


# WM-AF67 / BF67

## SERVICE MANUAL

US Model  
Canadian Model  
WM-AF67  
AEP Model  
UK Model  
E Model  
WM-BF67



This photo is BF-67.

Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation. "DOLBY" and the double-D symbol  are trademarks of Dolby Laboratories Licensing Corporation.

|                                    |           |
|------------------------------------|-----------|
| Model Name Using Similar Mechanism | New       |
| Tape Transport Mechanism Type      | WMF-67-80 |

### SPECIFICATIONS

#### Radio section

Frequency range

- FM: 87.6–107MHz (West Germany model)  
87.6–108MHz (EXCEPT FOR West Germany model)
- AM: 531–1,602kHz (West Germany model)  
530–1,605kHz (EXCEPT FOR West Germany model)

Antenna

- FM: Headphone cord antenna or earphone cord antenna
- AM: Built-in ferrite bar antenna

#### Recording section

Recording system

- 4-track 2-channel stereo

Input

- Microphone input jack (stereo minijack) (PLUG IN POWER)  
sensitivity 0.26 mV for low impedance microphone

#### Tape player section

Frequency response (Dolby NR off)

- 30–15,000 Hz

Power output

- 5 mW + 5 mW load impedance 16 ohms at DC operation

Power requirements

- 3 V DC

- Two R6 (size AA) batteries

DC IN 3 V jack accepts:

- Optional Sony EBP-500B battery case for use with two R20 (size D) batteries
- Optional Sony AC-D2L AC power adaptor  
for use on 120V AC, 60Hz (US, Canadian model)  
for use on 240V AC, 50Hz (UK model)  
for use on 220V AC, 50Hz (AEP, West Germany model)  
for use on 120V AC, 60Hz or 220V AC, 50Hz (E model)
- Optional Sony DCC-70 car battery cord for use with 12 V car battery

Battery life (Dolby NR off)

|              | Sony alkaline battery AM 3 (N) |
|--------------|--------------------------------|
| Playback     | Approx. 6 hours                |
| FM reception | Approx. 23 hours               |
| Recording    | Approx. 5.5 hours              |

#### Dimensions

- Approx. 115.9 × 93.2 × 39.3 mm (w/h/d)  
(4<sup>5</sup>/<sub>8</sub> × 3<sup>3</sup>/<sub>4</sub> × 1<sup>5</sup>/<sub>16</sub> inches)  
incl. projecting parts and controls

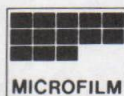
#### Weight

- Approx. 280 g (9.9 oz) incl. batteries

#### Accessories supplied

- Belt clip (1)
- Microphone (1)
- Microphone stand (1)
- For WM-AF67  
Stereo headphones (open-air type, 1)
- For WM-BF67  
UK, E model: Stereo headphones  
(open-air type, 1)  
AEP, West Germany model:  
Stereo earphones (open-air type, 1)

**Note:** If an AC power adaptor or a car battery cord not manufactured by Sony is used, a fuse must be installed in the AC power adaptor or the car battery cord and the polarity of the plug must be as illustrated.



RADIO CASSETTE-CORDER  
**SONY**®



# SECTION 1 DISASSEMBLY

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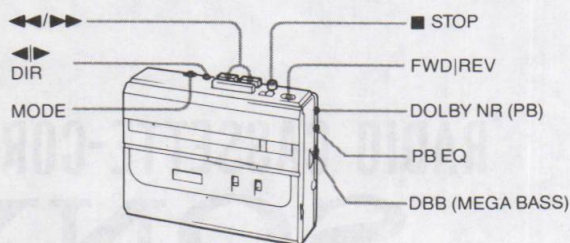
### Flexible Circuit Board Repairing

- Keep the temperature of the soldering iron around 270°C during repairing.
- Do not touch the soldering iron on the same conductor of the circuit board (within 3 times).
- Be careful not to apply force on the conductor when soldering or unsoldering.

### Notes on chip component replacement

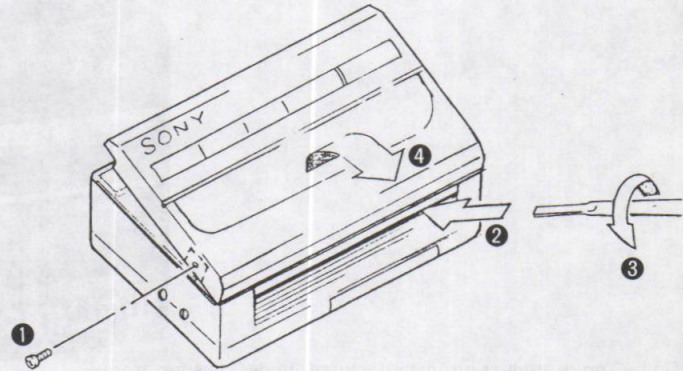
- Never reuse a disconnected chip component.
- Notice that the minus side of a tantalum capacitor may be damaged by heat.

### PARTS IDENTIFICATION

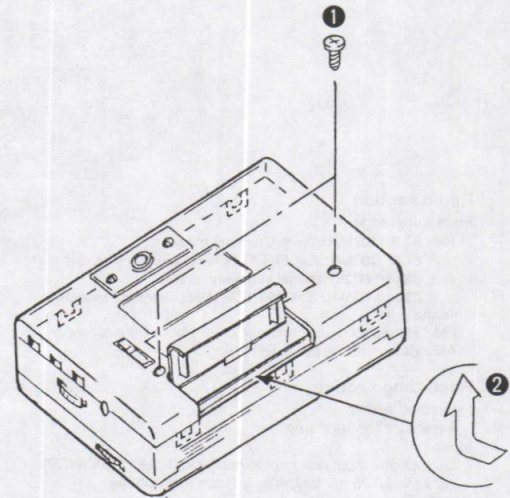


**Note:** Follow the disassembly procedure the numerical order given.

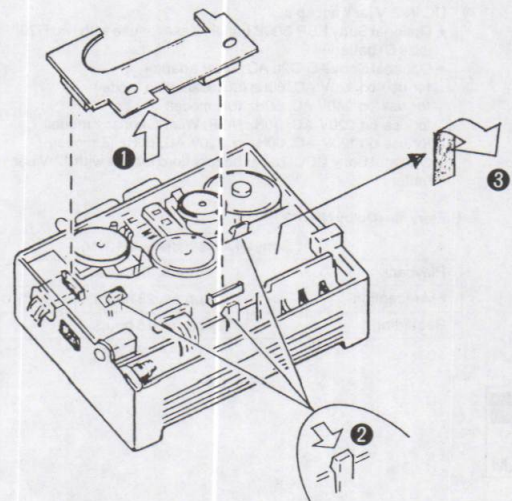
#### 1-1. CASSETTE HOLDER



#### 1-2. REAR CABINET



#### 1-3. MECHANISM DECK





### SECTION 2 MECHANICAL MEASUREMENTS

#### 1-4. TUNER UNIT

#### PRECAUTION

- Clean the following parts with a denatured alcohol-moistened swab:
  - playback head
  - capstan
  - pinch roller
  - rubber belts
- Demagnetize the playback head with a head demagnetizer.
- Do not use a magnetized screwdriver for the adjustments.
- After the adjustments, apply suitable locking compound to the parts adjusted.
- The adjustments should be performed with the rated power supply voltage (2.5V) unless otherwise noted.

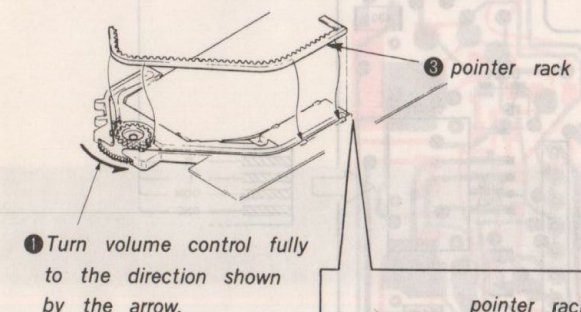
#### Torque Measurement

| Mode             | Torque Meter | Meter Reading                               |
|------------------|--------------|---|
| FWD              | CQ-102C      | 25-55g·cm<br>(0.30-0.76oz·inch)             |
| FWD Back Tension |              | less than 3g·cm<br>(less than 0.04oz·inch)  |
| REV              | CQ-102RB     | 22-55g·cm<br>(0.30-0.76oz·inch)             |
| REV Back Tension |              | less than 3g·cm<br>(less than 0.04oz·inch)  |
| FF, REW          | CQ-201B      | more than 60g·cm<br>(more than 0.83oz·inch) |

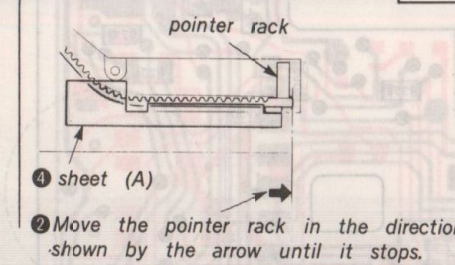
#### Tape Tension Measurement

| Mode | Torque meter | Meter reading           |
|------|--------------|-------------------------|
| FWD  | CQ-403A      | more than 55g·cm        |
| REV  | CQ-403R      | (more than 0.76oz·inch) |

#### 1-5. POINTER RACK SETTING



Turn volume control fully to the direction shown by the arrow.



- sheet (A)
- Move the pointer rack in the direction shown by the arrow until it stops.

### SECTION 3 ELECTRICAL ADJUSTMENTS

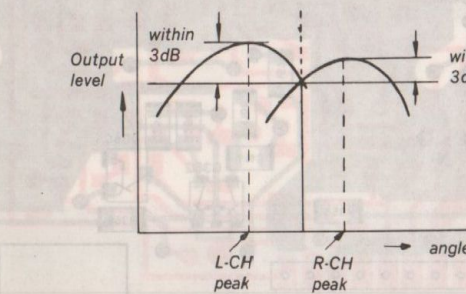
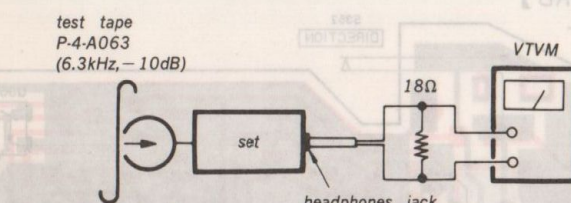
#### 3-1. CASSETTE SECTION

##### Playback Head Azimuth Check

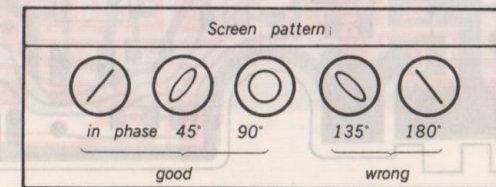
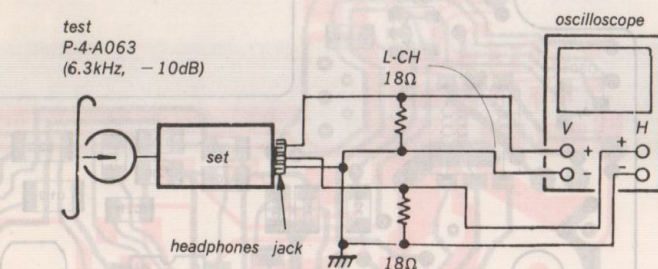
perform this check both in FWD and REV mode.

**Note:** This set is not featured the head azimuth adjustment. When replacing the head, check the both L-ch and R-ch output levels and also those phases.

