

# TCM-2

## SERVICE MANUAL

*US Model  
Canadian Model  
AEP Model  
UK Model  
E Model*



### SPECIFICATIONS

|                               |         |
|-------------------------------|---------|
| Tape Transport Mechanism Type | MT-2-06 |
|-------------------------------|---------|

|                                     |  |
|-------------------------------------|--|
| Recording system                    | 2-track 1-channel monaural   |
| Speaker                             | Approx. 4.5 cm (1 <sup>13</sup> / <sub>16</sub> inches) dia.   |
| Fast winding time                   | Approx. 2 min. with Sony CHF-60 cassette   |
| Frequency response                  | 150-8,000 Hz   |
| Input                               | Microphone input jack (minijack)<br>sensitivity 0.2 mV (-72 dB)<br>for low impedance microphone  |
| Output                              | Earphone jack (minijack)<br>for 8-300 ohm earphone or load impedance<br>10 kilohms or higher   |
| Power output                        | 350 mW (at 10% harmonic distortion)  |
| Power requirements                  | 3V dc, 2 batteries IEC designation R6<br>(size AA)<br>120V ac, 60Hz with optional Sony<br>AC-39 ac power adaptor (US, Canadian Model)<br>220, 240V ac, 60Hz with optional Sony<br>AC-37 ac power adaptor (AEP, UK Model)<br>110 or 120, 220 or 240V ac<br>adjustable with optional Sony AC-92<br>ac power adaptor (E Model)<br>12V car battery with optional Sony<br>DCC-127A car battery cord |
| Battery life (continuous recording) | Approx. 3 hours with Sony SUM-3(NS) New Super<br>batteries or Eveready No. 1215 Heavy Duty<br>batteries<br>Approx. 5 hours with Eveready No. E91 alkaline<br>batteries   |
| Dimensions                          | Approx. 84.7 × 132 × 31.4 mm (w/h/d)<br>(3 <sup>3</sup> / <sub>8</sub> × 5 <sup>1</sup> / <sub>4</sub> × 1 <sup>1</sup> / <sub>4</sub> inches)<br>not incl. projecting parts and controls  |
| Weight                              | Approx. 250 g (8.9 oz)<br>not incl. batteries<br>Approx. 290 g (10.3 oz)<br>incl. batteries  |



**CASSETTE CORDER**  
**SONY®**

**TC**

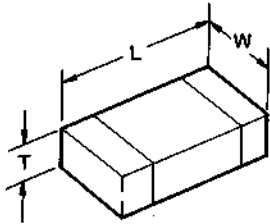
## SERVICING NOTES

### Chip components

Chip components include resistors, capacitors, transistors, diodes, coil and adjustable resistors.

In this section, the types of resistors, ceramic capacitors, transistors and diodes which are used most frequently will be described.

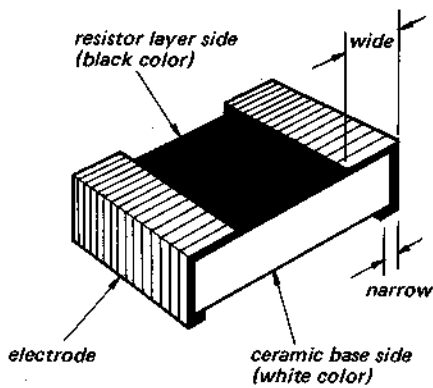
Dimension of transistors and capacitors



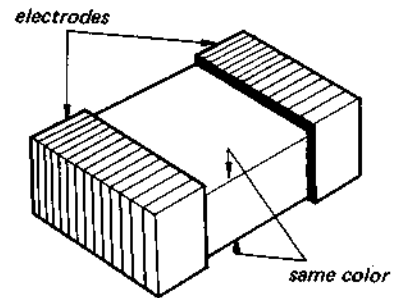
(Unit: mm)

| Type | L   | W    | T          |
|------|-----|------|------------|
| 3216 | 3.2 | 1.6  | 0.45 ~ 0.6 |
| 2125 | 2.0 | 1.25 | 0.35 ~ 0.5 |

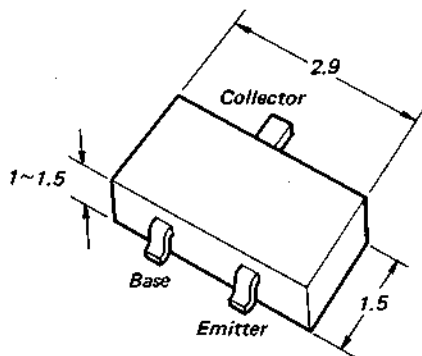
### Identification



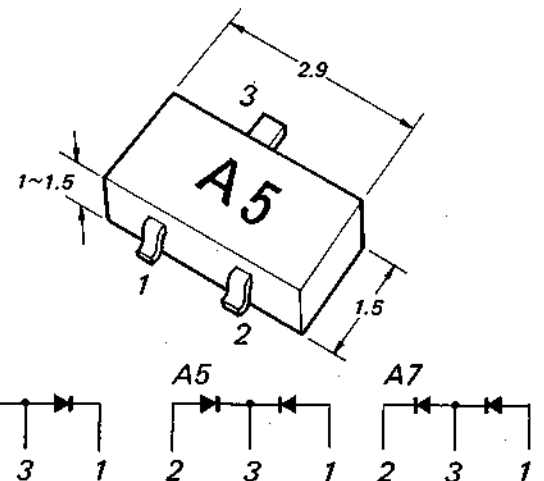
Resistor



Laminated Ceramic Capacitor



Transistor



Diode

### Replacing chip components

All chip components should be connected and disconnected, using a tapered soldering iron [temperature of the iron tip: less than 280°C (536°F)], a pair of tweezers and braided wire.

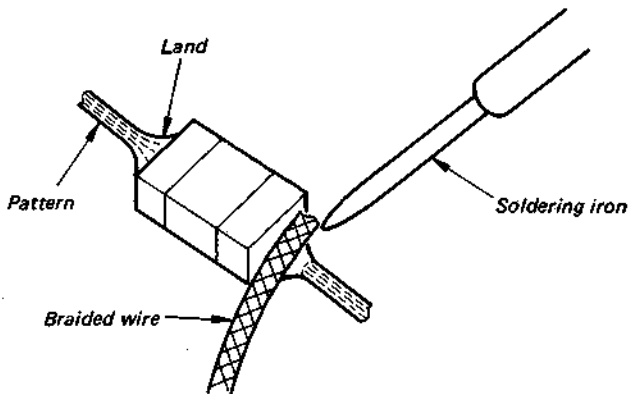
#### Precautions for replacement

1. Do not disconnect the chip component forcefully. Otherwise, the pattern may peel off.
2. Never re-use a disconnected chip component. Dispose of all old chip components.
3. To protect the chip component, heating time for attaching the component should be within 3 seconds.

#### ○ Removing chip components

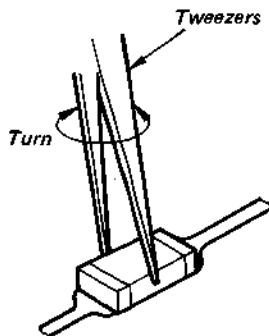
##### (1) Removing solder at electrode

Remove the solder at the electrode, using a thin braided wire. Do not remove the solder of the part (chip component) attached adjacent to the electrode.



##### (2) Disconnecting chip components

Turn the tweezers with the soldering iron alternately applied to both electrodes, and the chip component will be disconnected. Take careful precautions while disconnecting, because if the chip component is forcefully removed the land may peel off. Never re-use a disconnected chip component.



##### (3) Smoothing the soldered surface

After disconnecting the chip component, remove the solder by using a braided wire to smooth the land surface.

#### ○ Connecting chip components

The value of chip components is not displayed on the main body. Take due precautions to avoid mixing new chip components with other ones.

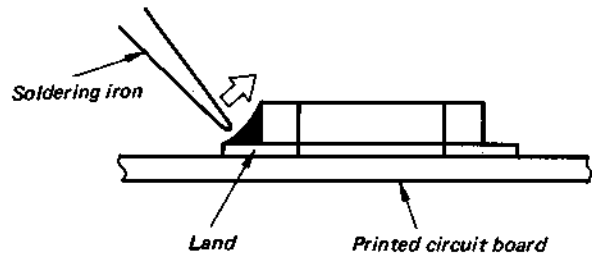
##### (1) Applying solder to land on one side

Apply a thin layer of solder to the land on one side where the chip component is to be connected. Too much solder may cause bridging.



##### (2) Speedy soldering

Hold the chip component at the desired position, using tweezers, and apply the soldering iron in the arrow-marked direction. To protect the chip component, heating time should be within 3 seconds.

