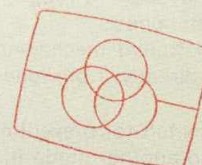


TCS-370

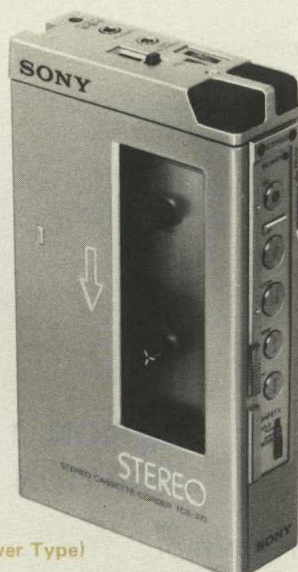
AEP Model
UK Model
E Model



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(Photo: Silver Type)

STEREO CASSETTE-CORDER

SPECIFICATIONS

Recording system 4-track 2-channel stereo
Speaker 5 cm (2 inches) dia.
Fast winding time Approx. 2 min. with Sony Cassette C-60
Frequency response
TYPE I (NORMAL) cassette
50–10,000 Hz
40–14,000 Hz (playback)
Input Microphone input jack (stereo minijack)
sensitivity 0.2 mV
for low impedance microphone
Output Headphones jack (stereo minijack)
load impedance 8–300 ohms
Power output (at 10% harmonic distortion)
Speaker: 200 mW
Headphones: 20 mW + 20 mW
at load impedance 32 ohms
Battery life

	recording	playback	
		speaker	head-phones
Sony SUM-3(NS) New Super	Approx. 2.5	Approx. 2	Approx. 3
Sony Eveready AM3 Alkaline	Approx. 5	Approx. 4	Approx. 6

(hours)

Power requirements

3 V dc, 2 batteries IEC designation R6 (size AA)
DC IN 3 V jack accepts:
ac power adaptor
AC-37 (optional) available in the United Kingdom for use on 240 V ac, 50 Hz
AC-37 (optional) available in Continental European countries for use on 220 V ac, 50 Hz
AC-38 (optional) available in other countries for use on 110, 120, 220 or 240 V ac, 50/60 Hz

car battery cord
DCC-127A (optional) for use on 12 V car battery
The optional PC-200 dc plug adaptor is required for connection with the DCC-127A.

Dimensions Approx. 88.5 × 149.1 × 31.8 mm (w/h/d)
(3 1/2 × 5 7/8 × 1 3/16 inches)
incl. projecting parts and controls
Weight Approx. 420 g (14.9 oz) incl. batteries

0 dB = 0.775 V

TAPE TRANSPORT MECHANISM

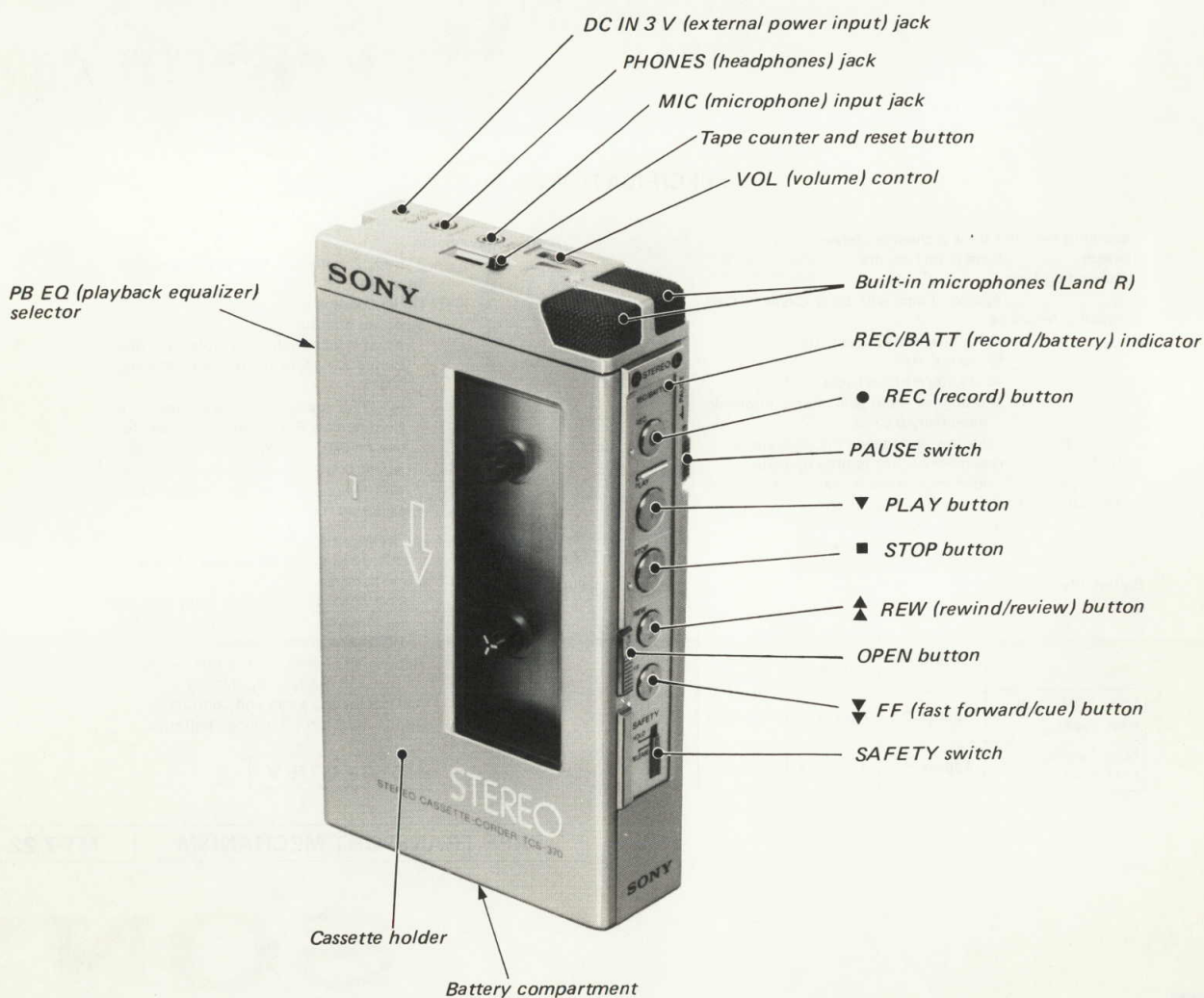
MT-7-22

SONY

SERVICE MANUAL

TCS-370**FEATURES**

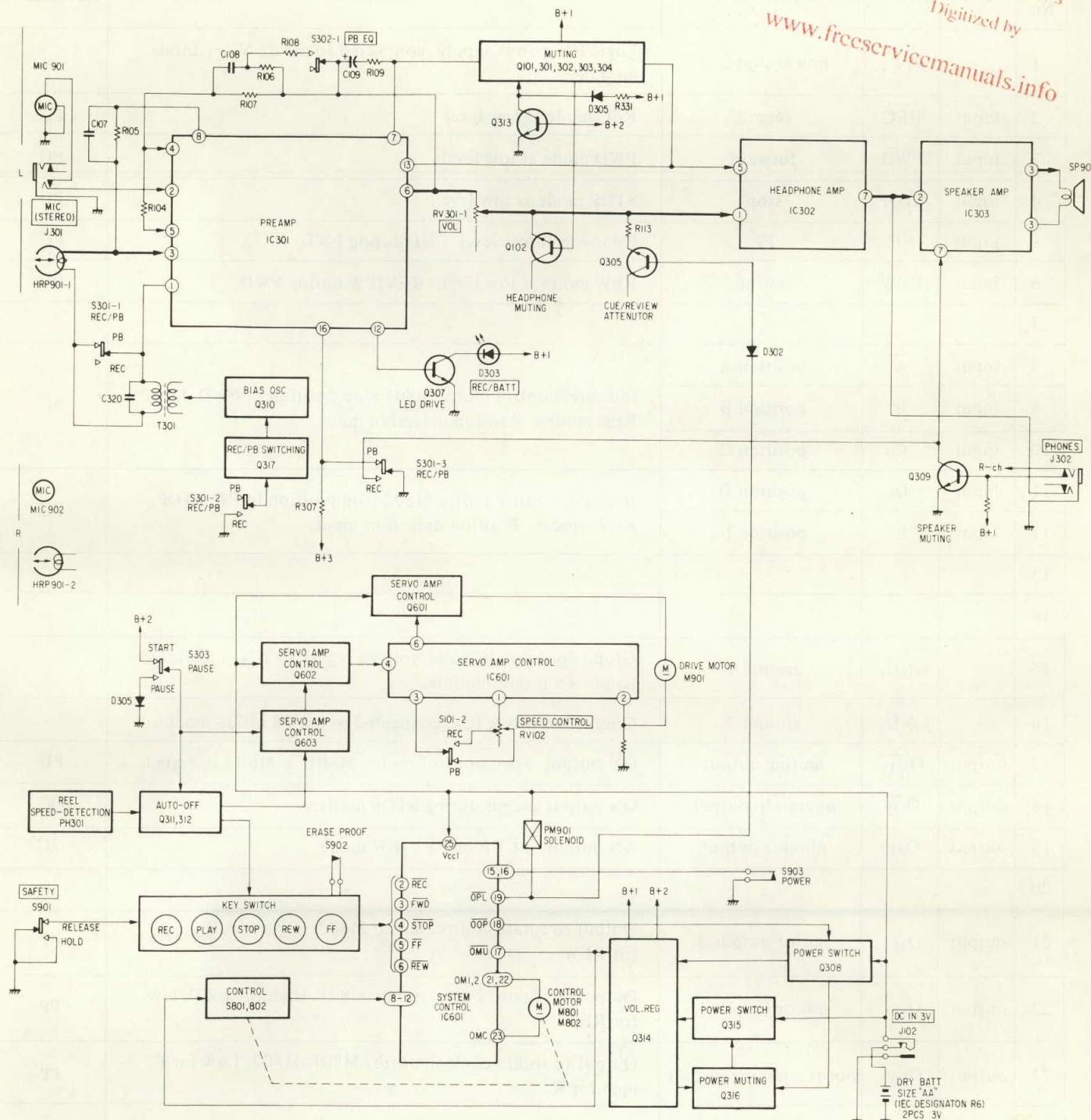
- Complete stereo recording and playback system in this very compact cassette-corder.
- Built-in one point stereo microphone and an external microphone jack (stereo) for stereo recording.
- Stereo playback through the supplied stereo headphones.
- Logic-controlled mechanism allows rapid switching directly from one mode to another.
- Safety switch for preventing the set from changing to another mode if, by accident, a tape operation button is pressed.

**SECTION 1
LOCATION****1-1. LOCATION AND FUNCTION OF CONTROL**

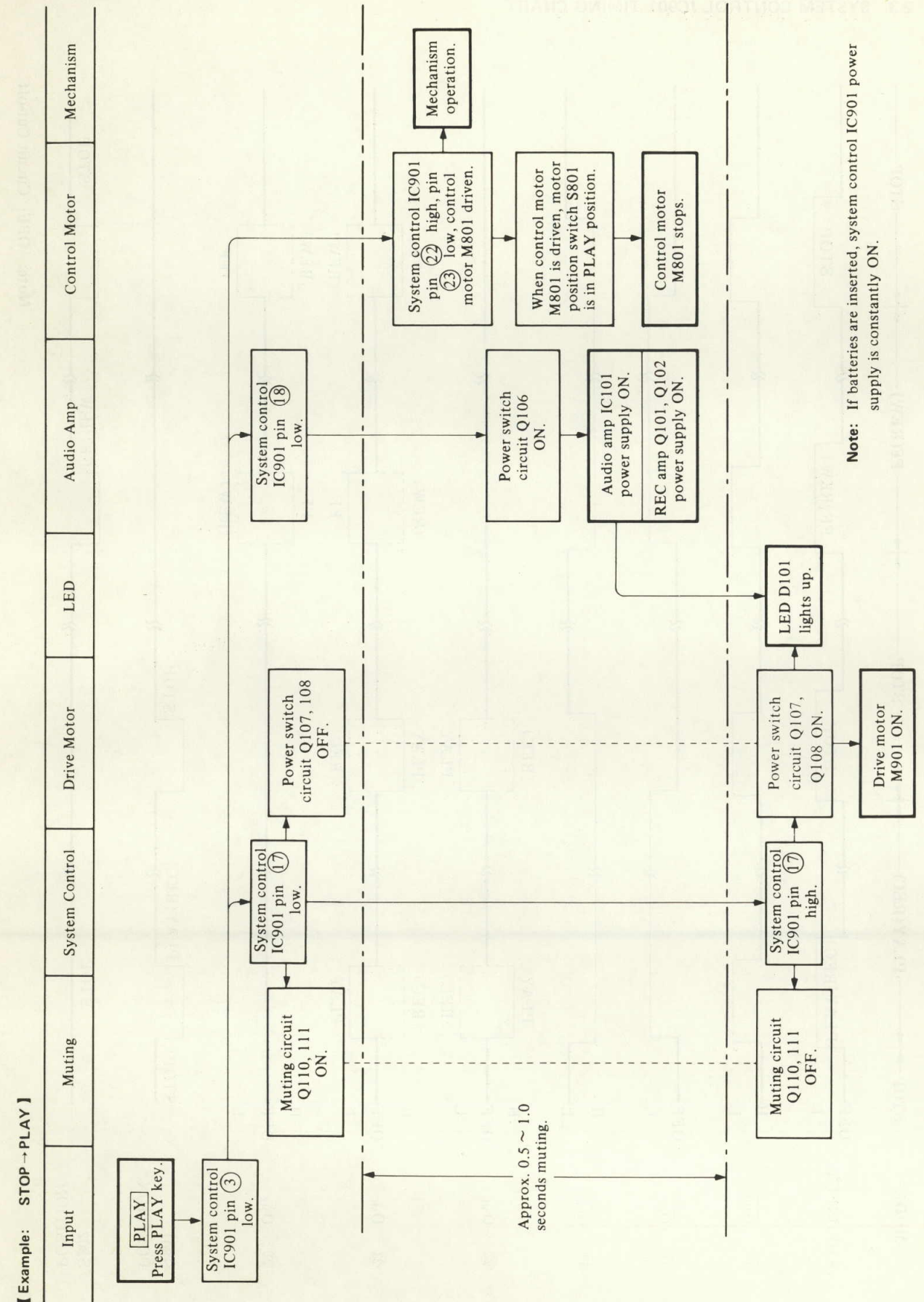
SECTION 2

OUTLINE

2-1. BLOCK DIAGRAM

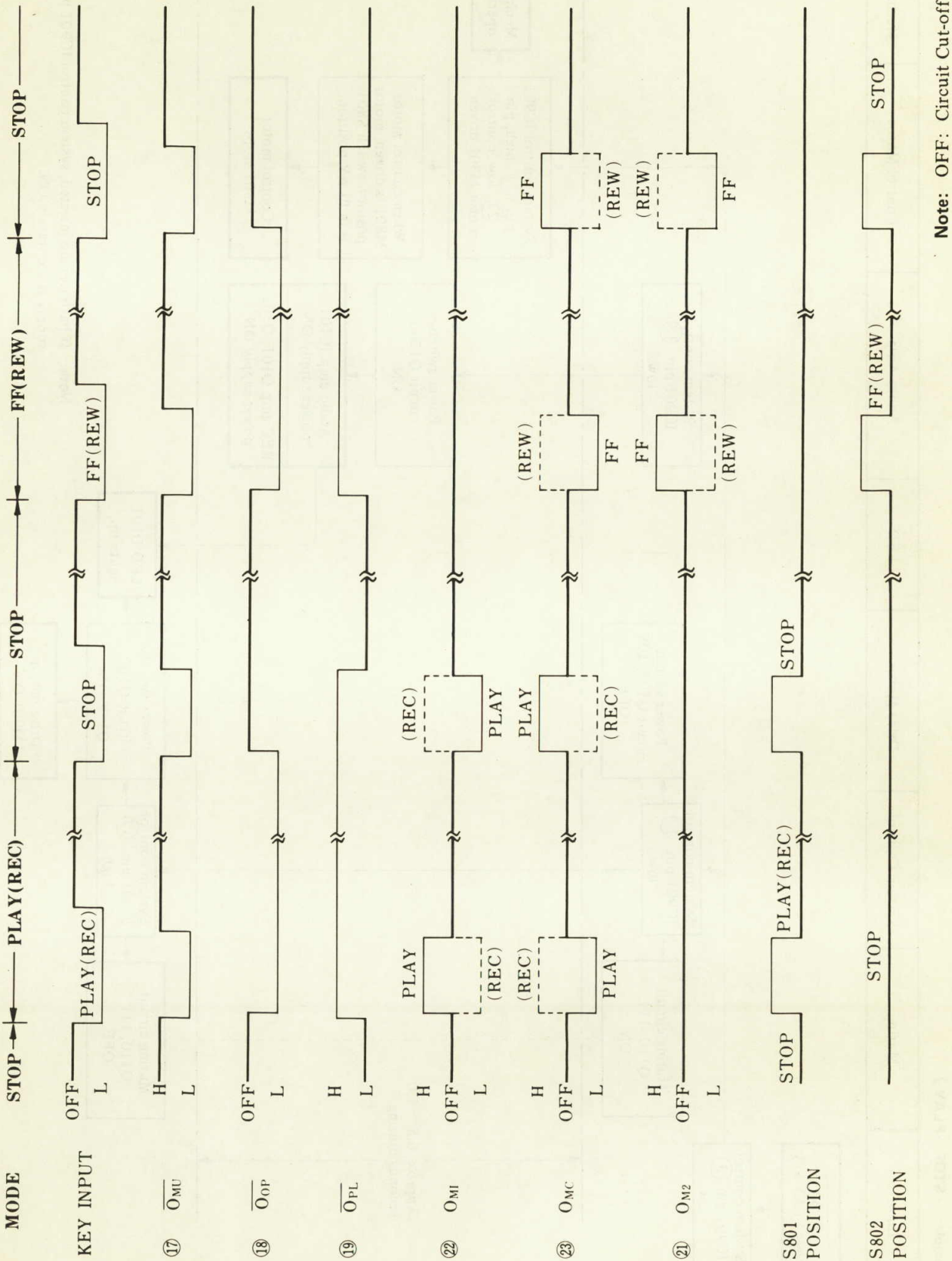


2-2. OPERATION ORDER



Note: If batteries are inserted, system control IC901 power supply is constantly ON.