- Procedure:**
- Level Check  
Mode: playback

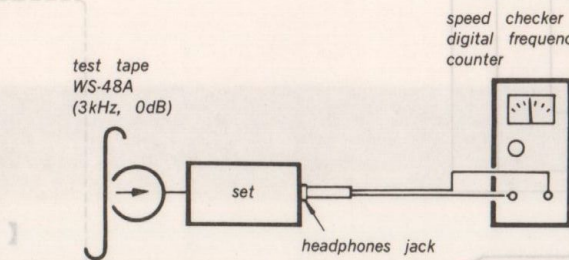


- Phase Check  
Mode: playback



##### Tape Speed Adjustment

**Procedure:**  
Mode: playback

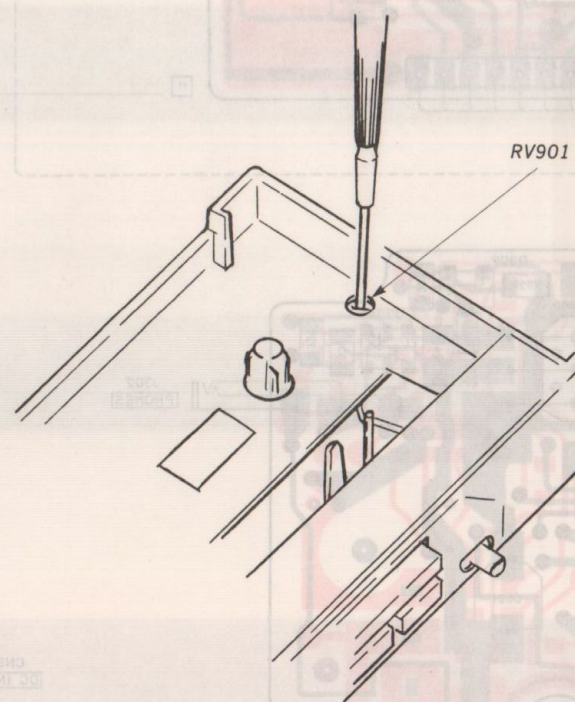


##### Specification:

| Speed checker | Digital frequency counter |
|---------------|---------------------------|
| ±1%           | 2,970-3,030Hz             |

Frequency difference between the beginning and the end of the tape should be within ±2.5% (±75Hz).

**Adjustment Location:** RV901

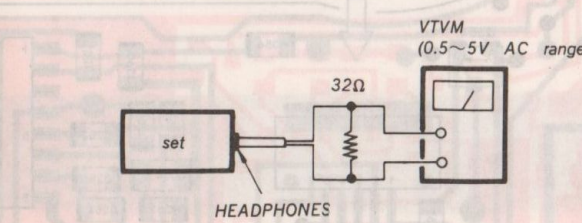
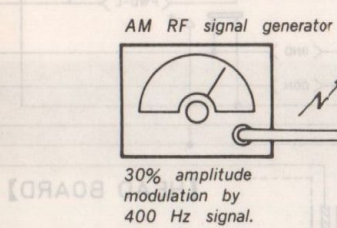


#### 3-2. RADIO SECTION

Note: DC Supply Voltage 2.5V

##### AM

**Setting:**  
Function: RADIO  
BAND: AM



| AM TRACKING ADJUSTMENT                |          |
|---------------------------------------|----------|
| Adjust for a maximum reading on VTVM. |          |
| T6                                    | 620kHz   |
| CT2                                   | 1,490kHz |

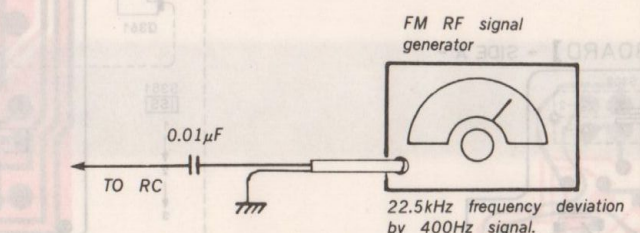
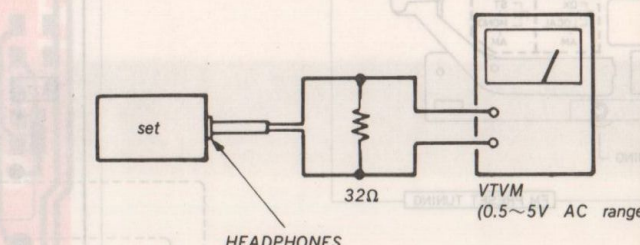
| AM FREQUENCY COVERAGE ADJUSTMENT      |                      |
|---------------------------------------|----------------------|
| Adjust for a maximum reading on VTVM. |                      |
| T3                                    | 525kHz (526.5kHz)    |
| CT3                                   | 1,650kHz (1606.5kHz) |

| AM IF ADJUSTMENT                      |                 |
|---------------------------------------|-----------------|
| Adjust for a maximum reading on VTVM. |                 |
| T1                                    | 455kHz (468kHz) |

- Repeat the procedures in each adjustment several times, and the frequency coverage and tracking adjustments should be finally done by the trimmer capacitors.
- WG: West Germany model

##### FM

**Setting:**  
FUNCTION: RADIO  
BAND: FM (DX): WM-AF67  
FM (ST): WM-BF67

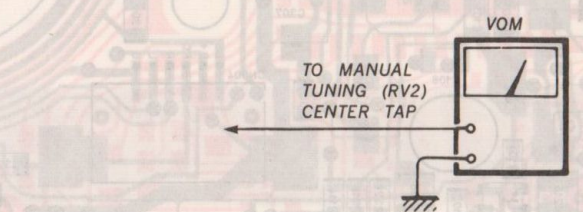


- Repeat the procedures in each adjustment several times, and the adjustments should be finally done by the trimmer capacitors.
- FM frequency coverage adjustment should be done after frequency control voltage adjustment.

| FM FREQUENCY COVERAGE ADJUSTMENT      |                     |
|---------------------------------------|---------------------|
| Adjust for a maximum reading on VTVM. |                     |
| T2                                    | 85MHz (87.35MHz)    |
| CT1                                   | 110.5MHz (107.8MHz) |

#### FREQUENCY CONTROL VOLTAGE ADJUSTMENT

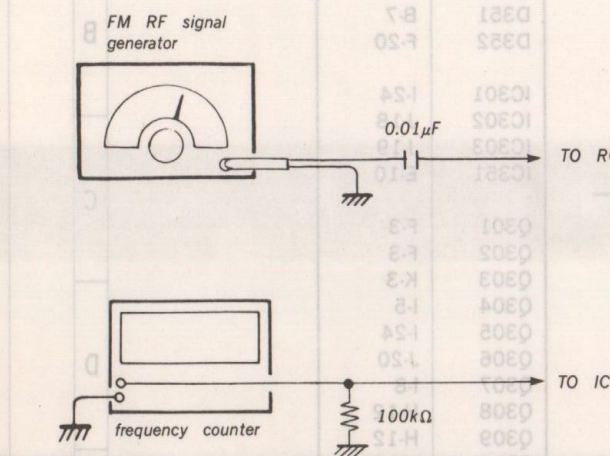
- This adjustment should be done before FM frequency coverage adjustment.



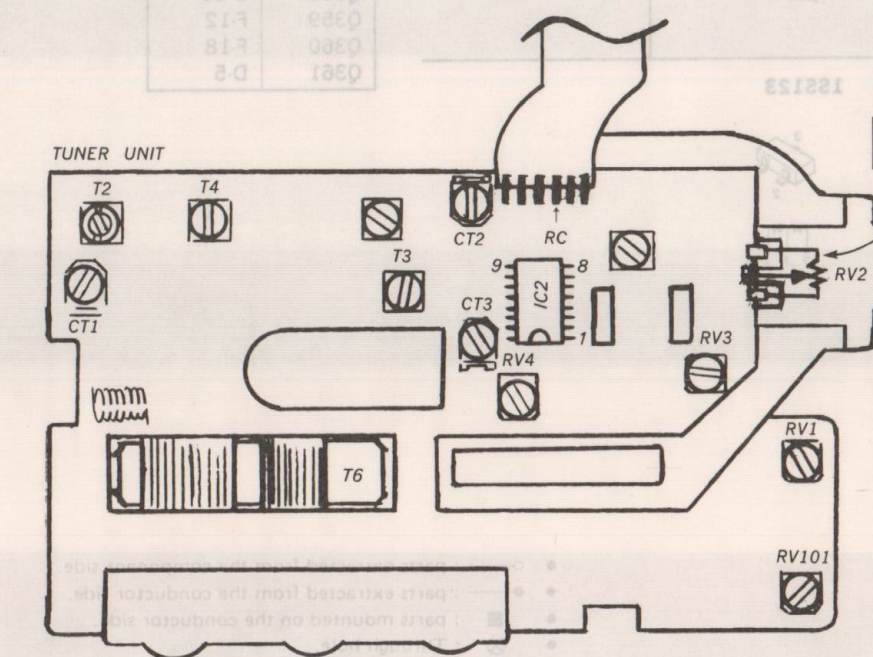
| to be adjusted | RV3 (PRESET RV101) | RV1       |
|----------------|--------------------|-----------|
| readings       | 1V ± 0.1V          | 9V ± 0.1V |
| tuning dial    | f min              | f max     |

#### VCO Adjustment

procedure: Carrier frequency: 98MHz  
Modulation: 1kHz deviation (30%)



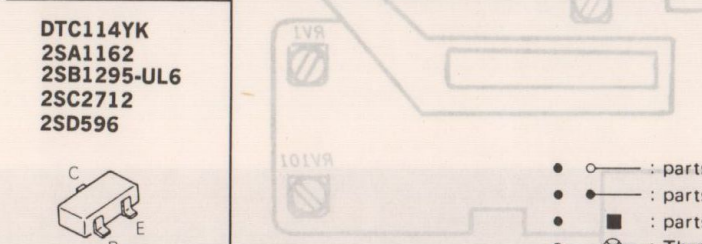
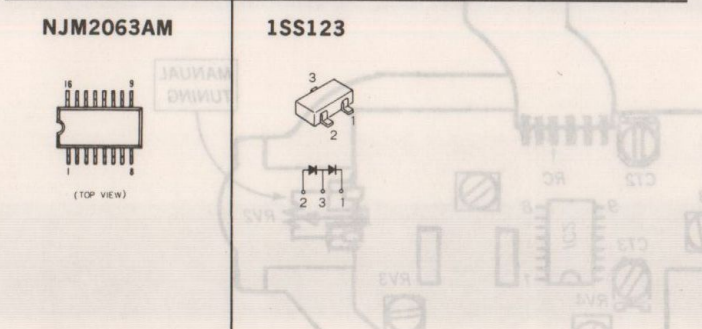
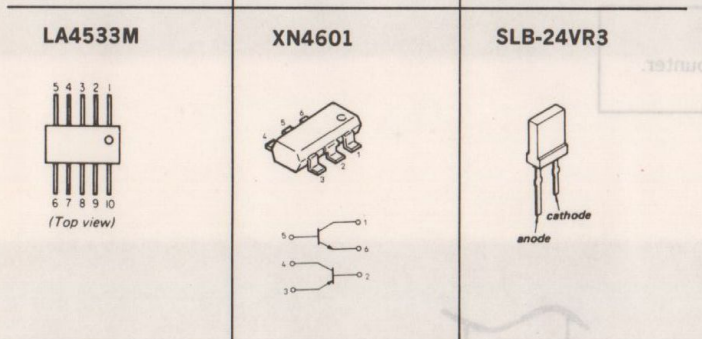
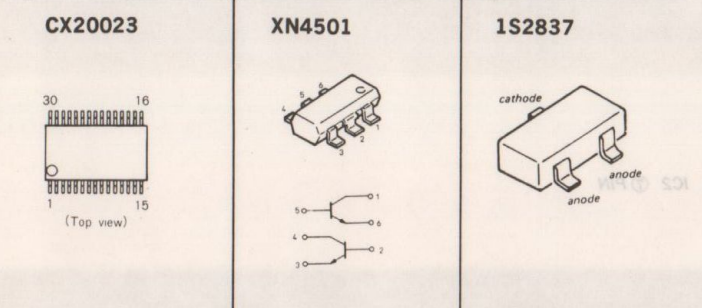
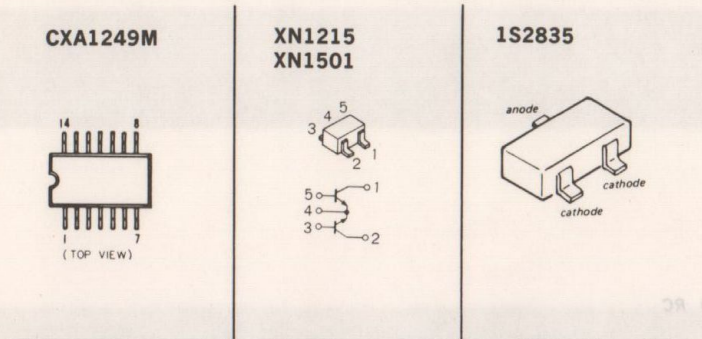
- Tune the set to 98MHz.
- Adjust RV4 for 38kHz ± 200Hz on the counter.