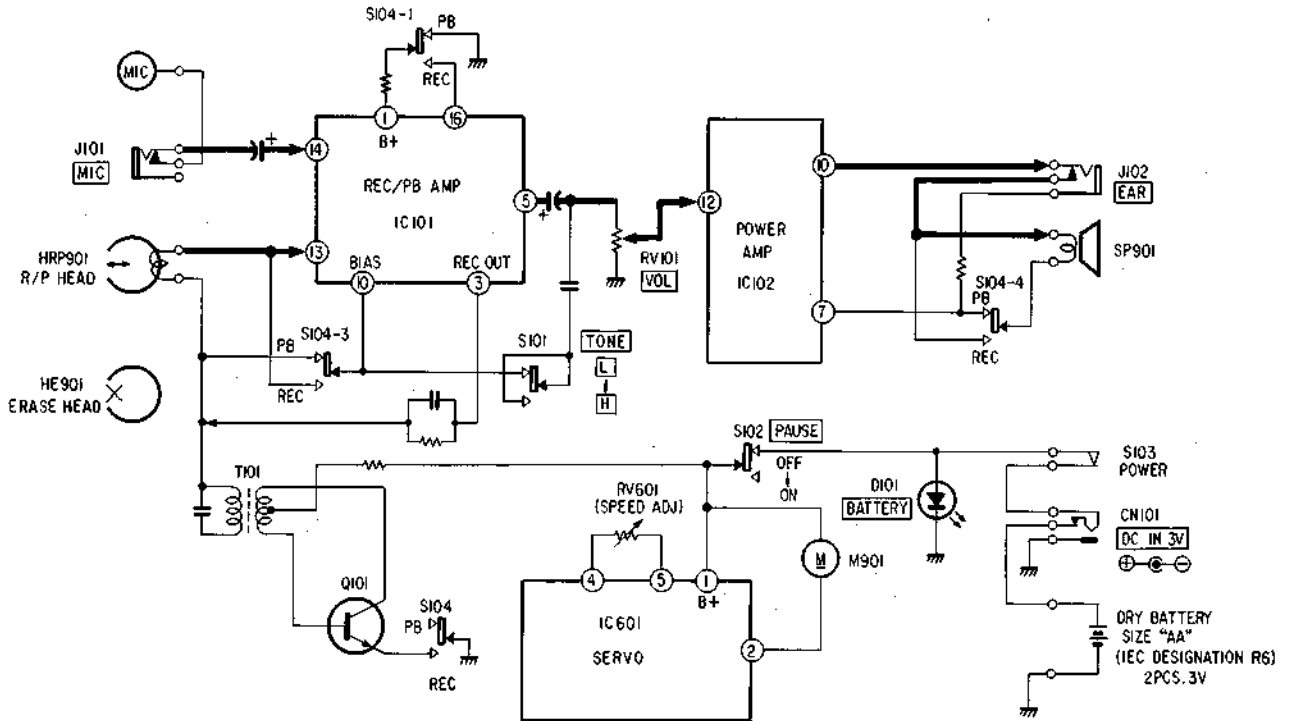


##### (3) Speedy soldering of electrode on the other side

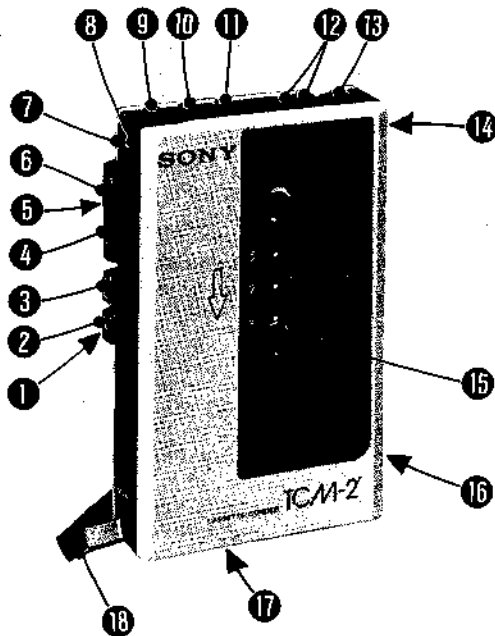
Solder the electrode on the other side in the same way as in (2) above.

# SECTION 1 OUTLINE

## 1-1. BLOCK DIAGRAM



## 1-2. LOCATION OF CONTROLS



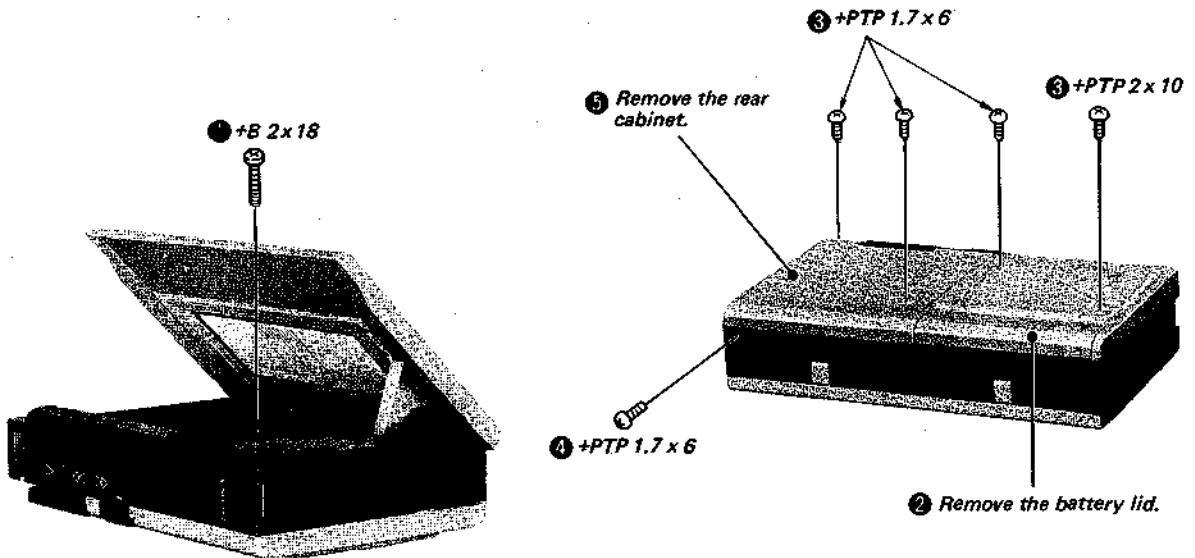
- ① || PAUSE switch
- ② ▼ FF/CUE (fast forward/cue) button
- ③ ▲ REW/REVIEW (rewind/review) button
- ④ ▼ PLAY (playback) button
- ⑤ ■▲ STOP/EJECT button
- ⑥ ● REC (record) button
- ⑦ BATTERY indicator
- ⑧ Built-in microphone
- ⑨ MIC (microphone) input jack
- ⑩ EAR (earphone) jack
- ⑪ TONE selector
- ⑫ TAPE COUNTER and reset button
- ⑬ VOL (volume) control
- ⑭ DC IN 3V (external power input) jack (right side)
- ⑮ Cassette compartment
- ⑯ Battery compartment (rear)
- ⑰ Speaker (rear)
- ⑱ Carrying strap

# SECTION 2 DISASSEMBLY

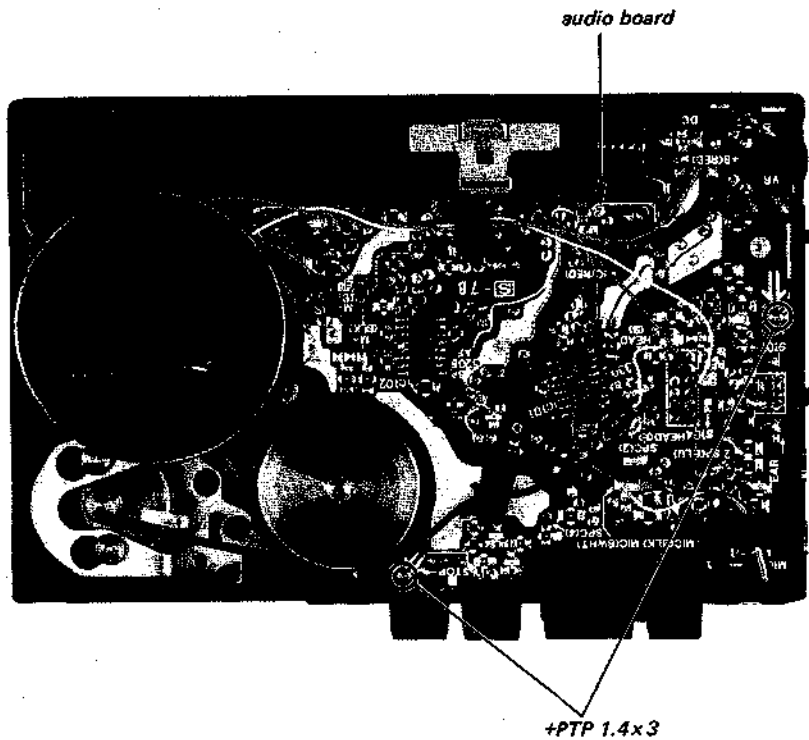
WJL

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

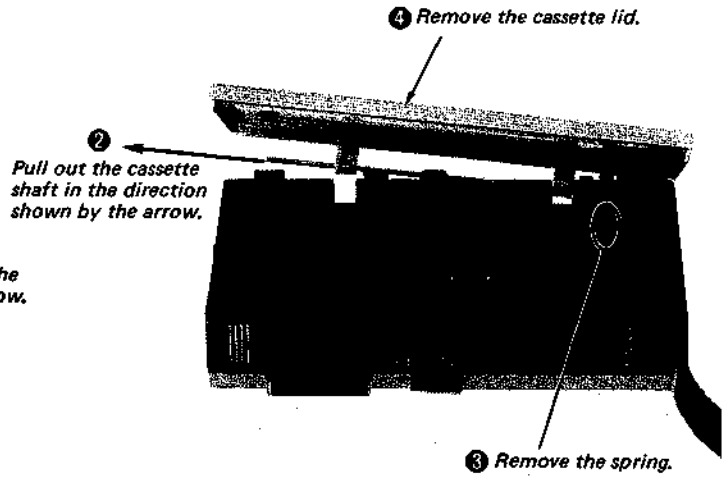
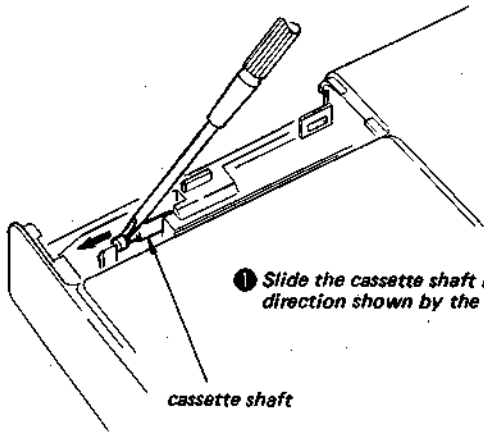
## REAR CABINET



