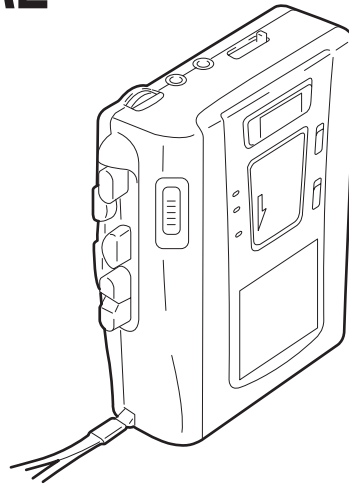


TCM-40DV

SERVICE MANUAL

Ver 1.0 1999.04

US Model
Canadian Model
AEP Model
E Model



Model Name Using Similar Mechanism	TCM-36
Tape Transport Mechanism Type	MT-40-118

SPECIFICATIONS

Recording system

2-track 1 channel monaural

Tape speed

4.8 cm/s or 2.4 cm/s

Frequency range

250 - 6,300 Hz using normal (TYPE I) cassette (with REC TIME switch at "NORMAL")

Speaker

Approx. 3.6 cm (1 7/16 in.) dia.

Power output

250 mW (at 10 % harmonic distortion)

Input

Microphone input jack (minijack) sensitivity 0.2 mV for 3 kilohms or lower impedance microphone

Output

Earphone jack (minijack) for 8 - 300 ohms earphone

Variable range of the tape speed

from approx. +30% to -15% (with REC TIME switch at "NORMAL")

Power requirements

3 V DC batteries AA (R6) x 2 / External DC 3 V power sources

Dimensions (w/h/d) (incl. projecting parts and controls)

Approx. 116 x 91 x 38mm (4 5/8 x 3 5/8 x 1 1/2 in.)

Mass

Approx. 195 g (6.9 oz.)

Design and specifications are subject to change without notice.

Battery life (Approx. hours)

(EIAJ*)

	Sony alkaline LR6 (SG)	Sony R6P (SR)
Playback	11	3
Recording	11	3

* Measured value by the standard of EIAJ (Electronic Industries Association of Japan). (Using a Sony HF series cassette tape)

Note

The battery life may shorten depending on the operation of the unit.

For maximum performance we recommend that you use alkaline batteries.

Connect the AC power adaptor to DC IN 3V and to a wall outlet. Use the AC-E30HG AC power adaptor (not supplied). Do not use any other AC power adaptor.



Polarity of the plug

Note

Specifications for AC-E30HG vary for each area. Check your local voltage and the shape of the plug before purchasing.



CASSETTE-CORDER

SONY®

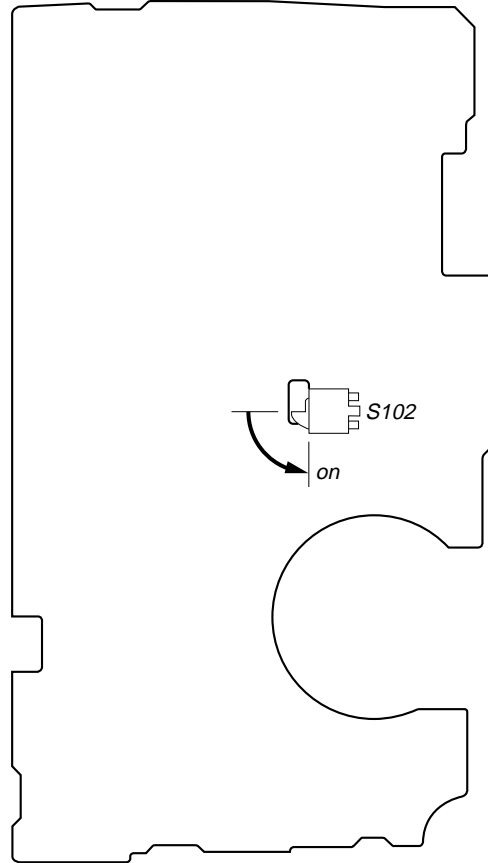
SECTION 1 SERVICING NOTES

TABLE OF CONTENTS

1.	SERVICING NOTES	2
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In this set, the S102 (POWER) detects REC/PLAYBACK on. It is mounted on the MAIN board, and therefore the REC/PLAYBACK on cannot be detected with the MAIN board removed. When making an operation check and voltage check of mechanical deck with the MAIN board removed, fix the S102 at turn on.

– MAIN BOARD (Conductor Side) –



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.

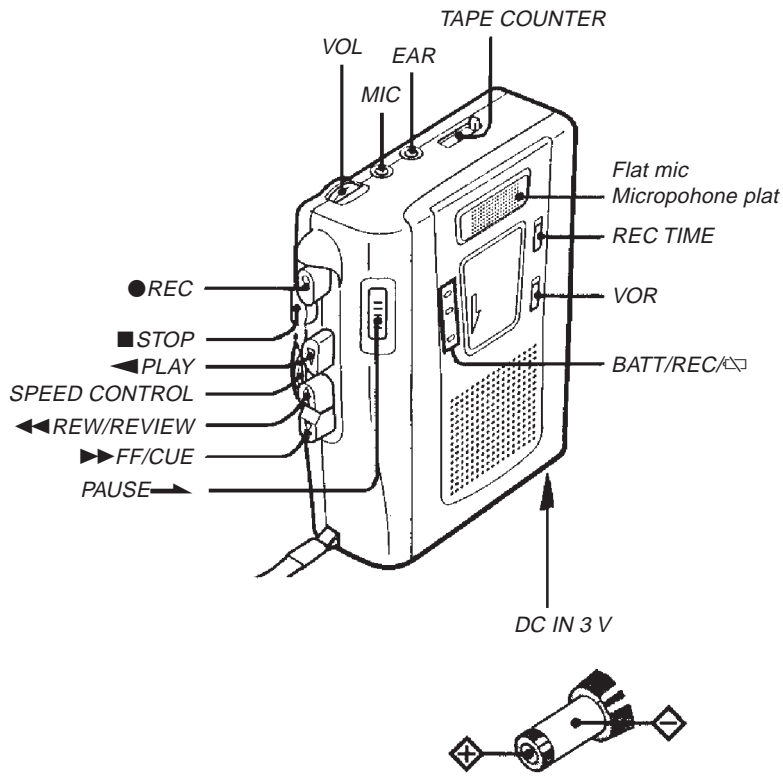
Notes on chip component replacement

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

SECTION 2 GENERAL

This section is extracted from instruction manual.

• Location of Controls



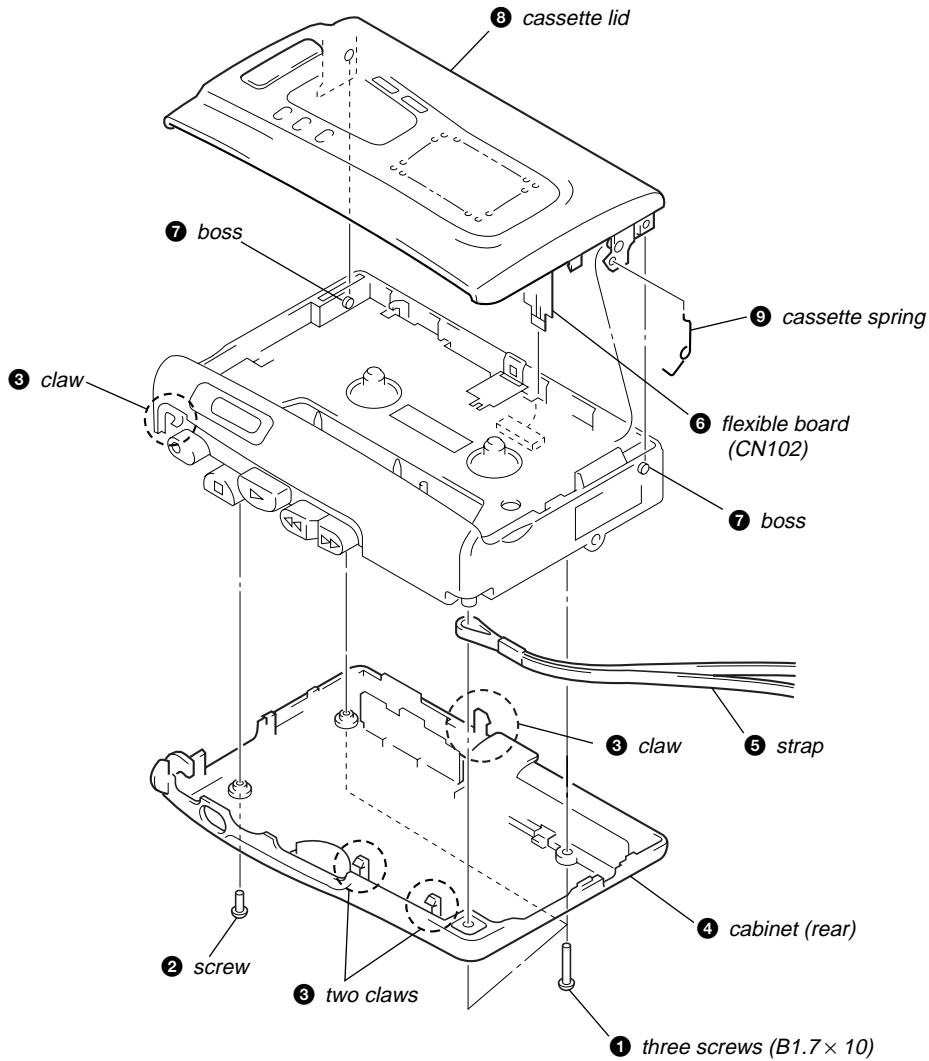
SECTION 3 DISASSEMBLY

• This set can be disassembled in the order shown below.

