

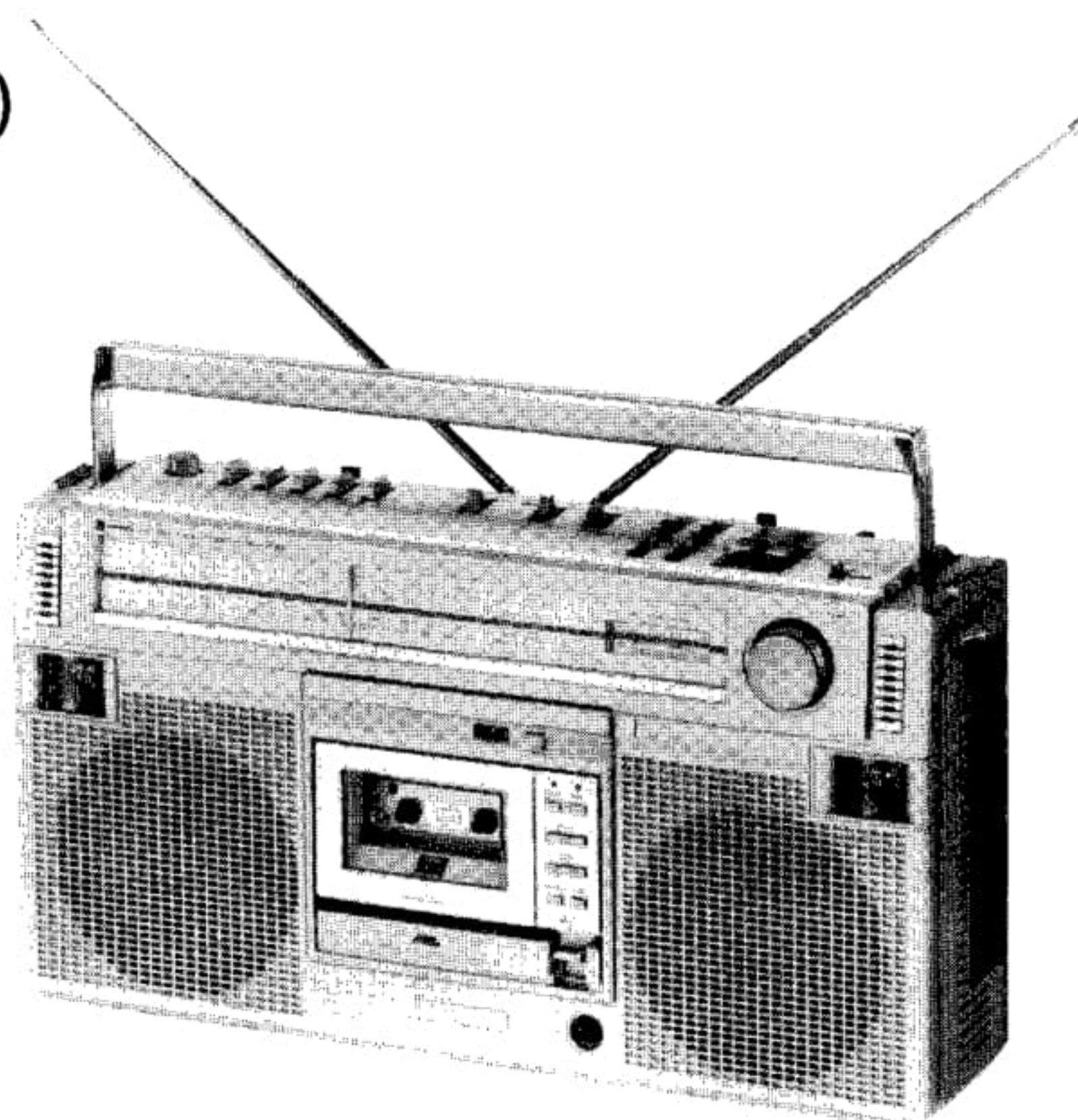
JVC

SERVICE MANUAL

MODEL

RC-M60L/LB

FM-MW-LW-SW₁-SW₂
5 BAND STEREO RADIO
CASSETTE RECORDER



No. 1416
July 1980

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Specifications

Semiconductors	: 11 ICs (including 2 for the microphone), 87 transistors (including 2 for the motor)	Rewind time	: Within 90 sec. (C-60 cassette)
Speakers	: 16cm (3.2Ω) x 2, 5cm (4Ω) x 2	Fast forward time	: Within 90 sec. (C-60 cassette)
Tuner section		Amplifier section	
Frequency ranges	: FM 88 – 108MHz MW 540 – 1600kHz LW 150 – 350kHz SW1 5.95 – 6.2MHz SW2 6 – 18MHz	Power output	: 8W(4W+4W) (DC) at 10% THD Max. 12W (6W+6W)
Antennas	: Telescopic antennas for FM, SW Ferrite core antenna for MW & LW	Input jacks	: Mic x 2 (low impedance) Remote jack x 1
Tape recorder section		Output jacks	: Ext. speaker x 2 (load impedance 3.2 ~ 8Ω) Headphones x 1
Track system	: 4-Track 2-channel stereo	Input/output jack	: DIN jack
Frequency response	: 30 – 16,000Hz (with metal tape) 30 – 15,000Hz (with chrome tape) 30 – 14,000Hz (with normal tape)	Power supply	: DC 12V (8 "R20" cells) Car battery through a car battery adapter AC 240/220/110V, 50/60Hz
Heads	: SA head for recording/playback 2 Gap SA head for erasure	Power consumption	: 20W (RC-M60L) 18W (RC-M60LB)
Motors	: Electronic governed DC motor for capstan DC motor for reel	Dimensions	: 501(W) x 267(H) x 127(D)mm
Wow & flutter	: 0.06% (WRMS)	Weight	: 5.8kg (without batteries) 6.6kg (with batteries)
S/N ratio	: 50dB		

Design and specifications subject to change without notice.

Features

1. Feather-light touch operation via two-motor full-logic tape transport

- High performance backed up with an incredibly low wow and flutter of 0.06% (WRMS).
- Gear/oil-damped cassette door for smooth, quiet operation.
- Light-touch direct mode change from any given mode.
- Cue and review facilities even from the record mode.
- Assemble-recording capability due to direct mode from playback to record.

2. Remote control capability

- Optional remote control unit (R-15E).

3. Metal tape compatibility

- SA (Sen-Alloy) Record/Playback head and 2-Gap SA Erase head.
- Authentic recording equalizer circuit.
- Three-position tape select switch for normal, CrO2 and metal tapes.

