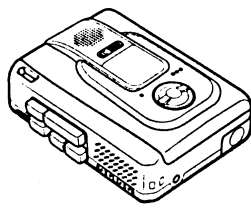
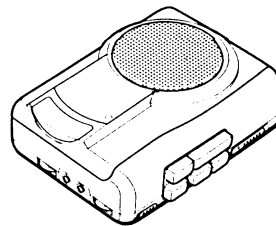




TP-VS480 YB YUBB YLB TP-VS610 YS YUBS



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)
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
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



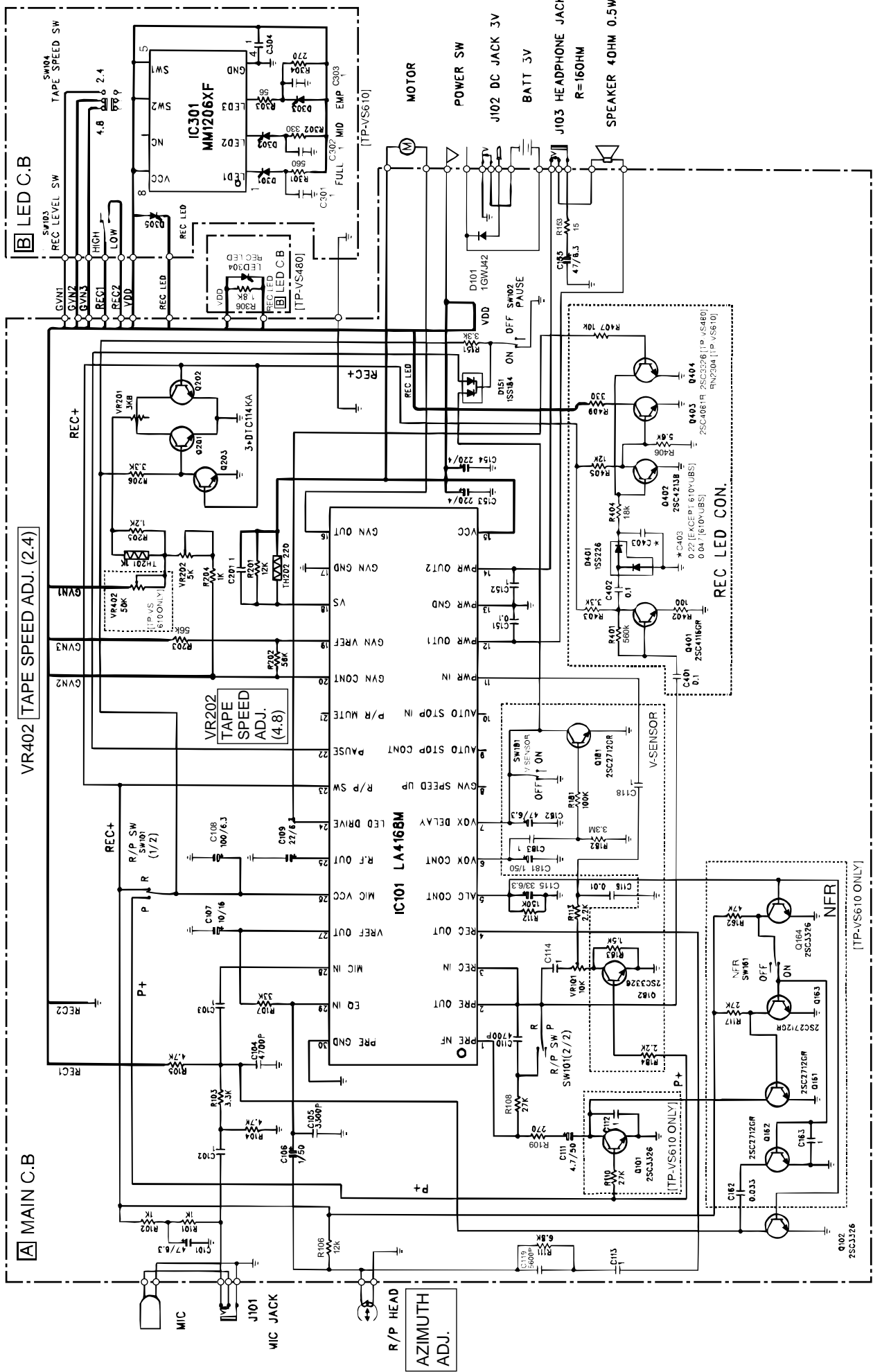
A
抵抗部品コード
Resistor Code

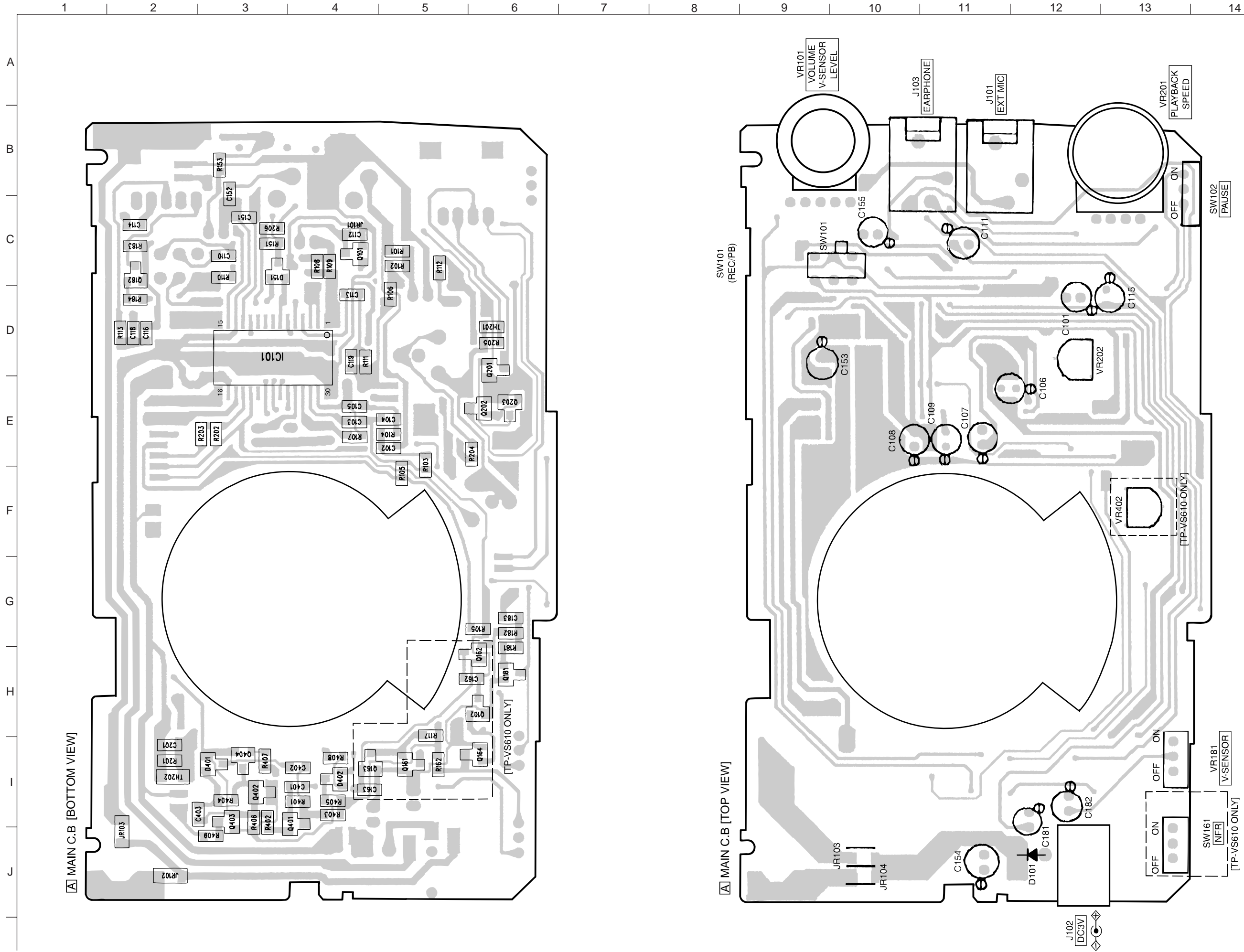
桁表示
Figure
抵抗値
Value of resistor

チップ抵抗 Chip resistor

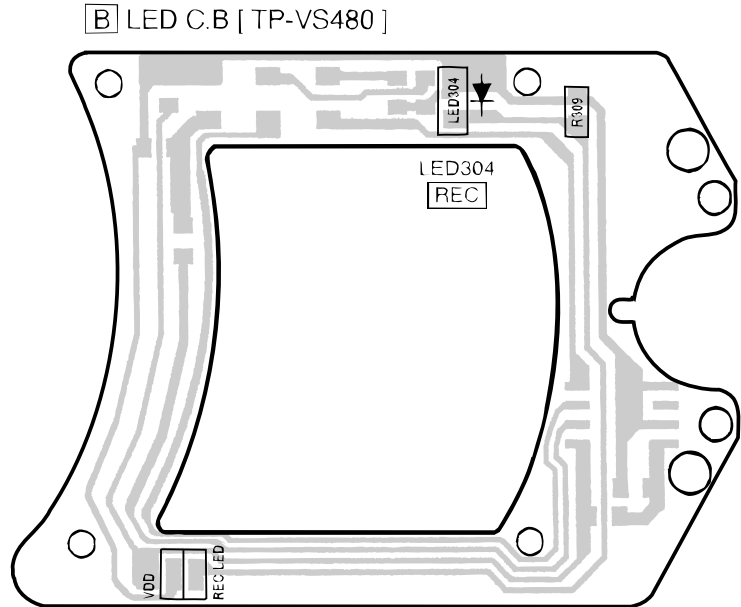
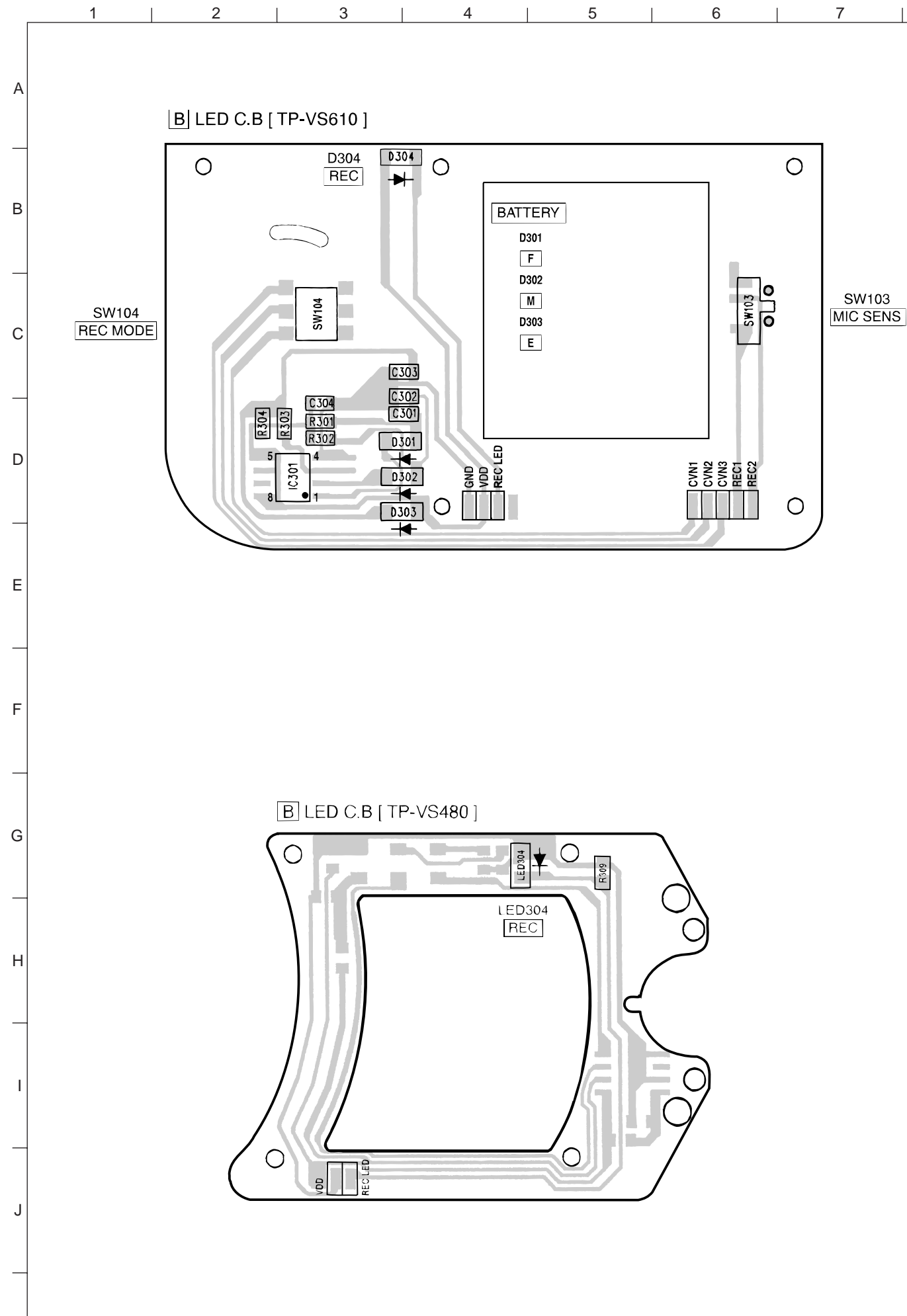
| 容量 Wattage | 種類 Type | 許容誤差 Tolerance | 記号 Symbol | 寸法/Dimensions (mm) | | | 抵抗コード : A Resistor Code : A | |
|---------------|------------|-------------------|--------------|--------------------|-----|------|--------------------------------|-----|
| | | | | 外形/Form | L | W | | t |
| 1/16W | 1005 | ± 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