Set → Cabinet (Rear), Cassette Lid → MAIN Board, Mechanism Deck (MT-40-118) → Belt

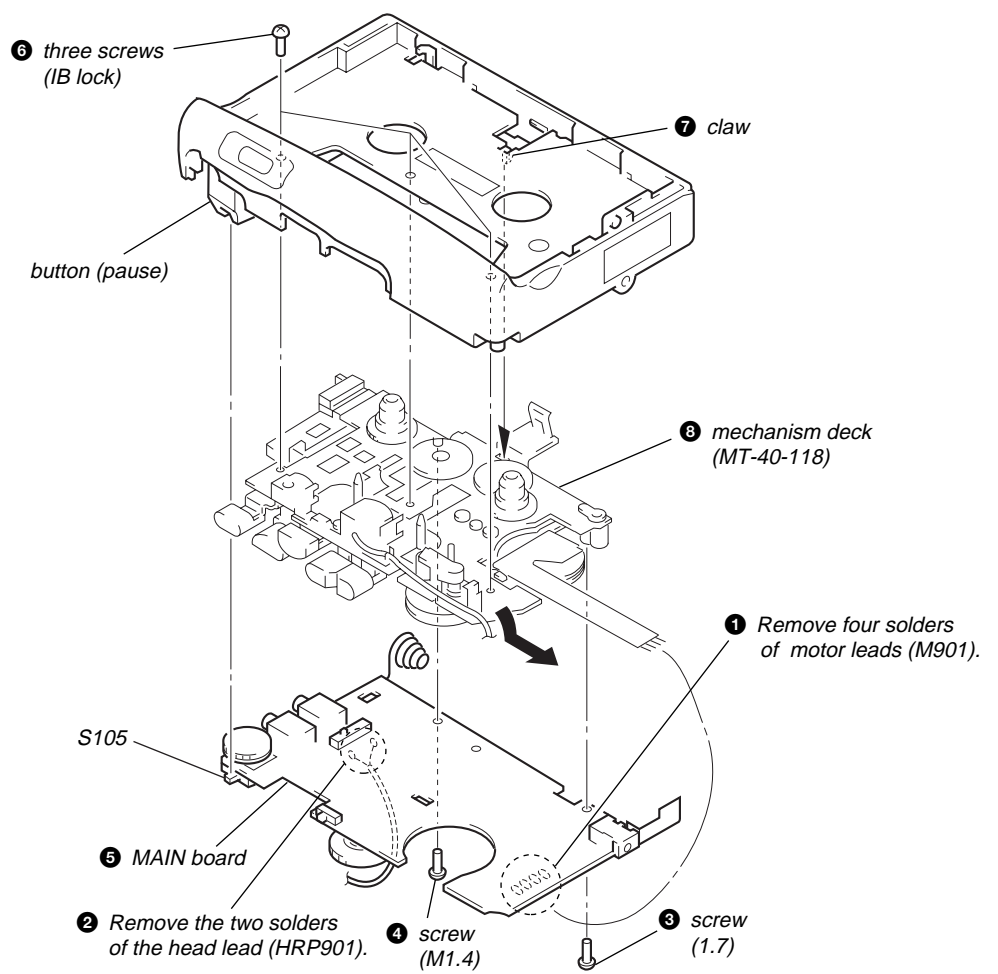
Note: Follow the disassembly procedure in the numerical order given.

CABINET (REAR), CASSETTE LID



MAIN BOARD, MECHANISM DECK (MT-40-118)

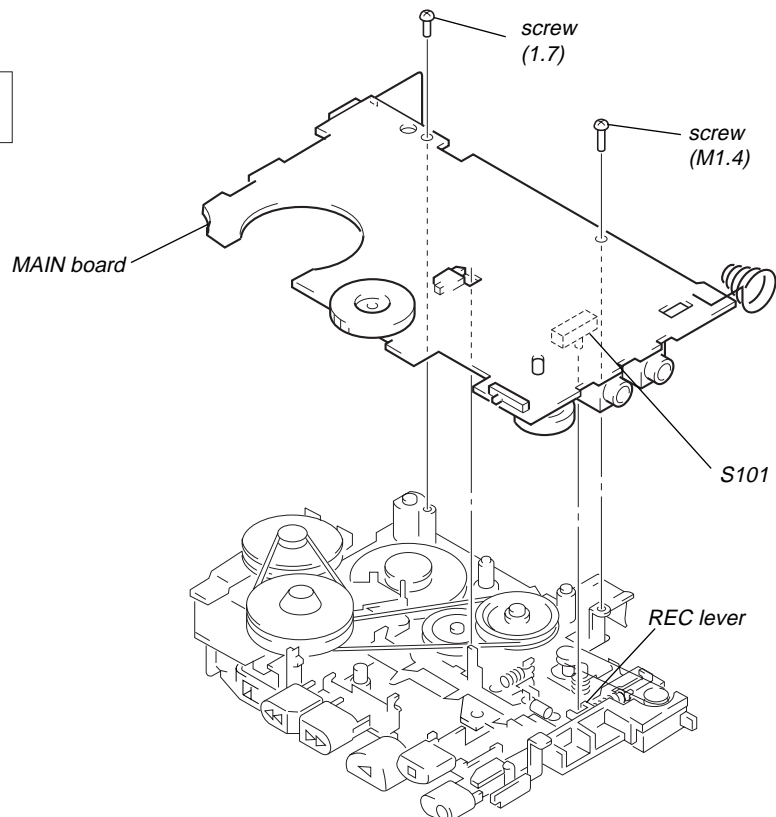
Note: On installation MAIN board adjust the S105 and button (pause).



NOTE FOR INSTALLATION

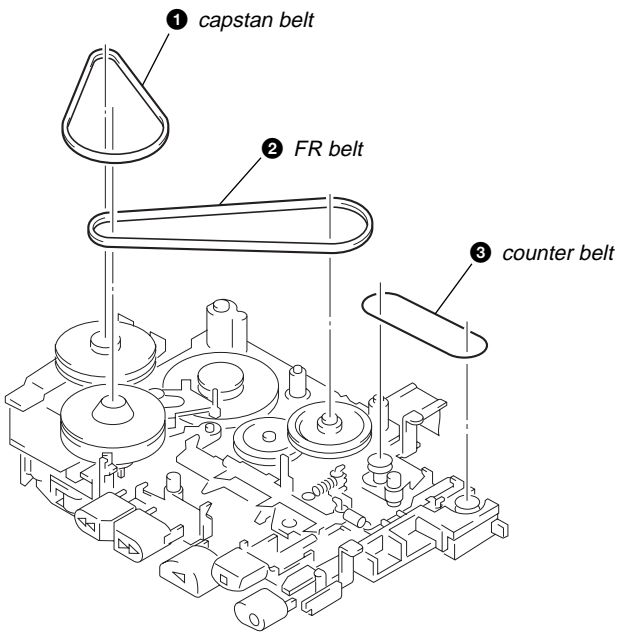
• MAIN BOARD

On installation MAIN board adjust the S101 and REC lever.



SECTION 4 MECHANICAL ADJUSTMENTS

BELT



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

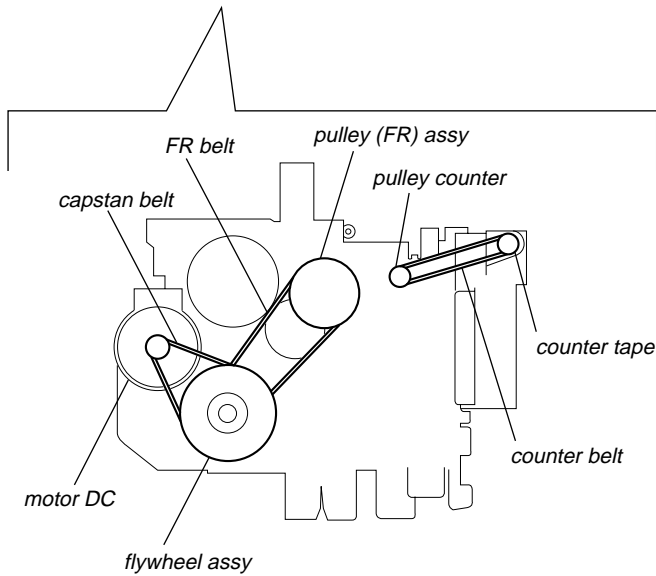
record/playback head	pinch roller
erase head	rubber belt
capstan	
2. Demagnetize the record/playback head with a head demagnetizer. (Do not bring the head demagnetizer close to the erase head.)
3. Do not use a magnetized screwdriver for the adjustments.
4. After the adjustments, apply suitable locking compound to the parts adjusted.
5. The adjustments should be performed with the rated power supply voltage (2.5 V) unless otherwise noted.

Torque Measurement

Mode	Torque Meter	Meter Reading
FWD	CQ-102C	22 – 48 g•cm (0.31 – 0.67 oz•inch)
Forward Back Tension		1.0 – 4.5 g•cm (0.014 – 0.063 oz•inch)
FF, REW	CQ-201B	more than 50 g•cm (more than 0.69 oz•inch)

Tape Tension Measurement

Mode	Tension Meter	Meter Reading
FWD	CQ-403A	more than 50 g (more than 1.76 oz)



SECTION 5 ELECTRICAL ADJUSTMENTS

Setting:

- Supplied voltage: 2.5 V
- Switch and control position
 - VOL control (RV401) : mechanical center
 - PAUSE switch (S105) : OFF
 - SPEED CONTROL (RV605): center click
 - VOR switch (S104) : OFF

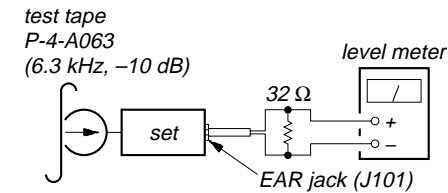
Test Tape

Type	Signal	Used for
P-4-A063	6.3 kHz, -10 dB	head azimuth adjustment
WS-48A	3 kHz, 0 dB	tape speed adjustment

0 dB=0.775 V

Record/Playback Head Azimuth Adjustment

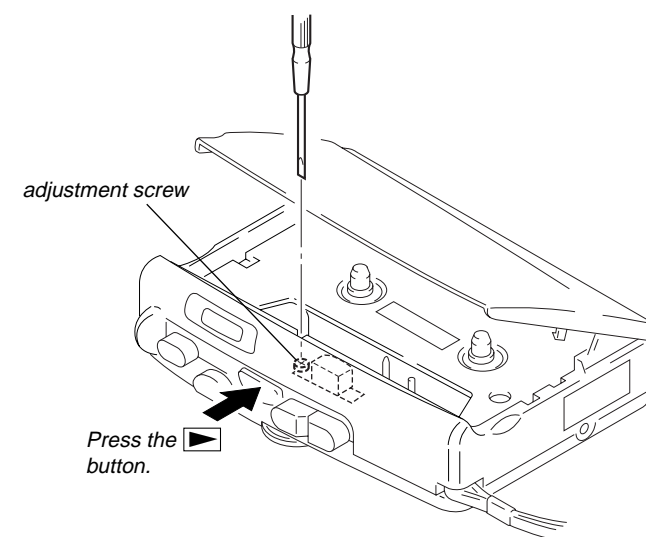
Mode: playback



Procedure:

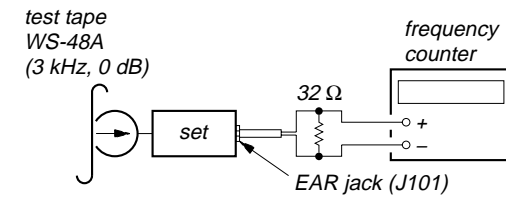
- Turn the adjustment screw to obtain the maximum reading on level meter.
Note: Several peaks may appear, but take the maximum.
- After the adjustment, lock the adjustment screw with suitable locking compound.

Adjustment Location:



Tape Speed Adjustment

Mode: playback



Procedure:

- Set **REC TIME** switch (S601) to NORMAL (4.8 cm/s) position, and playback the tape (WS-48A).
- Adjust RV604 so that frequency counter reading becomes 3,040 Hz.

