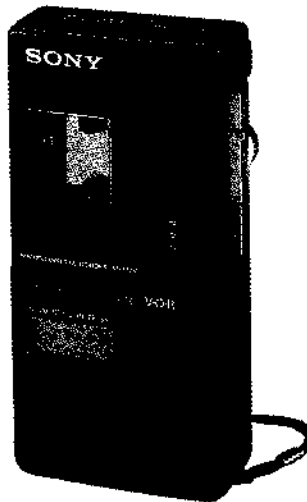


M-770V

SERVICE MANUAL

US Model
 Canadian Model
 AEP Model
 UK Model
 E Model



SPECIFICATIONS

Tape **MICROCASSETTE™** (normal position type)
 Recording system 2-track 1-channel monaural
 Speaker Approx. 2.8 cm (1 1/8 inches) dia.
 Tape speed 2.4 cm/s (15/16 ips),
 1.2 cm/s (15/32 ips)
 Frequency response 250–4,000 Hz (at 2.4 cm position)
 Input Microphone jack (minijack) (PLUG IN POWER)
 sensitivity 0.2 mV for 3 kilohms or lower
 impedance microphone
 Output Earphone jack (minijack) for 8–300 ohm
 earphone
 Power output 150 mW (at 10% harmonic distortion)
 Battery life (recording hours)

| | |
|-------------------------------|-------------|
| Sony battery SUM-3 (NS) | Approx. 3.5 |
| Sony alkaline battery AM3 (N) | Approx. 10 |

Power requirements 3 V DC, two R6 (size AA) batteries
 DC IN 3 V jack accepts;
 • Sony AC-D2M AC power adaptor (optional)
 available in AEP model for use on 220 V AC,
 50 Hz
 available in UK model for use on 240 V AC,
 50 Hz
 available in US and Canadian model for use
 on 120 V AC, 60 Hz
 available in E model for use on 120 V AC,
 60 Hz or 220 V AC, 50 Hz
 • Sony DCC-70 car battery cord (optional) for
 use with 12 V car battery
 Dimensions Approx. 67.2 × 128.4 × 29.4 mm (w/h/d)
 (2 3/4 × 5 1/8 × 1 3/16 inches)
 incl. projecting parts and controls
 Weight Approx. 210 g (7.5 oz.) incl. batteries
 Accessories supplied Handstrap (1)

Design and specifications subject to change without notice.

Note
 This appliance conforms with EEC Directive 87/308/EEC regarding
 interference suppression.

| | |
|------------------------------------|------------|
| Model Name Using Similar Mechanism | M-550V |
| Tape Transport Mechanism Type | MZ-770V-14 |

FEATURES

- Compact size and easy operation
- TIR (Time Index Recording) function shows the date and time of recording in the display window during tape playback.
- VOR (Voice Operated Recording) system economizes on tapes, batteries and your time.
- 3-digit tape counter helps you to locate a desired portion on the tape.
- You can start recording directly from the playback mode. This function is convenient to correct a previously recorded portion.
- Automatic shut-off mechanism

What is TIR (Time Index Recording) function?

The current date and time of your recording is automatically memorized on the tape during recording.
 When you play back the tape, the recorded date and time appear on the display window. You can easily identify the tape on which a conference or a lecture is recorded referring to your diary or memory.

What is VOR (Voice Operated Recording) system?

With this system, recording starts only when sound is picked up and stops automatically when sound is no longer detected.

Note: Use only the recommended AC power adaptor or car battery cord manufactured by Sony. Polarity of the plugs of other manufacturers may be different.



MICROCASSETTE™-CORDER
SONY®

SERVICING NOTE

FLEXIBLE CIRCUIT BOARD REPAIRING

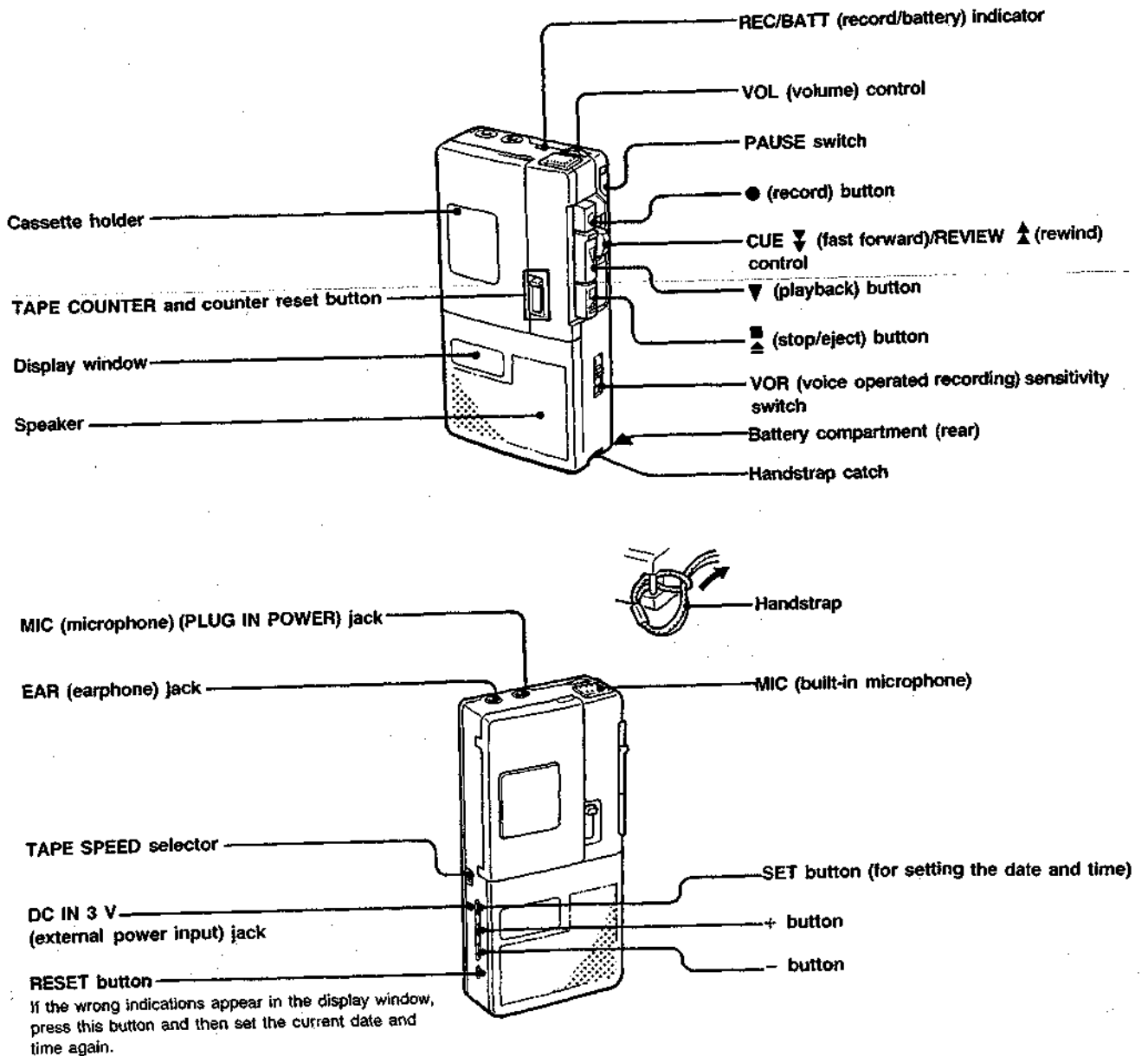
- Keep the temperature of the soldering iron around 270°C during repairing.
- Do not touch the soldering iron on the same conductor of the circuit board (within 3 times).
- Be careful not to apply force on the conductor when soldering or unsoldering.

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.

**SECTION 1
GENERAL**

1-1. Parts Identification

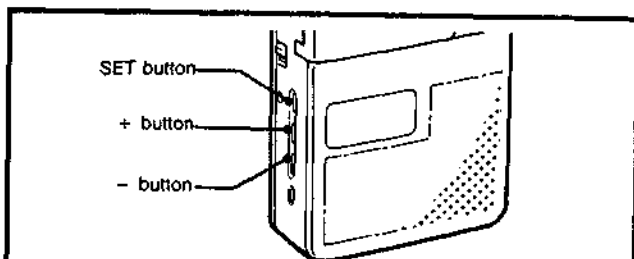


1-2. How to Set the Date/Time

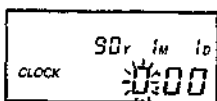
First, stop the tape with the  button.

You cannot set the clock during tape playback or recording.

Example: To set the time/date to 1:05 p.m. (i.e. 13:05), December 27, 1990.



- 1** Keep the SET button pressed more than three seconds to make the hour digit blink.

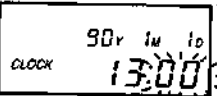


The clock indication of the initial mode is the 24-hour system. (Choose the 12- or 24-hour indication in step 5.)

- 2** Set the hour by pressing the + or - button. When the + or - button is kept pressed, the digits advance rapidly.

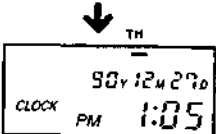
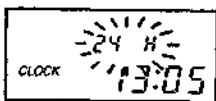


- 3** Press the SET button to make the minute digits blink.



- 4** Set the minute, month, day and year in the same way. First adjust the blinking item with + or - button, and then press the SET button. (The day of the week is automatically set when the year, month and the day are registered.)

- 5** Choose the 12- or 24-hour indication by pressing the + or - button. (A blinking "12H" and "24H" alternately appears with each press of the + or - button.) Then press the SET button. The date and time have been set completely. The clock will now start.



To change the date/time

Keep the SET button pressed for more than three seconds. (The hour digits start blinking.) Press the SET button several times to make the digits blink which you want to change. After changing the number, press the SET button several times until the clock begins to operate.

12-hour indication

AM 12:00 = Midnight
PM 12:00 = Noon

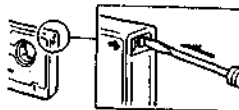
24-hour indication

0:00 = Midnight
12:00 = Noon

Notes on Microcassette

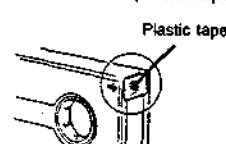
To protect cassettes from accidental erasure

Break out and remove the tab.

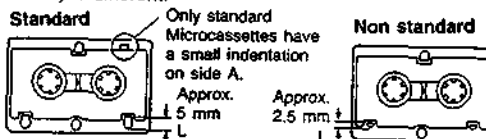


To reuse a cassette

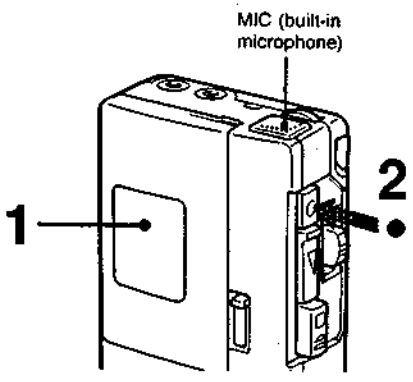
Cover the slot with plastic tape.



This unit uses only standard Microcassettes. Non standard cassettes cannot be used because their "L" dimension (see illustration) is different.



1-3. Recording with the Built-in Microphone

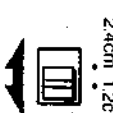


MIC (built-in microphone)

1

2


To select the desired tape speed



240cm
120cm

- For optimum sound (recommended for normal use)
A 60-minute recording can be made using both sides of the MC-60 Microcassette.
- For longer recording time
A 120-minute recording can be made using both sides of the MC-60 Microcassette.

Recording only when sound is picked up (VOR system)



VOR
LH
OFF

- VOR will operate even at a low sound level (Recommended for conferences)
- VOR will operate only at a high sound level (Recommended for dictations)
- For non-VOR recording

Recording with the TIR (Time Index Recording) function

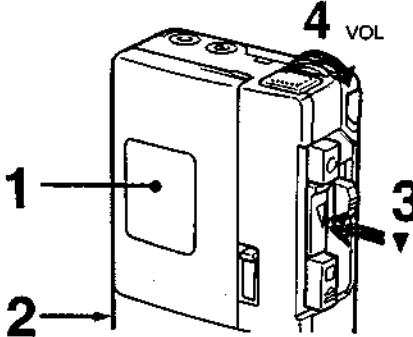
Simply depress the ● button. The ▼ button is depressed automatically and recording starts. The date and time of the recording is automatically memorized on the tape when recording is continued for 10 seconds or more. (The display shows current date and time during recording. The mark “-” between the hour digits and the minute digits stop blinking during recording and playback.)

Note
The TIR function activates only when recording has been done for more than 10 seconds.

Quick review function
Simply push up the CUE ▼ /REVIEW ▲ control towards REVIEW ▲ while recording. When the control is released, playback begins for review of the recorded material. Recorded time display will remain on the window for approx. 20 seconds after the CUE ▼ /REVIEW ▲ control is used.

To listen to the recorded sound
You can listen to the sound being recorded through the earphone (optional). (You can adjust the monitor volume with the VOL control.)

1-4. Playback



4 VOL

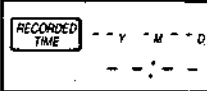
1

2 TAPE SPEED

3

The same tape speed as that used for recording.

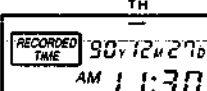
Depress the ▼ button. Playback starts.



RECORDED TIME -- Y -- M -- D

The date and time of recording (RECORDED TIME) will appear on the display window after several seconds. However, the time after which the display comes on may vary according to the recording condition.

If you stop the tape by pressing the ■ /▲ button, the display will go back to the current time indication after approx. 15 seconds.



TH
RECORDED TIME 907124276
AM 11:30

To rapidly advance the tape, slide the CUE ▼ /REVIEW ▲ control to CUE ▼.

To rewind the tape, slide the CUE ▼ /REVIEW ▲ control to REVIEW ▲.

When the earphone is plugged in
The speaker is automatically disconnected.

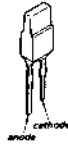
To skip over or repeat a certain portion during playback
Keep the CUE ▼ /REVIEW ▲ control pushed down or up with the ▼ button depressed. When the control is released, playback begins.

