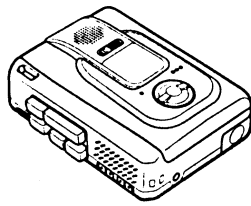
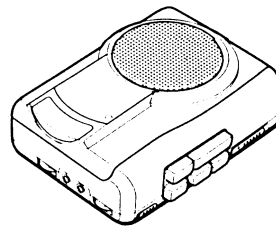




TP-VS480 YB YUBB YLB TP-VS610 YS YUBS



TP-VS610



TP-VS480

SERVICE MANUAL

CASSETTE RECORDER

BASIC TAPE MECHANISM : TN-9XR-107

This Service Manual is the "Revision Publishing" and replaces "Simple Manual" (S/M Code No. 09-991-315-20A).

aiwa
S/M Code No. 09-992-315-2R1

REVISION
DATA

SPECIFICATIONS

[TP-VS610]

Track system 2 tracks 1 channel, monaural
Frequency response 250 - 8,000 Hz (4.8 cm/sec) EIAJ
Microphone Electret condenser microphone (monaural)
Maximum output 300 mW (EIAJ/DC)
Input jack EXT MIC jack (monaural mini-jack) (1)
Output jack EARPHONE jack (monaural mini-jack) (1)
Other jack DC 3 V jack
Speaker Diameter 50 mm, 4 ohms
Recording system DC bias
Erasing system Magnet erasure
Recording speed Approx. 4.8 cm/sec. with the REC MODE switch set to NORMAL
 Approx. 2.4 cm/sec. with the REC MODE switch set to EXTENDED
Power sources DC 3 V using two R6 (size AA) dry cell batteries
 AC house current using the AC adaptor Aiwa AC-D302

Battery life		
Battery	EIAJ Recording	EIAJ 10 mW
Manganese (R6P) Batteries	Approx. 5 hrs	Approx. 6.5 hrs
Alkaline (LR) batteries	Approx. 18.5 hrs	Approx. 13.5hrs

Dimensions 90 (W) x 113.5 (H) x 41 (D) mm
 (3³/₈ x 4¹/₂ x 1⁵/₈ in.)
Weight Approx. 170 g, 6 oz (excluding batteries)

[TP-VS480]

Track system 2 tracks 1 channel, monaural
Frequency response 250 - 8,000 Hz EIAJ
Microphone Electret condenser microphone (monaural)
Maximum output 300 mW (EIAJ/DC)
Input jack EXT MIC jack (monaural mini-jack) (1)
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Speaker Diameter 50 mm, 4 ohms
Recording system DC bias
Erasing system Magnet erasure
Power sources DC 3 V using two R6 (size AA) dry cell batteries
 AC house current using the AC adaptor Aiwa AC-D302

Battery life

Battery	EIAJ Recording	EIAJ 10 mW
Manganese (R6P) Batteries	Approx. 5 hrs	Approx. 6.5 hrs
Alkaline (LR) batteries	Approx. 18.5 hrs	Approx. 13.5hrs

Dimensions 113.5 (W) x 90 (H) x 38.4 (D) mm
 (4¹/₂ x 3⁵/₈ x 1⁹/₁₆ in.)

Weight Approx. 166 g, 5.8 oz (excluding batteries)

• Design and specifications are subject to change without notice.

ACCESSORIES LIST (TP-VS610)

DESCRIPTIONで判断できない物は "REFERENCE NAME LIST" を参照してください。
 If can't understand for Description please kindly refer to "REFERENCE NAME LIST".

REF. NO	PART NO.	KANRI NO.	DESCRIPTION
1	8Z-HT6-903-010	IB,U(3L)C<UBS>	
1	8Z-HT6-907-010	IB,EZ(EGF)C<YSC>	
1	8Z-HT6-908-010	IB,EZ(SID)C<YSC>	
1	8Z-HT6-909-010	IB,EZ(PHNCZ)C<YSC>	
2	87-PD3-050-010	STRAP,HAND	

ACCESSORIES LIST (TP-VS480)

DESCRIPTIONで判断できない物は "REFERENCE NAME LIST" を参照してください。
 If can't understand for Description please kindly refer to "REFERENCE NAME LIST".

REF. NO	PART NO.	KANRI NO.	DESCRIPTION
1	8Z-HTA-903-010	IB,YU(3L)C<YUBB>	
1	8Z-HTA-906-010	IB,YL(3L)C<YLB>	
1	8Z-HTA-907-010	IB,Y(EGF)C<YB>	
1	8Z-HTA-908-010	IB,Y(SID)C<YB>	
1	8Z-HTA-909-010	IB,Y(PHNCZ)C<YB>	
2	87-PD3-050-010	STRAP,HAND	