Specification values: 3,030 to 3,050 Hz

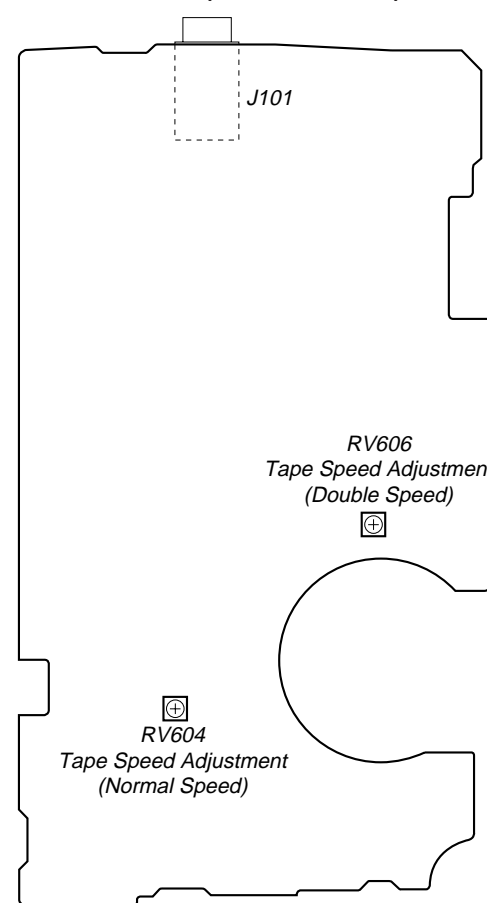
- Set **REC TIME** switch (S601) to DOUBLE (2.4 cm/s) position.
- Playback the tape from the beginning for two minutes, then adjust RV606 so that frequency counter reading becomes 1,540 Hz.

Specification values: 1,535 to 1,545 Hz

Confirm that deflection of the frequency counter reading between the beginning and the end of tape is within 0.5% (NORMAL: approx. 15.2 Hz, DOUBLE: approx. 7.6 Hz).

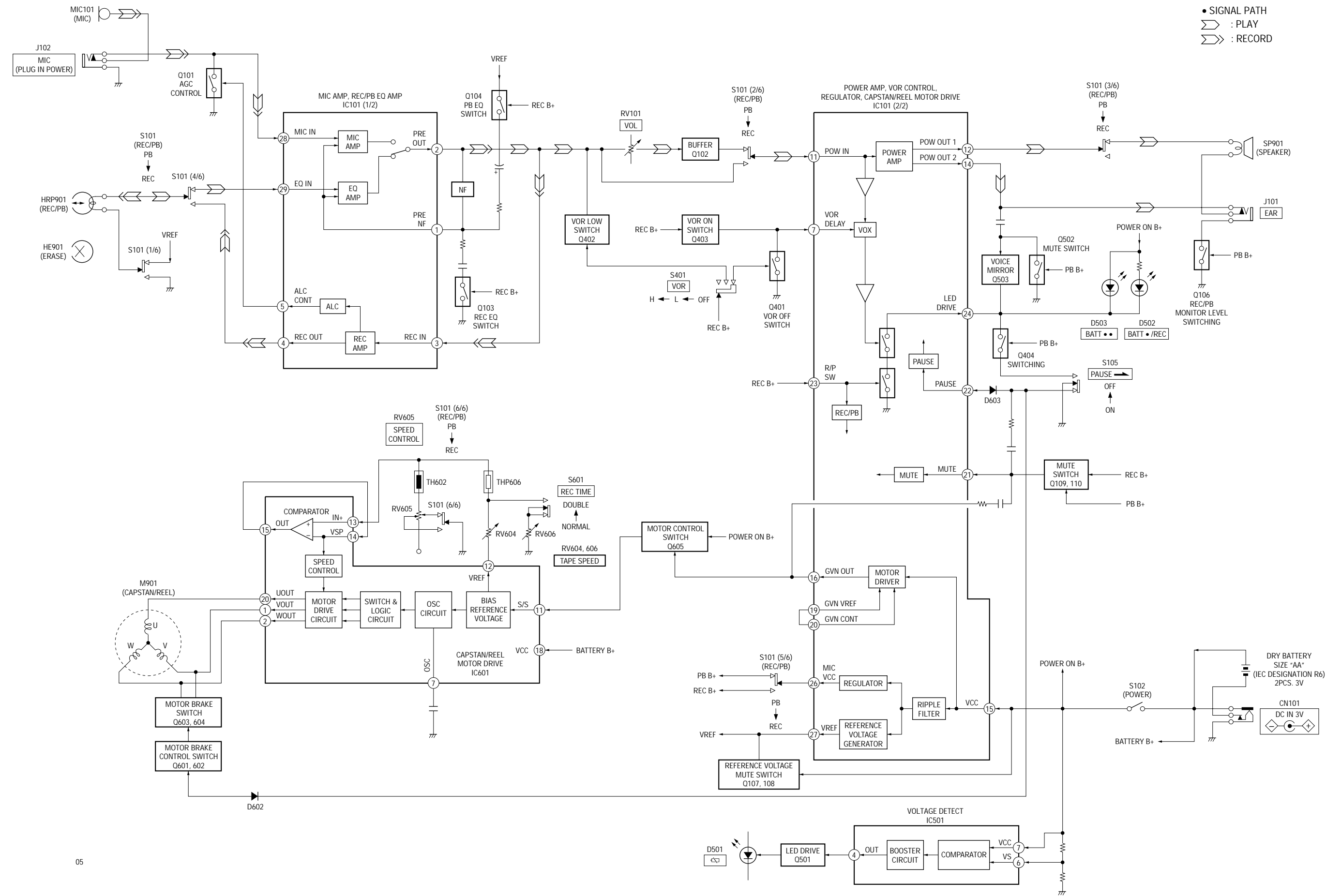
Adjustment Location:

