TCS-580V

SERVICE MANUAL

US Model
Canadian Model
AEP Model
UK Model
E Model
Tourist Model

Model Name Using Similar Mechanism	NEW
Tape Transport Mechanism Type	MT-580-101

SPECIFICATIONS

Track
Compact cassette, Stereo
Speaker
Approx. 3.6 cm (1⅜ in.) dia.
Frequency range
40 – 12,500 Hz (during playback)
70 – 10,000 Hz (during recording)
Input
Microphone input jack (minijack/PLUG IN POWER) sensitivity 0.2 mV for 3 kilohms or lower impedance microphone
Output
Headphones jack (stereo minijack) for 8 – 300 ohms headphones
Power output
Speaker 120 mW
Headphones 7 mW + 7 mW (US, Canadian model)
5 mW + 5 mW (EXCEPT US, Canadian model)
Variable range of the tape speed
from +30% to –15%

Power requirements
- Two R6 (size AA) batteries (not supplied): 3 V DC
- Sony AC-E30M (EXCEPT US, Canadian model) or AC-E30L (US, Canadian model) AC Power adaptor (not supplied):
  240 V AC, 50 Hz (UK model)
  120 V AC, 60 Hz (US, Canadian model)
  220 – 230 V AC, 50 or 60 Hz (AEP, German model)
  110 – 120V/220 – 240 V AC, 50 or 60Hz (E, Tourist model)
- Sony DCC-E130L car battery cord (not supplied): 12 V car battery

Dimensions (w/h/d)
Approx. 90 x 125 x 36 mm incl. projecting parts and controls
Mass
Approx. 265 g incl. batteries
Supplied accessories
Carrying case (1)
Headphones (1)

Design and specifications are subject to change without notice.

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

CASSETTE-CORDER

SONY®

TABLE OF CONTENTS

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

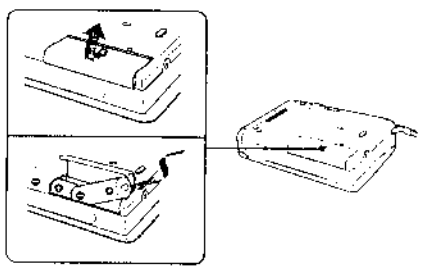
- Never reuse a disconnected chip component.
- Notice that the minus side of a tantalum capacitor may be damaged by heat.

SECTION 1
GENERAL

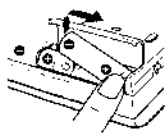
This section is extracted from instruction manual.

A

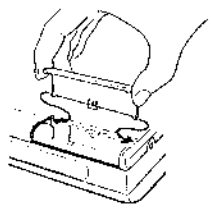
ⓐ



ⓑ

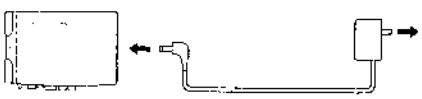


ⓒ



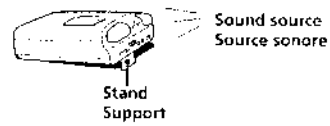
ⓓ

AC-E30M or AC-E30L (for us, Canadian model) AC power adaptor (not supplied)

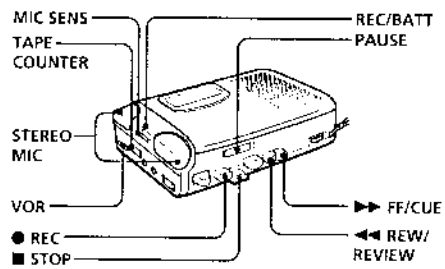


B

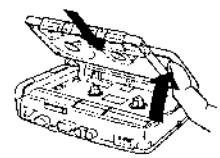
ⓐ



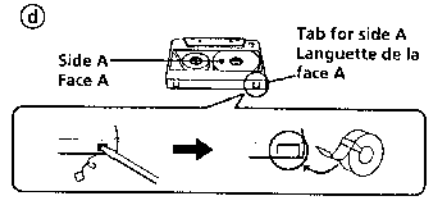
ⓑ



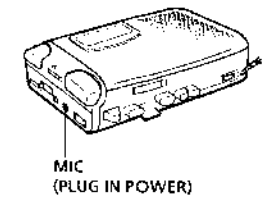
ⓒ



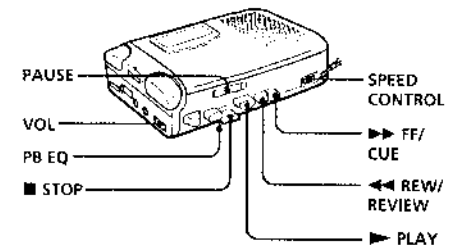
ⓓ



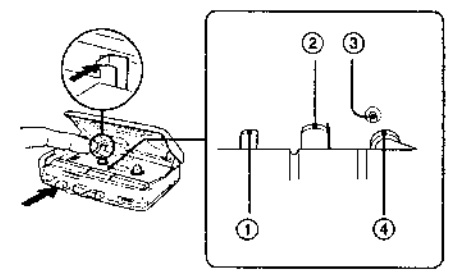
C



D



E



Preparing Power Sources

Choose one of the following power sources.

Dry Batteries (see Fig. A-ⓒ)

Make sure that nothing is connected to the DC IN 3V jack.

1 Open the battery compartment lid.
2 Insert two R6 (size AA) batteries (not supplied) with correct polarity and close the lid.

To take out the batteries (see Fig. A-ⓑ)

If the battery compartment lid is accidentally detached (see Fig. A-ⓒ)

Attach it as illustrated.

When to replace the batteries

Replace the batteries with new ones when the REC/BATT (record/battery) lamp dims and the sound is distorted

Battery life (Approx. hours)

Batteries	Recording	Playback
Sony SUM-3 (NS)	3	2.5
Sony alkaline AM3 (N)	10.5	8.5

House Current (see Fig. A-ⓓ)

Connect the AC power adaptor to DC IN 3V and to the wall outlet. Use the AC-E30M or AC-E30L (for Canadian model) AC power adaptor (not supplied). Do not use any other AC power adaptor.

Polarity of the plug

Recording (see Fig. B-ⓐ, ⓑ)

Make sure that nothing is connected to MIC.

1 Open the cassette compartment lid with your finger.
2 Insert a normal (TYPE I) cassette with the side to start recording facing the lid. (see Fig. B-ⓒ)
3 Set VOR to ON or OFF.
If you set VOR to ON, the unit automatically starts recording the sound and pauses when there is no sound (you can save tapes and batteries).
When the sound is not loud enough, set it to OFF, or the unit may not start recording.
4 Set MIC SENS to select the sensitivity of the microphone:
H (high) to record at meetings or in a quiet and/or spacious place.
L (low) to record for dictation or in a noisy place.
5 Press ● REC. The ► PLAY button will be depressd together.
Recording starts. While the tape runs, the REC/BATT lamp lights and flashes depending on the strength of the sound.

To	Press or slide
Stop recording	■ STOP
Start recording during playback	●REC during playback (the unit becomes in the recording mode)
Review the portion just recorded	Press and hold ◄◄ REW/REVIEW during recording. Release the button at the point to start playback.
Pause recording	Slide PAUSE ⟶ in the direction of the arrow
Take out a cassette	■ STOP and open the lid with your finger (see Fig. B-ⓒ)

Notes

- Do not use a CrO_2 (TYPE II) or metal (TYPE IV) tape for recording; otherwise the sound may be distorted when you play back the tape, or the previous recording may not be erase completely.
- Be careful not to press the microphones forcibly. Otherwise, the microphones will be damaged and cause noise.
- The SPEED CONTROL switch works in the playback mode only. Recording will be made independent of this control.

Notes on VOR (Voice Operated Recording)

- The VOR system depends on the environmental conditions. If you cannot get the desired results even though you adjust MIC SENS, set VOR to OFF.
- When you use the system in a noisy place, the unit will stay in the recording mode. If the sound is too soft, on the contrary, the unit will not start recording. Set MIC SENS to H (high) or L (low) depending on the conditions to pick up necessary sound only.

To monitor the sound

Connect the headphones (supplied) to ∩.

To prevent a tape from being accidentally recorded over (see Fig. B-ⓓ)

Break out and remove the cassette tabs. To reuse the tape for recording, cover the tab hole with adhesive tape.

Recording from Various Sound Sources (see Fig. C)

Recording with an External Microphone

Connect a stereo microphone with stereo mini plug to MIC. Use a microphone of low impedance (less than 3 kilohms). When an external microphone is connected to MIC firmly, the built-in stereo microphones are automatically disconnected. When using a plug-in-power system microphone, the power to the microphone is supplied from this unit.

Note

When recording with an external microphone, check the sensitivity of the microphone, since the VOR system may not work properly because of the difference in sensitivity.

Recording from Another Equipment

Connect another equipment to MIC using a connecting cord (not supplied).

Playing a Tape (see Fig.D)

1 Insert a cassette with the side to start playing facing the lid.
2 Press ► PLAY.
3 Adjust the volume.

To	Press or slide
Stop playback/stop fast forward or rewind*	■ STOP
Pause playback	Slide PAUSE ⟶ in the direction of the arrow.
Fast forward	►► FF/CUE during stop
Rewind	◄◄ REW/REVIEW during stop
Search forward during playback (CUE)	Press and hold ►► FF/CUE and release it at the point you want.
Search backward during playback (REVIEW)	Press and hold ◄◄ REW/REVIEW and release it at the point you want.

