

TC-FX100

SERVICE MANUAL

AEP Model
E Model



| | |
|------------------------------------|---------------|
| Model Name Using Similar Mechanism | TC-FX150 |
| Tape Transport Mechanism Type | TCM-YM47CW-62 |

SPECIFICATIONS

Recording system 4-track 2-channel stereo
 Fast-forward and rewind time
 Approx. 120 sec. (with C-60 cassette)
 Bias AC bias
 Signal-to-noise ratio (NAB, at peak level)

| Cassette | Dolby NR switch | | |
|-------------------------|-----------------|-----------|-----------|
| | OFF | B-TYPE ON | C-TYPE ON |
| TYPE IV (Sony METAL-ES) | 58 dB | 65 dB | 71 dB |
| TYPE II (Sony UX-S) | 56 dB | 63 dB | 69 dB |
| TYPE I (Sony HF-S) | 54 dB | 61 dB | 67 dB |

Total harmonic distortion
 1.0% (with Sony METAL-ES cassettes)

Frequency response (DOLBY NR OFF)

| | |
|----------------------------------|---|
| TYPE IV cassette (Sony METAL-ES) | 30-15,000 Hz (± 3 dB, DIN) 30-13,000 Hz (DVU recording) |
| TYPE II cassette (Sony UX-S) | 30-14,000 Hz (± 3 dB, DIN) |
| TYPE I cassette (Sony HF-S) | 30-13,000 Hz (± 3 dB, DIN) |

Wow and flutter 0.12% WRMS (NAB)
 $\pm 0.2\%$ (DIN)

Inputs

| | | |
|---------------------------|-----------------|------------------|
| Line inputs (phono jacks) | Sensitivity | 77.5 mV (-20 dB) |
| | Input impedance | 50 k ohms |

Outputs

| | | |
|--------------------------------------|--------------------|--|
| Line outputs (phono jacks) | Rated output level | 0.44 V (-5 dB) at a load impedance 47 k ohms |
| | Load impedance | Over 10 k ohms |
| Headphone output (stereo phone jack) | Output level | 0.4 mW at a load impedance of 32 ohms |

General

Power requirements

AEP Model
 220 V AC, 50/60 Hz
 E Model
 120, 220 or 240 V AC, adjustable,
 50/60 Hz

Power consumption

10 W

Dimensions

Approx. 430 x 117.5 x 250 mm (w/h/d)
 (17 x 4 $\frac{3}{4}$ x 9 $\frac{7}{8}$ inches)


including projecting parts and controls
 Approx. 2.75 kg (6 lbs 1 oz)

Weight



Supplied accessory

Audio connecting cord (2)

Dolby noise reduction manufactured under license from
 Dolby Laboratories Licensing Corporation.

"DOLBY" and the double-D symbol  are trademarks of
 Dolby Laboratories Licensing Corporation.

SAFETY-RELATED COMPONENT WARNING!!

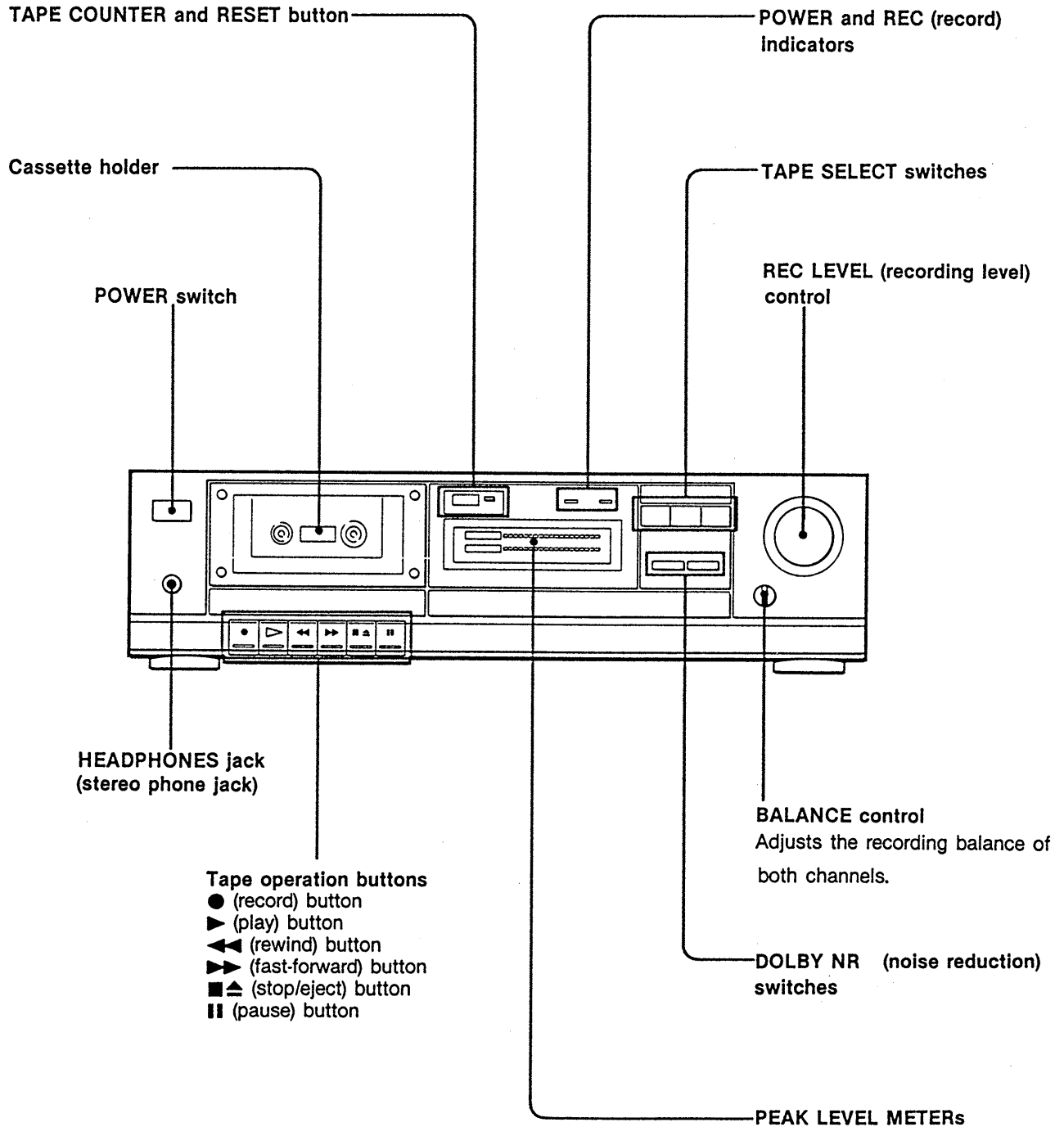
COMPONENTS IDENTIFIED BY MARK  OR DOTTED LINE WITH MARK  ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

STEREO CASSETTE DECK
SONY®



SECTION 1
GENERAL

1-1. LOCATION AND FUNCTION OF CONTROLS



SECTION 2 MECHANICAL 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.
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.

2-1. TORQUE MEASUREMENT

| Torque | Torque | Meter reading |
|------------------|---------|---|
| FWD | CQ-102C | 30 to 70g·cm (0.43 to 0.97oz·inch) |
| FWD Back tension | CQ-102C | 1.5 to 5.5g·cm (0.02 to 0.07oz·inch) |
| EF, REW | CQ-201B | 63g·cm or more (0.87oz·inch or more) |

SECTION 3 ELECTRICAL ADJUSTMENT

Note: The adjustment should be performed in the order given in this service manual.

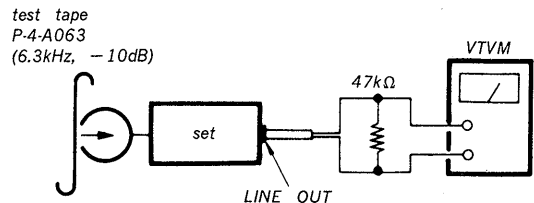
The adjustments should be performed for both L-CH and R-CH.

- Switches and controls should be set as follows unless otherwise specified.
 - DOLBY NR switch: OFF
 - TIMER switch: OFF
- Standard Record:
 - Deliver the standard input signal level to the input jack and set the REC LEVEL control to obtain the standard output signal level.