– MAIN BOARD (Conductor Side) –



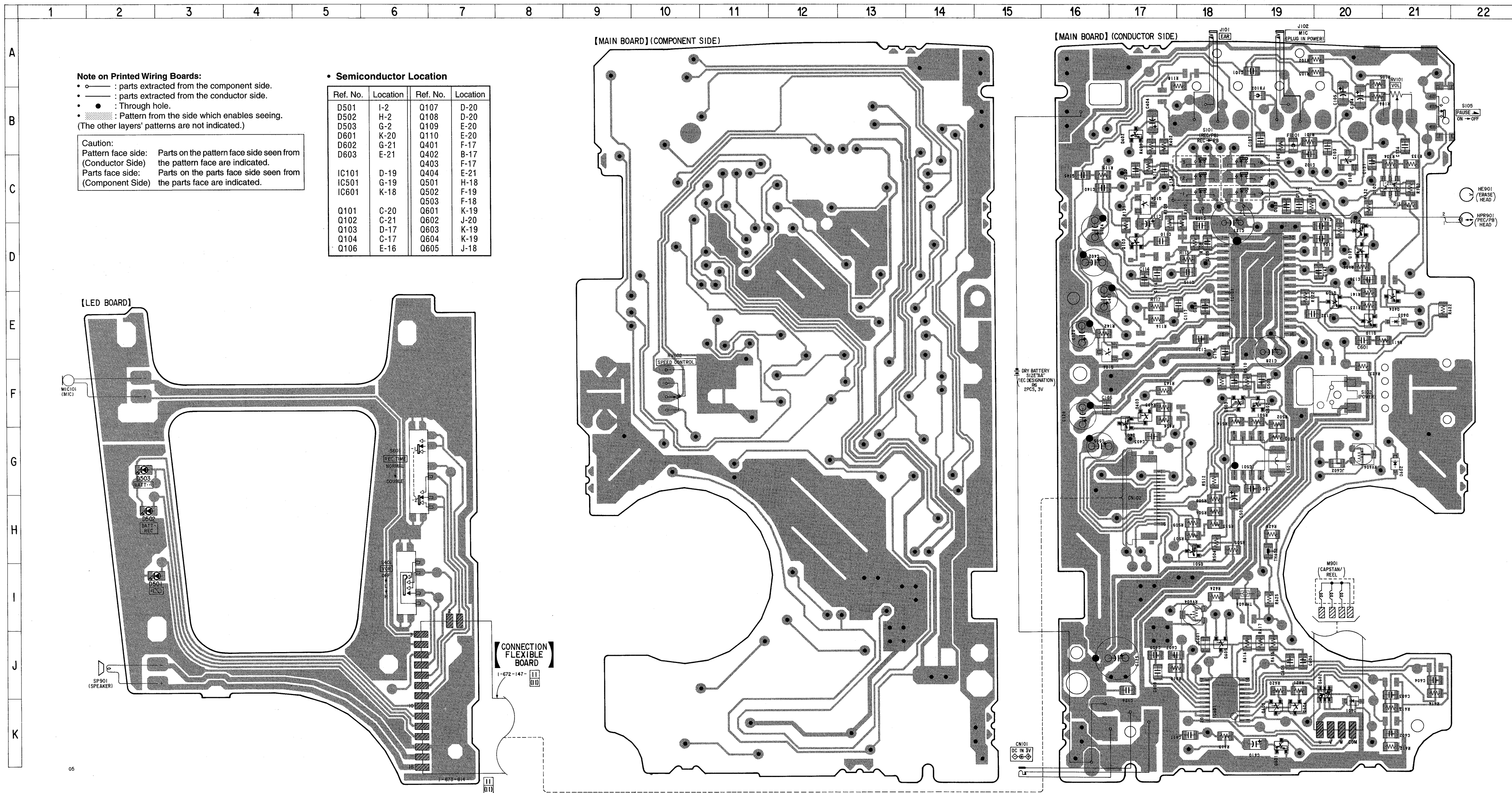
SECTION 6 DIAGRAMS

6-1. BLOCK DIAGRAM



• SIGNAL PATH
 ▷ : PLAY
 ▷ : RECORD

6-2. PRINTED WIRING BOARDS

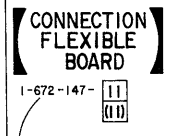
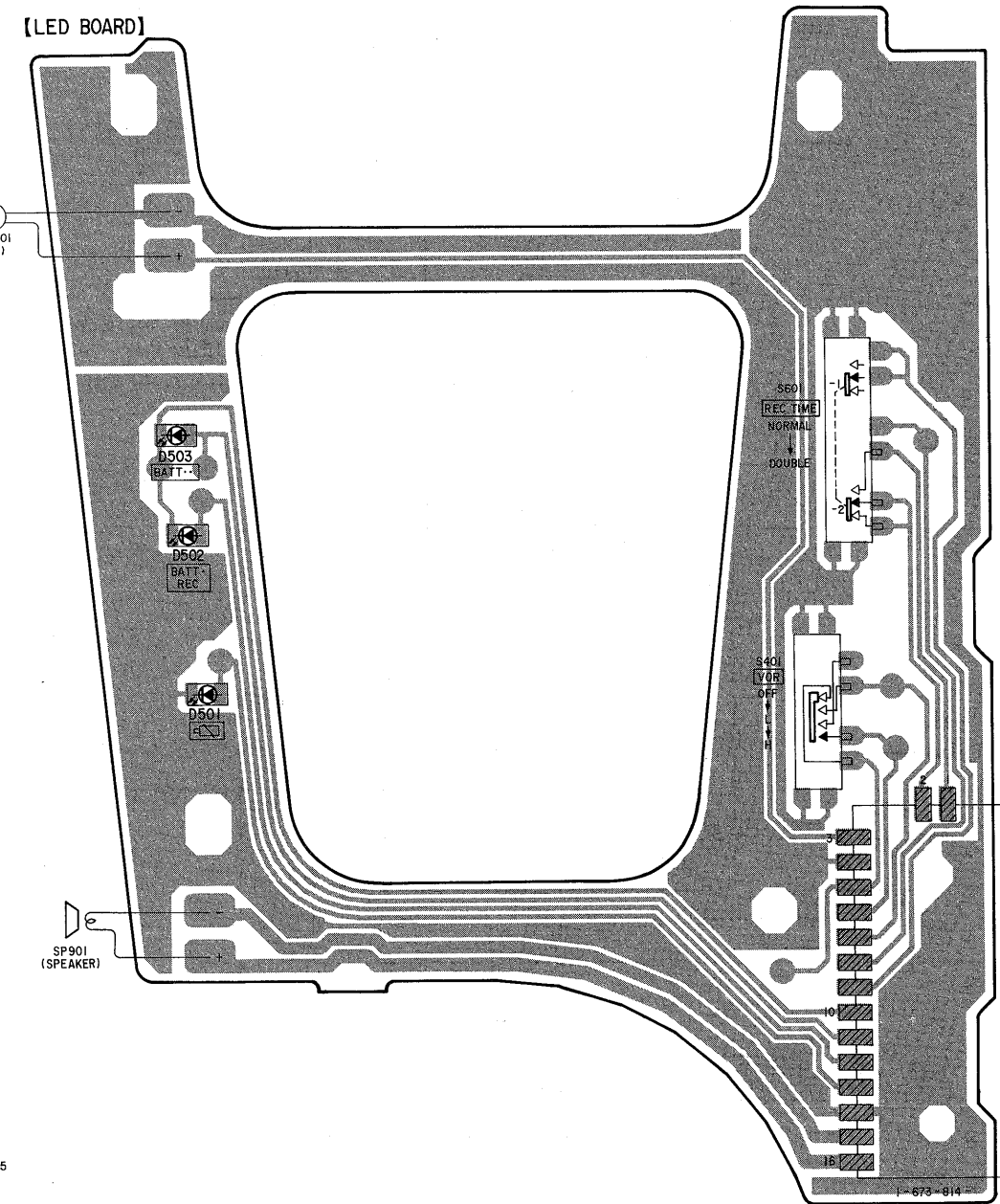
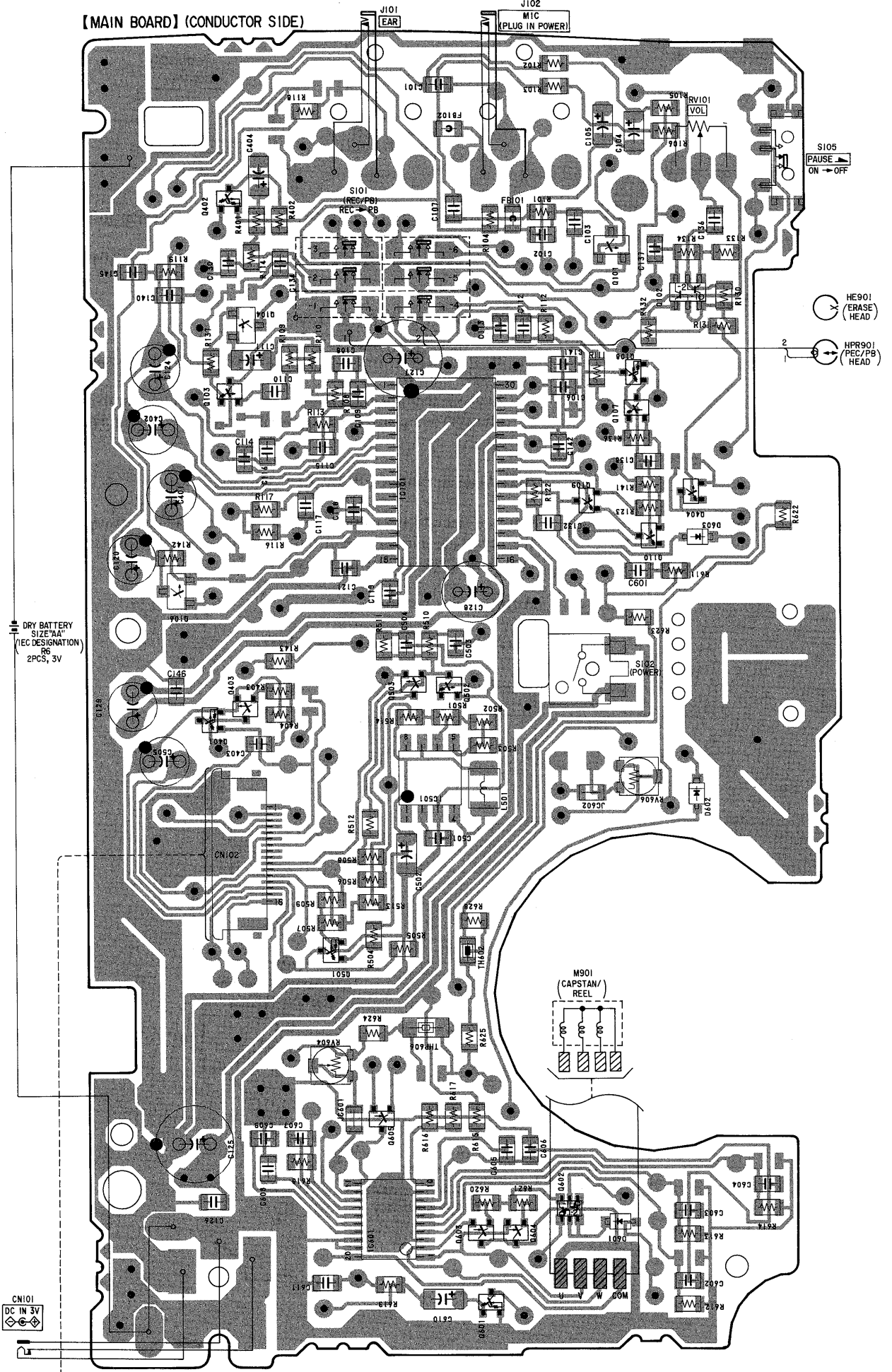
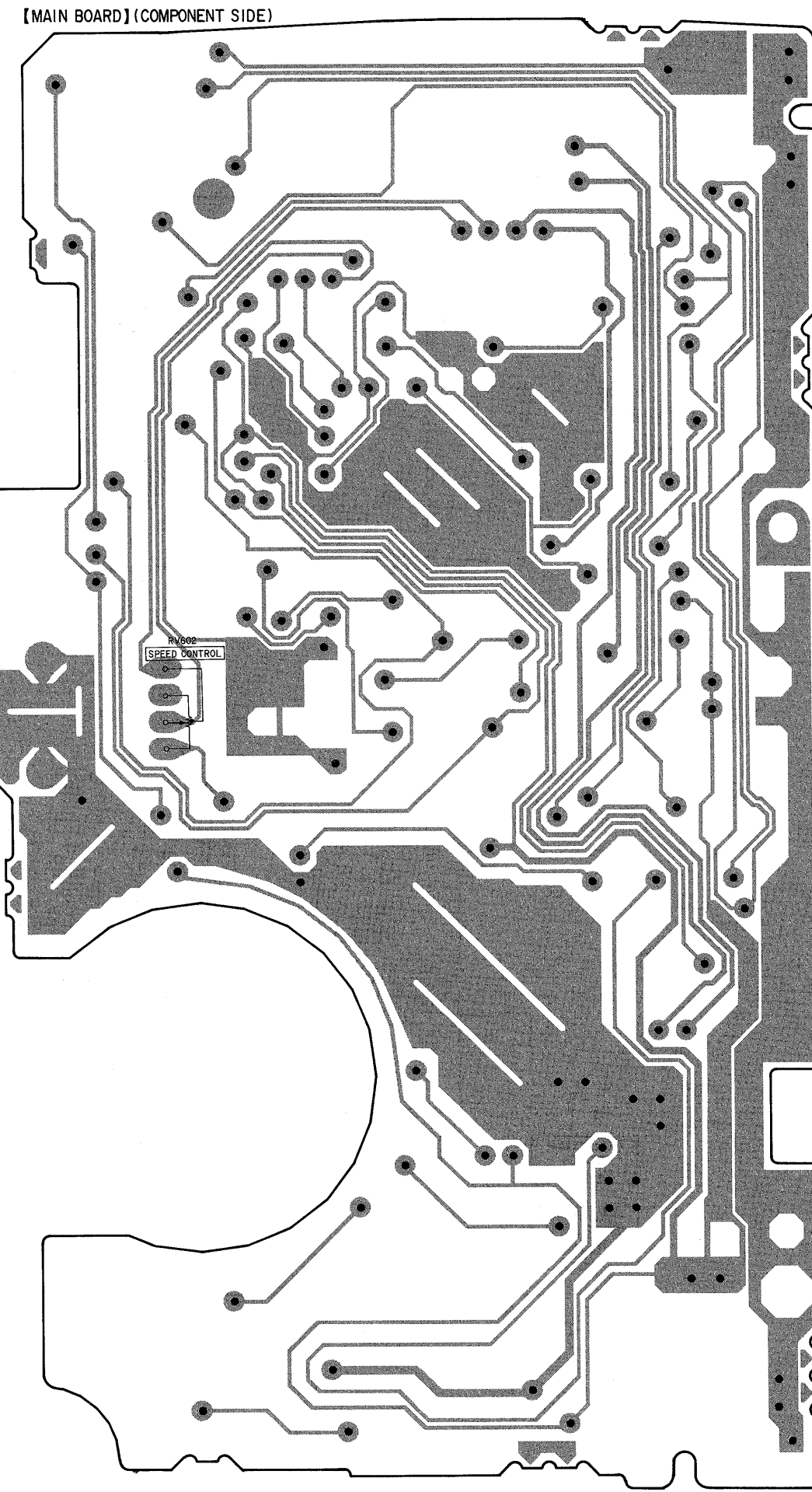