2-3. SYSTEM CONTROL IC901 TIMING CHART



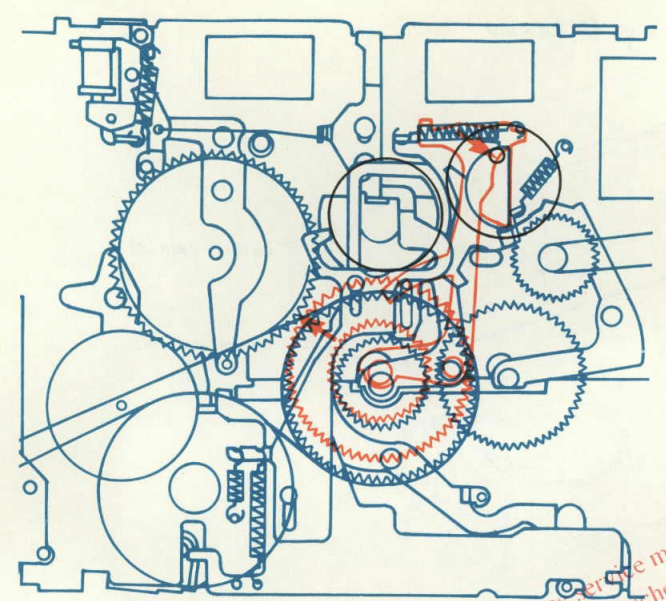
2-4. SYSTEM CONTROL IC901 FUNCTION DESCRIPTION

Pin No.	I/O	Symbol	Signal Name	Function	Termination
1	—	VCC ₂	power supply 2	Logic IC ₁ power supply, connected to pin 25 VCC ₁ inside module.	—
2	input	REC	record	REC mode at low level.	PU
3	input	FWD	forward	FWD mode at low level.	PU
4	input	STOP	stop	STOP mode at low level.	PU
5	input	FF	FF	FF mode at low level. CUE during FWD.	PU
6	input	REW	rewind	REW mode at low level. REVIEW during FWD.	PU
7					
8	input	A	position A	Indicates control motor M801 stop position in FWD, STOP, REC modes. Position detection input.	PU
9	input	B	position B		
10	input	C	position C		
11	input	D	position D	Indicates control motor M802 stop position in FF, STOP, REW modes. Position detection input.	PU
12	input	E	position E		
13					
14					
15	—	GND ₁	ground 1	Ground for logic IC ₁ and voltage regulator IC ₃ , connected to pin 16 inside module.	—
16	—	GND ₂	ground 2	Ground for driver IC ₂ , connected to pin 15 inside module.	—
17	output	OMU	muting output	ON output when control motor M801 or M802 operated.	PU
18	output	OOP	operation output	ON output except during STOP mode.	OC
19	output	OPL	plunger output	ON output in CUE or REVIEW mode.	OC
20					
21	output	OM ₂	motor output 2	Output to rotate control motor M802. High for FF, low for REW.	PP
22	output	OM ₁	motor output 1	Output to rotate control motor M801. High for FWD, low for REC.	PP
23	output	OMC	motor common output	Output to rotate control motors M801, M802. Low for F, high for R.	PP
24					
25	—	VCC ₁	power supply 1	Power supply for voltage regulator IC ₃ . Connected to pin 1 VCC ₂ inside module.	—

*Termination Symbols PU: pull-up PP: push-pull
OC: open collector
*Logic IC₁, 2, 3 are ICs inside system control IC901.

2-5. MECHANICAL OPERATION

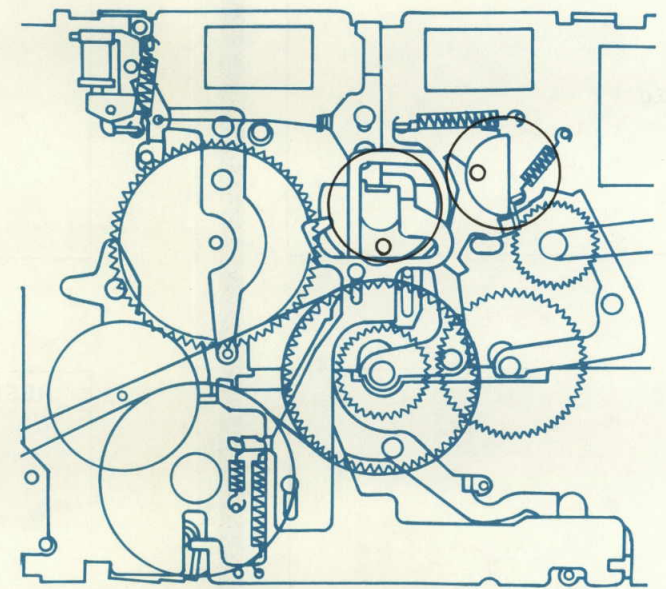
FF Operation



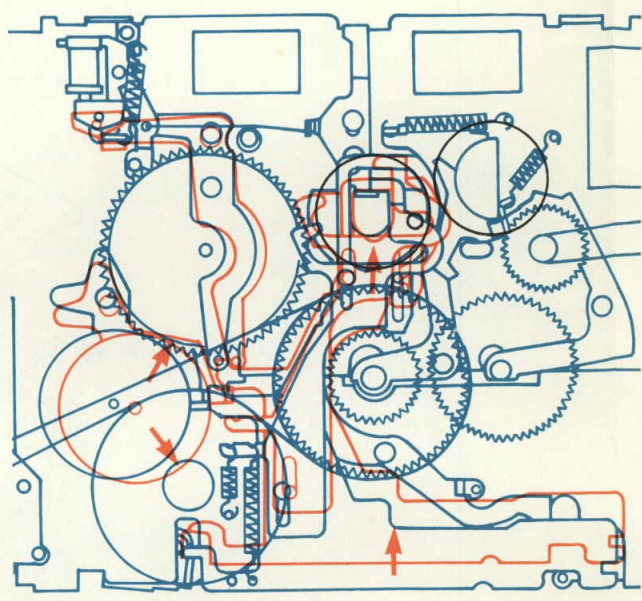
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Gratis schema's
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Note: Black: STOP mode
Red: Mechanism position for each mode operation
Blue: Control board ass'y for each mode operation

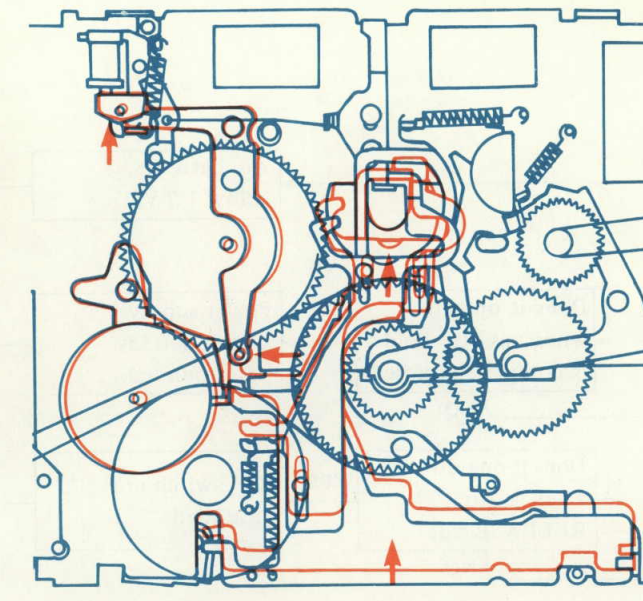
STOP



PLAY Operation

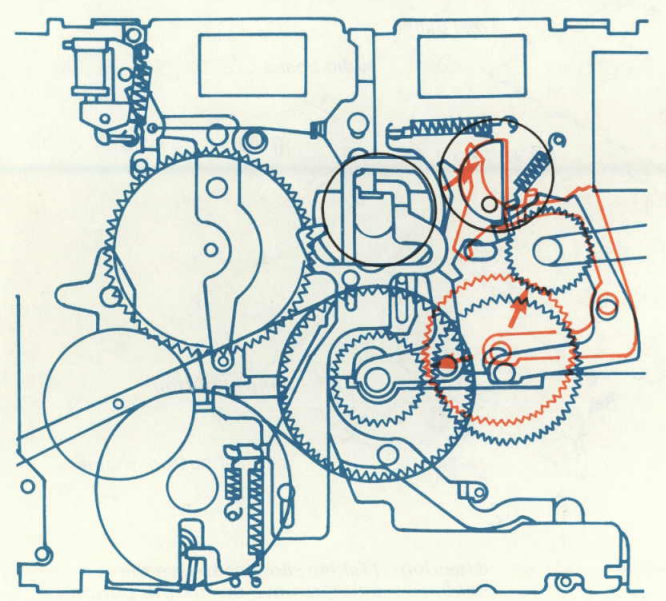


CUE Operation

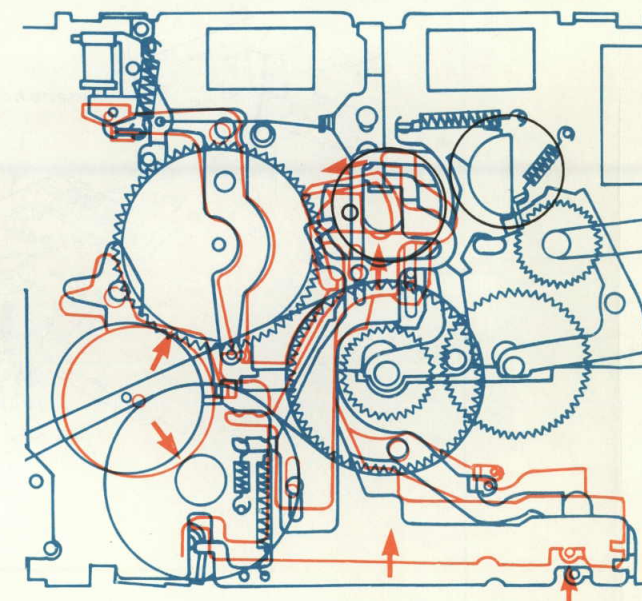


Free service manuals
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www.freesevicemanuals.info

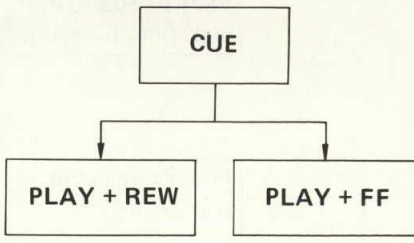
REW Operation



REC Operation

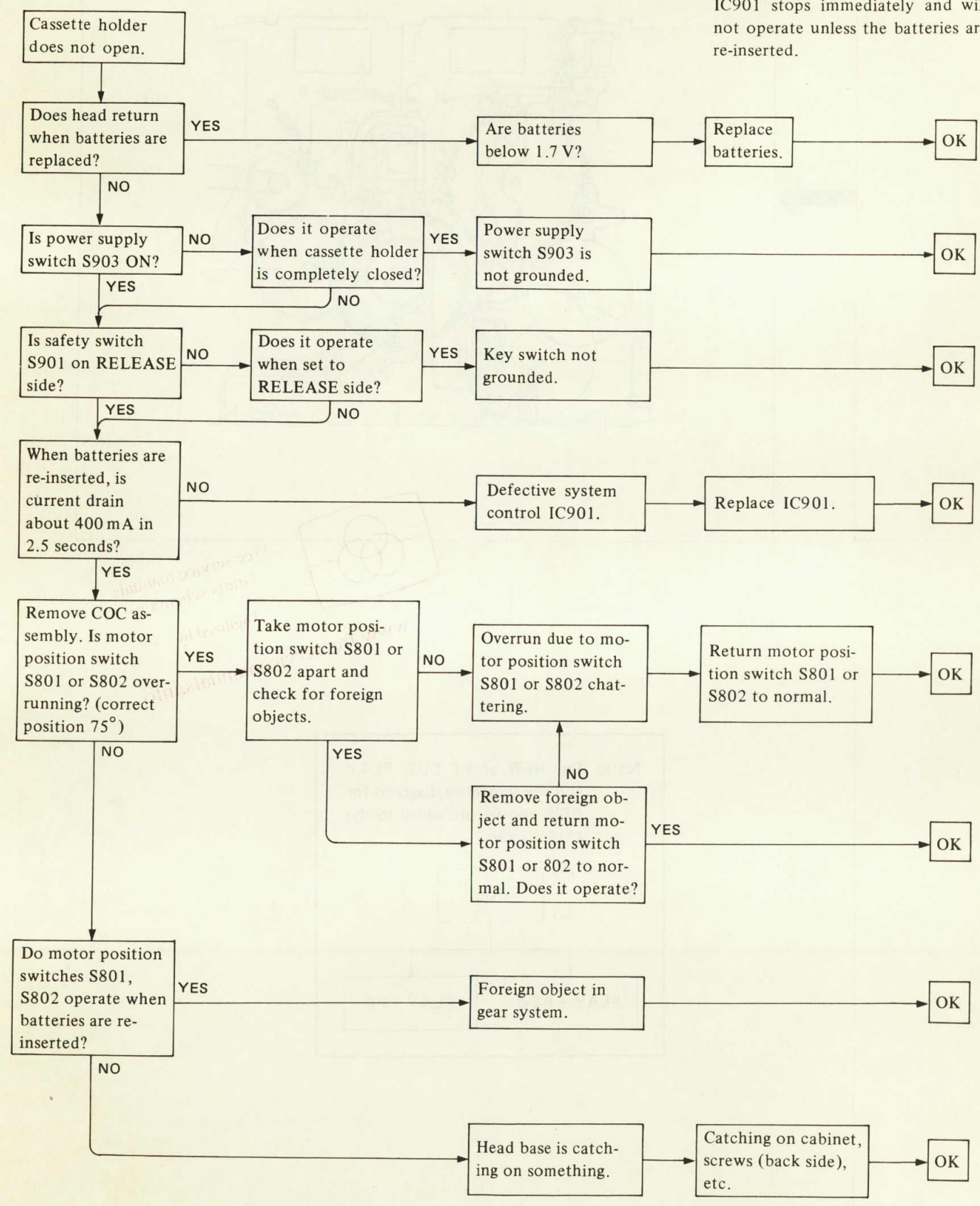


Note: For REW or FF CUE, PLAY and the respective diagrams for REW and FF are added to the CUE diagram.



