (3.9oz) (excluding batteries)<271/600>

• 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.

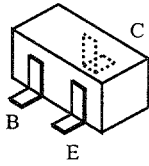
MANUAL  
SERVICE

# 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
<b>IC</b>							
	87-A20-544-040		IC,MM1376AF<800>	C221	87-016-669-080		C-CAP,S 0.1-25 B K
	87-A20-545-040		IC,MM1376BF<EXCEPT 800>	C301	87-010-193-080		C-CAP,S 0.033-25 Z F C2012<800>
	87-A20-532-040		IC,LB1977M	C302	87-010-193-080		C-CAP,S 0.033-25 Z F C2012<800>
	87-001-875-080		C-IC,BA1106FS<800>	C303	87-010-186-080		C-CAP,S 4700P-50 K B<800>
				C304	87-010-186-080		C-CAP,S 4700P-50 K B<800>
<b>TRANSISTOR</b>							
	87-026-263-080		C-TR,RN1410<800>	C305	87-010-197-080		C-CAP,S 0.01-25 K B<800>
	87-026-264-080		C-TR,RN1411<EXCEPT 800>	C306	87-010-197-080		C-CAP,S 0.01-25 K B<800>
				C307	87-010-193-080		C-CAP,S 0.033-25 Z F C2012<800>
				C308	87-010-193-080		C-CAP,S 0.033-25 Z F C2012<800>
				C309	87-A10-264-080		C-CAP,S 0.1-16 Z F<800>
<b>MAIN C.B</b>							
	87-HG6-604-010		F-CABLE,5P (MOTOR)	C310	87-A10-264-080		C-CAP,S 0.1-16 Z F<800>
C1	87-010-503-040		CAP,E 220-4 M 5L SRE<800>	C311	87-016-462-080		C-CAP,S 1-16 Z F<800>
C1	87-010-502-040		CAP,E 100-4 M 5L SRE<271/600>	C312	87-016-462-080		C-CAP,S 1-16 Z F<800>
C2	87-010-501-040		CAP,E 47-4 M 5L SRE<800>	C313	87-010-501-040		CAP,E 47-4 M 5L SRE<800>
C101	87-010-177-080		C-CAP,S 820P-50 J SL	C901	87-016-526-080		C-CAP,S 0.47-16 B K
C102	87-010-177-080		C-CAP,S 820P-50 J SL	J1	87-A60-122-010		JACK,DC 3.8 W/SW
C103	87-010-501-040		CAP,E 47-4 M 5L SRE	JL01	85-HRL-623-010		JACK,3.5 BLK ST BLK
C104	87-010-501-040		CAP,E 47-4 M 5L SRE	SFR201	87-A90-534-040		SFR 30K B V2066L3
C105	87-010-428-080		C-CAP,S 0.015-25 B	SW1	87-A90-423-010		SW,LEAF
C106	87-010-428-080		C-CAP,S 0.015-25 B	SW101	87-A90-422-010		SW,SL 2-2-2
C107	87-016-462-080		C-CAP,S 1-16 Z F	SW102	87-036-123-010		C-SW,SL 1-1-2 SSSS81
C108	87-016-462-080		C-CAP,S 1-16 Z F	SW151	87-036-145-010		C-SW,SL 1-1-3 SSSS81<EXCEPT 800YH>
C109	87-016-462-080		C-CAP,S 1-16 Z F	SW301	87-036-123-010		C-SW,SL 1-1-2 SSSS81<800>
C110	87-016-462-080		C-CAP,S 1-16 Z F	TH201	87-A90-477-080		C-THMS,157-502-53002-TP
C111	87-010-180-080		C-CAP,S 1500P-50 K B	VR101	87-024-555-010		VR,RTRY 20KAX2 1 H XV0102G
C112	87-010-180-080		C-CAP,S 1500P-50 K B	S-BASS C.B<800>			
C118	87-A10-264-080		C-CAP,S 0.1-16 Z F<800YH>		87-HK7-603-010		F-CABLE,6P
C119	87-010-499-040		CAP,E 22-6.3 M 5L SRE	C401	87-A10-264-080		C-CAP,S 0.1-16 Z F
C120	87-010-194-080		C-CAP,S 0.047-25 Z F	C402	87-A10-264-080		C-CAP,S 0.1-16 Z F
C121	87-010-503-040		CAP,E 220-4 M 5L SRE	LED401	87-A90-278-080		C-LED,SML-210VT RED
C122	87-010-197-080		C-CAP,S 0.01-25 K B	SW401	87-036-380-080		C-SW,SL 1-1-2 SSQ-121LHT
C123	87-012-158-080		C-CAP,S 390P-50 C H	SB C.B<271/600>			
C124	87-012-158-080		C-CAP,S 390P-50 C H		87-HK8-602-010		F-CABLE,4P (SB)
C125	87-010-197-080		C-CAP,S 0.01-25 B K	C401	87-A10-264-080		C-CAP,S 0.1-16 Z F
C151	87-A10-264-080		C-CAP,S 0.1-16 Z F<EXCEPT 800YH>	C402	87-A10-264-080		C-CAP,S 0.1-16 Z F
C152	87-010-499-040		CAP,E 22-6.3 M 5L SRE	SW401	87-A90-214-080		C-SW,SL 1-1-2 SSSS8A2-B
C202	87-A10-264-080		C-CAP,S 0.1-16 Z F	<b>HEAD FLEX C.B</b>			
C203	87-016-526-080		C-CAP,S 0.47-16 B K	PH1	87-A90-435-010		HEAD ASSY 72M-5
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				