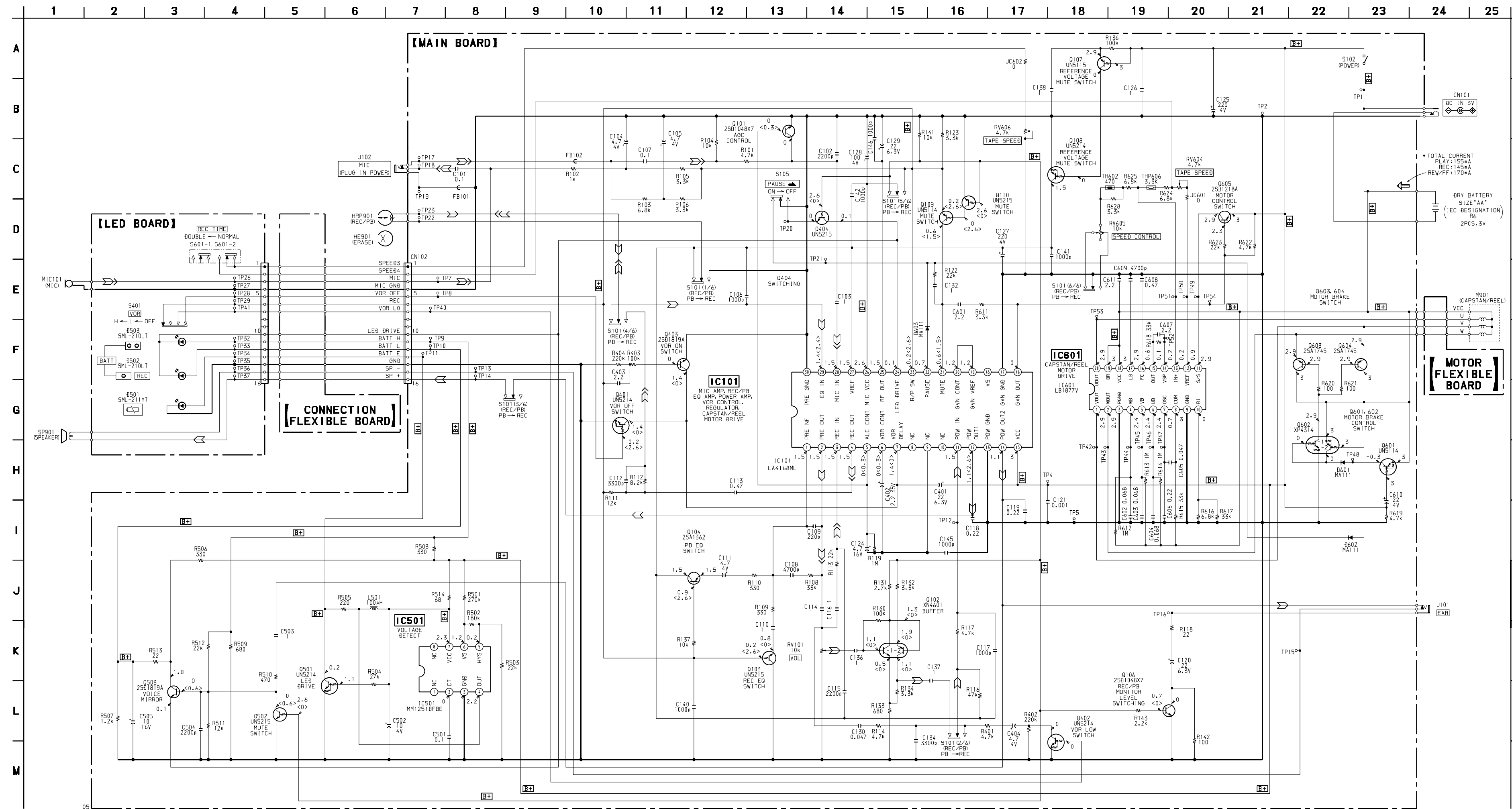
Note on Printed Wiring Boards:
 • — : parts extracted from the component side.
 • — : parts extracted from the conductor side.
 • — : Through hole.
 • — : Pattern from the side which enables seeing.
 (The other layers' patterns are not indicated.)

Caution:
 Pattern face side: Parts on the pattern face side seen from the pattern face are indicated.
 Conductor Side: Parts on the conductor side seen from the conductor side are indicated.
 Parts face side: Parts on the parts face side seen from the parts face are indicated.
 Component Side: Parts on the component side seen from the component side are indicated.

• Semiconductor Location

Ref. No.	Location	Ref. No.	Location
D501	I-2	Q107	D-20
D502	H-2	Q108	D-20
D503	G-2	Q109	E-20
D601	K-20	Q110	E-20
D602	G-21	Q401	F-17
D603	E-21	Q402	B-17
		Q403	F-17
IC101	D-19	Q404	E-21
IC501	G-19	Q501	H-18
IC601	K-18	Q502	F-19
		Q503	F-18
Q101	C-20	Q601	K-19
Q102	C-21	Q602	J-20
Q103	D-17	Q603	K-19
Q104	C-17	Q604	K-19
Q106	E-16	Q605	J-18



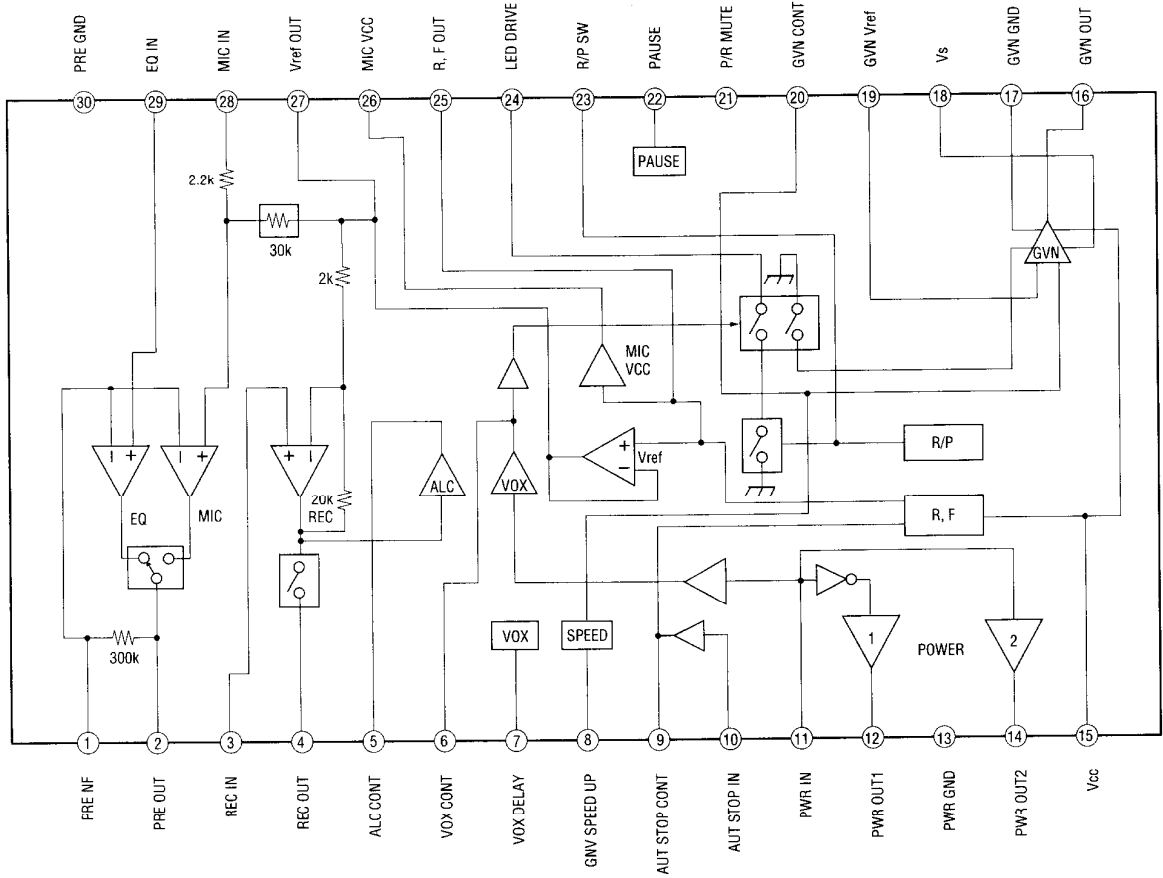


Note on Schematic Diagram:

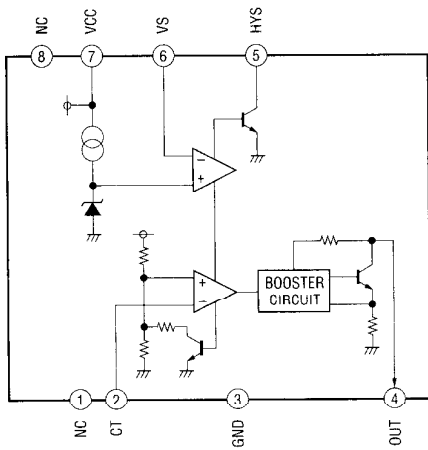
- All capacitors are in μF unless otherwise noted. pF : μpF 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and $1/4$ W or less unless otherwise specified.
- [B+]: panel designation.
- [B+]: B+ Line.
- [B+]: adjustment for repair.
- Total current is measured with no cassette installed.
- Power voltage is dc 3 V and fed with regulated dc power supply from external power voltage jack.
- Voltages and waveforms are dc with respect to ground under no-signal conditions.
- < : PLAY
- > : RECORD
- Voltages are taken with a VOM (Input impedance 10 M Ω). Voltage variations may be noted due to normal production tolerances.
- Signal path.
- \curvearrowright : PLAY
- \curvearrowleft : RECORD