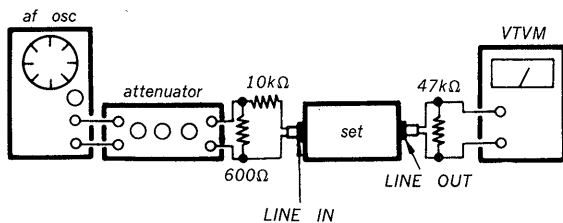
3-1. RECORD/PLAYBACK HEAD AZIMUTH ADJUSTMENT

Procedure:

1. Mode: playback



—Record Mode—



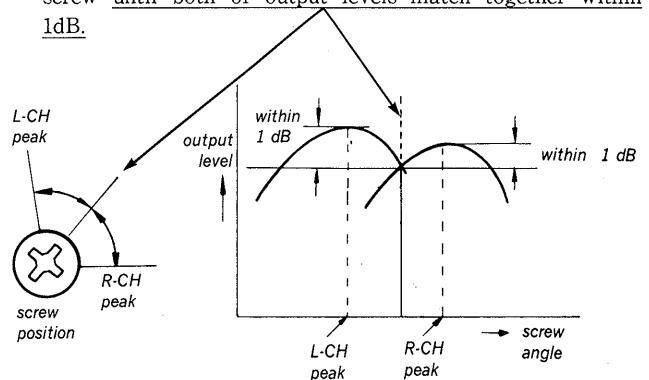
Standard Input Level

| | LINE IN |
|------------------|---------------|
| source impedance | 10kΩ |
| input level | 0.25V (-10dB) |

Standard Output Level

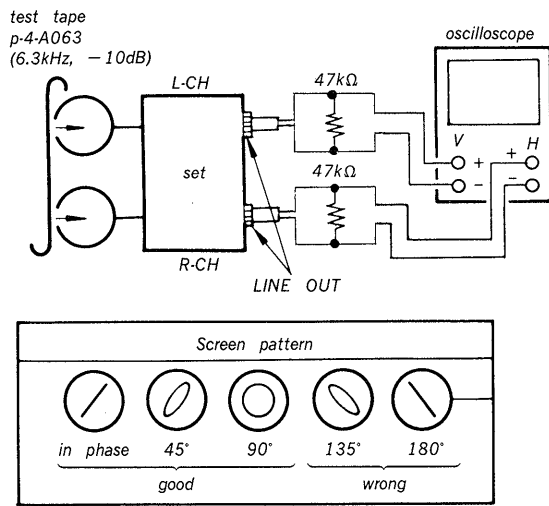
| | LINE OUT |
|----------------|--------------|
| load impedance | 47kΩ |
| output level | 0.44V (-5dB) |

2. Turn the adjustment screw for the maximum output levels. If these levels do not match, turn the adjustment screw until both of output levels match together within 1dB.



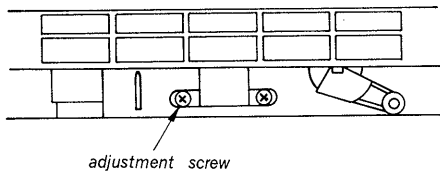
3. Phase Check

Mode : playback



Adjustment Location:

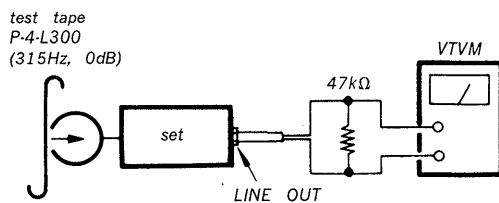
—Record/Playback head—



3-2. PLAYBACK LEVEL ADJUSTMENT

Procedure :

1. Mode : playback



Adjust RV131 (L-CH) and RV213 (R-CH) so that the specification is met.

Specification :

LINE OUT level: 0.41 to 0.46V
(-5.5 to -4.5dB)

Level difference between channels: less than 0.5dB

Check that the LINE OUT level does not change in playback mode while changing the mode from playback to stop several times.

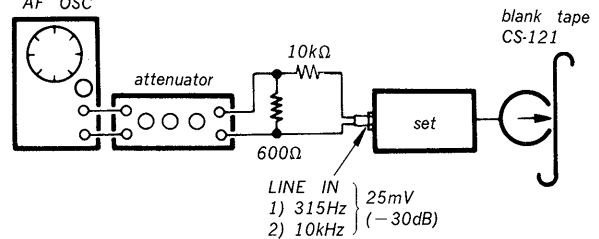
3-3. RECORD BIAS ADJUSTMENT

Setting :

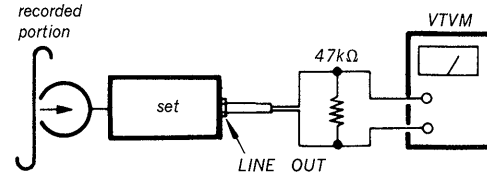
REC LEVEL control : standard record
(See page 3)

Procedure:

1. Mode : record



2. Mode : playback



Confirm that the 10kHz playback output is 0 ± 0.5 dB relative to the 315Hz output. If necessary, adjust CT381-1 (L-CH), CT381-2 (R-CH) and repeat the steps given above.

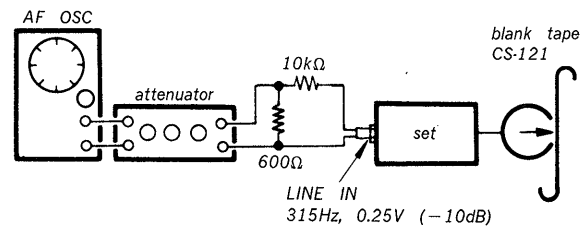
3-4. RECORD LEVEL ADJUSTMENT

Setting :

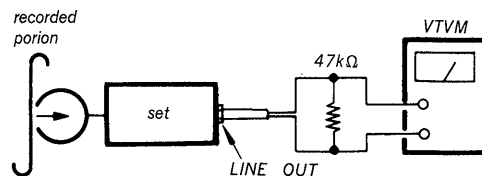
REC LEVEL control : standard record
(See page 3)

Procedure :

1. Mode : record



2. Mode : playback



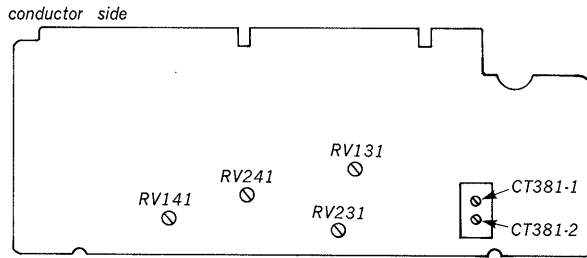
**SECTION 4
DIAGRAMS**

3. Playback the signal recorded in step 1.
 Confirm that the signal level is within the specification below. If necessary, adjust RV141 (L-CH), RV241 (R-CH) and repeat the step 1-3.

Specification :

LINE OUT level: 0.41 to 0.46V
 (-5.5 to -4.5dB)