SECTION 4  
DIAGRAMS

● SEMICONDUCTOR LEAD LAYOUTS

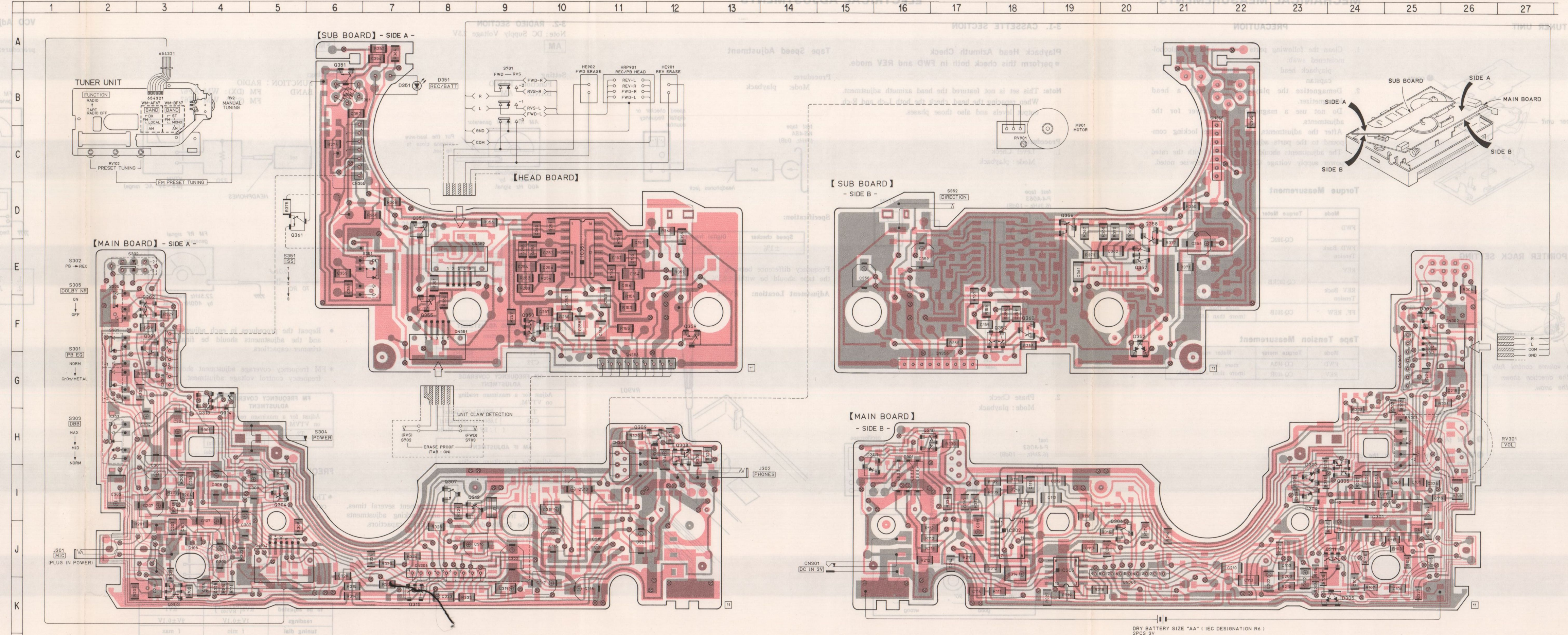


● Semiconductor Location

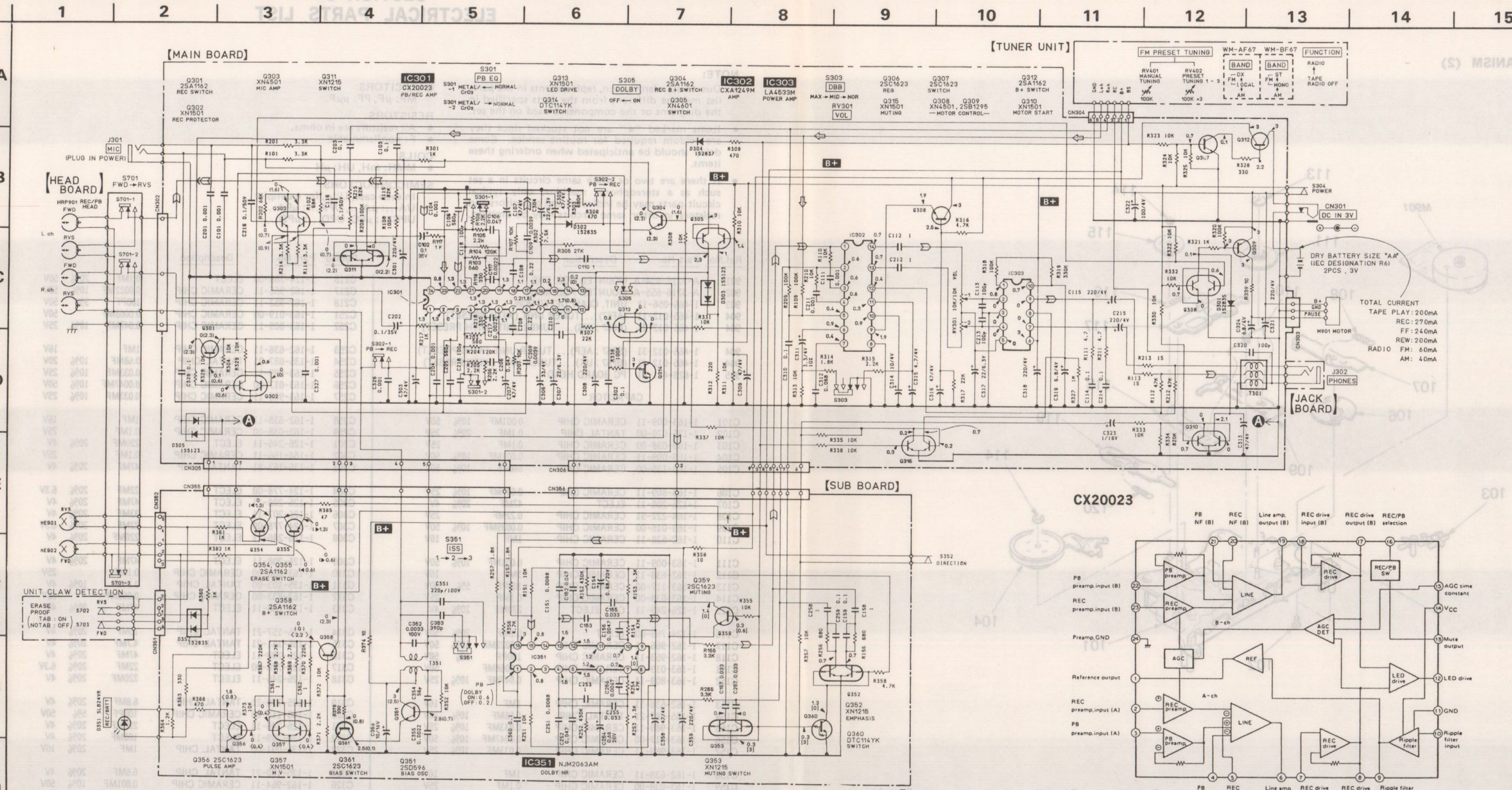
| Ref. No. | Location |
|----------|----------|
| D301     | I-15     |
| D302     | F-25     |
| D303     | I-23     |
| D304     | I-23     |
| D305     | K-24     |
| D351     | B-7      |
| D352     | F-20     |
| IC301    | I-24     |
| IC302    | J-18     |
| IC303    | J-19     |
| IC351    | E-10     |
| Q301     | F-3      |
| Q302     | F-3      |
| Q303     | K-3      |
| Q304     | I-5      |
| Q305     | I-24     |
| Q306     | J-20     |
| Q307     | I-8      |
| Q308     | H-12     |
| Q309     | H-12     |
| Q310     | H-16     |
| Q311     | J-24     |
| Q312     | I-8      |
| Q313     | G-4      |
| Q314     | G-4      |
| Q315     | K-7      |
| Q351     | B-6      |
| Q352     | F-18     |
| Q353     | F-9      |
| Q354     | D-7      |
| Q355     | F-8      |
| Q356     | D-19     |
| Q357     | E-20     |
| Q358     | D-20     |
| Q359     | F-12     |
| Q360     | F-18     |
| Q361     | D-5      |

- : parts extracted from the component side.
- : parts extracted from the conductor side.
- : parts mounted on the conductor side.
- ⊗ : Through hole.
- ⊙ : Pattern on the side which is seen.
- (red) : Pattern of the rear side.