- ARL (Automatic Recording Level) selection switch allows automatic adjustment of reference level for different tapes.

4. BIPHONIC*/Wide circuit for three-dimensional sound realism

5. High-performance tuner

- 5-Band radio selection includes FM/MW/LW/SW1/SW2
- Quadrature detector.
- PLL (Phase-Locked Loop) IC in the FM multiplex circuit.
- Two telescopic antennas with upgraded sensitivity.

6. High quality sound

- Two-way/four-speaker system having two 16-cm woofers and two 5-cm tweeters.
- Separate bass and treble tone controls.

*BIPHONIC is a trademark of JVC.

Names of Parts

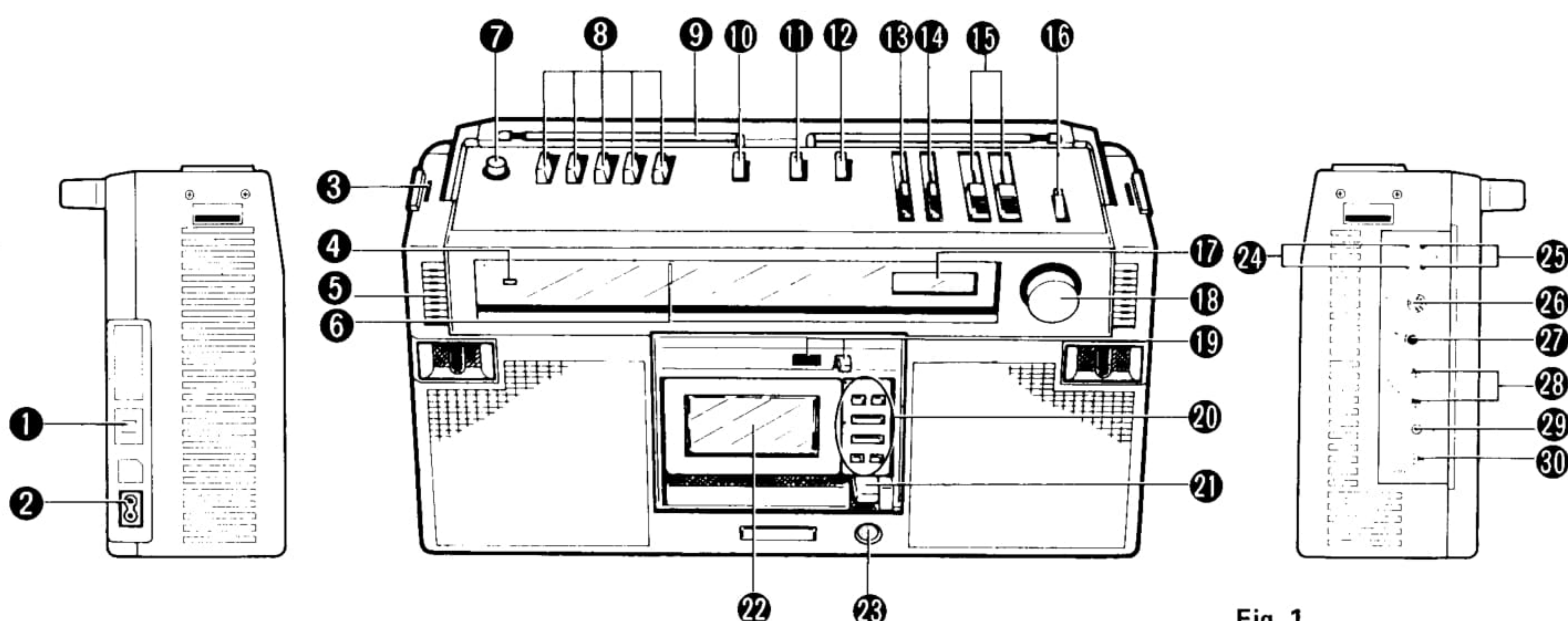


Fig. 1

- | | |
|---|---|
| ① Voltage selector | ⑱ Tuning knob |
| ② AC input jack | ⑲ Tape counter/Reset button |
| ③ Fasteners (L, R) for shoulder strap or holder for external microphone. | ⑳ Cassette operation buttons |
| ④ FM stereo indicator | PAUSE button (■) |
| ⑤ Built-in microphones (L, R) | REC button (○) |
| ⑥ Dial indicator | PLAY button (►) |
| ⑦ FINE TUNING knob | STOP button (■) |
| ⑧ BAND SELECTOR buttons | REVIEW button (◀◀) |
| ⑨ Telescopic antennas (L, R) for the reception of FM and short wave broadcasts. | CUE button (▶▶) |
| ⑩ MODE switch | ㉑ EJECT button |
| ⑪ TAPE/ARL (Automatic Recording Level) selection switch | ㉒ Cassette door |
| ⑫ FUNCTION switch | ㉓ REMOTE jack |
| ⑬ BASS control | ㉔ Dummy holes for connecting microphones with remote control plugs. |
| ⑭ TREBLE control | ㉕ Microphone jacks (MIC) |
| ⑮ VOLUME controls | ㉖ DIN-type jack (REC/PB) |
| ⑯ FUNCTION STAND-BY switch | ㉗ Headphone jack (PHONES) |
| ⑰ 3-Way meter | ㉘ External speaker jacks (EXT SPKR 3.2~8Ω) |
| | ㉙ External DC input jack (DC 12V) |
| | ㉚ BEAT CUT switch |

Operating Principle of Full-Logic Mechanism

This mechanism is a 2-motor, 1-solenoid full-logic system which has been developed mainly for low power consumption, and lightweight compactness.

During operation of the RC-M60, the solenoid serves only as the trigger for switching-over functions. Force for switching operations is derived from the flywheel gear coaxially fixed to the flywheel.

To ensure smooth, accurate operation, a small solenoid having low power consumption is used; additionally this solenoid has a pulling time set for short, middle and long periods (intermittent operation) which are the basis of all functions of the RC-M60.