* If you leave the unit after the tape has been wound or rewound, the batteries will be consumed rapidly. Be sure to depress ■ STOP.

How to adjust the tape playback speed

Use the SPEED CONTROL.
S (slow): to play back a tape slower
Center position: to play back a tape at normal speed
F (fast): to play back a tape faster

How to equalize the sound

Set the PB EQ switch depending on the playback tape.

Tape	PB EQ switch
Normal tape (TYPE I)	NORMAL
CrO_2 (TYPE II) or metal tape (TAPE IV)	CrO_2/METAL

Precautions

On power

- Operate the unit only on 3 V DC.
For AC operation, use the AC power adaptor recommended for the unit. Do not use any other type.
For battery operation, use two R6 (size AA) batteries.
- The nameplate indicating operating voltage, etc. is located on the bottom of the unit.

On the unit

- Do not leave the unit in a location near heat sources, or in a place subject to direct sunlight, excessive dust or mechanical shock.
- Should any solid object or liquid fall into the unit, remove the batteries or disconnect the AC power adaptor, and have the unit checked by qualified personnel before operating it any further.
- Keep personal credit cards using magnetic coding or spring-wound watches etc. away from the unit to prevent possible damage from the magnet used for the speaker.
- When you do not use the unit for long, remove the batteries to avoid damage caused by battery leakage and subsequent corrosion.
- If the unit has not been used for long, set it in the playback mode and warm it up for a few minutes before inserting a tape.

On tape longer than 90 minutes

We do not recommend the use of tapes longer than 90 minutes.

If you have any questions or problems concerning your unit, please consult your nearest Sony dealer.

Maintenance (see Fig. E)

To clean the tape heads and path

Depress ● REC while pushing the lever.
Wipe the erase head ①, record/playback head ②, capstan ③ and the pinch roller ④ with a cotton swab, moistened with alcohol every 10 hours of use.

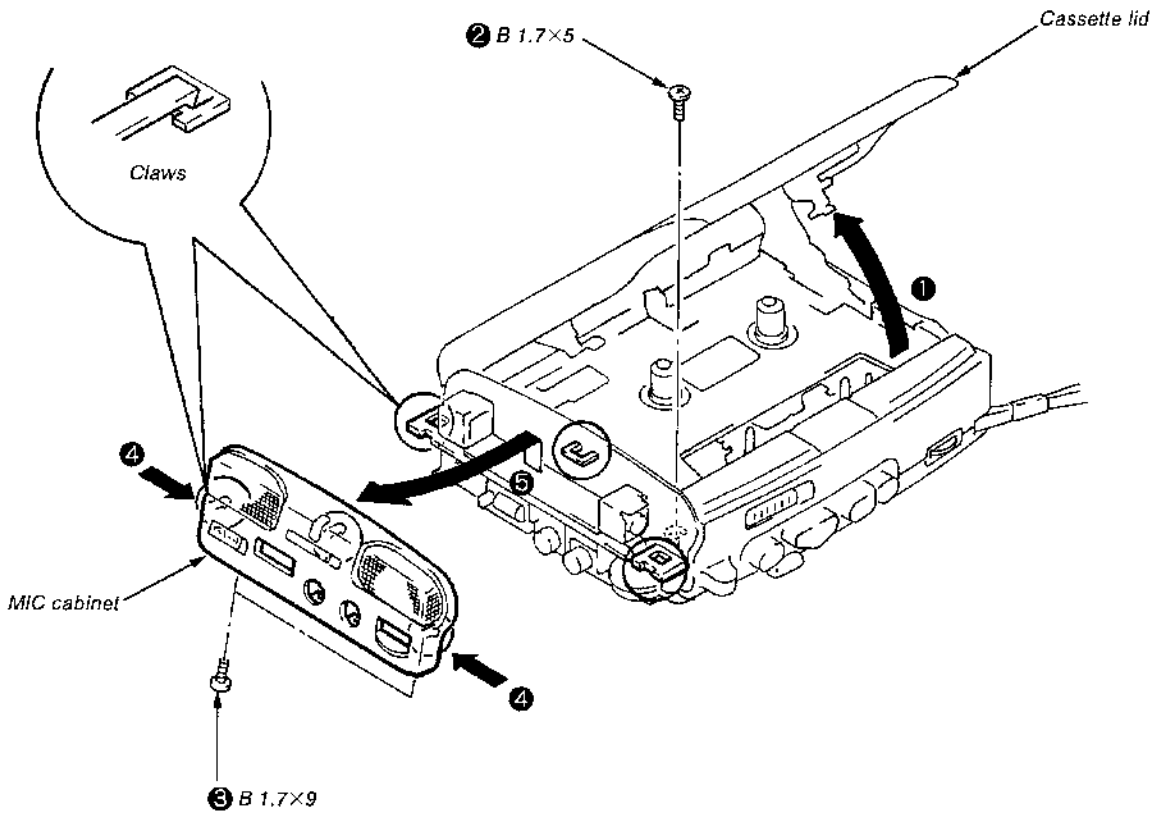
To clean the exterior

Use a soft cloth slightly moistened in water. Do not use alcohol, benzine or thinner.

SECTION 2
DISASSEMBLY

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

2-1. MIC CABINET



SECTION 3
ADJUSTMENTS

3-1. MECHANICAL ADJUSTMENTS

PRECAUTION

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

record/playback head	pinch roller
erase head	rubber belts
capstan	idlers

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

Torque Measurement

Torque	Meter Reading	Torque Meter
Forward	26 – 42g•cm (0.37 – 0.58oz•inch)	CQ-102C
Fast Forward and Rewind	more than 60g•cm (0.84oz•inch)	CQ-201B
Back Tension	2 – 4.5g•cm (0.028 – 0.062oz•inch)	CQ-102C

Tape Tension Measurement

Meter	Meter Reading
CQ-403A	more than 60g (2.12oz)

3-2. ELECTRICAL ADJUSTMENTS

TAPE RECORDER SECTION

- **Test Tape**

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

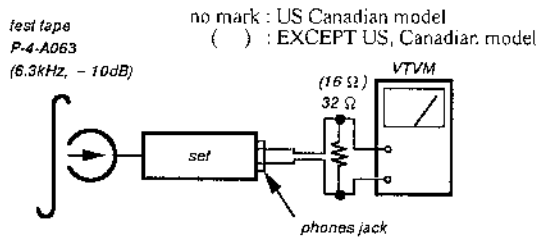
Setting :

VOLUME Control (RV301) : – 10dB
SPEED Control (RV602) : mechanical center
PAUSE (S601) : OFF
MIC Sense (S303) : H
VOR (S501) : OFF
PB EQ (S302) : normal

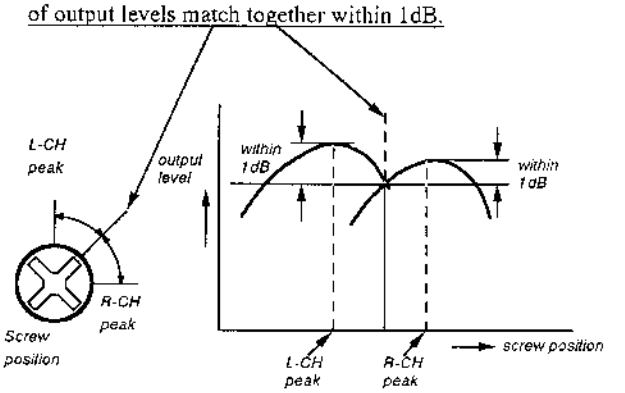
Record/Playback Head Azimuth Adjustment

Procedure :

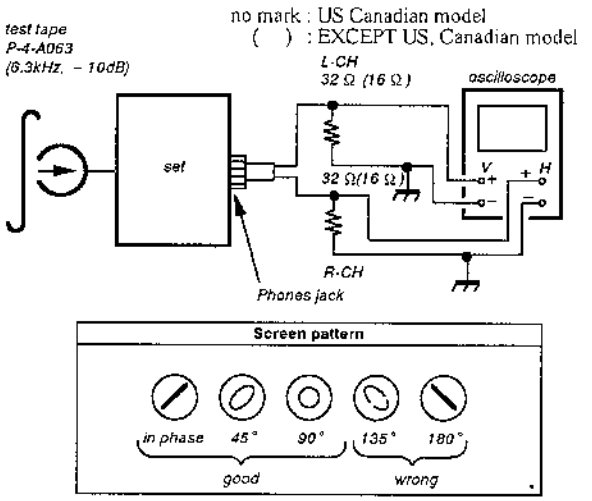
1. Playback Mode



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.