# TRANSISTOR ILLUSTRATION



RN1410  
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



A  
抵抗部品コード  
Resistor Code

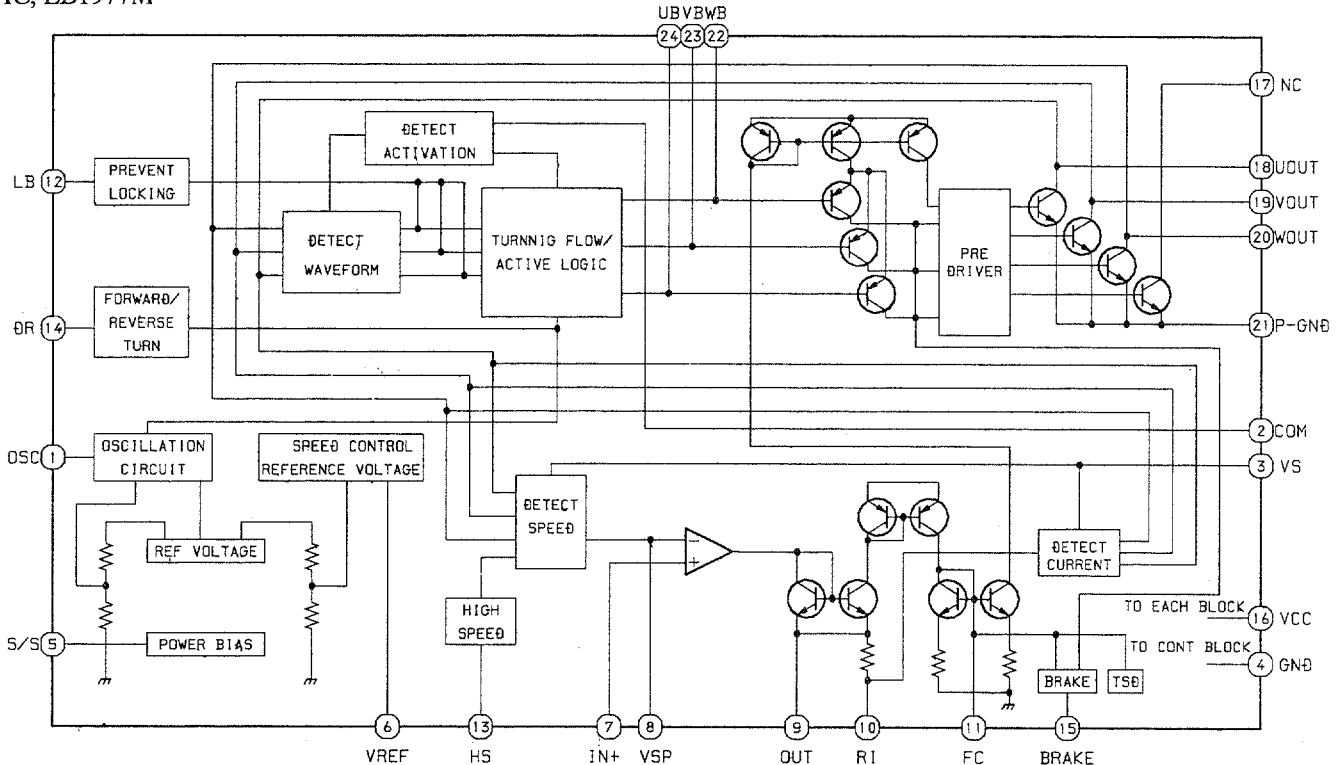
桁表示  
Figure  
抵抗値  
Value of resistor

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

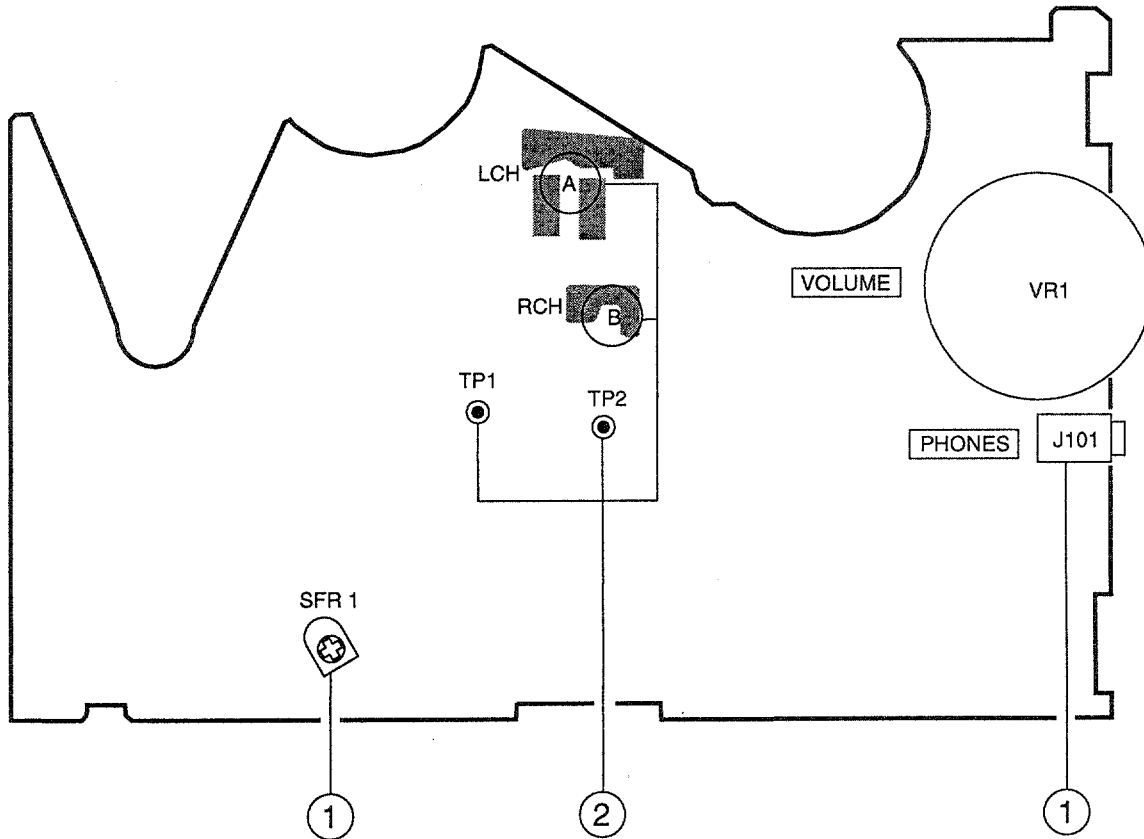
# IC BLOCK DIAGRAM

IC, LB1977M



# 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
  - DOLBY NR : OFF <HS-GM800 only>
  - SUPER BASS : OFF
  - TAPE SELECTOR : NORM
  - VOLUME : MAX

Method : Play back the test tape and adjust SFR1 so that the frequency is  $3015\text{Hz} \pm 10\text{Hz}$

#### 2. Dolby Level Check<HS-GM800 only>

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

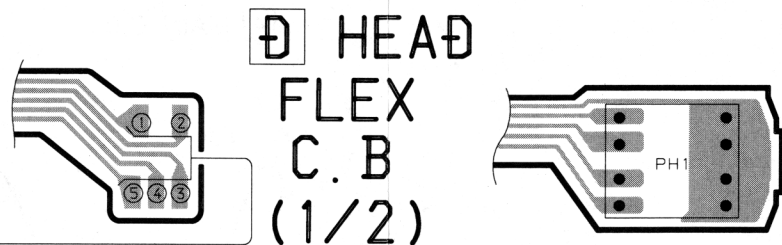
Method : Connect an coupling capacitor (10uF / 16V) between test point and AC Volt meter about, check the voltage for  $100\text{mV} \pm 1\text{dB}$ .

- If Lch level higher than limit, desolder the Lch shorting point.
- If Rch level higher than limit, desolder the Rch shorting point.