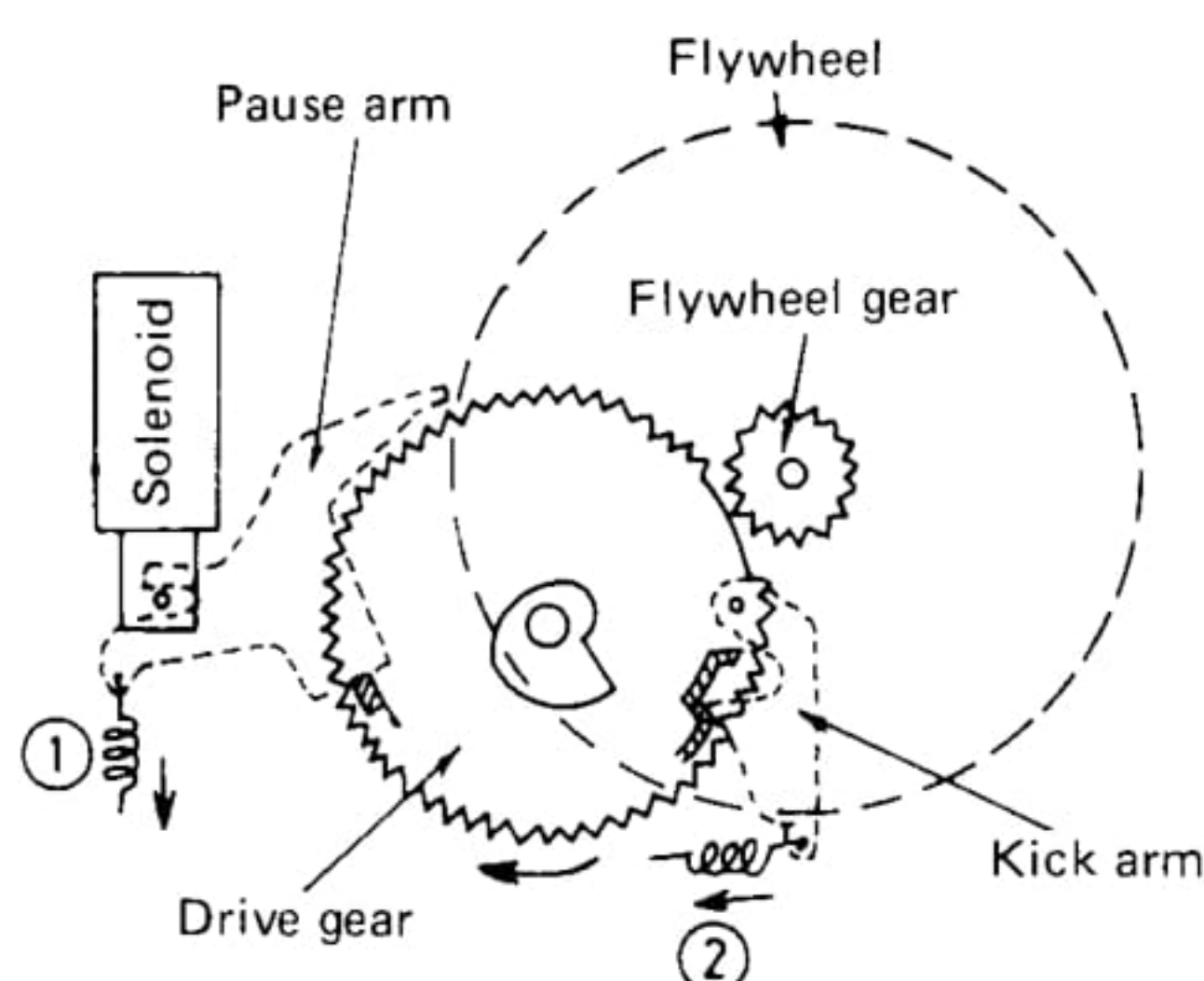


Fig. 2

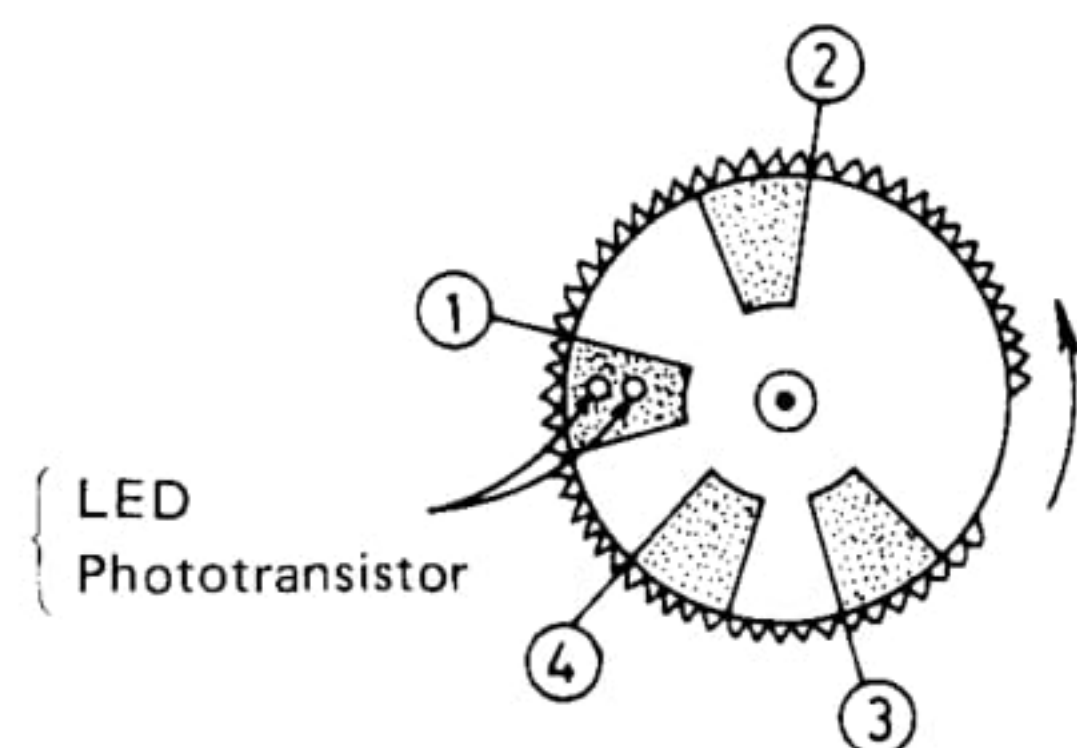


Fig. 3

1. When the mechanism operating button is pressed (power ON), the solenoid is energized, thus attracting the locked pause arm by spring ①.

2. When the drive gear is released from the pause arm it is slightly turned clockwise by spring ②. At this time, the drive and flywheel gears engage with each other to transmit the motive power for the switch-over operation.

NOTE: The flywheel gear, driven by the capstan motor by a belt, is already rotating when power is ON. Fig. 3 shows the rear side of the drive gear. Here, a change from black to silver zone is photoelectrically detected by a LED and phototransistor.