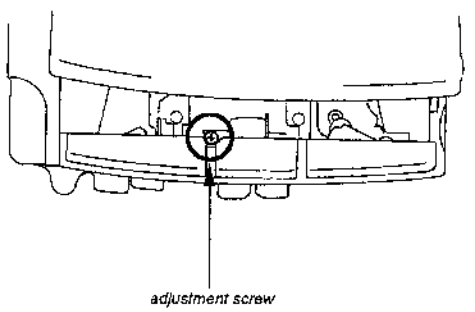


3. Playback Mode



4. After the adjustment, lock the adjustment screws with suitable locking compound.

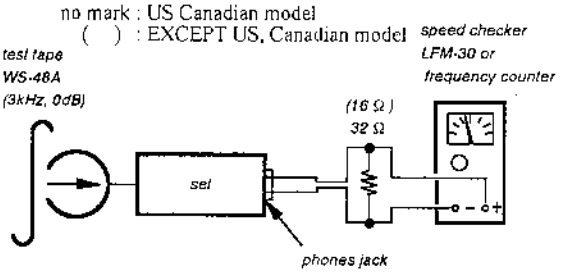
Adjustment Location : – record/playback head –



Tape Speed Adjustment

Procedure :

Mode : playback

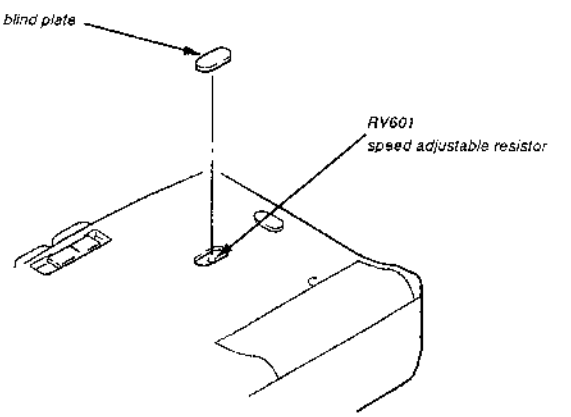


Adjustment Value :

Speed checker	Frequency counter
± 1%	2,970 – 3,030Hz

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

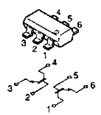
Adjustment Location :



SECTION 4
DIAGRAMS

● SEMICONDUCTOR LEAD LAYOUTS

XN4504

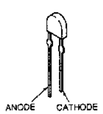


MA110

MA729

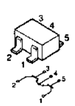
UN5114
UN5214
UN5217
2SA1745
2SB624-BV345
2SD596DV345

BR5379K



2SD1819A-R

XN1501
XN1214
XN1217



● SEMICONDUCTOR LOCATION

Ref. No.	Location	Ref. No.	Location
D303	D - 9	Q305	B - 8
D304	B - 12	Q306	E - 3
D601	E - 10	Q307	E - 3
D602	F - 9	Q308	D - 3
		Q309	D - 4
IC301	E - 8	Q502	D - 10
IC302	D - 8	Q503	E - 2
IC303	C - 3	Q601	G - 9
IC501	E - 10	Q602	D - 10
IC601	G - 8	Q603	H - 2
IC602	E - 10	Q604	H - 3
		Q606	E - 10
		Q607	F - 2
Q101	E - 3	Q608	F - 9
Q102	E - 3	Q609	E - 2
Q201	F - 4		
Q202	E - 4	Q610	E - 2
Q301	C - 3	Q611	F - 2
		Q612	F - 9
Q302	C - 10	Q613	D - 10
Q303	D - 8	Q614	E - 10
Q304	B - 4		

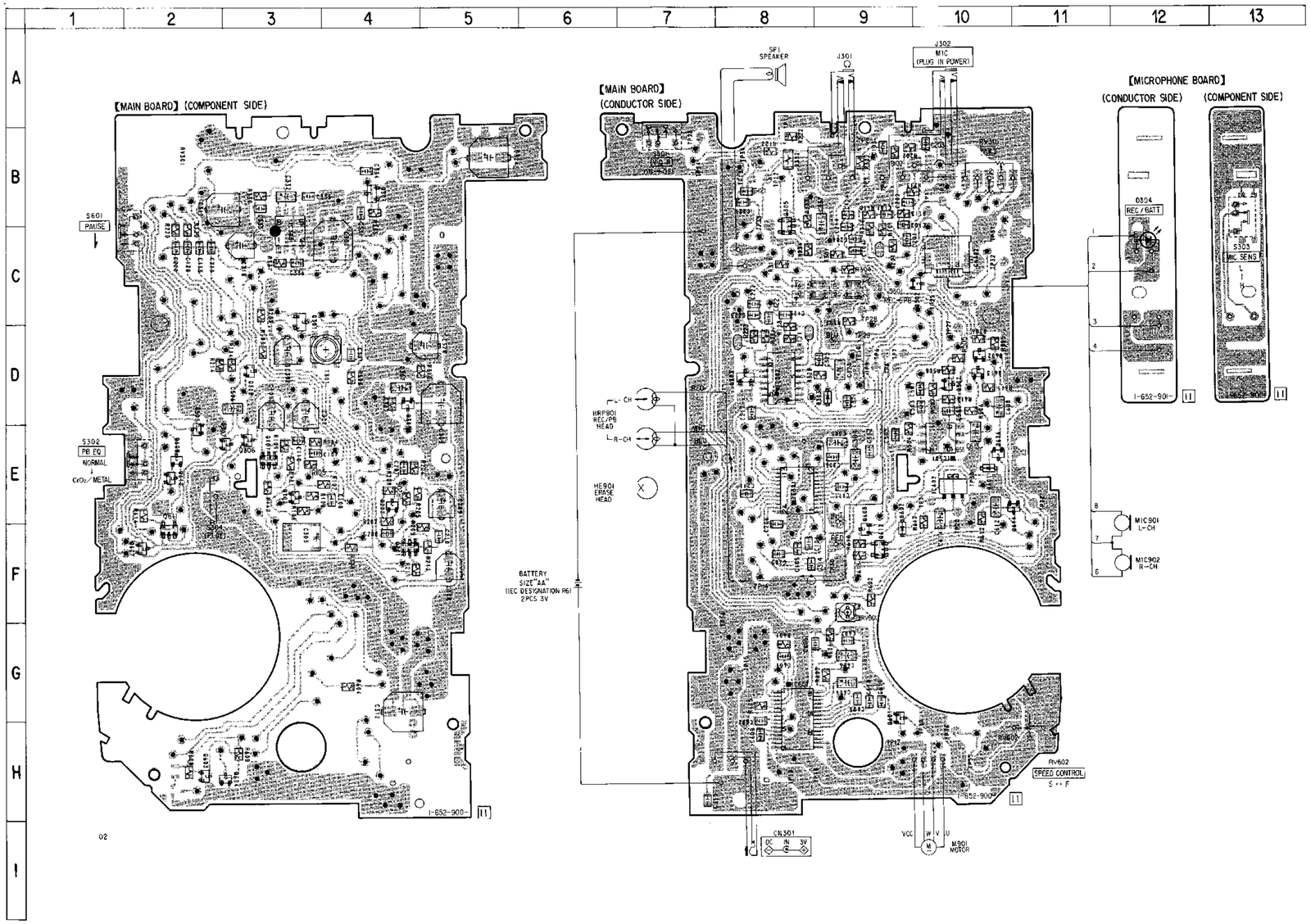
Note:

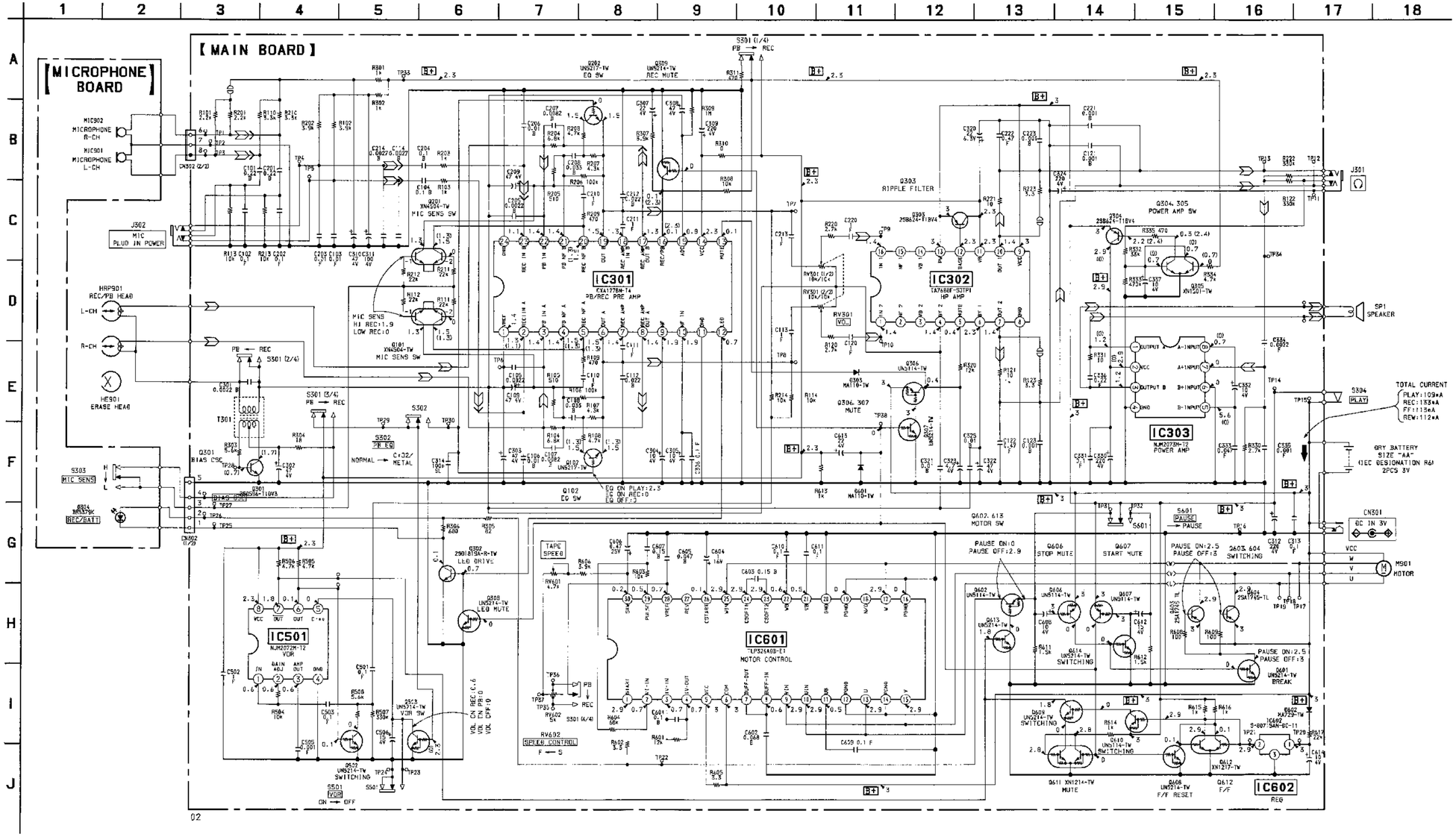
- ○—— : parts extracted from the component side.
- ■ : parts mounted on the conductor side.
- ● : Through hole.
- ▒▒ : Pattern from the side which enables seeing. (The other layers' patterns are not indicated)