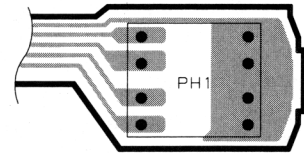
### PRACTICAL SERVICE FIGURE

#### <TAPE SECTION>

Tape speed :	$3015\text{Hz} \pm 50\text{Hz}$
Wow & flutter :	Less than 0.5% (RMS)
Take-up torque :	24 ~ 35g-cm (FWD)
F.F torque :	70 ~ 150g-cm
Rew torque :	70 ~ 150g-cm
Back tension :	1.5 ~ 4g-cm (FWD)
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) Less than 0.3mV (Vol MIN, PB, DC)
Frequency response :	$63\text{Hz} + 2 / - 6\text{dB} \sim 8\text{kHz} + 4 / - 4\text{dB}$ (NORMAL) $63\text{Hz} + 2 / - 6\text{dB} \sim 10\text{kHz} + 4 / - 4\text{dB}$ (CrO2, METAL)
Test tape :	TTA- 210 TTA-320(NORMAL)/TTA-310(CrO2) TTA- 100 TTA-200<HS-GM800 only>



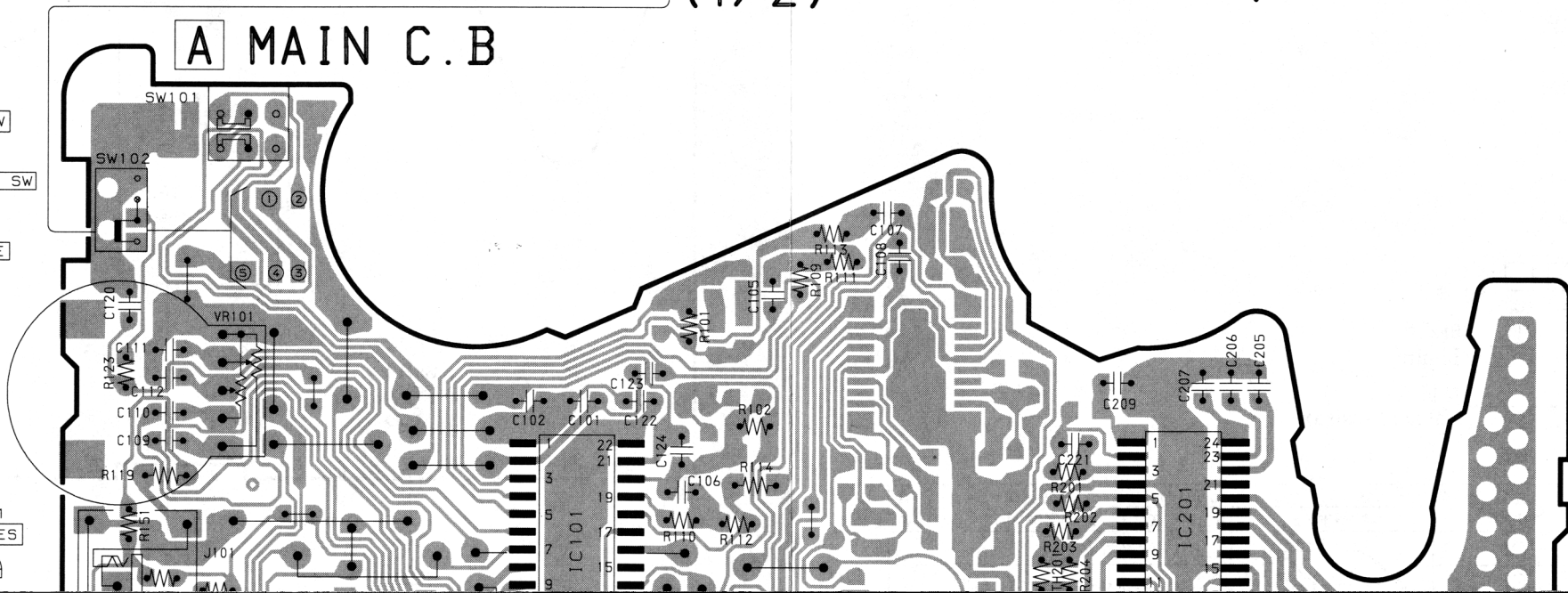
HEAD FLEX C.B (1/2)



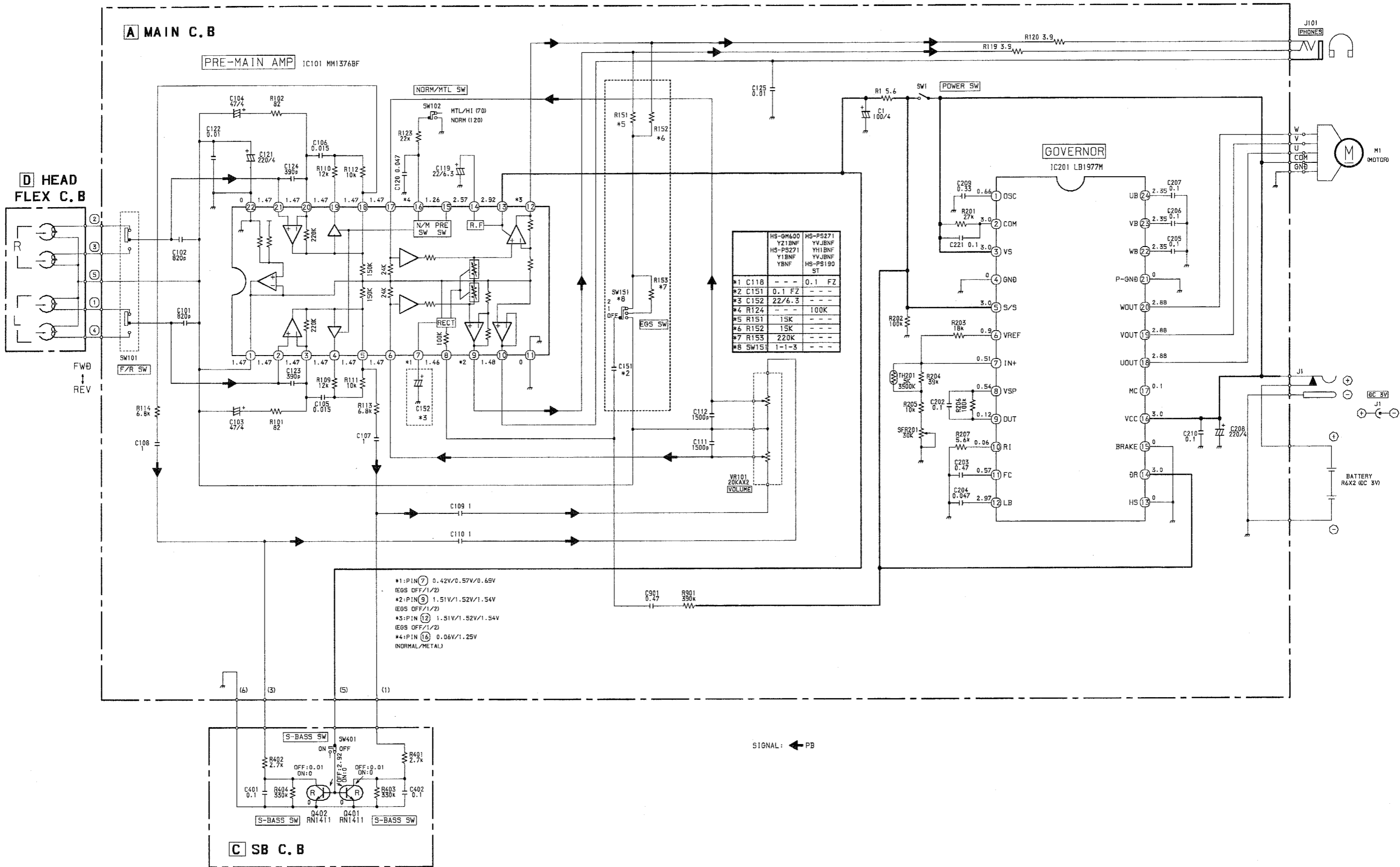
HEAD FLEX C.B (2/2)