Solenoid Pulling Time (Energizing Time):

- Short (when point ① passes the photocoupler)
 - ➔ Stop, Fast Forward, Rewind
- Middle (when points ① and ② pass the photocoupler)
 - ➔ Pause, Cue, Review, Select
- Long (when points ①, ② and ③ pass the photocoupler)
 - ➔ Record, Playback

NOTE: When points ①, ②, ③ and ④ pass the photocoupler ➔ Confirm that the switch-over operation has been completed.

Each switch-over operation is completed at one rotation of the drive gear.

Solenoid pulling time	Reel motor	
	OFF	ON
Short	Stop	Fast Forward, Rewind
Middle	Pause	Cue, Review, Select
Long	Playback (Record)	

Block Diagram of RC-M60 full-logic Mechanism Control Circuitry

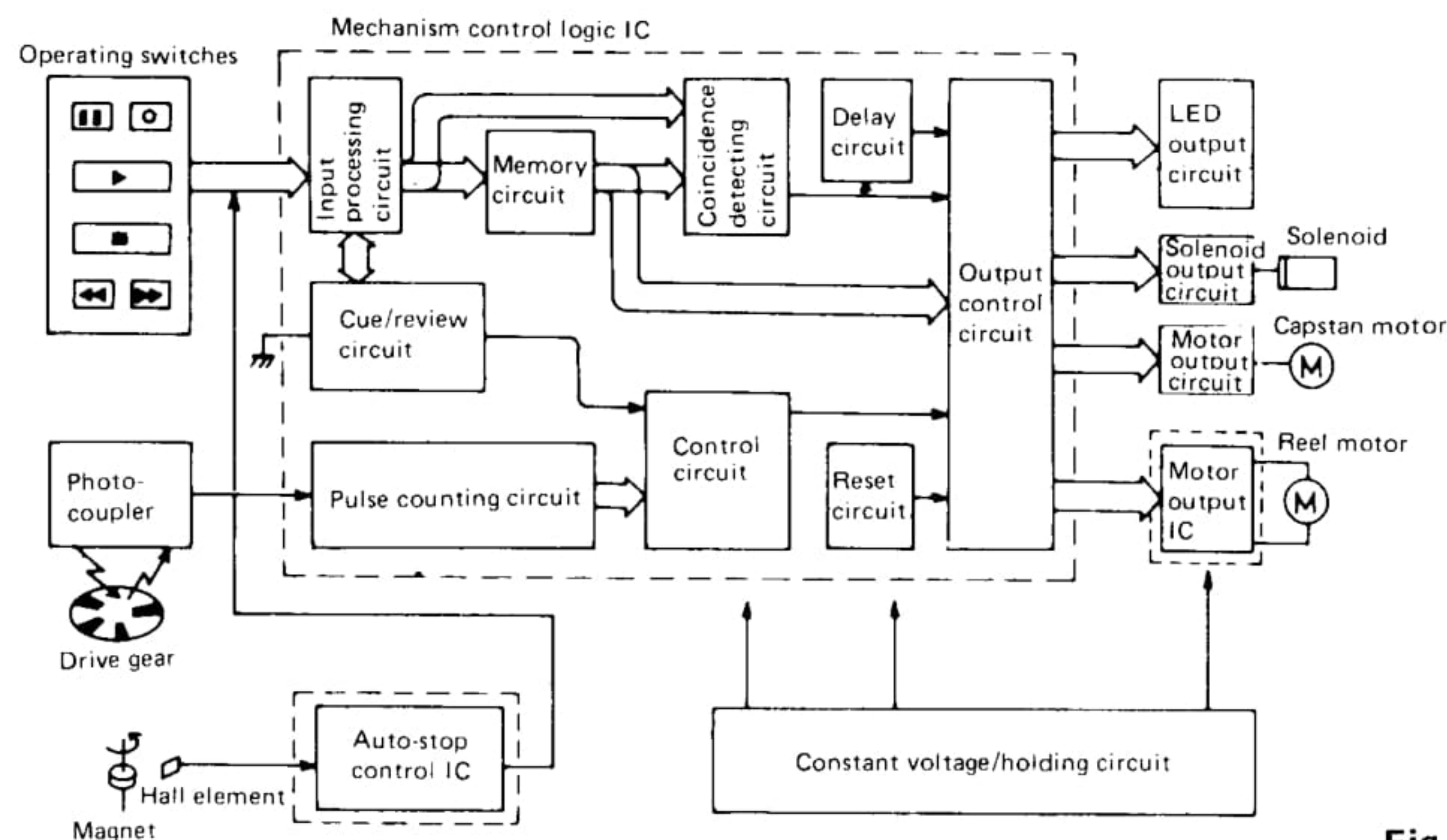


Fig. 4

Removal of Main Parts

1. Head cover

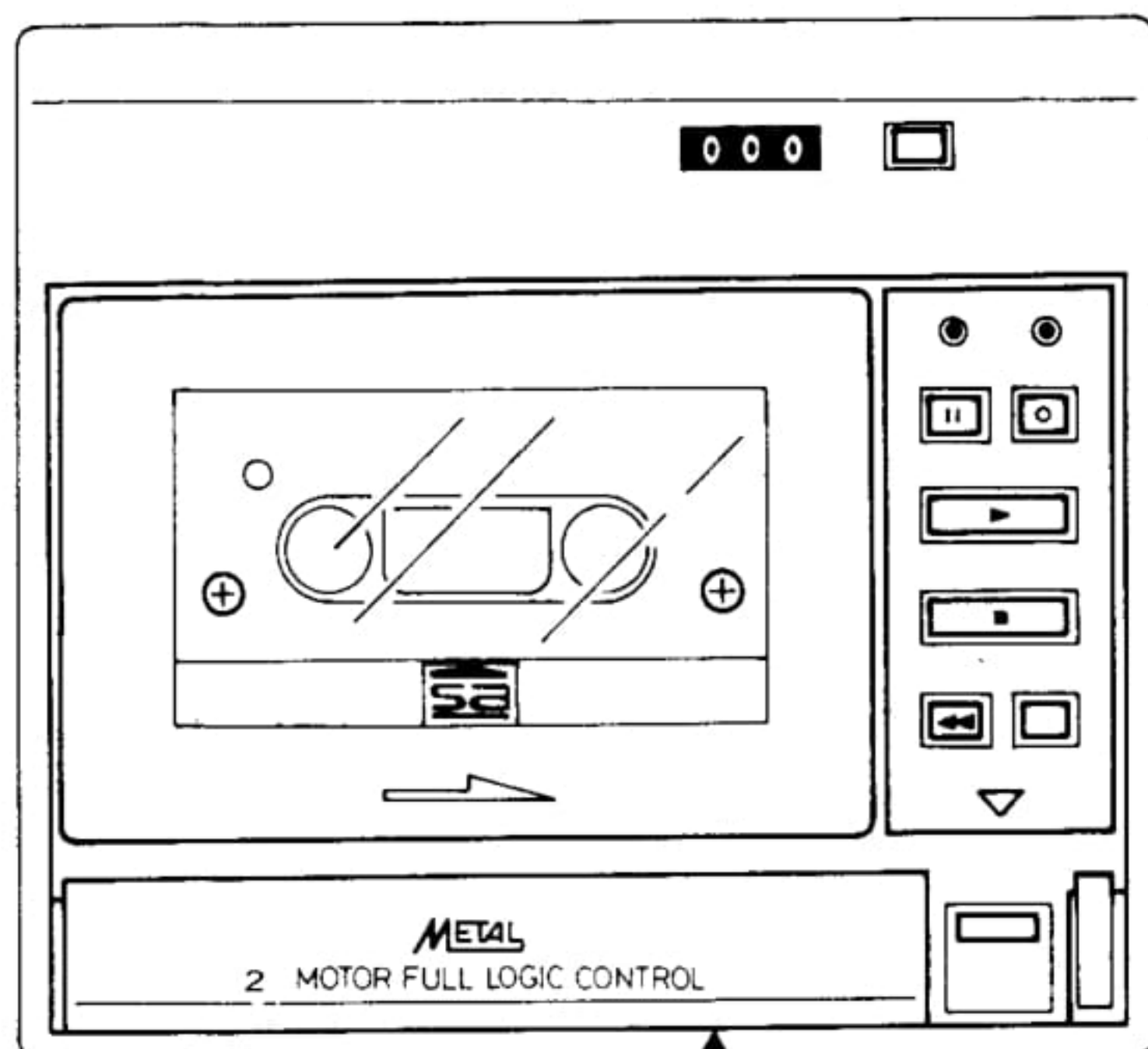


Fig. 5

- (1) Pull up the head cover with finger at its right or left end.