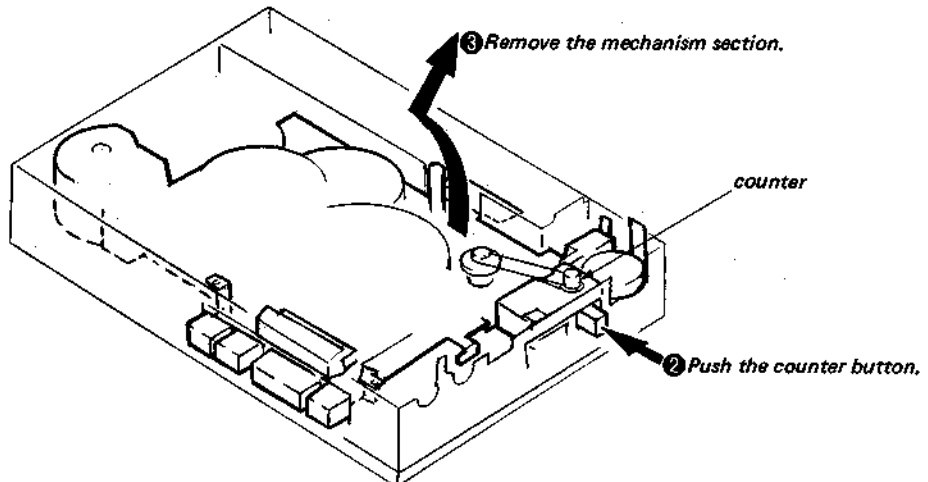
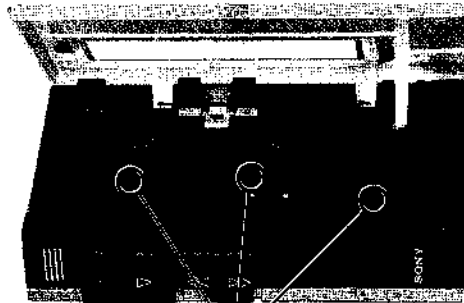
## AUDIO BOARD



### CASSETTE LID



### MECHANISM SECTION



## SECTION 3 ADJUSTMENTS

### 3-1. MECHANICAL ADJUSTMENT AND MEASUREMENT

#### PRECAUTION

1. Clean the following parts with a denatured-alcohol-moistened swab:
 

|                      |              |
|----------------------|--------------|
| record/playback head | pinch roller |
| erase head           | rubber belts |
| capstan              | idlers       |
2. Demagnetize the record/playback head with a head demagnetizer. (Do not bring the head demagnetizer close to the erase head.)
3. Do not use a magnetized screwdriver for the adjustments.
4. After the adjustments, apply suitable locking compound to the parts adjusted.
5. The adjustments should be performed with the rated power supply voltage unless otherwise noted.

power supply voltage : 3 V dc  
 SPEED CONTROL knob : center click

#### Torque Measurement

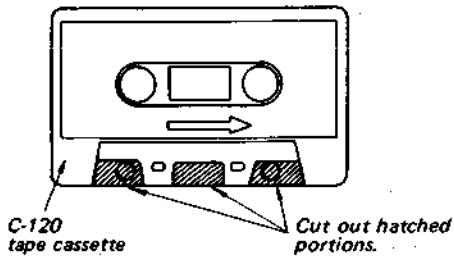
| Torque                  | Meter Reading                         | Torque Meter |
|-------------------------|---------------------------------------|--------------|
| Forward                 | 27 – 48 g•cm<br>(0.37 – 0.66 oz•inch) | CQ-102C      |
| Fast Forward and Rewind | 5.5 – 75 g•cm<br>(0.76 – 1.0 oz•inch) | CQ-201B      |
| Back Tension            | 2 – 4 g•cm<br>(0.027 – 0.055 oz•inch) | CQ-102C      |

#### Tape Tension Measurement

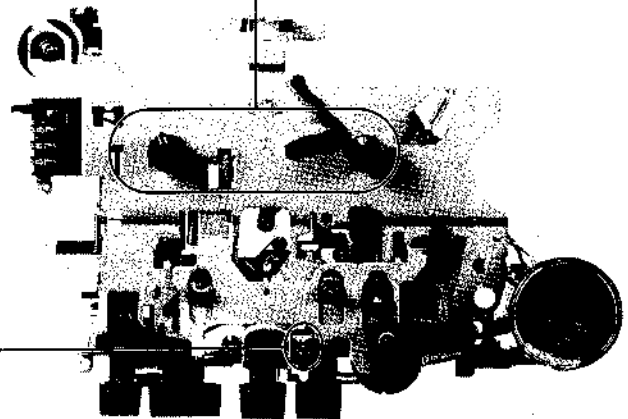
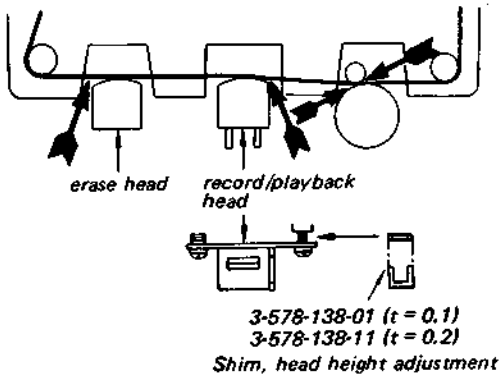
| Meter   | Meter Reading             |
|---------|---------------------------|
| CQ-403A | More than 100 g (3.53 oz) |

#### Head Height Adjustment

1. Prepare an adjustment cassette as shown below.



2. In record mode and viewing from the front, adjust the head heights to eliminate tape curl and tape twist at portions shown by arrow.



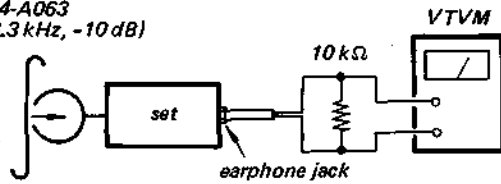
3.2. ELECTRICAL ADJUSTMENTS

**Record/playback Head Azimuth Adjustment**

**Procedure:**

1. Mode: playback

test tape  
P.4-A063  
(6.3 kHz, -10 dB)

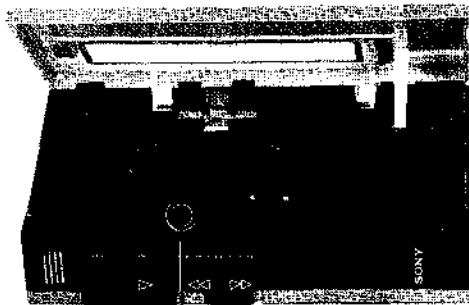


2. Turn the adjustment screw to obtain the maximum reading on VTVM.

**Note:** Several peaks may appear, but take the maximum.

3. After the adjustment, lock the adjustment screw with suitable locking compound.

**Adjustment Location:**



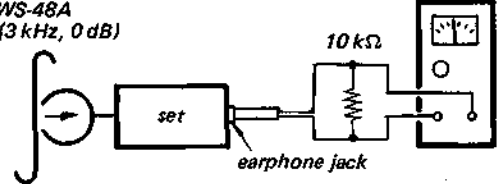
head azimuth adjustment screw

**Tape Speed Adjustment**

**Procedure:**

- Mode: playback

test tape  
WS-48A  
(3 kHz, 0 dB)



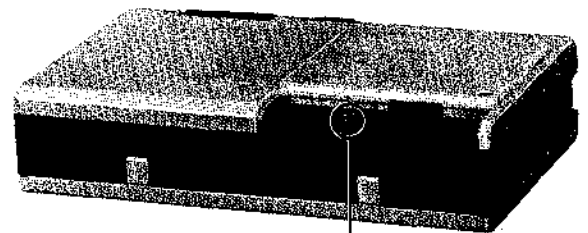
speed checker  
LFM-30  
or  
digital frequency  
counter

**Specification:**

| Speed checker | Digital frequency counter |
|---------------|---------------------------|
| ±2%           | 2,940 – 3,060 Hz          |

Frequency difference between the beginning and the end of the tape should be within 1% (30 Hz).