ELECTRICAL MAIN PARTS LIST

DESCRIPTIONで判断できない物は "REFERENCE NAME LIST" を参照してください。
 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				C153	87-015-908-010		CAP, 220-4V
	87-A20-399-010	IC, LA4168M		C154	87-015-908-010		CAP, 220-4V
	87-017-643-080	IC, MM1206XF<6UBS, 6YSC>		C155	87-015-676-010		CAP, E 47-6.3 7L
TRANSISTOR				C162	87-010-193-080		CHIP CAPACITOR, 0.033<6UBS, 6YSC>
	89-333-266-080	CHIP TR, 2SC3326B		C163	87-016-462-080		C-CAP, S 1-16 F<6UBS, 6YSC>
	89-327-125-080	CHIP TR, 2SC2712GR		C181	87-015-695-010		CAP, E 1-50 7L
	87-A30-288-040	C-TR, DTC114YKA		C182	87-015-676-010		CAP, E 47-6.3 7L
	89-341-165-080	CHIP TRANSISTOR 2SC4116GR		C183	87-016-462-080		C-CAP, S 1-16 F
	89-342-132-080	TR, 2SC4213		C201	87-016-462-080		C-CAP, S 1-16 F
	87-A30-144-080	C-TR, 2SC4081		C401	87-A10-264-080		C-CAP, S 0.1-16ZF
	87-026-422-080	C-TR, RN2304<6UBS, 6YSC>		C402	87-A10-264-080		C-CAP, S 0.1-16ZF
DIODE				C403	87-016-491-080		C-CAP, S 0.22-16 FZ<EXCEPT 6UBS>
	87-A40-529-010	DIODE, 1GWJ42		C403	87-016-461-080		C-CAP, S 0.47-16F<6UBS>
	87-020-027-080	CHIP-DIODE 1SS184		J101	84-TM1-630-010		JACK, 3.5 HSJ1493-05
	87-020-339-080	CHIP DIODE, 1SS226		J102	87-A60-319-010		JACK, DC DIA 2.75<6UBS, 6YSC>
MAIN C.B				J102	87-A60-849-010		JACK, DC DIA 2.75 BLK<4YUBB, 4YB, 4YLB>
C101	87-015-676-010	CAP, E 47-6.3 7L		J103	84-TM1-630-010		JACK, 3.5 HSJ1493-05
C102	87-016-462-080	C-CAP, S 1-16 F		VR202	87-A90-527-010		SFR, 5K H VZ066L3
C103	87-016-462-080	C-CAP, S 1-16 F		VR402	87-A90-528-010		SFR, 50K H VZ066L3<6UBS, 6YSC>
C104	87-010-186-080	CAP, CHIP 4700P		SW101	87-A90-305-010		SW, SL 2-2-2 (NC)
C105	87-010-184-080	CHIP CAPACITOR 3300P(K)		SW102	87-031-816-010		SLIDE SWITCH
C106	87-015-695-010	CAP, E 1-50 7L		SW161	87-031-816-010		SLIDE SWITCH<6UBS, 6YSC>
C107	87-015-681-010	ELECTROLYTIC SRA16V-10U		SW181	87-031-816-010		SLIDE SWITCH
C108	87-015-677-010	ELECTROLYTIC 100U 6.3V		TH201	87-A90-855-080		C-THMS, SC20-3K102K
C109	87-015-674-010	CAP 22U-6.3V		TH202	87-A90-307-080		C-THMS, K39G220
C110	87-010-186-080	CAP, CHIP 4700P		VR101	87-A90-314-010		VR, RTRY 10K H
C111	87-015-698-010	ELECTROLYTIC SRA 50V-4.7U		VR201	87-A90-308-010		VR, RTRY 3KB XV81
C112	87-016-462-080	C-CAP, S 1-16 F<6UBS, 6YSC>		LED C.B<6UBS, 6YSC>			
C113	87-016-462-080	C-CAP, S 1-16 F		C301	87-016-462-080		C-CAP, S 1-16 F<6UBS, 6YSC>
C114	87-016-462-080	C-CAP, S 1-16 F		C302	87-016-462-080		C-CAP, S 1-16 F<6UBS, 6YSC>
C115	87-015-675-010	ELECTROLYTIC 6.3V-33U		C303	87-016-462-080		C-CAP, S 1-16 F<6UBS, 6YSC>
C116	87-010-197-080	CAP, CHIP 0.01 DM		C304	87-016-462-080		C-CAP, S 1-16 F<6UBS, 6YSC>
C118	87-016-462-080	C-CAP, S 1-16 F		D301	87-017-828-070		C-LED, SEL 1401C GRN<6UBS, 6YSC>
C119	87-010-187-080	CAP CHIP S5600P		D302	87-017-829-070		C-LED, SEC 1901C ORN<6UBS, 6YSC>
C151	87-A10-264-080	C-CAP, S 0.1-16ZF		D303	87-017-827-070		C-LED, SEC 1201C RED<6UBS, 6YSC>
C152	87-016-462-080	C-CAP, S 1-16 F		D305	87-017-827-070		C-LED, SEC 1201C RED<6UBS, 6YSC>
				SW103	87-036-123-080		CHIP SLIDE SWITCH, 1-1-2<6UBS, 6YSC>
				SW104	87-036-159-080		SWITCH SLIDE 2-2-2<6UBS, 6YSC>
				LED C.B<4YUBB, 4YB, 4YLB>			
				LED304	88-HC6-612-080		C-DIODE, RB411D<4YUBB, 4YB, 4YLB>