Caution :

Pattern face side : (Conductor Side) Parts on the pattern face side seen from the pattern face are indicated.
Parts face side : (Component side) Parts on the parts face side seen from the parts face are indicated.

4-1. PRINTED WIRING BOARDS



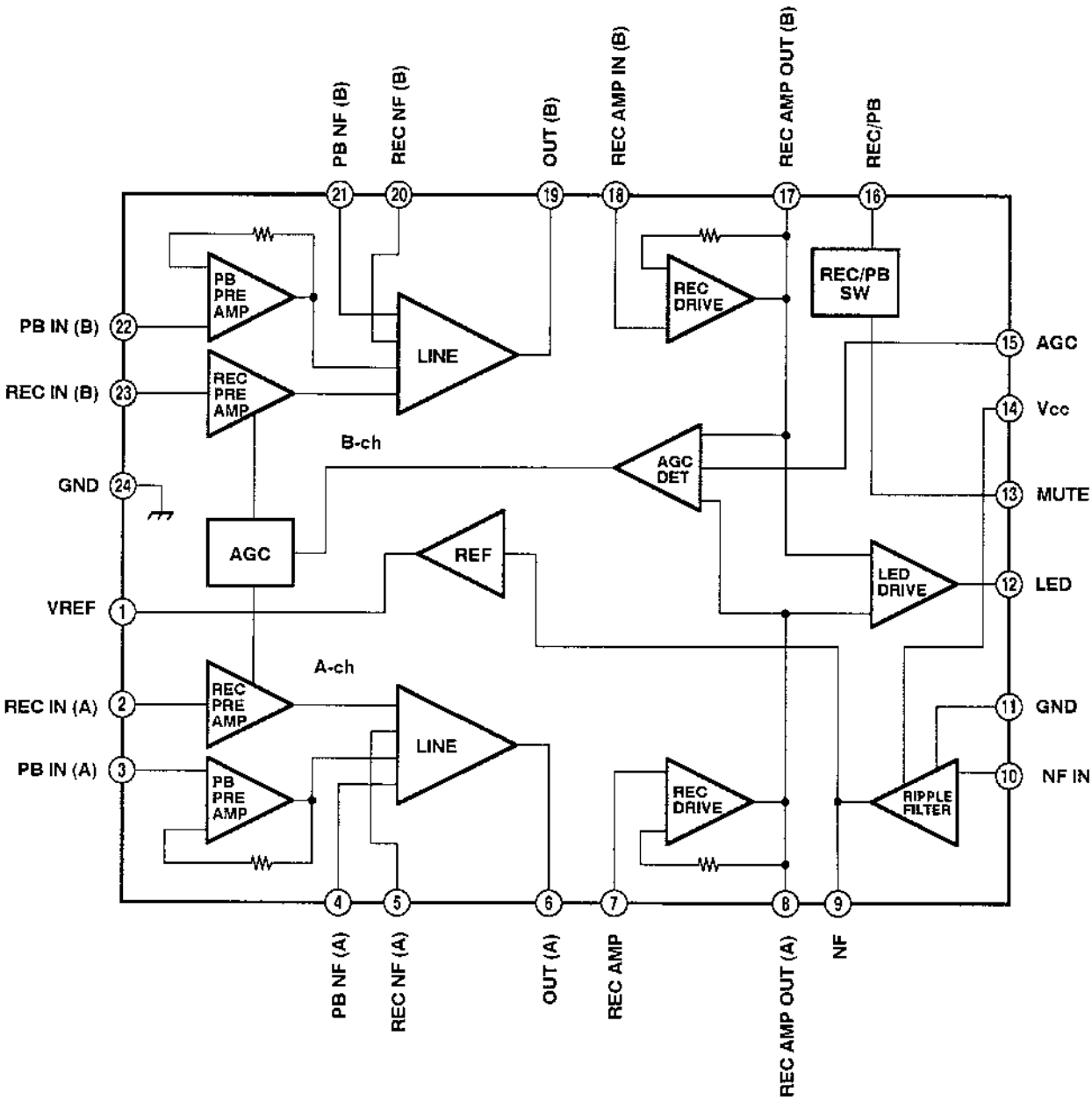


Note :

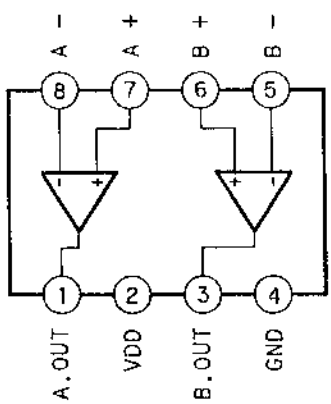
- All capacitors are in μ F unless otherwise noted. pF: μ μ F 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/10W or less unless otherwise specified.
- B+ : B+ Line
- [ ] : adjustment for repair.
- Voltage and waveforms are dc with respect to ground under no-signal conditions.
  no mark : PLAY
  ( ) : REC
- Voltages are taken with a VOM (Input impedance 10M Ω). Voltage variations may be noted due to normal production tolerances.
- Signal path.
  ▷ : PB
  ▷▷ : REC