**Adjustment Location:**



adjustable resistor





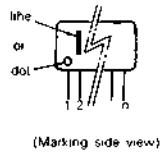
SECTION 4 DIAGRAMS

TCM-2 TCM-2

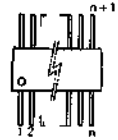
1 2 3 4 5 6 7 8 9 10 11 12 13

• Semiconductor Lead Layouts

LA5523



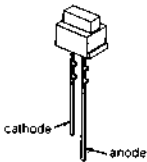
BA3410AF  
BA5208AF



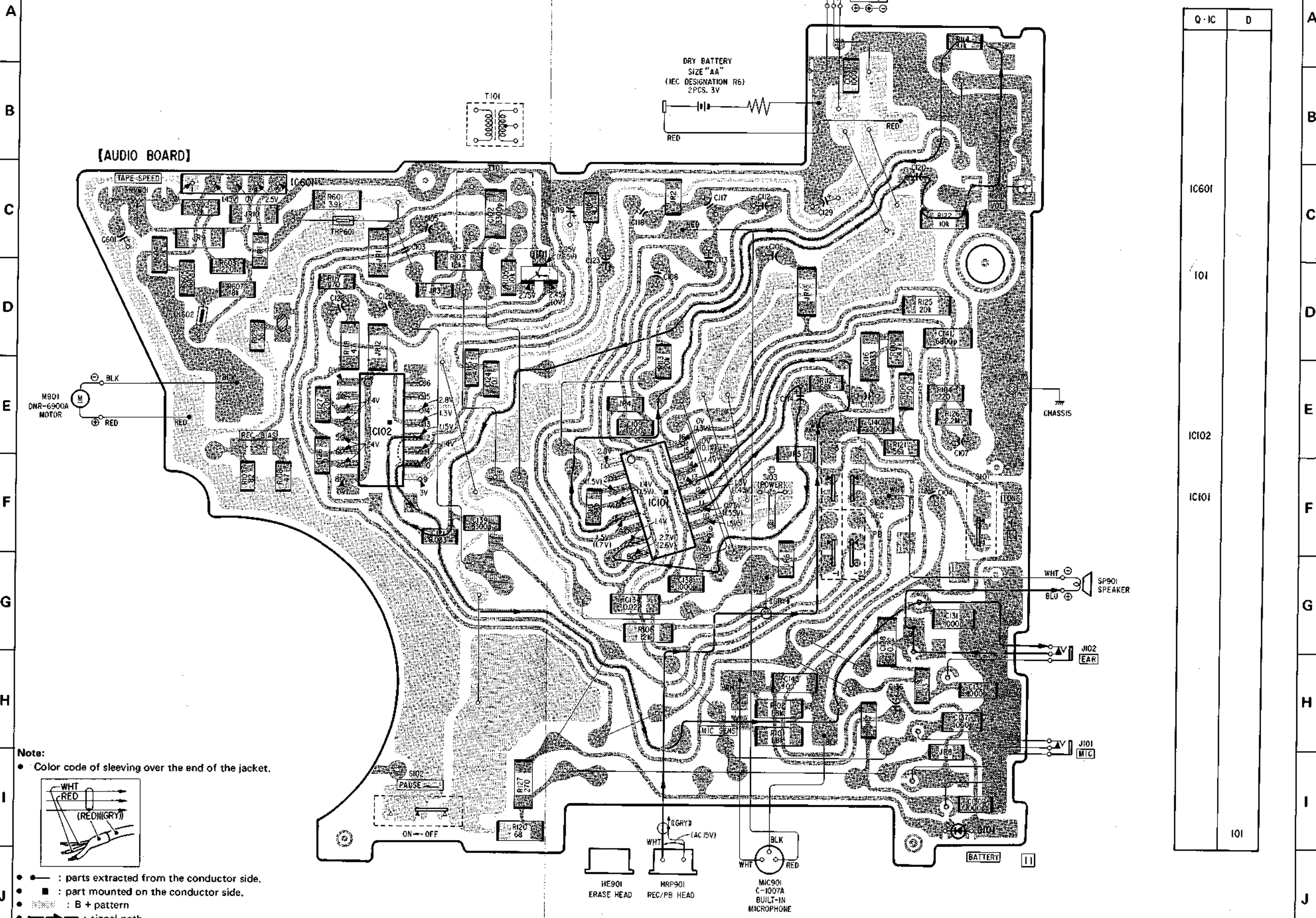
2SC1623-L7



SLB-23UR27

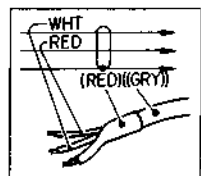


4-1. MOUNTING DIAGRAM



Note:

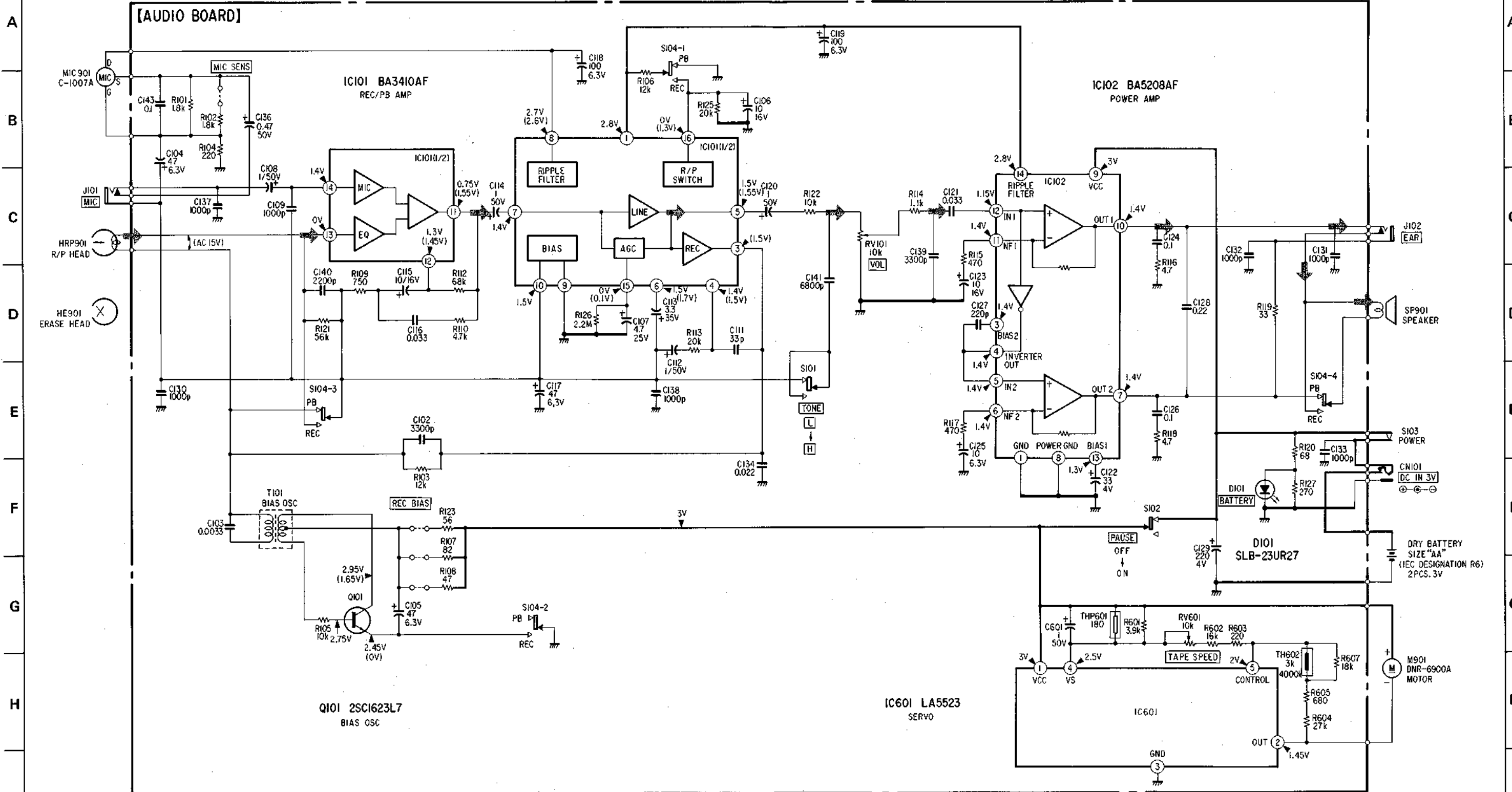
- Color code of sleeving over the end of the jacket.



- : parts extracted from the conductor side.
- : part mounted on the conductor side.
- : B + pattern
- : signal path

| Q-IC  | D |
|-------|---|
| IC601 |   |
| IC101 |   |
| IC102 |   |
| IC101 |   |
| IC101 |   |
| IC101 |   |

4-2. SCHEMATIC DIAGRAM



Note: Voltages are measured with a VOM (50kΩ/V).