• IC Block Diagrams

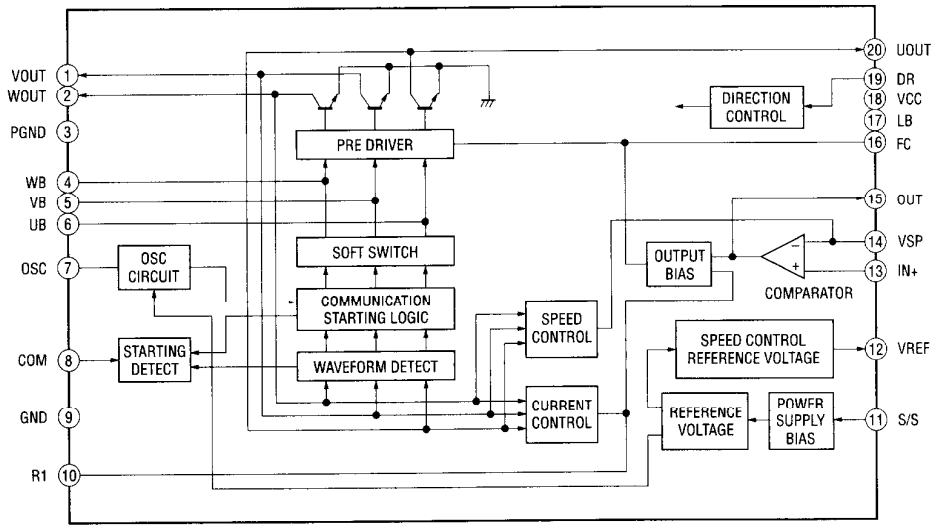
IC101 LA4168ML-TE-L



IC501 MM1251BFBE



IC601 LB1877V-TLM



SECTION 7 EXPLODED VIEWS

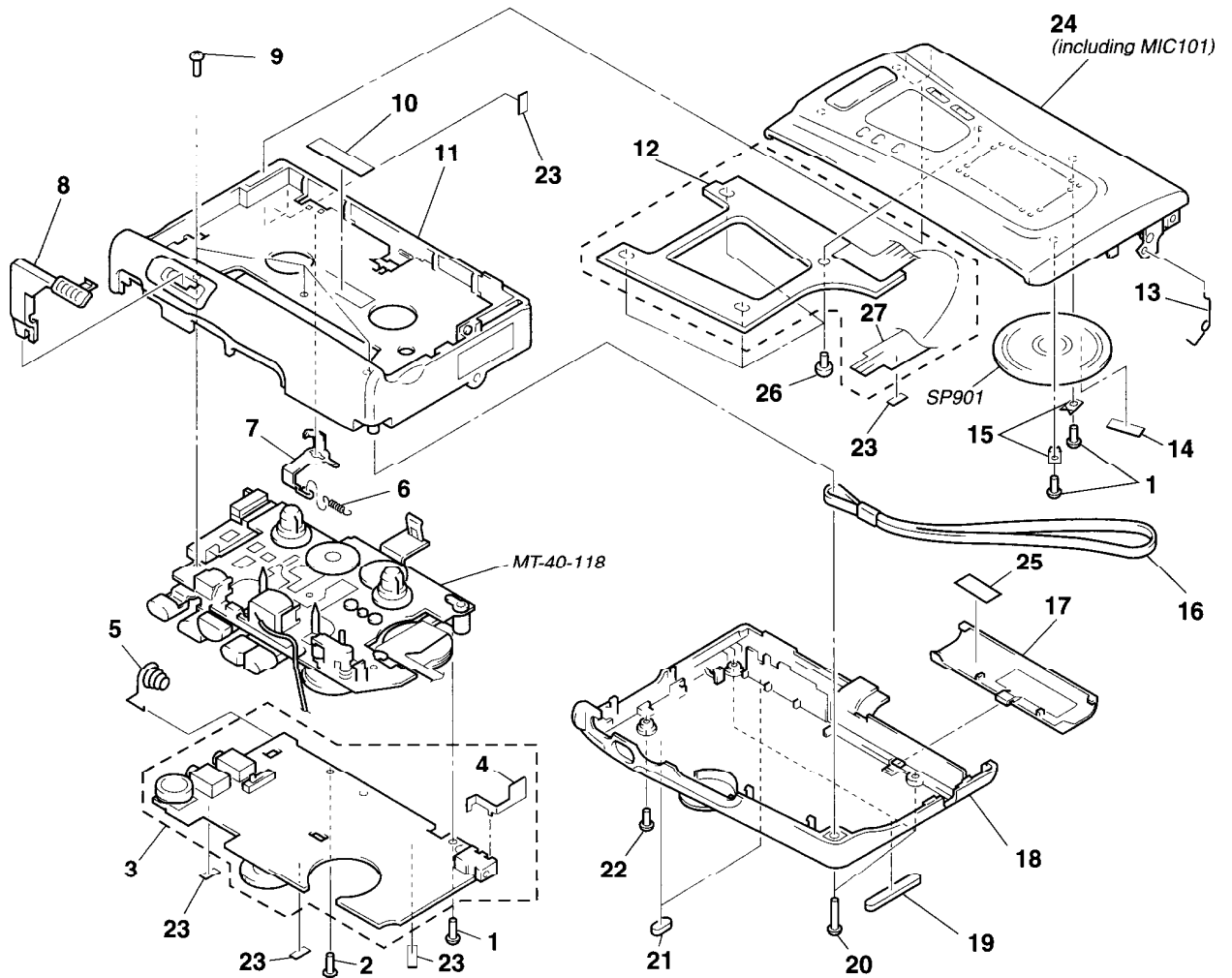
NOTE:

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

↑ ↑
Parts Color Cabinet's Color

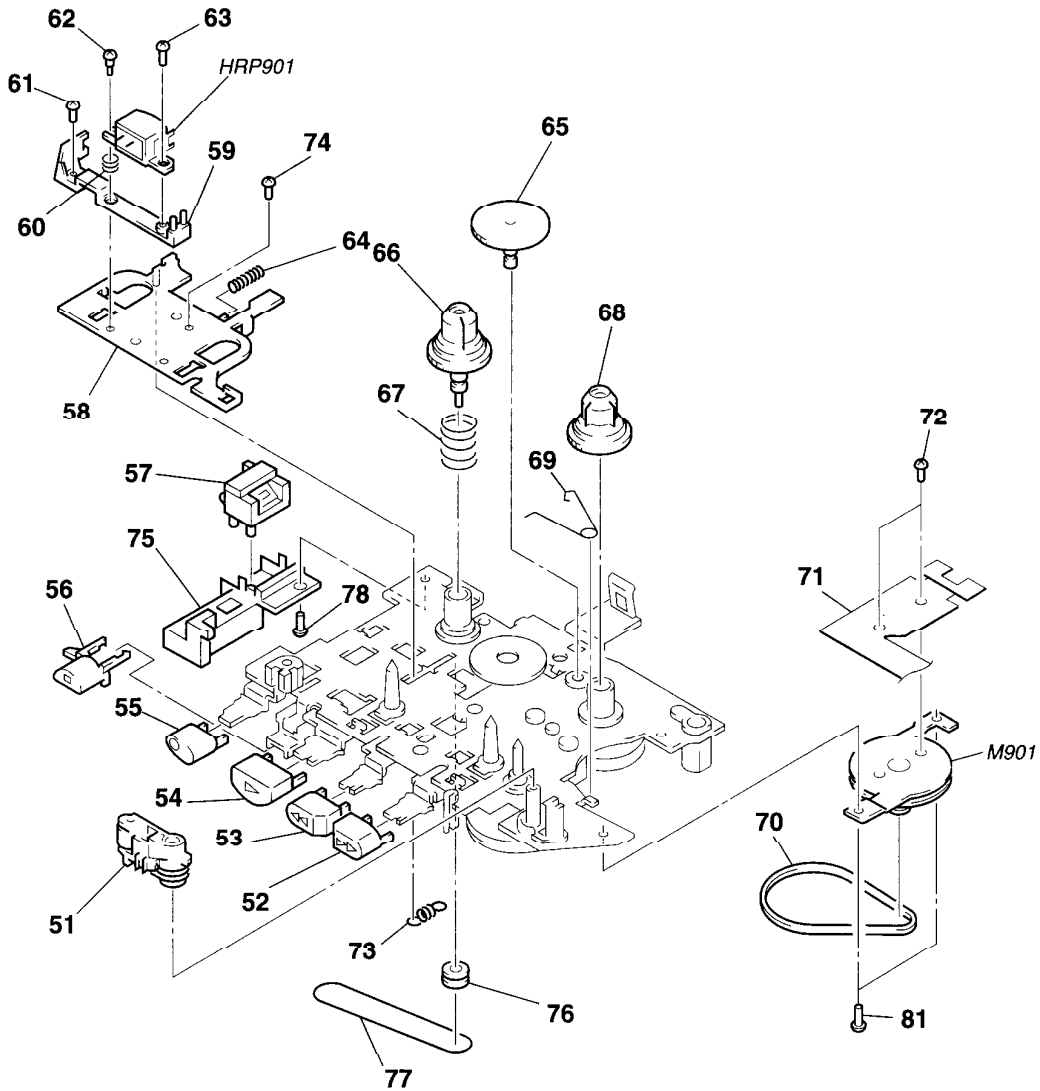
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Accessories and packing materials are given in the last of the electrical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

(1) CABINET SECTION



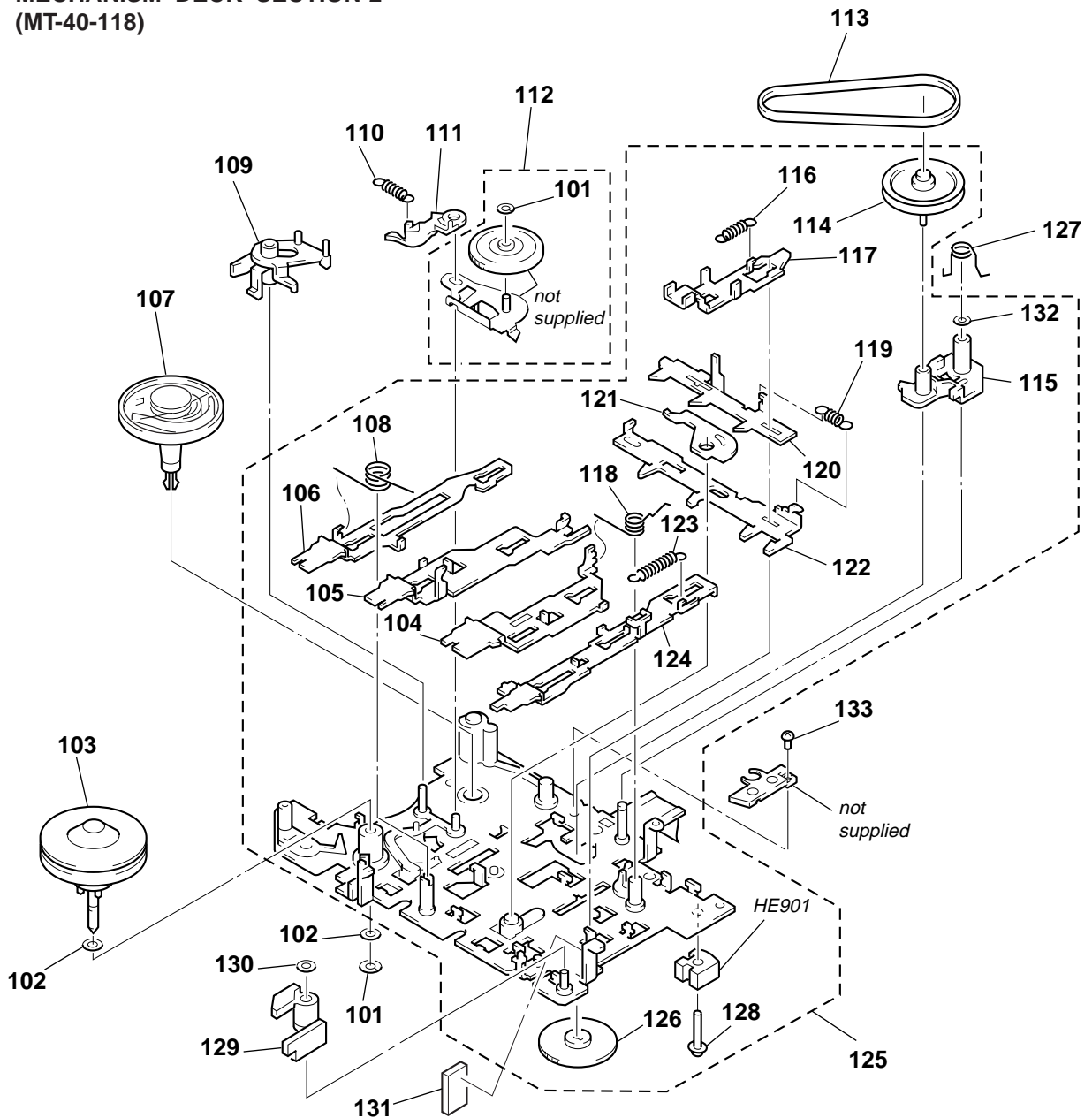
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
1	3-318-382-31	SCREW (1.7), TAPPING		* 15	3-924-757-01	BRACKET (SPEAKER)	
2	3-345-648-51	SCREW (M1.4), TOOTHED LOCK		16	3-924-761-01	STRAP	
* 3	A-3021-227-A	MAIN BOARD, COMPLETE		17	3-018-309-11	LID, BATTERY CASE	
4	3-008-612-01	TERMINAL, PLUS		18	3-018-308-51	CABINET (REAR)	
5	3-924-750-01	TERMINAL, MINUS		19	3-018-312-01	FOOT (A)	
6	3-924-744-01	SPRING (CLAW DETECTION), TENSION		20	3-334-565-11	SCREW (B1.7X10), TAPPING	
7	3-018-311-01	CLAW, ERASING PREVENTION		21	3-023-856-01	FOOT (B)	
8	3-018-310-11	BUTTON (PAUSE)		22	3-907-531-01	SCREW	
9	4-969-980-21	SCREW (IB LOCK)		23	3-831-441-99	SPACER, KNOB	
10	3 578 101 41	PLATE, ORNAMENTAL		24	X 3377 425-1	LID SUB ASSY, CASSETTE (including MIC101)	
11	3-018-307-62	CABINET (FRONT)		25	3-026-183-01	CUSHION (BATTEY CASE LID)	
12	A-3021-225-A	LED BOARD, COMPLETE		26	3-318-382-04	SCREW (1.7), TAPPING	
13	3-936-424-01	SPRING, CASSETTE		27	1-672-147-11	CONNECTION FI EXIRI F BOARD	
14	4-017-441-01	CUSHION (B)		SP901	1-505-838-11	SPEAKER (3.6cm)	