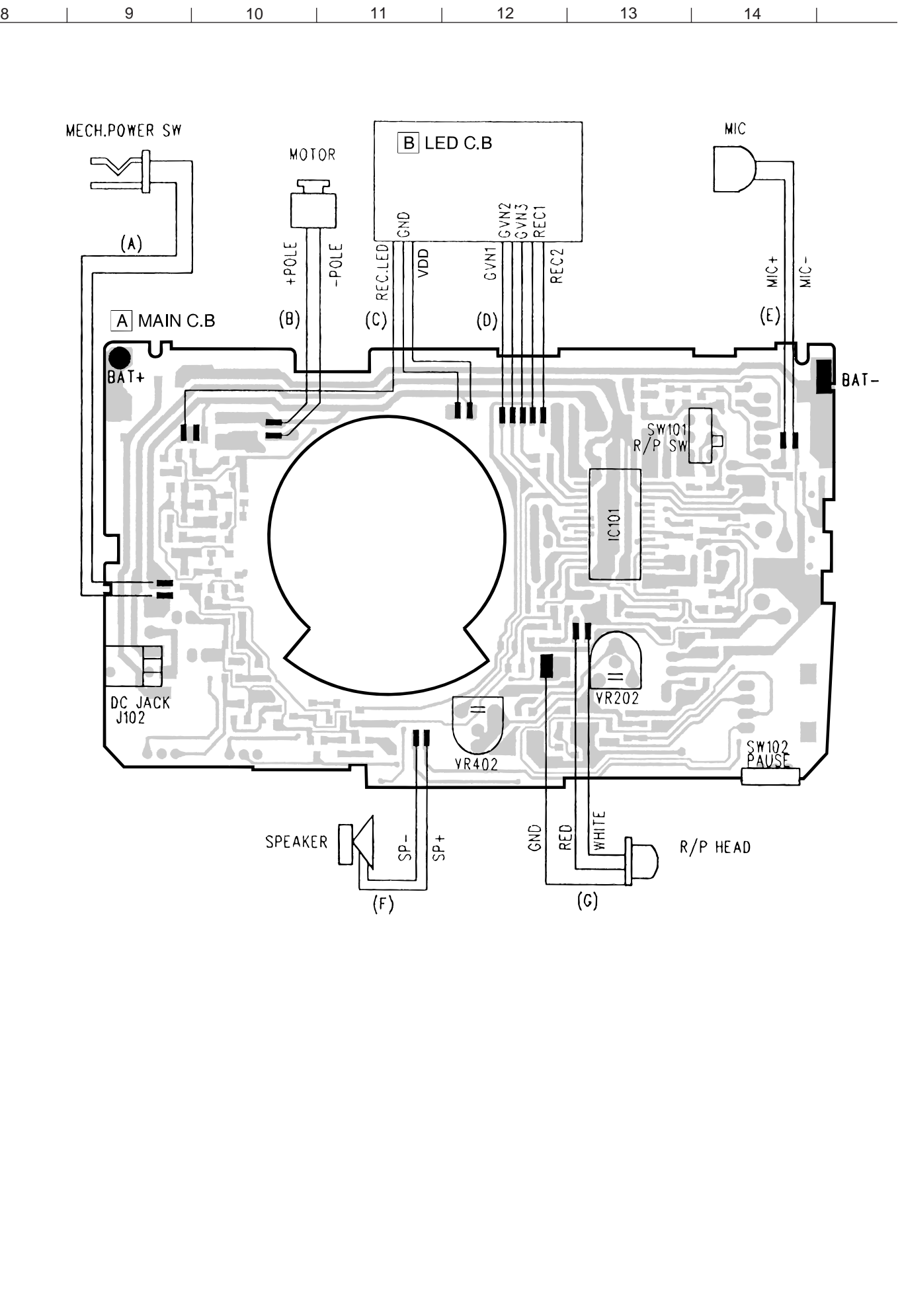




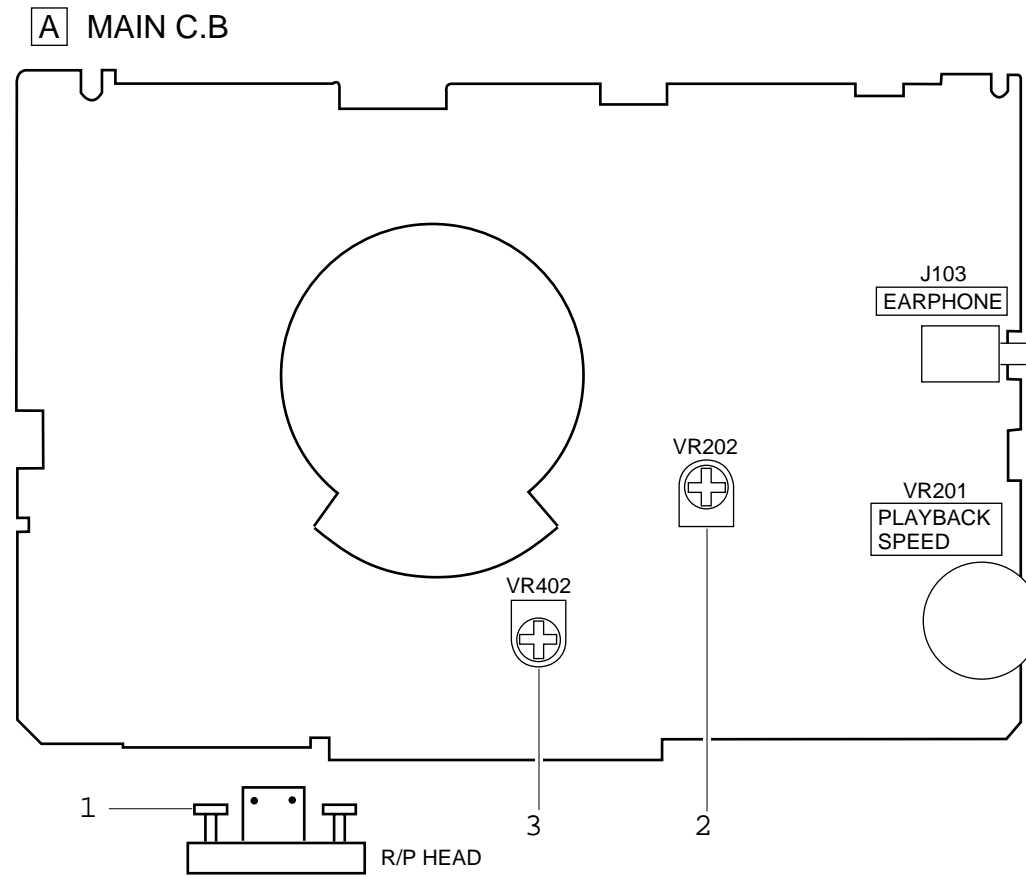
WIRING-2 (LED C.B)



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

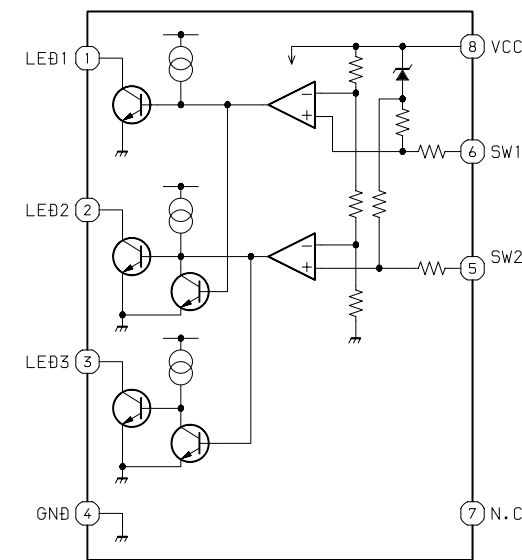
Method: Play back the test tape, and adjust for 3000 Hz ± 10 Hz