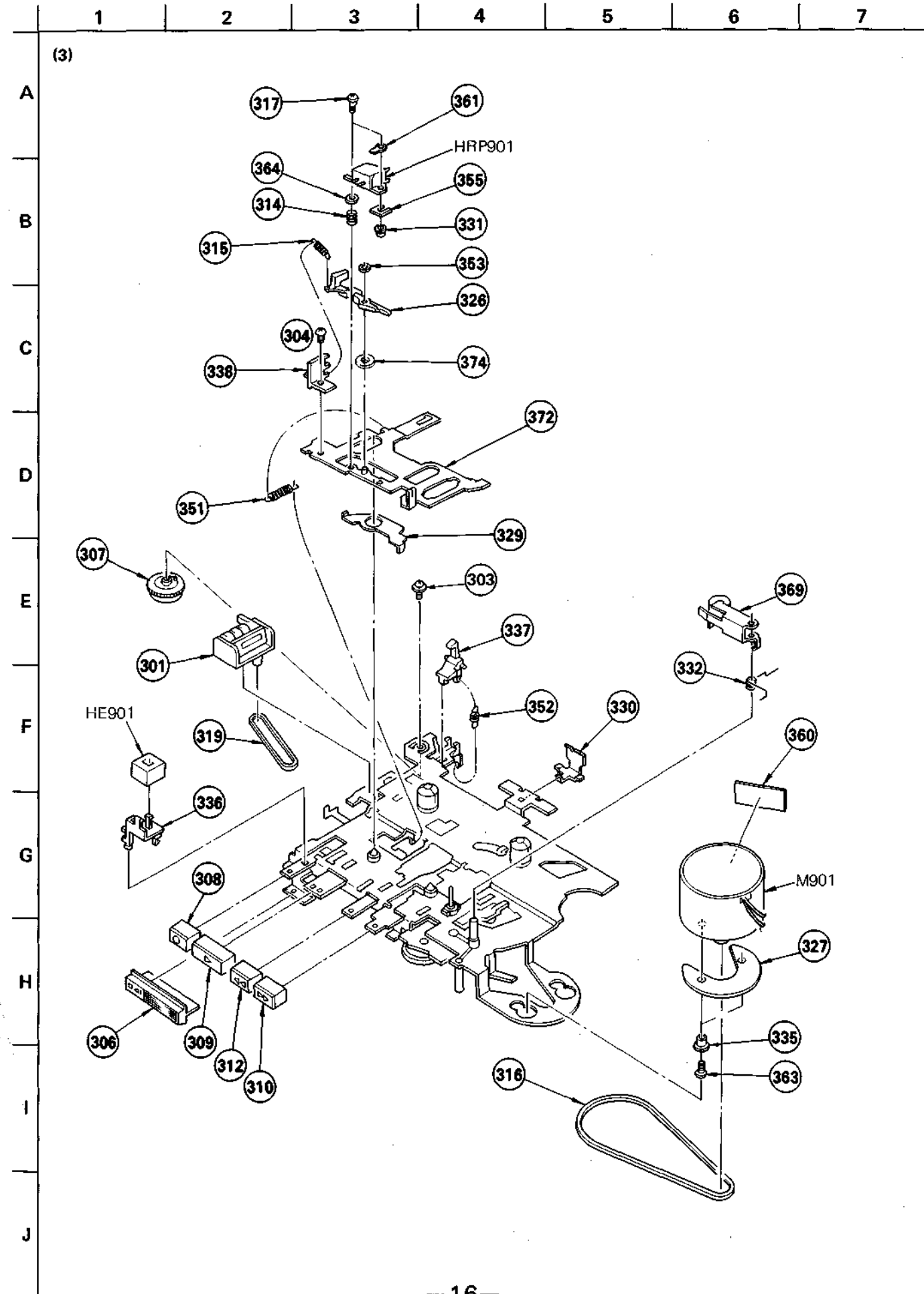
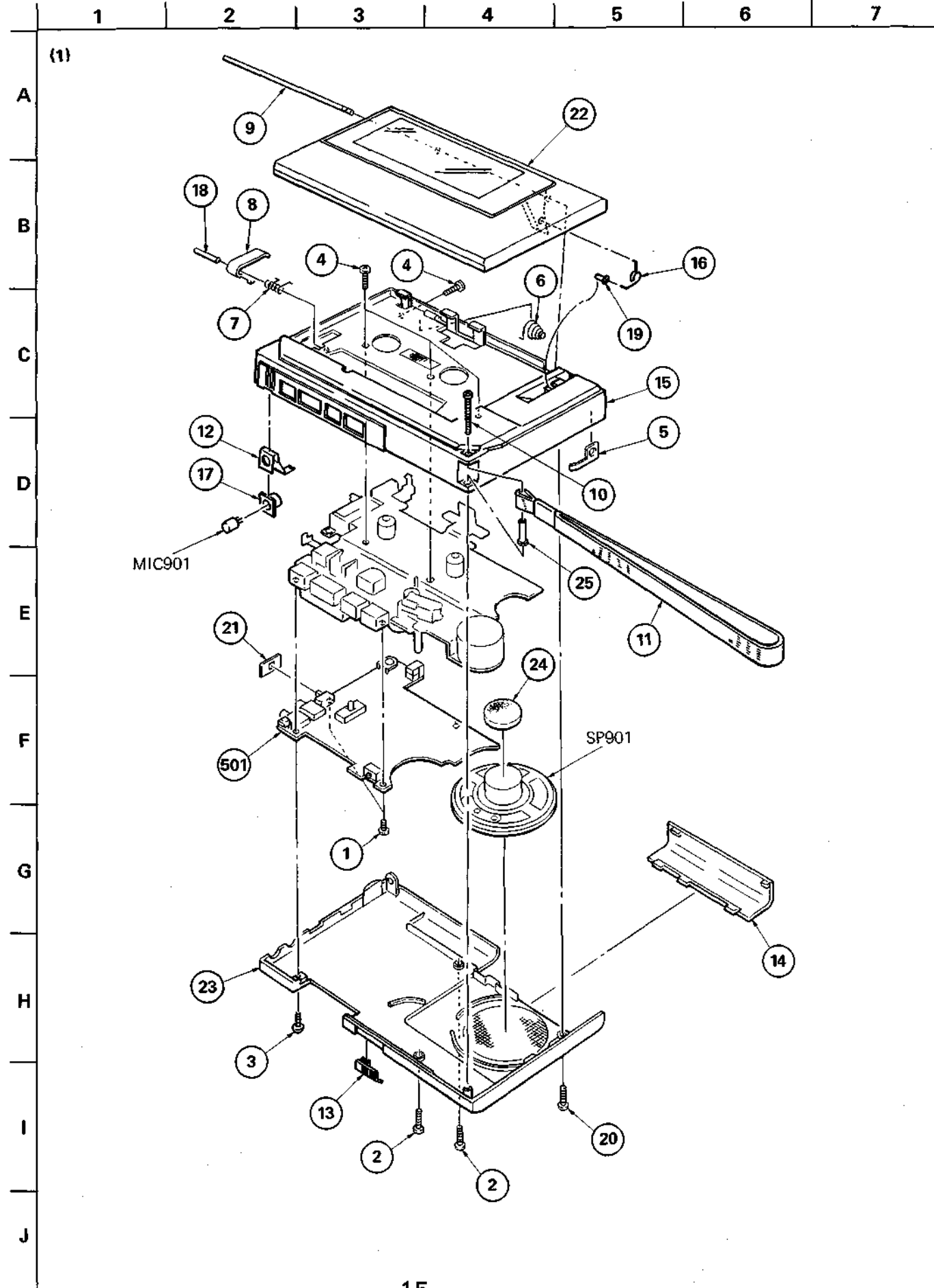
- Note:**
- All capacitors are in  $\mu\text{F}$  unless otherwise noted.  $\text{pF}$ :  $\mu\text{F}$  50WV or less are not indicated except for electrolytics and tantalums.
  - All resistors are in ohms,  $\frac{1}{10}\text{W}$  unless otherwise noted.  $\text{k}\Omega$ : 1000  $\Omega$ ,  $\text{M}\Omega$ : 1000  $\text{k}\Omega$
  - : panel designation.
  - : signal path.
  - : adjustment for repair.
  - : B+ bus.
  - Voltages are dc with respect to ground unless otherwise noted.
  - Readings are taken under no-signal conditions with a VOM (50  $\text{k}\Omega/\text{V}$ ), no mark: playback ( ) : record
  - AC voltage readings in the bias oscillator with a oscilloscope.
  - Total current is measured with no cassette installed.