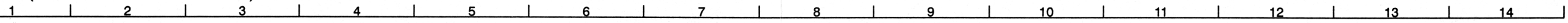
A MAIN C.B

- SW101 F/R SW
- SW102 NORM/MTL SW
- VR101 VOLUME

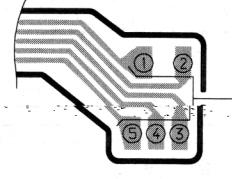


SCHEMATIC DIAGRAM (HS-GM600)

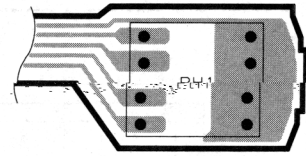




A  
B  
C

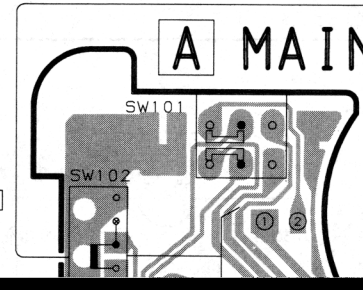


HEAD FLEX C.B (1/2)



HEAD FLEX C.B (2/2)

SW101  
F/R SW  
SW102  
NORM/MTL SW  
VR101  
VOLUME

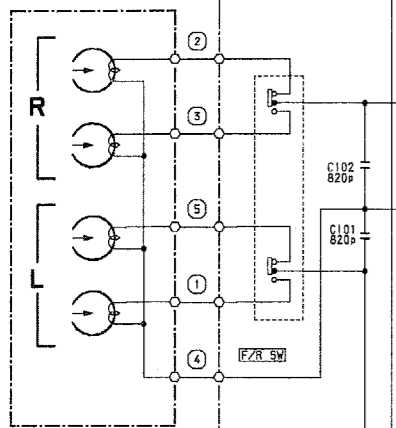


MAIN C.B

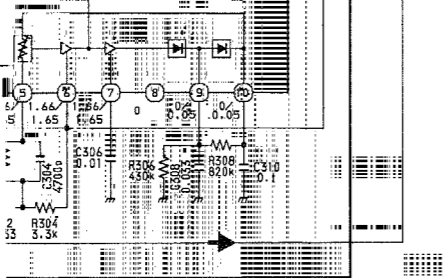


SCHEMATIC DIAGRAM

**D** HEAD FLEX C. B

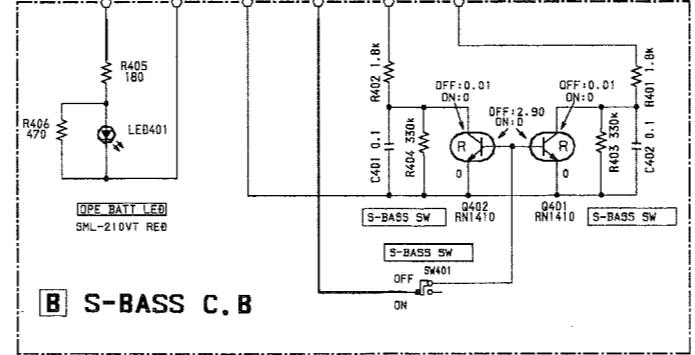


**A** MAIN C. B



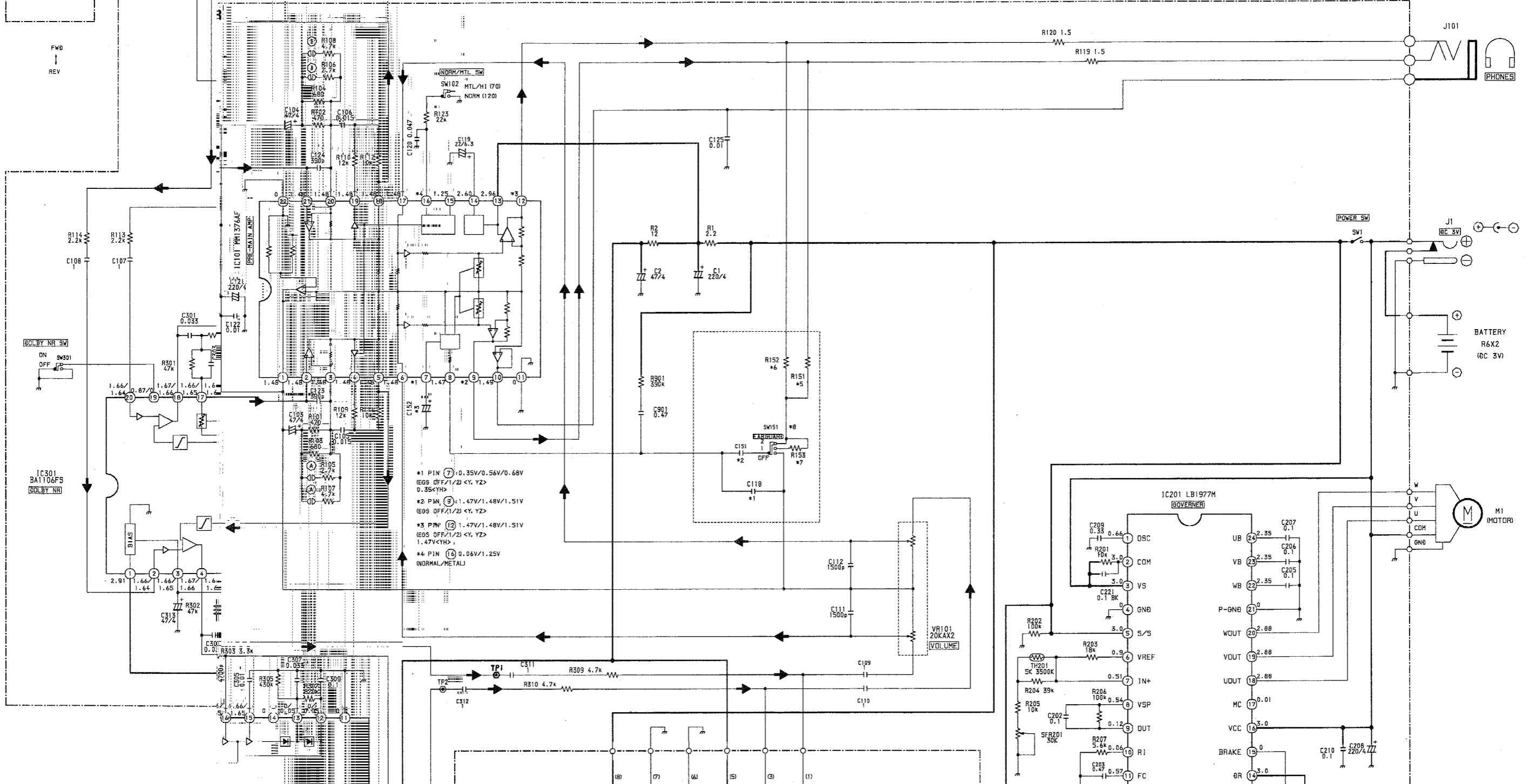
1 (HS GM800)