Adjustment Location : audio board



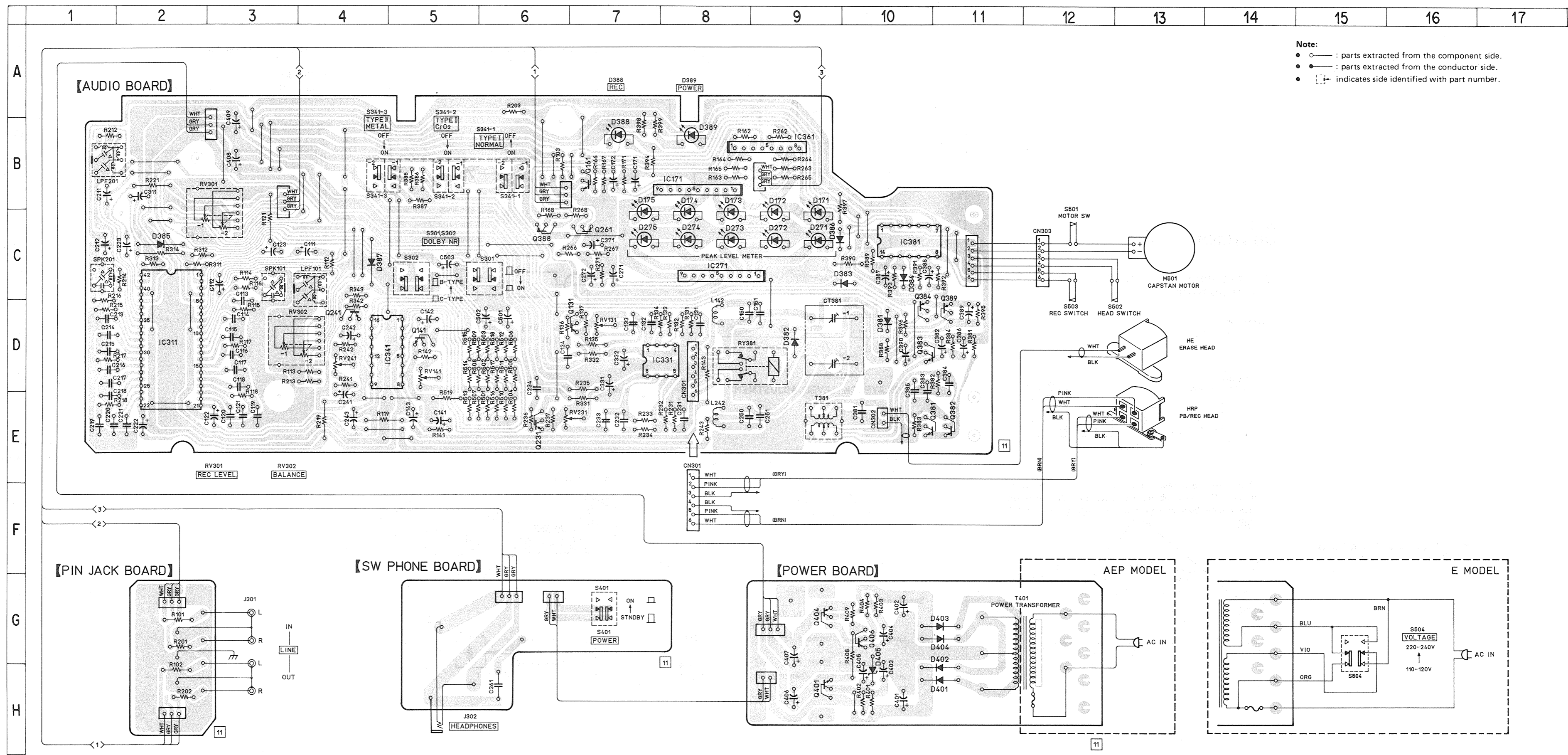
4-1. SEMICONDUCTOR LEAD LAYOUTS

| | | |
|--|---|-------------------------------------|
| <p>CXA1198AP</p> <p>(Top view)</p> | <p>BA1L3Z BN1L3Z DTC114ES 2SC634SP</p> | <p>1SS132 10E2N</p> |
| <p>CX20187</p> <p>(Top view)</p> | <p>BN1A4M BN1L4M 2SA1175 2SC2785</p> | <p>SEL1210S SEL1410E</p> |
| <p>IR2E31A</p> | <p>M4011BP</p> <p>(Top view)</p> | <p>SEL4214S SEL4414E</p> |
| <p>M5218L</p> | <p>2SB1375 2SD2012</p> | |
| <p>μPC4570C-1</p> <p>(Top view)</p> | <p>2SC1815Y</p> | |
| | <p>HZS7B2L</p> | |

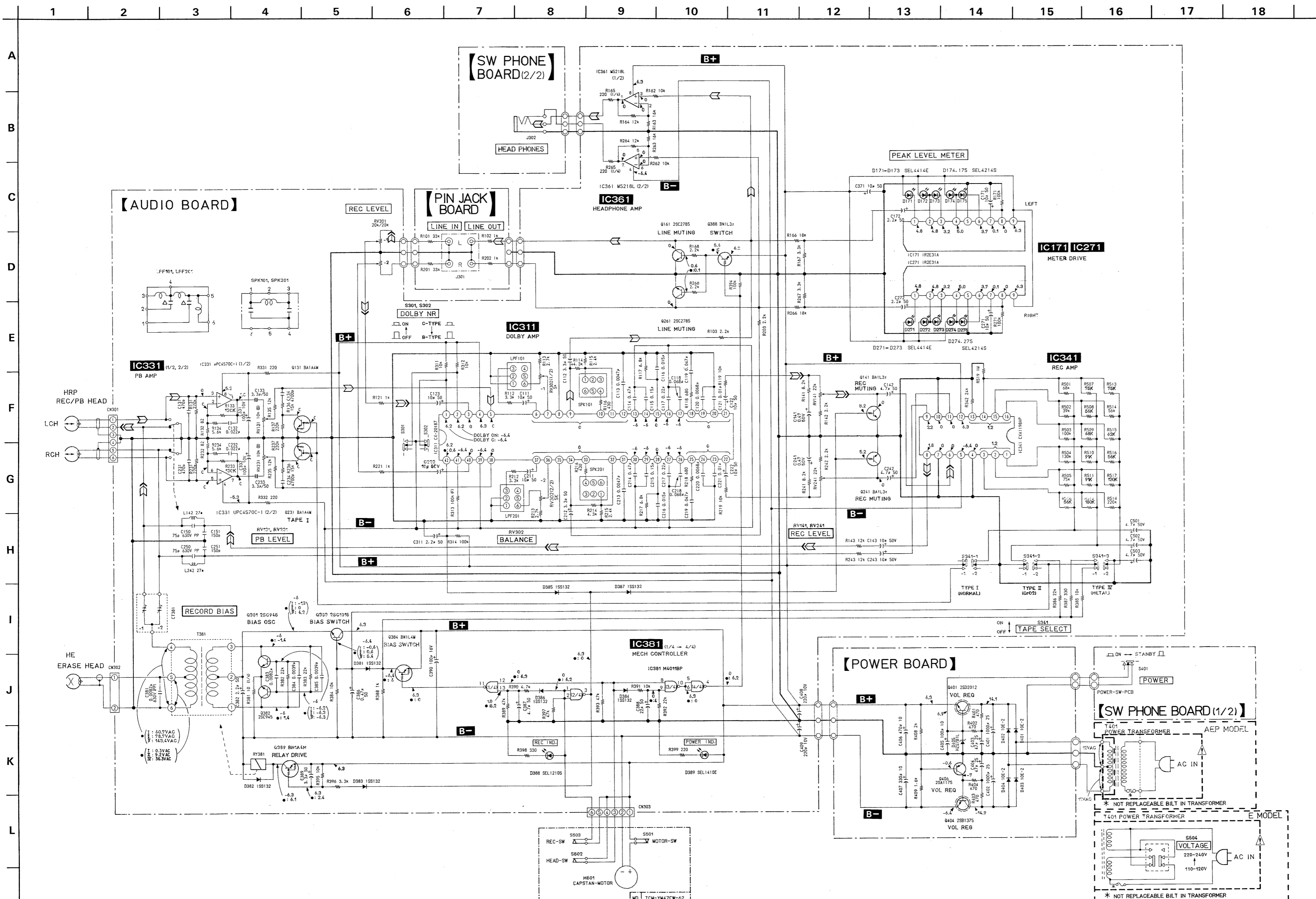
• Semiconductor Location

| Ref. No. | Location |
|----------|----------|
| D171 | C-9 |
| D172 | C-9 |
| D173 | C-8 |
| D174 | C-8 |
| D175 | C-7 |
| D271 | C-9 |
| D272 | C-9 |
| D273 | C-8 |
| D274 | C-8 |
| D275 | C-7 |
| D381 | D-10 |
| D382 | D-9 |
| D383 | C-10 |
| D384 | C-10 |
| D385 | C-2 |
| D386 | C-9 |
| D387 | C-4 |
| D388 | B-7 |
| D389 | B-8 |
| D401 | H-11 |
| D402 | H-11 |
| D403 | G-11 |
| D404 | G-11 |
| D405 | H-10 |
| IC171 | B-8 |
| IC271 | C-8 |
| IC311 | D-2 |
| IC331 | D-8 |
| IC341 | D-4 |
| IC361 | B-9 |
| IC381 | C-10 |
| Q131 | D-7 |
| Q141 | D-5 |
| Q161 | B-7 |
| Q231 | E-6 |
| Q241 | D-4 |
| Q261 | C-7 |
| Q381 | E-10 |
| Q382 | E-11 |
| Q383 | D-10 |
| Q384 | D-10 |
| Q388 | C-6 |
| Q389 | D-11 |
| Q401 | H-9 |
| Q404 | G-9 |
| Q406 | G-10 |

4-2. PRINTED WIRING BOARDS



Note:
 ○ : parts extracted from the component side.
 ● : parts extracted from the conductor side.
 □ : indicates side identified with part number.