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 |

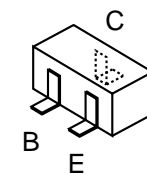
IC BLOCK DIAGRAM

IC, MM1206XF



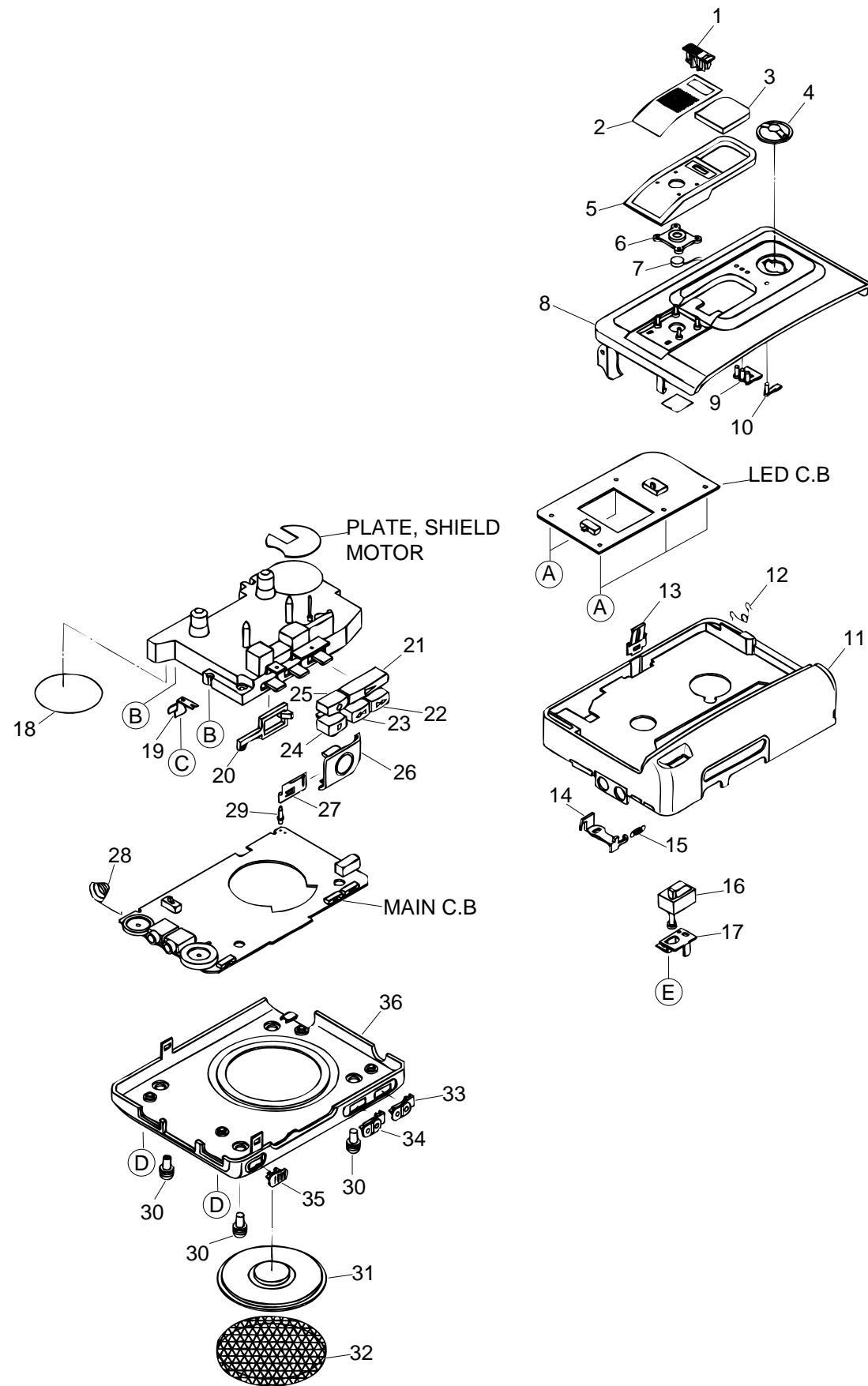
| BATTERY REMAIN VOLUME | 2.50V | 2.25V | |
|-----------------------|-------|-------|---|
| LEB1 | L | H | H |
| LEB2 | H | L | H |
| LEB3 | H | H | L |

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".