○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



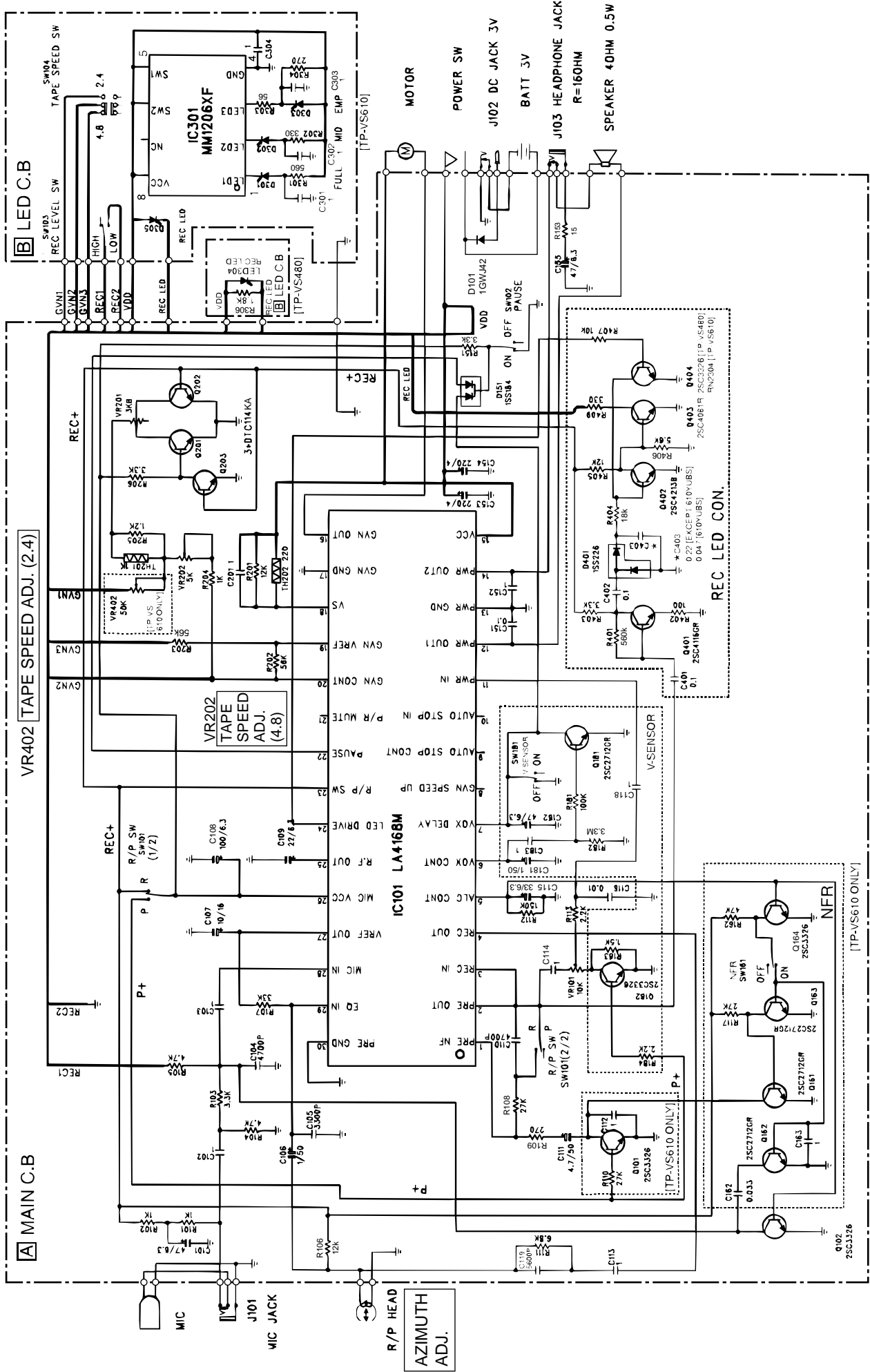
A
抵抗部品コード
Resistor Code

桁表示
Figure
抵抗値
Value of resistor

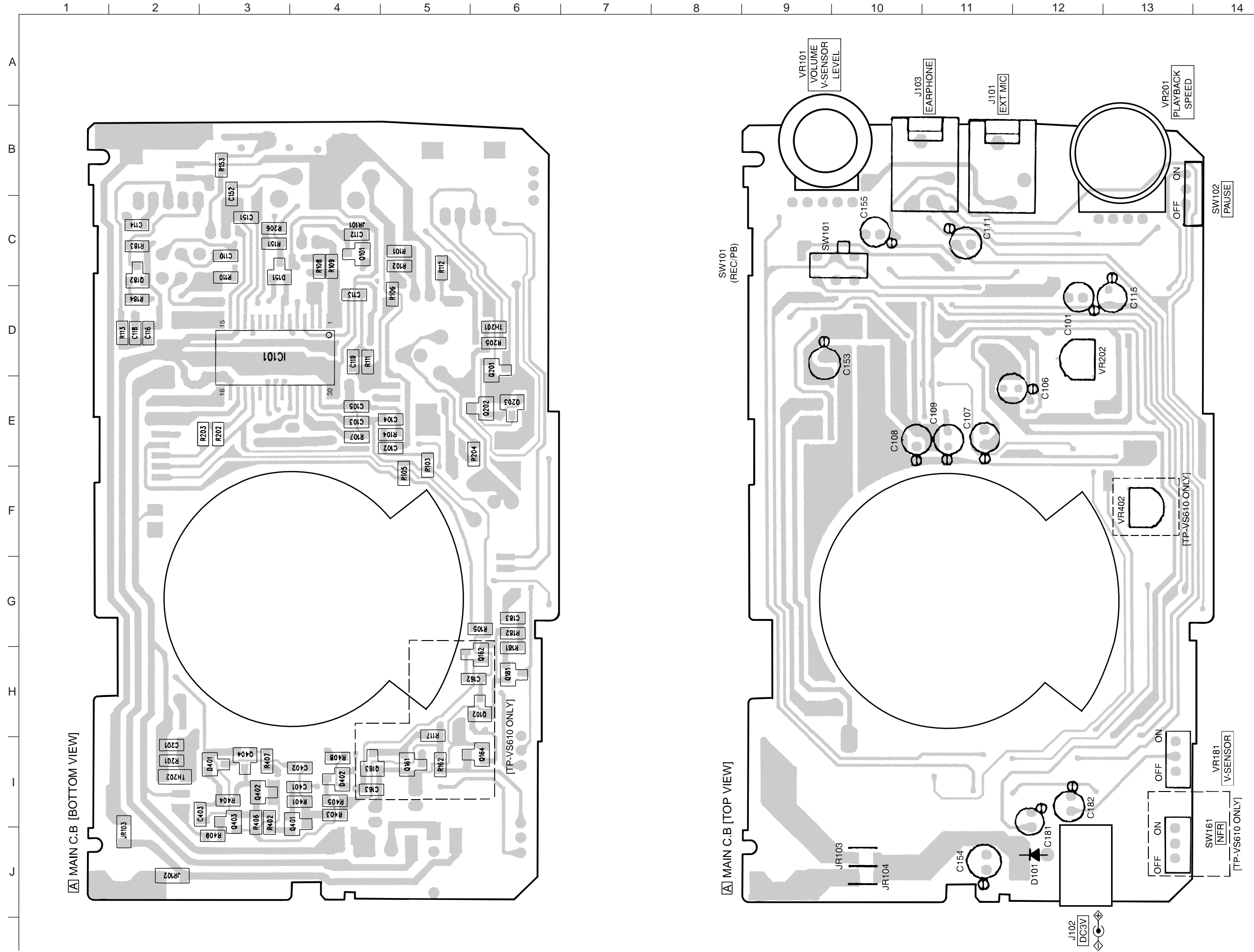
チップ抵抗 Chip resistor

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	1005	± 5%	CJ		1.0	0.5	0.35	104
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