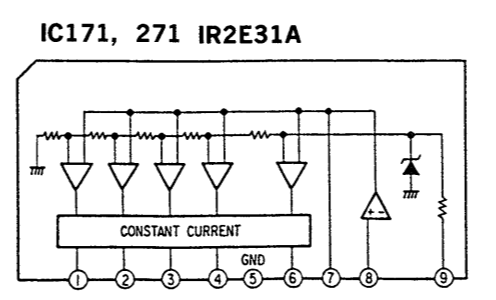
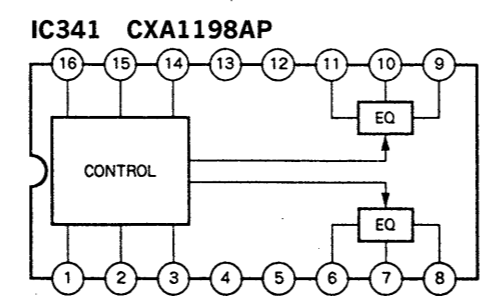
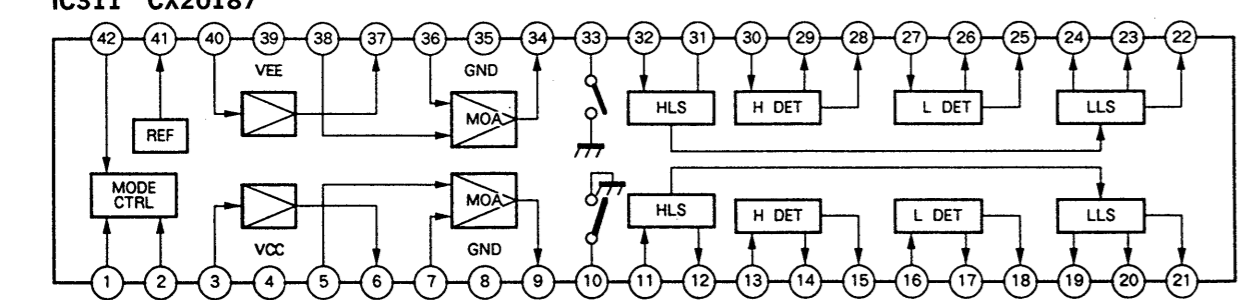
- Note:**
- All capacitors are in μF unless otherwise noted. $\text{pF} = \mu\mu\text{F}$. 50WV or less are not indicated except for electrolytics and tantalums.
 - All resistors are in Ω and $\frac{1}{4}\text{W}$ or less unless otherwise specified.
 - Δ : internal component.
 - B+**: B+ Line
 - B-**: B- Line
 - \square : adjustment for repair.
 - AC voltage readings in the bias oscillator with a VTVM.
 - Voltage and waveforms are dc with respect to ground under no-signal conditions.
 - no mark: PLAY
 - (): REC
 - Volts are taken with a VOM (50 $\text{k}\Omega/\text{V}$). Voltage variations may be noted due to normal production tolerances.
 - Signal path.
 - \curvearrowright : PB
 - \curvearrowright : REC

Switch

| Ref No. | Switch | Position |
|---------|---------------------|----------|
| S301 | DOLBY NR ON/OFF | OFF |
| S302 | DOLBY NR TYPE B/C | TYPE-B |
| S341-1 | TAPE SELECT TYPE-I | ON |
| S341-2 | TAPE SELECT TYPE-II | OFF |
| S341-3 | TAPE SELECT TYPE-IV | OFF |
| S401 | POWER | STANDBY |
| S501 | MOTOR | OFF |
| S502 | HEAD | OFF |
| S503 | REC | OFF |
| S504 | VOLTAGE (E MODEL) | 110-120V |

Note: The components identified by mark Δ or dotted line with mark Δ are critical for safety. Replace only with part number specified.

IC BLOCK DIAGRAMS



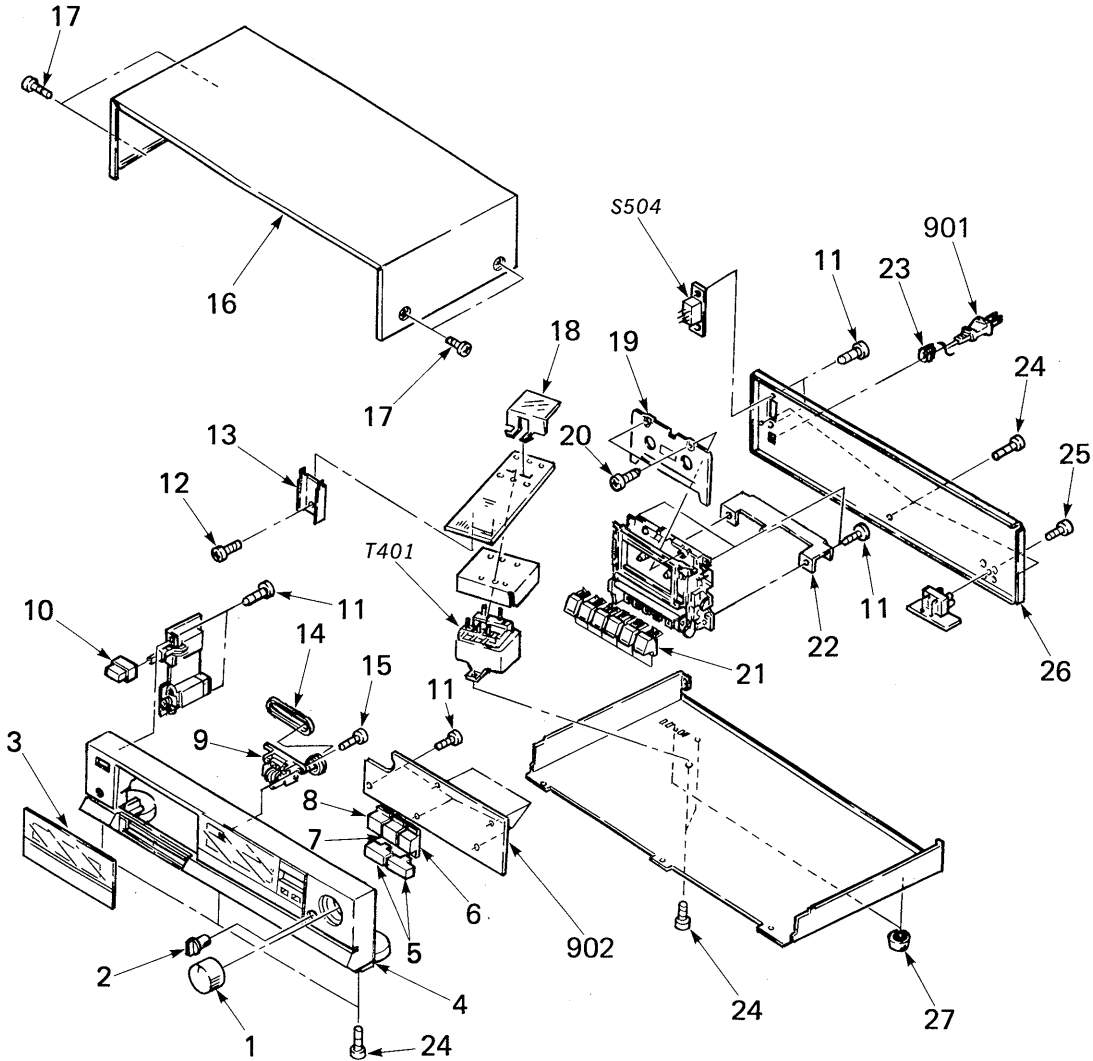
SECTION 5 EXPLODED VIEWS

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

The components identified by mark or dotted line with mark are critical for safety. Replace only with part number specified.



| No. | Part No. | Description | Remarks | No. | Part No. | Description | Remarks |
|-----|---------------|-----------------------------|---------|------|----------------|--------------------------------------|---------|
| 1 | 3-346-380-01 | KNOB (VOL) | | 19 | 4-914-974-01 | PLATE, ORNAMENTAL, CASSETTE | |
| 2 | 3-327-846-01 | KNOB | | 20 | 7-685-133-19 | SCREW +P 2.6X6 TYPE2 NON-SLIT | |
| 3 | X-3318-957-1 | LID ASSY, CASSETTE | | 21 | 3-346-385-01 | BUTTON (BLOCK B) | |
| 4 | X-3318-958-1 | PANEL ASSY, FRONT | | 22 | *3-346-376-01 | REINFORCEMENT, MD | |
| 5 | 3-327-864-01 | BUTTON (DOLBY) | | 23 | *3-703-244-00 | (AEP)....BUSHING (2104), CORD | |
| 6 | 3-327-867-21 | BUTTON (TAPE)(METAL) | | | 3-703-571-00 | (E)...BUSHING (S) (4516), CORD | |
| 7 | 3-327-867-11 | BUTTON (TAPE)(CrO2) | | 24 | 7-682-548-04 | SCREW +BVTT 3X8 (S) | |
| 8 | 3-327-867-01 | BUTTON (TAPE)(NORMAL) | | 25 | 7-621-849-00 | SCREW, TAPPING | |
| 9 | 1-548-596-61 | COUNTER, TAPE (MIDDLE TYPE) | | 26 | *3-327-858-11 | (AEP)...PANEL, BACK | |
| 10 | 4-917-460-01 | KNOB, POWER | | | *3-327-858-21 | (E)....PANEL, BACK | |
| 11 | 7-685-646-79 | SCREW +BVTP 3X8 TYPE2 N-S | | 27 | X-4864-303-0 | FOOT ASSY | |
| 12 | 7-682-147-01 | SCREW +BVTT 3X6 (S) | | 901 | △.1-551-472-00 | (E)....CORD, POWER | |
| 13 | *3-309-144-21 | HEAT SINK | | | △.1-551-908-11 | (AEP)...CORD, POWER, EURO PLUG | |
| 14 | 3-506-040-XX | BELT, SQUARE | | 902 | *A-2056-427-A | MOUNTED PCB, AUDIO | |
| 15 | 7-685-534-19 | SCREW +BTP 2.6X8 TYPE2 N-S | | S504 | △.1-552-535-00 | (E)...SWITCH, POWER & VOLTAGE CHANGE | |
| 16 | *3-327-856-02 | CASE | | T401 | △.1-449-388-11 | (E)....TRANSFORMER, POWER | |
| 17 | 3-704-366-01 | SCREW (CASE) (M3X8) | | T401 | △.1-449-390-11 | (AEP)...TRANSFORMER, POWER | |
| 18 | *3-327-872-01 | COVER (TRANSFORMER) | | | | | |