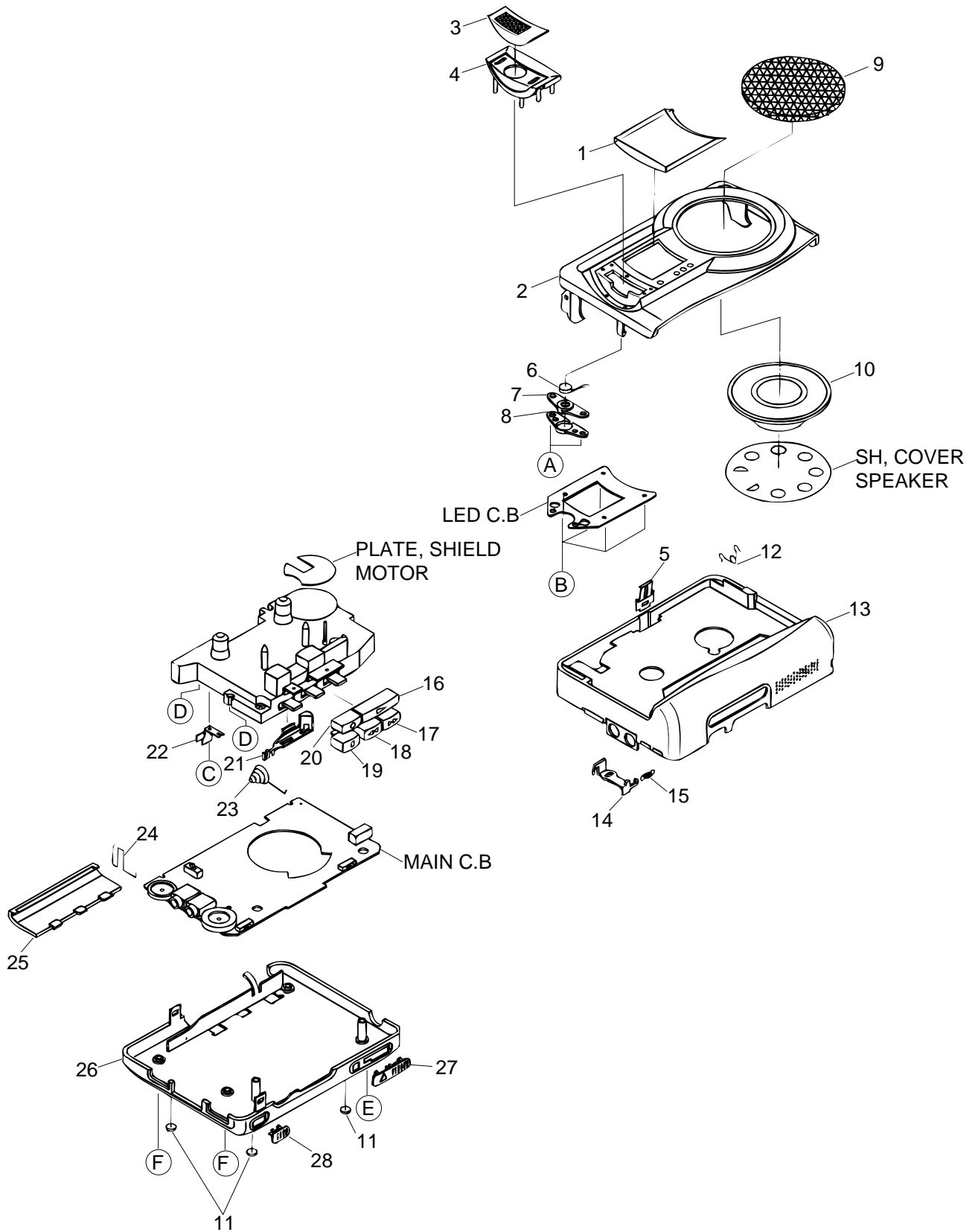
| REF. NO | PART NO. | KANRI NO. | DESCRIPTION | REF. NO | PART NO. | KANRI NO. | DESCRIPTION |
|---------|----------------|-----------|--------------------|---------|----------------|-----------|------------------|
| 1 | 8Z-HT6-015-010 | | KNOB,SL MIC SENS | 25 | 8Z-HT6-014-010 | | BTN,STOP |
| 2 | 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)