To start recording directly from playback mode
During playback, simply depress the ● button and the recorder will immediately change to the recording mode.

SECTION 3
DIAGRAMS

3-1. SEMICONDUCTOR LEAD LAYOUT

SLP159B



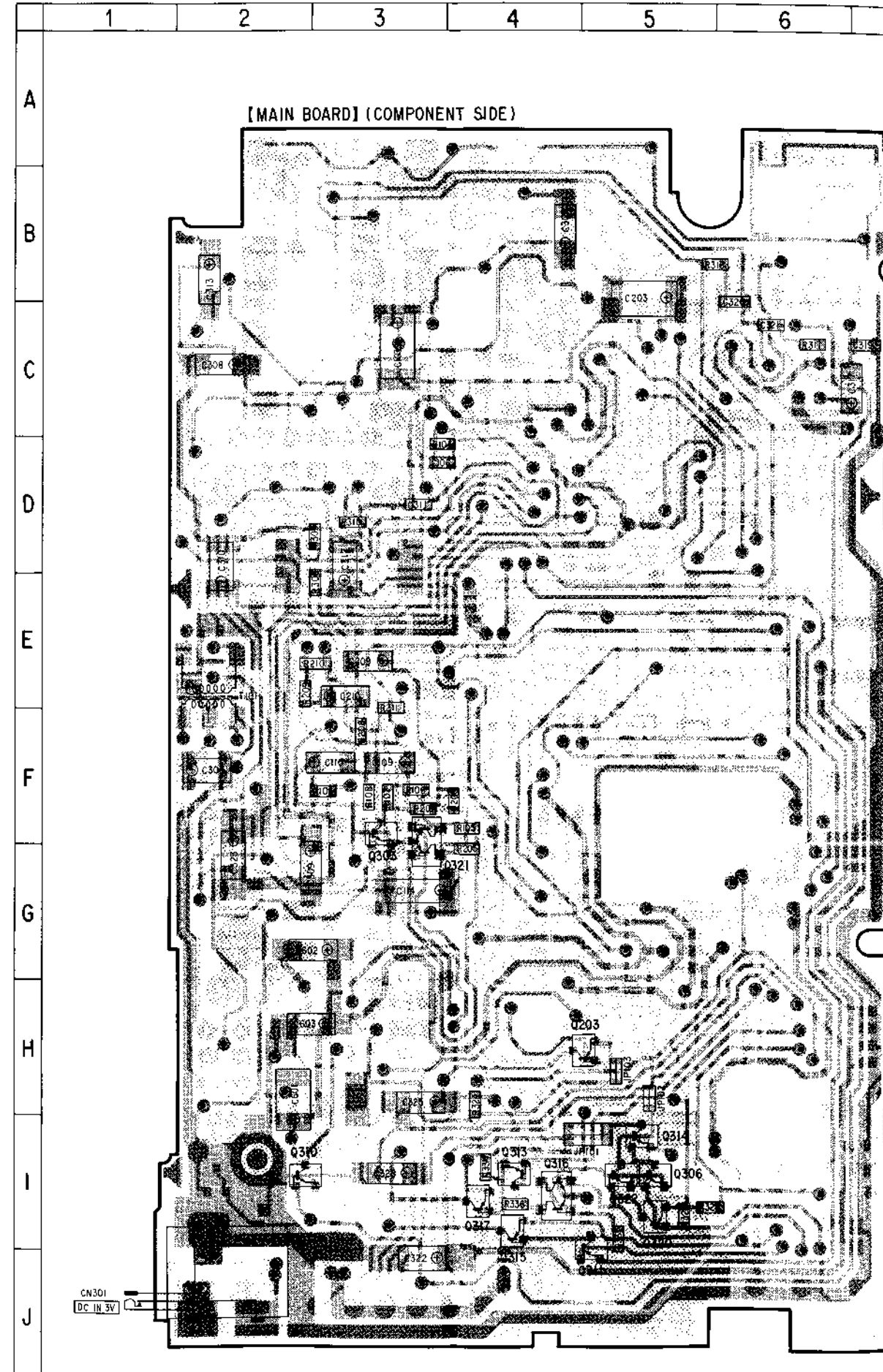
• Semiconductor Location

| Ref. No. | Location |
|----------|----------|
| D201 | H-9 |
| D301 | B-9 |
| IC301 | D-10 |
| IC302 | C-8 |
| IC303 | D-8 |
| IC304 | I-8 |
| IC305 | H-8 |
| IC306 | F-12 |
| IC307 | F-10 |
| IC308 | E-9 |
| IC309 | F-10 |
| IC310 | G-9 |
| IC601 | H-12 |
| Q101 | H-9 |
| Q102 | H-9 |
| Q103 | H-9 |
| Q201 | H-9 |
| Q202 | H-10 |
| Q203 | H-5 |
| Q301 | F-12 |
| Q302 | D-11 |
| Q303 | G-3 |
| Q304 | D-12 |
| Q305 | A-10 |
| Q306 | I-5 |
| Q307 | H-10 |
| Q308 | I-10 |
| Q309 | I-10 |
| Q310 | I-2 |
| Q311 | J-5 |
| Q312 | I-12 |
| Q313 | I-4 |
| Q314 | I-5 |
| Q315 | I-4 |
| Q316 | I-4 |
| Q317 | I-4 |
| Q318 | B-8 |
| Q319 | E-13 |
| Q320 | I-5 |
| Q321 | G-3 |
| Q322 | I-5 |

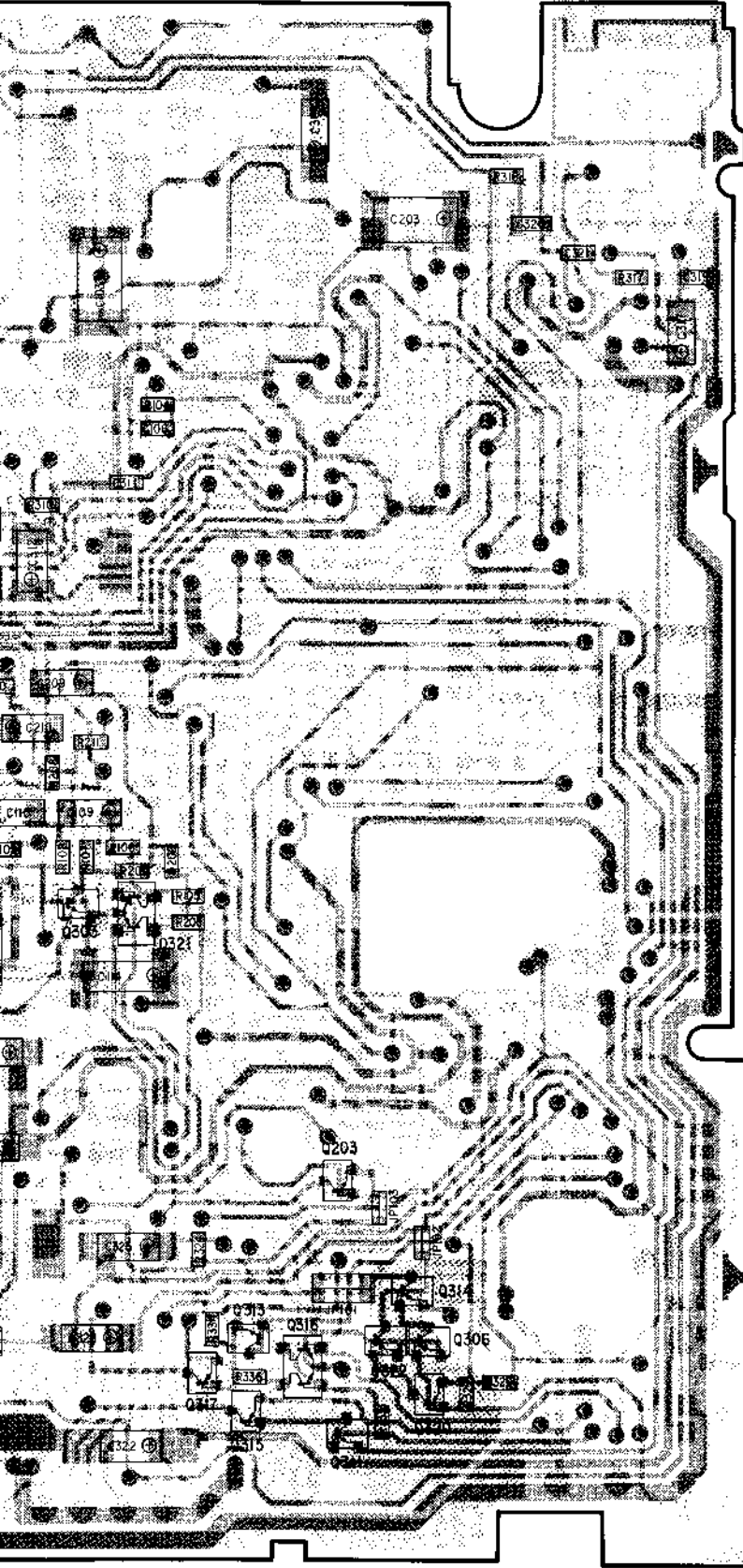
Note:

- — : parts extracted from the conductor side.
- [stippled pattern] : Pattern on the side which is seen.
- [cross-hatched pattern] : Pattern of the rear side.

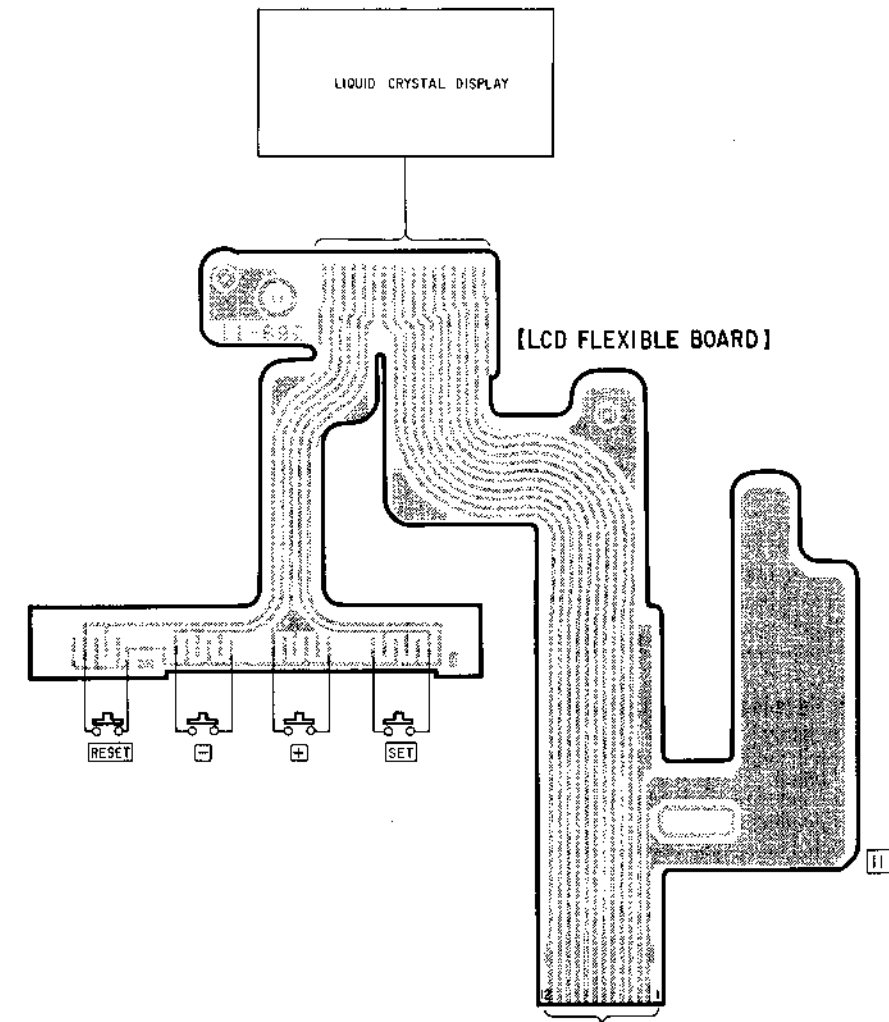
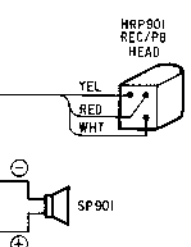
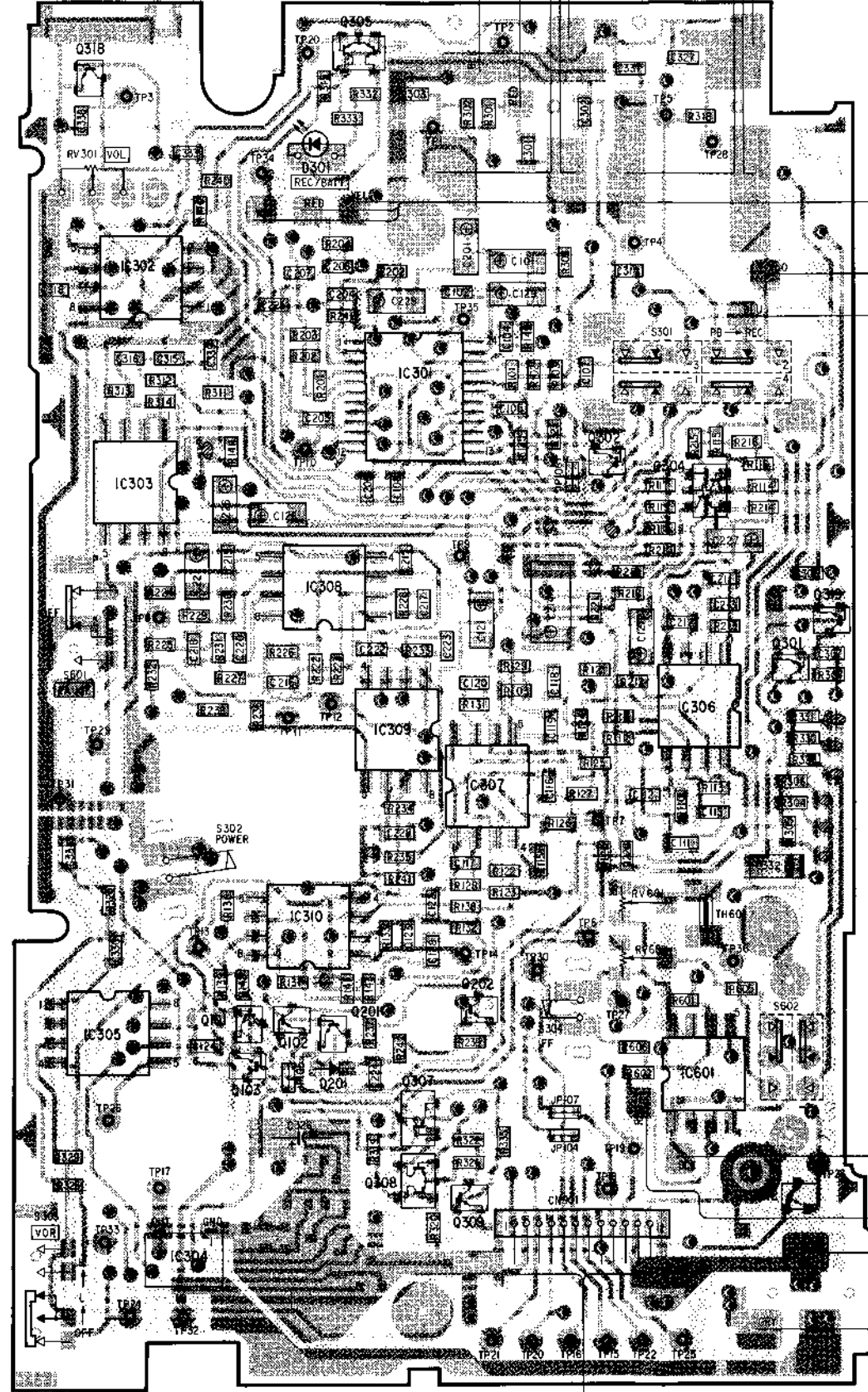
3-2. PRINTED WIRING BOARDS