SECTION 7 ELECTRICAL PARTS LIST

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.

CAPACITORS:

MF: μ F, PF: $\mu\mu$ F.

RESISTORS

- All resistors are in ohms.
- F: nonflammable

COILS

- MMH: mH, UH: μ H

SEMICONDUCTORS

In each case, U: μ , for example:

UA...: μ A..., UPA...: μ PA...,
UPC...: μ PC, UPD...: μ PD...

The components identified by mark Δ or dotted line with mark Δ are critical for safety. Replace only with part number specified.

| Ref.No. | Part No. | Description | | | | |
|---------|------------------------|--------------------------------|----------|-----|------|--|
| 901 | Δ .1-551-472-00 | (E)....CORD, POWER | | | | |
| | Δ .1-551-908-11 | (AEP)...CORD, POWER, EURO PLUG | | | | |
| 902 | *A-2056-427-A | MOUNTED PCB, AUDIO | | | | |
| C111 | 1-123-875-11 | ELECT | 10MF | 20% | 50V | |
| C112 | 1-123-382-00 | ELECT | 3.3MF | 20% | 50V | |
| C113 | 1-130-479-00 | MYLAR | 0.0047MF | 5% | 50V | |
| C114 | 1-136-173-00 | FILM | 0.47MF | 5% | 50V | |
| C115 | 1-136-167-00 | FILM | 0.15MF | 5% | 50V | |
| C116 | 1-136-155-00 | FILM | 0.015MF | 5% | 50V | |
| C117 | 1-136-169-00 | FILM | 0.22MF | 5% | 50V | |
| C118 | 1-136-163-00 | FILM | 0.068MF | 5% | 50V | |
| C119 | 1-136-161-00 | FILM | 0.047MF | 5% | 50V | |
| C120 | 1-130-481-00 | MYLAR | 0.0068MF | 5% | 50V | |
| C121 | 1-136-153-00 | FILM | 0.01MF | 5% | 50V | |
| C122 | 1-123-875-11 | ELECT | 10MF | 20% | 50V | |
| C123 | 1-123-875-11 | ELECT | 10MF | 20% | 50V | |
| C131 | 1-162-290-31 | CERAMIC | 470PF | 10% | 50V | |
| C132 | 1-136-157-00 | FILM | 0.022MF | 5% | 50V | |
| C133 | 1-124-273-00 | ELECT | 3.3MF | 20% | 50V | |
| C134 | 1-161-377-00 | CERAMIC | 0.0047MF | 30% | 16V | |
| C141 | 1-124-902-00 | ELECT | 0.47MF | 20% | 50V | |
| C142 | 1-124-927-11 | ELECT | 4.7MF | 20% | 50V | |
| C143 | 1-123-875-11 | ELECT | 10MF | 20% | 50V | |
| C150 | 1-136-273-91 | FILM | 75PF | 5% | 630V | |
| C151 | 1-162-284-31 | CERAMIC | 150PF | 10% | 50V | |
| C171 | 1-123-875-11 | ELECT | 10MF | 20% | 50V | |
| C172 | 1-124-925-11 | ELECT | 2.2MF | 20% | 50V | |
| C211 | 1-123-875-11 | ELECT | 10MF | 20% | 50V | |
| C212 | 1-123-382-00 | ELECT | 3.3MF | 20% | 50V | |
| C213 | 1-130-479-00 | MYLAR | 0.0047MF | 5% | 50V | |
| C214 | 1-136-173-00 | FILM | 0.47MF | 5% | 50V | |
| C215 | 1-136-167-00 | FILM | 0.15MF | 5% | 50V | |
| C216 | 1-136-155-00 | FILM | 0.015MF | 5% | 50V | |
| C217 | 1-136-169-00 | FILM | 0.22MF | 5% | 50V | |
| C218 | 1-136-163-00 | FILM | 0.068MF | 5% | 50V | |
| C219 | 1-136-161-00 | FILM | 0.047MF | 5% | 50V | |
| C220 | 1-130-481-00 | MYLAR | 0.0068MF | 5% | 50V | |
| C221 | 1-136-153-00 | FILM | 0.01MF | 5% | 50V | |
| C222 | 1-123-875-11 | ELECT | 10MF | 20% | 50V | |
| C223 | 1-123-875-11 | ELECT | 10MF | 20% | 50V | |
| C231 | 1-162-290-31 | CERAMIC | 470PF | 10% | 50V | |
| C232 | 1-136-157-00 | FILM | 0.022MF | 5% | 50V | |
| C233 | 1-124-273-00 | ELECT | 3.3MF | 20% | 50V | |
| C234 | 1-161-377-00 | CERAMIC | 0.0047MF | 30% | 16V | |
| C241 | 1-124-902-00 | ELECT | 0.47MF | 20% | 50V | |

| Ref.No. | Part No. | Description | | | | |
|---------|---------------|---------------------|----------|-----|------|--|
| C242 | 1-124-927-11 | ELECT | 4.7MF | 20% | 50V | |
| C243 | 1-123-875-11 | ELECT | 10MF | 20% | 50V | |
| C250 | 1-136-273-91 | FILM | 75PF | 5% | 630V | |
| C251 | 1-162-284-31 | CERAMIC | 150PF | 10% | 50V | |
| C271 | 1-123-875-11 | ELECT | 10MF | 20% | 50V | |
| C272 | 1-124-925-11 | ELECT | 2.2MF | 20% | 50V | |
| C311 | 1-124-925-11 | ELECT | 2.2MF | 20% | 50V | |
| C331 | 1-124-443-00 | ELECT | 100MF | 20% | 10V | |
| C332 | 1-124-443-00 | ELECT | 100MF | 20% | 10V | |
| C371 | 1-124-261-00 | ELECT | 10MF | 20% | 50V | |
| C381 | 1-136-562-11 | FILM | 0.0082MF | 5% | 630V | |
| C382 | 1-124-925-11 | ELECT | 2.2MF | 20% | 50V | |
| C383 | 1-130-482-00 | MYLAR | 0.0082MF | 5% | 50V | |
| C384 | 1-130-478-00 | MYLAR | 0.0039MF | 5% | 50V | |
| C385 | 1-130-478-00 | MYLAR | 0.0039MF | 5% | 50V | |
| C386 | 1-124-902-00 | ELECT | 0.47MF | 20% | 50V | |
| C387 | 1-124-927-11 | ELECT | 4.7MF | 20% | 50V | |
| C388 | 1-124-908-11 | ELECT | 22MF | 20% | 50V | |
| C389 | 1-123-382-00 | ELECT | 3.3MF | 20% | 50V | |
| C390 | 1-126-101-11 | ELECT | 100MF | 20% | 16V | |
| C401 | 1-124-557-11 | ELECT | 1000MF | 20% | 25V | |
| C402 | 1-124-557-11 | ELECT | 1000MF | 20% | 25V | |
| C403 | 1-124-477-11 | ELECT | 47MF | 20% | 25V | |
| C404 | 1-124-477-11 | ELECT | 47MF | 20% | 25V | |
| C405 | 1-124-443-00 | ELECT | 100MF | 20% | 10V | |
| C406 | 1-124-472-11 | ELECT | 470MF | 20% | 10V | |
| C407 | 1-124-604-00 | ELECT | 330MF | 20% | 10V | |
| C408 | 1-126-176-11 | ELECT | 220MF | 20% | 10V | |
| C409 | 1-126-176-11 | ELECT | 220MF | 20% | 10V | |
| C501 | 1-124-927-11 | ELECT | 4.7MF | 20% | 50V | |
| C502 | 1-124-927-11 | ELECT | 4.7MF | 20% | 50V | |
| C503 | 1-124-927-11 | ELECT | 4.7MF | 20% | 50V | |
| CN301 | *1-564-509-11 | PLUG, CONNECTOR 6P | | | | |
| CN302 | *1-564-505-11 | PLUG, CONNECTOR 2P | | | | |
| CT381 | 1-141-225-00 | CAP, TUNING, TRIMAR | | | | |
| D171 | 8-719-304-37 | DIODE SEL4414E | | | | |
| D172 | 8-719-304-37 | DIODE SEL4414E | | | | |
| D173 | 8-719-304-37 | DIODE SEL4414E | | | | |
| D174 | 8-719-304-32 | DIODE SEL4214S | | | | |
| D175 | 8-719-304-32 | DIODE SEL4214S | | | | |
| D271 | 8-719-304-37 | DIODE SEL4414E | | | | |
| D272 | 8-719-304-37 | DIODE SEL4414E | | | | |
| D273 | 8-719-304-37 | DIODE SEL4414E | | | | |
| D274 | 8-719-304-32 | DIODE SEL4214S | | | | |