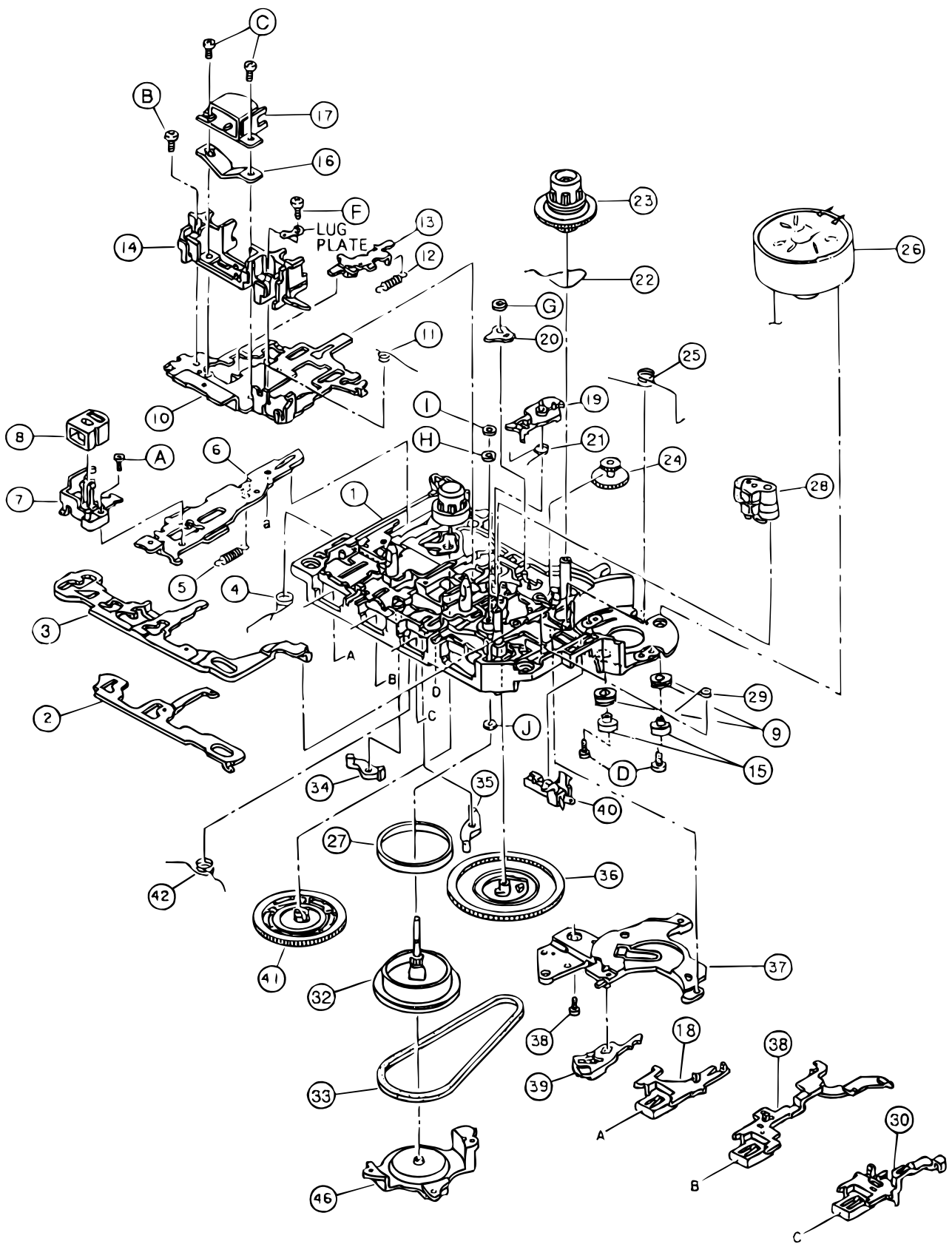
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| REF. NO | PART NO. | KANRI NO. | DESCRIPTION | REF. NO | PART NO. | KANRI NO. | DESCRIPTION |
|---------|----------------|-----------|-----------------------|---------|----------------|-----------|----------------------|
| 1 | 8Z-HTA-007-010 | | 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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