● IC BLOCK DIAGRAMS

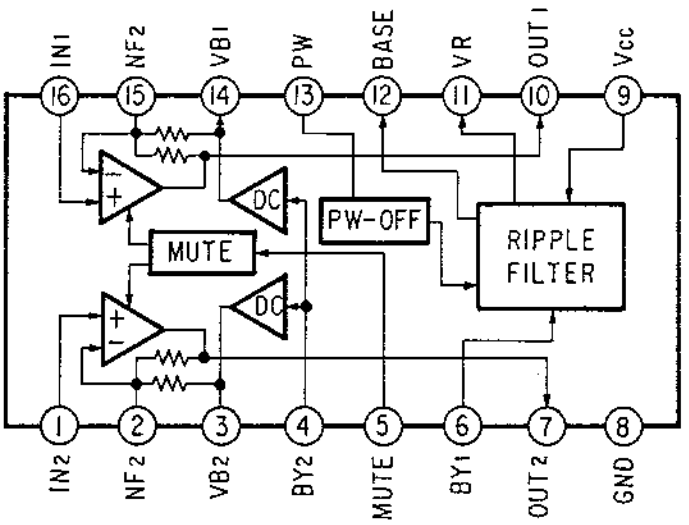
IC301 CXA1278N



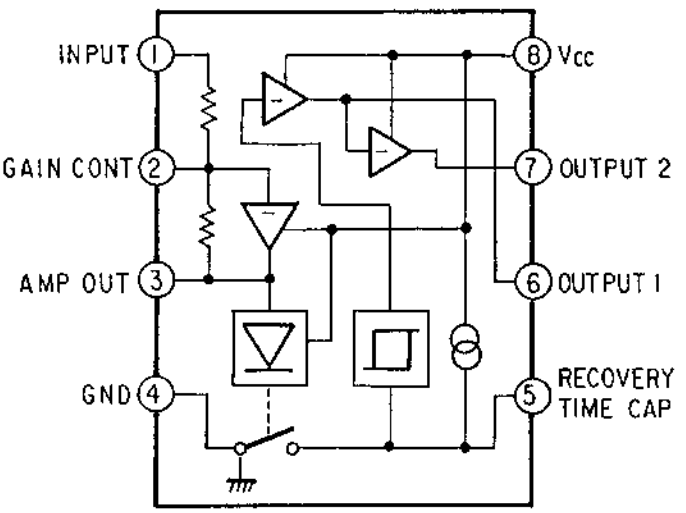
IC303 NJM2073M



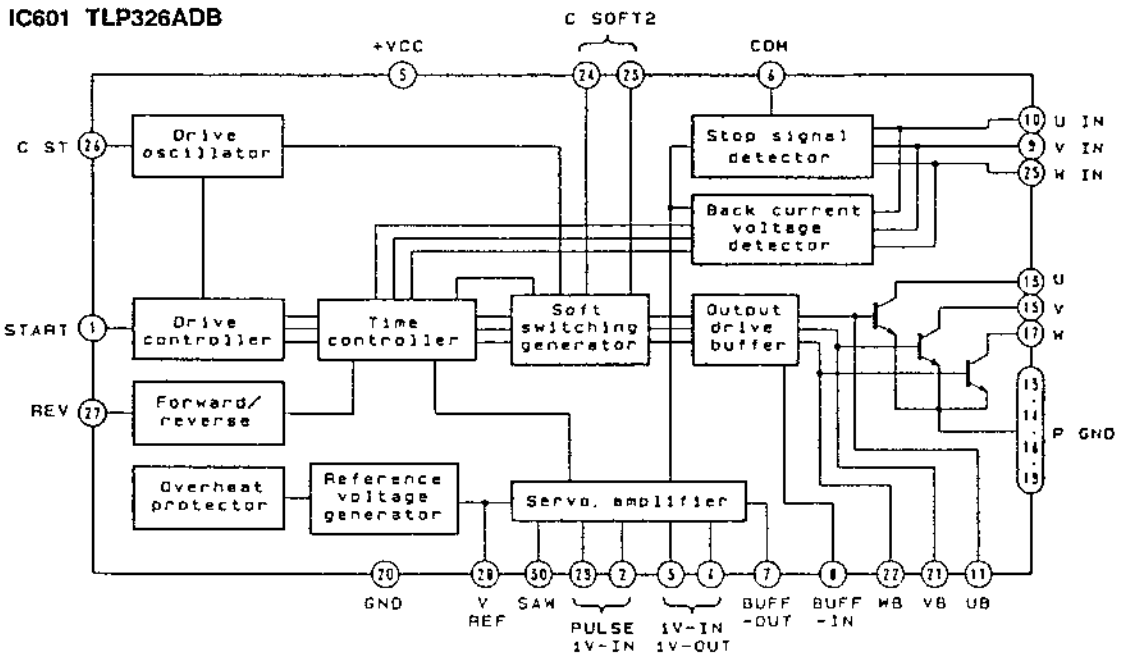
IC302 TA7688F



IC501 NJM2072M



IC601 TLP326ADB

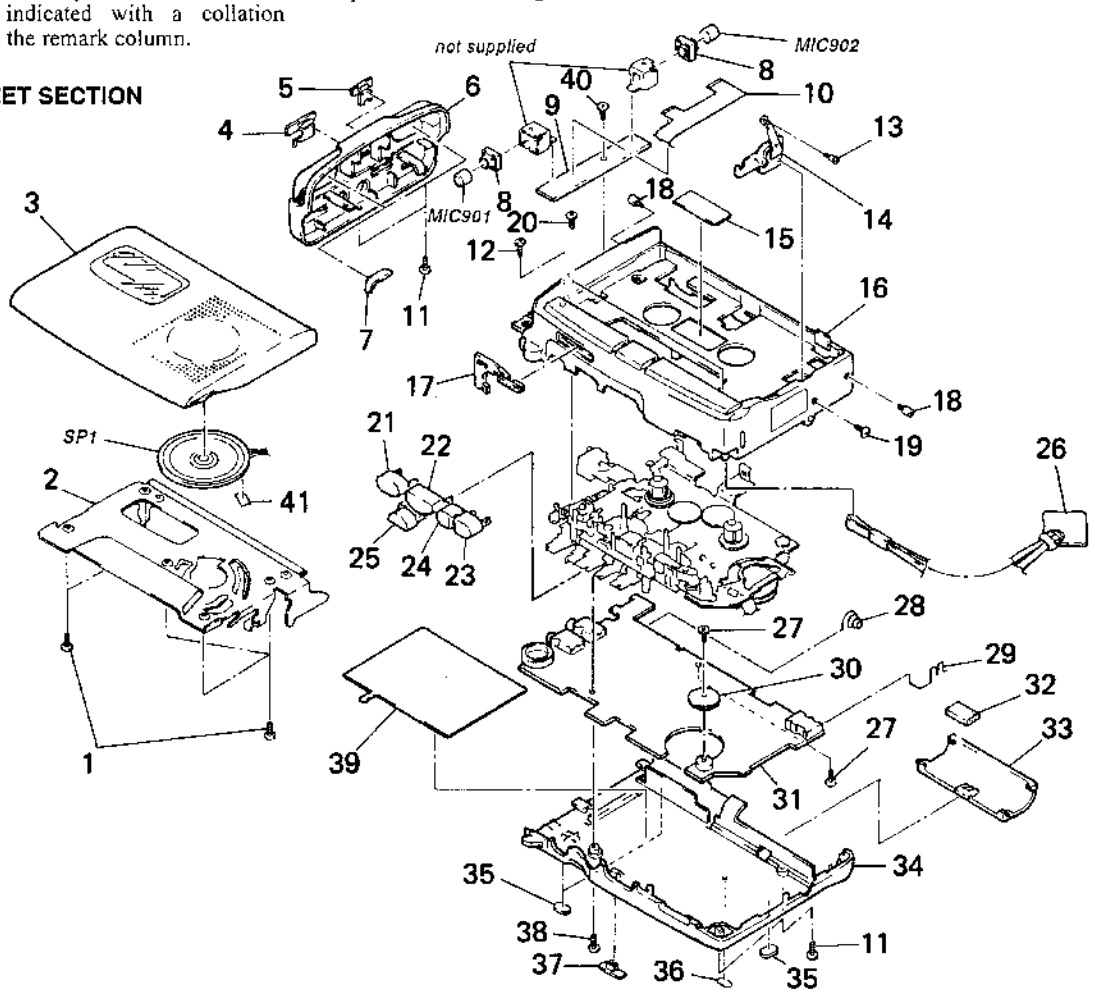


SECTION 5
EXPLODED VIEWS

NOTE :

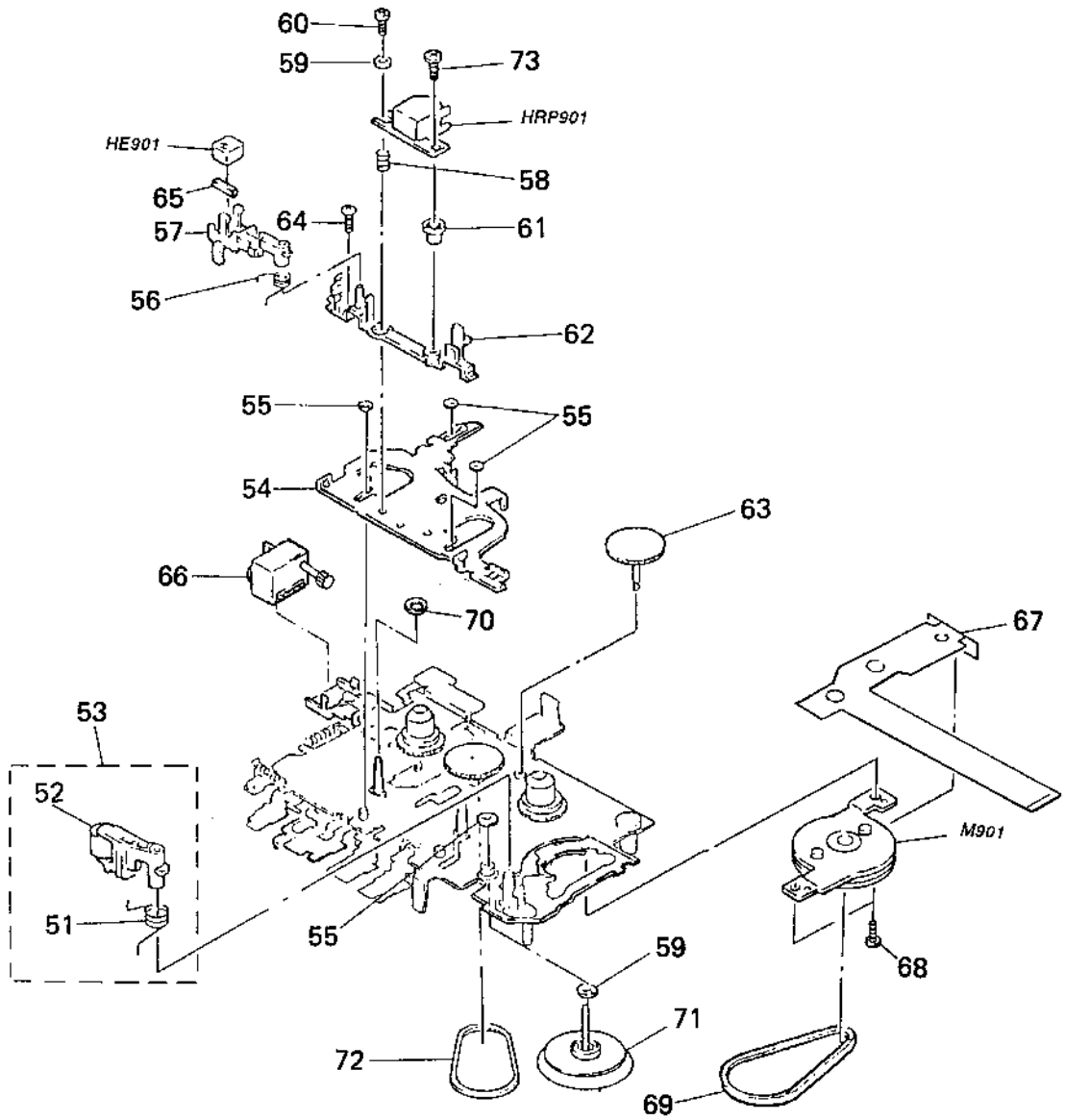
- -XX, -X mean standardized parts, so they may have some difference from the original one.
- The construction parts of an assembled part are indicated with a collation number in the remark column.
- Items marked " * "are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.