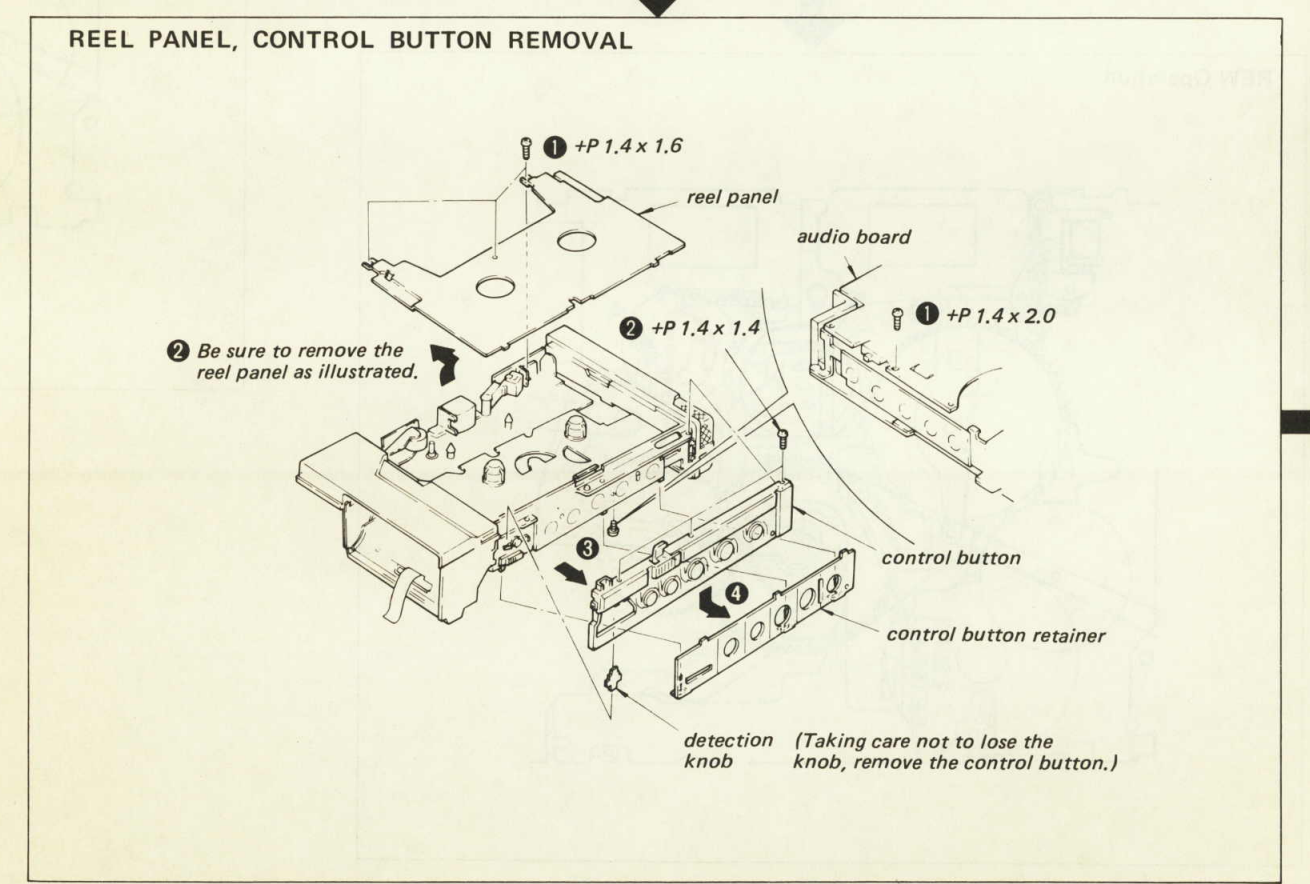
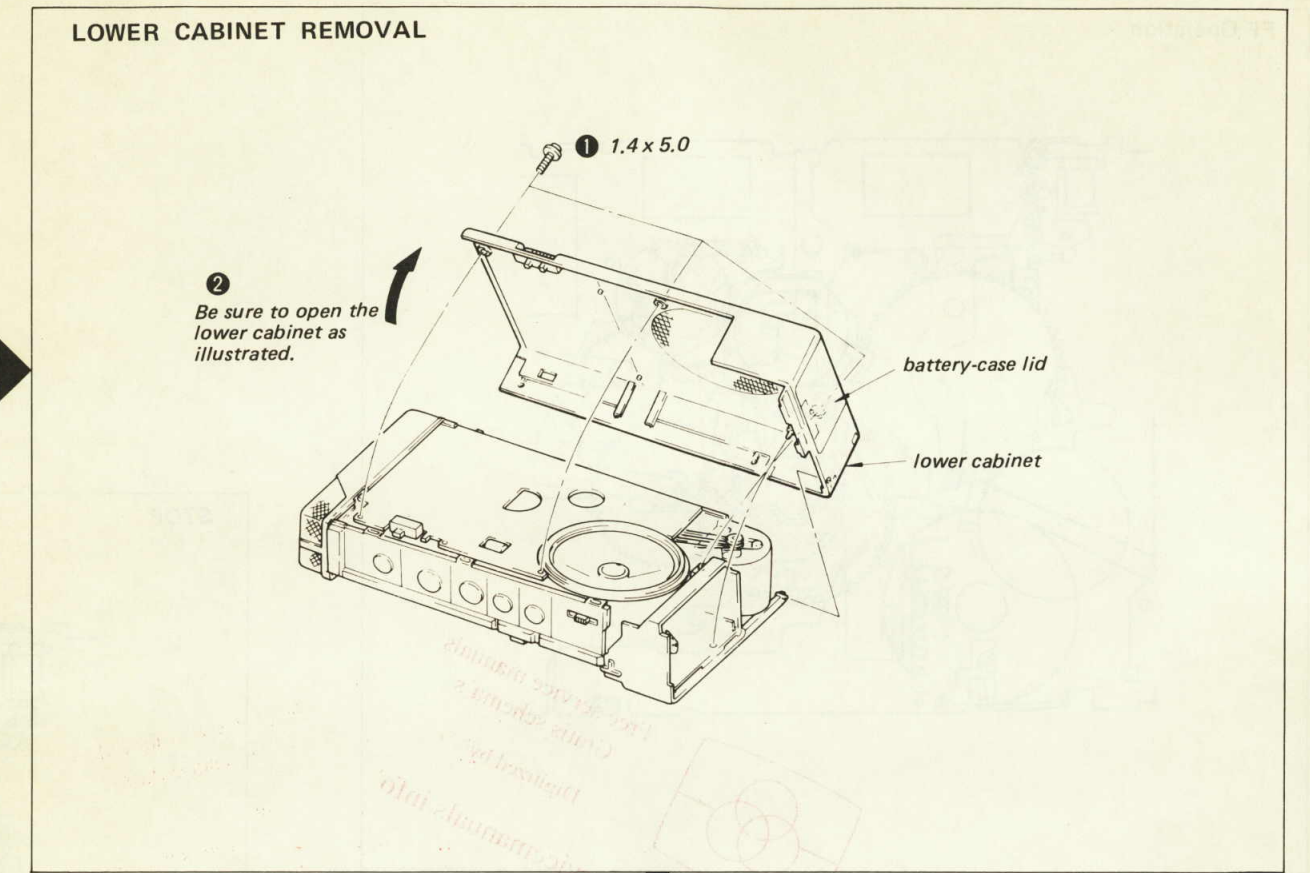
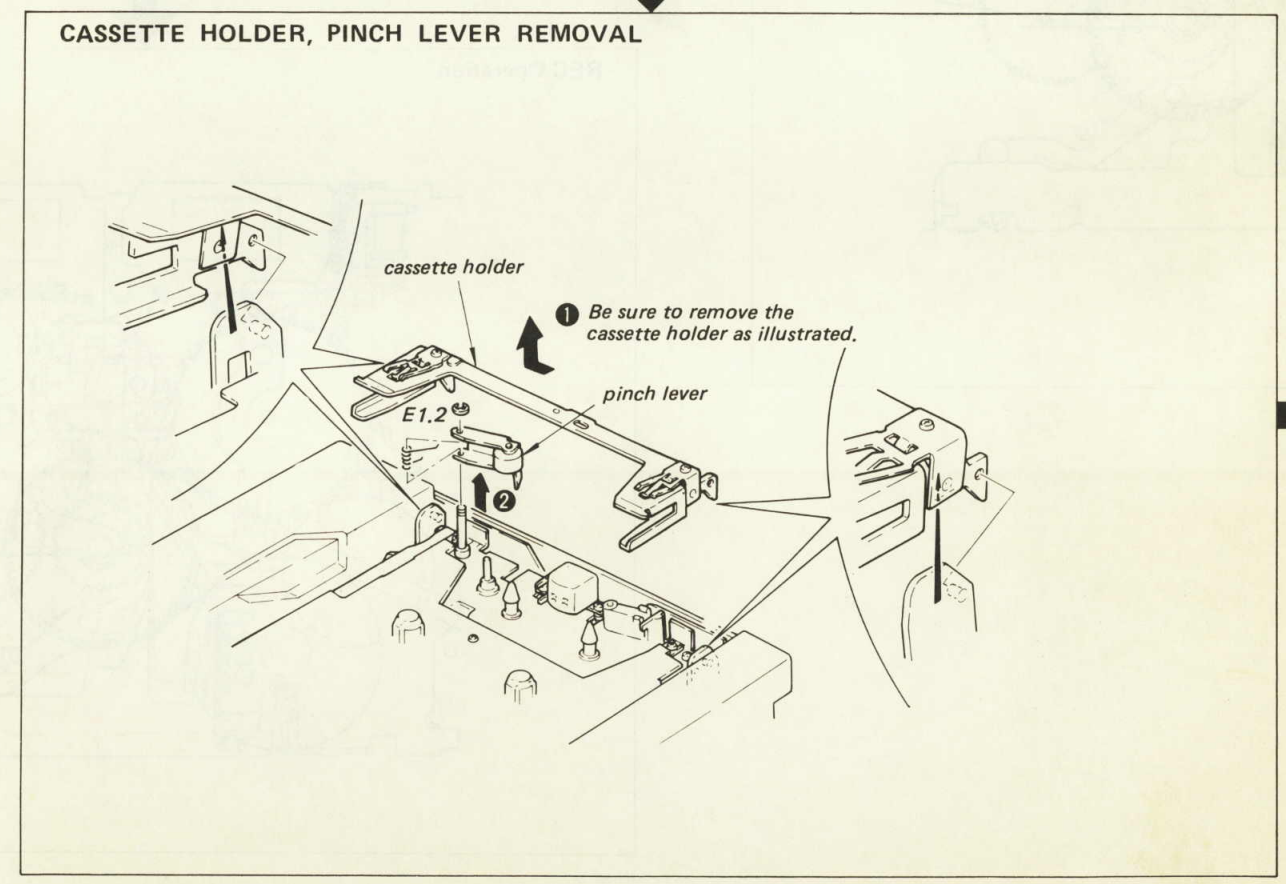
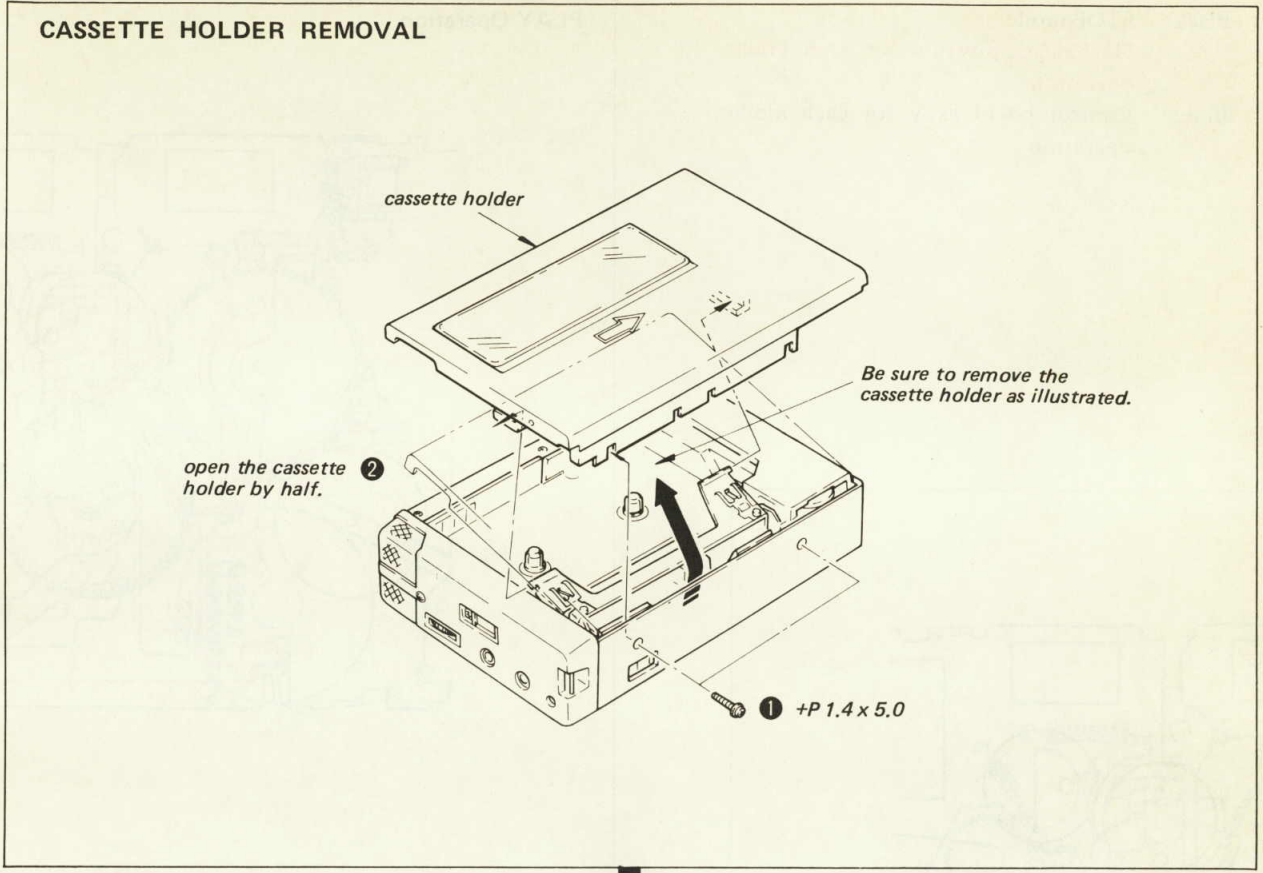
2-6. TROUBLESHOOTING

Note: If the control motor is not driven within 2.5 seconds, system control IC901 stops immediately and will not operate unless the batteries are re-inserted.