**B** S-BASS C. B

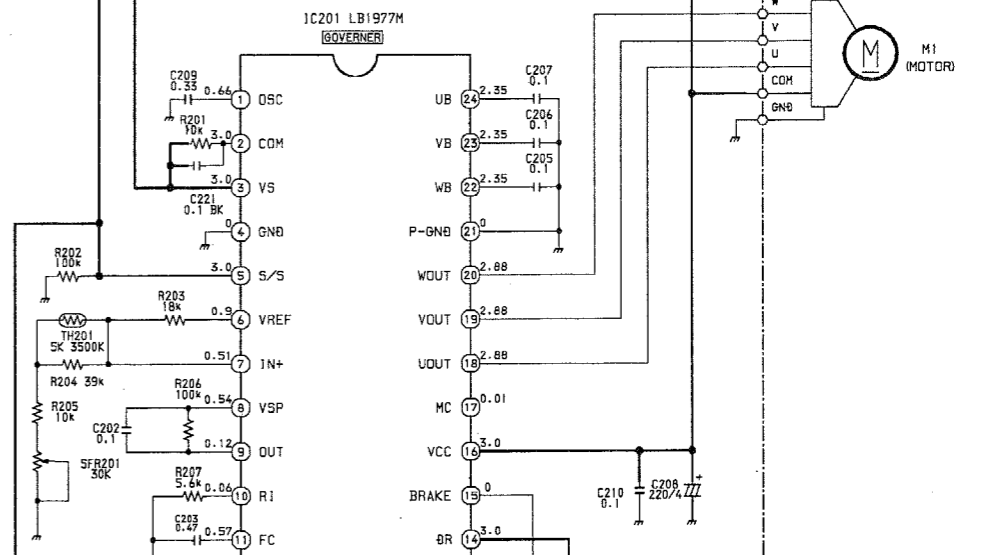


SIGNAL: ← :PB

12



- \*1 PIN (7) 0.35V/0.56V/0.68V  
(E09 OFF/1/2) <Y, YZ>  
0.35<YH>
- \*2 PIN (9) 1.47V/1.48V/1.51V  
(E09 OFF/1/2) <Y, YZ>
- \*3 PIN (12) 1.47V/1.48V/1.51V  
(E09 OFF/1/2) <Y, YZ>  
1.47V<YH>
- \*4 PIN (14) 0.06V/1.25V  
(NORMAL/METAL)



M1 (MOTOR)

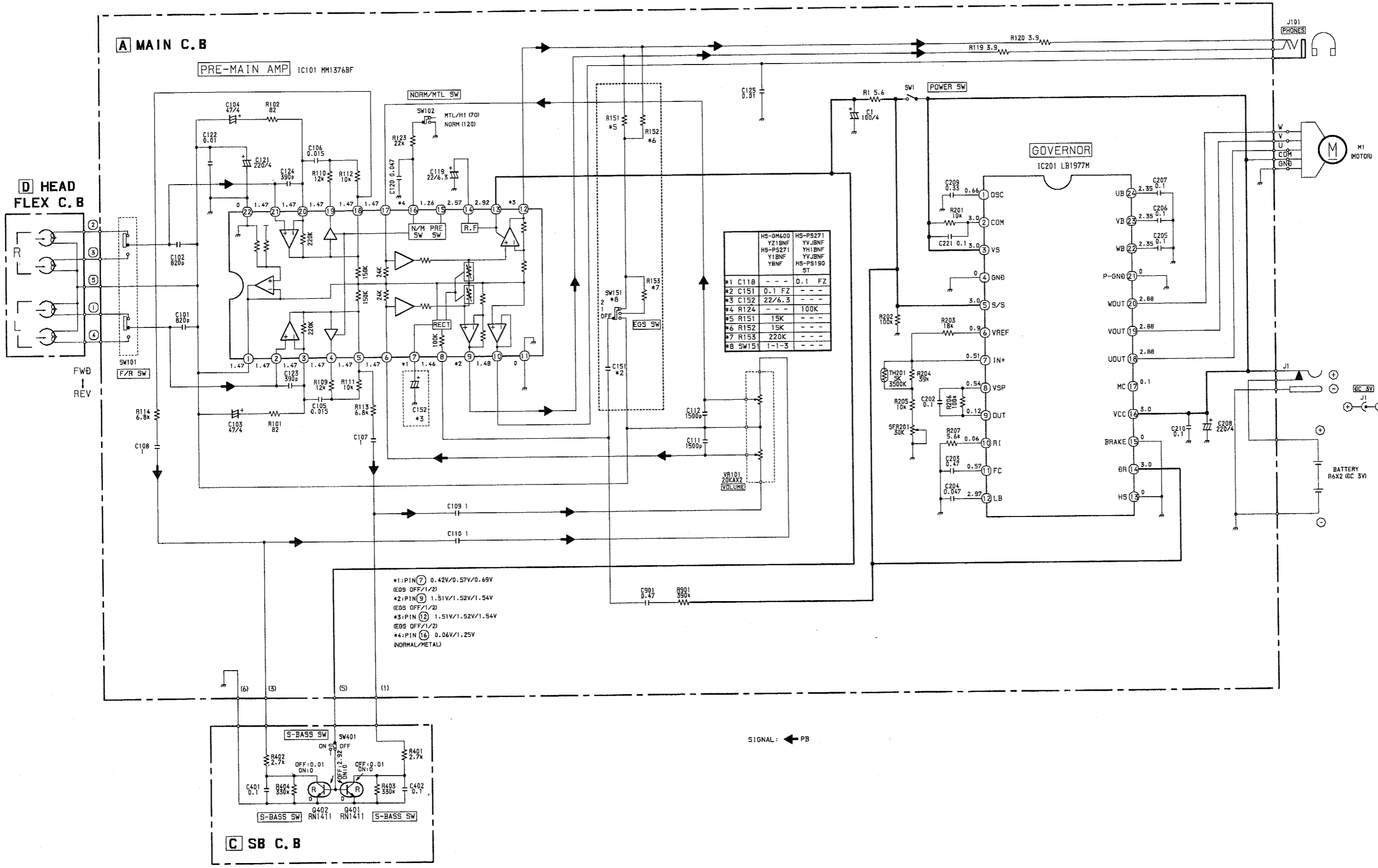
BATTERY R6X2 (6C 3V)

J1 (BC 3V)