| Ref.No. | Part No. | Description |
|---------|--------------|-------------------------------|
| D275 | 8-719-304-32 | DIODE SEL4214S |
| D381 | 8-719-940-76 | DIODE 1SS132 |
| D382 | 8-719-940-76 | DIODE 1SS132 |
| D383 | 8-719-940-76 | DIODE 1SS132 |
| D384 | 8-719-940-76 | DIODE 1SS132 |
| D385 | 8-719-940-76 | DIODE 1SS132 |
| D386 | 8-719-940-76 | DIODE 1SS132 |
| D387 | 8-719-940-76 | DIODE 1SS132 |
| D388 | 8-719-302-45 | DIODE SEL1210S |
| D389 | 8-719-302-52 | DIODE SEL1410E |
| D401 | 8-719-200-77 | DIODE 10E2N |
| D402 | 8-719-200-77 | DIODE 10E2N |
| D403 | 8-719-200-77 | DIODE 10E2N |
| D404 | 8-719-200-77 | DIODE 10E2N |
| D405 | 8-719-933-47 | DIODE HZS7B2L |
| IC171 | 8-759-917-42 | IC IR2E31A |
| IC271 | 8-759-917-42 | IC IR2E31A |
| IC311 | 8-752-018-70 | IC CX20187 |
| IC331 | 8-759-111-44 | IC UPC4570C-1 |
| IC341 | 8-752-033-61 | IC CXA1198AP |
| IC361 | 8-759-600-02 | IC M5218L |
| IC381 | 8-759-601-10 | IC M4011BP |
| J301 | 1-565-258-11 | JACK, PIN 4P (LINE IN/OUT) |
| J302 | 1-507-982-11 | JACK (LARGE TYPE)(HEADPHONES) |
| L142 | 1-410-780-11 | INDUCTOR 27MMH |
| L242 | 1-410-780-11 | INDUCTOR 27MMH |
| LPF101 | 1-235-980-11 | FILTER, LOW PASS |
| LPF201 | 1-235-980-11 | FILTER, LOW PASS |
| Q131 | 8-729-900-80 | TRANSISTOR DTC114ES |
| Q141 | 8-729-115-87 | TRANSISTOR BA1L3Z-P |
| Q161 | 8-729-178-54 | TRANSISTOR 2SC2785 |
| Q231 | 8-729-900-80 | TRANSISTOR DTC114ES |
| Q241 | 8-729-115-87 | TRANSISTOR BA1L3Z-P |
| Q261 | 8-729-178-54 | TRANSISTOR 2SC2785 |
| Q381 | 8-729-600-27 | TRANSISTOR 2SC634SP |
| Q382 | 8-729-600-27 | TRANSISTOR 2SC634SP |
| Q383 | 8-729-281-52 | TRANSISTOR 2SC1815Y |
| Q384 | 8-729-115-12 | TRANSISTOR BN1L4M |
| Q388 | 8-729-115-27 | TRANSISTOR BN1L3Z |
| Q389 | 8-729-115-15 | TRANSISTOR BN1A4M |
| Q401 | 8-729-209-15 | TRANSISTOR 2SD2012 |
| Q404 | 8-729-209-60 | TRANSISTOR 2SB1375 |
| Q406 | 8-729-117-54 | TRANSISTOR 2SA1175 |
| R101 | 1-249-435-11 | CARBON 33K 5% 1/4W |
| R102 | 1-249-417-11 | CARBON 1K 5% 1/4W |
| R103 | 1-249-421-11 | CARBON 2.2K 5% 1/4W |
| R112 | 1-249-423-11 | CARBON 3.3K 5% 1/4W |

| Ref.No. | Part No. | Description |
|---------|--------------|---------------------|
| R113 | 1-249-422-11 | CARBON 2.7K 5% 1/4W |
| R114 | 1-247-846-11 | CARBON 4.3K 5% 1/4W |
| R115 | 1-247-840-00 | CARBON 2.4K 5% 1/4W |
| R116 | 1-247-822-11 | CARBON 430 5% 1/4W |
| R117 | 1-249-427-11 | CARBON 6.8K 5% 1/4W |
| R118 | 1-249-415-11 | CARBON 680 5% 1/4W |
| R119 | 1-249-429-11 | CARBON 10K 5% 1/4W |
| R121 | 1-249-417-11 | CARBON 1K 5% 1/4W |
| R131 | 1-247-889-00 | CARBON 270K 5% 1/4W |
| R132 | 1-249-404-00 | CARBON 82 5% 1/4W |
| R133 | 1-247-882-11 | CARBON 130K 5% 1/4W |
| R134 | 1-249-426-11 | CARBON 5.6K 5% 1/4W |
| R135 | 1-249-430-11 | CARBON 12K 5% 1/4W |
| R136 | 1-249-431-11 | CARBON 15K 5% 1/4W |
| R137 | 1-247-887-00 | CARBON 220K 5% 1/4W |
| R141 | 1-249-428-11 | CARBON 8.2K 5% 1/4W |
| R142 | 1-249-421-11 | CARBON 2.2K 5% 1/4W |
| R143 | 1-249-430-11 | CARBON 12K 5% 1/4W |
| R162 | 1-249-429-11 | CARBON 10K 5% 1/4W |
| R163 | 1-247-860-11 | CARBON 16K 5% 1/4W |
| R164 | 1-249-430-11 | CARBON 12K 5% 1/4W |
| R165 | 1-249-409-11 | CARBON 220 5% 1/4W |
| R166 | 1-249-432-11 | CARBON 18K 5% 1/4W |
| R167 | 1-249-423-11 | CARBON 3.3K 5% 1/4W |
| R168 | 1-249-421-11 | CARBON 2.2K 5% 1/4W |
| R171 | 1-249-441-11 | CARBON 100K 5% 1/4W |
| R201 | 1-249-435-11 | CARBON 33K 5% 1/4W |
| R202 | 1-249-417-11 | CARBON 1K 5% 1/4W |
| R203 | 1-249-421-11 | CARBON 2.2K 5% 1/4W |
| R212 | 1-249-423-11 | CARBON 3.3K 5% 1/4W |
| R213 | 1-249-422-11 | CARBON 2.7K 5% 1/4W |
| R214 | 1-247-846-11 | CARBON 4.3K 5% 1/4W |
| R215 | 1-247-840-00 | CARBON 2.4K 5% 1/4W |
| R216 | 1-247-822-11 | CARBON 430 5% 1/4W |
| R217 | 1-249-427-11 | CARBON 6.8K 5% 1/4W |
| R218 | 1-249-415-11 | CARBON 680 5% 1/4W |
| R219 | 1-249-429-11 | CARBON 10K 5% 1/4W |
| R221 | 1-249-417-11 | CARBON 1K 5% 1/4W |
| R231 | 1-247-889-00 | CARBON 270K 5% 1/4W |
| R232 | 1-249-404-00 | CARBON 82 5% 1/4W |
| R233 | 1-247-882-11 | CARBON 130K 5% 1/4W |
| R234 | 1-249-426-11 | CARBON 5.6K 5% 1/4W |
| R235 | 1-249-430-11 | CARBON 12K 5% 1/4W |
| R236 | 1-249-431-11 | CARBON 15K 5% 1/4W |
| R237 | 1-247-887-00 | CARBON 220K 5% 1/4W |
| R241 | 1-249-428-11 | CARBON 8.2K 5% 1/4W |