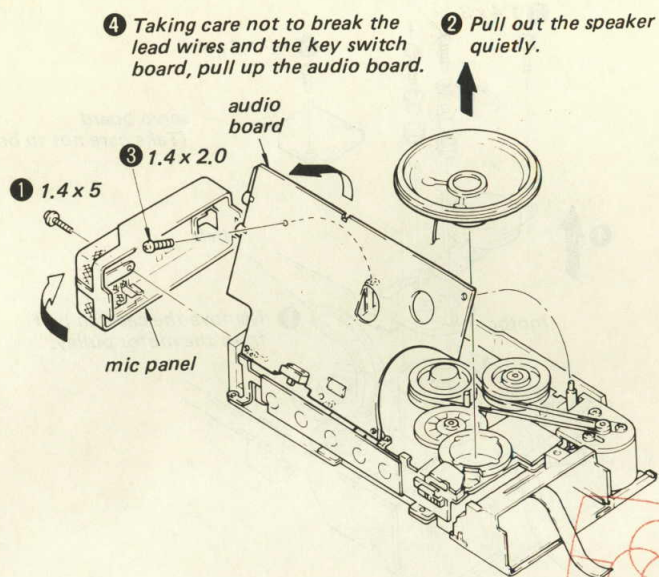


SECTION 3
DISASSEMBLY

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



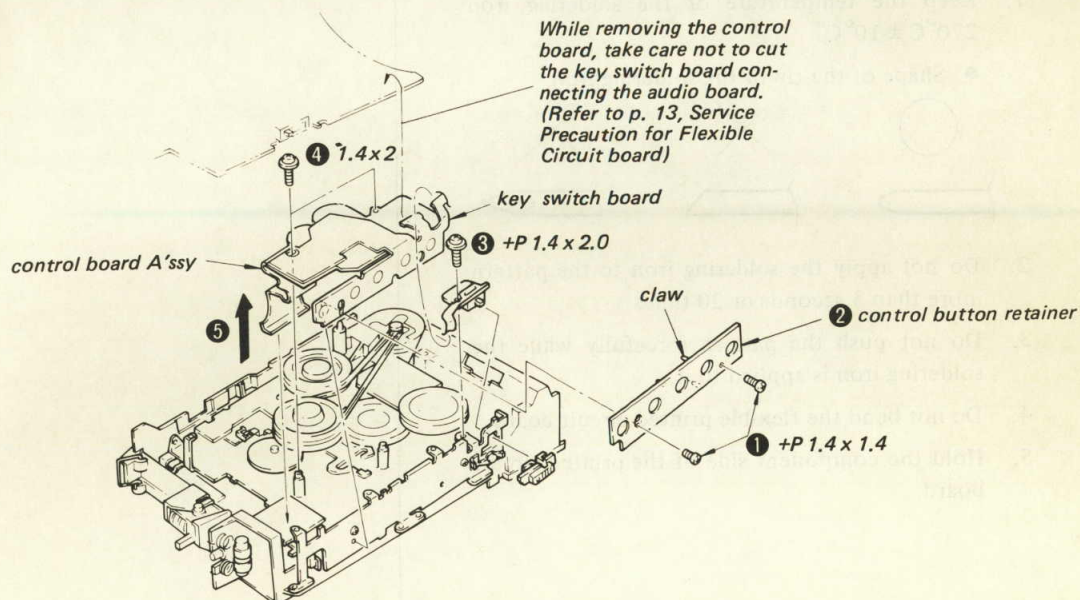
MIC PANEL, AUDIO BOARD REMOVAL



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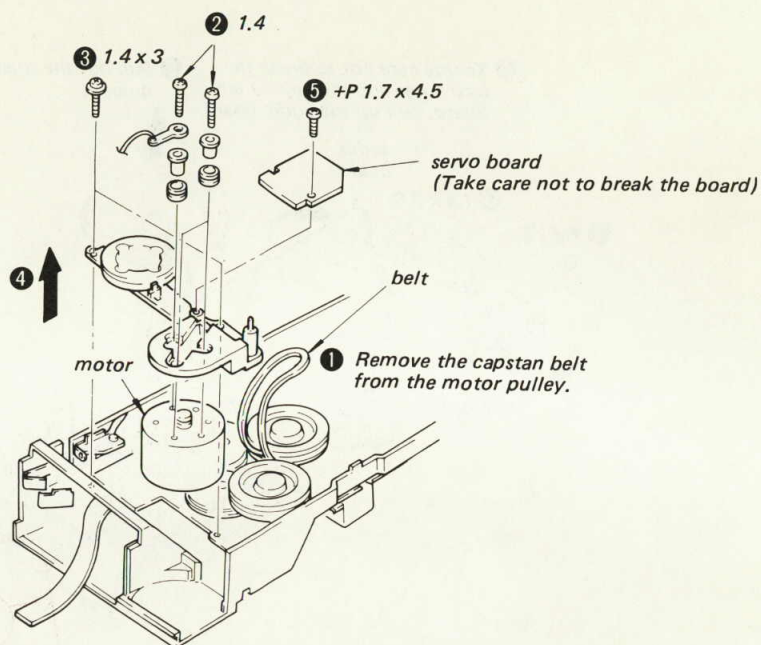
www.freesevicemanuals.info

CONTROL BOARD REMOVAL



When lifting up the control board in the step 5, the pins driving the mechanism deck section are released. When reassembling them, refer to "NOTES ON CONTROL BOARD ASSEMBLY" on page 15.

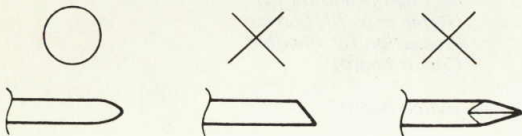
MOTOR BOARD



Service Precaution for Flexible Circuit Board

1. Keep the temperature of the soldering iron $270^{\circ}\text{C} \pm 10^{\circ}\text{C}$.

- Shape of the tip of the soldering iron.



2. Do not apply the soldering iron to the pattern more than 5 seconds or 20 times.
3. Do not push the pattern forcefully while the soldering iron is applied to it.
4. Do not bend the flexible printed circuit board.
5. Hold the component side of the printed circuit board.

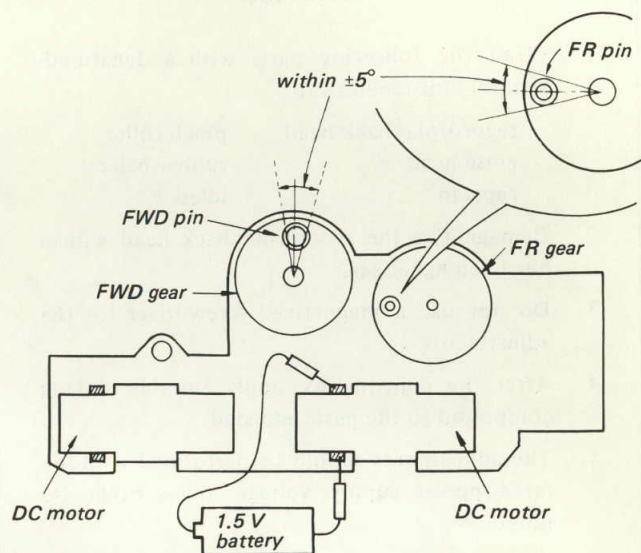
NOTES ON CONTROL BOARD ASSEMBLY

Confirmation of Stop Position

- When setting the control board on the mechanical chassis, place the FWD pin and FR pin in the positions indicated.

Angle:	within $\pm 5^\circ$
--------	----------------------

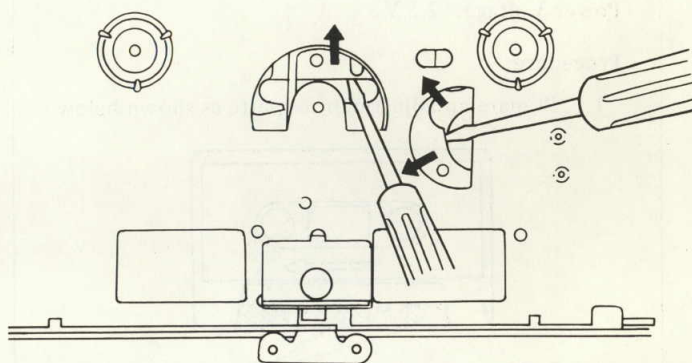
- If the pin position does not match up, connect a 1.5 V battery to the motor terminal as shown in the diagram at right, and match up the angle. (Cut main power at this time.)



Confirmation of Drive Pin Position

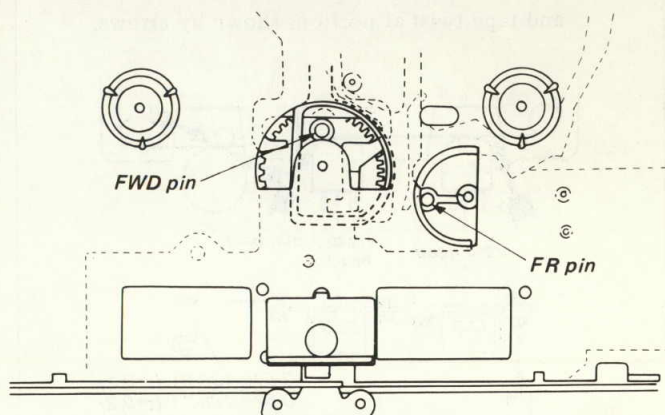
Before Setting:

- When setting, press in the operation plates with the end of a screwdriver from the front of the set (cassette side) and engage the FWD pin and FR pin.



When Set:

- Confirm that the FWD pin and FR pin are set at the proper angle and are engaged correctly.



SECTION 4 ADJUSTMENTS

4.1. MECHANICAL ADJUSTMENTS AND MEASUREMENT

PRECAUTION

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

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

Torque Measurement

Torque	Torque meter	Meter reading
Forward	CQ-102C	26 – 36 g·cm (0.36 – 0.50 oz·inch)
Fast Forward	CQ-201B	More than 85 g·cm (More than 1.18 oz·inch)
Rewind	CQ-201B	More than 75 g·cm (More than 1.04 oz·inch)
Back Tension	CQ-102C	2.5 – 4 g·cm

Tape Pulling Force Measurement

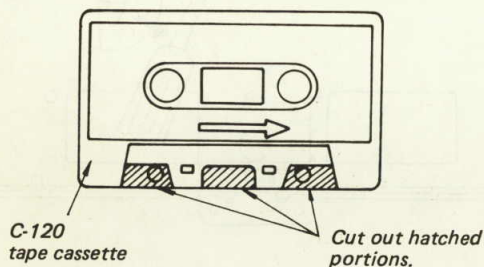
	Meter	Meter reading
FWD	CQ403	More than 60 g·cm

Head Height Adjustment

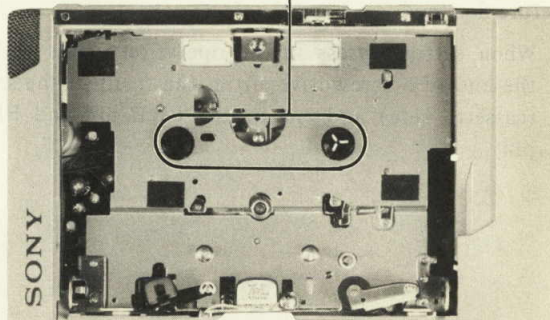
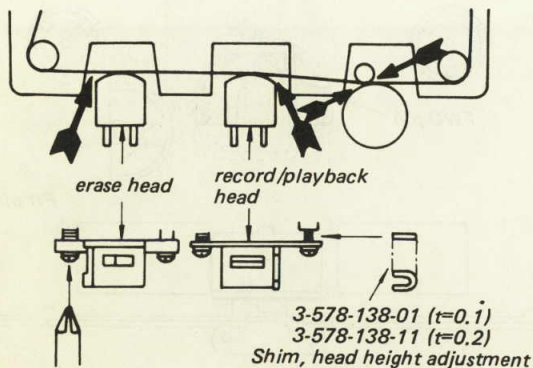
Power Voltage: 2.5 V

Procedure:

- Prepare an adjustment cassette as shown below.



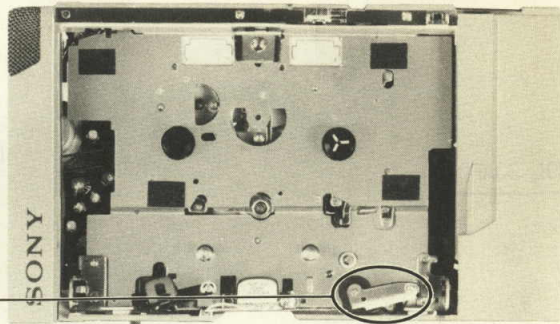
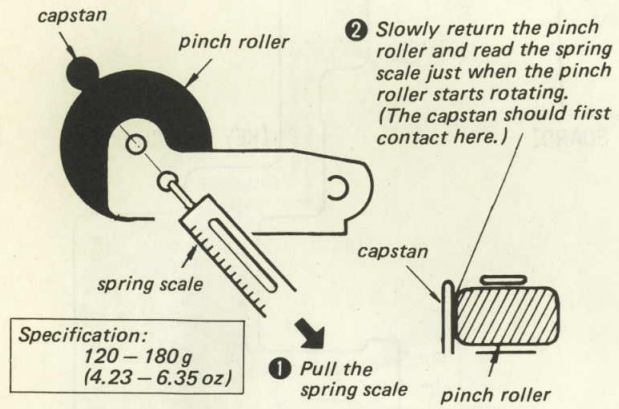
- In record mode and viewing from the front, adjust the head heights to eliminate tape curl and tape twist at portions shown by arrows.



Pinch Roller Pressure Measurement

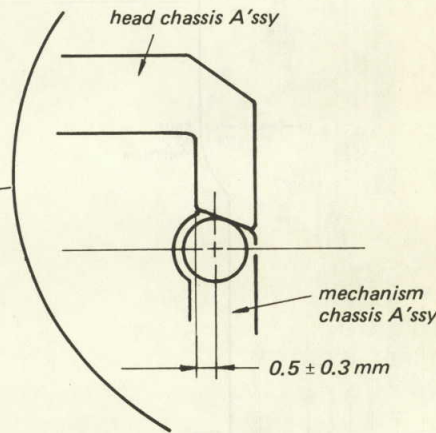
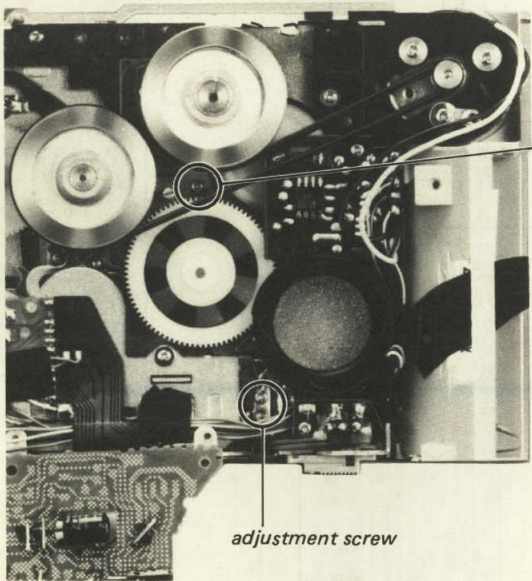
Power Voltage: 3 V

— Playback Mode —



Solenoid Position Adjustment

— CUE or REV Mode —



Adjust the screw for the specified clearance.

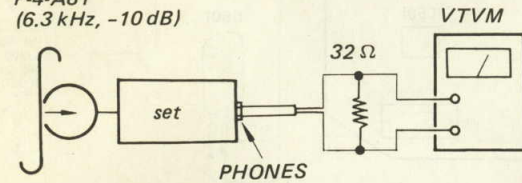
4-2. ELECTRICAL ADJUSTMENTS

Record/playback Head Azimuth Adjustment

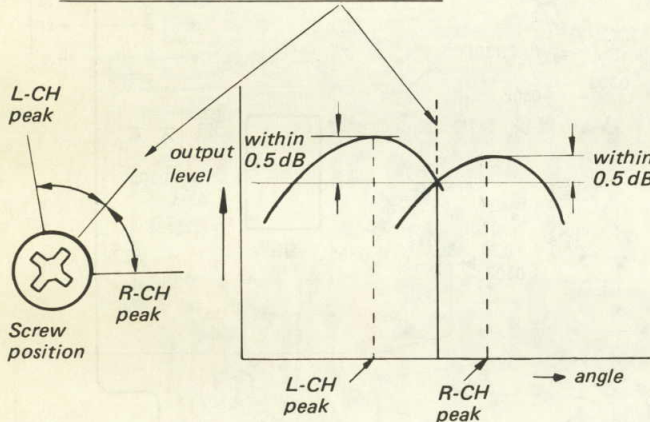
Procedure:

1. Mode: playback

test tape
P-4-A81
(6.3 kHz, -10 dB)

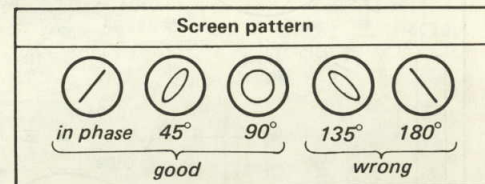
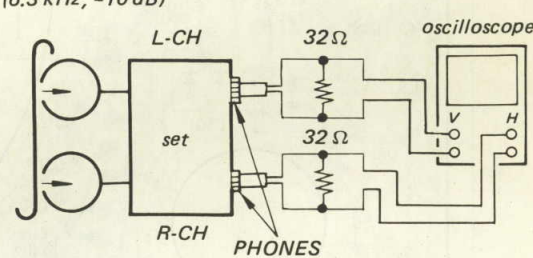


2. Turn the adjustment screw for the maximum output levels. If these levels do not match, turn the adjustment screw until both of output levels match together within 0.5 dB.

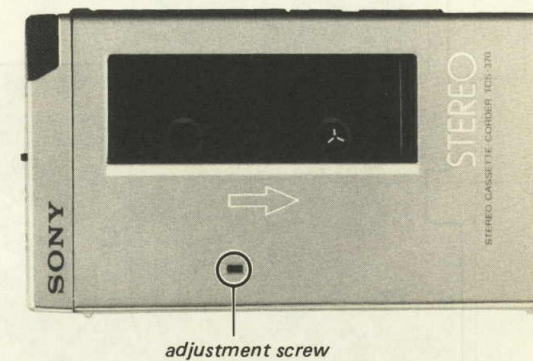


3. Phase Check
Mode: playback

test tape
P-4-A81
(6.3 kHz, -10 dB)



Adjustment Location:



Tape Speed Adjustment

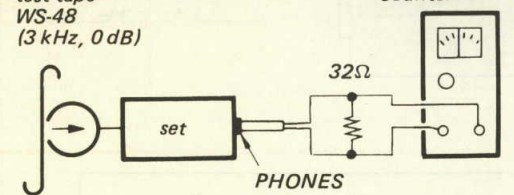
Setting:

VOLUME control: mechanical mid
SPEED control: mechanical mid

Procedure:

- Mode: playback

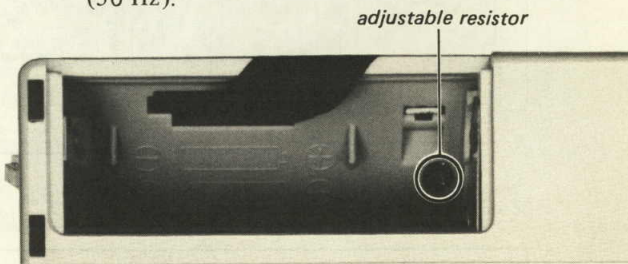
test tape
WS-48
(3 kHz, 0 dB)



Specification:

Speed checker	Digital frequency counter
-0.5 to +0.5%	2,985 ~ 3,015 Hz

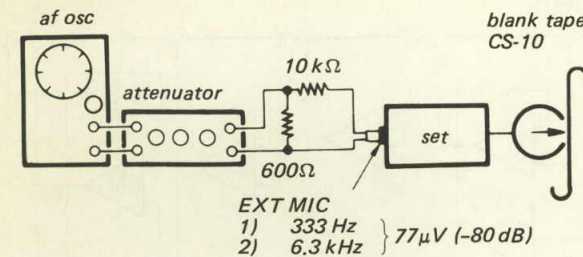
Frequency difference between the beginning and the end of the tape should be within 1% (30 Hz).