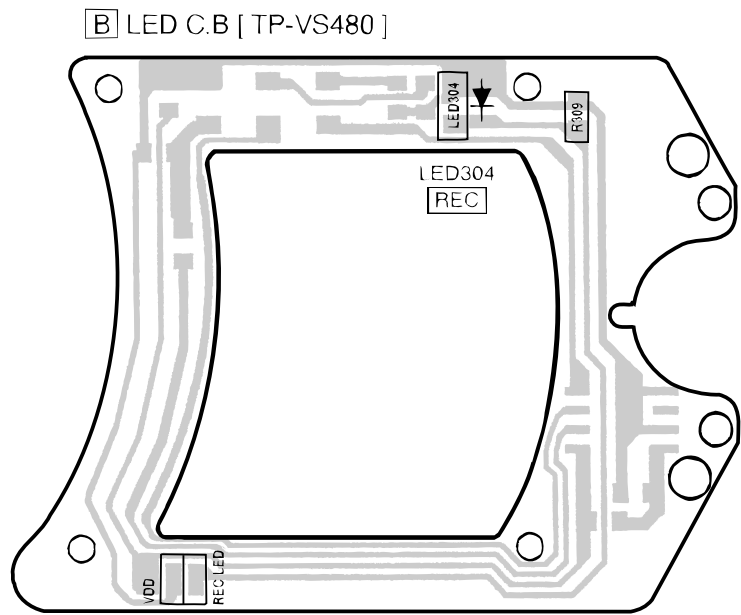
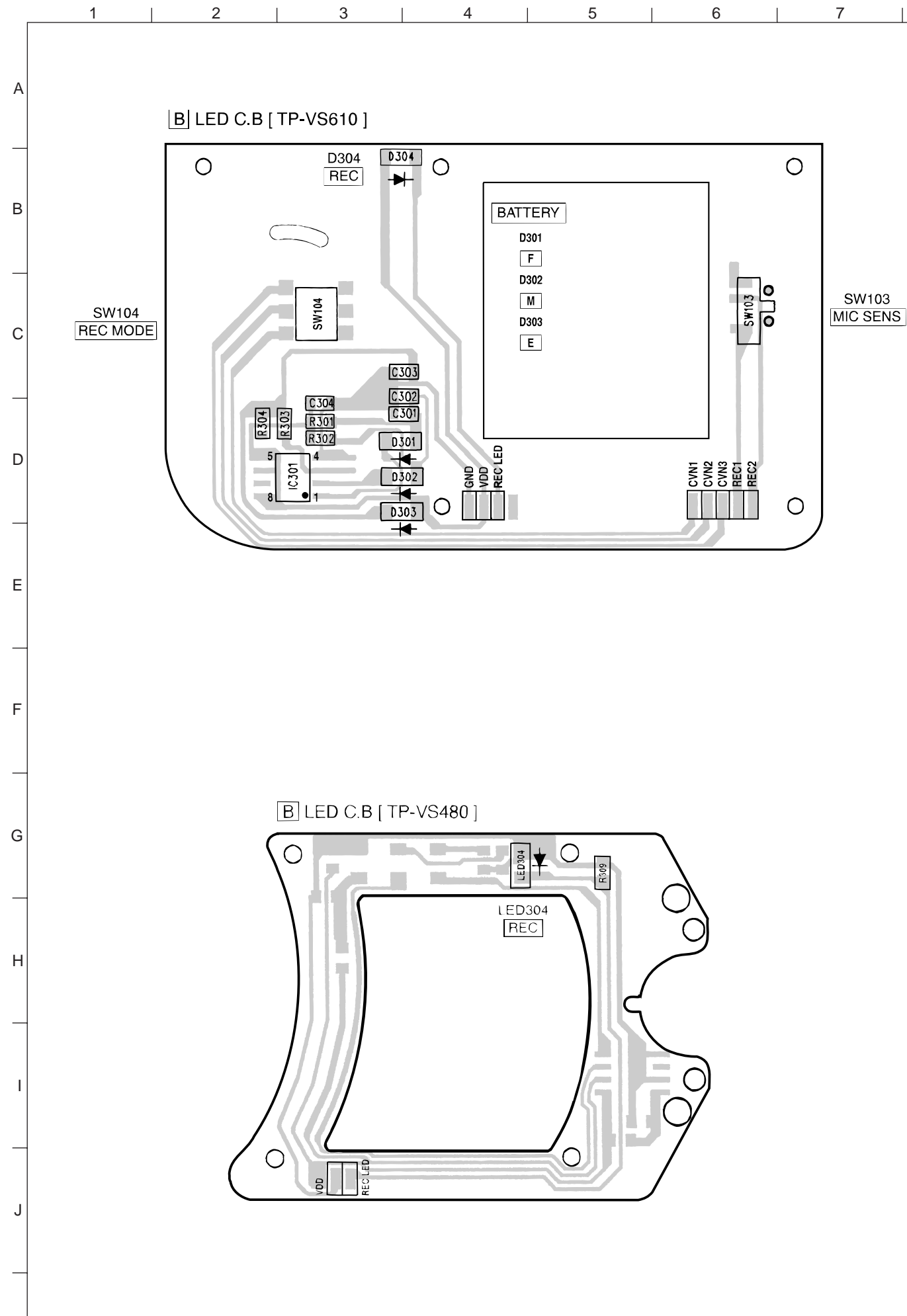
SCHEMATIC DIAGRAM



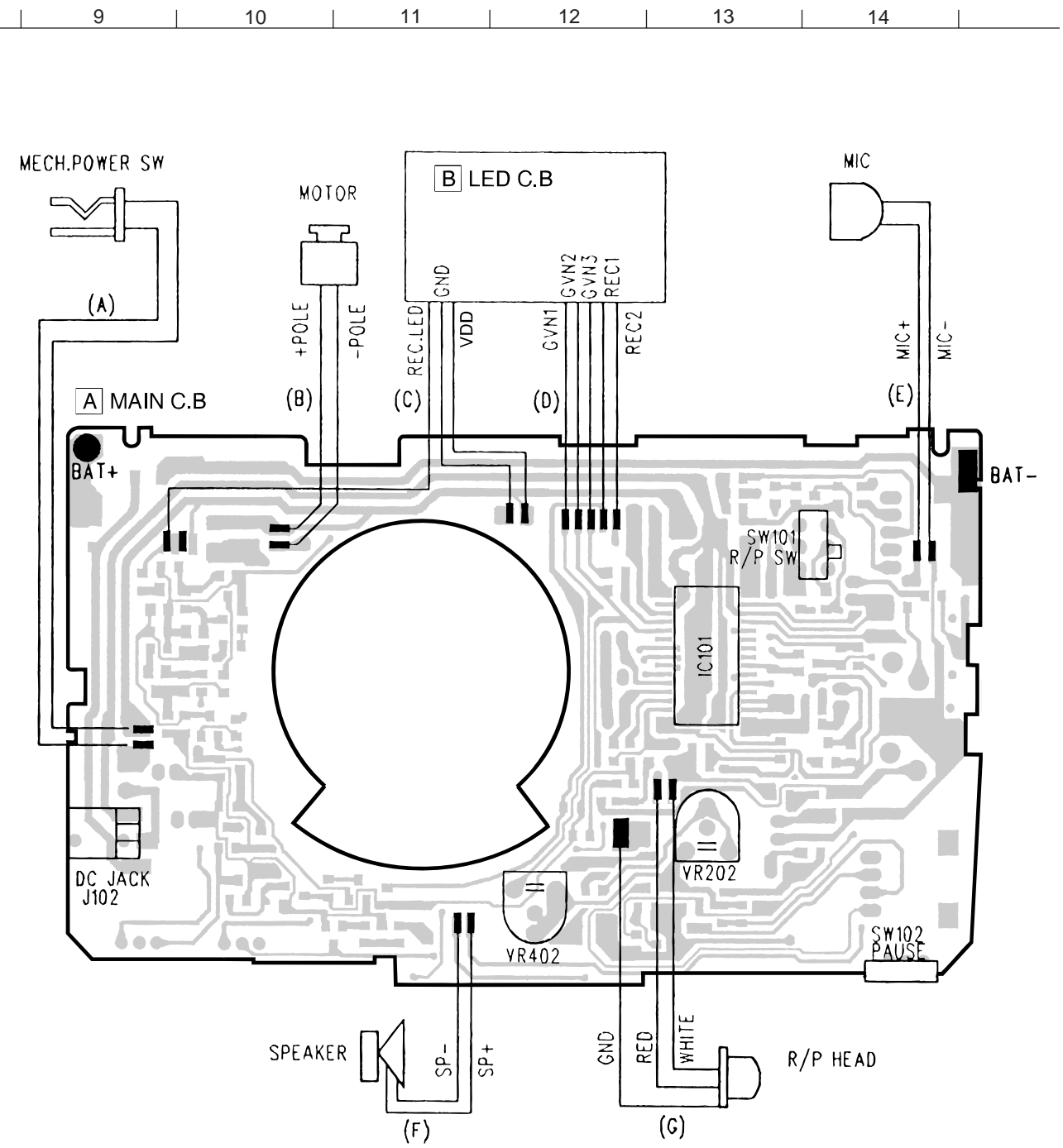
WIRING-1 (MAIN C.B)