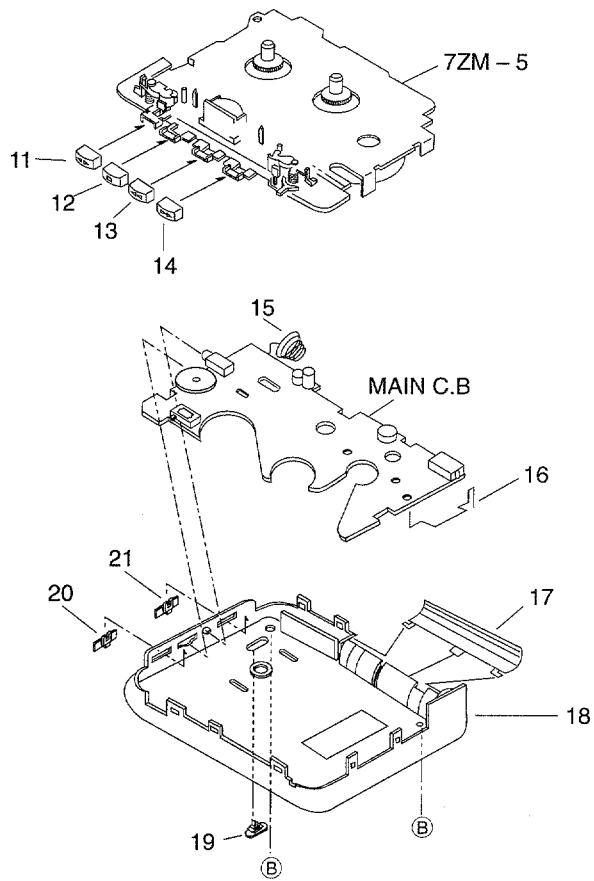
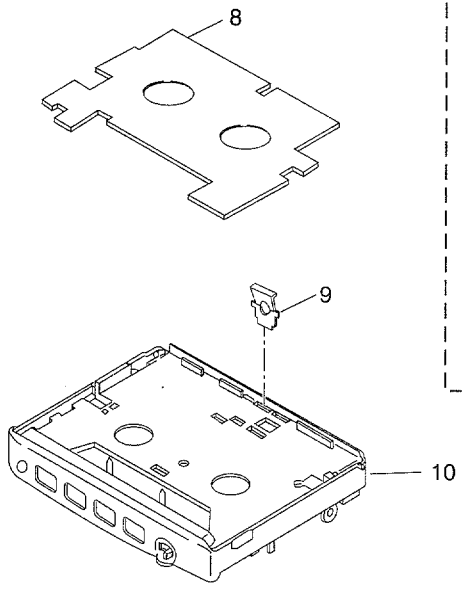
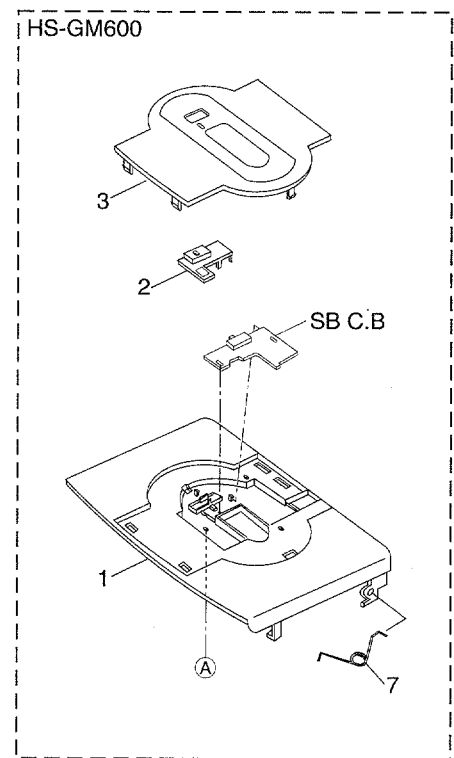
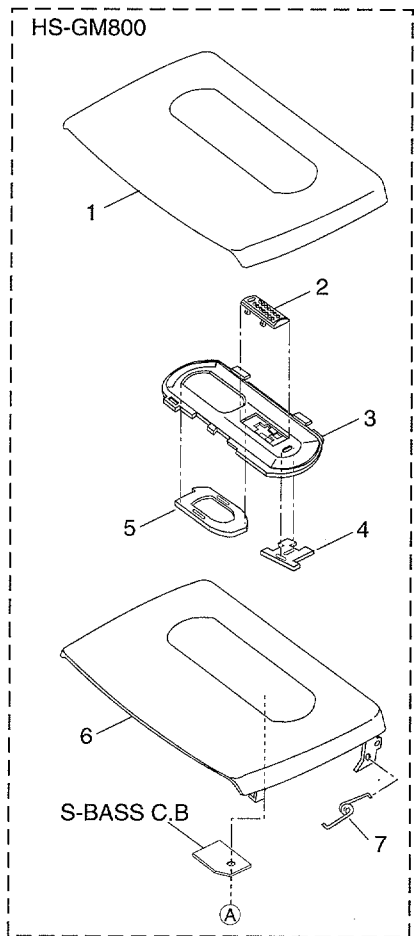
J101