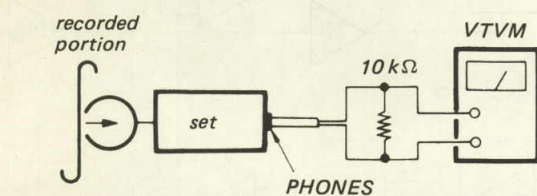
Record Bias Adjustment

Procedure:

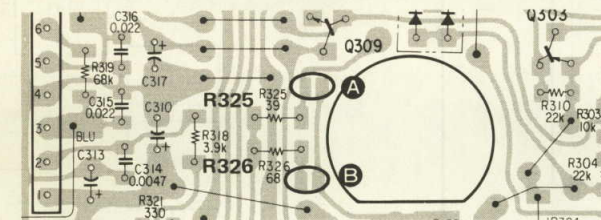
1. Mode: record



2. Mode: playback



1. Set the 333 Hz signal for -20 dB (77.5 mV).
2. Adjust the VOL control for -20 dB (77.5 mV) reading on VTVM.
3. Change the pattern connection (A or B) so that the output level of 6.3 kHz signal is within 6 dB relative to that of 333 Hz signal.
4. If necessary, repeat steps 2), 3).

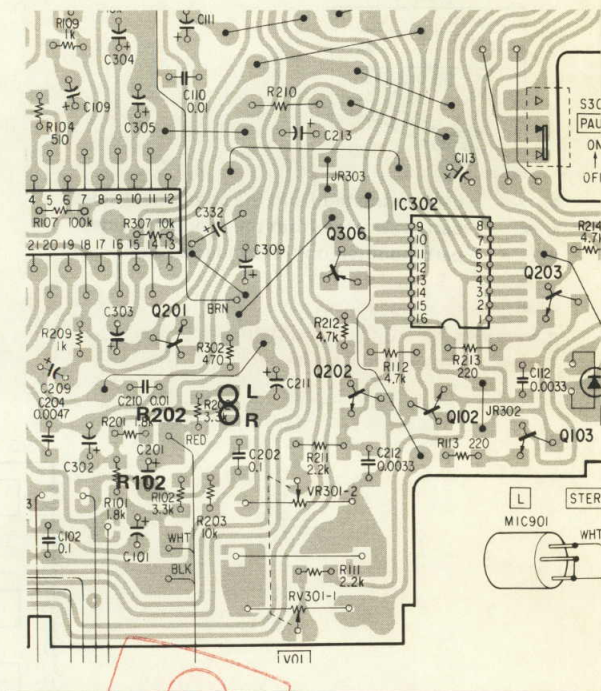


Microphone Sensitivity Adjustment

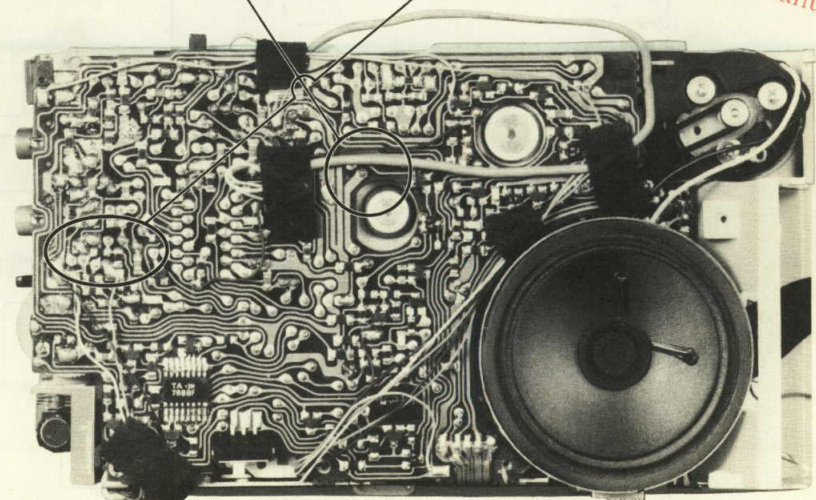
When replacing the microphone, perform this adjustment.

Mark of Microphone	Pattern Connection
BLACK	OPEN
RED	SHORT

Adjustment Location: Audio Board
(Conductor Side)



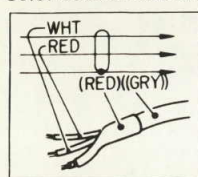
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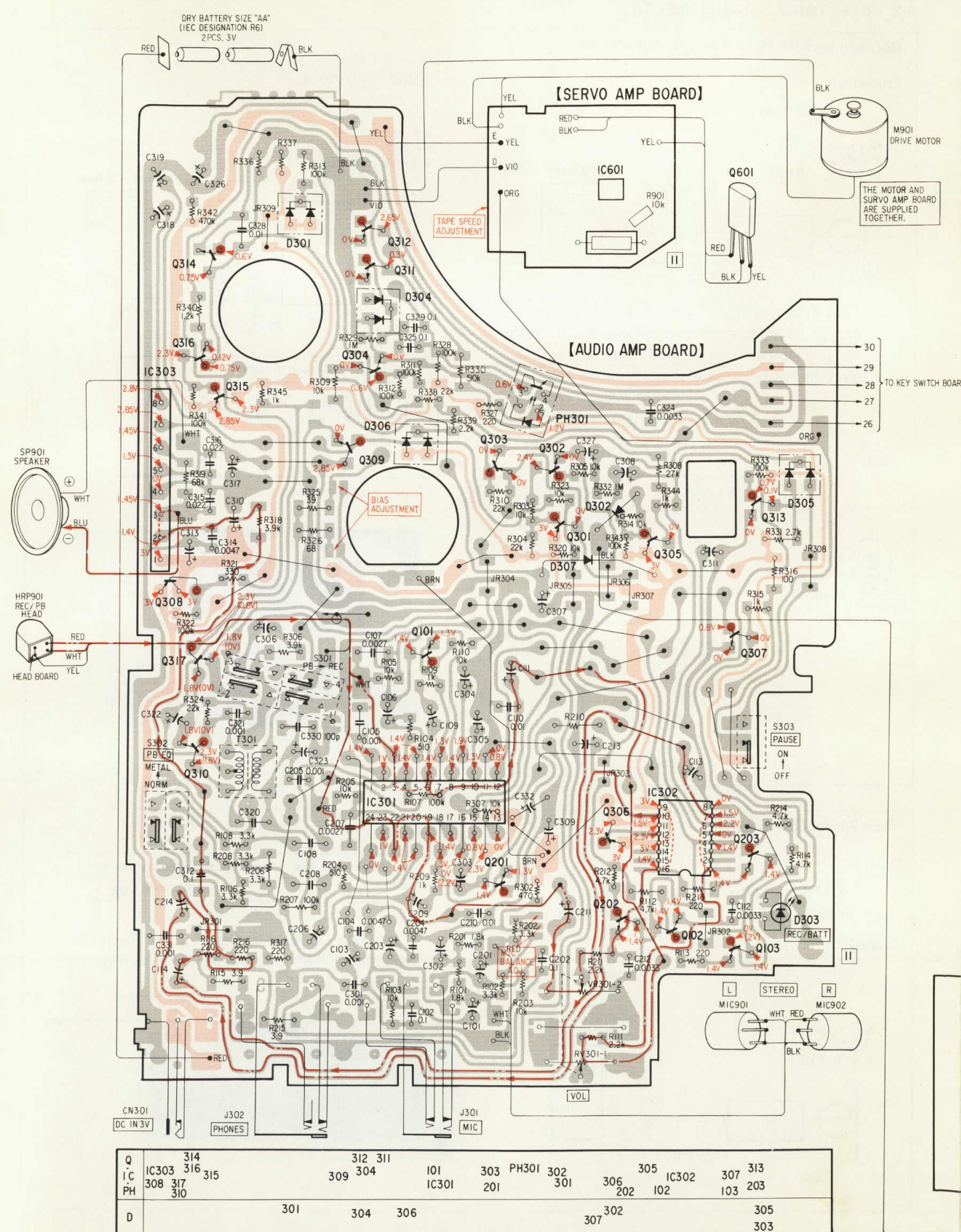
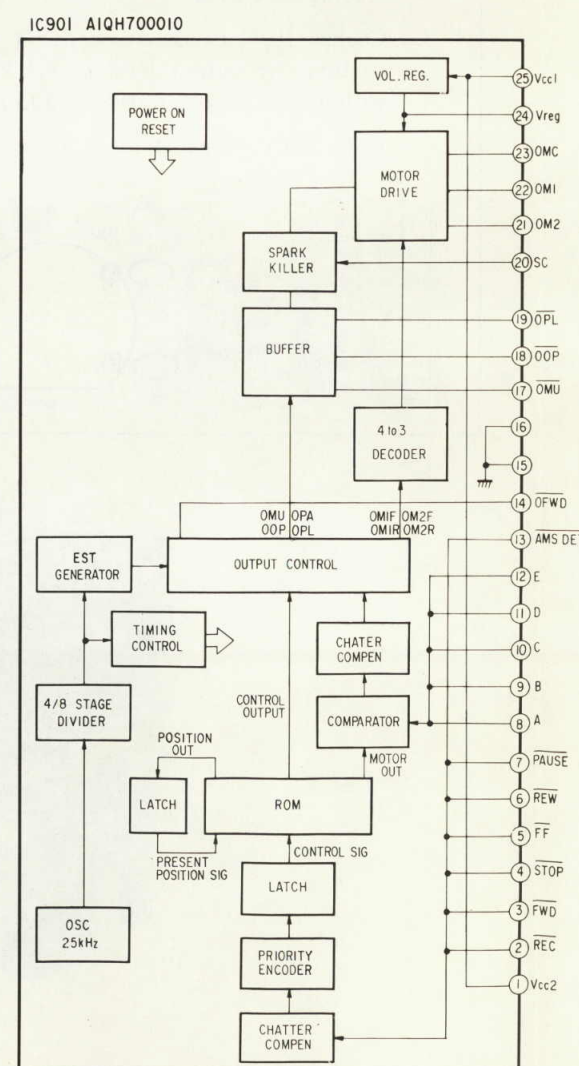
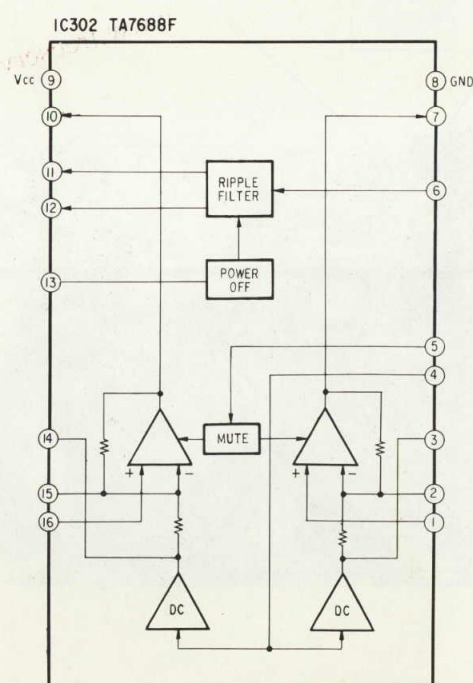
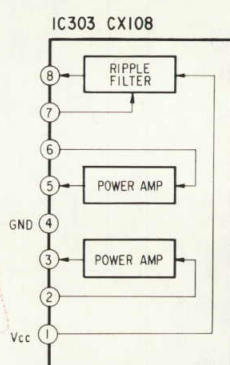
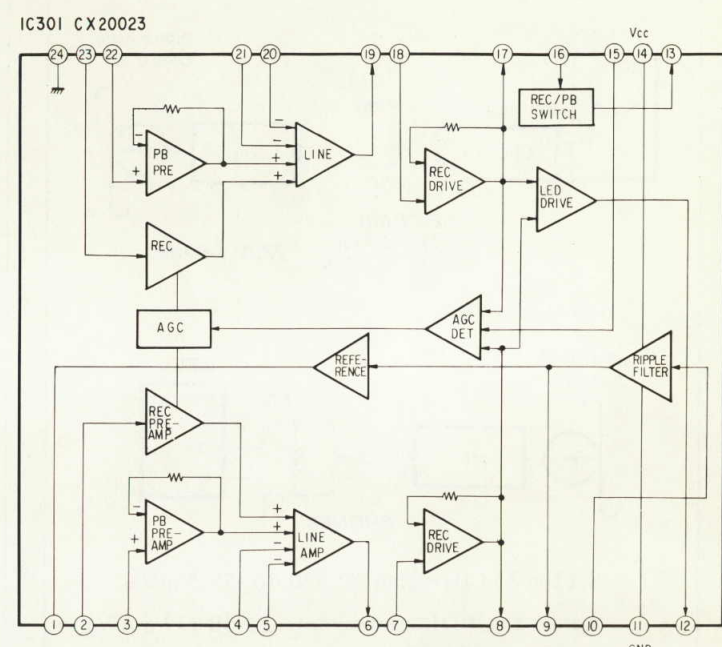
5-1. MOUNTING DIAGRAM

Note:

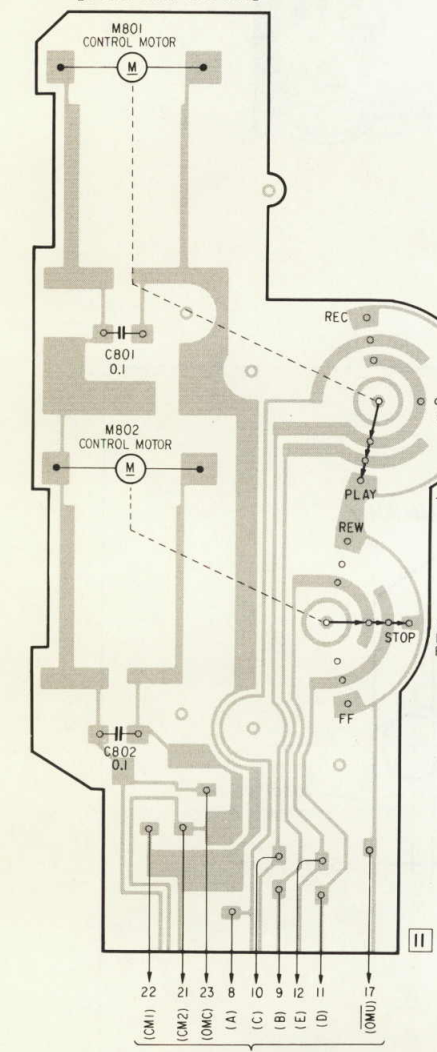
- Color code of sleeving over the end of the jacket.