**(2) MECHANISM DECK SECTION-1
(MT-40-118)**



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
51	X-3370-386-1	PINCH ROLLER ASSY		67	3-924-674-01	SPRING (B. T), COMPRESSION	
52	3-925-146-01	BUTTON (FF) (▶▶)		68	3-924-641-01	GEAR (T REEL)	
53	3-925-147-01	BUTTON (REW) (◀◀)		69	3-936-582-03	SPRING (GROUND), TORSION	
54	3-925-148-01	BUTTON (PLAY) (▶)		70	3-924-681-01	BELT (CAPSTAN)	
55	3-925-145-11	BUTTON (REC) (●)		71	1-649-600-11	MOTOR FLEXIBLE BOARD	
56	3-936-409-01	BUTTON (STOP) (■)		72	3-376-407-01	SCREW (M1.4) (MOTOR)	
57	1-548-582-11	COUNTER, TAPE (SMALL TYPE)		73	3-034-903-01	SPRING (POWER TENSION), TENSION	
58	3-924-625-01	LEVER (HEAD)		74	3-348-160-11	SCREW (M1.4X1.6), PRECISION PAN	
59	3-924-645-01	BRACKET (HEAD)		75	3-018-522-01	COUNTER, BRACKET	
60	3-924-685-01	SPRING (AZIMUTH), COMPRESSION		76	3-924-675-01	PULLEY (COUNTER)	
61	3-704-197-31	SCREW (IB LOCK)		77	3-924-683-01	BELT (COUNTER)	
62	3-375-135-01	SCREW (1.4), SPECIAL		78	3-376-407-01	SCREW (M1.4)	
63	3-376-177-01	SCREW (M1.4X3.8)		80	3-561-685-01	SHEET (C), INSULATING	
64	3-925-107-01	SPRING (IDLER), COMPRESSION		81	4-969-980-21	SCREW (IB LOCK)	
65	3-924-637-01	GEAR (FF)		HRP901	1-500-073-51	HEAD, MAGNETIC (RECORD/PLAYBACK)	
66	3-924-673-01	GEAR (S REEL)		M901	1-698-875-11	MOTOR, DC (CAPSTAN/REEL) (WITH PULLEY)	

**(3) MECHANISM DECK SECTION-2
(MT-40-118)**



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
101	3-321-483-11	RING, RETAINING (0.25)		118	3-035-368-01	SPRING (PR2), TORSION	
102	3-701-437-51	WASHER		119	3-924-684-01	SPRING (LOCK PLATE), TENSION	
103	X-3372-171-1	FLYWHEEL ASSY		120	3-924-619-01	LEVER (SW)	
104	3-924-623-01	LEVER (PLAY)		121	3-924-639-01	LEVER (CR)	
105	3-924-621-01	LEVER (REW)		122	3-924-618-01	LEVER (LOCK)	
106	3-924-620-01	LEVER (FF)		123	3-925-208-01	SPRING (REC), TENSION	
107	X-3370-388-1	TABLE ASSY, FELT		124	3-924-624-01	LEVER (REC)	
108	3-924-642-01	SPRING (FR), TORSION		125	X-3377-249-3	CHASSIS SUB ASSY	
109	3-924-629-01	LEVER (DETECTION)		126	3-924-613-01	GEAR (FR)	
110	3-925-207-01	SPRING (SHUT. OFF), TENSION		127	3-024-378-21	SPRING (FR LEVER), TORSION	
111	3-924-630-01	LEVER (S. OFF)		128	3-703-925-21	SCREW (M1.4)	
112	X-3370-387-1	LEVER ASSY, IDLER		129	3-936-405-01	LEVER (RELEASE)	
113	3-924-682-01	BELT (FR)		130	3-578-242-11	WASHER	
114	X-3370-385-1	PULLEY (FR) ASSY		131	3-014-082-01	SPACER	
115	3-924-628-01	LEVER (FR)		132	3-321-483-31	RING, RETAINING	
116	3-924-633-01	SPRING (STOP), TENSION		133	3-704-197-91	SCREW (IB LOCK)	
117	3-924-622-01	LEVER (STOP)		HE901	1-500-515-11	HEAD, MAGNETIC (ERASE)	

SECTION 8 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.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- **RESISTORS**
All resistors are in ohms.
METAL: Metal-film resistor.
METAL OXIDE: Metal oxide-film resistor.
F: nonflammable

- Items marked “*” are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- **SEMICONDUCTORS**
In each case, u: μ, for example:
uA. . . : μA. . . uPA. . . : μPA. . .
uPB. . . : μPB. . . uPC. . . : μPC. . .
uPD. . . : μPD. . .
- **CAPACITORS**
uF: μF
- **COILS**
uH: μH

When indicating parts by reference number, please include the board.

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
	A-3021-225-A	LED BOARD, COMPLETE *****		C127	1-124-434-00	ELECT 220uF 20% 4V	
	1-672-147-11	CONNECTION FLEXIBLE BOARD < DIODE >		C128	1-124-433-00	ELECT 100uF 20% 4V	
				C129	1-126-153-11	ELECT 22uF 20% 6.3V	
D501	8-719-057-99	LED SML-211YT-T86 (ㄟㄣ)		C130	1-163-035-00	CERAMIC CHIP 0.047uF 50V	
D502	8-719-059-96	LED SML-210LT-T86 (BATT ●, REC)		C132	1-164-346-11	CERAMIC CHIP 1uF 16V	
D503	8-719-059-96	LED SML-210LT-T86 (BATT ●●)		C134	1-164-182-11	CERAMIC CHIP 0.0033uF 10% 50V	
		< SWITCH >		C136	1-164-346-11	CERAMIC CHIP 1uF 16V	
S401	1-692-605-31	SWITCH, SLIDE (VOR)		C137	1-164-346-11	CERAMIC CHIP 1uF 16V	
S601	1-571-277-51	SWITCH, SLIDE (REC TIME)		C138	1-164-346-11	CERAMIC CHIP 1uF 16V	
*****				C140	1-163-009-11	CERAMIC CHIP 0.001uF 10% 50V	
*	A-3021-227-A	MAIN BOARD, COMPLETE *****		C141	1-163-009-11	CERAMIC CHIP 0.001uF 10% 50V	
	3-008-612-01	TERMINAL, PLUS < CAPACITOR >		C142	1-163-009-11	CERAMIC CHIP 0.001uF 10% 50V	
				C145	1-163-009-11	CERAMIC CHIP 0.001uF 10% 50V	
C101	1-164-004-11	CERAMIC CHIP 0.1uF 10% 25V		C146	1-163-009-11	CERAMIC CHIP 0.001uF 10% 50V	
C102	1-164-161-11	CERAMIC CHIP 0.0022uF 10% 100V		C401	1-126-153-11	ELECT 22uF 20% 6.3V	
C103	1-107-682-11	CERAMIC CHIP 1uF 10% 16V		C402	1-124-257-00	ELECT 2.2uF 20% 50V	
C104	1-135-151-21	TANTALUM CHIP 4.7uF 20% 4V		C403	1-164-505-11	CERAMIC CHIP 2.2uF 16V	
C105	1-135-151-21	TANTALUM CHIP 4.7uF 20% 4V		C404	1-135-151-21	TANTALUM CHIP 4.7uF 20% 4V	
C106	1-163-009-11	CERAMIC CHIP 0.001uF 10% 50V		C501	1-164-004-11	CERAMIC CHIP 0.1uF 10% 25V	
C107	1-163-077-00	CERAMIC CHIP 0.1uF 10% 25V		C502	1-135-201-11	TANTALUM CHIP 10uF 20% 4V	
C108	1-163-017-00	CERAMIC CHIP 0.0047uF 5% 50V		C503	1-164-346-11	CERAMIC CHIP 1uF 16V	
C109	1-163-001-11	CERAMIC CHIP 220PF 10% 50V		C504	1-164-161-11	CERAMIC CHIP 0.0022uF 10% 100V	
C110	1-109-982-11	CERAMIC CHIP 1uF 10% 10V		C505	1-124-233-11	ELECT 10uF 20% 16V	
C111	1-135-151-21	TANTALUM CHIP 4.7uF 20% 4V		C601	1-164-505-11	CERAMIC CHIP 2.2uF 16V	
C112	1-164-182-11	CERAMIC CHIP 0.0033uF 10% 50V		C602	1-164-344-11	CERAMIC CHIP 0.068uF 10% 25V	
C113	1-164-005-11	CERAMIC CHIP 0.47uF 25V		C603	1-164-344-11	CERAMIC CHIP 0.068uF 10% 25V	
C114	1-164-346-11	CERAMIC CHIP 1uF 16V		C604	1-164-344-11	CERAMIC CHIP 0.068uF 10% 25V	
C115	1-164-161-11	CERAMIC CHIP 0.0022uF 10% 100V		C605	1-163-809-11	CERAMIC CHIP 0.047uF 10% 25V	
C116	1-164-346-11	CERAMIC CHIP 1uF 16V		C606	1-164-489-11	CERAMIC CHIP 0.22uF 10% 16V	
C117	1-163-009-11	CERAMIC CHIP 0.001uF 10% 50V		C607	1-164-505-11	CERAMIC CHIP 2.2uF 16V	
C118	1-164-489-11	CERAMIC CHIP 0.22uF 10% 16V		C608	1-107-823-11	CERAMIC CHIP 0.47uF 10% 16V	
C119	1-164-489-11	CERAMIC CHIP 0.22uF 10% 16V		C609	1-163-017-00	CERAMIC CHIP 0.0047uF 5% 50V	
C120	1-126-153-11	ELECT 22uF 20% 6.3V		C610	1-104-847-11	TANTALUM CHIP 22uF 20% 4V	
C121	1-163-205-00	CERAMIC CHIP 0.001uF 5% 50V		C611	1-164-505-11	CERAMIC CHIP 2.2uF 16V	
C124	1-124-259-11	ELECT 4.7uF 20% 16V		< JACK/CONNECTOR >			
C125	1-124-434-00	ELECT 220uF 20% 4V		CN101	1-750-061-11	JACK, DC (POLARITY UNIFIED TYPE) (DC IN 3V)	
C126	1-164-346-11	CERAMIC CHIP 1uF 16V		CN102	1-691-380-21	CONNECTOR, FFC/FPC 16P	
				< DIODE >			
				D601	8-719-404-50	DIODE MA111-TX	
				D602	8-719-404-50	DIODE MA111-TX	