4-1. PRINTED WIRING BOARDS



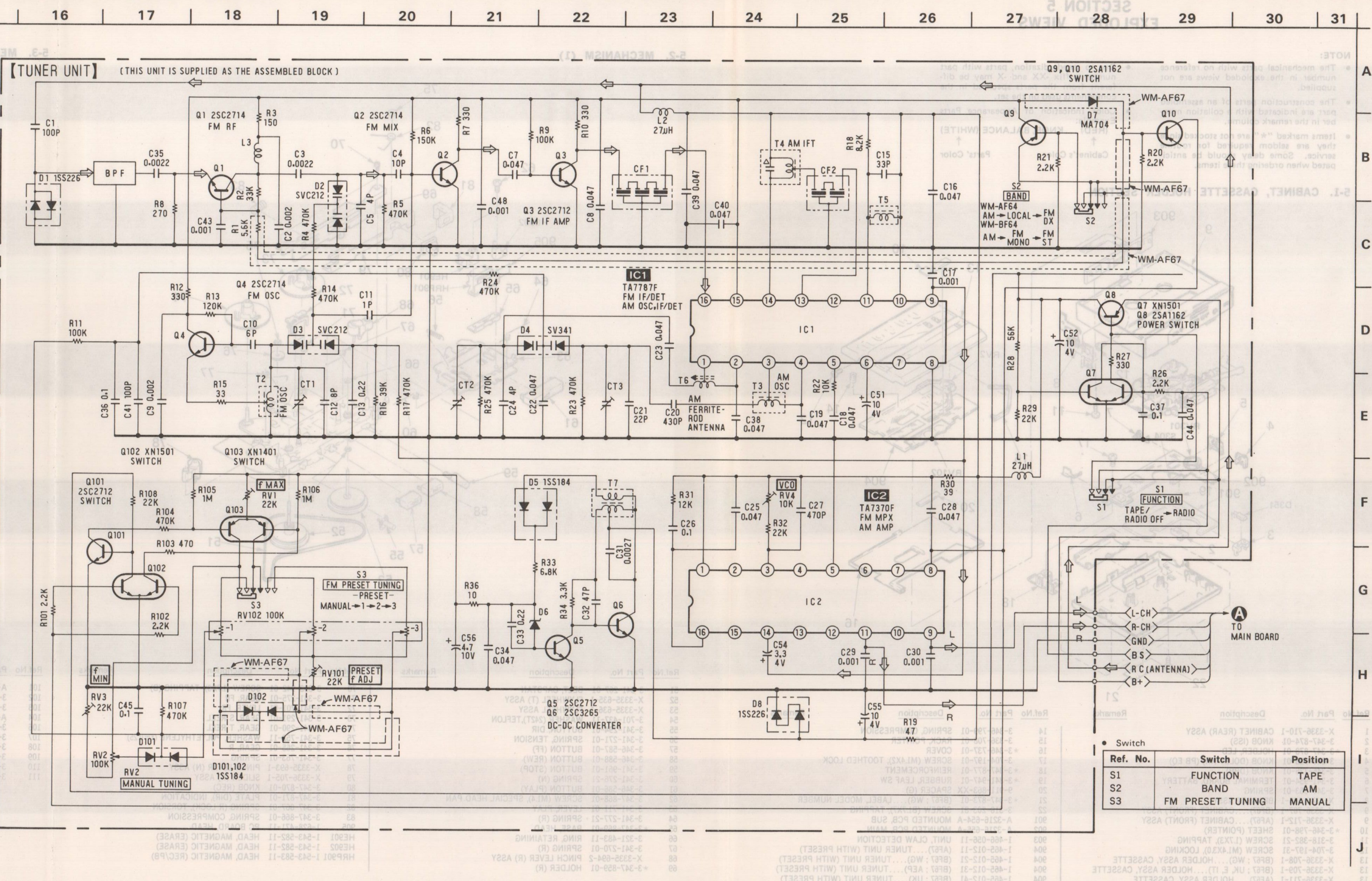
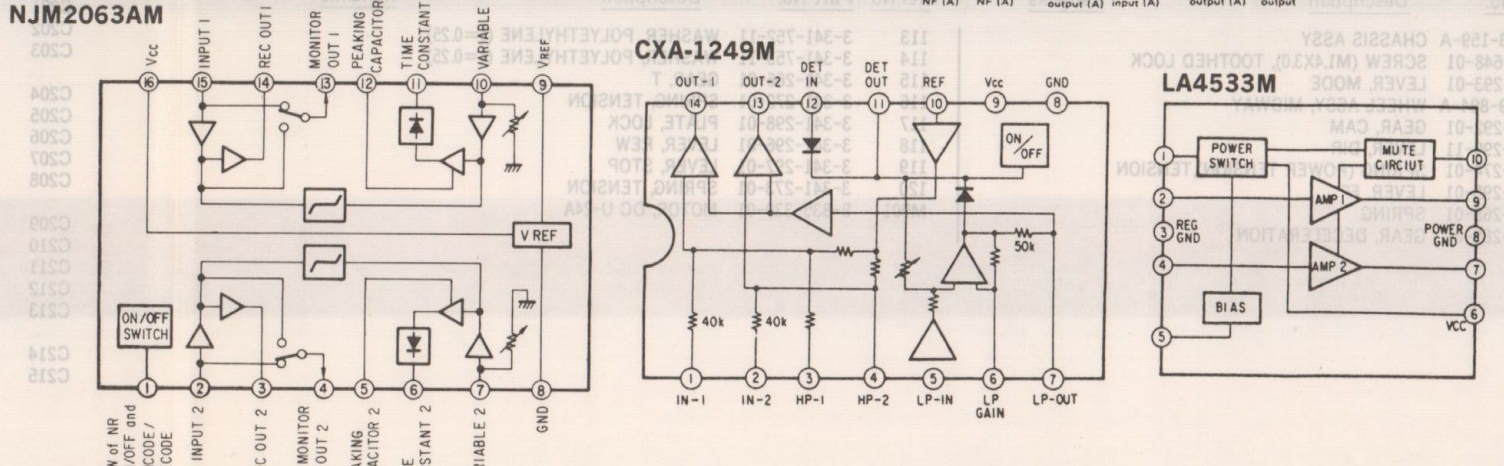




• All capacitors are in  $\mu\text{F}$  unless otherwise noted,  $\text{pF} = \mu\text{F} \times 100$ .  
 • All resistors are in  $\Omega$  and 1/10W or less unless otherwise specified.  
 • Switch

| Ref. No. | Switch    | Position |
|----------|-----------|----------|
| S301     | PB, EQ    | NORMAL   |
| S302     | REC/PB    | PB       |
| S303     | DBB       | MAX      |
| S304     | POWER     | OFF      |
| S305     | DOLBY     | ON       |
| S351     | ISS       | 1        |
| S352     | DIRECTION | OFF      |
| S701     | FWD/REV   | FWD      |

- **B+** : B+ Line
- $\square$  : adjustment for repair.
- Total current is measured with no cassette installed.
- Power voltage is dc 3V and fed with regulated dc power supply from external power voltage jack.
- Voltage and waveforms are dc with respect to ground under no-signal conditions. no mark: PB ( $\square$ ): REC (< >): ERASE PROOF (TAB OFF)
- Voltages are taken with a VOM (50  $\text{k}\Omega/\text{V}$ ).
- Voltage variations may be noted due to normal production tolerances.
- Signal path.
  - $\rightarrow$  : FM
  - $\rightarrow$  : PB
  - $\rightarrow$  : REC



• Switch

| Ref. No. | Switch           | Position |
|----------|------------------|----------|
| S1       | FUNCTION         | TAPE     |
| S2       | BAND             | AM       |
| S3       | FM PRESET TUNING | MANUAL   |