Note: The replacement of the head cover or adjustment of the azimuth is possible with the head cover pulled up.

2. Cassette cover

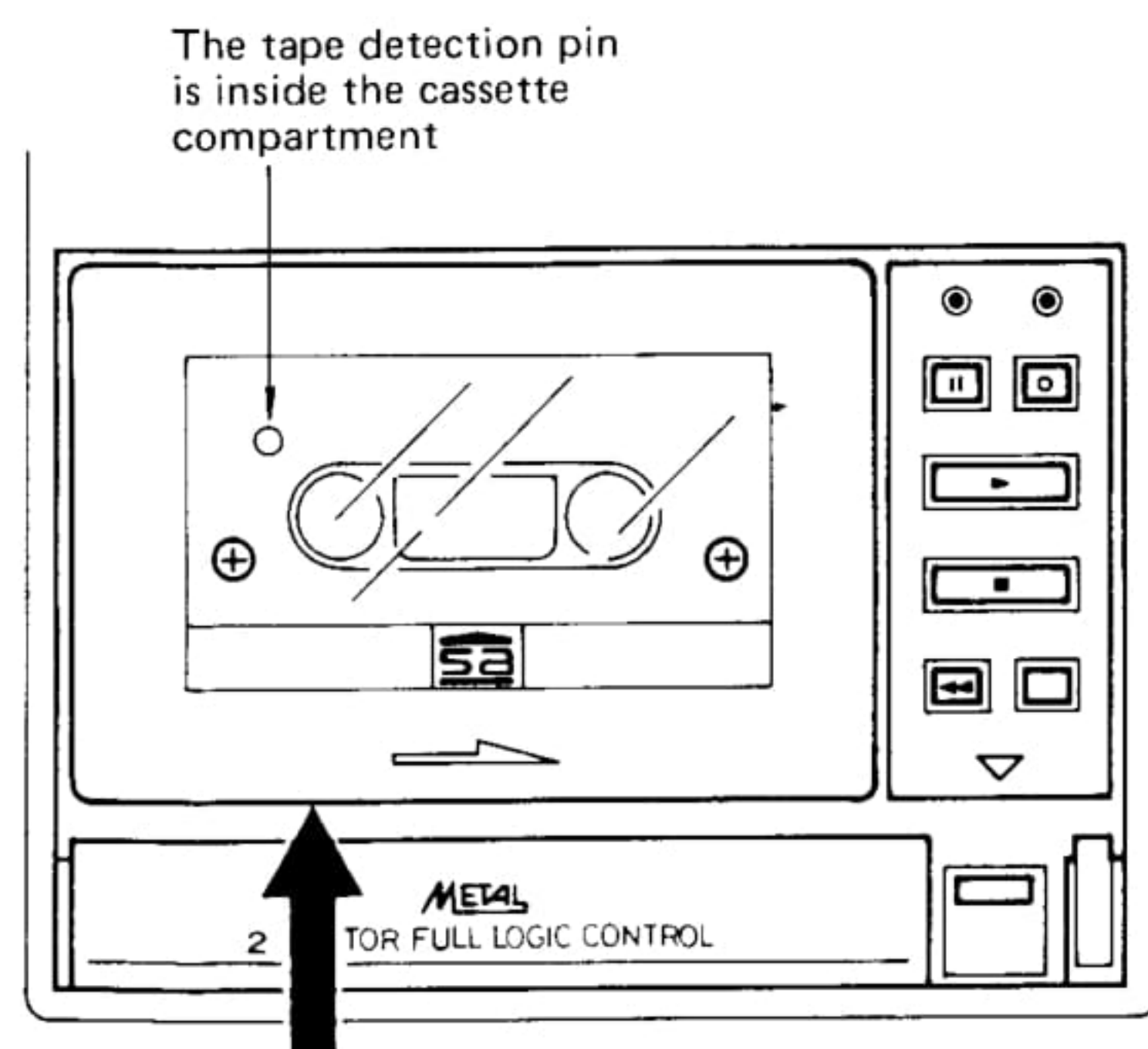


Fig. 6

- (1) To open the cassette door, push the EJECT button.
(2) Pull up the cassette cover with fingers from the lower end.

Notes: 1. Cleaning of the head or the pinch roller is possible with the cassette cover pulled up. When the motor is to be rotated, press the PLAYBACK button while pressing the cassette detecting pin.
2. During pause, the cassette door will not open should the EJECT button be pressed. In this case, open the cassette door after pressing the STOP button.

3. Also when the power cord is unplugged or the battery power becomes low during pause, the cassette door does not open. In this case, turn the power on, then press the STOP button. After that, open the cassette door.