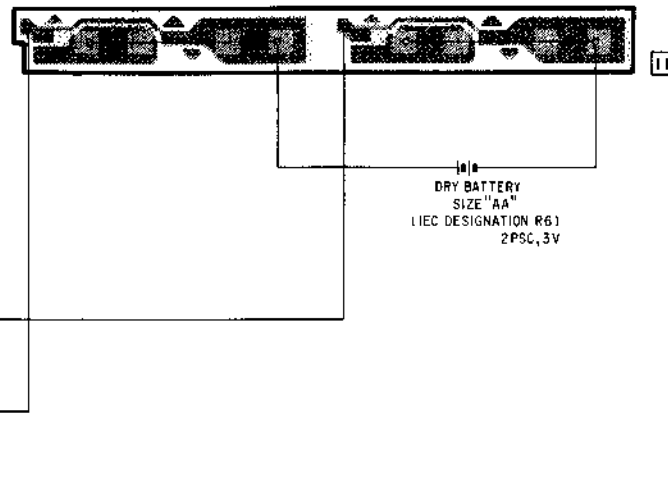
[BOARD] (COMPONENT SIDE)



[MAIN BOARD] (CONDUCTOR SIDE)



[BATT BOARD]



SECTION 2 ADJUSTMENTS

2-1. MECHANICAL MEASUREMENT

PRECAUTION

- Clean the following parts with a denatured-alcohol-moistened swab:
 - record/playback head pinch roller
 - erase head rubber belts
 - capstan
- Demagnetize the record/playback head with a head demagnetizer. (Do not bring the head demagnetizer close to the erase head.)
- Do not use a magnetized screwdriver for the adjustments.
- The adjustments should be performed with the rated power supply voltage (2.5V DC) unless otherwise noted.

Torque Measurement

TAPE SPEED switch: 2.4 cm

| Torque | Meter Reading | Torque Meter |
|--------------|---|--------------|
| Forward | 5-13g·cm (0.07-0.18oz·inch) | CQ-103M |
| Fast Forward | 5-13g·cm (0.07-0.18oz·inch) | CQ-201M |
| Rewind | more than 15g·cm (more than 0.21oz·inch) | CQ-201M |

Tape Tension Measurement

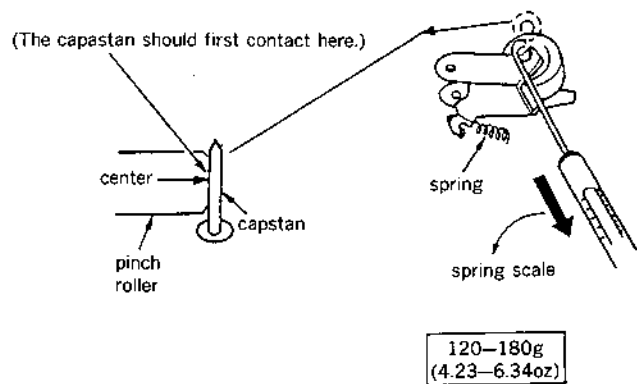
TAPE SPEED switch: 2.4 cm

| Meter | Meter Reading |
|---------|---|
| CQ-403M | more than 40g·cm (more than 0.56oz·inch) |

Pinch Roller Pressure Measurement

—Playback Mode—

Slowly return the pinch roller and read the spring scale just when the pinch roller starts rotating.



2-2. ELECTRICAL ADJUSTMENTS

Test Tape

| Type | Signal | Use |
|----------|--------------------|---------------------------------|
| S-2-A030 | 3kHz, -20dB | Record/playback Head Azimuth |
| WS-24 | 3kHz, -10dB | Tape Speed |
| TIR-2 | 32Hz, -34dB | TIR Playback Level |
| CS-50-2 | Tape for Recording | TIR Record Level |

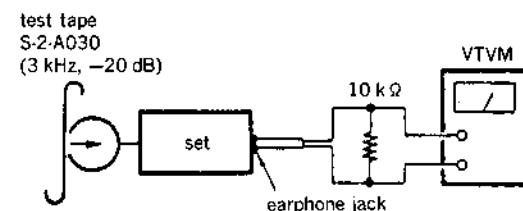
Record/playback Head Azimuth Adjustment

Setting:

VOLUME control: mechanical mid
TAPE SPEED switch: 2.4 cm/s
VOR switch: OFF

Procedure:

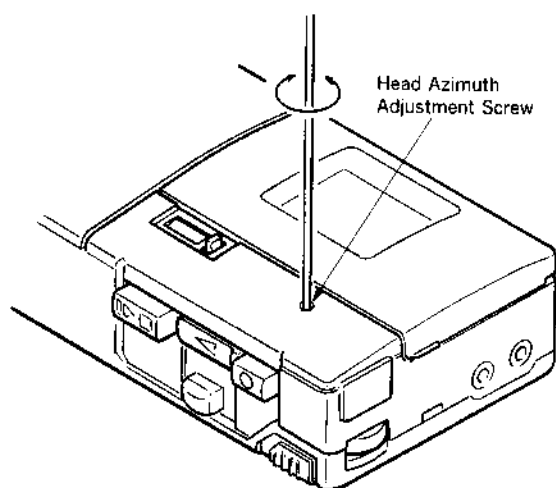
- Mode: playback



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

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

Adjustment Location:



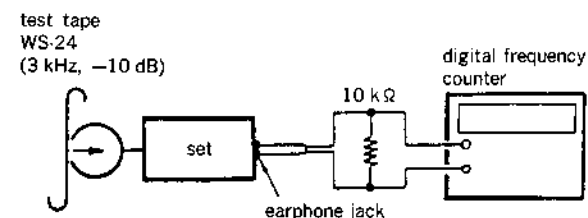
Tape Speed Adjustment

Setting:

VOLUME control: mechanical mid
VOR switch: OFF

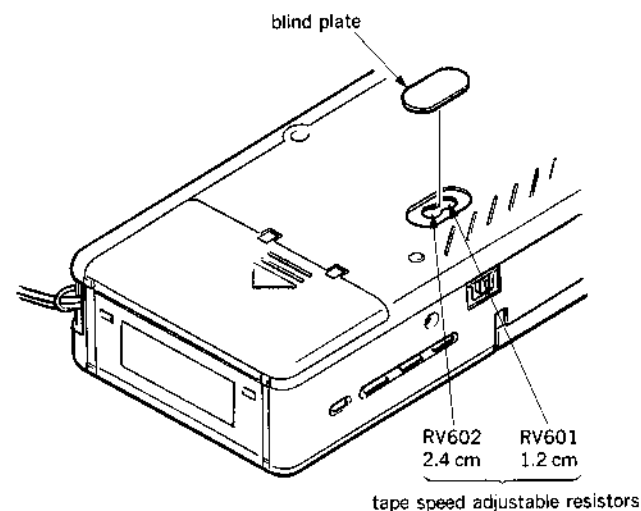
Procedure:

- Perform 2.4 cm/s speed adjustment before 1.2 cm/s speed adjustment.
- Mode: playback



| Tape speed | Digital frequency counter |
|------------|---------------------------|
| 2.4 cm/s | 2,985 - 3,015 Hz |
| 1.2 cm/s | 1,480 - 1,490 Hz |

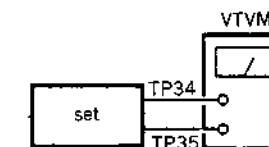
Adjustment Location:



Record Bias OSC Voltage Adjustment

Procedure:

- Connect 300Ω resistor between TP1 and TP2 on main board.
- Unsolder tap of R144.
- Mode: record



- Solder tap for adjustment so that the reading on VTVM is as follows.

| Tape speed | VTVM reading |
|------------|--------------|
| 2.4 cm/s | 50 ± 4 mV |
| 1.2 cm/s | 40 ± 4 mV |

- After adjustment, solder tap of R144 unsoldered in step 2. Disconnect 300Ω resistor connected in step 1.

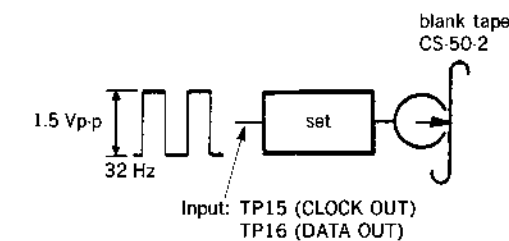
TIR Record Level Adjustment

Setting:

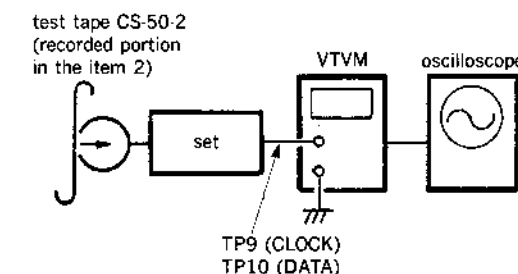
TAPE SPEED switch: 2.4 cm/s

Procedure:

- Connect 300Ω resistor between TP1 and TP2 on main board.
- Mode: record



- Mode: playback



- Solder tap for (CLOCK) and

| Bridge pattern | TP ou |
|----------------|-------|
| open | |
| ⓑ | |
| Ⓐ | |
| Ⓐ and ⓑ | |

- After adjustment step 1.

TIR Playback Le

Setting:

TAPE SPEED sw

Procedure:

- Mode: playba

test tape
TIR-2
(32 Hz, -



- Check output
- Solder tap for level.

| Measurement point |
|-------------------|
| TP14 (CLOCK) |
| TP12 (DATA) |

Note:
Detection level
ment. There f

4. Solder tap for adjustment so that each output of TP9 (CLOCK) and TP10 (DATA) is -43 ± 1.5 dB.

| Bridge pattern | TP9 (CLOCK) output level | Bridge pattern | TP10 (DATA) output level |
|----------------|--------------------------|----------------|--------------------------|
| open | decrease | open | decrease |
| Ⓟ | ↑ ↓ | Ⓧ | ↑ ↓ |
| Ⓜ | | Ⓨ | |
| Ⓛ and Ⓧ | | Ⓩ and Ⓨ | |
| | increase | | increase |

5. After adjustment, disconnect 300Ω resistor connected in step 1.

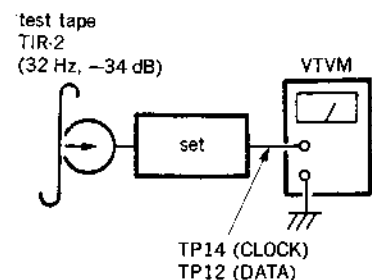
TIR Playback Level Adjustment

Setting:

TAPE SPEED switch: 2.4 cm/s

Procedure:

1. Mode: playback



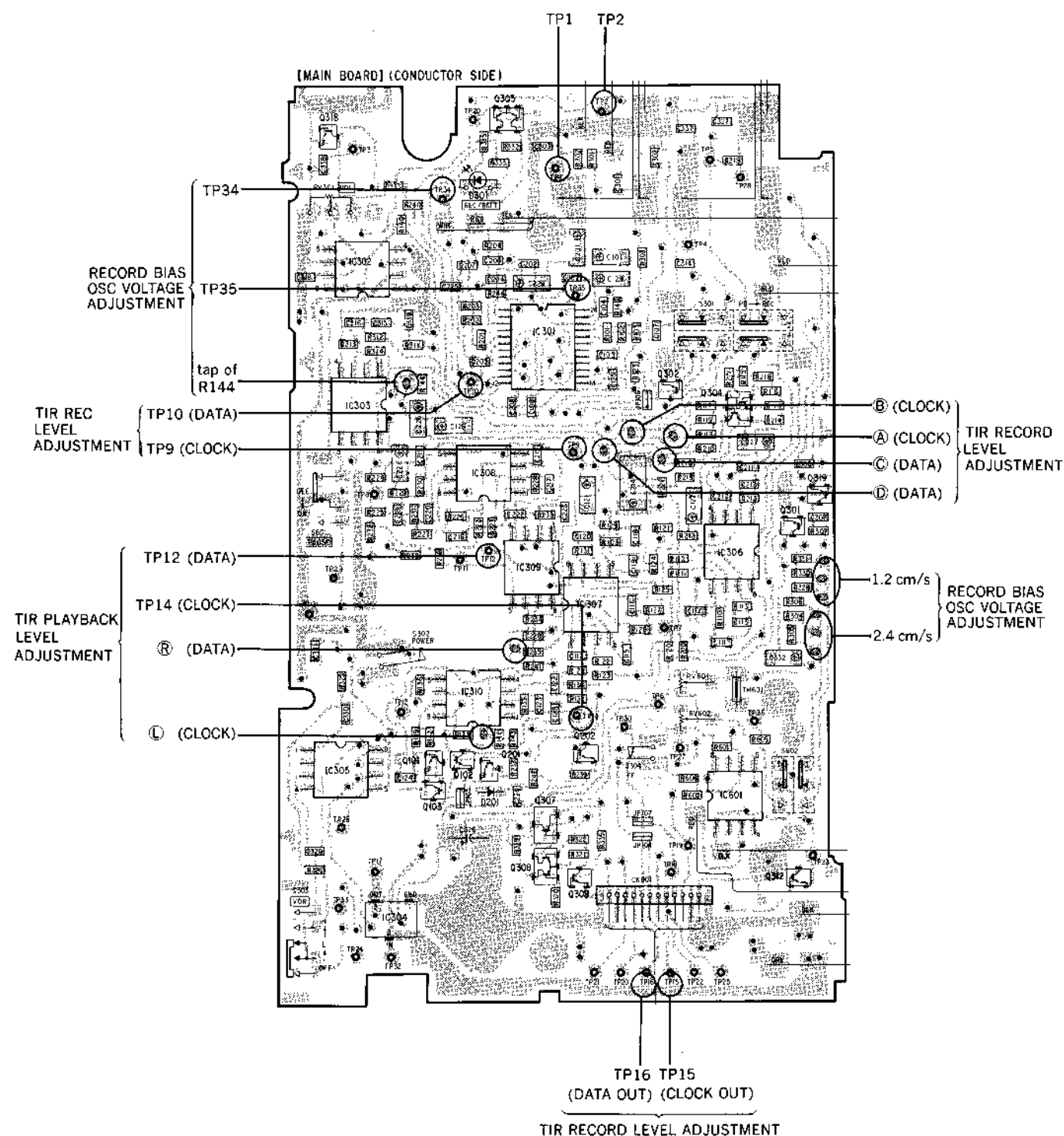
2. Check output level of TP14 (CLOCK) and TP12 (DATA).
3. Solder tap for adjustment as follows depending on output level.

| Measurement point | output level | tap for adjustment |
|-------------------|------------------------|--------------------|
| TP14 (CLOCK) | not more than -22 dB | Solder Ⓧ tap. |
| | not less than -23 dB | Unsolder Ⓧ tap. |
| TP12 (DATA) | not more than -22 dB | Solder Ⓨ tap. |
| | not less than -23 dB | Unsolder Ⓨ tap. |

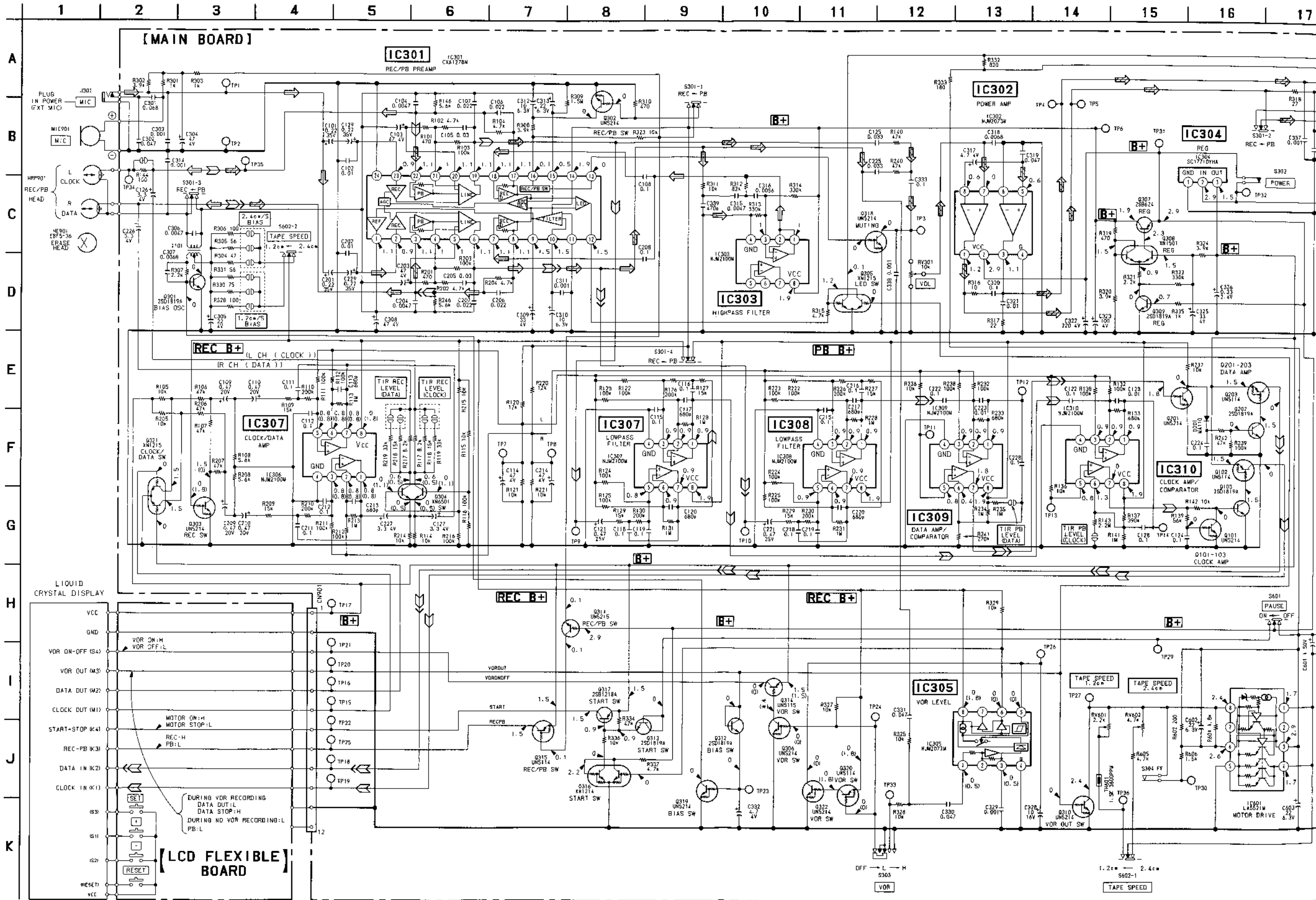
Note:

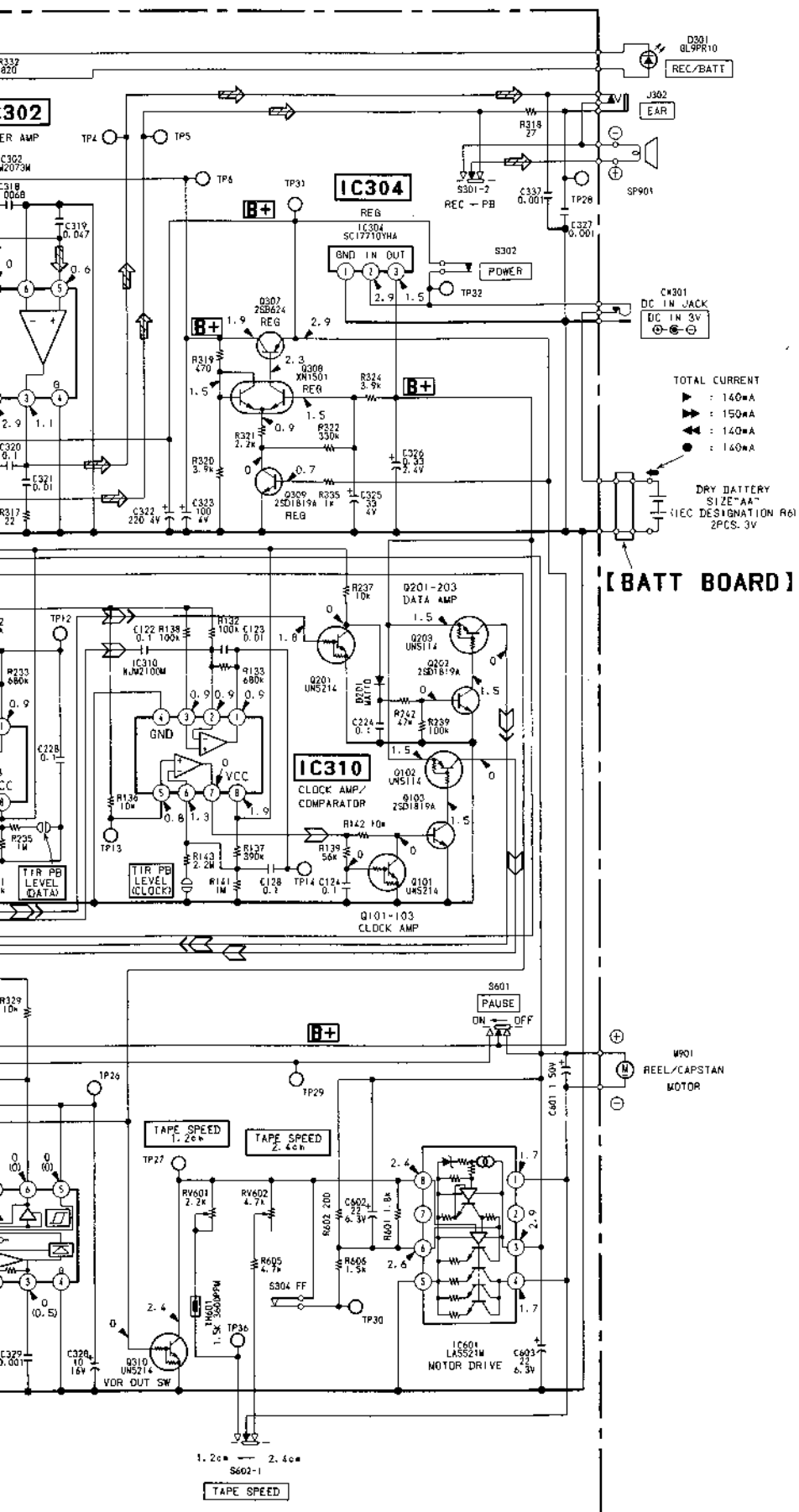
Detection level of comparator is changed by this adjustment. There for, output level is not changed.

Adjustment Location: main board



3-3. SCHEMATIC DIAGRAM





Note:

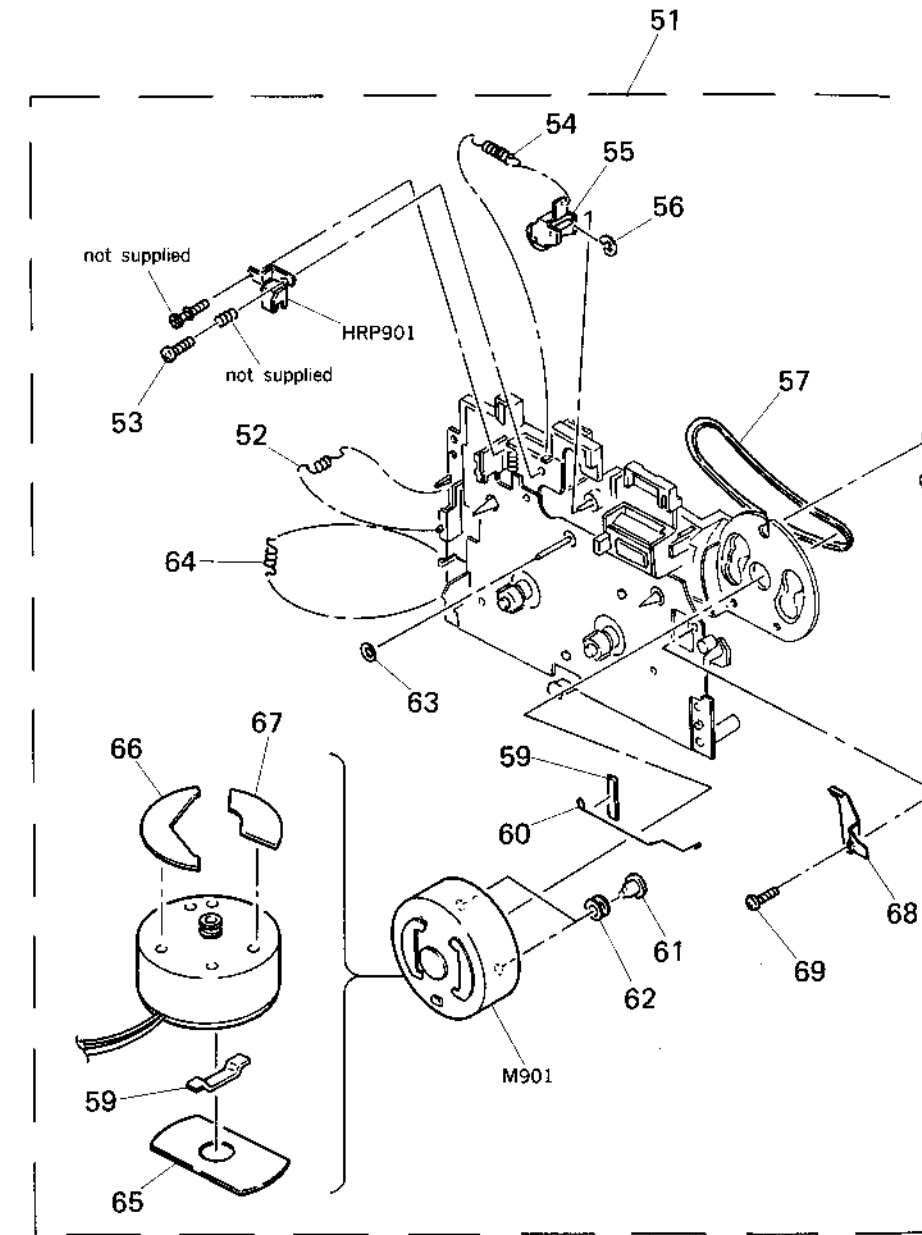
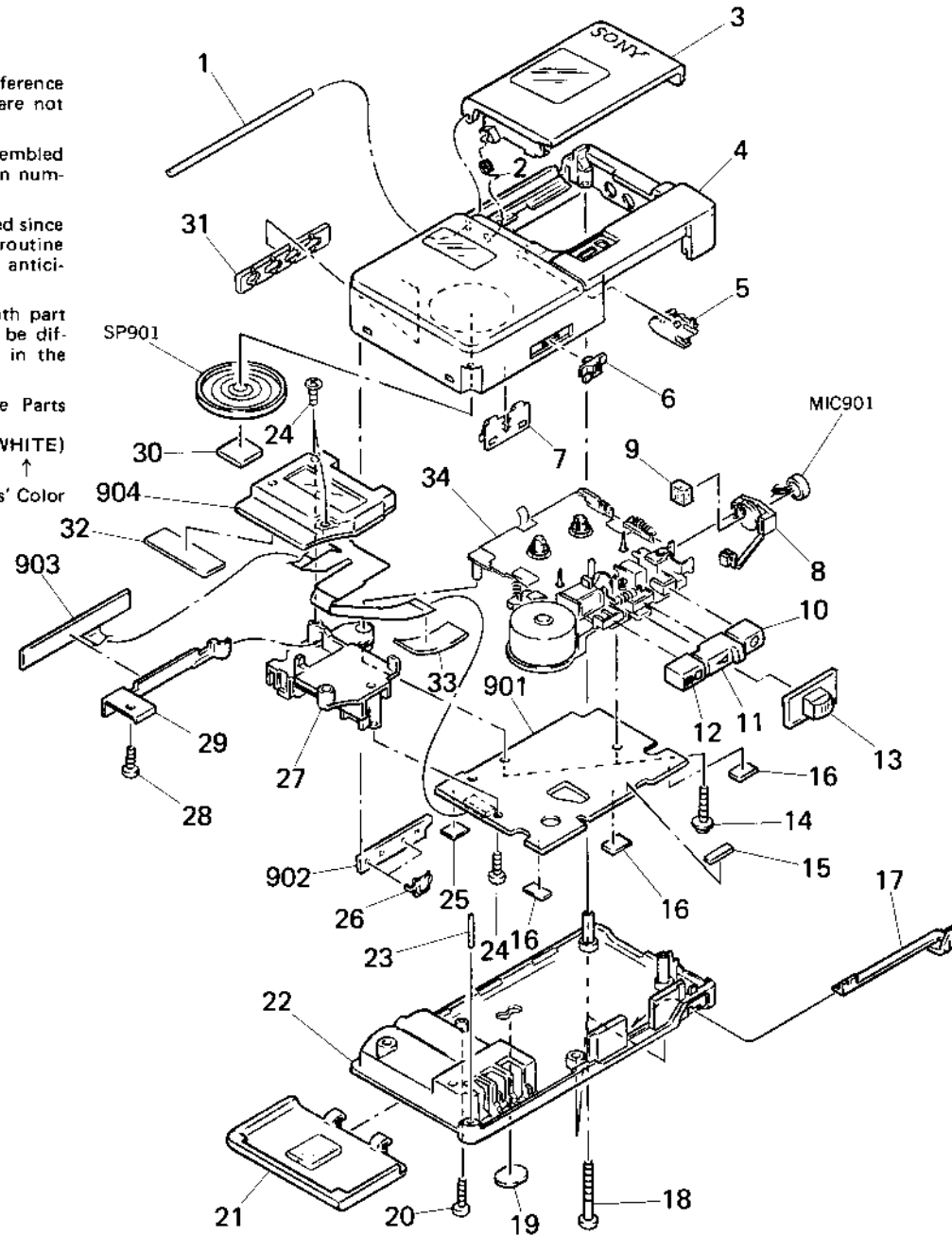
- All capacitors are in μF unless otherwise noted. pF: μF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and $1/4\text{W}$ or less unless otherwise specified.
- **B+** : B+ Line
- **□** : adjustment for repair.
- Power voltage is dc 3 V and fed with regulated dc power supply from the battery terminal.
- Voltages are taken with a VOM (Input Impedance $10\text{M}\Omega$). Voltage variations may be noted due to normal production tolerances. no mark:PB ():REC (*):REC Marked * is not able to measure the voltage of its position.
- Signal path.
 - ▷ : REC
 - ▷ : PB
 - ▷ : CLOCK
 - ▷ : DATA

[BATT BOARD]

SECTION 4
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

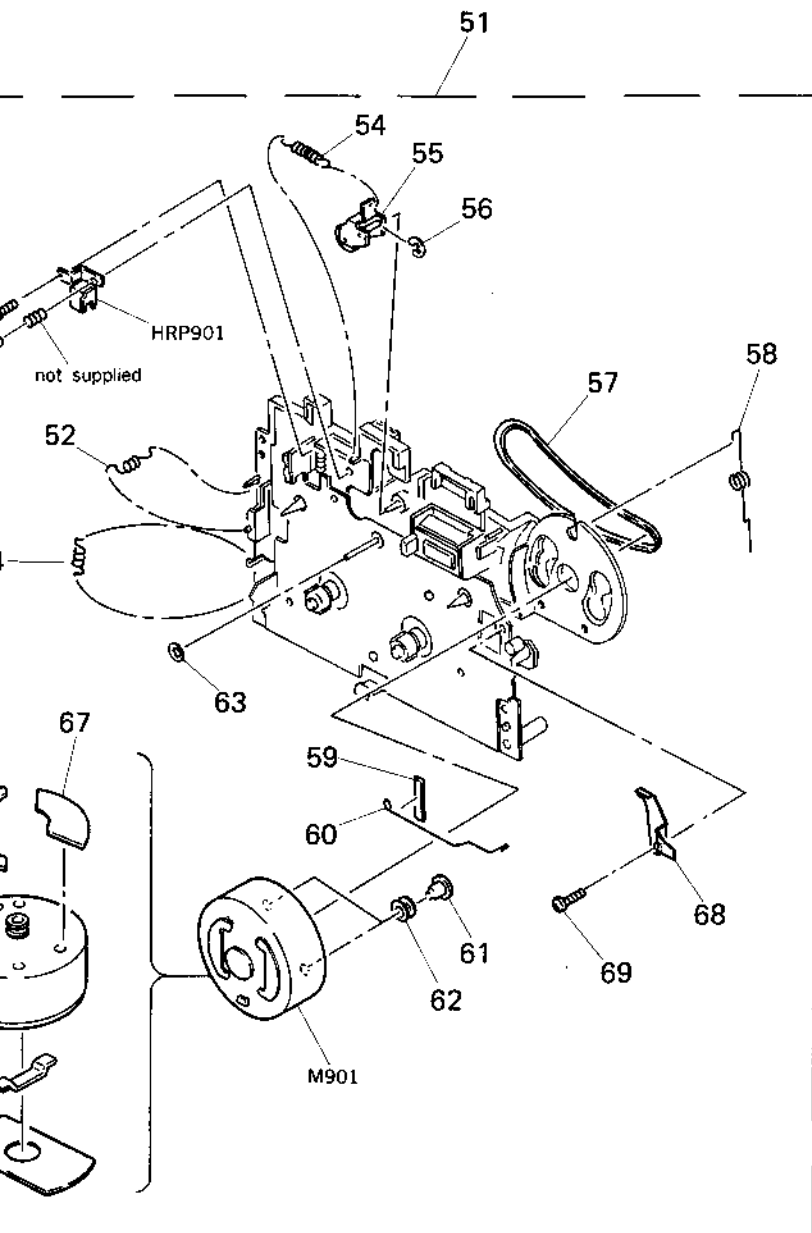


| No. | Part No. | Description |
|-----|---------------|------------------------|
| 1 | *3-576-075-21 | SHAFT, CASSETTE HOLDER |
| 2 | 3-358-362-01 | SPRING, TORSION |
| 3 | X-3342-150-1 | LID ASSY, CASSETTE |
| 4 | X-3342-156-1 | CABINET (FRONT) ASSY |
| 5 | 3-358-342-01 | LEVER (EJECT) |
| 6 | 3-358-343-01 | KNOB (VOR) |
| 7 | 3-576-074-00 | SPRING, BATTERY |
| 8 | 3-343-953-01 | HOLDER, MICROPHONE |
| 9 | 3-358-370-01 | CUSHION (MIC) |
| 10 | 3-342-164-01 | BUTTON (REC) |
| 11 | 3-342-165-01 | BUTTON (PLAY) |
| 12 | 3-342-166-01 | BUTTON (STOP) |
| 13 | 3-342-168-01 | BUTTON (F/R) |
| 14 | 3-342-156-21 | SCREW |
| 15 | *3-358-365-01 | SPACER (P) |
| 16 | 3-831-441-11 | CUSHION (B) |
| 17 | 3-358-341-01 | KNOB (PAUSE) |
| 18 | 3-357-509-01 | SCREW (+1.7), TAPPING |
| 19 | 3-342-155-11 | PLATE, BLIND |
| 20 | 3-358-367-01 | SCREW (M1.7), TAPPING |
| 21 | X-3342-155-1 | LID ASSY, BATTERY CASE |

| No. | Part No. | Description | Remarks |
|--------|---------------|--------------------------------|-------------------|
| 22 | X-3342-154-1 | CABINET (REAR) ASSY | |
| 23 | 3-576-082-00 | PIN, PARALLEL | |
| 24 | 3-318-203-71 | SCREW (B1.7X5), TAPPING | |
| 25 | 3-831-441-XX | CUSHION, 10X7X0.3 | |
| 26 | 3-358-345-01 | TERMINAL, BATTERY | |
| 27 | *3-358-340-01 | HOLDER (LCD) | |
| 28 | 3-318-203-71 | SCREW (B1.7X5), TAPPING | |
| 29 | *3-358-339-01 | BRACKET (LCD BUTTON) | |
| 30 | 9-911-845-XX | CUSHION (A) | |
| 31 | 3-352-494-01 | BUTTON (LCD) | |
| 32 | 3-358-360-01 | SPACER | |
| 33 | *3-358-366-01 | SPACER (B) | |
| 34 | A-3013-446-A | MECHANISM ASSY (MZ-770V-14) | 52-69,HRP901,M901 |
| 901 | A-3015-874-A | MOUNTED PCB, MAIN | |
| 902 | *1-634-254-11 | PC BOARD, BATT | |
| 903 | 1-634-389-11 | PC BOARD, LCD FLEXIBLE | |
| 904 | 1-808-987-11 | DISPLAY PANEL, LIQUID CRYSTAL | |
| MIC901 | 1-542-136-11 | MICROPHONE, ELECTRET CONDENSER | |
| SP901 | 1-544-321-11 | SPEAKER | |

| No. | Part No. | Description | Remarks |
|--------|--------------|-----------------------------|-------------------|
| 51 | A-3013-446-A | MECHANISM ASSY (MZ-770V-14) | 52-69,HRP901,M901 |
| 52 | 3-342-102-01 | SPRING, TENSION | |
| 53 | 3-318-203-31 | SCREW (B1.7X8), TAPPING | |
| 54 | 3-342-173-01 | SPRING, TENSION | |
| 55 | X-3342-102-1 | PINCH LEVER ASSY | |
| 56 | 3-590-768-00 | RING (A), E | |
| 57 | 3-343-966-01 | BELT | |
| 58 | 3-358-324-01 | SPRING, SWITCH ARM | |
| 59 | 3-485-330-11 | FELT | |
| 60 | 3-358-348-01 | SPRING (M GROUND) | |
| 61 | 3-309-836-01 | SHAFT, FITTING | |
| 62 | 3-570-770-00 | CUSHION (A), 1 | |
| 63 | 3-315-384-41 | WASHER, STOPPI | |
| 64 | 3-342-186-01 | SPRING, TENSION | |
| 65 | 3-342-050-11 | RUBBER (A), V | |
| 66 | 3-342-075-01 | SPACER, MOTOR | |
| 67 | 3-352-476-01 | SHEET (MOTOR) | |
| 68 | 3-358-350-01 | SPRING (GROUND) | |
| 69 | 7-627-850-67 | SCREW, PRECIS | |
| HRP901 | 1-543-725-11 | HEAD (RECORD/I | |
| M901 | 1-541-738-11 | MOTOR | |

SECTION 5
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: μF , PF: $\mu\mu F$.

RESISTORS

- All resistors are in ohms.
- F: nonflammable

COILS

- MMH: mH, UH: μH

SEMICONDUCTORS

In each case, U: μ , for example:

UA...: μA ..., UPA...: μPA ...,
UPC...: μPC , UPD...: μPD ...