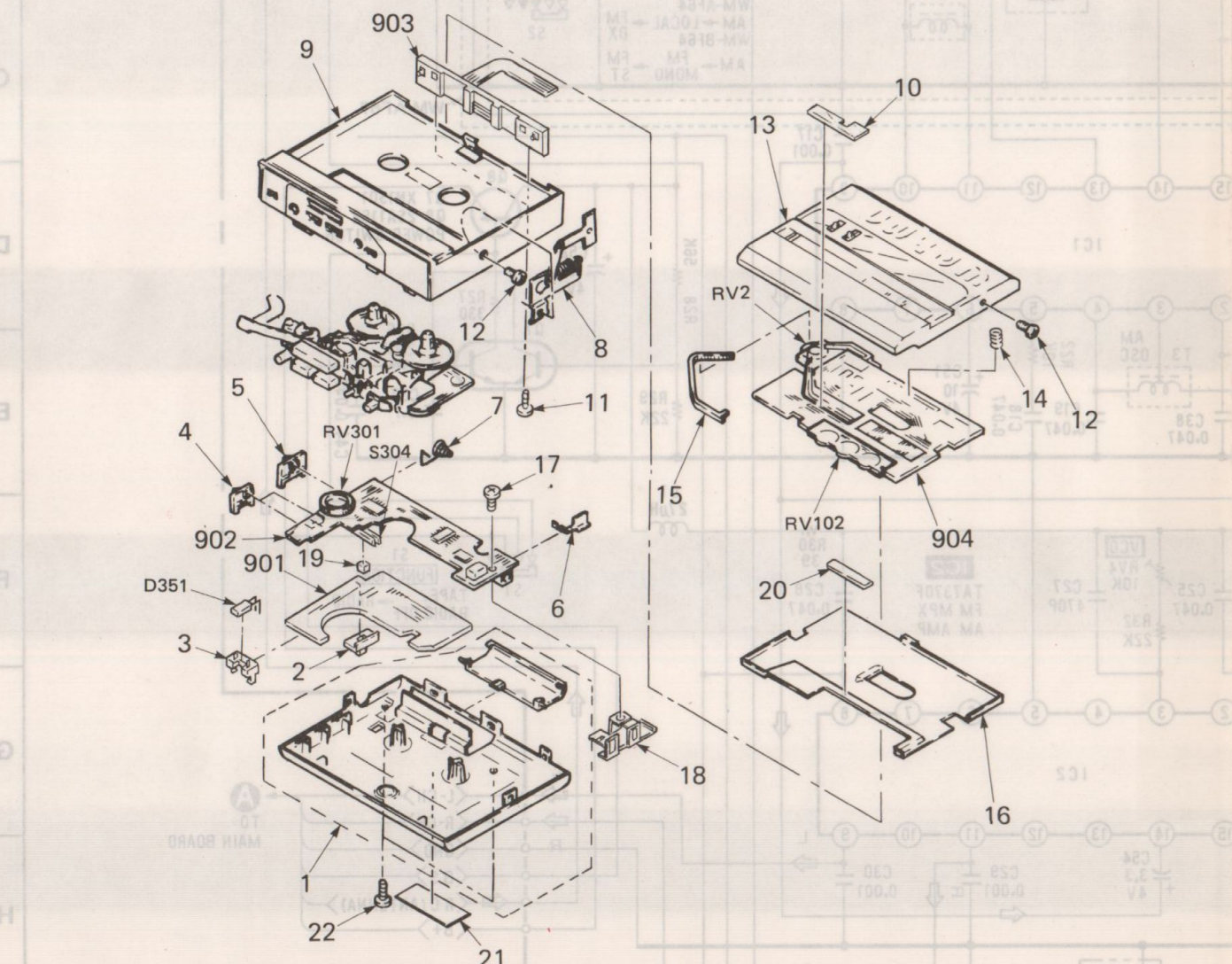


SECTION 6 ELECTRICAL PARTS LIST

SECTION 5 EXPLODED VIEWS

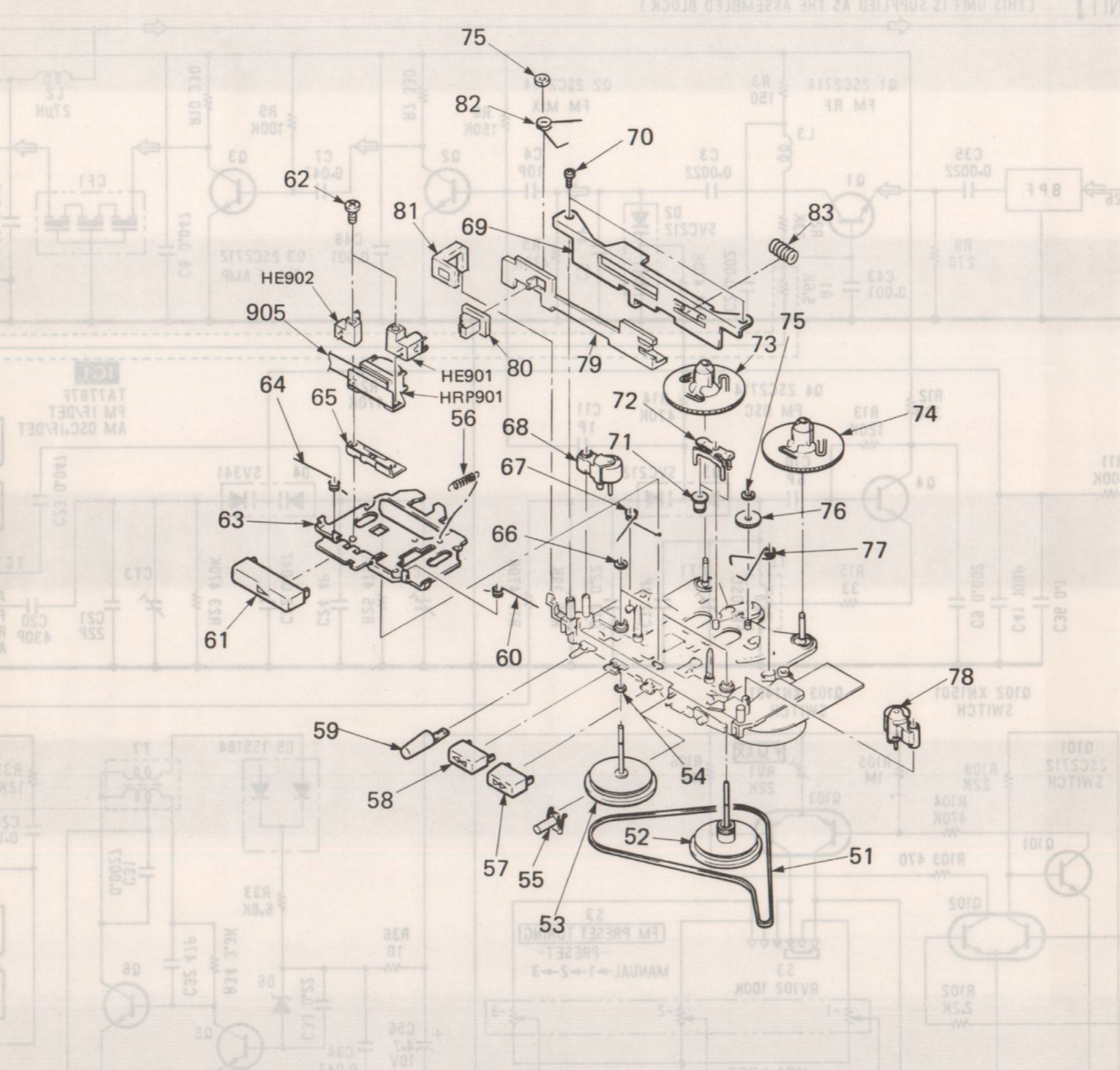
- NOTE:**
- The mechanical parts with no reference number in the exploded views are not supplied.
  - The construction parts of an assembled part are indicated with a collation number in the remark column.
  - Items marked "\*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
  - Due to standardization, parts with part number suffix -XX and -X may be different from the parts specified in the components used on the set.
  - Color Indication of Appearance Parts Example: (RED) ... KNOB, BALANCE (WHITE) Cabinet's Color Parts' Color

5-1. CABINET, CASSETTE HOLDER SECTION



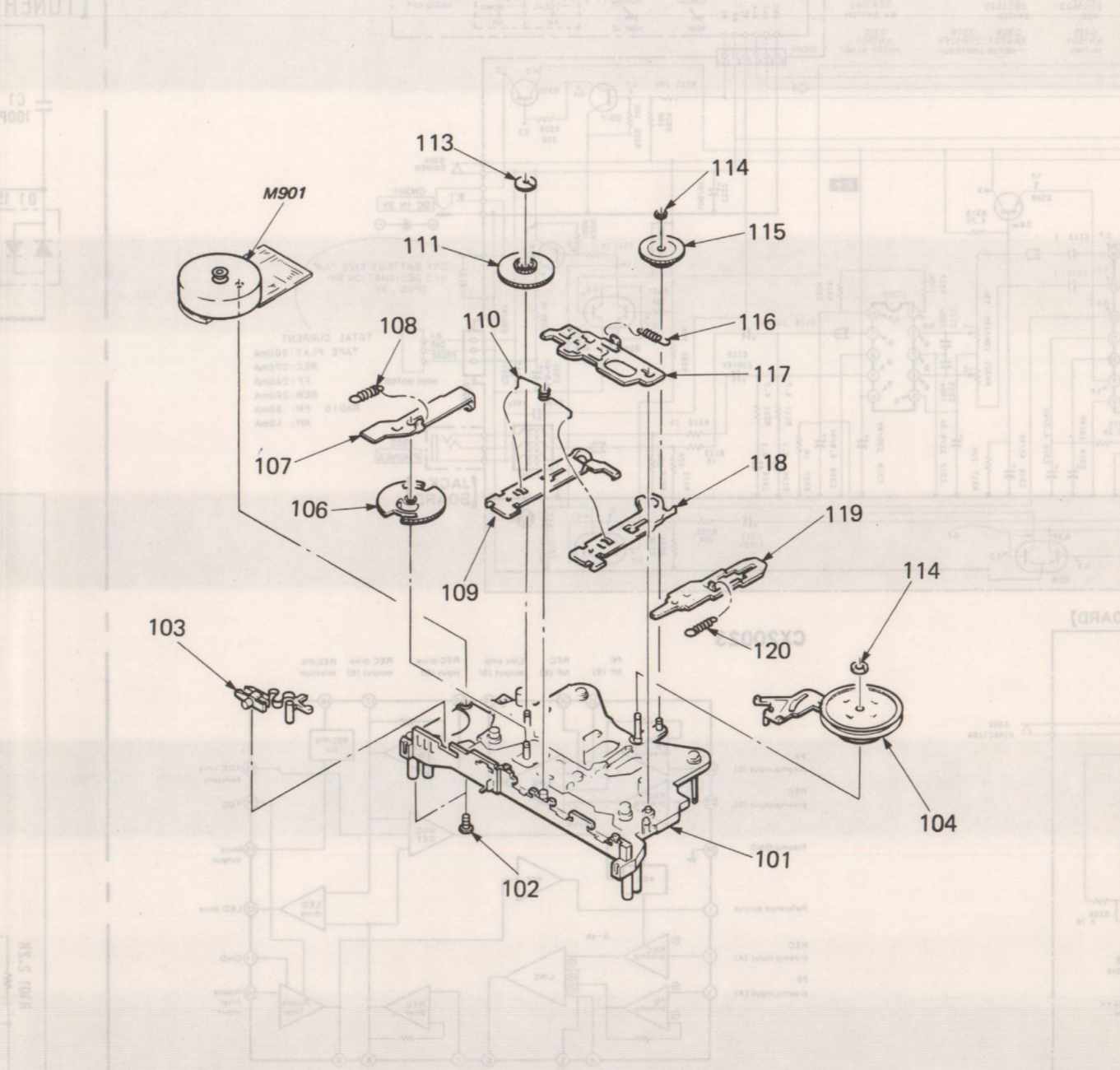
| Ref.No | Part No.      | Description                                 | Remarks |
|--------|---------------|---|---------|
| 1      | X-3336-710-1  | CABINET (REAR) ASSY                         |         |
| 2      | 3-347-874-01  | KNOB (ISS)                                  |         |
| 3      | *3-347-878-01 | HOLDER, LED                                 |         |
| 4      | 3-346-725-01  | KNOB (DOLBY NR) (PB EQ)                     |         |
| 5      | 3-346-726-01  | KNOB (DBB)                                  |         |
| 6      | 3-341-954-01  | TERMINAL BOARD, BATTERY                     |         |
| 7      | 3-341-953-01  | SPRING                                      |         |
| 8      | X-3346-546-1  | BRACKET ASSY                                |         |
| 9      | X-3336-707-1  | (BF67) ... CABINET (FRONT) ASSY             |         |
| 9      | X-3336-712-1  | (AF67) ... CABINET (FRONT) ASSY             |         |
| 10     | *3-346-798-01 | SHEET (POINTER)                             |         |
| 11     | 3-318-382-21  | SCREW (1.7X3), TAPPING                      |         |
| 12     | 3-704-197-31  | SCREW (M1.4X3.0), LOCKING                   |         |
| 13     | X-3336-708-1  | (BF67; WG) ... HOLDER ASSY, CASSETTE        |         |
| 13     | X-3336-709-1  | (BF67; UK, E, IT) ... HOLDER ASSY, CASSETTE |         |
| 13     | X-3336-711-1  | (AF67) ... HOLDER ASSY, CASSETTE            |         |
| 14     | 3-346-799-01  | SPRING, COMPRESSION                         |         |
| 15     | 3-336-708-01  | RACK, POINTER                               |         |
| 16     | *3-346-737-01 | COVER                                       |         |
| 17     | 3-704-197-01  | SCREW (M1.4X2), TOOTHED LOCK                |         |
| 18     | *3-347-877-01 | REINFORCEMENT                               |         |
| 19     | 3-341-947-01  | RUBBER, LEAF SW                             |         |
| 20     | 9-911-863-XX  | SPACER (G)                                  |         |
| 21     | *3-346-873-01 | (BF67; WG) ... LABEL, MODEL NUMBER          |         |
| 22     | 3-318-203-81  | SCREW (B1.7X7), TAPPING                     |         |
| 901    | A-3216-654-A  | MOUNTED PCB, SUB                            |         |
| 902    | A-3216-655-A  | MOUNTED PCB, MAIN                           |         |
| 903    | 1-465-056-11  | UNIT, CLAW DETECTION                        |         |
| 904    | 1-465-012-11  | (AF67) ... TUNER UNIT (WITH PRESET)         |         |
| 904    | 1-465-012-21  | (BF67; WG) ... TUNER UNIT (WITH PRESET)     |         |
| 904    | 1-465-012-31  | (BF67; AEP) ... TUNER UNIT (WITH PRESET)    |         |
| 904    | 1-465-012-41  | (BF67; UK) ... TUNER UNIT (WITH PRESET)     |         |

5-2. MECHANISM (1)



| Ref.No | Part No.      | Description                    | Remarks |
|--------|---------------|--------------------------------|---------|
| 51     | 3-341-267-01  | BELT, CAPSTAN                  |         |
| 52     | X-3335-635-1  | FLYWHEEL (T) ASSY              |         |
| 53     | X-3335-636-1  | FLYWHEEL ASSY                  |         |
| 54     | 3-701-437-11  | WASHER (242T), TEFLON          |         |
| 55     | 3-341-294-01  | BUTTON, DIR                    |         |
| 56     | 3-341-271-01  | SPRING, TENSION                |         |
| 57     | 3-346-587-01  | BUTTON (FF)                    |         |
| 58     | 3-346-588-01  | BUTTON (REW)                   |         |
| 59     | 3-341-961-01  | BUTTON (STOP)                  |         |
| 60     | X-3336-705-1  | SPRING (N)                     |         |
| 61     | 3-346-586-01  | BUTTON (PLAY)                  |         |
| 62     | 3-347-868-01  | SCREW (M1.4), SPECIAL HEAD PAN |         |
| 63     | 3-341-711-01  | LEVER, PLAY                    |         |
| 64     | 3-341-277-21  | SPRING (R)                     |         |
| 65     | *3-347-869-01 | BASE, HEAD                     |         |
| 66     | 3-321-493-11  | RING, RETAINING                |         |
| 67     | 3-341-270-01  | SPRING (R)                     |         |
| 68     | X-3335-694-2  | PINCH LEVER (R) ASSY           |         |
| 69     | *3-347-859-01 | HOLDER (R)                     |         |
| 70     | 3-893-942-61  | SCREW (1.7X3), TAPPING (B)     |         |
| 71     | 3-341-275-01  | GEAR, FR                       |         |
| 72     | 3-341-701-01  | LEVER, FR                      |         |
| 73     | 3-341-291-01  | GEAR, S REEL                   |         |
| 74     | 3-341-290-01  | GEAR, T REEL                   |         |
| 75     | 3-341-752-11  | WASHER, POLYETHYLENE (t=0.25)  |         |
| 76     | 3-341-265-01  | GEAR, R                        |         |
| 77     | 3-341-763-01  | SPRING                         |         |
| 78     | X-3335-693-1  | PINCH LEVER (N) ASSY           |         |
| 79     | X-3336-705-1  | SPRING (R) ASSY                |         |
| 80     | 3-347-870-01  | KNOB (REC)                     |         |
| 81     | 3-347-871-01  | PLATE (DIR), INDICATION        |         |
| 82     | 3-347-867-01  | SPRING (R LOCK), TORSION       |         |
| 83     | 3-347-866-01  | SPRING, COMPRESSION            |         |
| 905    | 1-628-471-11  | PC BOARD, HEAD                 |         |
| HE901  | 1-543-582-11  | HEAD, MAGNETIC (ERASE)         |         |
| HE902  | 1-543-582-11  | HEAD, MAGNETIC (ERASE)         |         |
| HRP901 | 1-543-583-11  | HEAD, MAGNETIC (REC/PB)        |         |