5-1. CABINET SECTION



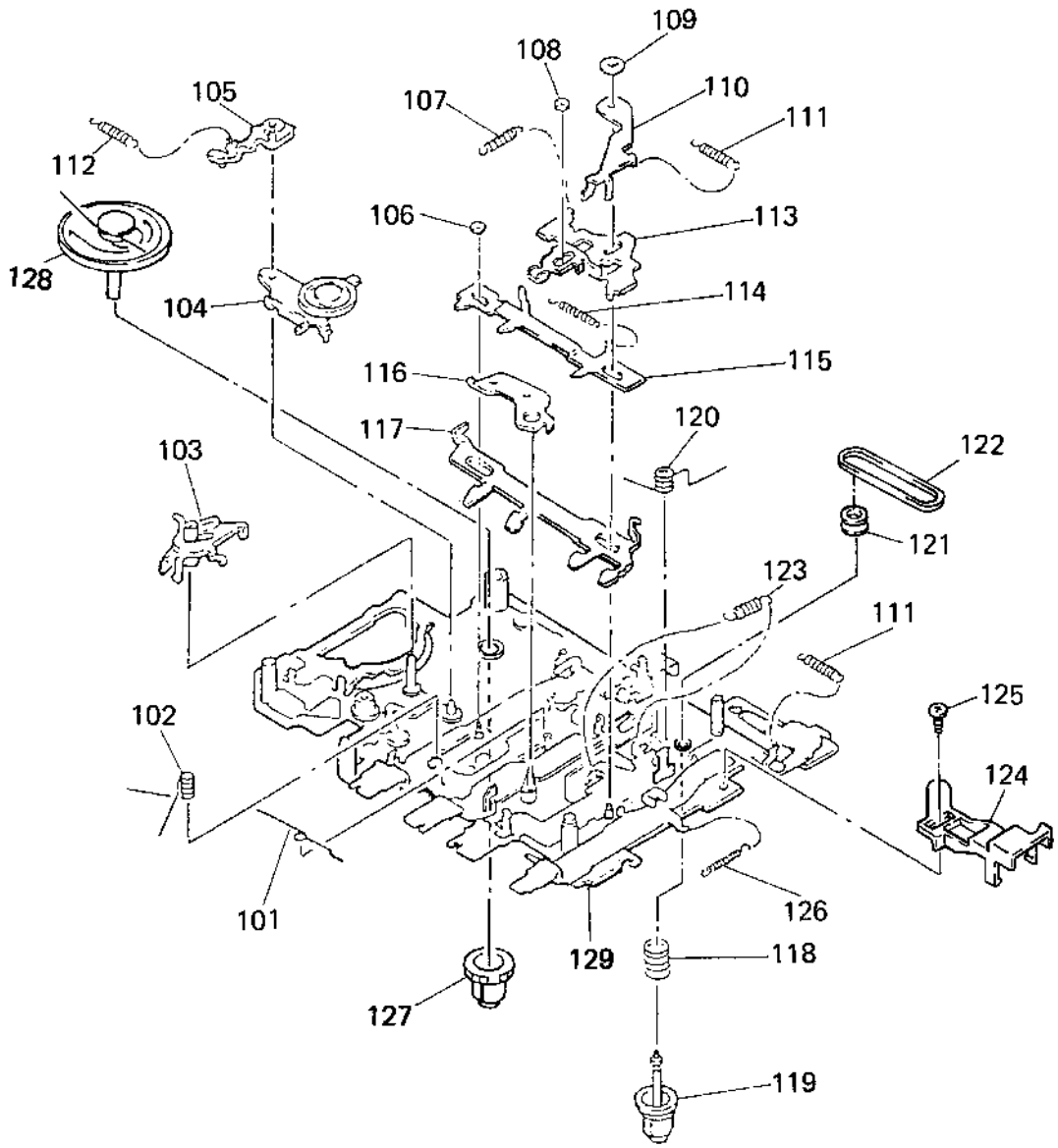
Ref. No.	Part No.	Description	Remark
1	3-318-382-41	SCREW (1.7X3.7), TAPPING	
* 2	3-913-193-01	HOLDER, CASSETTE	
3	X-3368-508-1	LID SUB ASSY, CASSETTE	
4	3-913-192-01	KNOB (MICROPHONE SENSITIVITY)	
5	3-913-205-01	KNOB (VOR)	
6	X-3368-501-1	CABINET ASSY, MIC	
7	3-913-199-01	SPACER (WINDOW SCREEN)	
8	3-913-203-01	CUSHION (MICROPHONE)	
* 9	1-652-901-11	MICROPHONE BOARD	
* 10	1-652-947-11	MICROPHONE FLEXIBLE BOARD	
11	3-318-203-92	SCREW (B1.7X9), TAPPING	
12	3-318-203-71	SCREW (B1.7X5), TAPPING	
13	3-311-772-11	SHAFT (A), STOPPER	
14	X-3363-570-1	TOGGLE ASSY	
15	3-371-862-01	PLATE, ORNAMENTAL	
16	3-913-200-11	CABINET (FRONT)	
17	3-913-201-01	KNOB (PAUSE)	
18	3-315-989-11	SCREW, ORNAMENTAL	
19	3-704-197-32	SCREW (M1.4X3.0)	
20	3-704-245-42	SCREW (P1.4X3.0)	
21	3-907-539-01	BUTTON (REC)	
22	3-907-543-01	BUTTON (PLAY)	
23	3-907-540-01	BUTTON (FF)	
24	3-907-541-01	BUTTON (REW)	
25	3-907-542-01	BUTTON (STOP)	
26	3-914-327-01	STRAP, STAND	
27	3-345-648-03	SCREW (M1.4X4.0), TOOTHED LOCK	
28	3-907-524-01	SPRING, BATTERY COIL	
29	3-917-218-01	TERMINAL BOARD, PLUS	
30	3-376-713-11	KNOB (SPEED CONTROL)	
* 31	A-3016-589-A	MAIN BOARD, COMPLETE	
32	3-917-703-01	CUSHION	
33	3-913-207-01	LID, BATTERY CASE	
34	3-913-208-11	CABINET (REAR)	
35	3-349-258-11	PLATE, BLIND	
36	3-349-258-01	PLATE, BLIND	
37	3-913-202-01	KNOB (EQ)	
38	3-704-245-82	SCREW (1.4X5.0)	
39	3-915-925-01	PAPER, SHIELD	
40	3-342-512-11	SCREW (B1.7X3), TAPPING	
41	3-831-441-XX	SPACER, KNOB	
MIC901	1-542-240-11	MICROPHONE, ELECTRET CONDENSER (L-CH)	
MIC902	1-542-240-11	MICROPHONE, ELECTRET CONDENSER (R-CH)	
SP1	1-544-657-12	SPEAKER (3.6CM)	

5-2. MECHANISM DECK SECTION-1
(MT-580-101)



Ref.No.	Part No.	Description	Remark
51	3-907-945-01	SPRING (PINCH LEVER), TORSION	
52	X-3363-573-1	PINCH ROLLER ASSY	
53	X-3368-041-1	PINCH ROLLER ASSY	
* 54	3-371-838-01	LEVER (HEAD)	
55	3-321-483-11	RING, RETAINING	
56	3-371-873-01	SPRING (E HEAD), TORSION	
57	3-371-851-01	BRACKET (E HEAD)	
58	3-371-882-01	SPRING (AZIMUTH), COMPRESSION	
59	3-701-437-41	WASHER	
60	3-375-135-01	SCREW (1.4), SPECIAL	
61	3-375-045-01	COLLAR (HEAD)	
62	3-371-839-01	BRACKET (HEAD)	
63	3-371-854-01	GEAR (FF)	
64	3-704-197-91	SCREW (M1.4X1.8), LOCKING	
65	3-385-317-11	CUSHION (E HEAD)	
66	1-548-582-11	COUNTER, TAPE (SMALL TYPE)	
67	1-649-600-11	MOTOR FLEXIBLE BOARD	
68	3-704-245-42	SCREW (P1.4X3.0)	
69	3-371-868-01	BELT (FR)	
70	3-914-418-01	SPACER	
71	X-3367-493-1	WHEEL ASSY (ZNDC), CAPSTAN	
72	3-907-943-01	BELT (CAPSTAN)	
73	3-376-177-01	SCREW (M1.4X3.8)	
HE901	8-658-096-02	HEAD, ERASE EBF5-36 (ERASE)	
HRP901	1-500-126-11	HEAD, MAGNETIC(RECORD/PLAYBACK)	
M901	1-698-220-11	MOTOR, DC	

5-3. MECHANISM DECK SECTION-2
(MT-580-101)