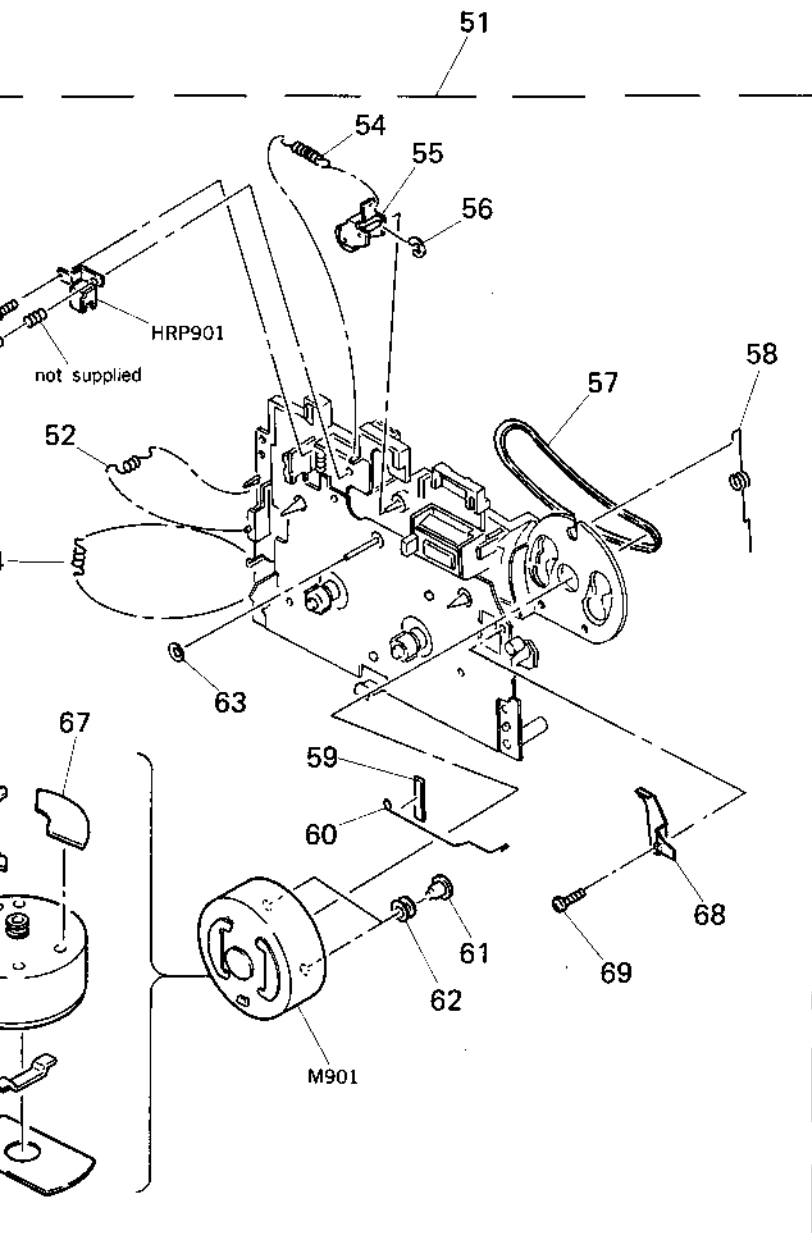
| Ref.No. | Part No. | Description | | | |
|---------|---------------|-------------------------------|-----|-----|--|
| 901 | A-3015-874-A | MOUNTED PCB, MAIN | | | |
| 902 | *1-634-254-11 | PC BOARD, BATT | | | |
| 903 | 1-634-389-11 | PC BOARD, LCD FLEXIBLE | | | |
| 904 | 1-808-987-11 | DISPLAY PANEL, LIQUID CRYSTAL | | | |
| C101 | 1-135-072-21 | TANTAL. CHIP 0.22MF | 20% | 35V | |
| C102 | 1-162-970-11 | CERAMIC CHIP 0.01MF | 10% | 25V | |
| C103 | 1-135-163-21 | TANTAL. CHIP 47MF | 10% | 4V | |
| C104 | 1-162-968-11 | CERAMIC CHIP 0.0047MF | 10% | 50V | |
| C105 | 1-163-810-00 | CERAMIC CHIP 0.03MF | 10% | 25V | |
| C106 | 1-162-995-11 | CERAMIC CHIP 0.022MF | | 50V | |
| C107 | 1-162-995-11 | CERAMIC CHIP 0.022MF | | 50V | |
| C108 | 1-163-038-00 | CERAMIC CHIP 0.1MF | | 25V | |
| C109 | 1-135-192-21 | TANTAL. CHIP 0.47MF | 10% | 20V | |
| C110 | 1-135-192-21 | TANTAL. CHIP 0.47MF | 10% | 20V | |
| C111 | 1-164-004-11 | CERAMIC CHIP 0.1MF | 10% | 25V | |
| C112 | 1-164-004-11 | CERAMIC CHIP 0.1MF | 10% | 25V | |
| C113 | 1-162-963-11 | CERAMIC CHIP 680PF | 10% | 50V | |
| C114 | 1-135-163-21 | TANTAL. CHIP 47MF | 10% | 4V | |
| C115 | 1-164-004-11 | CERAMIC CHIP 0.1MF | 10% | 25V | |
| C116 | 1-164-004-11 | CERAMIC CHIP 0.1MF | 10% | 25V | |
| C117 | 1-162-963-11 | CERAMIC CHIP 680PF | 10% | 50V | |
| C118 | 1-164-004-11 | CERAMIC CHIP 0.1MF | 10% | 25V | |
| C119 | 1-164-004-11 | CERAMIC CHIP 0.1MF | 10% | 25V | |
| C120 | 1-162-963-11 | CERAMIC CHIP 680PF | 10% | 50V | |
| C121 | 1-135-145-11 | TANTAL. CHIP 0.47MF | 10% | 25V | |
| C122 | 1-164-004-11 | CERAMIC CHIP 0.1MF | 10% | 25V | |
| C123 | 1-162-970-11 | CERAMIC CHIP 0.01MF | 10% | 25V | |
| C124 | 1-164-004-11 | CERAMIC CHIP 0.1MF | 10% | 25V | |
| C125 | 1-163-034-00 | CERAMIC CHIP 0.033MF | | 50V | |
| C126 | 1-135-180-21 | TANTAL. CHIP 3.3MF | 20% | 4V | |
| C127 | 1-135-180-21 | TANTAL. CHIP 3.3MF | 20% | 4V | |
| C128 | 1-164-004-11 | CERAMIC CHIP 0.1MF | 10% | 25V | |
| C129 | 1-135-072-21 | TANTAL. CHIP 0.22MF | 20% | 35V | |
| C201 | 1-135-072-21 | TANTAL. CHIP 0.22MF | 20% | 35V | |
| C202 | 1-162-970-11 | CERAMIC CHIP 0.01MF | 10% | 25V | |
| C203 | 1-135-163-21 | TANTAL. CHIP 47MF | 10% | 4V | |
| C204 | 1-162-968-11 | CERAMIC CHIP 0.0047MF | 10% | 50V | |
| C205 | 1-163-810-00 | CERAMIC CHIP 0.03MF | 10% | 25V | |
| C206 | 1-162-995-11 | CERAMIC CHIP 0.022MF | | 50V | |
| C207 | 1-162-995-11 | CERAMIC CHIP 0.022MF | | 50V | |
| C208 | 1-163-038-00 | CERAMIC CHIP 0.1MF | | 25V | |
| C209 | 1-135-192-21 | TANTAL. CHIP 0.47MF | 10% | 20V | |
| C210 | 1-135-192-21 | TANTAL. CHIP 0.47MF | 10% | 20V | |
| C211 | 1-164-004-11 | CERAMIC CHIP 0.1MF | 10% | 25V | |
| C212 | 1-164-004-11 | CERAMIC CHIP 0.1MF | 10% | 25V | |
| C213 | 1-162-963-11 | CERAMIC CHIP 680PF | 10% | 50V | |

| Ref.No. | Part No. | Description | | | |
|---------|--------------|-----------------------|-----|------|--|
| C214 | 1-135-163-21 | TANTAL. CHIP 47MF | 10% | 4V | |
| C215 | 1-164-004-11 | CERAMIC CHIP 0.1MF | 10% | 25V | |
| C216 | 1-164-004-11 | CERAMIC CHIP 0.1MF | 10% | 25V | |
| C217 | 1-162-963-11 | CERAMIC CHIP 680PF | 10% | 50V | |
| C218 | 1-164-004-11 | CERAMIC CHIP 0.1MF | 10% | 25V | |
| C219 | 1-164-004-11 | CERAMIC CHIP 0.1MF | 10% | 25V | |
| C220 | 1-162-963-11 | CERAMIC CHIP 680PF | 10% | 50V | |
| C221 | 1-135-145-11 | TANTAL. CHIP 0.47MF | 10% | 25V | |
| C222 | 1-164-004-11 | CERAMIC CHIP 0.1MF | 10% | 25V | |
| C223 | 1-162-970-11 | CERAMIC CHIP 0.01MF | 10% | 25V | |
| C224 | 1-164-004-11 | CERAMIC CHIP 0.1MF | 10% | 25V | |
| C225 | 1-163-034-00 | CERAMIC CHIP 0.033MF | | 50V | |
| C226 | 1-135-180-21 | TANTAL. CHIP 3.3MF | 20% | 4V | |
| C227 | 1-135-180-21 | TANTAL. CHIP 3.3MF | 20% | 4V | |
| C228 | 1-164-004-11 | CERAMIC CHIP 0.1MF | 10% | 25V | |
| C229 | 1-135-072-21 | TANTAL. CHIP 0.22MF | 20% | 35V | |
| C301 | 1-163-833-00 | CERAMIC CHIP 0.068MF | 10% | 25V | |
| C302 | 1-163-035-00 | CERAMIC CHIP 0.047MF | | 50V | |
| C303 | 1-162-971-11 | CERAMIC CHIP 0.001MF | | 50V | |
| C304 | 1-126-607-11 | ELECT 47MF | 20% | 4V | |
| C305 | 1-135-202-21 | TANTAL. CHIP 22MF | 20% | 4V | |
| C306 | 1-162-968-11 | CERAMIC CHIP 0.0047MF | 10% | 50V | |
| C307 | 1-162-969-11 | CERAMIC CHIP 0.0068MF | 10% | 25V | |
| C308 | 1-126-607-11 | ELECT 47MF | 20% | 4V | |
| C309 | 1-126-606-11 | ELECT 33MF | 20% | 4V | |
| C310 | 1-126-591-11 | ELECT CHIP 10MF | 20% | 6.3V | |
| C311 | 1-162-971-11 | CERAMIC CHIP 0.001MF | | 50V | |
| C312 | 1-126-591-11 | ELECT CHIP 10MF | 20% | 6.3V | |
| C313 | 1-126-605-11 | ELECT 22MF | 20% | 6.3V | |
| C314 | 1-162-971-11 | CERAMIC CHIP 0.001MF | | 50V | |
| C315 | 1-162-968-11 | CERAMIC CHIP 0.0047MF | 10% | 50V | |
| C316 | 1-164-172-11 | CERAMIC CHIP 0.0056MF | 5% | 25V | |
| C317 | 1-135-151-21 | TANTAL. CHIP 4.7MF | 20% | 4V | |
| C318 | 1-162-969-11 | CERAMIC CHIP 0.0068MF | 10% | 25V | |
| C319 | 1-163-035-00 | CERAMIC CHIP 0.047MF | | 50V | |
| C320 | 1-163-038-00 | CERAMIC CHIP 0.1MF | | 25V | |
| C321 | 1-162-970-11 | CERAMIC CHIP 0.01MF | 10% | 25V | |
| C322 | 1-126-246-11 | ELECT 220MF | 20% | 4V | |
| C323 | 1-126-209-11 | ELECT CHIP 100MF | 20% | 4V | |
| C325 | 1-126-606-11 | ELECT 33MF | 20% | 4V | |
| C326 | 1-126-607-11 | ELECT(8LOCK) 0.33F | | 2.4V | |
| C327 | 1-162-964-11 | CERAMIC CHIP 0.001MF | 10% | 50V | |
| C328 | 1-126-604-11 | ELECT 10MF | 20% | 16V | |
| C329 | 1-162-971-11 | CERAMIC CHIP 0.001MF | | 50V | |
| C330 | 1-163-035-00 | CERAMIC CHIP 0.047MF | | 50V | |

| Remarks | No. | Part No. | Description |
|-------------------|--------|--------------|---------------------------|
| ASSY (M2-770V-14) | 61 | 3-309-836-01 | SHAFT, FITTING, MOTOR |
| 52-69,HRP901,M901 | 62 | 3-570-770-00 | CUSHION (A), MOTOR |
| ENSION | 63 | 3-315-384-41 | WASHER, STOPPER |
| 7X8), TAPPING | 64 | 3-342-186-01 | SPRING, TENSION |
| ENSION | 65 | 3-342-050-11 | RUBBER (A), VIBRATION |
| ER ASSY | 66 | 3-342-075-01 | SPACER, MOTOR |
| E | 67 | 3-352-476-01 | SHEET (MOTOR) |
| ITCH ARM | 68 | 3-358-350-01 | SPRING (GROUND), LEAF |
| | 69 | 7-627-850-67 | SCREW, PRECISION +P 1.4X4 |
| (GROUND) | HRP901 | 1-543-725-11 | HEAD (RECORD/PLAYBACK) |
| | M901 | 1-541-738-11 | MOTOR |

Remarks

SECTION 5 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: μF , PF: $\mu\mu F$.

RESISTORS

- All resistors are in ohms.
- F: nonflammable

COILS

- MMH: mH, UH: μH

SEMICONDUCTORS

In each case, U: μ , for example:

UA...: μA ..., UPA...: μPA ...,
UPC...: μPC , UPD...: μPD ...