3. Rear cabinet

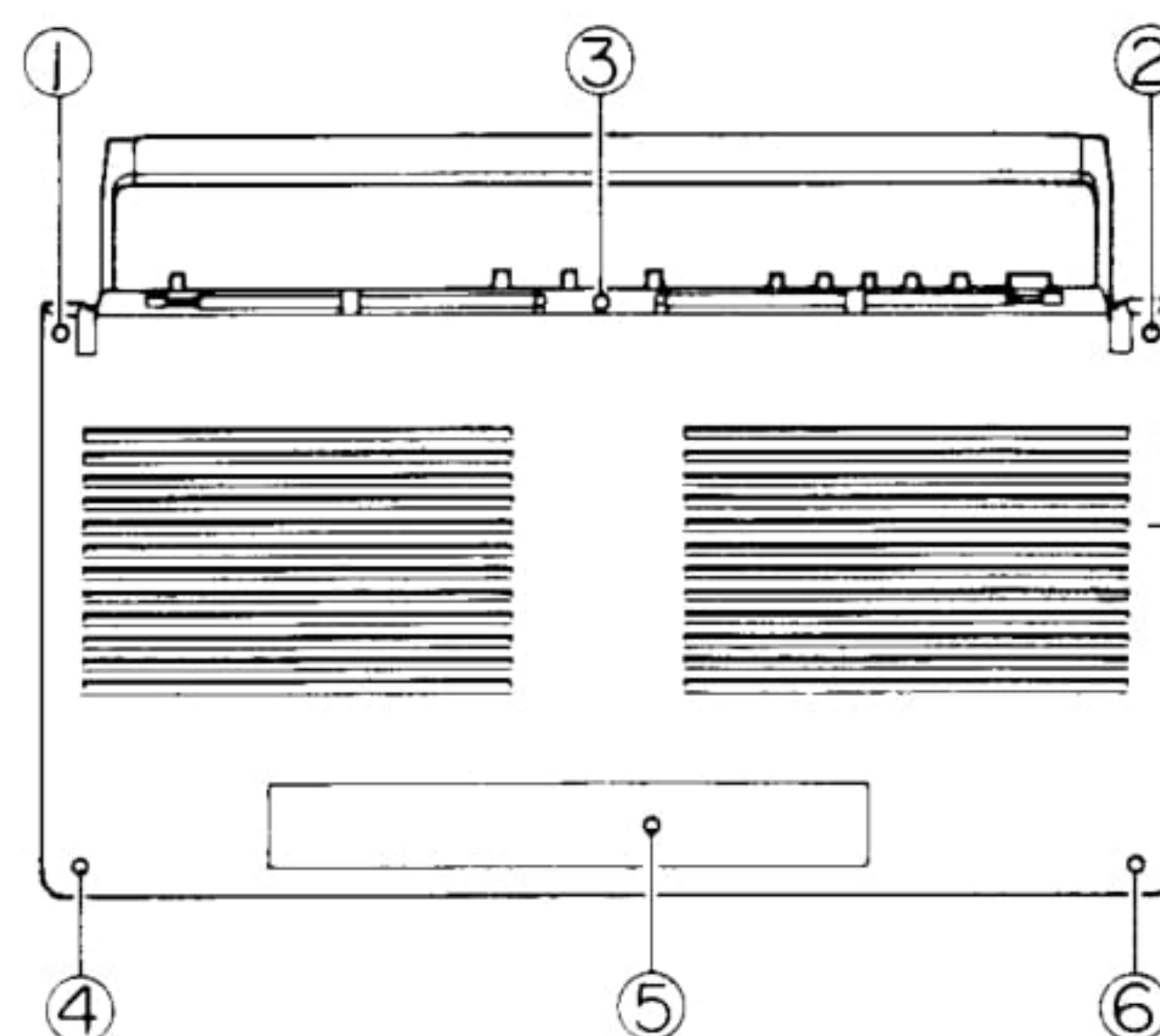


Fig. 7

- (1) Remove 6 screws; screws ① and ② (SDSP3030RS) and screws ③ – ⑥ (SBSF3020R).
(2) Take out 2 rod antenna wires (white and orange) and 2 power wires (red and black), and then remove a wire of shield plate.

NOTE: When connecting the power wires, pay attention to the polarities to avoid faulty connection. (According to circumstances, the mechanism control section may fail.)