Ref.No.	Part No.	Description	Remark
101	3-371-871-01	SPRING (IDLER), TORSION	
102	3-371-872-01	SPRING (FR), TORSION	
* 103	3-371-863-01	LEVER (DETECTION)	
104	X-3363-568-1	LEVER ASSY, IDLER	
* 105	3-371-864-01	LEVER (SHUT OFF)	
106	3-321-813-21	WASHER, COTTER POLYETHYLENE	
107	3-907-947-01	SPRING (STOP LEVER), TENSION	
108	3-371-883-01	WASHER (STOP LEVER)	
109	3-371-884-01	WASHER (P-S-R)	
* 110	3-907-520-01	LEVER (PAUSE RELEASE)	
111	3-911-371-01	SPRING, TENSION	
112	3-371-877-01	SPRING(SHUT-OFF LEVER), TENSION	
* 113	3-907-521-01	LEVER (STOP)	
114	3-371-875-01	SPRING (LOCK PLATE), TENSION	
* 115	3-371-857-01	LEVER (SW)	
* 116	3-371-858-01	LEVER, CR	
* 117	3-371-856-01	PLATE, LOCK	
118	3-908-734-01	SPRING (B.T), COMPRESSION	
119	3-371-866-01	GEAR (S REEL)	
120	3-907-942-01	SPRING (PLAY LEVER), TORSION	
121	3-907-519-01	PULLEY (S REEL)	
122	3-916-942-01	BELT, COUNTER	
123	3-907-944-01	SPRING (POWER TENSION), TENSION	
* 124	3-913-209-01	HOLDER (COUNTER)	
125	3-704-245-42	SCREW (P1.4X3.0)	
126	3-371-878-01	SPRING (REC LEVER), TENSION	
127	3-371-865-01	GEAR (T REEL)	
128	X-3363-576-1	TABLE ASSY, FELT	
* 129	X-3367-494-7	CHASSIS ASSY	

SECTION 6
ELECTRICAL PARTS LIST

MAIN

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, -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
*	A-3016-589-A	MAIN BOARD, COMPLETE			
		**********			
	3-376-713-11	KNOB (SPEED CONTROL)			
		< CAPACITOR >			
C101	1-164-489-11	CERAMIC CHIP	0.22uF	10%	16V
C102	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C103	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C104	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C105	1-164-161-11	CERAMIC CHIP	0.0022uF	10%	100V
C106	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C107	1-163-020-00	CERAMIC CHIP	0.0082uF	10%	50V
C108	1-163-989-11	CERAMIC CHIP	0.033uF	10%	25V
C109	1-126-607-11	ELECT CHIP	47uF	20%	4V
C110	1-164-346-11	CERAMIC CHIP	1uF		16V
C111	1-164-346-11	CERAMIC CHIP	1uF		16V
C112	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C113	1-164-346-11	CERAMIC CHIP	1uF		16V
C114	1-163-014-00	CERAMIC CHIP	0.0027uF	10%	50V
C120	1-164-346-11	CERAMIC CHIP	1uF		16V
C121	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C121	1-164-182-11	CERAMIC CHIP	0.0033uF	10%	50V
C122	1-164-005-11	CERAMIC CHIP	0.47uF		25V
C123	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C201	1-164-489-11	CERAMIC CHIP	0.22uF	10%	16V
C202	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C203	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C204	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C205	1-164-161-11	CERAMIC CHIP	0.0022uF	10%	100V
C206	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C207	1-163-020-00	CERAMIC CHIP	0.0082uF	10%	50V
C208	1-163-989-11	CERAMIC CHIP	0.033uF	10%	25V
C209	1-126-607-11	ELECT CHIP	47uF	20%	4V

Ref.No.	Part No.	Description			Remark
C210	1-164-346-11	CERAMIC CHIP	1uF		16V
C211	1-164-346-11	CERAMIC CHIP	1uF		16V
C212	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C213	1-164-346-11	CERAMIC CHIP	1uF		16V
C214	1-163-014-00	CERAMIC CHIP	0.0027uF	10%	50V
C220	1-164-346-11	CERAMIC CHIP	1uF		16V
C221	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C221	1-164-182-11	CERAMIC CHIP	0.0033uF	10%	50V
C222	1-164-005-11	CERAMIC CHIP	0.47uF		25V
C223	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C301	1-164-695-11	CERAMIC CHIP	0.0022uF	5%	50V
C302	1-126-607-11	ELECT CHIP	47uF	20%	4V
C303	1-128-017-21	ELECT CHIP	47uF	0	4V
C304	1-135-201-11	TANTALUM CHIP	10uF	20%	4V
C305	1-135-201-11	TANTALUM CHIP	10uF	20%	4V
C306	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C307	1-104-847-11	TANTAL. CHIP	22uF	20%	4V
C308	1-126-607-11	ELECT CHIP	47uF	20%	4V
C309	1-126-246-11	ELECT CHIP	220uF	20%	4V
C310	1-126-607-11	ELECT CHIP	47uF	20%	4V
C311	1-126-209-11	ELECT	100uF	20%	4V
C312	1-126-246-11	ELECT CHIP	220uF	20%	4V
C313	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C314	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C320	1-124-778-00	ELECT CHIP	22uF	20%	6.3V
C321	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C322	1-126-607-11	ELECT CHIP	47uF	20%	4V
C323	1-135-151-21	TANTALUM CHIP	4.7uF	20%	4V
C324	1-126-246-11	ELECT CHIP	220uF	20%	4V
C325	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C330	1-126-246-11	ELECT CHIP	220uF	20%	4V
C331	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C332	1-135-201-11	TANTALUM CHIP	10uF	20%	4V
C333	1-163-035-00	CERAMIC CHIP	0.047uF		50V

MAIN

Ref. No.	Part No.	Description			Remark
C334	1-164-161-11	CERAMIC CHIP	0.0022uF	10%	100V
C335	1-163-025-11	CERAMIC CHIP	0.001uF		50V
C336	1-164-222-11	CERAMIC CHIP	0.22uF		25V
C337	1-135-201-11	TANTALUM CHIP	10uF	20%	4V
C501	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C502	1-164-346-11	CERAMIC CHIP	1uF		16V
C503	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C505	1-163-025-11	CERAMIC CHIP	0.001uF		50V
C506	1-135-158-21	TANTALUM CHIP	15uF	20%	4V
C601	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C602	1-164-344-11	CERAMIC CHIP	0.068uF	10%	25V
C603	1-164-492-11	CERAMIC CHIP	0.15uF	10%	16V
C604	1-135-091-91	TANTAL. CHIP	1uF	20%	16V
C605	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C606	1-135-145-11	TANTALUM CHIP	0.47uF	10%	35V
C607	1-164-492-11	CERAMIC CHIP	0.15uF	10%	16V
C608	1-135-201-11	TANTALUM CHIP	10uF	20%	4V
C609	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C610	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C611	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C612	1-135-158-21	TANTALUM CHIP	15uF	20%	4V
C613	1-104-847-11	TANTAL. CHIP	22uF	20%	4V
C614	1-135-201-11	TANTALUM CHIP	10uF	20%	4V
		< CONNECTOR >			
CN301	1-580-919-11	JACK, DC(POLARITY UNIFIED TYPE)(DC IN 3V)			
CN302	1-766-597-21	CONNECTOR, FPC (ZIF) 8P			
		< DIODE >			
D303	8-719-404-46	DIODE MA110			
D601	8-719-404-46	DIODE MA110			
D602	8-719-420-51	DIODE MA729			
		< IC >			
IC301	8-752-036-27	IC CXA1278N			
IC302	8-759-205-43	IC TA7688F-SO			
IC303	8-759-701-02	IC NJM2073M			
IC501	8-759-701-51	IC NJM2072M			
IC601	8-759-996-13	IC TLP326ADB			
IC602	8-759-177-44	IC S-80715AN-DC			
		< JACK >			
J301	1-507-999-21	JACK(PHONES)			
J302	1-507-999-11	JACK(MIC/PLUG IN POWER)			
		< TRANSISTOR >			
Q101	8-729-425-18	TRANSISTOR XN4504			
Q102	8-729-422-48	TRANSISTOR UN5217			