| Ref.No. | Part No. | Description | | | |
|---------|---------------|-------------------------------|-----|-----|--|
| 901 | A-3015-874-A | MOUNTED PCB, MAIN | | | |
| 902 | *1-634-254-11 | PC BOARD, BATT | | | |
| 903 | 1-634-389-11 | PC BOARD, LCD FLEXIBLE | | | |
| 904 | 1-808-987-11 | DISPLAY PANEL, LIQUID CRYSTAL | | | |
| C101 | 1-135-072-21 | TANTAL. CHIP 0.22MF | 20% | 35V | |
| C102 | 1-162-970-11 | CERAMIC CHIP 0.01MF | 10% | 25V | |
| C103 | 1-135-163-21 | TANTAL. CHIP 47MF | 10% | 4V | |
| C104 | 1-162-968-11 | CERAMIC CHIP 0.0047MF | 10% | 50V | |
| C105 | 1-163-810-00 | CERAMIC CHIP 0.03MF | 10% | 25V | |
| C106 | 1-162-995-11 | CERAMIC CHIP 0.022MF | | 50V | |
| C107 | 1-162-995-11 | CERAMIC CHIP 0.022MF | | 50V | |
| C108 | 1-163-038-00 | CERAMIC CHIP 0.1MF | | 25V | |
| C109 | 1-135-192-21 | TANTAL. CHIP 0.47MF | 10% | 20V | |
| C110 | 1-135-192-21 | TANTAL. CHIP 0.47MF | 10% | 20V | |
| C111 | 1-164-004-11 | CERAMIC CHIP 0.1MF | 10% | 25V | |
| C112 | 1-164-004-11 | CERAMIC CHIP 0.1MF | 10% | 25V | |
| C113 | 1-162-963-11 | CERAMIC CHIP 680PF | 10% | 50V | |
| C114 | 1-135-163-21 | TANTAL. CHIP 47MF | 10% | 4V | |
| C115 | 1-164-004-11 | CERAMIC CHIP 0.1MF | 10% | 25V | |
| C116 | 1-164-004-11 | CERAMIC CHIP 0.1MF | 10% | 25V | |
| C117 | 1-162-963-11 | CERAMIC CHIP 680PF | 10% | 50V | |
| C118 | 1-164-004-11 | CERAMIC CHIP 0.1MF | 10% | 25V | |
| C119 | 1-164-004-11 | CERAMIC CHIP 0.1MF | 10% | 25V | |
| C120 | 1-162-963-11 | CERAMIC CHIP 680PF | 10% | 50V | |
| C121 | 1-135-145-11 | TANTAL. CHIP 0.47MF | 10% | 25V | |
| C122 | 1-164-004-11 | CERAMIC CHIP 0.1MF | 10% | 25V | |
| C123 | 1-162-970-11 | CERAMIC CHIP 0.01MF | 10% | 25V | |
| C124 | 1-164-004-11 | CERAMIC CHIP 0.1MF | 10% | 25V | |
| C125 | 1-163-034-00 | CERAMIC CHIP 0.033MF | | 50V | |
| C126 | 1-135-180-21 | TANTAL. CHIP 3.3MF | 20% | 4V | |
| C127 | 1-135-180-21 | TANTAL. CHIP 3.3MF | 20% | 4V | |
| C128 | 1-164-004-11 | CERAMIC CHIP 0.1MF | 10% | 25V | |
| C129 | 1-135-072-21 | TANTAL. CHIP 0.22MF | 20% | 35V | |
| C201 | 1-135-072-21 | TANTAL. CHIP 0.22MF | 20% | 35V | |
| C202 | 1-162-970-11 | CERAMIC CHIP 0.01MF | 10% | 25V | |
| C203 | 1-135-163-21 | TANTAL. CHIP 47MF | 10% | 4V | |
| C204 | 1-162-968-11 | CERAMIC CHIP 0.0047MF | 10% | 50V | |
| C205 | 1-163-810-00 | CERAMIC CHIP 0.03MF | 10% | 25V | |
| C206 | 1-162-995-11 | CERAMIC CHIP 0.022MF | | 50V | |
| C207 | 1-162-995-11 | CERAMIC CHIP 0.022MF | | 50V | |
| C208 | 1-163-038-00 | CERAMIC CHIP 0.1MF | | 25V | |
| C209 | 1-135-192-21 | TANTAL. CHIP 0.47MF | 10% | 20V | |
| C210 | 1-135-192-21 | TANTAL. CHIP 0.47MF | 10% | 20V | |
| C211 | 1-164-004-11 | CERAMIC CHIP 0.1MF | 10% | 25V | |
| C212 | 1-164-004-11 | CERAMIC CHIP 0.1MF | 10% | 25V | |
| C213 | 1-162-963-11 | CERAMIC CHIP 680PF | 10% | 50V | |

| Ref.No. | Part No. | Description | | | |
|---------|--------------|-----------------------|-----|------|--|
| C214 | 1-135-163-21 | TANTAL. CHIP 47MF | 10% | 4V | |
| C215 | 1-164-004-11 | CERAMIC CHIP 0.1MF | 10% | 25V | |
| C216 | 1-164-004-11 | CERAMIC CHIP 0.1MF | 10% | 25V | |
| C217 | 1-162-963-11 | CERAMIC CHIP 680PF | 10% | 50V | |
| C218 | 1-164-004-11 | CERAMIC CHIP 0.1MF | 10% | 25V | |
| C219 | 1-164-004-11 | CERAMIC CHIP 0.1MF | 10% | 25V | |
| C220 | 1-162-963-11 | CERAMIC CHIP 680PF | 10% | 50V | |
| C221 | 1-135-145-11 | TANTAL. CHIP 0.47MF | 10% | 25V | |
| C222 | 1-164-004-11 | CERAMIC CHIP 0.1MF | 10% | 25V | |
| C223 | 1-162-970-11 | CERAMIC CHIP 0.01MF | 10% | 25V | |
| C224 | 1-164-004-11 | CERAMIC CHIP 0.1MF | 10% | 25V | |
| C225 | 1-163-034-00 | CERAMIC CHIP 0.033MF | | 50V | |
| C226 | 1-135-180-21 | TANTAL. CHIP 3.3MF | 20% | 4V | |
| C227 | 1-135-180-21 | TANTAL. CHIP 3.3MF | 20% | 4V | |
| C228 | 1-164-004-11 | CERAMIC CHIP 0.1MF | 10% | 25V | |
| C229 | 1-135-072-21 | TANTAL. CHIP 0.22MF | 20% | 35V | |
| C301 | 1-163-833-00 | CERAMIC CHIP 0.068MF | 10% | 25V | |
| C302 | 1-163-035-00 | CERAMIC CHIP 0.047MF | | 50V | |
| C303 | 1-162-971-11 | CERAMIC CHIP 0.001MF | | 50V | |
| C304 | 1-126-607-11 | ELECT 47MF | 20% | 4V | |
| C305 | 1-135-202-21 | TANTAL. CHIP 22MF | 20% | 4V | |
| C306 | 1-162-968-11 | CERAMIC CHIP 0.0047MF | 10% | 50V | |
| C307 | 1-162-969-11 | CERAMIC CHIP 0.0068MF | 10% | 25V | |
| C308 | 1-126-607-11 | ELECT 47MF | 20% | 4V | |
| C309 | 1-126-606-11 | ELECT 33MF | 20% | 4V | |
| C310 | 1-126-591-11 | ELECT CHIP 10MF | 20% | 6.3V | |
| C311 | 1-162-971-11 | CERAMIC CHIP 0.001MF | | 50V | |
| C312 | 1-126-591-11 | ELECT CHIP 10MF | 20% | 6.3V | |
| C313 | 1-126-605-11 | ELECT 22MF | 20% | 6.3V | |
| C314 | 1-162-971-11 | CERAMIC CHIP 0.001MF | | 50V | |
| C315 | 1-162-968-11 | CERAMIC CHIP 0.0047MF | 10% | 50V | |
| C316 | 1-164-172-11 | CERAMIC CHIP 0.0056MF | 5% | 25V | |
| C317 | 1-135-151-21 | TANTAL. CHIP 4.7MF | 20% | 4V | |
| C318 | 1-162-969-11 | CERAMIC CHIP 0.0068MF | 10% | 25V | |
| C319 | 1-163-035-00 | CERAMIC CHIP 0.047MF | | 50V | |
| C320 | 1-163-038-00 | CERAMIC CHIP 0.1MF | | 25V | |
| C321 | 1-162-970-11 | CERAMIC CHIP 0.01MF | 10% | 25V | |
| C322 | 1-126-246-11 | ELECT 220MF | 20% | 4V | |
| C323 | 1-126-209-11 | ELECT CHIP 100MF | 20% | 4V | |
| C325 | 1-126-606-11 | ELECT 33MF | 20% | 4V | |
| C326 | 1-125-607-11 | ELECT(BLOCK) 0.33F | | 2.4V | |
| C327 | 1-162-964-11 | CERAMIC CHIP 0.001MF | 10% | 50V | |
| C328 | 1-126-604-11 | ELECT 10MF | 20% | 16V | |
| C329 | 1-162-971-11 | CERAMIC CHIP 0.001MF | | 50V | |
| C330 | 1-163-035-00 | CERAMIC CHIP 0.047MF | | 50V | |

| Remarks | No. | Part No. | Description |
|-------------------|--------|--------------|---------------------------|
| ASSY (M2-770V-14) | 61 | 3-309-836-01 | SHAFT, FITTING, MOTOR |
| 52-69,HRP901,M901 | 62 | 3-570-770-00 | CUSHION (A), MOTOR |
| ENSION | 63 | 3-315-384-41 | WASHER, STOPPER |
| 7X8), TAPPING | 64 | 3-342-186-01 | SPRING, TENSION |
| ENSION | 65 | 3-342-050-11 | RUBBER (A), VIBRATION |
| ER ASSY | 66 | 3-342-075-01 | SPACER, MOTOR |
| E | 67 | 3-352-476-01 | SHEET (MOTOR) |
| ITCH ARM | 68 | 3-358-350-01 | SPRING (GROUND), LEAF |
| | 69 | 7-627-850-67 | SCREW, PRECISION +P 1.4X4 |
| | HRP901 | 1-543-725-11 | HEAD (RECORD/PLAYBACK) |
| (GROUND) | M901 | 1-541-738-11 | MOTOR |

Remarks

| Ref.No. | Part No. | Description | | | | Ref.No. | Part No. | Description | | | |
|---------|--------------|--|-----|-------|--|---------|--------------|-------------------------|----|-------|--|
| C331 | 1-163-035-00 | CERAMIC CHIP 0.047MF | | 50V | | Q314 | 8-729-420-53 | TRANSISTOR UN5115 | | | |
| C332 | 1-135-151-21 | TANTAL. CHIP 4.7MF | 20% | 4V | | Q315 | 8-729-402-96 | TRANSISTOR UN5114 | | | |
| C333 | 1-163-038-00 | CERAMIC CHIP 0.1MF | | 25V | | Q316 | 8-729-420-16 | TRANSISTOR XN1214 | | | |
| C337 | 1-162-971-11 | CERAMIC CHIP 0.001MF | | 50V | | Q317 | 8-729-420-24 | TRANSISTOR 2SB1218A-QRS | | | |
| C338 | 1-162-971-11 | CERAMIC CHIP 0.001MF | | 50V | | Q318 | 8-729-421-26 | TRANSISTOR UN5216 | | | |
| C339 | 1-162-962-11 | CERAMIC CHIP 470PF | 10% | 50V | | Q319 | 8-729-421-26 | TRANSISTOR UN5216 | | | |
| C601 | 1-126-594-11 | ELECT CHIP 1MF | 20% | 50V | | Q320 | 8-729-402-96 | TRANSISTOR UN5114 | | | |
| C602 | 1-126-605-11 | ELECT 22MF | 20% | 6.3V | | Q321 | 8-729-403-17 | TRANSISTOR XN1215 | | | |
| C603 | 1-126-605-11 | ELECT 22MF | 20% | 6.3V | | Q322 | 8-729-421-26 | TRANSISTOR UN5216 | | | |
| CN301 | 1-569-369-11 | JACK, EXTERNAL POWER (DC IN) | | | | R101 | 1-216-817-11 | METAL GLAZE 470 | 5% | 1/16W | |
| CN901 | 1-569-528-11 | HOUSING, CONNECTOR 12P | | | | R102 | 1-216-829-11 | METAL GLAZE 4.7K | 5% | 1/16W | |
| D201 | 8-719-404-46 | DIODE MAT10 | | | | R103 | 1-216-845-11 | METAL GLAZE 100K | 5% | 1/16W | |
| D301 | 8-719-915-54 | LED SLP1598 (REC/BATT) | | | | R104 | 1-216-829-11 | METAL GLAZE 4.7K | 5% | 1/16W | |
| HE901 | | NOT SUPPLIED (included in MECHANISM ASSY) | | | | R105 | 1-216-833-11 | METAL GLAZE 10K | 5% | 1/16W | |
| HRP901 | 1-543-725-11 | HEAD (RECORD/PLAYBACK) | | | | R106 | 1-216-841-11 | METAL GLAZE 47K | 5% | 1/16W | |
| IC301 | 8-752-036-27 | IC CXAI278N | | | | R107 | 1-216-841-11 | METAL GLAZE 47K | 5% | 1/16W | |
| IC302 | 8-759-701-02 | IC NJM2073M | | | | R108 | 1-216-830-11 | METAL GLAZE 5.6K | 5% | 1/16W | |
| IC303 | 8-759-710-55 | IC NJM2100M | | | | R109 | 1-216-835-11 | METAL GLAZE 15K | 5% | 1/16W | |
| IC304 | 8-759-994-35 | IC SC17710YHA | | | | R110 | 1-216-104-00 | METAL GLAZE 200K | 5% | 1/10W | |
| IC305 | 8-759-701-51 | IC NJM2072M | | | | R111 | 1-216-845-11 | METAL GLAZE 100K | 5% | 1/16W | |
| IC306 | 8-759-710-55 | IC NJM2100M | | | | R112 | 1-216-845-11 | METAL GLAZE 100K | 5% | 1/16W | |
| IC307 | 8-759-710-55 | IC NJM2100M | | | | R113 | 1-216-857-11 | METAL GLAZE 1M | 5% | 1/16W | |
| IC308 | 8-759-710-55 | IC NJM2100M | | | | R114 | 1-216-833-11 | METAL GLAZE 10K | 5% | 1/16W | |
| IC309 | 8-759-710-55 | IC NJM2100M | | | | R115 | 1-216-833-11 | METAL GLAZE 10K | 5% | 1/16W | |
| IC310 | 8-759-710-55 | IC NJM2100M | | | | R116 | 1-216-845-11 | METAL GLAZE 100K | 5% | 1/16W | |
| IC601 | 8-759-804-43 | IC LA5521M | | | | R117 | 1-216-832-11 | METAL GLAZE 8.2K | 5% | 1/16W | |
| J301 | 1-569-215-21 | JACK (MIC) | | | | R118 | 1-216-835-11 | METAL GLAZE 15K | 5% | 1/16W | |
| J302 | 1-569-215-21 | JACK (EAR) | | | | R119 | 1-216-839-11 | METAL GLAZE 33K | 5% | 1/16W | |
| JP101 | 1-216-296-00 | METAL GLAZE 0 | 5% | 1/8W | | R120 | 1-216-834-11 | METAL GLAZE 12K | 5% | 1/16W | |
| JP102 | 1-216-864-11 | METAL GLAZE 0 | 5% | 1/16W | | R121 | 1-216-833-11 | METAL GLAZE 10K | 5% | 1/16W | |
| JP103 | 1-216-864-11 | METAL GLAZE 0 | 5% | 1/16W | | R122 | 1-216-845-11 | METAL GLAZE 100K | 5% | 1/16W | |
| JP104 | 1-216-864-11 | METAL GLAZE 0 | 5% | 1/16W | | R123 | 1-216-845-11 | METAL GLAZE 100K | 5% | 1/16W | |
| JP105 | 1-216-864-11 | METAL GLAZE 0 | 5% | 1/16W | | R124 | 1-216-845-11 | METAL GLAZE 100K | 5% | 1/16W | |
| JP106 | 1-216-864-11 | METAL GLAZE 0 | 5% | 1/16W | | R125 | 1-216-845-11 | METAL GLAZE 100K | 5% | 1/16W | |
| JP107 | 1-216-864-11 | METAL GLAZE 0 | 5% | 1/16W | | R126 | 1-216-104-00 | METAL GLAZE 200K | 5% | 1/10W | |
| M901 | 1-541-738-11 | MOTOR | | | | R127 | 1-216-835-11 | METAL GLAZE 15K | 5% | 1/16W | |
| MIC901 | 1-542-136-11 | MICROPHONE, ELECTRET CONDENSER | | | | R128 | 1-216-857-11 | METAL GLAZE 1M | 5% | 1/16W | |
| Q101 | 8-729-421-26 | TRANSISTOR UN5216 | | | | R129 | 1-216-835-11 | METAL GLAZE 15K | 5% | 1/16W | |
| Q102 | 8-729-402-96 | TRANSISTOR UN5114 | | | | R130 | 1-216-104-00 | METAL GLAZE 200K | 5% | 1/10W | |
| Q103 | 8-729-420-27 | TRANSISTOR 2SD1819A-QRS | | | | R131 | 1-216-857-11 | METAL GLAZE 1M | 5% | 1/16W | |
| Q201 | 8-729-421-26 | TRANSISTOR UN5216 | | | | R132 | 1-216-845-11 | METAL GLAZE 100K | 5% | 1/16W | |
| Q202 | 8-729-420-27 | TRANSISTOR 2SD1819A-QRS | | | | R133 | 1-216-855-11 | METAL GLAZE 680K | 5% | 1/16W | |
| Q203 | 8-729-402-96 | TRANSISTOR UN5114 | | | | R136 | 1-216-833-11 | METAL GLAZE 10K | 5% | 1/16W | |
| Q301 | 8-729-420-27 | TRANSISTOR 2SD1819A-QRS | | | | R137 | 1-216-852-11 | METAL GLAZE 390K | 5% | 1/16W | |
| Q302 | 8-729-421-26 | TRANSISTOR UN5216 | | | | R138 | 1-216-845-11 | METAL GLAZE 100K | 5% | 1/16W | |
| Q303 | 8-729-421-26 | TRANSISTOR UN5216 | | | | R139 | 1-216-842-11 | METAL GLAZE 56K | 5% | 1/16W | |
| Q304 | 8-729-402-19 | TRANSISTOR XN6501 | | | | R140 | 1-216-841-11 | METAL GLAZE 47K | 5% | 1/16W | |
| Q305 | 8-729-403-17 | TRANSISTOR XN1215 | | | | R141 | 1-216-857-11 | METAL GLAZE 1M | 5% | 1/16W | |
| Q306 | 8-729-421-26 | TRANSISTOR UN5216 | | | | R142 | 1-216-833-11 | METAL GLAZE 10K | 5% | 1/16W | |
| Q307 | 8-729-162-44 | TRANSISTOR 2SB624-BV4 | | | | R143 | 1-216-861-11 | METAL GLAZE 2.2M | 5% | 1/16W | |
| Q308 | 8-729-421-23 | TRANSISTOR XN1216 | | | | R144 | 1-216-809-11 | METAL GLAZE 100 | 5% | 1/16W | |
| Q309 | 8-729-420-27 | TRANSISTOR 2SD1819A-QRS | | | | R146 | 1-216-830-11 | METAL GLAZE 5.6K | 5% | 1/16W | |
| Q310 | 8-729-421-26 | TRANSISTOR UN5216 | | | | R201 | 1-216-817-11 | METAL GLAZE 470 | 5% | 1/16W | |
| Q311 | 8-729-420-50 | TRANSISTOR UN5215 | | | | R202 | 1-216-829-11 | METAL GLAZE 4.7K | 5% | 1/16W | |
| Q312 | 8-729-420-27 | TRANSISTOR 2SD1819A-QRS | | | | R203 | 1-216-845-11 | METAL GLAZE 100K | 5% | 1/16W | |
| Q313 | 8-729-420-27 | TRANSISTOR 2SD1819A-QRS | | | | R204 | 1-216-829-11 | METAL GLAZE 4.7K | 5% | 1/16W | |
| | | | | | | R205 | 1-216-833-11 | METAL GLAZE 10K | 5% | 1/16W | |