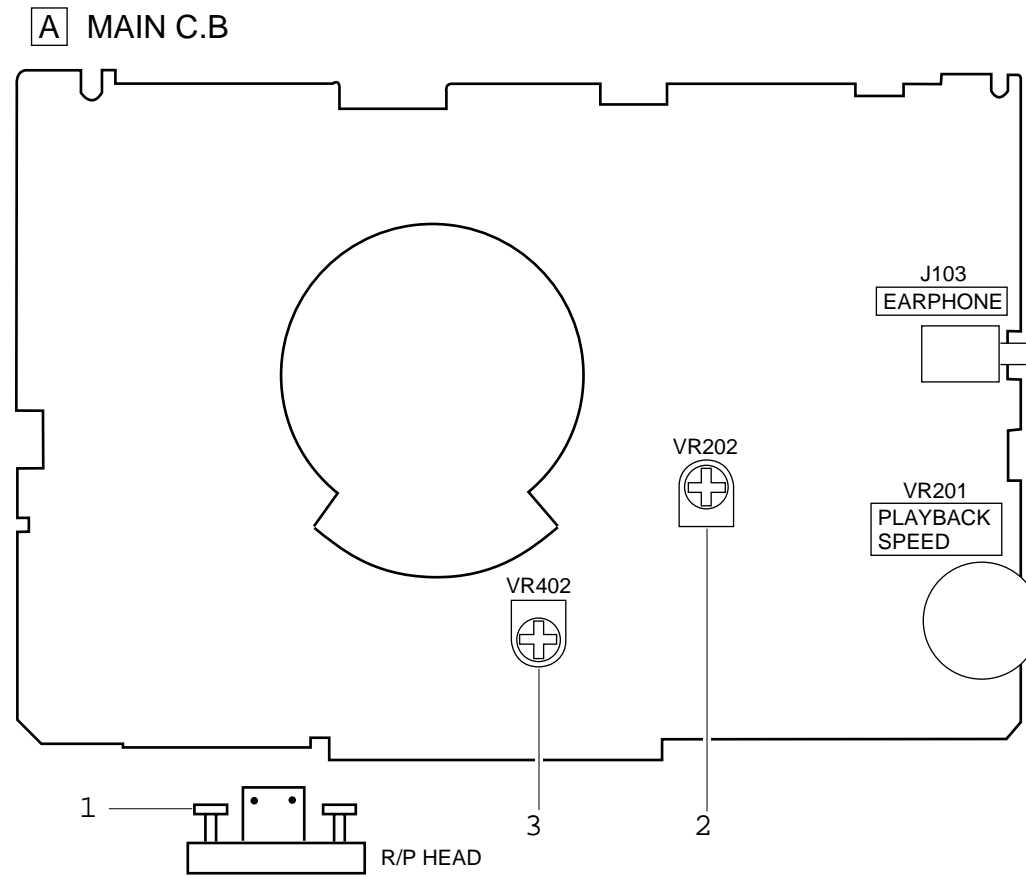
WIRING-2 (LED C.B)



WIRING-3 (CONNECTION)



ELECTRICAL ADJUSTMENT



1. Azimuth Adjustment

- Settings:
- Test tape: TTA-330
 - Test point: EARPHONE JACK (J103)
 - Adjustment location: Azimuth adjustment screw
 - PAUSE: OFF
 - VOLUME: Maximum.

Method: Play back the test tape, and adjust so that the output (8 kHz) becomes maximum.

2. Tape Speed Adjustment (4.8 cm/s)

- Settings:
- Test tape: TTA-100 (TAPE CENTER)
 - Test point: EARPHONE JACK (J103)
 - Adjustment location: VR202
 - PAUSE: OFF
 - VOLUME: Maximum
 - PLAYBACK SPEED: Normal

(Speed volume center)

Method: Play back the test tape, and adjust for 3000 Hz ± 10 Hz

3. Tape Speed Adjustment (2.4cm/s) (TP-VS610 only)

- Settings:
- Test tape: TTA-150 or TTA-160 (TAPE CENTER)
 - Test point: EARPHONE JACK (J103)
 - Adjustment location: VR402
 - PAUSE: OFF
 - VOLUME: Maximum
 - PLAYBACK SPEED: Normal

(Speed volume center)

- REC MODE: Extended

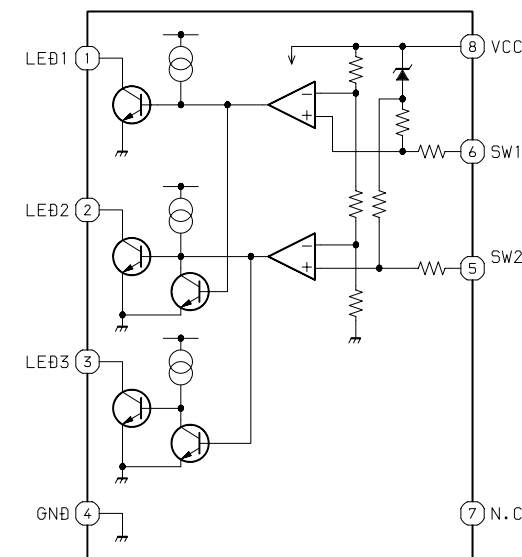
Method: Play back the test tape, and adjust for 3000 Hz ± 10 Hz

PRACTICAL SERVICE FIGURE

Tape speed:	3000 Hz \pm 60 Hz
Wow & flutter:	Less than 0.55% (4.8 cm/s) Less than 0.8% (2.4 cm/s)
Take-up torque:	20 ~ 50 g-cm (FWD)
F.F torque:	More than 55 g-cm
REW torque:	More than 55 g-cm
S/N ratio:	More than 56 dB (DC, PB) More than 26 dB (DC, R/PB)
Distortion:	Less than 3.0% (DC, PB) Less than 7.0% (DC, R/PB)
Noise level:	Less than 2.0 mV (PB, Vol Max., DC) Less than 16 mV (R/PB, Vol Max., DC) Less than 0.3 mV (PB, Vol Min, DC)
Erasing ratio:	More than 44 dB (1kHz)
Test tape	TTA-100 TTA-150 TTA-160 TTA-330