| Ref.No. | Part No. | Description | | | | |
|---------|--------------|-------------|------|----|------|--|
| R242 | 1-249-421-11 | CARBON | 2.2K | 5% | 1/4W | |
| R243 | 1-249-430-11 | CARBON | 12K | 5% | 1/4W | |
| R262 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W | |
| R263 | 1-247-860-11 | CARBON | 16K | 5% | 1/4W | |
| R264 | 1-249-430-11 | CARBON | 12K | 5% | 1/4W | |
| R265 | 1-249-409-11 | CARBON | 220 | 5% | 1/4W | |
| R266 | 1-249-432-11 | CARBON | 18K | 5% | 1/4W | |
| R267 | 1-249-423-11 | CARBON | 3.3K | 5% | 1/4W | |
| R268 | 1-249-421-11 | CARBON | 2.2K | 5% | 1/4W | |
| R271 | 1-249-441-11 | CARBON | 100K | 5% | 1/4W | |
| R311 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W | |
| R312 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W | |
| R313 | 1-215-469-00 | METAL | 100K | 1% | 1/6W | |
| R314 | 1-249-441-11 | CARBON | 100K | 5% | 1/4W | |
| R331 | 1-249-409-11 | CARBON | 220 | 5% | 1/4W | |
| R332 | 1-249-409-11 | CARBON | 220 | 5% | 1/4W | |
| R342 | 1-247-864-11 | CARBON | 24K | 5% | 1/4W | |
| R381 | 1-249-393-11 | CARBON | 10 | 5% | 1/4W | |
| R382 | 1-249-433-11 | CARBON | 22K | 5% | 1/4W | |
| R383 | 1-249-433-11 | CARBON | 22K | 5% | 1/4W | |
| R384 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W | |
| R385 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W | |
| R386 | 1-249-433-11 | CARBON | 22K | 5% | 1/4W | |
| R387 | 1-249-411-11 | CARBON | 330 | 5% | 1/4W | |
| R388 | 1-249-417-11 | CARBON | 1K | 5% | 1/4W | |
| R389 | 1-249-437-11 | CARBON | 47K | 5% | 1/4W | |
| R390 | 1-249-425-11 | CARBON | 4.7K | 5% | 1/4W | |
| R391 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W | |
| R392 | 1-249-433-11 | CARBON | 22K | 5% | 1/4W | |
| R393 | 1-249-437-11 | CARBON | 47K | 5% | 1/4W | |
| R394 | 1-249-441-11 | CARBON | 100K | 5% | 1/4W | |
| R395 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W | |
| R396 | 1-249-423-11 | CARBON | 3.3K | 5% | 1/4W | |
| R397 | 1-249-437-11 | CARBON | 47K | 5% | 1/4W | |
| R398 | 1-249-411-11 | CARBON | 330 | 5% | 1/4W | |
| R399 | 1-249-409-11 | CARBON | 220 | 5% | 1/4W | |
| R401 | 1-249-413-11 | CARBON | 470 | 5% | 1/4W | |
| R402 | 1-249-413-11 | CARBON | 470 | 5% | 1/4W | |
| R403 | 1-249-413-11 | CARBON | 470 | 5% | 1/4W | |
| R404 | 1-249-413-11 | CARBON | 470 | 5% | 1/4W | |
| R408 | 1-247-838-00 | CARBON | 2K | 5% | 1/4W | |
| R409 | 1-247-836-11 | CARBON | 1.6K | 5% | 1/4W | |
| R501 | 1-249-439-11 | CARBON | 68K | 5% | 1/4W | |
| R502 | 1-249-436-11 | CARBON | 39K | 5% | 1/4W | |
| R503 | 1-249-441-11 | CARBON | 100K | 5% | 1/4W | |
| R504 | 1-247-882-11 | CARBON | 130K | 5% | 1/4W | |

| Ref.No. | Part No. | Description | | | | |
|---------|--------------|---------------------------------------|---------|----|------|-------------|
| R505 | 1-247-876-11 | CARBON | 75K | 5% | 1/4W | |
| R506 | 1-249-438-11 | CARBON | 56K | 5% | 1/4W | |
| R507 | 1-247-876-11 | CARBON | 75K | 5% | 1/4W | |
| R508 | 1-249-438-11 | CARBON | 56K | 5% | 1/4W | |
| R509 | 1-249-439-11 | CARBON | 68K | 5% | 1/4W | |
| R510 | 1-247-878-00 | CARBON | 91K | 5% | 1/4W | |
| R511 | 1-247-878-00 | CARBON | 91K | 5% | 1/4W | |
| R512 | 1-247-885-00 | CARBON | 180K | 5% | 1/4W | |
| R513 | 1-247-876-11 | CARBON | 75K | 5% | 1/4W | |
| R514 | 1-249-438-11 | CARBON | 56K | 5% | 1/4W | |
| R515 | 1-247-874-11 | CARBON | 62K | 5% | 1/4W | |
| R516 | 1-249-438-11 | CARBON | 56K | 5% | 1/4W | |
| R517 | 1-247-881-00 | CARBON | 120K | 5% | 1/4W | |
| R518 | 1-247-887-00 | CARBON | 220K | 5% | 1/4W | |
| R519 | 1-247-903-00 | CARBON | 1M | 5% | 1/4W | |
| RV131 | 1-228-994-00 | RES, ADJ, CARBON | 10K | | | |
| RV141 | 1-228-995-00 | RES, ADJ, CARBON | 22K | | | |
| RV231 | 1-228-994-00 | RES, ADJ, CARBON | 10K | | | |
| RV241 | 1-228-995-00 | RES, ADJ, CARBON | 22K | | | |
| RV301 | 1-238-262-11 | RES, VAR, CARBON | 20K/20K | | | (REC LEVEL) |
| RV302 | 1-238-263-11 | RES, VAR, CARBON | 5K/5K | | | (BALANCE) |
| RY381 | 1-515-683-11 | RELAY | | | | |
| S301 | 1-571-510-11 | SWITCH, PUSH (1 KEY)(DOLBY NR ON/OFF) | | | | |
| S302 | 1-571-510-11 | SWITCH, PUSH (1 KEY)(DOLBY NR B/C) | | | | |
| S341 | 1-571-629-11 | SWITCH, PUSH (3 KEY)(TAPE SELECT) | | | | |
| S401 | 1-570-393-11 | SWITCH, PUSH (1 KEY)(POWER) | | | | |
| S504 | 1-552-535-00 | (E)...SWITCH, POWER & VOLTAGE CHANGE | | | | |
| T401 | 1-449-388-11 | (E)....TRANSFORMER, POWER | | | | |
| T401 | 1-449-390-11 | (AEP)...TRANSFORMER, POWER | | | | |
| SPK101 | 1-235-186-00 | ENCAPSULATED COMPONENT | | | | |
| SPK201 | 1-235-186-00 | ENCAPSULATED COMPONENT | | | | |
| T381 | 1-433-303-11 | TRANSFORMER, BIAS OSCILLATION | | | | |

ACCESSORY & PACKING MATERIAL

1-526-565-00 (E)....AC PLUG ADAPTOR
1-559-533-11 CORD, CONNECTION

*3-346-344-01 CUSHION
*3-346-378-11 INDIVIDUAL CARTON
*3-704-343-01 SHEET (STANDARD), PROTECTION

3-786-253-11 MANUAL, INSTRUCTION
3-786-253-41 (AEP)...MANUAL, INSTRUCTION

Note: The components identified by mark Δ or dotted line with mark Δ are critical for safety. Replace only with part number specified.

TC-FX100

SONY® SERVICE MANUAL

*AEP Model
E Model*

SUPPLEMENT-1(R)

File this supplement with the service manual.

Subject: exploded view mechanism section

- REVISED
Discard SUPPLEMENT-1 (9-953-379-81) previously issued.
This Service Manual contains it.