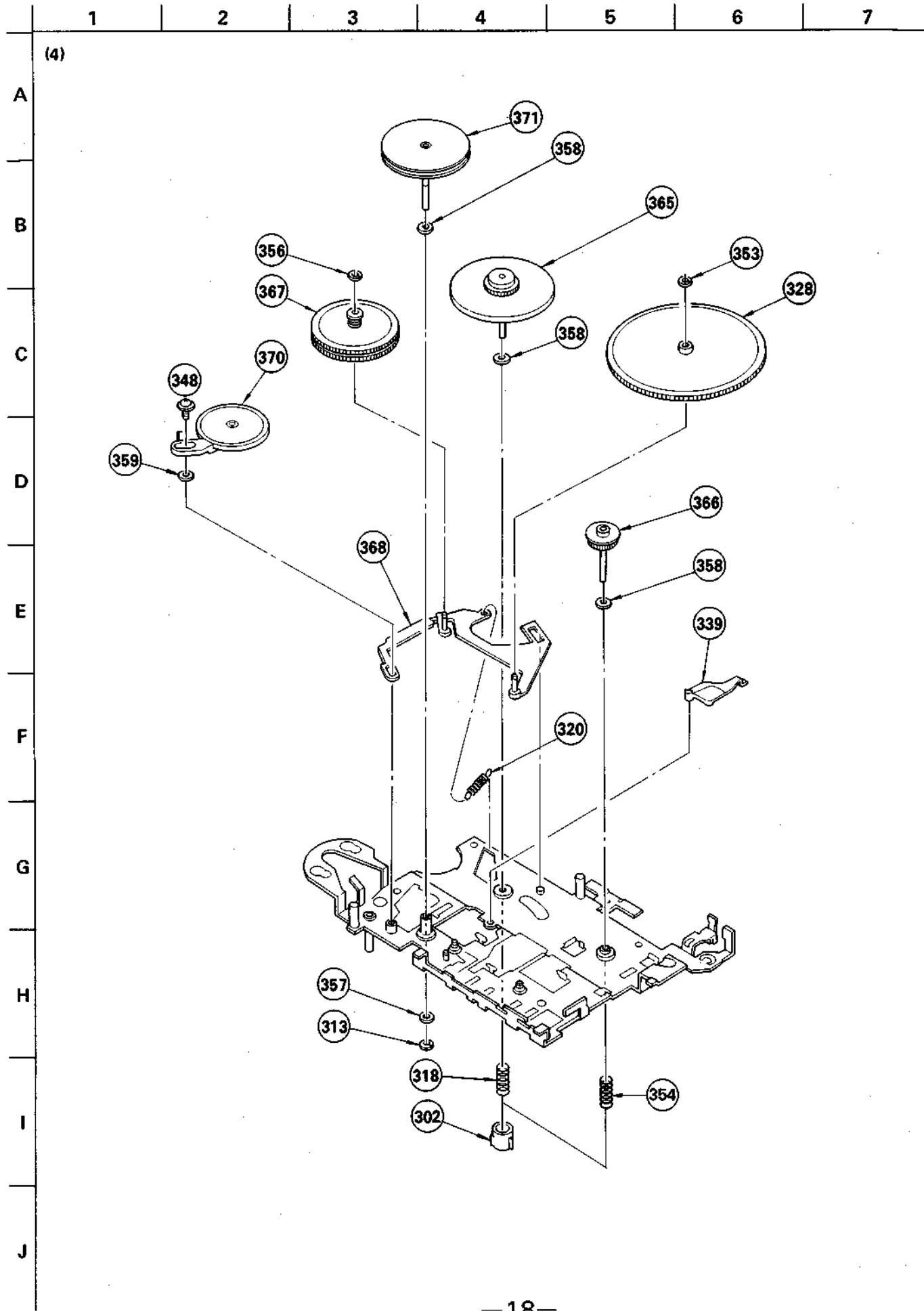
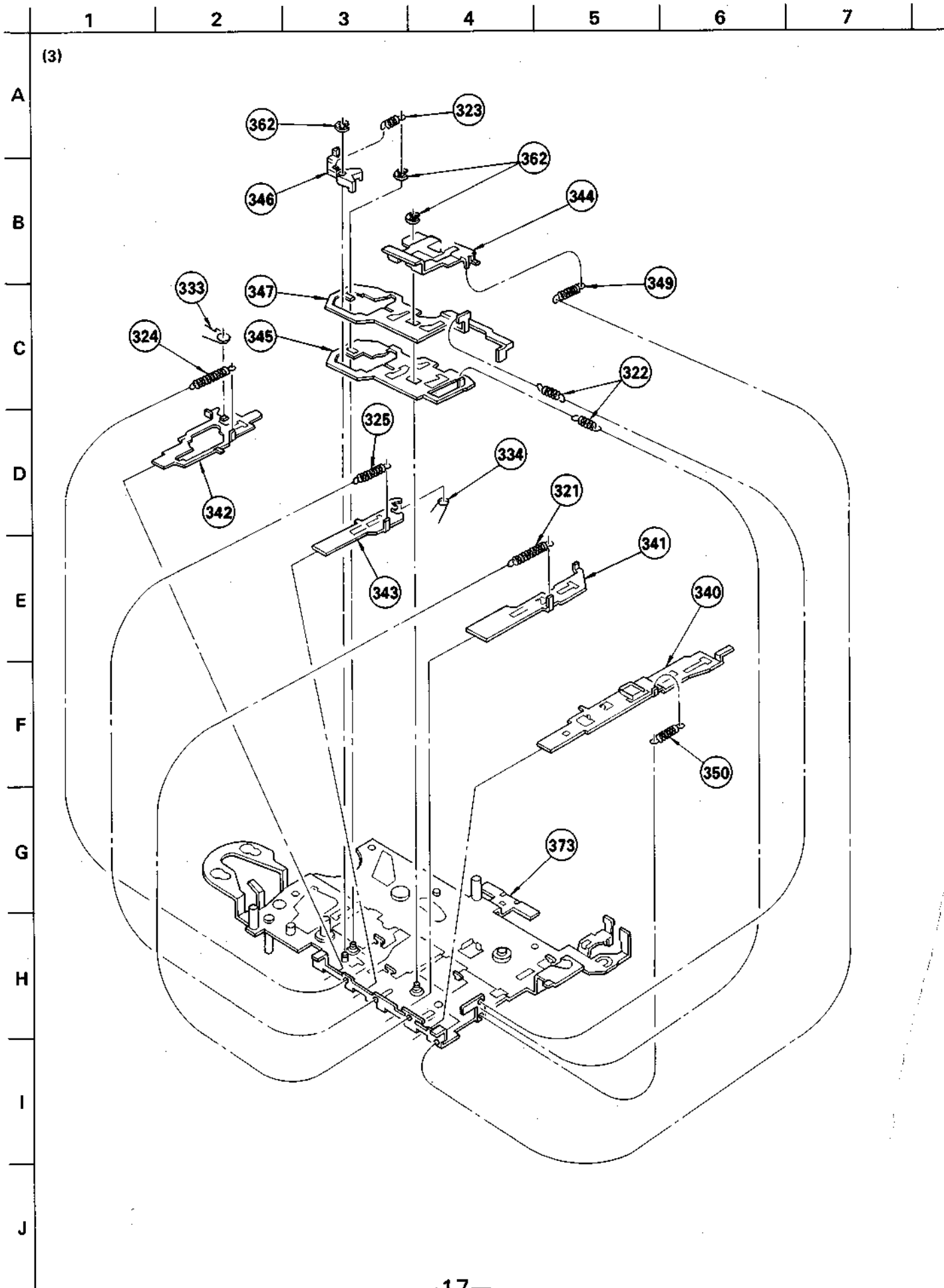
• Switches

| Ref. No. | Switch | Position |
|----------|--------|----------|
| S101     | TONE   | LOW      |
| S102     | PAUSE  | OFF      |
| S103     | POWER  | OFF      |
| S104     | REC/PB | PB       |

SECTION 5

EXPLODED VIEWS AND PARTS LIST





GENERAL SECTION

| No. | Part No.      | Description                  |
|-----|---------------|------------------------------|
| 1   | 3-318-202-01  | SCREW (M3) (1.4X3), TAPPING  |
| 2   | 3-318-203-21  | SCREW, TAPPING               |
| 3   | 3-318-204-21  | SCREW (M1.7X6), TAPPING      |
| 4   | 3-318-204-31  | SCREW (M1.7X6), TAPPING      |
| 5   | 3-318-209-01  | TERMINAL BOARD, PLUS         |
| 6   | 3-318-210-01  | SPRING                       |
| 7   | 3-318-215-01  | SPRING                       |
| 8   | 3-321-022-01  | LEVER, EJECT                 |
| 9   | 3-320-901-01  | SHAFT, CASSETTE              |
| 10  | 3-320-919-01  | SCREW (+B 2X18)              |
| 11  | 3-320-908-01  | STRAP, HAND                  |
| 12  | *3-320-909-01 | BRACKET, MICROPHONE          |
| 13  | 3-320-913-01  | KNOB, PAUSE                  |
| 14  | 3-320-914-01  | LID, BATTERY CASE            |
| 15  | 3-320-915-01  | CABINET (FRONT)              |
| 16  | 3-321-002-01  | SPRING                       |
| 17  | 3-574-761-00  | HOLDER, MICROPHONE           |
| 18  | 3-703-357-06  | PIN, PARALLEL (DIA. 1.6X14)  |
| 19  | 7-623-612-01  | EYELET, 1.5X4                |
| 20  | 7-685-106-14  | SCREW +P 2X10 TYPE2 NON-SLIT |
| 21  | 9-911-863-XX  | PLATE, BLIND                 |
| 22  | X-3320-901-1  | LID ASSY, CASSETTE           |
| 23  | 3-320-916-01  | CABINET (REAR)               |
| 24  | 9-911-844-XX  | CUSHION, SPEAKER             |
| 25  | 3-320-918-01  | SPACER, STRAP                |