PHONES





# MECHANICAL EXPLODED VIEW 1 / 1

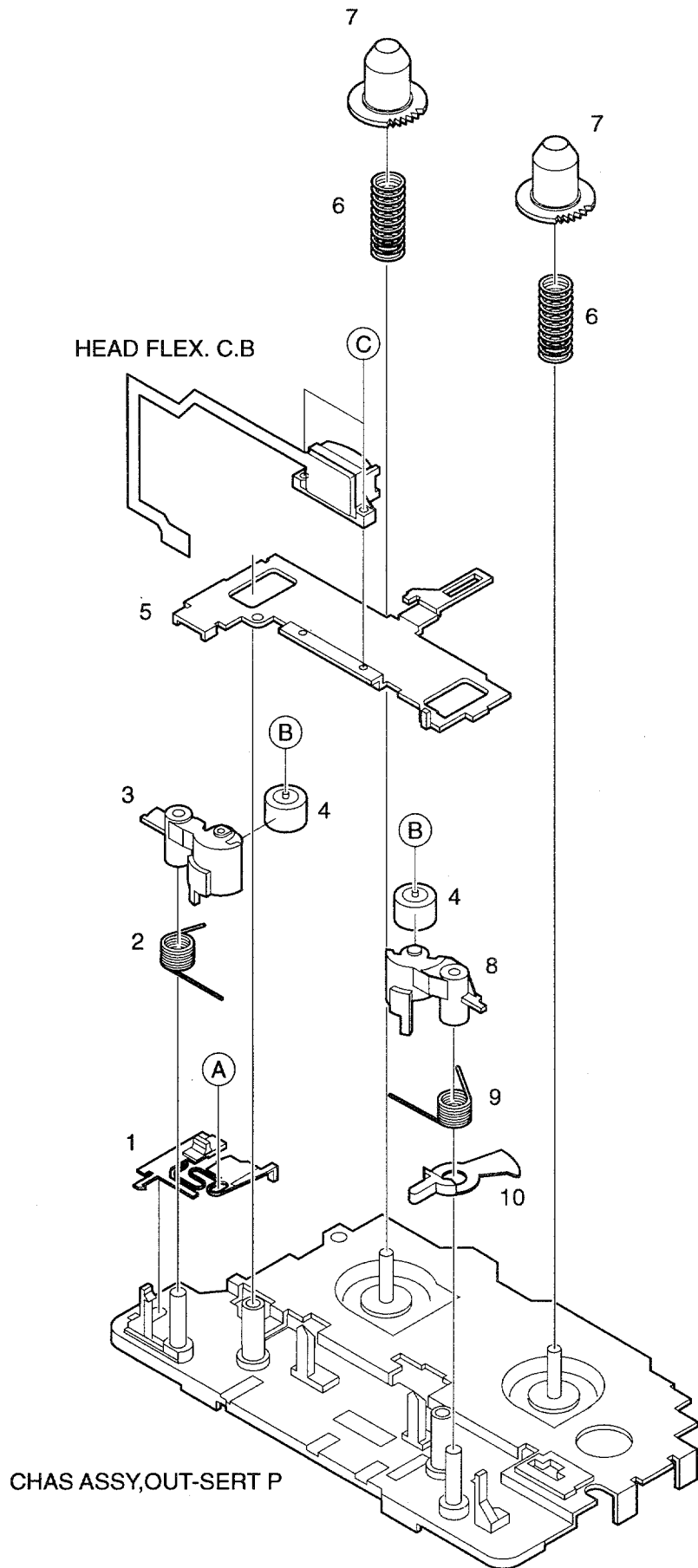


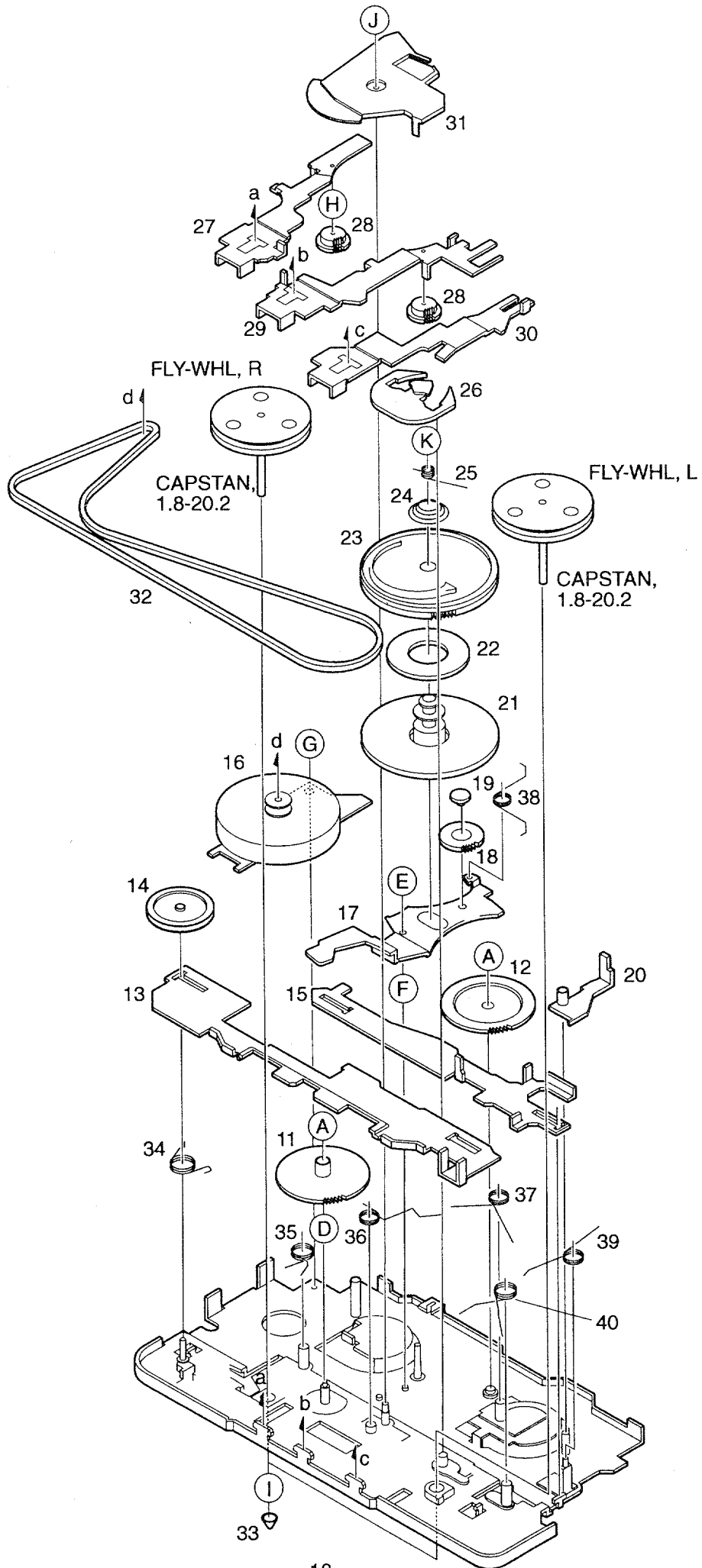
# MECHANICAL PARTS LIST 1 / 1

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

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
	87-HK7-603-010		F-CABLE, 6P<800>
	87-HK8-602-010		F-CABLE, 4P(SB)<271/600>
1	87-HK7-001-010		LID, CASS<800Y>
1	87-HK7-017-010		LID, CASS GANZ<800YZ>
1	87-HK7-014-010		LID, CASS YH<800YH>
1	87-HK8-001-010		LID, CASS<271Y1, 271Y>
1	87-HK8-008-010		LID, CASS GM6<600YZ>
2	87-HK7-003-010		KNOB, SL SB<800>
2	87-HK8-003-010		KNOB, SL SB<271/600>
3	87-HK7-002-010		PANEL, CASS<800>
3	87-HK8-002-010		PANEL, CASS<271/600>
4	87-HK7-005-010		LENS, LED<800>
5	87-HK7-004-010		WINDOW, CASS<800>
6	87-HK7-201-010		HLDR, CASS<800>
7	87-HG6-203-010		SPR-T, CASS
8	87-HK7-013-010		PLATE, CASS<800>
9	87-HG6-204-010		SPR-P, CASS
10	87-HK7-006-010		FRAME, CENTER GM8<800Y, 800YZ>
10	87-HK7-015-010		FRAME, CENTER GM8 YH<800YH>
10	87-HG6-003-010		FRAME, CENTER<271/600>
11	87-HK7-009-010		BTN, PLAY GM8<800>
11	87-HG6-006-010		BTN, PLAY<271/600>
12	87-HK7-010-010		BTN, STOP GM8<800>
12	87-HG6-007-010		BTN, STOP<271/600>
13	87-HK7-011-010		BTN, REW GM8<800>
13	87-HG6-008-010		BTN, REW<271/600>
14	87-HK7-012-010		BTN, FF GM8<800>
14	87-HG6-009-010		BTN, FF<271/600>
15	87-HG6-202-010		BAT-CONTACT, (-)
16	87-HG6-201-010		BAT-CONTACT, (+)
17	87-HK7-008-010		LID, BATT GM8<800>
17	87-HG6-005-010		LID, BATT<271/600>
18	87-HK7-007-010		CABI, REAR GM8<800Y, 800YZ>
18	87-HK7-016-010		CABI, REAR GM8 YH<800YH>
18	87-HK8-005-010		CABI, REAR (Y)<271Y1, 271Y>
18	87-HK8-007-010		CABI, REAR GM6<600YZ>
19	87-HG6-014-010		KNOB, SL DOL<800>
20	87-HG6-016-010		KNOB, SL TP
21	87-HG6-013-010		KNOB, SL EG<EXCEPT 800YH>
A	87-067-732-010		VT2+1.4-3 CR BLK HL
B	87-067-405-010		VT2+1.4-6 SWCH HL