5-3. MECHANISM (2)



| Ref.No | Part No.     | Description                     | Remarks          |
|--------|--------------|---------------------------------|------------------|
| 101    | A-3163-159-A | CHASSIS ASSY                    |                  |
| 102    | 3-345-648-01 | SCREW (M1.4X3.0), TOOTHED LOCK  |                  |
| 103    | 3-341-293-01 | LEVER, MODE                     |                  |
| 104    | A-3239-894-A | WHEEL ASSY, MIDWAY              |                  |
| 106    | 3-341-292-01 | GEAR, CAM                       |                  |
| 107    | 3-341-299-11 | LEVER, DIR                      |                  |
| 108    | 3-341-274-01 | SPRING (POWER TENSION), TENSION |                  |
| 109    | 3-341-295-01 | LEVER, FF                       |                  |
| 110    | 3-341-268-01 | SPRING                          |                  |
| 111    | 3-341-289-01 | GEAR, DECELERATION              |                  |
| 113    | 3-341-752-11 | WASHER, POLYETHYLENE (t=0.25)   |                  |
| 114    | 3-341-753-11 | WASHER, POLYETHYLENE (t=0.25)   |                  |
| 115    | 3-341-266-01 | GEAR, T                         |                  |
| 116    | 3-341-272-01 | SPRING, TENSION                 |                  |
| 117    | 3-341-298-01 | PLATE, LOCK                     |                  |
| 118    | 3-341-299-11 | LEVER, REW                      |                  |
| 119    | 3-341-297-01 | LEVER, STOP                     |                  |
| 120    | 3-341-273-01 | SPRING, TENSION                 |                  |
| M901   | 8-835-339-01 | MOTOR, DC U-24A                 |                  |
| C209   | 1-163-016-00 | CERAMIC CHIP                    | 0.0039MF 10% 50V |
| C210   | 1-162-638-11 | CERAMIC CHIP                    | 1MF 16V          |
| C211   | 1-163-009-11 | CERAMIC CHIP                    | 0.001MF 10% 50V  |
| C212   | 1-162-638-11 | CERAMIC CHIP                    | 1MF 16V          |
| C213   | 1-163-117-00 | CERAMIC CHIP                    | 100PF 5% 50V     |
| C214   | 1-163-038-00 | CERAMIC CHIP                    | 0.1MF 20% 4V     |
| C215   | 1-126-246-11 | ELECT                           | 220MF 20% 4V     |

- NOTE:**
- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
  - Items marked "\*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
  - If there are two or more same circuits in a set such as a stereophonic machine, only typical circuit parts may be indicated and capacitors and resistors in other same circuits may be omitted.

| Ref.No    | Part No.     | Description                              | Value             | Remarks |
|-----------|--------------|--|-------------------|---------|
| 901       | A-3216-654-A | MOUNTED PCB, SUB                         |                   |         |
| 902       | A-3216-655-A | MOUNTED PCB, MAIN                        |                   |         |
| 903       | 1-466-056-11 | UNIT, CLAW DETECTION                     |                   |         |
| 904       | 1-465-012-11 | (AF67) ... TUNER UNIT (WITH PRESET)      |                   |         |
| 904       | 1-465-012-21 | (BF67; WG) ... TUNER UNIT (WITH PRESET)  |                   |         |
| 904       | 1-465-012-31 | (BF67; AEP) ... TUNER UNIT (WITH PRESET) |                   |         |
| 904       | 1-465-012-41 | (BF67; UK) ... TUNER UNIT (WITH PRESET)  |                   |         |
| 905       | 1-628-471-11 | PC BOARD HEAD                            |                   |         |
| CAPACITOR |              |  |                   |         |
| C101      | 1-163-009-11 | CERAMIC CHIP                             | 0.001MF 10% 50V   |         |
| C102      | 1-135-070-00 | TANTAL. CHIP                             | 0.1MF 20% 35V     |         |
| C103      | 1-163-038-00 | CERAMIC CHIP                             | 0.1MF 20% 4V      |         |
| C104      | 1-163-009-11 | CERAMIC CHIP                             | 0.001MF 10% 50V   |         |
| C105      | 1-163-135-00 | CERAMIC CHIP                             | 560PF 10% 50V     |         |
| C106      | 1-163-809-11 | CERAMIC CHIP                             | 0.047MF 10% 25V   |         |
| C107      | 1-126-208-11 | ELECT                                    | 47MF 20% 4V       |         |
| C108      | 1-164-222-91 | CERAMIC CHIP                             | 0.22MF 20% 25V    |         |
| C109      | 1-163-016-00 | CERAMIC CHIP                             | 0.0039MF 10% 50V  |         |
| C110      | 1-162-638-11 | CERAMIC CHIP                             | 1MF 16V           |         |
| C111      | 1-163-009-11 | CERAMIC CHIP                             | 0.001MF 10% 50V   |         |
| C112      | 1-162-638-11 | CERAMIC CHIP                             | 1MF 16V           |         |
| C113      | 1-163-117-00 | CERAMIC CHIP                             | 100PF 5% 50V      |         |
| C114      | 1-163-038-00 | CERAMIC CHIP                             | 0.1MF 20% 4V      |         |
| C115      | 1-126-246-11 | CAP, ELECT                               | 220MF 20% 4V      |         |
| C116      | 1-124-766-00 | ELECT                                    | 0.1MF 20% 50V     |         |
| C117      | 1-162-966-11 | CERAMIC CHIP                             | 0.0022MF 10% 50V  |         |
| C118      | 1-162-963-11 | CERAMIC CHIP                             | 100PF 5% 50V      |         |
| C151      | 1-163-019-00 | CERAMIC CHIP                             | 0.0068MF 10% 50V  |         |
| C152      | 1-163-809-11 | CERAMIC CHIP                             | 0.047MF 10% 25V   |         |
| C153      | 1-162-638-11 | CERAMIC CHIP                             | 1MF 16V           |         |
| C154      | 1-135-087-21 | TANTAL. CHIP                             | 0.68MF 10% 20V    |         |
| C155      | 1-163-989-11 | CERAMIC CHIP                             | 0.033MF 10% 25V   |         |
| C156      | 1-163-017-00 | CERAMIC CHIP                             | 0.0047MF 10% 50V  |         |
| C157      | 1-163-989-11 | CERAMIC CHIP                             | 0.033MF 10% 25V   |         |
| C158      | 1-162-638-11 | CERAMIC CHIP                             | 1MF 16V           |         |
| C159      | 1-162-038-00 | CERAMIC CHIP                             | 0.1MF 20% 4V      |         |
| C201      | 1-163-009-11 | CERAMIC CHIP                             | 0.001MF 10% 50V   |         |
| C202      | 1-135-070-00 | TANTAL. CHIP                             | 0.1MF 20% 35V     |         |
| C203      | 1-163-038-00 | CERAMIC CHIP                             | 0.1MF 20% 4V      |         |
| C204      | 1-163-009-11 | CERAMIC CHIP                             | 0.001MF 10% 50V   |         |
| C205      | 1-163-135-00 | CERAMIC CHIP                             | 560PF 10% 50V     |         |
| C206      | 1-163-809-11 | CERAMIC CHIP                             | 0.047MF 10% 25V   |         |
| C207      | 1-126-208-11 | ELECT                                    | 47MF 20% 4V       |         |
| C208      | 1-164-222-91 | CERAMIC CHIP                             | 0.22MF 20% 25V    |         |
| C209      | 1-163-016-00 | CERAMIC CHIP                             | 0.0039MF 10% 50V  |         |
| C210      | 1-162-638-11 | CERAMIC CHIP                             | 1MF 16V           |         |
| C211      | 1-163-009-11 | CERAMIC CHIP                             | 0.001MF 10% 50V   |         |
| C212      | 1-162-638-11 | CERAMIC CHIP                             | 1MF 16V           |         |
| C213      | 1-163-117-00 | CERAMIC CHIP                             | 100PF 5% 50V      |         |
| C214      | 1-163-038-00 | CERAMIC CHIP                             | 0.1MF 20% 4V      |         |
| C215      | 1-126-246-11 | ELECT                                    | 220MF 20% 4V      |         |
| C216      | 1-124-766-00 | ELECT                                    | 0.1MF 20% 50V     |         |
| C217      | 1-162-966-11 | CERAMIC CHIP                             | 0.0022MF 10% 50V  |         |
| C218      | 1-162-963-11 | CERAMIC CHIP                             | 100PF 5% 50V      |         |
| C251      | 1-163-019-00 | CERAMIC CHIP                             | 0.0068MF 10% 50V  |         |
| C252      | 1-163-809-11 | CERAMIC CHIP                             | 0.047MF 10% 25V   |         |
| C253      | 1-162-638-11 | CERAMIC CHIP                             | 1MF 16V           |         |
| C254      | 1-135-087-21 | TANTAL. CHIP                             | 0.68MF 10% 20V    |         |
| C255      | 1-163-989-11 | CERAMIC CHIP                             | 0.033MF 10% 25V   |         |
| C256      | 1-163-017-00 | CERAMIC CHIP                             | 0.0047MF 10% 50V  |         |
| C257      | 1-163-989-11 | CERAMIC CHIP                             | 0.033MF 10% 25V   |         |
| C258      | 1-162-638-11 | CERAMIC CHIP                             | 1MF 16V           |         |
| C259      | 1-163-038-00 | CERAMIC CHIP                             | 0.1MF 20% 4V      |         |
| C301      | 1-126-246-11 | ELECT                                    | 220MF 20% 4V      |         |
| C302      | 1-164-156-11 | CERAMIC CHIP                             | 0.1MF 20% 25V     |         |
| C303      | 1-135-163-81 | TANTAL. CHIP                             | 47MF 20% 4V       |         |
| C304      | 1-124-778-00 | ELECT                                    | 22MF 20% 6.3V     |         |
| C305      | 1-126-208-11 | ELECT                                    | 47MF 20% 4V       |         |
| C306      | 1-126-207-11 | ELECT                                    | 33MF 20% 4V       |         |
| C307      | 1-124-778-00 | ELECT                                    | 22MF 20% 6.3V     |         |
| C308      | 1-126-246-11 | ELECT                                    | 220MF 20% 4V      |         |
| C309      | 1-126-208-11 | ELECT                                    | 47MF 20% 4V       |         |
| C310      | 1-163-038-00 | CERAMIC CHIP                             | 0.1MF 20% 4V      |         |
| C311      | 1-135-103-00 | TANTAL. CHIP                             | 3.3MF 10% 4V      |         |
| C312      | 1-163-833-00 | CERAMIC CHIP                             | 0.068MF 10% 25V   |         |
| C313      | 1-126-208-11 | ELECT                                    | 47MF 20% 4V       |         |
| C314      | 1-135-157-21 | TANTAL. CHIP                             | 10MF 20% 4V       |         |
| C315      | 1-135-151-21 | TANTAL. CHIP                             | 4.7MF 20% 4V      |         |
| C316      | 1-162-963-11 | CERAMIC CHIP                             | 47MF 20% 4V       |         |
| C317      | 1-124-778-00 | ELECT                                    | 22MF 20% 6.3V     |         |
| C318      | 1-126-246-11 | ELECT                                    | 220MF 20% 4V      |         |
| C319      | 1-135-170-21 | TANTAL. CHIP                             | 6.8MF 20% 4V      |         |
| C320      | 1-163-117-00 | CERAMIC CHIP                             | 100PF 5% 50V      |         |
| C321      | 1-126-246-11 | ELECT                                    | 220MF 20% 4V      |         |
| C322      | 1-126-209-11 | ELECT                                    | 100MF 20% 4V      |         |
| C323      | 1-163-091-00 | TANTAL. CHIP                             | 1MF 20% 16V       |         |
| C324      | 1-135-170-21 | TANTAL. CHIP                             | 6.8MF 20% 4V      |         |
| C326      | 1-162-964-11 | CERAMIC CHIP                             | 0.001MF 10% 50V   |         |
| C327      | 1-162-964-11 | CERAMIC CHIP                             | 0.001MF 10% 50V   |         |
| C328      | 1-164-156-11 | CERAMIC CHIP                             | 0.1MF 20% 25V     |         |
| C351      | 1-164-163-11 | CERAMIC CHIP                             | 220PF 5% 100V     |         |
| C352      | 1-164-182-11 | CERAMIC CHIP                             | 0.0033MF 10% 100V |         |
| C353      | 1-163-131-00 | CERAMIC CHIP                             | 390PF 10% 50V     |         |
| C354      | 1-163-111-00 | CERAMIC CHIP                             | 56PF 5% 50V       |         |
| C355      | 1-164-161-11 | CERAMIC CHIP                             | 0.0022MF 10% 50V  |         |
| C356      | 1-124-779-00 | ELECT                                    | 10MF 20% 16V      |         |
| C358      | 1-126-208-11 | ELECT                                    | 47MF 20% 4V       |         |
| C359      | 1-126-246-11 | ELECT                                    | 220MF 20% 4V      |         |
| C360      | 1-163-038-00 | CERAMIC CHIP                             | 0.1MF 20% 4V      |         |
| C361      | 1-163-809-11 | CERAMIC CHIP                             | 1MF 16V           |         |
| C362      | 1-162-638-11 | CERAMIC CHIP                             | 1MF 16V           |         |
| CN301     | 1-507-951-11 | JACK, EXTERNAL POWER (DC IN 3V)          |                   |         |