ACCESSORY & PACKING MATERIAL

| No. | Part No.     | Description                         |
|-----|--------------|-------------------------------------|
| 51  | 3-320-902-01 | CUSHION, 4 GANG                     |
| 52  | 3-320-903-01 | SLEEVE, 4 GANG                      |
| 53  | 3-320-905-01 | SPACER                              |
| 54  | 3-773-903-11 | (AEP,UK,E).....MANUAL, INSTRUCTION  |
| 55  | 3-773-903-21 | (US,Canadian)...MANUAL, INSTRUCTION |
| 56  | 3-773-903-31 | (Canadian).....MANUAL, INSTRUCTION  |
| 57  | 3-773-903-41 | (AEP).....MANUAL, INSTRUCTION       |
| 58  | 3-527-213-00 | LABEL, SERIAL NUMBER                |
| 59  | 3-570-631-81 | BAG, POLYETHYLENE                   |
| 60  | 3-703-708-01 | STICKER, SONY SYMBOL (18)           |
| 61  | 3-793-828-11 | QUESTIONNAIRE                       |

MECHANISM SECTION

| No. | Part No.      | Description                 |
|-----|---------------|-----------------------------|
| 301 | 1-548-541-31  | COUNTER                     |
| 302 | 3-306-836-02  | CAP, REEL, T                |
| 303 | 3-318-201-01  | SCREW (B) (1.4X3), TAPPING  |
| 304 | 7-627-552-07  | SCREW, PRECISION +P 1.7X2.5 |
| 305 | .....         | .....                       |
| 306 | 3-321-006-01  | BUTTON, STOP                |
| 307 | 3-320-912-01  | KNOB, CONTROL               |
| 308 | 3-318-221-01  | BUTTON, REC                 |
| 309 | 3-318-222-01  | BUTTON, PLAY                |
| 310 | 3-318-223-01  | BUTTON, FF                  |
| 311 | .....         | .....                       |
| 312 | 3-318-228-01  | BUTTON, REW                 |
| 313 | 3-318-236-01  | WASHER, POLY, SLIT          |
| 314 | 3-318-237-01  | SPRING, COMPRESSION         |
| 315 | 3-318-238-01  | SPRING, TENSION             |
| 316 | 3-318-239-01  | BELT                        |
| 317 | 3-318-240-01  | SCREW (1.4), SPECIAL        |
| 318 | 3-318-241-01  | SPRING, COMPRESSION         |
| 319 | 3-318-242-01  | BELT                        |
| 320 | 3-318-243-01  | SPRING, TENSION             |
| 321 | 3-318-246-01  | SPRING, TENSION             |
| 322 | 3-318-248-01  | SPRING, TENSION             |
| 323 | 3-318-249-01  | SPRING, TENSION             |
| 324 | 3-318-250-01  | SPRING, TENSION             |
| 325 | 3-318-251-01  | SPRING, TENSION             |
| 326 | 3-318-252-01  | ARM, DETECTION              |
| 327 | 3-318-254-01  | CUSHION, MOTOR              |
| 328 | 3-318-265-01  | GEAR (B), FR                |
| 329 | *3-318-267-01 | LEVER, CR                   |
| 330 | 3-318-269-01  | SPRING                      |
| 331 | 3-318-309-01  | SPACER, HEAD                |
| 332 | 3-318-275-01  | SPRING                      |
| 333 | 3-318-276-01  | SPRING, FF                  |
| 334 | 3-318-277-01  | SPRING, REW                 |
| 335 | 3-318-310-    | COLLAR, MOTOR               |
| 336 | 3-318-285-01  | BRACKET, ERASE HEAD         |
| 337 | 3-318-286-01  | LEVER, ERASING PROTECTION   |
| 338 | 3-318-287-01  | GUIDE, TAPE                 |
| 339 | 3-318-288-01  | ARM, FF                     |
| 340 | *3-318-289-01 | LEVER, REC                  |
| 341 | *3-318-290-01 | LEVER, PLAY                 |
| 342 | 3-318-291-01  | LEVER, FR                   |
| 343 | 3-318-292-01  | LEVER, REW                  |
| 344 | *3-318-293-01 | LEVER, STOP                 |
| 345 | *3-318-294-01 | PLATE, LOCK                 |

MECHANISM SECTION

| No. | Part No.      | Description               |
|-----|---------------|---------------------------|
| 346 | 3-318-296-01  | LEVER, SHUT-OFF           |
| 347 | 3-318-300-01  | LEVER, SWITCH             |
| 348 | 3-318-324-01  | BUSHING, IDLER LEVER      |
| 349 | 3-547-669-00  | SPRING, TENSION           |
| 350 | 3-318-247-01  | SPRING, TENSION           |
| 351 | 3-565-927-00  | SPRING, TENSION           |
| 352 | 3-318-336-01  | SPRING, TENSION           |
| 353 | 3-570-615-00  | POLY-WASHER (DIA.1.2)     |
| 354 | 3-318-334-01  | SPRING, COMPRESSION       |
| 355 | 3-578-138-01  | SEAM                      |
| 356 | 3-578-138-11  | SEAM                      |
| 357 | 3-701-437-01  | WASHER, STOPPER           |
| 358 | 3-701-437-11  | WASHER                    |
| 359 | 3-827-323-11  | WASHER (DIA. 3.1)         |
| 360 | 3-831-441-XX  | CUSHION                   |
| 361 | 7-623-505-01  | LUG, 2                    |
| 362 | 7-624-101-01  | RING, RETAINING E-1.2     |
| 363 | 7-627-552-47  | SCREW, PRECISION +P 1.7X4 |
| 364 | 7-688-001-01  | W 2, SMALL                |
| 365 | X-3318-202-1  | CLUTCH ASSY               |
| 366 | X-3318-204-1  | GEAR ASSY, REW            |
| 367 | X-3318-207-1  | GEAR (A) ASSY, FR         |
| 368 | X-3318-208-1  | LEVER ASSY, FR            |
| 369 | A-3110-010-A  | PINCH LEVER ASSY          |
| 370 | X-3318-210-1  | LEVER ASSY, FWD IDLER     |
| 371 | X-3318-211-1  | FLYWHEEL ASSY             |
| 372 | X-3318-213-1  | CHASSIS ASSY, HEAD        |
| 373 | *X-3318-214-1 | CHASSIS ASSY, MECHANICAL  |
| 374 | 3-308-472-21  | WASHER (C)(t=0.075mm)     |
| 374 | 3-308-472-31  | WASHER (C)(t=0.125mm)     |

ELECTRICAL PARTS

| Ref.No. | Part No.      | Description           |     |      |  |
|---------|---------------|-----------------------|-----|------|--|
| 501     | *A-3015-287-A | PC BOARD ASSY, AU     |     |      |  |
| C102    | 1-163-053-00  | CERAMIC CHIP 0.0033MF | 10% | 50V  |  |
| C103    | 1-108-371-00  | MYLAR 0.0033MF        | 10% | 100V |  |
| C104    | 1-123-647-00  | ELECT 47MF            | 20% | 6.3V |  |
| C105    | 1-124-224-00  | ELECT 47MF            | 20% | 6.3V |  |
| C106    | 1-123-617-00  | ELECT 10MF            | 20% | 16V  |  |
| C107    | 1-123-616-00  | ELECT 4.7MF           | 20% | 25V  |  |
| C108    | 1-123-611-00  | ELECT 1MF             | 20% | 50V  |  |
| C109    | 1-163-047-00  | CERAMIC CHIP 0.001MF  | 10% | 50V  |  |
| C111    | 1-163-105-00  | CERAMIC CHIP 33PF     | 5%  | 50V  |  |
| C112    | 1-123-611-00  | ELECT 1MF             | 20% | 50V  |  |
| C113    | 1-123-614-41  | ELECT 3.3MF           | 20% | 35V  |  |
| C114    | 1-124-255-00  | ELECT 1MF             | 20% | 50V  |  |
| C115    | 1-124-233-00  | ELECT 10MF            | 20% | 16V  |  |
| C116    | 1-163-074-00  | CERAMIC CHIP 0.033MF  | 10% | 25V  |  |
| C117    | 1-123-647-00  | ELECT 47MF            | 20% | 6.3V |  |
| C118    | 1-123-661-00  | ELECT 100MF           | 20% | 6.3V |  |
| C119    | 1-123-661-00  | ELECT 100MF           | 20% | 6.3V |  |
| C120    | 1-123-611-00  | ELECT 1MF             | 20% | 50V  |  |
| C121    | 1-163-034-00  | CERAMIC CHIP 0.033MF  |     | 50V  |  |
| C122    | 1-124-431-00  | ELECT 33MF            | 20% | 4V   |  |
| C123    | 1-123-617-00  | ELECT 10MF            | 20% | 16V  |  |
| C124    | 1-163-038-00  | CERAMIC CHIP 0.1MF    |     | 25V  |  |
| C125    | 1-124-435-00  | ELECT 10MF            | 20% | 6.3V |  |
| C126    | 1-163-038-00  | CERAMIC CHIP 0.1MF    |     | 25V  |  |
| C127    | 1-163-001-00  | CERAMIC CHIP 220PF    | 10% | 50V  |  |
| C128    | 1-163-081-00  | CERAMIC CHIP 0.22MF   |     | 25V  |  |
| C129    | 1-123-827-00  | ELECT 220MF           | 20% | 4V   |  |
| C130    | 1-163-141-00  | CERAMIC CHIP 0.001MF  | 10% | 50V  |  |
| C131    | 1-163-047-00  | CERAMIC CHIP 0.001MF  | 10% | 50V  |  |
| C132    | 1-163-141-00  | CERAMIC CHIP 0.001MF  | 10% | 50V  |  |
| C133    | 1-163-141-00  | CERAMIC CHIP 0.001MF  | 10% | 50V  |  |
| C134    | 1-163-063-00  | CERAMIC CHIP 0.022MF  | 10% | 50V  |  |
| C136    | 1-124-465-00  | ELECT 0.47MF          | 20% | 50V  |  |
| C137    | 1-163-047-00  | CERAMIC CHIP 0.001MF  | 10% | 50V  |  |
| C138    | 1-163-141-00  | CERAMIC CHIP 0.001MF  | 10% | 50V  |  |
| C139    | 1-163-028-91  | CERAMIC CHIP 0.0033MF |     | 50V  |  |
| C140    | 1-163-013-00  | CERAMIC CHIP 0.0022MF | 10% | 50V  |  |
| C141    | 1-163-070-91  | CERAMIC CHIP 0.0068MF |     | 50V  |  |
| C143    | 1-163-077-00  | CERAMIC CHIP 0.1MF    |     | 50V  |  |
| C601    | 1-123-611-00  | ELECT 1MF             | 20% | 50V  |  |
| D101    | 8-719-908-16  | DIODE SL6-23UR27      |     |      |  |
| HE901   | 8-658-096-02  | HEAD, ERASE EBF5-36   |     |      |  |
| HRP901  | 8-829-336-35  | HEAD (PP134-36T)      |     |      |  |