TAPE MECHANISM EXPLODED VIEW 1 / 1



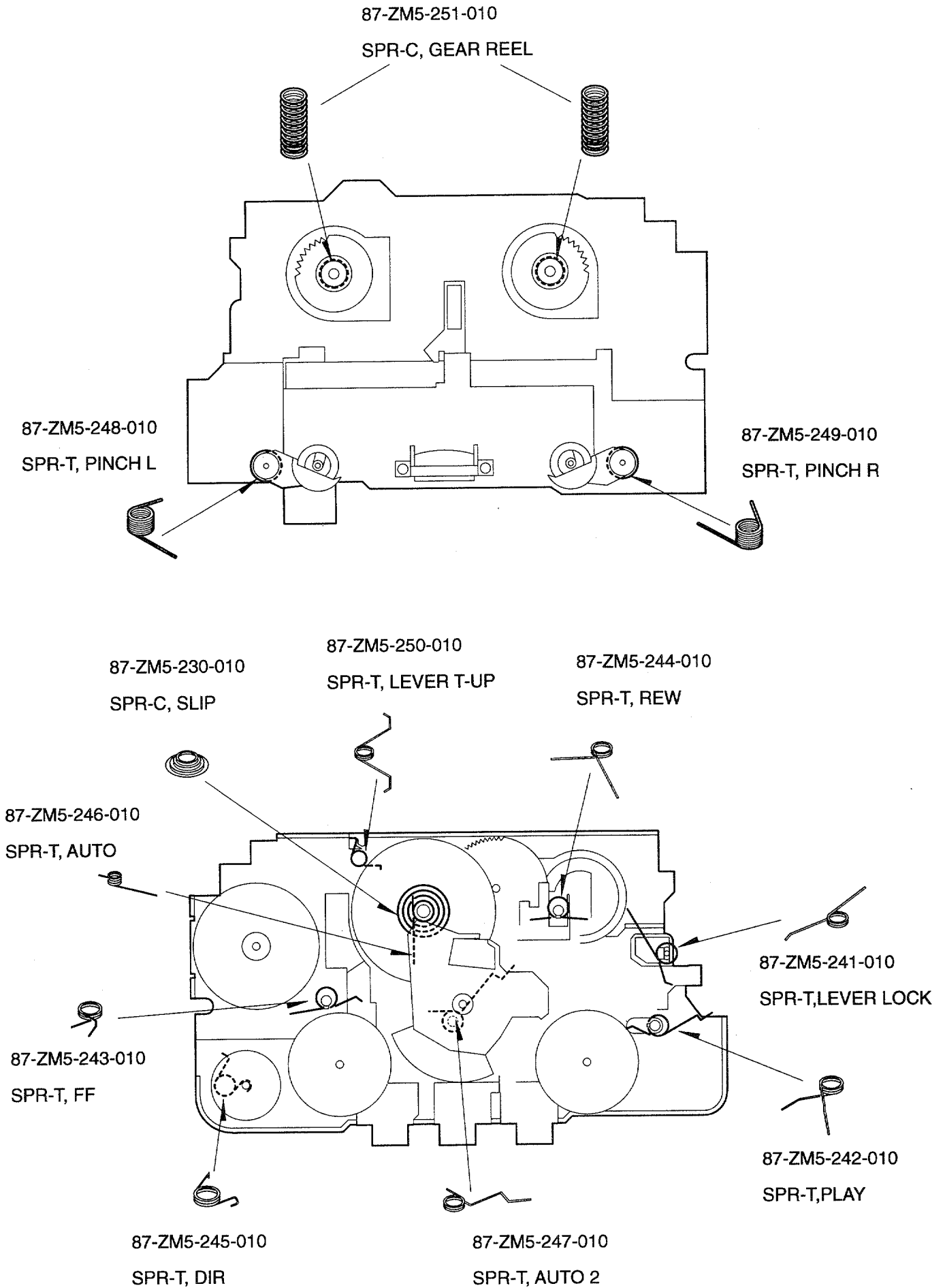


# TAPE MECHANISM PARTS LIST 1 / 1

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
22	87-ZM5-229-010		FELT, CLUTCH
23	87-ZM5-227-010		GEAR, SLIP A
24	87-ZM5-230-010		SPR-C, SLIP
25	87-ZM5-246-010		SPR-T, AUTO
26	87-ZM5-214-010		LEVER, AUTO
27	87-ZM5-204-010		LEVER ASSY, FF
28	87-ZM5-225-010		GEAR, FF/REW
29	87-ZM5-206-010		LEVER ASSY, REW
30	87-ZM5-211-010		LEVER, STOP
31	87-ZM5-261-010		LEVER, AUTO 2S
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-ZM5-244-010		SPR-T, REW
38	87-ZM5-250-010		SPR-T, LEVER T-UP
39	87-ZM5-241-010		SPR-T, LEVER LOCK
40	87-ZM5-242-010		SPR-T, PLAY
A	87-067-860-010		W-P, 0.95-3-0.4
B	87-B10-085-010		W-L, 1.31-3-0.2
C	87-ZM5-270-010		S-SCREW, 1.4-5-STP
D	87-B10-084-010		W-L, 2.2-3.2-0.1
E	87-B10-080-010		W-L, 0.97-3-0.35
F	87-B10-086-010		W-L, 1.57-2.8-0.1
G	87-ZM5-271-010		S-SCREW, 1.4-2.6-STP
H	87-B10-087-010		W-L, 1.25-2.26-0.1 SLT
I	87-B10-070-010		W-P, 1.55-2.9-0.25 SLIT
J	87-ZM5-083-010		W-L, 0.95-2.5-0.3
K	87-B10-083-010		W-L, 0.95-2.5-0.3

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-HK7-901-010		IB, EX-EGFSI<800Y, 800YZ>
1	87-HK7-902-010		IB, EX-ESC<800YH>
1	87-HK8-901-010		IB, EX-EGFSI<271/600>
2	87-080-029-010		CLIP, ASSY, BELT
3	87-B30-042-010		HEADPHONE, HP-24NSH<EXCEPT 271Y>
3	87-B30-081-010		HEADPHONE, HP-M009 (S)<271Y>



# 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**  
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