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
D603	8-719-404-50	DIODE MA111-TX		R112	1-216-071-00	METAL CHIP 8.2K	5% 1/10W
		< FERRITE BEAD >		R113	1-216-081-00	METAL CHIP 22K	5% 1/10W
FB101	1-414-235-22	FERRITE 0uH		R114	1-216-065-00	RES, CHIP 4.7K	5% 1/10W
FB102	1-414-235-22	FERRITE 0uH		R116	1-216-089-00	RES, CHIP 47K	5% 1/10W
		< IC >		R117	1-216-065-00	RES, CHIP 4.7K	5% 1/10W
IC101	8-759-492-49	IC LA4168ML-TE-L		R118	1-216-009-91	RES, CHIP 22	5% 1/10W
IC501	8-759-399-49	IC MM1251BFBE		R119	1-216-121-00	RES, CHIP 1M	5% 1/10W
IC601	8-759-566-10	IC LB1877V-TLM		R122	1-216-081-00	METAL CHIP 22K	5% 1/10W
		< JACK >		R123	1-216-061-00	METAL CHIP 3.3K	5% 1/10W
J101	1-766-847-11	JACK (EAR)		R130	1-216-097-91	RES, CHIP 100K	5% 1/10W
J102	1-766-847-11	JACK (MIC (PLUG IN POWER))		R131	1-216-059-00	METAL CHIP 2.7K	5% 1/10W
		< SHORT >		R132	1-216-061-00	METAL CHIP 3.3K	5% 1/10W
JC601	1-216-295-00	SHORT 0		R133	1-216-045-00	METAL CHIP 680	5% 1/10W
JC602	1-216-295-00	SHORT 0		R134	1-216-061-00	METAL CHIP 3.3K	5% 1/10W
		< COIL >		R136	1-216-097-91	RES, CHIP 100K	5% 1/10W
L501	1-412-032-11	INDUCTOR CHIP 100uH		R137	1-216-073-00	METAL CHIP 10K	5% 1/10W
		< TRANSISTOR >		R141	1-216-073-00	METAL CHIP 10K	5% 1/10W
Q101	8-729-800-37	TRANSISTOR 2SD1048-X7		R142	1-216-025-00	RES, CHIP 100	5% 1/10W
Q102	8-729-402-84	TRANSISTOR XN4601		R143	1-216-057-00	METAL CHIP 2.2K	5% 1/10W
Q103	8-729-420-50	TRANSISTOR UN5215		R401	1-216-065-00	RES, CHIP 4.7K	5% 1/10W
Q104	8-729-230-72	TRANSISTOR 2SA1362YG		R402	1-216-105-00	RES, CHIP 220K	5% 1/10W
Q106	8-729-800-37	TRANSISTOR 2SD1048-X7		R403	1-216-097-91	RES, CHIP 100K	5% 1/10W
Q107	8-729-420-53	TRANSISTOR UN5115		R404	1-216-105-00	RES, CHIP 220K	5% 1/10W
Q108	8-729-402-93	TRANSISTOR UN5214-TX		R501	1-216-107-00	METAL CHIP 270K	5% 1/10W
Q109	8-729-402-96	TRANSISTOR UN5114		R502	1-216-103-00	METAL CHIP 180K	5% 1/10W
Q110	8-729-420-50	TRANSISTOR UN5215		R503	1-216-081-00	METAL CHIP 22K	5% 1/10W
Q401	8-729-402-93	TRANSISTOR UN5214-TX		R504	1-216-083-00	METAL CHIP 27K	5% 1/10W
Q402	8-729-402-93	TRANSISTOR UN5214-TX		R505	1-216-033-00	METAL CHIP 220	5% 1/10W
Q403	8-729-230-63	TRANSISTOR 2SC4116-YG		R506	1-216-037-00	METAL CHIP 330	5% 1/10W
Q404	8-729-420-50	TRANSISTOR UN5215		R507	1-216-051-00	METAL CHIP 1.2K	5% 1/10W
Q501	8-729-402-93	TRANSISTOR UN5214-TX		R508	1-216-037-00	METAL CHIP 330	5% 1/10W
Q502	8-729-420-50	TRANSISTOR UN5215		R509	1-216-045-00	METAL CHIP 680	5% 1/10W
Q503	8-729-230-63	TRANSISTOR 2SC4116-YG		R510	1-216-041-00	METAL CHIP 470	5% 1/10W
Q601	8-729-402-96	TRANSISTOR UN5114		R511	1-216-075-00	METAL CHIP 12K	5% 1/10W
Q602	8-729-030-46	TRANSISTOR XP4314-TX		R512	1-216-081-00	METAL CHIP 22K	5% 1/10W
Q603	8-729-823-86	TRANSISTOR 2SA1745		R513	1-216-009-91	RES, CHIP 22	5% 1/10W
Q604	8-729-823-86	TRANSISTOR 2SA1745		R514	1-216-021-00	METAL CHIP 68	5% 1/10W
Q605	8-729-420-24	TRANSISTOR 2SB1218A-QRS		R611	1-216-061-00	METAL CHIP 3.3K	5% 1/10W
		< RESISTOR >		R612	1-216-121-00	RES, CHIP 1M	5% 1/10W
R101	1-216-065-00	RES, CHIP 4.7K	5% 1/10W	R613	1-216-121-00	RES, CHIP 1M	5% 1/10W
R102	1-216-049-11	RES, CHIP 1K	5% 1/10W	R614	1-216-121-00	RES, CHIP 1M	5% 1/10W
R103	1-216-069-00	METAL CHIP 6.8K	5% 1/10W	R615	1-216-085-00	METAL CHIP 33K	5% 1/10W
R104	1-216-073-00	METAL CHIP 10K	5% 1/10W	R616	1-216-069-00	METAL CHIP 6.8K	5% 1/10W
R105	1-216-061-00	METAL CHIP 3.3K	5% 1/10W	R617	1-216-085-00	METAL CHIP 33K	5% 1/10W
R106	1-216-061-00	METAL CHIP 3.3K	5% 1/10W	R618	1-216-085-00	METAL CHIP 33K	5% 1/10W
R108	1-216-085-00	METAL CHIP 33K	5% 1/10W	R619	1-216-065-00	RES, CHIP 4.7K	5% 1/10W
R109	1-216-037-00	METAL CHIP 330	5% 1/10W	R620	1-216-025-00	RES, CHIP 100	5% 1/10W
R110	1-216-037-00	METAL CHIP 330	5% 1/10W	R621	1-216-025-00	RES, CHIP 100	5% 1/10W
R111	1-216-075-00	METAL CHIP 12K	5% 1/10W	R622	1-216-065-00	RES, CHIP 4.7K	5% 1/10W
		< VARIABLE RESISTOR >		R623	1-216-081-00	METAL CHIP 22K	5% 1/10W
RV101	1-225-597-11	RES, VAR, CARBON 10K (VOL)		R624	1-216-069-00	METAL CHIP 6.8K	5% 1/10W
RV604	1-238-663-11	RES, ADJ, CARBON 4.7K		R625	1-216-069-00	METAL CHIP 6.8K	5% 1/10W
RV605	1-225-293-11	RES, VAR, CARBON 10K (SPEED CONTROL)		R628	1-216-061-00	METAL CHIP 3.3K	5% 1/10W

TCM-40DV

MAIN

Ref. No.	Part No.	Description	Remark
RV606	1-238-663-11	RES, ADJ, CARBON 4.7K	
		< SWITCH >	
S101	1-771-321-11	SWITCH, SLIDE (REC/PB)	
S102	1-771-092-21	SWITCH, PUSH (1 KEY) (POWER)	
S105	1-572-922-11	SWITCH, SLIDE (PAUSE \blacktriangleright)	
		< THERMISTOR >	
TH602	1-809-350-21	THERMISTOR, NTC (2125)	
THP606	1-810-794-11	THERMISTOR, POSITIVE	

MISCELLANEOUS *****

57	1-548-582-11	COUNTER, TAPE (SMALL TYPE)	
71	1-649-600-11	MOTOR FLEXIBLE BOARD	
HE901	1-500-515-11	HEAD, MAGNETIC (ERASE)	
HRP901	1-500-073-51	HEAD, MAGNETIC (RECORD/PLAYBACK)	
M901	1-698-875-11	MOTOR, DC (CAPSTAN/REEL) (WITH PULLEY)	
SP901	1-505-838-11	SPEAKER (3.6cm)	

ACCESSORIES & PACKING MATERIALS *****

3-864-568-11	MANUAL, INSTRUCTION (ENGLISH, FRENCH) (US, Canadian)	
3-864-568-21	MANUAL, INSTRUCTION (ENGLISH, SPANISH, PORTUGUESE) (AEP, E)	
3-864-568-31	MANUAL, INSTRUCTION (FRENCH, GERMAN, DUTCH) (AEP)	
3-864-568-41	MANUAL, INSTRUCTION (SWEDISH, ITALIAN, FINNISH) (AEP)	
3-864-568-51	MANUAL, INSTRUCTION (CHINESE, ENGLISH) (Chinese)	
3-864-568-61	MANUAL, INSTRUCTION (CHINESE) (E)	
3-864-568-71	MANUAL, INSTRUCTION (SPANISH) (US)	