Ref. No.	Part No.	Description	Remark
Q201	8-729-425-18	TRANSISTOR XN4504	
Q202	8-729-422-48	TRANSISTOR UN5217	
Q301	8-729-141-75	TRANSISTOR 2SD596DV345	
Q302	8-729-402-32	TRANSISTOR 2SD1819A-R	
Q303	8-729-141-48	TRANSISTOR 2SB624-BV345	
Q304	8-729-141-48	TRANSISTOR 2SB624-BV345	
Q305	8-729-402-13	TRANSISTOR XN1501	
Q306	8-729-402-96	TRANSISTOR UN5114	
Q307	8-729-402-93	TRANSISTOR UN5214	
Q308	8-729-402-93	TRANSISTOR UN5214	
Q309	8-729-402-93	TRANSISTOR UN5214	
Q502	8-729-402-93	TRANSISTOR UN5214	
Q503	8-729-402-93	TRANSISTOR UN5214	
Q601	8-729-402-93	TRANSISTOR UN5214	
Q602	8-729-402-96	TRANSISTOR UN5114	
Q603	8-729-823-86	TRANSISTOR 2SA1745	
Q604	8-729-823-86	TRANSISTOR 2SA1745	
Q606	8-729-402-96	TRANSISTOR UN5114	
Q607	8-729-402-96	TRANSISTOR UN5114	
Q608	8-729-402-93	TRANSISTOR UN5214	
Q609	8-729-402-93	TRANSISTOR UN5214	
Q610	8-729-402-96	TRANSISTOR UN5114	
Q611	8-729-420-16	TRANSISTOR XN1214	
Q612	8-729-422-45	TRANSISTOR XN1217	
Q613	8-729-402-93	TRANSISTOR UN5214	
Q614	8-729-402-93	TRANSISTOR UN5214	
		< RESISTOR >	
R101	1-216-057-00	METAL CHIP 2.2K 5%	1/10W
R102	1-216-063-00	METAL CHIP 3.9K 5%	1/10W
R103	1-216-049-00	METAL CHIP 1K 5%	1/10W
R104	1-216-069-00	METAL CHIP 6.8K 5%	1/10W
R105	1-216-042-00	METAL CHIP 510 5%	1/10W
R106	1-216-097-00	METAL CHIP 100K 5%	1/10W
R107	1-216-064-00	METAL CHIP 4.3K 5%	1/10W
R108	1-216-065-00	METAL CHIP 4.7K 5%	1/10W
R109	1-216-041-00	METAL CHIP 470 5%	1/10W
R110	1-216-061-00	METAL CHIP 3.3K 5%	1/10W
R111	1-216-081-00	METAL CHIP 22K 5%	1/10W
R112	1-216-081-00	METAL CHIP 22K 5%	1/10W
R113	1-216-073-00	METAL CHIP 10K 5%	1/10W
R114	1-216-073-00	METAL CHIP 10K 5%	1/10W
R120	1-216-059-00	METAL CHIP 2.7K 5%	1/10W
R121	1-216-001-00	METAL CHIP 10 5%	1/10W
R122	1-216-109-00	METAL CHIP 330K 5%	1/10W
R123	1-216-304-11	METAL CHIP 3.3 5%	1/10W
R201	1-216-057-00	METAL CHIP 2.2K 5%	1/10W
R202	1-216-063-00	METAL CHIP 3.9K 5%	1/10W

MAIN MICROPHONE MICROPHONE FLEXIBLE

Ref. No.	Part No.	Description			Remark
R203	1-216-049-00	METAL CHIP	1K	5%	1/10W
R204	1-216-069-00	METAL CHIP	6.8K	5%	1/10W
R205	1-216-042-00	METAL CHIP	510	5%	1/10W
R206	1-216-097-00	METAL CHIP	100K	5%	1/10W
R207	1-216-064-00	METAL CHIP	4.3K	5%	1/10W
R208	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R209	1-216-041-00	METAL CHIP	470	5%	1/10W
R210	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R211	1-216-081-00	METAL CHIP	22K	5%	1/10W
R212	1-216-081-00	METAL CHIP	22K	5%	1/10W
R213	1-216-073-00	METAL CHIP	10K	5%	1/10W
R214	1-216-073-00	METAL CHIP	10K	5%	1/10W
R220	1-216-059-00	METAL CHIP	2.7K	5%	1/10W
R221	1-216-001-00	METAL CHIP	10	5%	1/10W
R222	1-216-109-00	METAL CHIP	330K	5%	1/10W
R223	1-216-304-11	METAL CHIP	3.3	5%	1/10W
R301	1-216-049-00	METAL CHIP	1K	5%	1/10W
R302	1-216-049-00	METAL CHIP	1K	5%	1/10W
R303	1-216-067-00	METAL CHIP	5.6K	5%	1/10W
R304	1-216-007-00	METAL CHIP	18	5%	1/10W
R305	1-216-023-00	METAL CHIP	82	5%	1/10W
R306	1-216-045-00	METAL CHIP	680	5%	1/10W
R307	1-216-063-00	METAL CHIP	3.9K	5%	1/10W
R308	1-216-073-00	METAL CHIP	10K	5%	1/10W
R309	1-216-121-00	METAL CHIP	1M	5%	1/10W
R310	1-216-295-00	METAL CHIP	0	5%	1/10W
R311	1-216-041-00	METAL CHIP	470	5%	1/10W
R320	1-216-075-00	METAL CHIP	12K	5%	1/10W
R330	1-216-059-00	METAL CHIP	2.7K	5%	1/10W
R331	1-216-001-00	METAL CHIP	10	5%	1/10W
R332	1-216-234-00	METAL GLAZE	33K	5%	1/8W
R333	1-216-113-00	METAL CHIP	470K	5%	1/10W
R334	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R335	1-216-041-00	METAL CHIP	470	5%	1/10W
R504	1-216-073-00	METAL CHIP	10K	5%	1/10W
R505	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R506	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R507	1-216-109-00	METAL CHIP	330K	5%	1/10W
R508	1-216-067-00	METAL CHIP	5.6K	5%	1/10W
R601	1-216-075-00	METAL CHIP	12K	5%	1/10W
R602	1-216-304-11	METAL CHIP	3.3	5%	1/10W
R603	1-216-073-00	METAL CHIP	10K	5%	1/10W
R604	1-216-093-00	METAL CHIP	68K	5%	1/10W
R605	1-216-304-11	METAL CHIP	3.3	5%	1/10W
R606	1-216-063-00	METAL CHIP	3.9K	5%	1/10W
R608	1-216-025-00	METAL CHIP	100	5%	1/10W
R609	1-216-025-00	METAL CHIP	100	5%	1/10W
R611	1-216-053-00	METAL CHIP	1.5K	5%	1/10W
R612	1-216-053-00	METAL CHIP	1.5K	5%	1/10W
R613	1-216-049-00	METAL CHIP	1K	5%	1/10W
R614	1-216-049-00	METAL CHIP	1K	5%	1/10W
R615	1-216-049-00	METAL CHIP	1K	5%	1/10W
R616	1-216-049-00	METAL CHIP	1K	5%	1/10W
R617	1-216-081-00	METAL CHIP	22K	5%	1/10W

< VARIABLE RESISTOR >

RV301	1-223-510-11	RES, VAR, CARBON 10K/10K(VOL)
RV601	1-241-593-11	RES, ADJ, METAL GRAZE 4.7K(TAPE SPEED)
RV602	1-223-681-11	RES, VAR, CARBON 5K(SPEED CONTROL)

< SWITCH >

S301	1-762-081-11	SWITCH, SLIDE(PB/REC)
S302	1-571-275-31	SWITCH, SLIDE(PB EQ)
S304	1-572-288-11	SWITCH, PUSH(PLAY)
S501	1-571-275-31	SWITCH, SLIDE(VOR)
S601	1-571-275-31	SWITCH, SLIDE(PAUSE)

< TRANSFORMER >

T301	1-433-286-11	TRANSFORMER, BIAS OSCILLATION

****

*	1-652-901-11	MICROPHONE BOARD
		**********
	3-913-203-01	CUSHION (MICROPHONE)

< DIODE >

D304	8-719-048-86	LED BR5379K(REC/BATT)

< MICROPHONE >

MIC901	1-542-240-11	MICROPHONE, ELECTRET CONDENSER (L-CH)
MIC902	1-542-240-11	MICROPHONE, ELECTRET CONDENSER (R-CH)

< SWITCH >

S303	1-571-275-31	SWITCH, SLIDE(MIC SENS)

****

*	1-652-947-11	MICROPHONE FLEXIBLE BOARD
		**********

****

Ref.No.	Part No.	Description	Remark
		MISCELLANEOUS	
		*************	
66	1-548-582-11	COUNTER, TAPE (SMALL TYPE)	
67	1-649-600-11	MOTOR FLEXIBLE BOARD	
HE901	8-658-096-02	HEAD, ERASE EBF5-36 (ERASE)	
HRP901	1-500-126-11	HEAD, MAGNETIC(RECORD/PLAYBACK)	
M901	1-698-220-11	MOTOR, DC	
SP1	1-544-657-12	SPEAKER (3.6CM)	
**********			
		ACCESSORIES & PACKING MATERIALS	
		******************************	
	1-504-228-11	HEADPHONE (MDR-013)(US, Canadian)	
	3-758-849-01	MANUAL, INSTRUCTION(JAPANES)(Tourist)	
	3-758-849-11	MANUAL, INSTRUCTION(ENGLISH/FRENCH/ SPANISH/PORTUGUESE)(EXCEPT US)	
	3-758-849-21	MANUAL, INSTRUCTION(ENGLISH)(US)	
	3-758-849-41	MANUAL, INSTRUCTION(GERMAN/DUTCH/ SWEDISH/ITALIAN)(AEP, German)	
*	3-916-440-01	INDIVIDUAL CARTON(US)	
*	3-916-441-01	INDIVIDUAL CARTON (AEP, UK, E, German, Tourist)	
*	3-916-445-01	CUSHION	
	3-916-794-01	CASE, CARRYING	
*	3-916-939-01	INDIVIDUAL CARTON(Canadian)	
	8-953-538-90	HEADPHONE MDR-E741//K SET (AEP, UK, E, German, Tourist)	
	X-3329-657-1	ATTACHMENT ASSY	

9-959-526-11

Sony Corporation
Consumer A&V Products Company
Personal A&V Products Div.

English
95A02022-2(2)
Printed in Japan

Published by Home A&V Products Div.
Quality Engineering Dept.