NOTE:

The mechanical parts with no reference number in the exploded views are not supplied.  
 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.

CAPACITORS:

All capacitors are in  $\mu\text{F}$ . Common capacitors are omitted. Refer to the following lists for their part numbers.  
 MF:  $\mu\text{F}$ , PF:  $\mu\text{pF}$ .

COILS

MMH : mH, UH :  $\mu\text{H}$

SEMICONDUCTORS

In each case, U :  $\mu$ , for example:  
 UA---:  $\mu\text{A}$ ---, UPA---:  $\mu\text{PA}$ ---,  
 UPC---:  $\mu\text{PC}$ ,  
 UPD---:  $\mu\text{PD}$ ---

NOTE:

The mechanical parts with no reference number in the exploded views are not supplied.  
 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.

CAPACITORS:

All capacitors are in  $\mu\text{F}$ . Common capacitors are omitted. Refer to the following lists for their part numbers.  
 MF:  $\mu\text{F}$ , PF:  $\mu\text{pF}$ .

COILS

MMH : mH, UH :  $\mu\text{H}$

SEMICONDUCTORS

In each case, U :  $\mu$ , for example:  
 UA---:  $\mu\text{A}$ ---, UPA---:  $\mu\text{PA}$ ---,  
 UPC---:  $\mu\text{PC}$ ,  
 UPD---:  $\mu\text{PD}$ ---

## ELECTRICAL PARTS

| Ref.No. | Part No.     | Description                    |
|---------|--------------|--------------------------------|
| IC101   | 8-759-910-97 | IC BA3410AF                    |
| IC102   | 8-759-910-71 | IC BA5208AF                    |
| IC601   | 8-759-801-12 | IC LA5523                      |
| J101    | 1-507-921-00 | JACK                           |
| J102    | 1-507-921-00 | JACK                           |
| J103    | 1-507-723-00 | JACK, EXTENTION POWER          |
| JR1     | 1-216-295-00 | METAL CHIP 0 5% 1/10W          |
| JR2     | 1-216-295-00 | METAL CHIP 0 5% 1/10W          |
| JR3     | 1-216-295-00 | METAL CHIP 0 5% 1/10W          |
| JR4     | 1-216-295-00 | METAL CHIP 0 5% 1/10W          |
| JR5     | 1-216-295-00 | METAL CHIP 0 5% 1/10W          |
| JR6     | 1-216-295-00 | METAL CHIP 0 5% 1/10W          |
| JR7     | 1-216-295-00 | METAL CHIP 0 5% 1/10W          |
| JR8     | 1-216-295-00 | METAL CHIP 0 5% 1/10W          |
| JR9     | 1-216-296-00 | METAL CHIP 0 5% 1/8W           |
| JR10    | 1-216-296-00 | METAL CHIP 0 5% 1/8W           |
| JR11    | 1-216-296-00 | METAL CHIP 0 5% 1/8W           |
| JR12    | 1-216-296-00 | METAL CHIP 0 5% 1/8W           |
| JR13    | 1-216-296-00 | METAL CHIP 0 5% 1/8W           |
| M901    | 8-835-105-01 | MOTOR, DC (DNR-6900A)          |
| MIC901  | 8-814-189-31 | MICROPHONE, BUILT-IN (C-1007A) |
| Q101    | 8-729-102-67 | TRANSISTOR 2SC1623-L7          |
| R101    | 1-216-204-00 | METAL CHIP 1.8K 5% 1/8W        |
| R102    | 1-216-204-00 | METAL CHIP 1.8K 5% 1/8W        |
| R103    | 1-216-224-00 | METAL CHIP 12K 5% 1/8W         |
| R104    | 1-216-033-00 | METAL CHIP 220 5% 1/10W        |
| R105    | 1-216-073-00 | METAL CHIP 10K 5% 1/10W        |
| R106    | 1-216-224-00 | METAL CHIP 12K 5% 1/8W         |
| R107    | 1-216-023-00 | METAL CHIP 82 5% 1/10W         |
| R108    | 1-216-017-00 | METAL CHIP 47 5% 1/10W         |
| R109    | 1-216-046-00 | METAL CHIP 750 5% 1/10W        |
| R110    | 1-216-065-00 | METAL CHIP 4.7K 5% 1/10W       |
| R112    | 1-216-093-00 | METAL CHIP 68K 5% 1/10W        |
| R113    | 1-216-080-00 | METAL CHIP 20K 5% 1/10W        |
| R114    | 1-216-050-00 | METAL CHIP 1.1K 5% 1/10W       |
| R115    | 1-216-041-00 | METAL CHIP 470 5% 1/10W        |
| R116    | 1-216-308-00 | METAL CHIP 4.7 5% 1/10W        |
| R117    | 1-216-041-00 | METAL CHIP 470 5% 1/10W        |
| R118    | 1-216-142-00 | METAL CHIP 4.7 5% 1/8W         |
| R119    | 1-216-013-00 | METAL CHIP 33 5% 1/10W         |
| R120    | 1-216-170-00 | METAL CHIP 68 5% 1/8W          |
| R121    | 1-216-091-00 | METAL CHIP 56K 5% 1/10W        |
| R122    | 1-216-222-00 | METAL CHIP 10K 5% 1/8W         |

## ELECTRICAL PARTS

| Ref.No. | Part No.     | Description                   |
|---------|--------------|-------------------------------|
| R123    | 1-216-019-00 | METAL CHIP 56 5% 1/10W        |
| R125    | 1-216-229-00 | METAL CHIP 20K 5% 1/8W        |
| R126    | 1-216-129-00 | METAL CHIP 2.2M 5% 1/10W      |
| R127    | 1-216-184-00 | METAL CHIP 270 5% 1/8W        |
| R601    | 1-216-212-00 | METAL CHIP 3.9K 5% 1/8W       |
| R602    | 1-216-078-00 | METAL CHIP 16K 5% 1/10W       |
| R603    | 1-216-033-00 | METAL CHIP 220 5% 1/10W       |
| R604    | 1-216-083-00 | METAL CHIP 27K 5% 1/10W       |
| R605    | 1-216-045-00 | METAL CHIP 680 5% 1/10W       |
| R607    | 1-216-079-00 | METAL CHIP 18K 5% 1/10W       |
| RV101   | 1-228-121-00 | RES, VAR, CARBON 10K (VOLUME) |
| RV601   | 1-230-510-11 | RES, ADJ, CARBON 10K          |
| S101    | 1-554-123-00 | SWITCH, SLIDE (TONE)          |
| S102    | 1-553-510-00 | SWITCH, SLIDE (PAUSE)         |
| S103    | 1-554-297-00 | SWITCH, LEAF (POWER)          |
| S104    | 1-554-745-11 | SWITCH, SLIDE (REC/PB)        |
| SP901   | 1-503-322-11 | SPEAKER                       |
| T101    | 1-433-251-00 | TRANSFORMER, BIAS OSCILLATOR  |
| TH602   | 1-806-717-00 | THERMISTOR                    |
| THP601  | 1-806-881-11 | THERMISTOR (POSITIVE)         |

## NOTE:

- The mechanical parts with no reference number in the exploded views are not supplied.
- 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.

## CAPACITORS:

- All capacitors are in  $\mu\text{F}$ . Common capacitors are omitted. Refer to the following lists for their part numbers.
- MF:  $\mu\text{F}$ , PF:  $\mu\text{F}$ .

## COILS

- MMH : mH, UH :  $\mu\text{H}$

## SEMICONDUCTORS

- In each case, U :  $\mu$ , for example:  
 UA...:  $\mu\text{A}$ ..., UPA...:  $\mu\text{PA}$ ...,  
 UPC...:  $\mu\text{PC}$ ,  
 UPD...:  $\mu\text{PD}$ ...