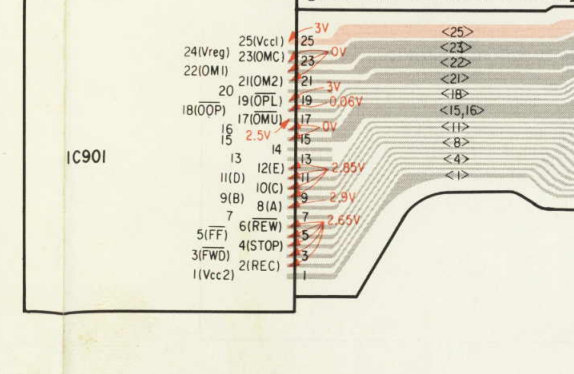
- : parts extracted from the component side.
- : parts extracted from the conductor side.
- : part mounted on the conductor side.
- : B + pattern
- : signal path
- : L-CH signal path
- : R-CH signal path



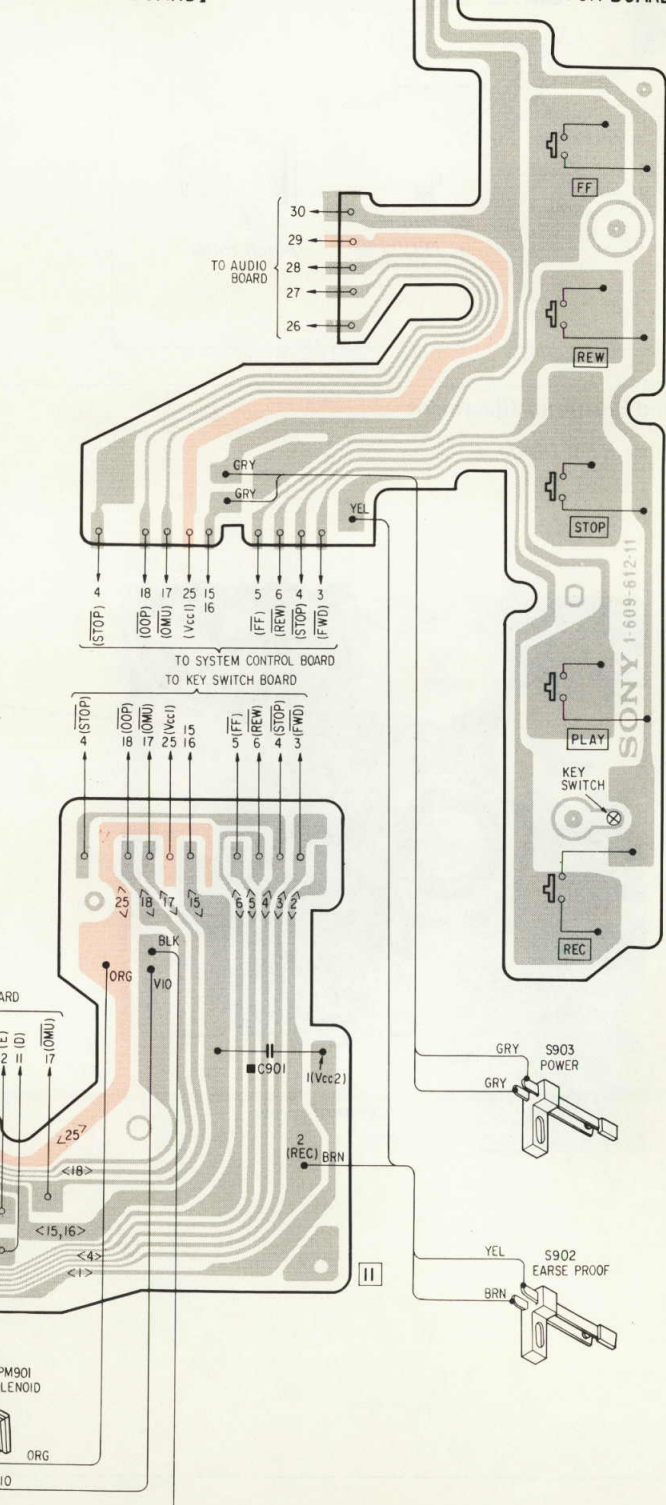
[CONTROL BOARD]



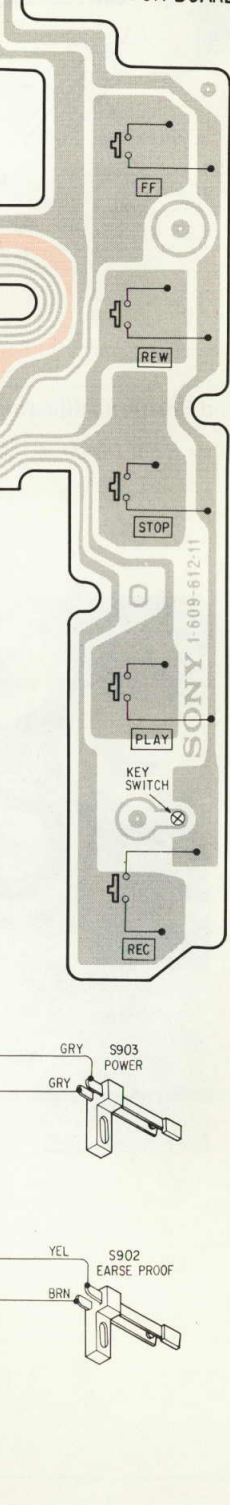
[SYSTEM CONTROL BOARD]



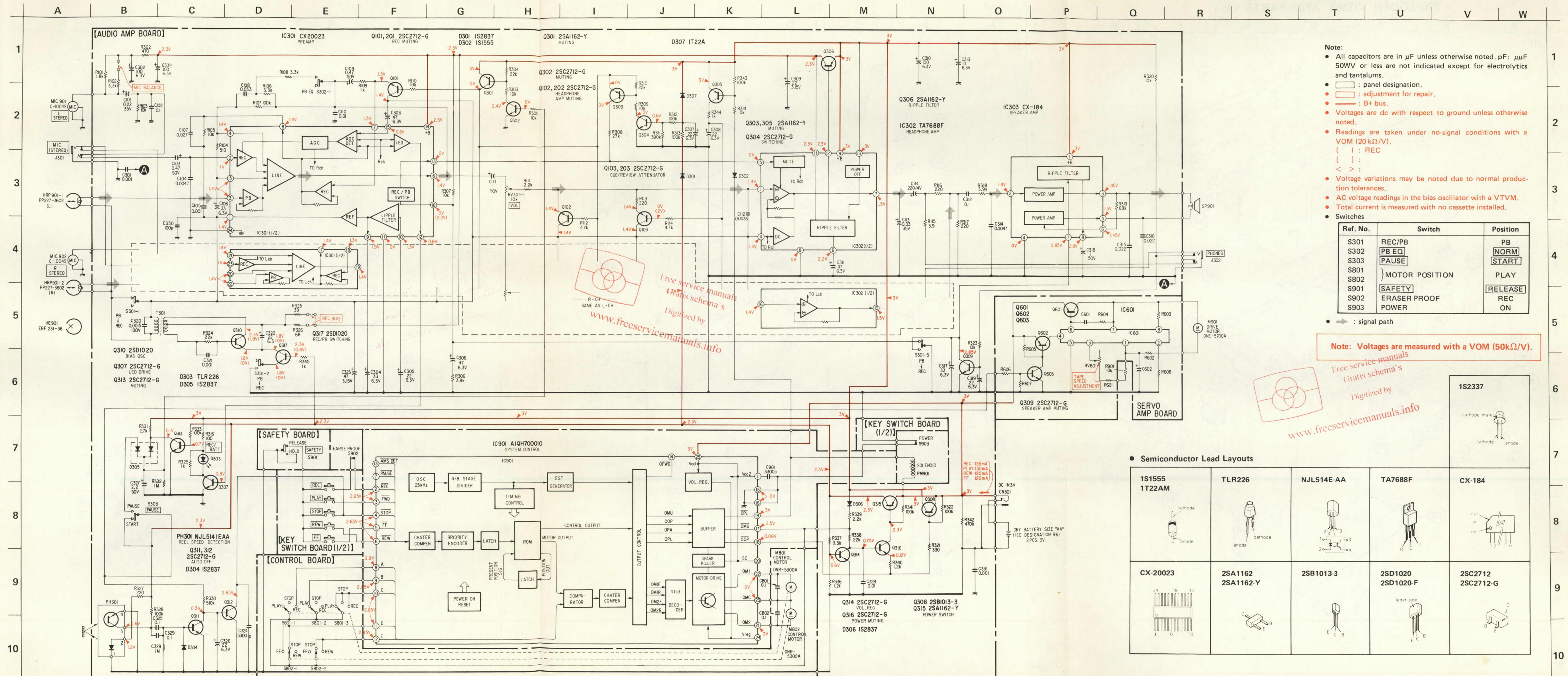
[SAFETY BOARD]



[KEY SWITCH BOARD]

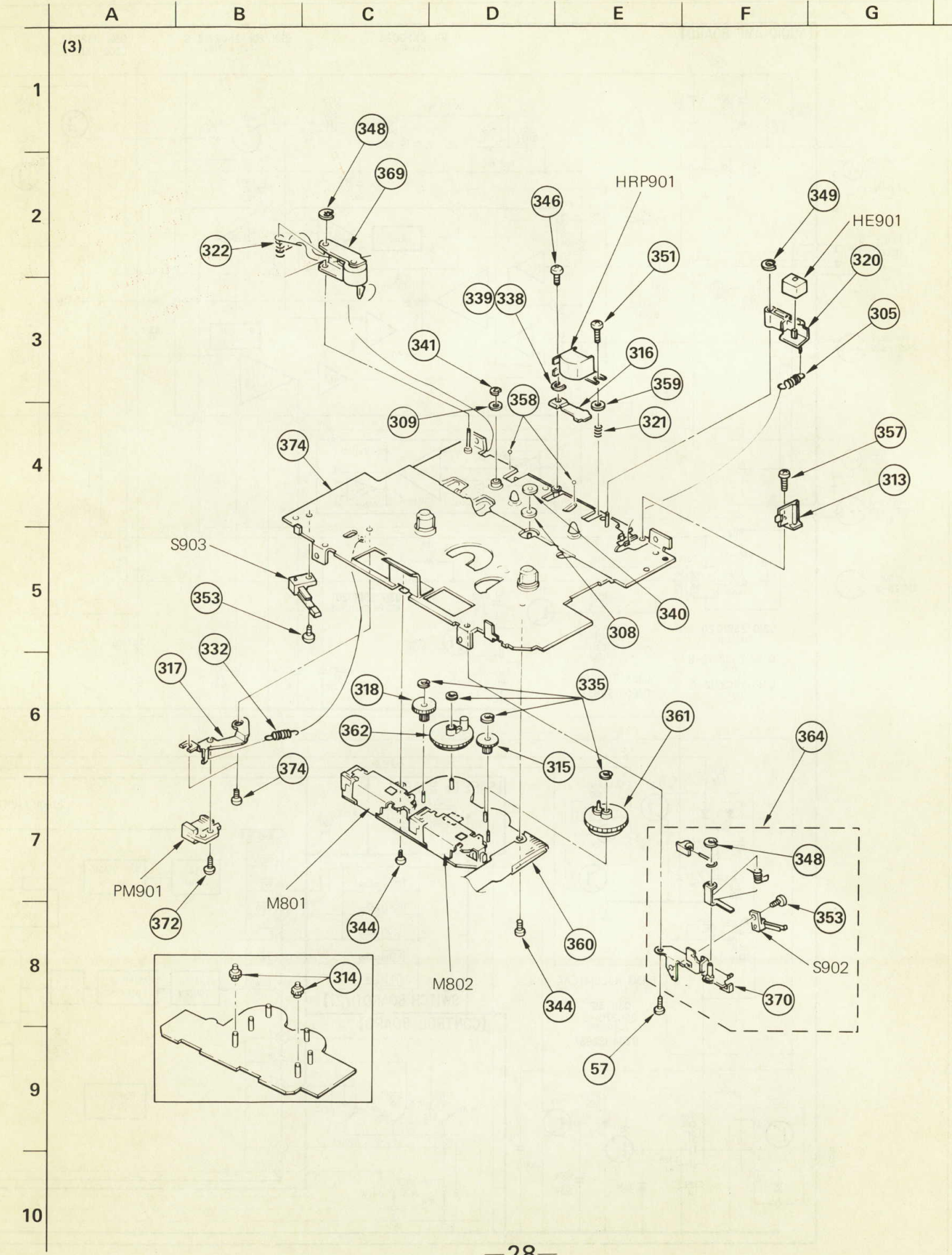
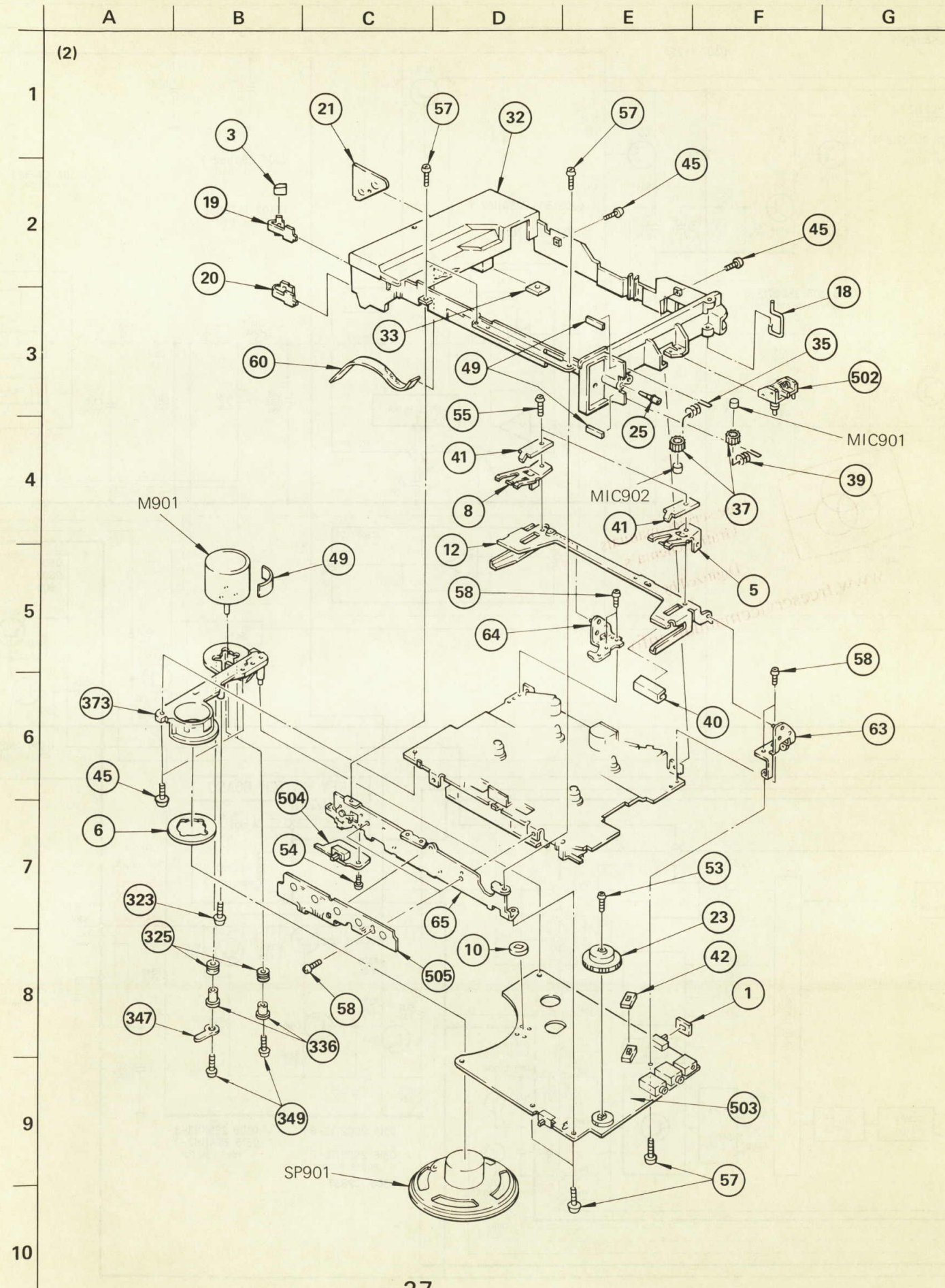
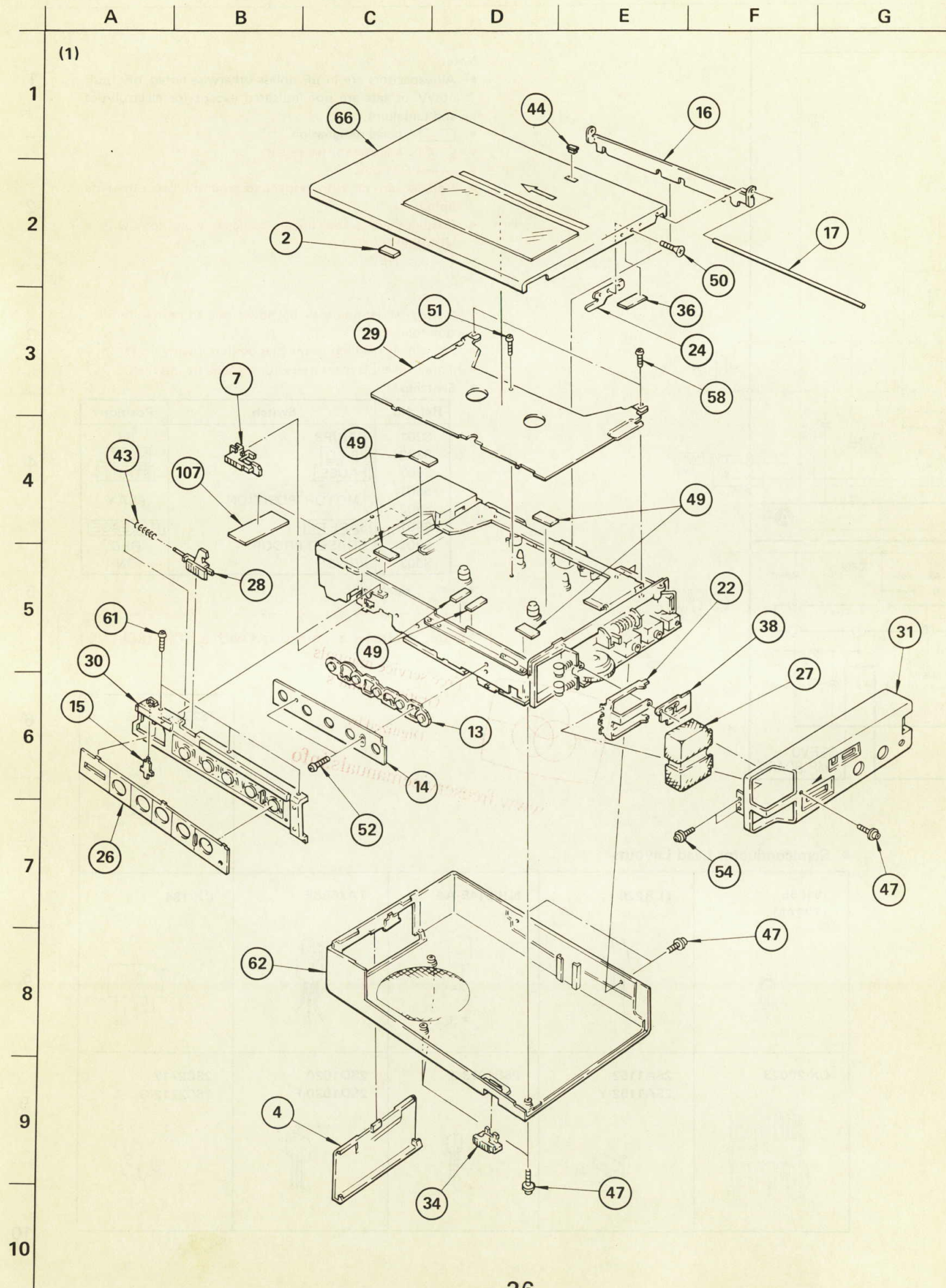