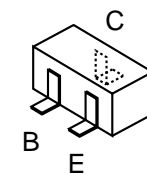
IC BLOCK DIAGRAM

IC, MM1206XF



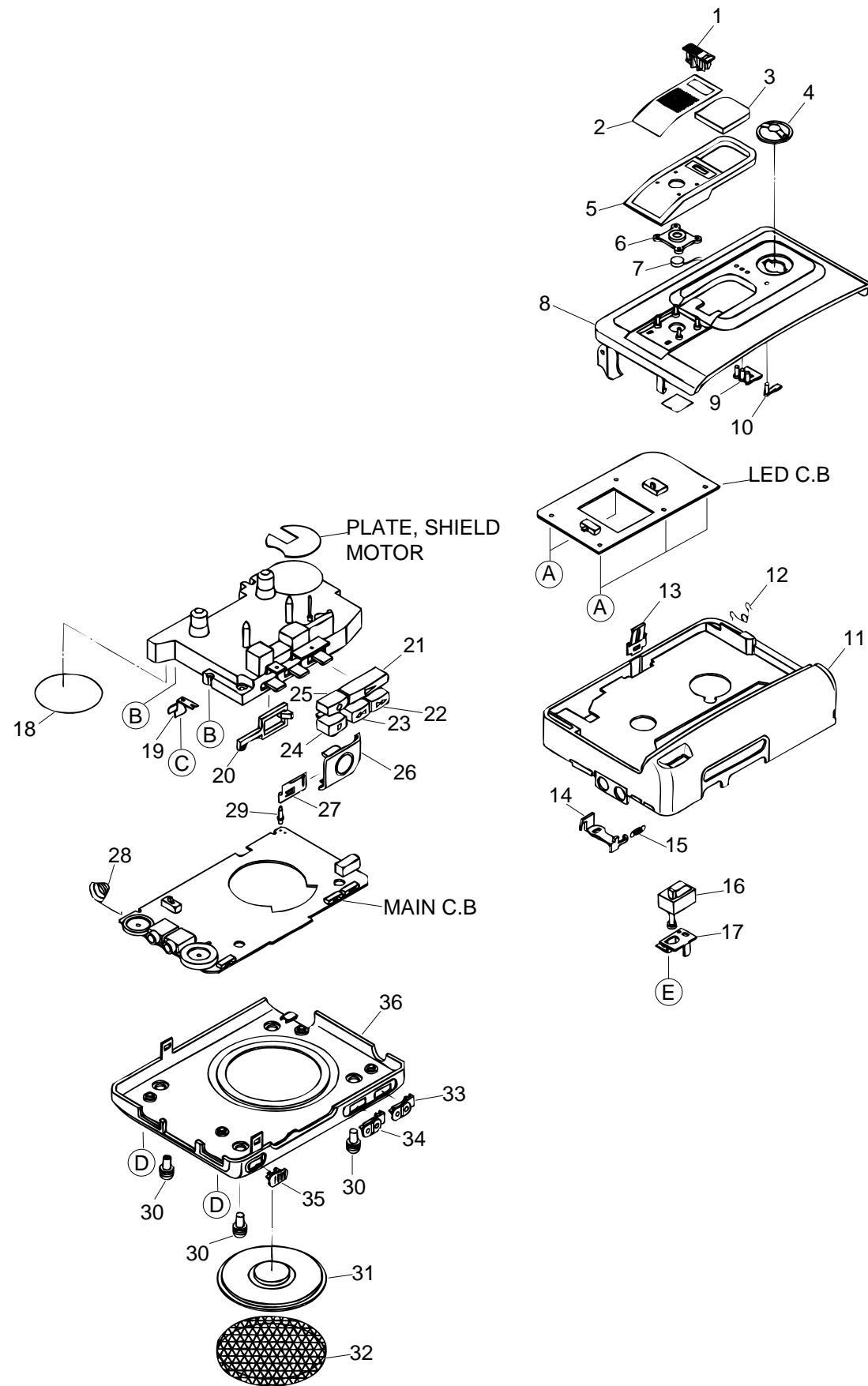
BATTERY REMAIN VOLUME	2.50V		2.25V	
LEB1	L	H	H	H
LEB2	H	L	H	H
LEB3	H	H	L	L

TRANSISTOR ILLUSTRATION



2SC2712
2SC3326
2SC4081
2SC4116
2SC4213
DTC114
RN2304

MECHANICAL EXPLODED VIEW (TP-VS610)



MECHANICAL MAIN PARTS LIST (TP-VS610)

DESCRIPTIONで判断できない物は "REFERENCE NAME LIST" を参照してください。
If can't understand for Description please kindly refer to "REFERENCE NAME LIST".