| Ref.No. | Part No. | Description | | | |
|---------|--------------|-------------|------|----|-------|
| R206 | 1-216-841-11 | METAL GLAZE | 47K | 5% | 1/16W |
| R207 | 1-216-841-11 | METAL GLAZE | 47K | 5% | 1/16W |
| R208 | 1-216-830-11 | METAL GLAZE | 5.6K | 5% | 1/16W |
| R209 | 1-216-835-11 | METAL GLAZE | 15K | 5% | 1/16W |
| R210 | 1-216-104-00 | METAL GLAZE | 200K | 5% | 1/10W |
| R211 | 1-216-845-11 | METAL GLAZE | 100K | 5% | 1/16W |
| R212 | 1-216-845-11 | METAL GLAZE | 100K | 5% | 1/16W |
| R213 | 1-216-857-11 | METAL GLAZE | 1M | 5% | 1/16W |
| R214 | 1-216-833-11 | METAL GLAZE | 10K | 5% | 1/16W |
| R215 | 1-216-833-11 | METAL GLAZE | 10K | 5% | 1/16W |
| R216 | 1-216-845-11 | METAL GLAZE | 100K | 5% | 1/16W |
| R217 | 1-216-832-11 | METAL GLAZE | 8.2K | 5% | 1/16W |
| R218 | 1-216-835-11 | METAL GLAZE | 15K | 5% | 1/16W |
| R219 | 1-216-839-11 | METAL GLAZE | 33K | 5% | 1/16W |
| R220 | 1-216-834-11 | METAL GLAZE | 12K | 5% | 1/16W |
| R221 | 1-216-833-11 | METAL GLAZE | 10K | 5% | 1/16W |
| R222 | 1-216-845-11 | METAL GLAZE | 100K | 5% | 1/16W |
| R223 | 1-216-845-11 | METAL GLAZE | 100K | 5% | 1/16W |
| R224 | 1-216-845-11 | METAL GLAZE | 100K | 5% | 1/16W |
| R225 | 1-216-845-11 | METAL GLAZE | 100K | 5% | 1/16W |
| R226 | 1-216-104-00 | METAL GLAZE | 200K | 5% | 1/10W |
| R227 | 1-216-835-11 | METAL GLAZE | 15K | 5% | 1/16W |
| R228 | 1-216-857-11 | METAL GLAZE | 1M | 5% | 1/16W |
| R229 | 1-216-835-11 | METAL GLAZE | 15K | 5% | 1/16W |
| R230 | 1-216-104-00 | METAL GLAZE | 200K | 5% | 1/10W |
| R231 | 1-216-857-11 | METAL GLAZE | 1M | 5% | 1/16W |
| R232 | 1-216-845-11 | METAL GLAZE | 100K | 5% | 1/16W |
| R233 | 1-216-855-11 | METAL GLAZE | 680K | 5% | 1/16W |
| R234 | 1-216-857-11 | METAL GLAZE | 1M | 5% | 1/16W |
| R235 | 1-216-857-11 | METAL GLAZE | 1M | 5% | 1/16W |
| R236 | 1-216-833-11 | METAL GLAZE | 10K | 5% | 1/16W |
| R237 | 1-216-833-11 | METAL GLAZE | 10K | 5% | 1/16W |
| R238 | 1-216-845-11 | METAL GLAZE | 100K | 5% | 1/16W |
| R239 | 1-216-845-11 | METAL GLAZE | 100K | 5% | 1/16W |
| R240 | 1-216-841-11 | METAL GLAZE | 47K | 5% | 1/16W |
| R241 | 1-216-850-11 | METAL GLAZE | 270K | 5% | 1/16W |
| R242 | 1-216-841-11 | METAL GLAZE | 47K | 5% | 1/16W |
| R246 | 1-216-830-11 | METAL GLAZE | 5.6K | 5% | 1/16W |
| R301 | 1-216-821-11 | METAL GLAZE | 1K | 5% | 1/16W |
| R302 | 1-216-828-11 | METAL GLAZE | 3.9K | 5% | 1/16W |
| R303 | 1-216-821-11 | METAL GLAZE | 1K | 5% | 1/16W |
| R304 | 1-216-805-11 | METAL GLAZE | 47 | 5% | 1/16W |
| R305 | 1-216-806-11 | METAL GLAZE | 56 | 5% | 1/16W |
| R306 | 1-216-809-11 | METAL GLAZE | 100 | 5% | 1/16W |
| R307 | 1-216-825-11 | METAL GLAZE | 2.2K | 5% | 1/16W |
| R308 | 1-216-828-11 | METAL GLAZE | 3.9K | 5% | 1/16W |
| R309 | 1-216-859-11 | METAL GLAZE | 1.5M | 5% | 1/16W |
| R310 | 1-216-817-11 | METAL GLAZE | 470 | 5% | 1/16W |
| R311 | 1-216-833-11 | METAL GLAZE | 10K | 5% | 1/16W |
| R312 | 1-216-844-11 | METAL GLAZE | 82K | 5% | 1/16W |
| R313 | 1-216-851-11 | METAL GLAZE | 330K | 5% | 1/16W |
| R314 | 1-216-851-11 | METAL GLAZE | 330K | 5% | 1/16W |
| R315 | 1-216-829-11 | METAL GLAZE | 4.7K | 5% | 1/16W |
| R316 | 1-216-797-11 | METAL GLAZE | 10 | 5% | 1/16W |
| R317 | 1-216-801-11 | METAL GLAZE | 22 | 5% | 1/16W |
| R318 | 1-216-802-11 | METAL GLAZE | 27 | 5% | 1/16W |
| R319 | 1-216-817-11 | METAL GLAZE | 470 | 5% | 1/16W |

| Ref.No. | Part No. | Description | | | |
|---------|--------------|-------------------------------|------|----|-------|
| R320 | 1-216-828-11 | METAL GLAZE | 3.9K | 5% | 1/16W |
| R321 | 1-216-825-11 | METAL GLAZE | 2.2K | 5% | 1/16W |
| R322 | 1-216-851-11 | METAL GLAZE | 330K | 5% | 1/16W |
| R323 | 1-216-833-11 | METAL GLAZE | 10K | 5% | 1/16W |
| R324 | 1-216-828-11 | METAL GLAZE | 3.9K | 5% | 1/16W |
| R325 | 1-216-833-11 | METAL GLAZE | 10K | 5% | 1/16W |
| R326 | 1-216-833-11 | METAL GLAZE | 10K | 5% | 1/16W |
| R327 | 1-216-833-11 | METAL GLAZE | 10K | 5% | 1/16W |
| R328 | 1-216-809-11 | METAL GLAZE | 100 | 5% | 1/16W |
| R329 | 1-216-833-11 | METAL GLAZE | 10K | 5% | 1/16W |
| R330 | 1-218-285-11 | METAL GLAZE | 75 | 5% | 1/16W |
| R331 | 1-216-806-11 | METAL GLAZE | 56 | 5% | 1/16W |
| R332 | 1-216-820-11 | METAL GLAZE | 820 | 5% | 1/16W |
| R333 | 1-216-812-11 | METAL GLAZE | 180 | 5% | 1/16W |
| R334 | 1-216-841-11 | METAL GLAZE | 47K | 5% | 1/16W |
| R335 | 1-216-821-11 | METAL GLAZE | 1K | 5% | 1/16W |
| R336 | 1-216-833-11 | METAL GLAZE | 10K | 5% | 1/16W |
| R337 | 1-216-829-11 | METAL GLAZE | 4.7K | 5% | 1/16W |
| R601 | 1-216-824-11 | METAL GLAZE | 1.8K | 5% | 1/16W |
| R602 | 1-218-287-11 | METAL GLAZE | 200 | 5% | 1/16W |
| R605 | 1-216-829-11 | METAL GLAZE | 4.7K | 5% | 1/16W |
| R606 | 1-216-823-11 | METAL GLAZE | 1.5K | 5% | 1/16W |
| RV301 | 1-237-731-21 | RES, VAR, CARBON 10K (VOL) | | | |
| RV601 | 1-238-662-11 | RES, ADJ, CERMET 2.2K | | | |
| RV602 | 1-238-663-11 | RES, ADJ, CERMER 4.7K | | | |
| S301 | 1-572-246-11 | SWITCH, SLIDE (REC/PB) | | | |
| S302 | 1-571-621-21 | SWITCH, LEAF (POWER) | | | |
| S303 | 1-571-506-41 | SWITCH, SLIDE (VOR) | | | |
| S304 | 1-571-986-11 | SWITCH, LEAF (FF) | | | |
| S601 | 1-571-275-31 | SWITCH, SLIDE (PAUSE) | | | |
| S602 | 1-571-478-11 | SWITCH, SLIDE (TAPE SPEED) | | | |
| SP901 | 1-544-321-11 | SPEAKER | | | |
| T101 | 1-433-341-11 | TRANSFORMER, BIAS OSCILLATION | | | |
| TH601 | 1-808-956-11 | THERMISTOR, POSITIVE (1.5K) | | | |

ACCESSORY & PACKING MATERIAL

| | |
|---------------|---|
| *3-338-735-01 | BAG, PROTECTION |
| *3-358-327-01 | CUSHION |
| *3-358-329-01 | INDIVIDUAL CARTON |
| 3-751-765-11 | (Canadian, AEP, UK, E)...MANUAL, INSTRUCTION (ENGLISH/FRENCH) |
| 3-751-765-21 | (US).....MANUAL, INSTRUCTION (ENGLISH) |
| 3-751-765-41 | (AEP).....MANUAL, INSTRUCTION (GERMAN/DUTCH) |
| 3-751-765-51 | (AEP, E)...MANUAL, INSTRUCTION (SPANISH/PORTUGUESE) |
| 3-751-765-61 | (AEP).....MANUAL, INSTRUCTION (SWEDISH/ITALIAN) |
| X-3338-703-1 | STRAP ASSY |