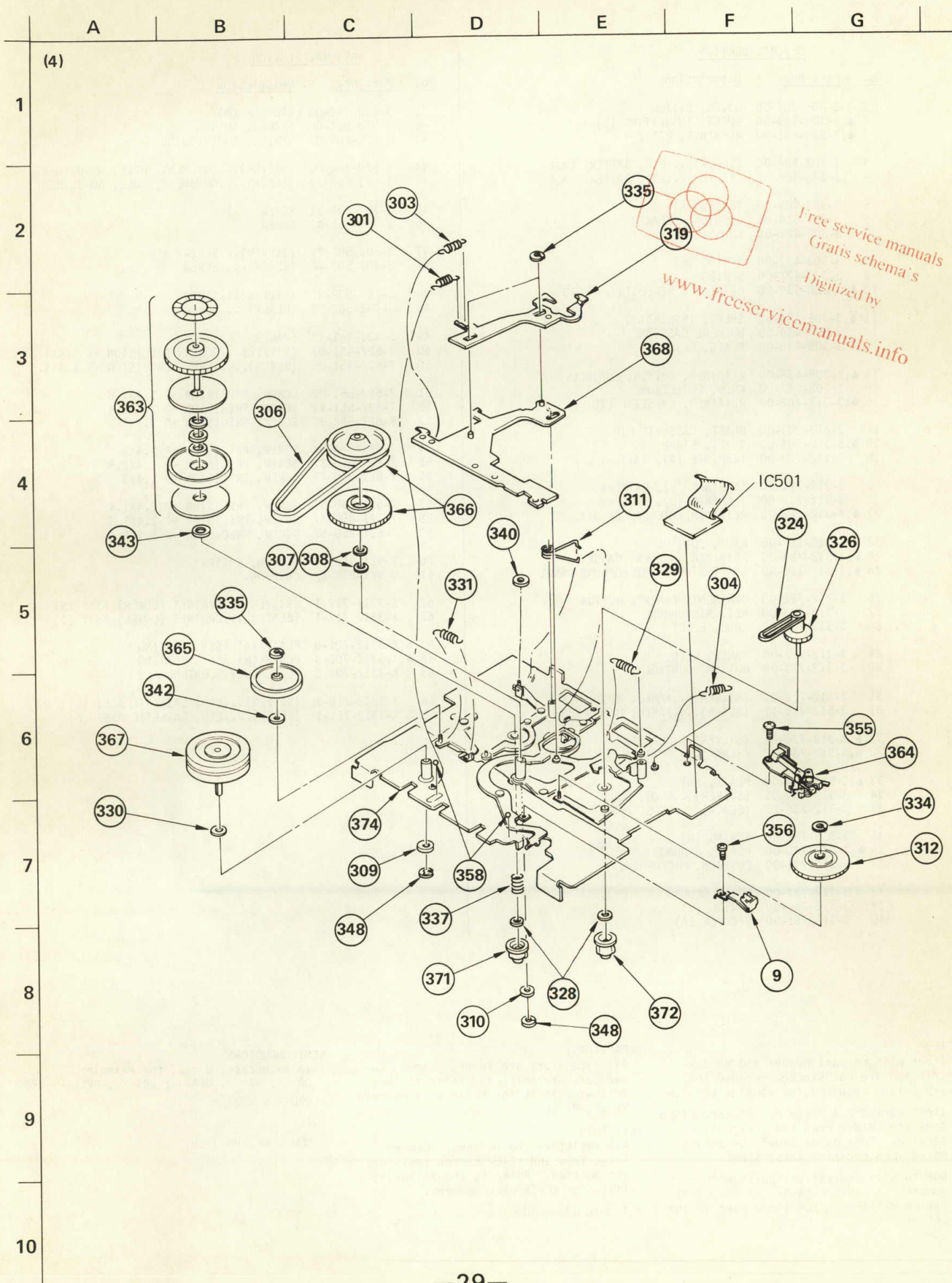
5-2. SCHEMATIC DIAGRAM



SECTION 6

EXPLODED VIEWS AND PARTS LIST





GENERAL SECTION

No.	Part No.	Description
1	3-305-887-00	COVER, SWITCH
2	♣;3-308-143-00	SHEET, INSULATING (C)
3	♣;3-308-401-00	RETAINER, BATTERY
4	3-308-404-00	(BLACK)....LID, BATTERY CASE
4	3-308-404-01	(SILVER)....LID, BATTERY CASE
5	3-308-409-00	SPRING (A)
6	3-308-419-00	CUSHION, SPEAKER
7	3-308-421-00	KNOB, SAFETY
8	3-308-422-00	SPRING (B)
9	3-308-427-00	SPRING
10	♣;3-308-430-00	RETAINER, REFLECTOR, PHOTO
11	♣;3-308-431-00	SHEET, INSULATING
12	3-308-434-00	HOLDER, CASSETTE
13	3-308-436-00	PLATE, CLICK
14	♣;3-308-438-00	RETAINER, BUTTON, CONTROL
15	3-308-547-00	KNOB, DETECTION
16	♣;3-312-702-00	RETAINER, CASSETTE LID
17	3-312-703-00	SHAFT, CASSETTE LID
18	♣;3-312-704-00	SHAFT, STRAP
19	3-312-709-00	TERMINAL (A), BATTERY
20	3-312-711-00	TERMINAL (B), BATTERY
21	3-312-712-00	TERMINAL (C), BATTERY
22	♣;3-312-713-00	RETAINER, MICROPHONE NET
23	3-312-717-00	KNOB, CONTROL
24	♣;3-312-719-00	RETAINER, HOLDER, CASSETTE
25	♣;3-312-720-00	SHAFT, STOPPER, MICROPHONE PANEL
26	3-312-722-00	ORNAMENT, CONTROL BUTTON
27	3-312-723-00	NET, MICROPHONE
28	3-312-726-00	KNOB, EJECT
29	3-312-727-00	PANEL, REEL
30	3-312-728-00	BUTTON, CONTROL
31	3-312-729-01	(SILVER)....PANEL, MICROPHONE
31	3-312-729-11	(BLACK)....PANEL, MICROPHONE
32	♣;3-312-730-02	(SILVER)....CHASSIS
32	♣;3-312-730-12	(BLACK)....CHASSIS
33	♣;3-312-734-00	PLATE, NUT
34	3-312-738-01	(SILVER)....KNOB, PAUSE
34	3-312-738-11	(BLACK)....KNOB, PAUSE
35	3-312-739-00	SPRING (A)
36	♣;3-312-740-00	PLATE, GROUND
37	3-312-741-00	CUSHION, MICROPHONE
38	3-312-747-00	FOIL, GROUND
39	3-312-748-00	SPRING (B)
40	3-312-751-00	STOPPER (A)

GENERAL SECTION

No.	Part No.	Description
41	3-312-752-00	STOPPER (B)
42	3-570-921-00	SPACER, SWITCH
43	3-578-104-00	SPRING, COMPRESSION
44	3-579-767-00	(SILVER)....ORNAMENT, HOLE, ADJUSTMENT
44	3-579-767-11	(BLACK)....ORNAMENT, HOLE, ADJUSTMENT
45	3-703-502-31	SCREW
46	3-703-502-41	SCREW
47	3-703-502-71	(SILVER)....SCREW
47	3-703-502-72	(BLACK)....SCREW
48	3-703-502-81	(SILVER)....SCREW
48	3-703-502-82	(BLACK)....SCREW
49	3-831-441-XX	SPACER
50	7-627-451-07	(SILVER)....SCREW, PRECISION +K 1.4X1.6
50	7-627-451-08	(BLACK)....SCREW, PRECISION +K 1.4X1.6
51	7-627-551-07	SCREW, PRECISION +P 1.4X1.6
52	7-627-551-47	SCREW, PRECISION +P 1.4X1.4
53	7-627-552-37	SCREW, PRECISION +P 1.7X3
54	7-627-850-07	SCREW, PRECISION +P 1.4X2
55	7-627-850-17	SCREW, PRECISION +P 1.4X2.5
56	7-627-850-27	SCREW, PRECISION +P 1.4X3
57	7-627-850-37	SCREW, PRECISION +P 1.4X1.4
58	7-627-850-47	SCREW, PRECISION +P 1.4X1.6
59	7-627-850-57	SCREW, PRECISION +P 1.4X3.5
60	9-911-816-01	RIBBON, BATTERY
61	9-911-838-XX	CUSHION
62	X-3312-712-1	(SILVER)....CABINET (LOWER) ASSY (S)
62	X-3312-713-1	(BLACK)....CABINET (LOWER) ASSY (B)
63	♣;X-3312-701-0	PLATE (A) ASSY, BEARING
64	♣;X-3312-702-0	PLATE (B) ASSY, BEARING
65	X-3312-704-0	PLATE ASSY, CONTROL
66	X-3312-710-1	(SILVER)....LID, CASSETTE ASSY (S)
66	X-3312-711-1	(BLACK)....LID, CASSETTE ASSY (B)

NOTE:

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- 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 numbers (Δ-ΔΔΔ-ΔΔΔ-XX or Δ-ΔΔΔΔ-ΔΔΔ-X) may be different from those used in the set.

CAPACITORS:

- All capacitors are in μF . Common capacitors are omitted. Refer to the following lists for their part numbers.
- MF: μF , PF: μpF .

RESISTORS

- All resistors are in ohms. Common 1/4W, 1/8W and 1/16W carbon resistors are omitted. Refer to the following lists for their part numbers.

- F : nonflammable

SEMICONDUCTORS

- In each case, U : μ , for example:
UA....: μA ..., UPA....: μPA ..., UPC....: μPC ,
UPD....: μPD ...

COILS

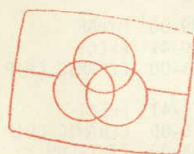
- MMH : mH, UH : μH

ACCESSORY & PACKING MATERIAL

No.	Part No.	Description
101	1-528-027-11	BATTERY, NEW SUPER (SUM-3) (NS)
102	3-312-746-01	CUSHION
103	3-312-743-01	SPACER
104	3-312-760-01	INDIVIDUAL CARTON
105	3-312-762-01	HEADPHONE CARTON
106	3-312-755-01	SHEET, PROTECTION
107	3-527-213-00	LABEL, SERIAL NUMBER
108	3-570-631-71	BAG, POLYETHYLENE
109	3-701-308-00	(BLACK)...LABEL, PRODUCT COLOR
109	3-701-309-00	(SILVER)...LABEL, PRODUCT COLOR
110	3-701-625-00	BAG, POLYETHYLENE
111	3-773-339-11	(AEP,UK)...MANUAL, INSTRUCTION
112	3-773-339-41	(E)...MANUAL, INSTRUCTION
113	3-795-565-11	INSTRUCTION
114	8-893-527-00	TAPE, DEMO (CD-814)
115	9-511-519-00	HEADPHONE (MDR-W3)

MECHANISM SECTION

No.	Part No.	Description
301	2-270-832-00	SPRING, TENSION
302	3-307-948-01	WASHER, NYLON
303	3-308-450-00	SPRING, TENSION
304	3-308-451-00	SPRING, TENSION
305	3-308-452-00	SPRING, TENSION
306	3-308-460-00	BELT, CAPSTAN
307	3-308-471-01	WASHER (FR)
308	3-308-471-11	WASHER (FR)
309	3-308-472-01	WASHER (C)
310	3-308-472-11	WASHER (C)
311	3-308-475-00	SPRING
312	3-308-486-00	GEAR, REW
313	3-308-500-00	GUIDE, TAPE
314	3-308-502-00	WHEEL, WORM
315	3-308-503-00	GEAR (B), FR-C
316	3-308-505-00	SPRING
317	3-308-515-00	BRACKET, PL
318	3-308-523-00	GEAR (C), FWD-C
319	3-308-525-00	LIMITER, HEAD CHASSIS
320	3-308-527-00	LEVER, ERASE HEAD
321	3-308-534-00	SPRING, COMPRESSION
322	3-308-544-00	SPRING (B)
323	3-309-597-41	SCREW (1.4), TAPPING
324	3-312-708-00	BELT, COUNTER
325	3-312-732-00	CUSHION, MOTOR
326	3-312-733-00	GEAR, S
327	3-312-734-00	PLATE, NUT
328	3-533-073-00	WASHER
329	3-545-588-00	SPRING, TENSION
330	3-545-715-00	WASHER
331	3-547-668-00	SPRING, TENSION
332	3-559-402-00	SPRING, TENSION
333	3-563-105-00	SHEET, INSULATING, MOTOR PCB
334	3-570-615-00	POLY-WASHER (DIA.1.2)
335	3-570-615-11	POLY-WASHER (DIA.1.2)
336	3-570-772-00	SPACER (M)
337	3-578-123-00	SPRING, COMPRESSION
338	3-578-138-01	SEAM
339	3-578-138-11	SEAM
340	3-578-242-11	WASHER
341	3-578-254-00	RING, RETAINING, E1.2
342	3-701-436-01	WASHER, 1.6
343	3-701-437-11	WASHER
344	3-703-502-11	SCREW
345	3-831-441-XX	CUSHION



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CAPACITORS:

- All capacitors are in μF . Common capacitors are omitted. Refer to the following lists for their part numbers.
- MF: μF , PF: μF .

RESISTORS

- All resistors are in ohms. Common 1/4W, 1/8W and 1/16W carbon resistors are omitted. Refer to the following lists for their part numbers.

- F: nonflammable

SEMICONDUCTORS

- In each case, U: μ , for example:
UA...: μA ..., UPA...: μPA ..., UPC...: μPC ,
UPD...: μPD ...