- CAPACITORS:**  
MF:  $\mu$ F, PF:  $\mu$ P
- RESISTORS**  
• All resistors are in ohms.  
• F: nonflammable
- COILS**  
• MMH: mH, UH:  $\mu$ H
- SEMICONDUCTORS**  
In each case, U:  $\mu$ , for example:  
UA...:  $\mu$ A... UPA...:  $\mu$ PA...  
UPC...:  $\mu$ PC, UPD...:  $\mu$ PD...



| Ref.No | Part No.      | Description                  | Ref.No | Part No.     | Description               |
|--------|---------------|------------------------------|--------|--------------|---------------------------|
| CN302  | 1-565-663-11  | HOUSING, CONNECTOR (FPC) 4P  | R108   | 1-216-845-11 | METAL GLAZE 100K 5% 1/16W |
| CN303  | *1-565-369-11 | SOCKET, CONNECTOR 3P         | R109   | 1-216-097-00 | METAL GLAZE 100K 5% 1/10W |
| CN304  | 1-566-682-11  | HOUSING, CONNECTOR 6P        | R110   | 1-216-073-00 | METAL GLAZE 10K 5% 1/10W  |
| CN305  | *1-568-048-11 | PIN, CONNECTOR (PC BOARD) 7P | R111   | 1-216-308-00 | METAL GLAZE 4.7 5% 1/10W  |
| CN306  | *1-568-050-11 | PIN, CONNECTOR (PC BOARD) 9P | R112   | 1-216-089-00 | METAL GLAZE 47K 5% 1/10W  |
| CN351  | *1-565-370-11 | HOUSING, CONNECTOR 5P        | R113   | 1-216-005-00 | METAL GLAZE 15 5% 1/10W   |
| CN352  | *1-565-370-11 | HOUSING, CONNECTOR 5P        | R114   | 1-216-827-11 | METAL GLAZE 3.3K 5% 1/16W |
| CN355  | *1-568-039-11 | HOUSING, CONNECTOR 7P        | R115   | 1-216-844-11 | METAL GLAZE 82K 5% 1/16W  |
| CN356  | *1-568-041-11 | HOUSING, CONNECTOR 9P        | R116   | 1-216-295-00 | METAL GLAZE 0 5% 1/10W    |
| D301   | 8-719-100-03  | DIODE 1S2835                 | R117   | 1-216-821-11 | METAL GLAZE 1K 5% 1/16W   |
| D302   | 8-719-100-03  | DIODE 1S2835                 | R118   | 1-216-815-11 | METAL GLAZE 330 5% 1/16W  |
| D303   | 8-719-101-23  | DIODE 1SS123                 | R151   | 1-216-073-00 | METAL GLAZE 10K 5% 1/10W  |
| D304   | 8-719-100-05  | DIODE 1S2837                 | R152   | 1-216-112-00 | METAL GLAZE 430K 5% 1/10W |
| D305   | 8-719-101-23  | DIODE 1SS123                 | R153   | 1-216-061-00 | METAL GLAZE 3.3K 5% 1/10W |
| D351   | 8-719-951-48  | DIODE SLB-24VR3 (REC/BATT)   | R154   | 1-216-089-00 | METAL GLAZE 47K 5% 1/10W  |
| D352   | 8-719-100-03  | DIODE 1S2835                 | R155   | 1-216-061-00 | METAL GLAZE 3.3K 5% 1/10W |
| HE901  | 1-543-582-11  | HEAD, MAGNETIC (ERASE)       | R156   | 1-216-045-00 | METAL GLAZE 680 5% 1/10W  |
| HE902  | 1-543-582-11  | HEAD, MAGNETIC (ERASE)       | R157   | 1-216-055-00 | METAL GLAZE 1.8K 5% 1/10W |
| HRP901 | 1-543-583-11  | HEAD, MAGNETIC (REC/PB)      | R201   | 1-216-827-11 | METAL GLAZE 3.3K 5% 1/16W |
| IC301  | 8-759-915-90  | IC CX20023                   | R202   | 1-216-093-00 | METAL GLAZE 68K 5% 1/10W  |
| IC302  | 8-759-805-09  | IC CXA1249M                  | R203   | 1-216-818-11 | METAL GLAZE 560 5% 1/16W  |
| IC303  | 8-759-802-75  | IC LA4533M                   | R204   | 1-216-846-11 | METAL GLAZE 120K 5% 1/16W |
| IC351  | 8-759-701-07  | IC NJM2063AM                 | R205   | 1-216-825-11 | METAL GLAZE 2.2K 5% 1/16W |
| J1     | 1-216-296-00  | METAL GLAZE 0 5% 1/8W        | R206   | 1-216-057-00 | METAL GLAZE 2.2K 5% 1/10W |
| J301   | 1-566-800-31  | JACK (MIC)                   | R207   | 1-216-833-11 | METAL GLAZE 10K 5% 1/16W  |
| J302   | 1-562-974-11  | JACK (PHONES)                | R208   | 1-216-845-11 | METAL GLAZE 100K 5% 1/16W |
| M901   | 8-835-339-01  | MOTOR, DC U-24A              | R209   | 1-216-097-00 | METAL GLAZE 100K 5% 1/10W |
| Q301   | 8-729-216-22  | TRANSISTOR 2SA1162           | R210   | 1-216-073-00 | METAL GLAZE 10K 5% 1/10W  |
| Q302   | 8-729-402-13  | TRANSISTOR XN1501            | R211   | 1-216-308-00 | METAL GLAZE 4.7 5% 1/10W  |
| Q303   | 8-729-402-81  | TRANSISTOR XN4501            | R212   | 1-216-089-00 | METAL GLAZE 47K 5% 1/10W  |
| Q304   | 8-729-216-22  | TRANSISTOR 2SA1162           | R213   | 1-216-005-00 | METAL GLAZE 15 5% 1/10W   |
| Q305   | 8-729-402-84  | TRANSISTOR XN4601            | R214   | 1-216-827-11 | METAL GLAZE 3.3K 5% 1/16W |
| Q306   | 8-729-271-23  | TRANSISTOR 2SC2712           | R215   | 1-216-095-00 | METAL GLAZE 82K 5% 1/10W  |
| Q307   | 8-729-271-23  | TRANSISTOR 2SC2712           | R216   | 1-216-295-00 | METAL GLAZE 0 5% 1/10W    |
| Q308   | 8-729-402-81  | TRANSISTOR XN4501            | R217   | 1-216-821-11 | METAL GLAZE 1K 5% 1/16W   |
| Q309   | 8-729-807-87  | TRANSISTOR 2SB1295-UL6       | R218   | 1-216-815-11 | METAL GLAZE 330 5% 1/16W  |
| Q310   | 8-729-402-13  | TRANSISTOR XN1501            | R251   | 1-216-073-00 | METAL GLAZE 10K 5% 1/10W  |
| Q311   | 8-729-403-17  | TRANSISTOR XN1215            | R252   | 1-216-112-00 | METAL GLAZE 430K 5% 1/10W |
| Q312   | 8-729-216-22  | TRANSISTOR 2SA1162           | R253   | 1-216-061-00 | METAL GLAZE 3.3K 5% 1/10W |
| Q313   | 8-729-402-13  | TRANSISTOR XN1501            | R254   | 1-216-089-00 | METAL GLAZE 47K 5% 1/10W  |
| Q314   | 8-729-900-52  | TRANSISTOR DTC114YK          | R255   | 1-216-061-00 | METAL GLAZE 3.3K 5% 1/10W |
| Q315   | 8-729-402-13  | TRANSISTOR XN1501            | R256   | 1-216-045-00 | METAL GLAZE 680 5% 1/10W  |
| Q351   | 8-729-159-64  | TRANSISTOR 2SD596            | R257   | 1-216-055-00 | METAL GLAZE 1.8K 5% 1/10W |
| Q352   | 8-729-403-17  | TRANSISTOR XN1215            | R301   | 1-216-049-00 | METAL GLAZE 1K 5% 1/10W   |
| Q353   | 8-729-403-17  | TRANSISTOR XN1215            | R302   | 1-216-070-00 | METAL GLAZE 7.5K 5% 1/10W |
| Q354   | 8-729-216-22  | TRANSISTOR 2SA1162           | R303   | 1-216-855-11 | METAL GLAZE 680K 5% 1/16W |
| Q355   | 8-729-216-22  | TRANSISTOR 2SA1162           | R304   | 1-216-073-00 | METAL GLAZE 10K 5% 1/10W  |
| Q356   | 8-729-271-23  | TRANSISTOR 2SC2712           | R305   | 1-216-083-00 | METAL GLAZE 27K 5% 1/10W  |
| Q357   | 8-729-402-13  | TRANSISTOR XN1501            | R306   | 1-216-041-00 | METAL GLAZE 470 5% 1/10W  |
| Q358   | 8-729-216-22  | TRANSISTOR 2SA1162           | R307   | 1-216-837-11 | METAL GLAZE 22K 5% 1/16W  |
| Q359   | 8-729-271-23  | TRANSISTOR 2SC2712           | R308   | 1-216-833-11 | METAL GLAZE 10K 5% 1/16W  |
| Q360   | 8-729-900-52  | TRANSISTOR DTC114YK          | R309   | 1-216-041-00 | METAL GLAZE 470 5% 1/10W  |
| Q361   | 8-729-216-22  | TRANSISTOR 2SC2712           | R310   | 1-216-833-11 | METAL GLAZE 10K 5% 1/16W  |
|        |               | <b>RESISTOR</b>              | R311   | 1-216-833-11 | METAL GLAZE 10K 5% 1/16W  |
| R101   | 1-216-061-00  | METAL GLAZE 3.3K 5% 1/10W    | R312   | 1-216-813-11 | METAL GLAZE 220 5% 1/16W  |
| R102   | 1-216-843-11  | METAL GLAZE 68K 5% 1/16W     | R313   | 1-216-073-00 | METAL GLAZE 10K 5% 1/10W  |
| R103   | 1-216-818-11  | METAL GLAZE 560 5% 1/16W     | R314   | 1-216-055-00 | METAL GLAZE 1.8K 5% 1/10W |
| R104   | 1-216-846-11  | METAL GLAZE 120K 5% 1/16W    | R315   | 1-216-057-00 | METAL GLAZE 2.2K 5% 1/10W |
| R105   | 1-216-825-11  | METAL GLAZE 2.2K 5% 1/16W    | R316   | 1-216-829-11 | METAL GLAZE 4.7K 5% 1/16W |
| R106   | 1-216-206-00  | METAL GLAZE 2.2K 5% 1/8W     | R317   | 1-216-081-00 | METAL GLAZE 22K 5% 1/10W  |
| R107   | 1-216-833-11  | METAL GLAZE 10K 5% 1/16W     | R318   | 1-216-097-00 | METAL GLAZE 100K 5% 1/10W |
|        |               |                              | R319   | 1-216-109-00 | METAL GLAZE 330K 5% 1/10W |
|        |               |                              | R320   | 1-216-097-00 | METAL GLAZE 100K 5% 1/10W |
|        |               |                              | R321   | 1-216-049-00 | METAL GLAZE 1K 5% 1/10W   |
|        |               |                              | R322   | 1-216-073-00 | METAL GLAZE 10K 5% 1/10W  |