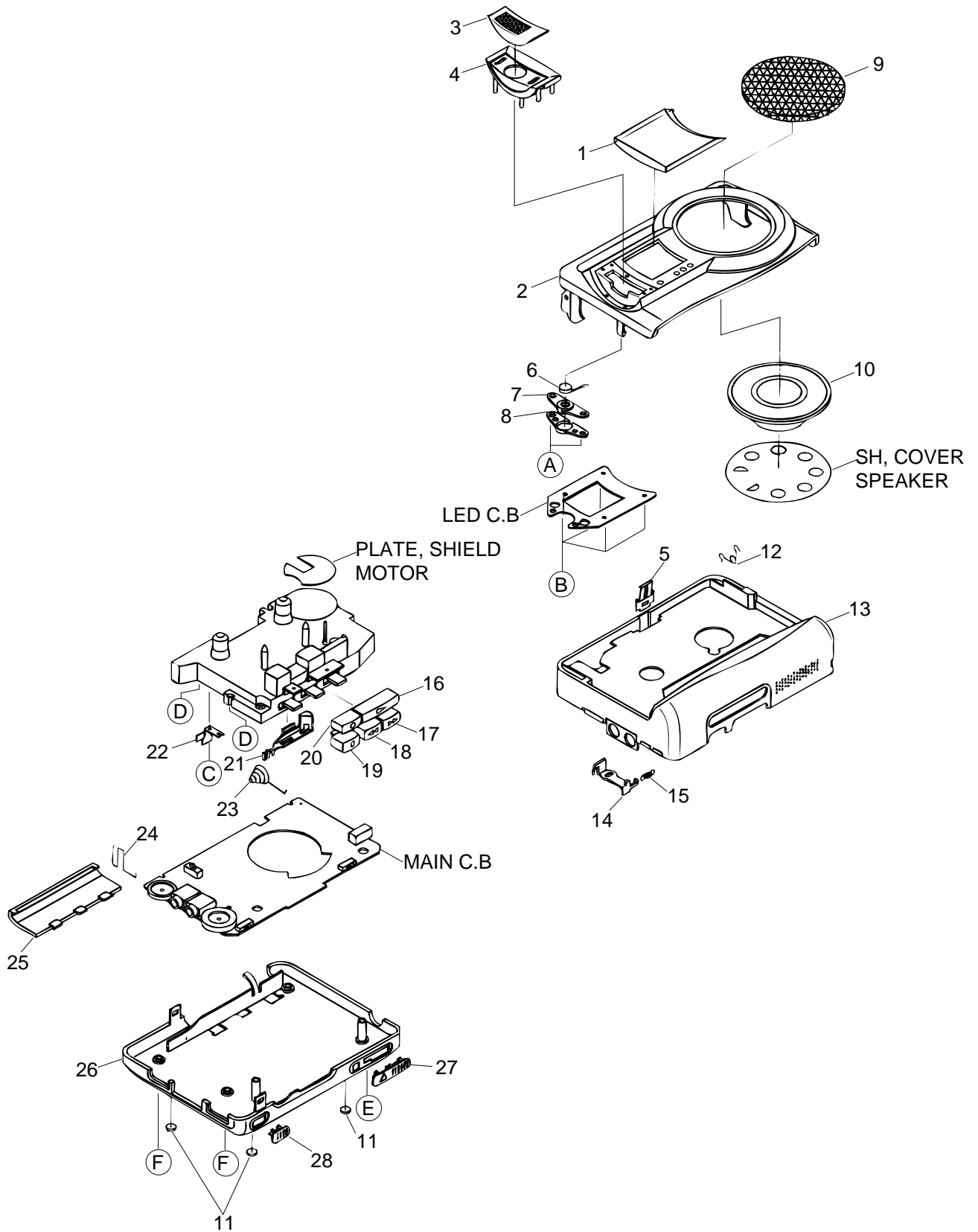
REF. NO	PART NO.	KANRI NO.	DESCRIPTION	REF. NO	PART NO.	KANRI NO.	DESCRIPTION
1	8Z-HT6-015-010		KNOB,SL MIC SENS	25	8Z-HT6-014-010		BTN,STOP
2	8Z-HT6-029-010		GRILLE,MIC Y	26	8Z-HT6-007-010		LID,BATT
3	8Z-HT6-006-010		WINDOW,CASS	27	8Z-HT6-203-010		BAT-CONTACT,(+)
4	8Z-HT6-016-010		KNOB,RTRY REC MODE	28	8Z-HT6-204-010		BAT-CONTACT,(-)
5	8Z-HT6-005-010		PANEL,LID	29	84-HJ9-210-010		SHAFT,BAT
6	8Z-HT6-201-010		HLDR,MIC	30	8Z-HT6-028-010		FOOT,RUBBER
7	82-TP3-609-010		ECM<YSC>	31	87-A91-158-010		SPKR,DIA 50
7	84-TM1-639-010		ECM,KUC3523<UBS>	32	8Z-HT6-020-010		GRILLE,SPEAKER
8	8Z-HT6-023-010		LID,CASS Y	33	8Z-HT6-019-010		KNOB,SL VZRS
9	8Z-HT6-008-010		LENS,LED BATT	34	8Z-HT6-018-010		KNOB,SL SLSS
10	8Z-HT6-009-010		LENS,LED REC	35	8Z-HT6-017-010		KNOB,SL PAUSE
11	8Z-HT6-024-010		FRAME,CENTER Y	36	8Z-HT6-025-010		CABI,REAR Y
12	87-HT8-208-010		SPR-T,LID CASS	A	87-351-508-310		VT2+1.4-3.5 BLK
13	87-HT8-203-010		SPR-P,CASS	B	87-067-271-010		SCREW VFT2+1.7-4
14	87-HT8-205-010		LEVER,REC SAFETY	C	87-264-521-310		V+1.7-1.6 CR
15	87-HT8-209-010		SPR-E,REC SAFETY	D	87-067-769-010		VT2+1.7-8(3) BLK
16	87-040-196-010		COUNTER	E	87-354-529-310		VT2+1.7-4
17	87-HT8-202-010		HLDR,COUNTER				
18	87-HT8-210-010		BELT,COUNTER				
19	87-HT8-204-010		LEVER,REC ACTUATOR				
20	8Z-HT6-202-010		LEVER,PAUSE				
21	8Z-HT6-010-010		BTN,PLAY				
22	8Z-HT6-012-010		BTN,FF				
23	8Z-HT6-013-010		BTN,REW				
24	8Z-HT6-011-010		BTN,REC				

MECHANICAL MAIN PARTS LIST (TP-VS480)

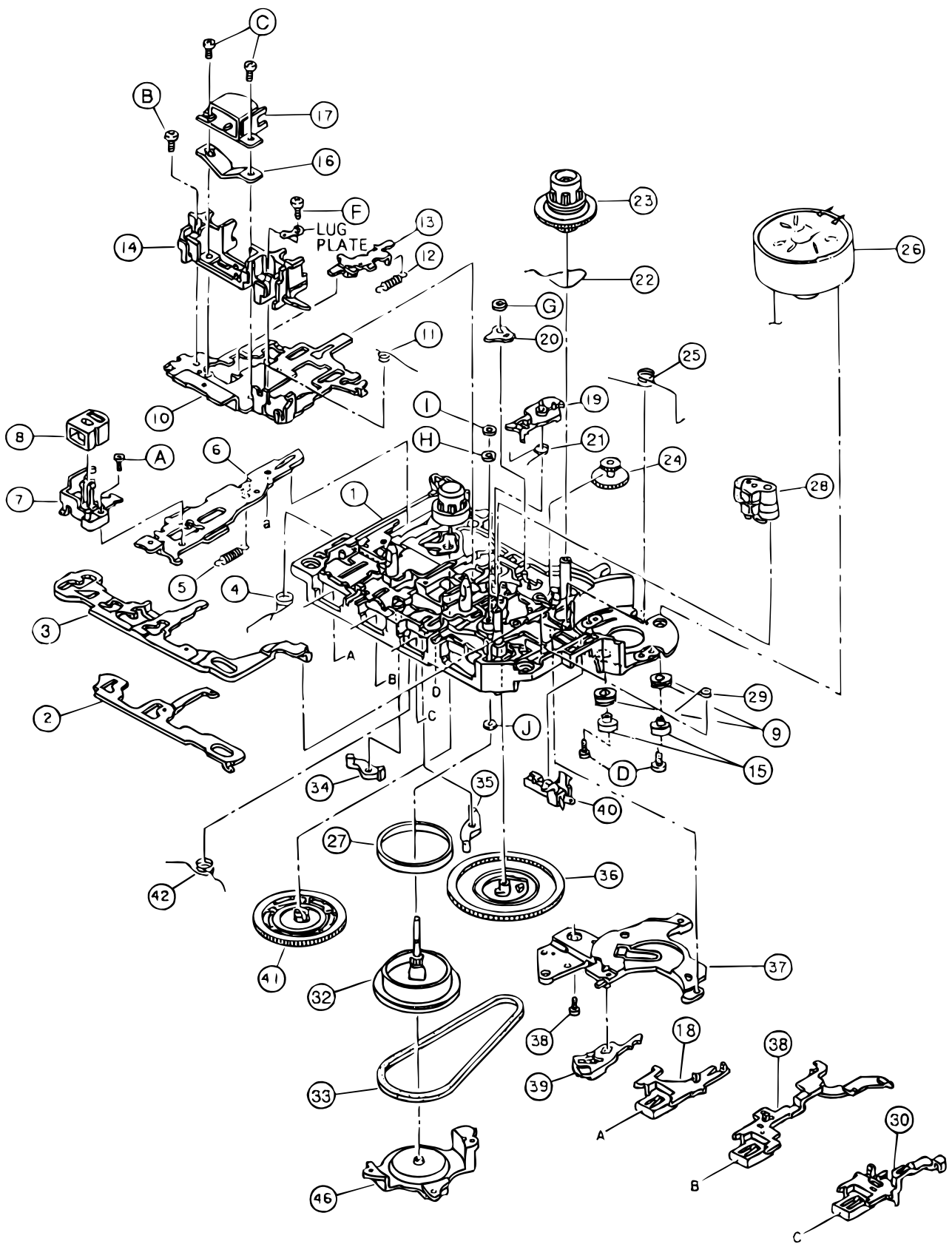
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If can't understand for Description please kindly refer to "REFERENCE NAME LIST".