COILS

- MMH: mH, UH: μH

MECHANISM SECTION

No.	Part No.	Description
346	7-621-772-08	SCREW +B 2X3
347	7-623-505-01	LUG, 2
348	7-624-101-01	RING, RETAINING E-1.2
349	7-624-102-04	STOP RING 1.5, TYPE -E
350	7-627-552-67	SCREW, PRECISION +P 1.7X4.5
351	7-627-554-27	SCREW, PRECISION 2X6 TYPE 1
352	7-627-850-07	SCREW, PRECISION +P 1.4X2
353	7-627-850-17	SCREW, PRECISION +P 1.4X2.5
354	7-627-850-27	SCREW, PRECISION +P 1.4X3
355	7-627-850-37	SCREW, PRECISION +P 1.4X1.4
356	7-627-850-47	SCREW, PRECISION +P 1.4X1.6
357	7-627-850-67	SCREW, PRECISION +P 1.4X4
358	7-671-110-01	STEEL BALL 1.2MM
359	7-688-001-01	W 2, SMALL
360	A-3120-019-A	PC BOARD (A) ASSY, CONTROL
361	A-3120-020-A	GEAR (A) ASSY, FWD (C)
362	A-3120-021-A	GEAR (A) ASSY, FRC
363	A-3130-028-A	TABLE ASSY, REEL, T
364	A-3152-019-A	LEVER ASSY, ERASING PROTECTION
365	X-3308-404-0	IDLER ASSY, FWD
366	X-3308-405-0	PULLEY ASSY, FR
367	X-3308-406-0	FLYWHEEL ASSY
368	•;X-3308-411-0	CHASSIS ASSY, HEAD
369	X-3308-412-0	PINCH LEVER ASSY
370	•;X-3308-413-0	BRACKET ASSY, SWITCH
371	X-3308-414-0	CLAW ASSY, T REEL
372	X-3308-418-0	CLAW ASSY, S REEL
373	•;X-3312-706-0	BRACKET ASSY, MS
374	•;X-3312-707-0	CHASSIS ASSY, MECHANICAL

ELECTRICAL PARTS

Ref.No.	Part No.	Description			
501	1-464-203-13	CIRCUIT UNIT, SYSTEM CONTROL(1) (IC901)			
502	1-548-541-31	COUNTER			
503	•;1-609-474-00	PC BOARD, AUDIO			
504	•;1-609-580-00	PC BOARD, SAFETY			
505	1-609-612-00	PC BOARD, KEY SWITCH			
C101	1-131-404-00	TANTALUM	0.22MF	20%	35V
C102	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C103	1-123-610-41	ELECT	0.47MF	20%	50V
C104	1-163-017-00	CERAMIC CHIP	0.0047MF	10%	50V
C105	1-163-047-91	CERAMIC CHIP	0.001MF	10%	50V
C106	1-123-646-41	ELECT	33MF	20%	6.3V
C107	1-163-052-00	CERAMIC CHIP	0.0027MF	10%	50V
C108	1-130-489-00	MYLAR	0.033MF	5%	50V
C109	1-123-610-41	ELECT	0.47MF	20%	50V
C110	1-163-021-00	CERAMIC CHIP	0.01MF	10%	50V
C111	1-123-611-41	ELECT	1MF	20%	50V
C112	1-163-015-00	CERAMIC CHIP	0.0033MF	10%	50V
C113	1-131-344-00	TANTALUM	0.33MF	20%	35V
C114	1-123-827-41	ELECT	220MF	20%	4V
C201	1-131-404-00	TANTALUM	0.22MF	20%	35V
C202	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C203	1-123-610-41	ELECT	0.47MF	20%	50V
C204	1-163-017-00	CERAMIC CHIP	0.0047MF	10%	50V
C205	1-163-009-00	CERAMIC CHIP	0.001MF	10%	50V
C206	1-123-646-41	ELECT	33MF	20%	6.3V
C207	1-163-052-00	CERAMIC CHIP	0.0027MF	10%	50V
C208	1-130-489-00	MYLAR	0.033MF	5%	50V
C209	1-123-610-41	ELECT	0.47MF	20%	50V
C210	1-163-021-00	CERAMIC CHIP	0.01MF	10%	50V
C211	1-123-611-41	ELECT	1MF	20%	50V
C212	1-163-015-00	CERAMIC CHIP	0.0033MF	10%	50V
C213	1-131-344-00	TANTALUM	0.33MF	20%	35V
C214	1-123-827-41	ELECT	220MF	20%	4V
C301	1-163-009-00	CERAMIC CHIP	0.001MF	10%	50V
C302	1-123-661-41	ELECT	100MF	20%	6.3V
C303	1-123-647-41	ELECT	47MF	20%	6.3V
C304	1-123-646-41	ELECT	33MF	20%	6.3V
C305	1-123-618-41	ELECT	22MF	20%	6.3V
C306	1-123-647-41	ELECT	47MF	20%	6.3V
C307	1-123-618-41	ELECT	22MF	20%	6.3V
C308	1-123-618-00	ELECT	22MF	20%	6.3V
C309	1-131-391-00	TANTALUM	22MF	20%	3.15V
C310	1-123-661-41	ELECT	100MF	20%	6.3V
C311	1-123-647-00	ELECT	47MF	20%	6.3V

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CAPACITORS:

- All capacitors are in μF. Common capacitors are omitted. Refer to the following lists for their part numbers.
- MF: μF, PF: μμF.

RESISTORS

- All resistors are in ohms. Common 1/4W, 1/8W and 1/16W carbon resistors are omitted. Refer to the following lists for their part numbers.

- F: nonflammable

SEMICONDUCTORS

- In each case, U: μ, for example:
UA...: μA..., UPA...: μPA..., UPC...: μPC,
UPD...: μPD...

COILS

- MMH: mH, UH: μH

ELECTRICAL PARTS

Ref.No.	Part No.	Description			
C312	1-163-077-91	CERAMIC CHIP	0.1MF		50V
C313	1-131-383-00	TANTALUM	10MF	20%	6.3V
C314	1-163-017-00	CERAMIC CHIP	0.0047MF	10%	50V
C315	1-163-037-00	CERAMIC CHIP	0.022MF	10%	25V
C316	1-163-037-00	CERAMIC CHIP	0.022MF	10%	25V
C317	1-123-646-41	ELECT	33MF	20%	6.3V
C318	1-123-611-41	ELECT	1MF	20%	50V
C319	1-123-618-41	ELECT	22MF	20%	6.3V
C320	1-108-367-00	MYLAR	0.0015MF	10%	100V
C321	1-163-009-00	CERAMIC CHIP	0.001MF	10%	50V
C322	1-131-385-00	TANTALUM	22MF	20%	6.3V
C323	1-131-393-00	TANTALUM	47MF	20%	3.15V
C324	1-163-015-00	CERAMIC CHIP	0.0033MF	10%	50V
C325	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C326	1-123-618-41	ELECT	22MF	20%	6.3V
C327	1-123-612-41	ELECT	2.2MF	20%	50V
C328	1-163-059-91	CERAMIC CHIP	0.01MF	10%	50V
C329	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C330	1-163-181-91	CERAMIC CHIP	100PF	5%	50V
C331	1-163-047-91	CERAMIC CHIP	0.001MF	10%	50V
C332	1-123-661-00	ELECT	100MF	20%	6.3V
CN301	1-507-850-00	JACK, EXTENSION POWER			
D301	8-719-100-05	DIODE	1S2837-T2		
D302	8-719-815-55	DIODE	1S1555		
D303	8-719-812-26	DIODE	TLR226		
D304	8-719-100-05	DIODE	1S2837-T2		
D305	8-719-100-05	DIODE	1S2837-T2		
D306	8-719-100-05	DIODE	1S2837-T2		
D307	8-719-422-21	DIODE	1T22AM		
HE901	8-825-542-10	HEAD			
HRP901	8-825-507-20	HEAD (PP227-3602)			
IC301	8-759-907-36	IC	CX20023		
IC302	8-759-200-95	IC	TA7688F		
IC303	8-751-840-00	IC	CX-184		
J301	1-507-838-21	JACK			
J302	1-507-838-00	JACK			
JR301	1-216-296-00	METAL CHIP	0	5%	1/8W
JR302	1-216-296-00	METAL CHIP	0	5%	1/8W
JR303	1-216-295-00	METAL CHIP	0	5%	1/10W
JR304	1-216-296-00	METAL CHIP	0	5%	1/8W
JR305	1-216-296-00	METAL CHIP	0	5%	1/8W
JR306	1-216-296-00	METAL CHIP	0	5%	1/8W
JR307	1-216-296-00	METAL CHIP	0	5%	1/8W
JR308	1-216-296-00	METAL CHIP	0	5%	1/8W
JR309	1-216-296-00	METAL CHIP	0	5%	1/8W

ELECTRICAL PARTS

Ref.No.	Part No.	Description			
M801	8-835-067-01	MOTOR, DC (DNR-5300A)			
M802	8-835-067-01	MOTOR, DC (DNR-5300A)			
M901	8-835-076-01	MOTOR, DC (DNE-5700A)			
MIC901	8-814-183-50	C-1010A			
MIC902	8-814-183-50	C-1010A			
PH301	8-719-751-42	DIODE	NJL5141E-AA		
PM901	1-454-326-00	SOLENOID, PLUNGER			
Q101	8-729-271-23	TRANSISTOR	2SC2712		
Q102	8-729-271-23	TRANSISTOR	2SC2712		
Q103	8-729-271-23	TRANSISTOR	2SC2712		
Q201	8-729-271-23	TRANSISTOR	2SC2712		
Q202	8-729-271-23	TRANSISTOR	2SC2712		
Q203	8-729-271-23	TRANSISTOR	2SC2712		
Q301	8-729-216-22	TRANSISTOR	2SA1162		
Q302	8-729-271-23	TRANSISTOR	2SC2712		
Q303	8-729-216-22	TRANSISTOR	2SA1162		
Q304	8-729-271-23	TRANSISTOR	2SC2712		
Q305	8-729-216-22	TRANSISTOR	2SA1162		
Q306	8-729-216-22	TRANSISTOR	2SA1162		
Q307	8-729-271-23	TRANSISTOR	2SC2712		
Q308	8-729-801-83	TRANSISTOR	2SB1013		
Q309	8-729-271-23	TRANSISTOR	2SC2712		
Q310	8-729-102-03	TRANSISTOR	2SD1020		
Q311	8-729-271-23	TRANSISTOR	2SC2712		
Q312	8-729-271-23	TRANSISTOR	2SC2712		
Q313	8-729-271-23	TRANSISTOR	2SC2712		
Q314	8-729-271-23	TRANSISTOR	2SC2712		
Q315	8-729-216-22	TRANSISTOR	2SA1162		
Q316	8-729-271-23	TRANSISTOR	2SC2712		
Q317	8-729-102-03	TRANSISTOR	2SD1020		
R101	1-216-055-00	METAL CHIP	1.8K	5%	1/10W
R102	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R103	1-216-073-00	METAL CHIP	10K	5%	1/10W
R104	1-216-042-00	METAL CHIP	510	5%	1/10W
R105	1-216-073-00	METAL CHIP	10K	5%	1/10W
R106	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R107	1-216-246-91	METAL CHIP	100K	5%	1/8W
R108	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R109	1-216-049-00	METAL CHIP	1K	5%	1/10W
R110	1-216-073-00	METAL CHIP	10K	5%	1/10W
R111	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R112	1-216-214-91	METAL CHIP	4.7K	5%	1/8W
R113	1-216-033-00	METAL CHIP	220	5%	1/10W
R114	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R115	1-216-140-00	METAL CHIP	3.9	5%	1/8W

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- Due to standardization, parts with part numbers (Δ-ΔΔΔ-ΔΔΔ-XX or Δ-ΔΔΔΔ-ΔΔΔ-X) may be different from those used in the set.

CAPACITORS:

- All capacitors are in μF . Common capacitors are omitted. Refer to the following lists for their part numbers.
- MF: μF , PF: μF .

RESISTORS

- All resistors are in ohms. Common 1/4W, 1/8W and 1/16W carbon resistors are omitted. Refer to the following lists for their part numbers.

- F : nonflammable

SEMICONDUCTORS

- In each case, U : μ , for example:
 UA...: μA ..., UPA...: μPA ..., UPC...: μPC ,
 UPD...: μPD ...

COILS

- MMH : mH, UH : μH

ELECTRICAL PARTS

Ref.No.	Part No.	Description			
R116	1-216-033-00	METAL CHIP	220	5%	1/10W
R201	1-216-055-00	METAL CHIP	1.8K	5%	1/10W
R202	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R203	1-216-073-00	METAL CHIP	10K	5%	1/10W
R204	1-216-042-00	METAL CHIP	510	5%	1/10W
R205	1-216-073-00	METAL CHIP	10K	5%	1/10W
R206	1-216-210-91	METAL CHIP	3.3K	5%	1/8W
R207	1-216-246-91	METAL CHIP	100K	5%	1/8W
R208	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R209	1-216-049-00	METAL CHIP	1K	5%	1/10W
R210	1-247-855-00	CARBON	10K	5%	1/6W
R211	1-216-206-91	METAL CHIP	2.2K	5%	1/8W
R212	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R213	1-216-182-00	METAL CHIP	220	5%	1/8W
R214	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R215	1-216-140-00	METAL CHIP	3.9	5%	1/8W
R216	1-216-033-00	METAL CHIP	220	5%	1/10W
R302	1-216-041-00	METAL CHIP	470	5%	1/10W
R303	1-216-073-00	METAL CHIP	10K	5%	1/10W
R304	1-216-081-00	METAL CHIP	22K	5%	1/10W
R305	1-216-073-00	METAL CHIP	10K	5%	1/10W
R306	1-216-212-91	METAL CHIP	3.9K	5%	1/8W
R307	1-216-073-00	METAL CHIP	10K	5%	1/10W
R308	1-216-232-91	METAL CHIP	27K	5%	1/8W
R309	1-216-222-91	METAL CHIP	10K	5%	1/8W
R310	1-216-081-00	METAL CHIP	22K	5%	1/10W
R311	1-216-111-00	METAL CHIP	390K	5%	1/10W
R312	1-216-097-00	METAL CHIP	100K	5%	1/10W
R313	1-216-246-91	METAL CHIP	100K	5%	1/8W
R314	1-216-073-00	METAL CHIP	10K	5%	1/10W
R315	1-216-049-00	METAL CHIP	1K	5%	1/10W
R316	1-216-174-91	METAL CHIP	100	5%	1/8W
R317	1-216-033-00	METAL CHIP	220	5%	1/10W
R318	1-216-212-91	METAL CHIP	3.9K	5%	1/8W
R319	1-216-242-91	METAL CHIP	68K	5%	1/8W
R320	1-216-073-00	METAL CHIP	10K	5%	1/10W
R321	1-216-037-00	METAL CHIP	330	5%	1/10W
R322	1-216-097-00	METAL CHIP	100K	5%	1/10W
R323	1-216-073-00	METAL CHIP	10K	5%	1/10W
R324	1-216-081-00	METAL CHIP	22K	5%	1/10W
R325	1-216-164-00	METAL CHIP	39	5%	1/8W
R326	1-216-170-91	METAL CHIP	68	5%	1/8W
R327	1-216-033-00	METAL CHIP	220	5%	1/10W
R328	1-216-246-91	METAL CHIP	100K	5%	1/8W
R329	1-216-121-00	METAL CHIP	1M	5%	1/10W

ELECTRICAL PARTS

Ref.No.	Part No.	Description			
R330	1-216-263-00	METAL CHIP	510K	5%	1/8W
R331	1-216-208-00	METAL CHIP	2.7K	5%	1/8W
R332	1-216-121-00	METAL CHIP	1M	5%	1/10W
R333	1-216-097-00	METAL CHIP	100K	5%	1/10W
R336	1-214-559-00	METAL	1.2K	1%	1/8W
R337	1-214-569-00	METAL	3.3K	1%	1/8W
R338	1-216-081-00	METAL CHIP	22K	5%	1/10W
R339	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R340	1-216-200-91	METAL CHIP	1.2K	5%	1/8W
R341	1-216-097-00	METAL CHIP	100K	5%	1/10W
R342	1-216-113-00	METAL CHIP	470K	5%	1/10W
R343	1-216-097-00	METAL CHIP	100K	5%	1/10W
R344	1-216-049-00	METAL CHIP	1K	5%	1/10W
R345	1-216-049-00	METAL CHIP	1K	5%	1/10W
R901	1-216-073-00	RES, CHIP	10K	5%	1/10W
RV301	1-228-598-00	RES, VAR, CARBON	10K/10K		
S301	1-554-029-00	SWITCH, SLIDE			
S302	1-554-222-00	SWITCH, SLIDE			
S303	1-554-142-00	SWITCH, SLIDE			
S901	1-553-510-00	SWITCH, SLIDE			
S902	1-553-682-00	SWITCH, LEAF			
S903	1-553-682-21	SWITCH, LEAF			
SP901	1-503-223-00	SPEAKER (050F009)			
T301	1-433-251-00	TRANSFORMER, BIAS OSCILLATOR			

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- MMH: mH, UH: μH

Sony Corporation
Consumer Products Group
Technical Support Dept.

9-951-101-11
(with MDR-W3)