4. Tuner circuit board

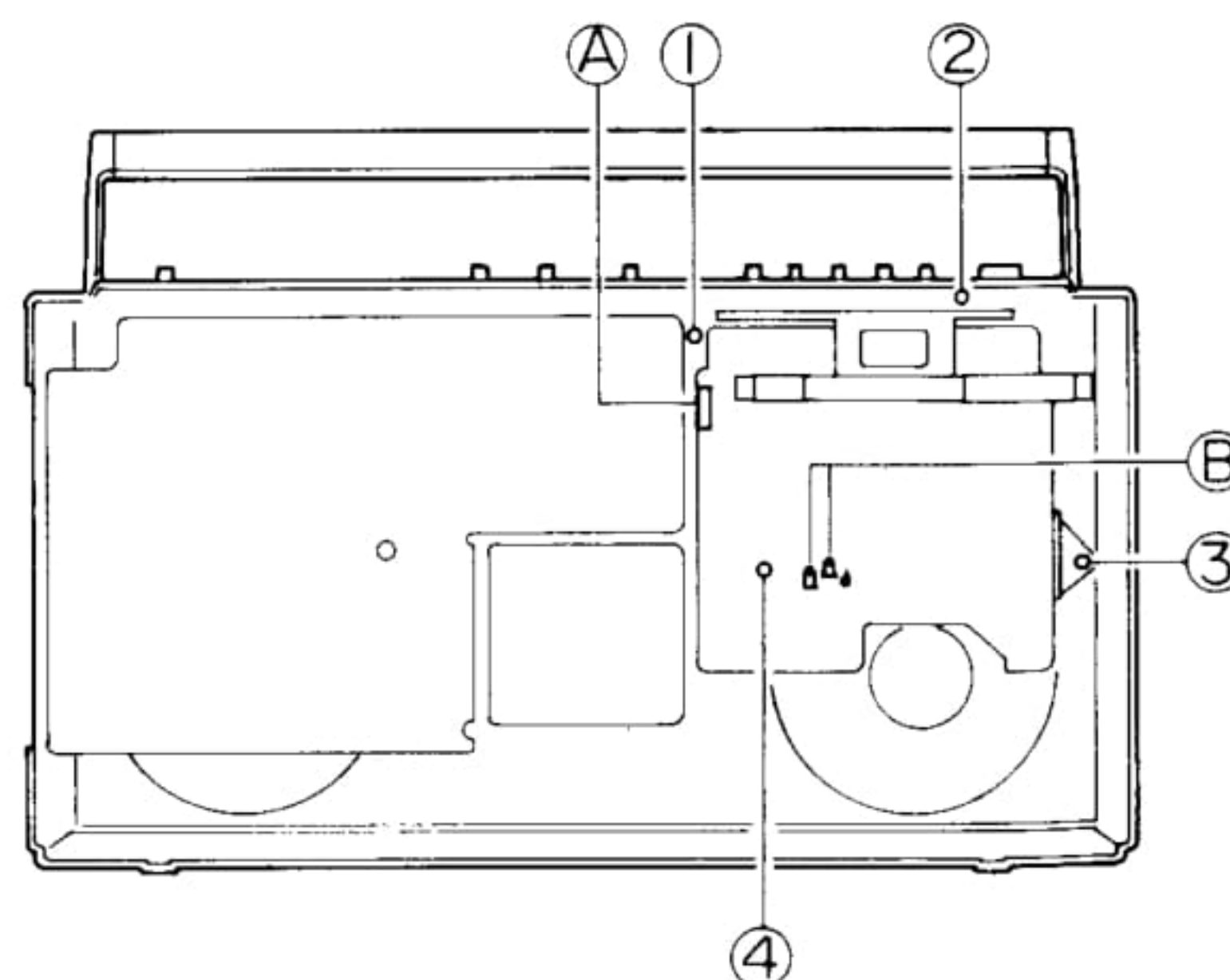


Fig. 8

- (1) Set the dial pointer to the right or left end.
(2) Remove 4 screws; screws ① – ③ (SBSF3014C) and screw ④ (SBSF4010C).
(3) Remove 6-p connector ① connected to the amplifier circuit board.
(4) Take out 2 wires ② (red, black) connected to the LED board.

NOTE: In assembling, adjust the variable capacitor arm to the position of the dial drum.

5. Amplifier circuit board

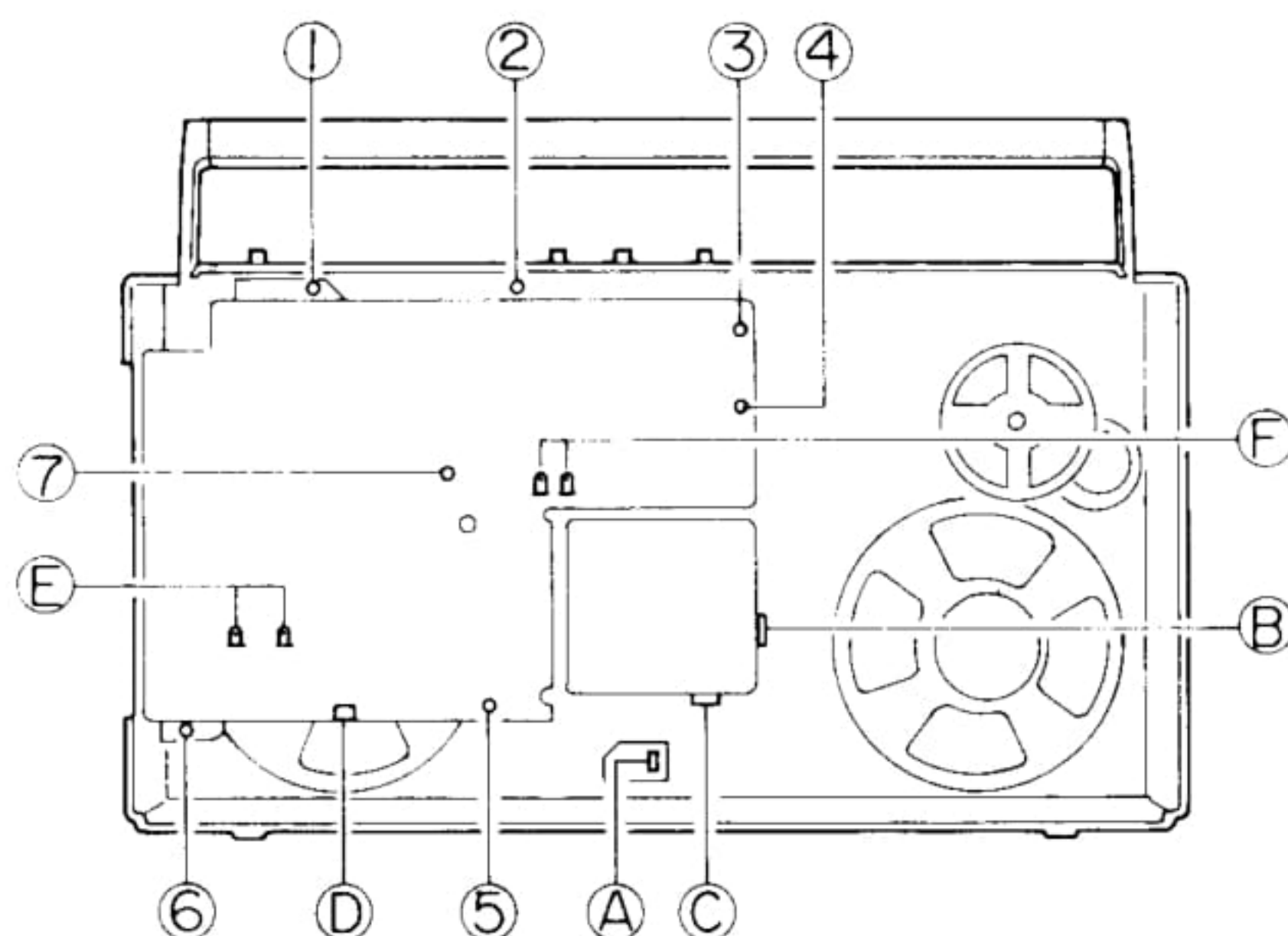


Fig. 9

- (1) Remove the sound volume and sound tone knobs.
- (2) Remove 7 screws and their associated fiber washers (QO3095-237); screws ① – ⑥ (SBSF3010C) and screw ⑦ (SBSF4010C).
- (3) Remove 3-p connector ① connected to the microphone input relaying circuit board.
- (4) Remove 6-p connector ② and 9-p connector ③ connected respectively to the mechanism control board and the head input relaying circuit board.
- (5) Remove 4-p connector ④ connected to the speaker.
- (6) Take out 2 wires ⑤ (red, brown) and 2 wires ⑥ (red, black) connected respectively to the power switch and the meter.

NOTE: In assembling, adjust the vertical circuit board (volume regulator board) to the groove position of the cabinet (on both sides of the meter).