REF. NO	PART NO.	KANRI NO.	DESCRIPTION	REF. NO	PART NO.	KANRI NO.	DESCRIPTION
1	8Z-HTA-007-010		WINDOW,CASS	21	8Z-HT7-203-010		LEVER,PAUSE
2	8Z-HTA-001-010		LID,CASS	22	87-HT8-204-010		LEVER,REC ACTUATOR
3	8Z-HT7-004-010		GRILLE,MIC	23	8Z-HT7-206-010		BAT-CONTACT,(-)
4	8Z-HT7-005-010		PANEL,MIC	24	8Z-HT7-205-010		BAT-CONTACT,(+)
5	87-HT8-203-010		SPR-P,CASS	25	8Z-HT7-007-010		LID,BATT
6	82-TP3-609-010		ECM	26	8Z-HT9-003-010		CABI,REAR
7	8Z-HT7-201-010		HLDR,MIC	27	8Z-HT7-009-010		KNOB,SL SLSS
8	8Z-HT7-204-010		COVER, MIC	28	8Z-HT7-008-010		KNOB,SL PAUSE
9	8Z-HTA-002-010		GRILLE,SPEAKER	A	87-B10-234-010		QT2+1.4-3 BLK
10	87-A91-158-010		SPKR,DIA 50 4OHM 1.0W	B	87-268-527-310		V HEAD SCREW D1.7-3
11	8Z-HT7-012-010		FOOT,RUBBER	C	87-264-521-310		V+1.7-1.6 CR
12	87-HT8-208-010		SPR-T,LID CASS	D	87-067-271-010		SCREW VFT2+1.7-4
13	8Z-HTA-003-010		FRAME,CENTER	E	87-HT8-211-010		VT2+2-18 S-SCREW BLK
14	87-HT8-205-010		LEVER,REC SAFETY	F	87-067-769-010		VT2+1.7-8(3) BLK
15	87-HT8-209-010		SPR-E,REC SAFETY				
16	8Z-HT6-010-010		BTN,PLAY				
17	8Z-HT6-012-010		BTN,FF				
18	8Z-HT6-013-010		BTN,REW				
19	8Z-HT6-014-010		BTN,STOP				
20	8Z-HT6-011-010		BTN,REC				

MECHANICAL EXPLODED VIEW (TP-VS480)



TAPE MECHANISM EXPLODED VIEW 1/1



TAPE MECHANISM PARTS LIST 1/1

DESCRIPTIONで判断できない物は "REFERENCE NAME LIST" を参照してください。
 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	S1-909-013-050		CHASSIS ASSY	31	S1-909-053-040		FLYWHEEL ASSY
2	S1-909-020-190		FR PLATE	32	S1-909-080-100		MAIN BELT
3	S1-909-020-090		LOCK PLATE	33	S1-909-050-100		FL BRACKET
4	S1-909-020-140		STOP SPRING	34	S1-909-020-150		R/C LEVER(R)
5	S1-909-120-080		REC LEVER SPRING	35	S1-909-020-160		R/C LEVER(F)
6	S1-909-120-070		REC LEVER	36	S1-909-060-120		CAM GEAR
7	S1-909-120-020		MG GUIDE	37	S1-909-020-170		R/C BRACKET
8	S6-207-100-020		HEAD E TC-230AN(SL)	38	S1-909-020-110		RWD LEVER
9	S1-852-140-020		M LUBBER	39	S1-909-020-180		FF STOPPER
10	S1-909-030-050		HEAD PANEL	40	S6-401-011-630		LEAF SW MSW-1541TA
11	S1-909-040-060		P/R SPRING	41	S1-909-070-020		RWD GEAR
12	S1-909-030-080		R/C SPRING	42	S1-909-020-130		FR SPRING
13	S1-909-030-070		R/C PLATE	A	S9-C01-174-030		CAMERA 1.7-4
14	S1-909-030-060		TAPE GUIDE	B	S9-C01-173-530		CAMERA 1.7-3.5
15	S1-852-140-030		M COLLER	C	S9-P14-203-310		+/- SCREW M2-3.3
16	S1-944-030-020		HEAD SPRING PLATE	D	S9-C18-300-100		CAMERA 1.7-3
17	S6-205-020-130		PR HEAD RM-7521-A	E	S9-P08-173-410		PST 1.7-3.4
18	S1-909-020-100		STOP LEVER	F	S9-P14-206-320		+/- SCREW M2-3.6
19	S1-909-110-040		AUTO LEVER	G	S9-W02-300-100		P WASHER CUT 1.2-3.8-0.3
20	S1-909-110-020		A PUSH ARM	H	S9-W08-350-200		LUMILER WASHER CUT 0.98-3-0.3
21	S1-909-110-050		M CONTROL SPRING	I	S9-W05-200-600		HL WASHER 1.16-3-0.2
22	S1-909-060-150		SENSOR SPRING C	J	S9-W05-200-100		HL WASHER 1.55-3-0.13
23	S1-909-063-030		T REEL ASSY				
24	S1-909-060-130		TAKE UP GEAR				
25	S1-909-030-090		HP SPRING				
26	S1-909-083-060		MOTOR ASSY				
27	S1-909-050-130		BRAKE BELT				
28	S1-909-043-010		PINCH ROLLER ASSY				
29	S1-909-020-200		FR PLATE SPRING				
30	S1-909-020-120		FF LEVER				

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
TRIMMER	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- -	

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