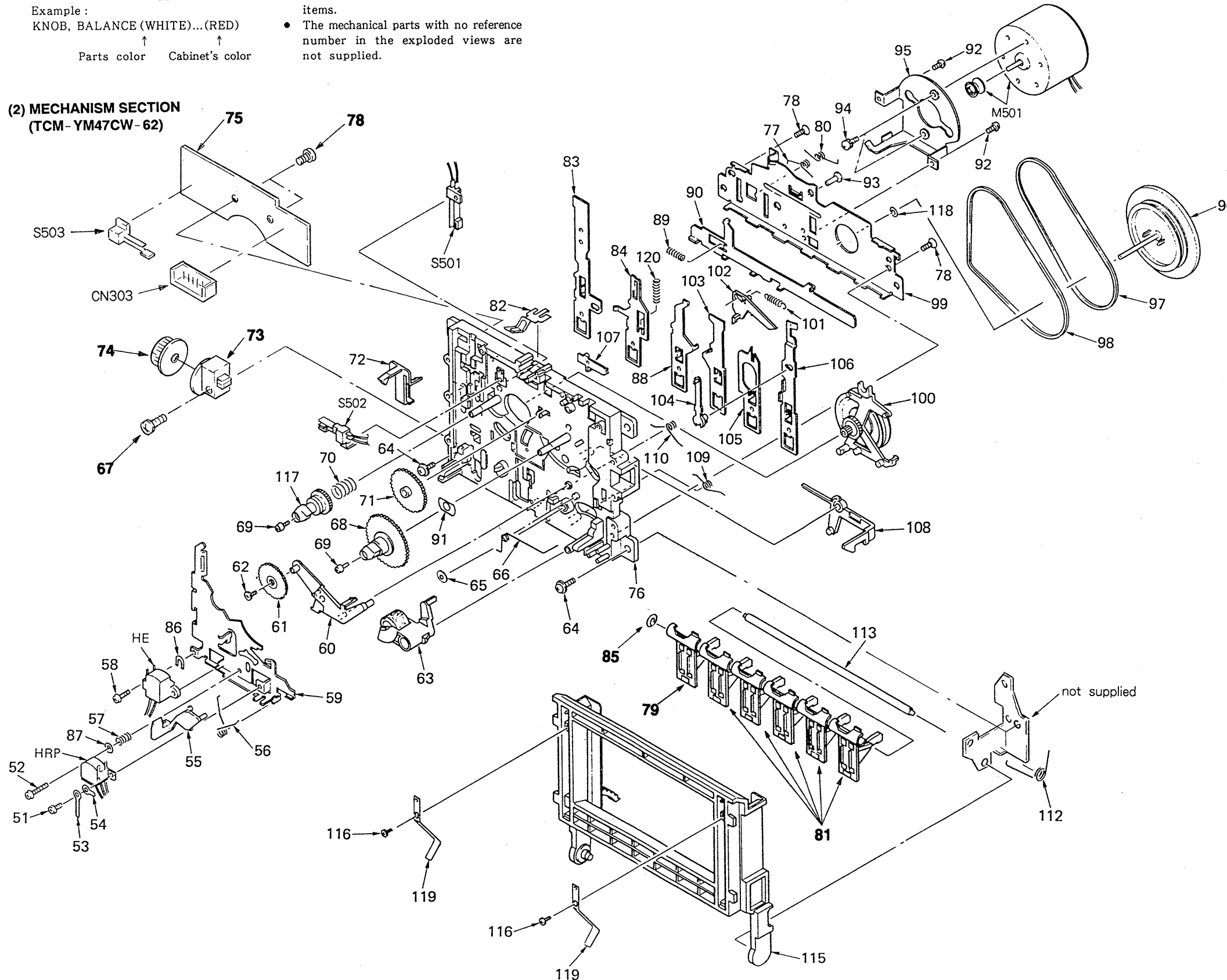
SECTION 5 EXPLODED VIEWS

NOTE:

- -XX, -X mean standardized parts, so they may have some differences from the original one.
- Color Indication of Appearance Parts
Example:
KNOB, BALANCE (WHITE)...(RED)
Parts color Cabinet's color

- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.

**(2) MECHANISM SECTION
(TCM-YM47CW-62)**



| Ref. No. | Part No. | Description | Remarks |
|----------|--------------|-----------------------------|---------|
| 51 | 7-621-255-15 | SCREW +P 2X3 | |
| 52 | 7-621-255-55 | SCREW, TOTSU P 2X8 | |
| * 53 | 3-390-819-01 | LUG | |
| 54 | 3-390-817-01 | LUG | |
| 55 | 4-894-956-01 | TAPE SENSOR | |
| 56 | 3-390-804-01 | SPRING, PINCH ARM | |
| 57 | 4-894-955-01 | C SPRING | |
| 58 | 7-685-852-01 | SCREW, BVTT 2X5 (S) | |
| * 59 | 4-894-957-01 | HEAD BASE B | |
| 60 | 4-894-962-01 | IDLER ARM | |
| 61 | 4-894-961-01 | IDLER GEAR | |
| 62 | 4-894-960-01 | BUSH | |
| 63 | 3-390-805-01 | ROLLER ASSY, PINCH | |
| 64 | 7-621-770-67 | SCREW, TOTSU PTTWH 2.6X6 | |
| 65 | 4-894-969-01 | N WASHER | |
| 66 | 4-894-967-01 | SPRING | |
| 67 | 7-621-772-68 | SCREW +BVTT 2X12 (S) | |
| 68 | 4-894-963-01 | T REEL ASSY | |
| 69 | 3-390-803-01 | BUSHING (D) | |
| 70 | 4-894-954-01 | C SPRING | |
| 71 | 4-894-964-01 | F GEAR | |
| 72 | 4-894-958-01 | INTERLOCK ARM | |
| * 73 | 3-392-143-01 | HOLDER, GEAR | |
| 74 | 3-392-144-01 | DAMPER, GEAR | |
| * 75 | 1-628-420-11 | PC BOARD, MAIN (A) | |
| 76 | 4-894-968-01 | CHASSIS ASSY | |
| 77 | 4-894-978-01 | SPRING | |
| 78 | 7-685-133-19 | SCREW +P 2.6X6 TYPE2 | |
| 79 | 3-392-147-01 | LEVER (R), BUTTON | |
| 80 | 4-894-979-01 | SPRING | |
| 81 | 3-392-140-01 | LEVER, BUTTON | |
| 82 | 4-894-966-01 | SPRING | |
| 83 | 4-894-994-01 | REC LEVER | |
| 84 | 3-390-810-01 | LEVER, PLAY | |
| 85 | 7-624-104-04 | STOP RING 2.0, TYPE -E | |
| 86 | 3-390-821-01 | SPACER | |
| 87 | 3-390-823-01 | WASHER, F | |
| * 88 | 4-894-990-01 | REW LEVER | |
| 89 | 4-894-983-01 | C SPRING | |
| * 90 | 4-894-984-01 | FUNCTION LEVER | |
| 91 | 3-390-820-01 | SPRING, LEAF | |
| 92 | 7-621-255-25 | SCREW +PTT 2X4 (S) | |
| 93 | 3-390-822-01 | BUSHING (C) | |
| 94 | 7-628-253-90 | SCREW +PS 2.6X4 | |
| * 95 | 3-390-814-01 | BRACKET, MOTOR | |
| 96 | 3-390-806-11 | FW ASSY | |
| 97 | 3-390-807-01 | BELT, SQUARE | |
| 98 | 3-561-892-00 | BELT, SQUARE | |
| * 99 | 4-894-977-01 | BACK PLATE | |
| 100 | 4-894-997-01 | POWER ARM ASSY | |
| 101 | 3-390-809-01 | SPRING | |
| 102 | 4-894-982-01 | S ARM | |
| * 103 | 4-894-988-01 | FF LEVER W | |
| 104 | 4-894-985-01 | PAUSE ARM | |
| * 105 | 4-894-987-01 | S.E LEVER | |
| * 106 | 4-894-986-01 | PAUSE LEVER | |
| 107 | 3-390-811-01 | LEVER, REC STOP | |
| 108 | 4-894-980-01 | EJECT ARM | |
| 109 | 4-894-989-01 | SPRING | |
| 110 | 4-894-999-01 | SPRING | |
| 112 | 3-392-142-01 | SPRING | |
| * 113 | 3-392-139-01 | SHAFT | |
| 115 | 3-390-801-01 | CASE, CASSETTE | |
| 116 | 7-685-103-19 | SCREW +P 2X5 TYPE2 NON-SLIT | |
| 117 | 4-894-953-01 | S REEL | |
| 118 | 4-894-976-01 | P WASHER | |
| 119 | 4-894-951-01 | KEEP PLATE | |
| 120 | 3-390-827-01 | SPRING | |
| * CN303 | 1-564-499-11 | PIN, CONNECTOR 6P | |
| HE | 1-543-261-11 | HEAD, ERASE (886-01-24) | |
| HRP | 1-543-424-21 | HEAD, MAGNETIC (REC/PB) | |
| M501 | X-3390-802-1 | MOTOR ASSY | |
| S501 | 1-572-394-11 | SWITCH, LEAF | |
| S502 | 1-571-555-11 | SWITCH, LEAF | |
| S503 | 1-571-714-11 | SWITCH, LEAF | |