English

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Sony Corporation

Audio Group

9-823-500-11



# WM-AF67/BF67

## SONY SERVICE MANUAL

US Model  
 Canadian Model  
 WM-AF67  
 AEP Model  
 UK Model  
 E Model  
 WM-BF67

### CORRECTION-1

Please correct your service manual.

| Ref.No | Part No.     | Description                           | Ref.No | Part No.     | Description                           |
|--------|--------------|---------------------------------------|--------|--------------|---------------------------------------|
| R323   | 1-216-073-00 | METAL GLAZE 10K 5%                    | R323   | 1-216-073-00 | METAL GLAZE 10K 5%                    |
| R324   | 1-216-073-00 | METAL GLAZE 10K 5%                    | R324   | 1-216-073-00 | METAL GLAZE 10K 5%                    |
| R325   | 1-216-073-00 | METAL GLAZE 10K 5%                    | R325   | 1-216-073-00 | METAL GLAZE 10K 5%                    |
| R326   | 1-216-037-00 | METAL GLAZE 330 5%                    | R326   | 1-216-037-00 | METAL GLAZE 330 5%                    |
| R327   | 1-216-121-00 | METAL GLAZE 1M 5%                     | R327   | 1-216-121-00 | METAL GLAZE 1M 5%                     |
| R328   | 1-216-073-00 | METAL GLAZE 10K 5%                    | R328   | 1-216-073-00 | METAL GLAZE 10K 5%                    |
| R329   | 1-216-073-00 | METAL GLAZE 10K 5%                    | R329   | 1-216-073-00 | METAL GLAZE 10K 5%                    |
| R330   | 1-216-073-00 | METAL GLAZE 10K 5%                    | R330   | 1-216-073-00 | METAL GLAZE 10K 5%                    |
| R331   | 1-216-073-00 | METAL GLAZE 10K 5%                    | R331   | 1-216-073-00 | METAL GLAZE 10K 5%                    |
| R332   | 1-216-073-00 | METAL GLAZE 10K 5%                    | R332   | 1-216-073-00 | METAL GLAZE 10K 5%                    |
| R333   | 1-216-073-00 | METAL GLAZE 10K 5%                    | R333   | 1-216-073-00 | METAL GLAZE 10K 5%                    |
| R334   | 1-216-119-00 | METAL GLAZE 820K 5%                   | R334   | 1-216-119-00 | METAL GLAZE 820K 5%                   |
| R336   | 1-216-073-00 | METAL GLAZE 10K 5%                    | R336   | 1-216-073-00 | METAL GLAZE 10K 5%                    |
| R337   | 1-216-073-00 | METAL GLAZE 10K 5%                    | R337   | 1-216-073-00 | METAL GLAZE 10K 5%                    |
| R338   | 1-216-845-11 | METAL GLAZE 100K 5%                   | R338   | 1-216-845-11 | METAL GLAZE 100K 5%                   |
| R339   | 1-216-797-11 | METAL GLAZE 10 5%                     | R339   | 1-216-797-11 | METAL GLAZE 10 5%                     |
| R352   | 1-216-073-00 | METAL GLAZE 10K 5%                    | R352   | 1-216-073-00 | METAL GLAZE 10K 5%                    |
| R355   | 1-216-073-00 | METAL GLAZE 10K 5%                    | R355   | 1-216-073-00 | METAL GLAZE 10K 5%                    |
| R356   | 1-216-065-00 | METAL GLAZE 4.7K 5%                   | R356   | 1-216-065-00 | METAL GLAZE 4.7K 5%                   |
| R357   | 1-216-073-00 | METAL GLAZE 10K 5%                    | R357   | 1-216-073-00 | METAL GLAZE 10K 5%                    |
| R358   | 1-216-065-00 | METAL GLAZE 4.7K 5%                   | R358   | 1-216-065-00 | METAL GLAZE 4.7K 5%                   |
| R359   | 1-216-001-00 | METAL GLAZE 10 5%                     | R359   | 1-216-001-00 | METAL GLAZE 10 5%                     |
| R360   | 1-216-049-00 | METAL GLAZE 1K 5%                     | R360   | 1-216-049-00 | METAL GLAZE 1K 5%                     |
| R361   | 1-216-049-00 | METAL GLAZE 1K 5%                     | R361   | 1-216-049-00 | METAL GLAZE 1K 5%                     |
| R362   | 1-216-049-00 | METAL GLAZE 1K 5%                     | R362   | 1-216-049-00 | METAL GLAZE 1K 5%                     |
| R363   | 1-216-037-00 | METAL GLAZE 330 5%                    | R363   | 1-216-037-00 | METAL GLAZE 330 5%                    |
| R364   | 1-216-051-00 | METAL GLAZE 1.2K 5%                   | R364   | 1-216-051-00 | METAL GLAZE 1.2K 5%                   |
| R365   | 1-216-017-00 | METAL GLAZE 47 5%                     | R365   | 1-216-017-00 | METAL GLAZE 47 5%                     |
| R366   | 1-216-041-00 | METAL GLAZE 470 5%                    | R366   | 1-216-041-00 | METAL GLAZE 470 5%                    |
| R367   | 1-216-105-00 | METAL GLAZE 220K 5%                   | R367   | 1-216-105-00 | METAL GLAZE 220K 5%                   |
| R368   | 1-216-059-00 | METAL GLAZE 2.7K 5%                   | R368   | 1-216-059-00 | METAL GLAZE 2.7K 5%                   |
| R369   | 1-216-059-00 | METAL GLAZE 2.7K 5%                   | R369   | 1-216-059-00 | METAL GLAZE 2.7K 5%                   |
| R370   | 1-216-105-00 | METAL GLAZE 220K 5%                   | R370   | 1-216-105-00 | METAL GLAZE 220K 5%                   |
| R371   | 1-216-057-00 | METAL GLAZE 2.2K 5%                   | R371   | 1-216-057-00 | METAL GLAZE 2.2K 5%                   |
| R372   | 1-216-073-00 | METAL GLAZE 10K 5%                    | R372   | 1-216-073-00 | METAL GLAZE 10K 5%                    |
| R373   | 1-216-073-00 | METAL GLAZE 10K 5%                    | R373   | 1-216-073-00 | METAL GLAZE 10K 5%                    |
| R374   | 1-216-001-00 | METAL GLAZE 10 5%                     | R374   | 1-216-001-00 | METAL GLAZE 10 5%                     |
| R375   | 1-216-186-00 | METAL GLAZE 330 5%                    | R375   | 1-216-186-00 | METAL GLAZE 330 5%                    |
| RV2    | 1-230-979-11 | RES, VAR, CARBON (MANUAL TUNING) 100K | RV2    | 1-230-979-11 | RES, VAR, CARBON (MANUAL TUNING) 100K |
| RV102  | 1-238-147-11 | RES, VAR, CARBON 100K/100K (PRESET)   | RV102  | 1-238-147-11 | RES, VAR, CARBON 100K/100K (PRESET)   |
| RV301  | 1-238-172-11 | RES, VAR, CARBON 10K/10K (VOL)        | RV301  | 1-238-172-11 | RES, VAR, CARBON 10K/10K (VOL)        |
| S301   | 1-571-277-11 | SWITCH, SLIDE (PB EQ)                 | S301   | 1-571-277-11 | SWITCH, SLIDE (PB EQ)                 |
| S302   | 1-570-259-11 | SWITCH, SLIDE                         | S302   | 1-570-259-11 | SWITCH, SLIDE                         |
| S303   | 1-571-506-21 | SWITCH, SLIDE (DBB)                   | S303   | 1-571-506-21 | SWITCH, SLIDE (DBB)                   |
| S304   | 1-571-149-11 | SWITCH, LEAF                          | S304   | 1-571-149-11 | SWITCH, LEAF                          |
| S305   | 1-571-275-11 | SWITCH, SLIDE (DOLBY)                 | S305   | 1-571-275-11 | SWITCH, SLIDE (DOLBY)                 |
| S351   | 1-571-506-21 | SWITCH, SLIDE (ISS)                   | S351   | 1-571-506-21 | SWITCH, SLIDE (ISS)                   |
| S352   | 1-571-149-11 | SWITCH, LEAF                          | S352   | 1-571-149-11 | SWITCH, LEAF                          |
| S701   | 1-571-759-11 | SWITCH, SLIDE                         | S701   | 1-571-759-11 | SWITCH, SLIDE                         |
| T301   | 1-409-445-11 | COIL, TRAP                            | T301   | 1-409-445-11 | COIL, TRAP                            |
| T351   | 1-433-249-00 | TRANSFORMER, BIAS OSCILLATOR          | T351   | 1-433-249-00 | TRANSFORMER, BIAS OSCILLATOR          |

| Ref.No                       | Part No. | Description                                     |
|------------------------------|----------|---|
| ACCESSORY & PACKING MATERIAL |          |   |
| X-3346-549-1                 |          | CASE ASSY, CARRYING                             |
| 1-542-116-11                 |          | MICROPHONE                                      |
| 3-341-755-01                 |          | CARDBOARD                                       |
| *3-347-883-01                |          | (AF67; US)...INDIVIDUAL CARTON                  |
| *3-347-887-01                |          | (AF67; canadian)...INDIVIDUAL CARTON            |
| *3-347-888-01                |          | (BF67)...INDIVIDUAL CARTON                      |
| 3-347-892-01                 |          | STAND, MICROPHONE                               |
| 3-701-622-00                 |          | (AF67; US/BF67; WG)...BAG, POLYETHYLENE         |
| 3-786-677-11                 |          | (AF67; Canadian/BF67)...MANUAL, INSTRUCTION     |
| 3-786-677-21                 |          | (AF67; US)...MANUAL, INSTRUCTION                |
| 3-786-677-41                 |          | (BF67; WG, IT)...MANUAL, INSTRUCTION            |
| 8-952-260-91                 |          | (AF67/BF67; UK, AEP)...HEADPHONE MDR-W10L/B SET |
| 8-952-350-90                 |          | (BF67; E)...HEADPHONE MOR-E454 SET              |

Corrected portion.