6. Cassette mechanism section

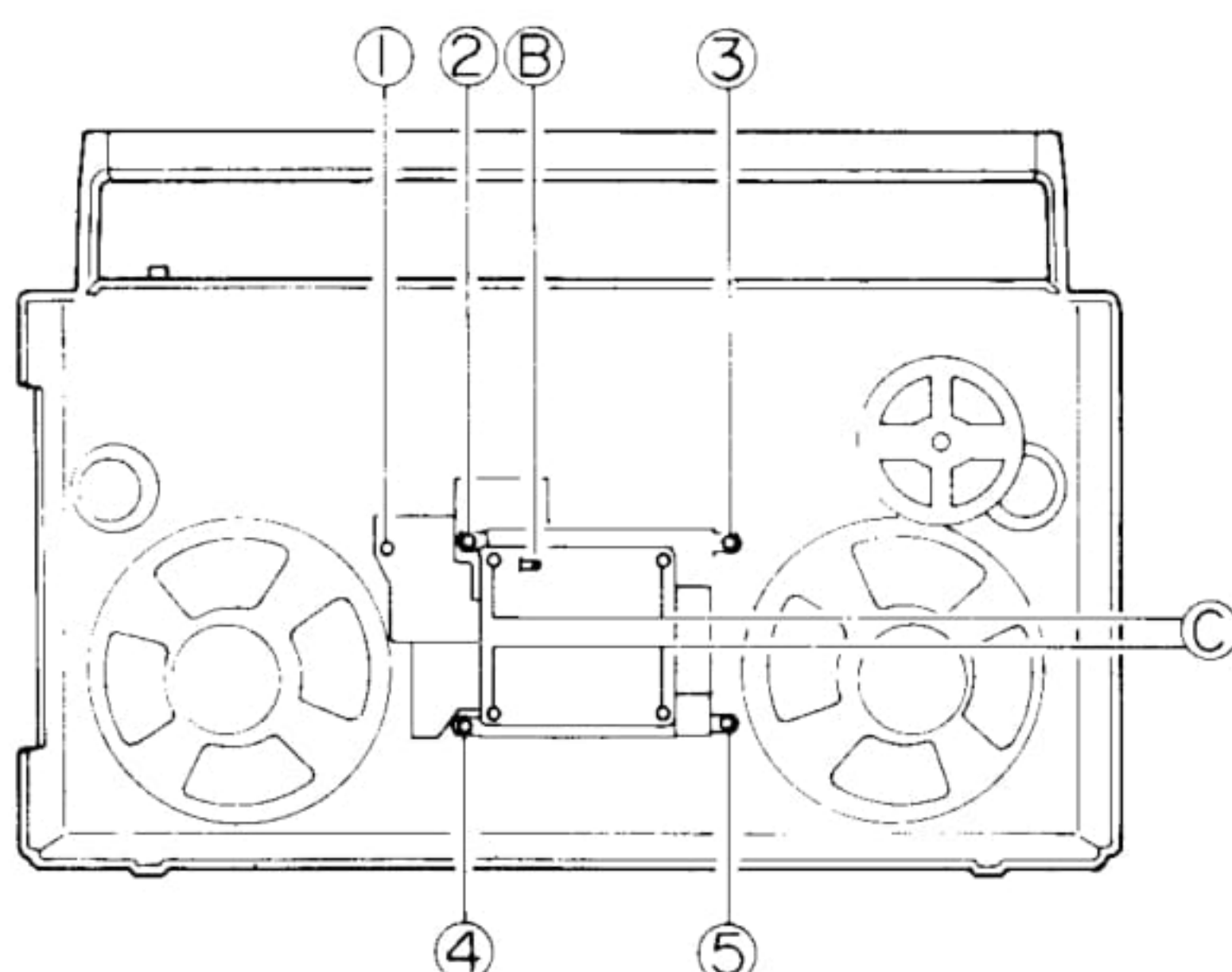


Fig. 10

- (1) Remove 5 screws; screws ① – ⑤ (SBSF3010C).
- (2) Take out wire (orange) ⑥ connected to the power switch.

NOTES: 1. Turning over the mechanism control board is possible by removing 4 screws ⑦ (LPSP 2606Z).

2. Without removal of the amplifier circuit board, and tuner circuit board it is possible to remove the cassette mechanism section.

Removal of Cassette Mecha Parts

(For proper removal, refer to "Mechanical Component Parts" on page 22.)

A. Pinch roller arm ass'y ⑨⑥

- (1) Remove E-ring ⑨⑧.

NOTE: Be careful not to lose pinch roller spring ⑨⑦.

B. Erase head ④⑦

- (1) Remove 2 screws ⑤①.
- (2) Remove the soldered wires.

C. Cassette plate ①④①

- (1) Remove 3 screws ①④③ and ①④④.

D. Capstan motor ⑤③

- (1) Remove screw ⑤⑧ and then rubber stopper ⑤⑦.
- (2) Take out the capstan motor by turning it clockwise.

NOTE: The mounting direction of the capstan motor must be as shown in Fig. 11.

E. Tape counter ⑤⑨

- (1) Remove 2 screws ⑥⑦

F. Record/playback head ④⑤

- (1) Remove 2 screws ④⑨.
- (2) Remove the soldered head circuit board.

G. Leaf switch ⑧③

- (1) Remove the cassette plate. (Refer to item C.)
- (2) Remove screw ⑧④

H. Take-up reel disk ④

- (1) Remove the cassette plate. (Refer to item C.)
- (2) Remove counter belt ①②⑦.
- (3) Remove reel stopper ⑦

NOTES: 1. Once removed, this reel stopper cannot be used, so use a new reel stopper.

2. In mounting, be careful not to insert brake rubber ⑧⑧.

I. Supply reel disk ③

- (1) Remove the cassette plate. (Refer to item C.)
- (2) Remove reel stopper ⑦.

NOTES: 1. Once removed, this reel stopper cannot be used, so use a new reel stopper.

2. In mounting, be careful not to insert brake rubber ⑧⑧.

J. Flywheel holder ①②④

1. Remove 3 screws ①②⑥
2. Remove a screw fastening the P.W.B. holder.

K. Reel motor ⑦③

- (1) Remove the flywheel holder (Refer to item J.)
- (2) Remove 2 screws ⑦⑥.

NOTE: The mounting direction of the reel motor must be as shown in Fig. 14.

L. Flywheel ass'y (120)

- (1) Remove the reel motor.
(Refer to item K.)
- (2) Remove take-up belt (123)
- (3) Remove capstan belt (122).

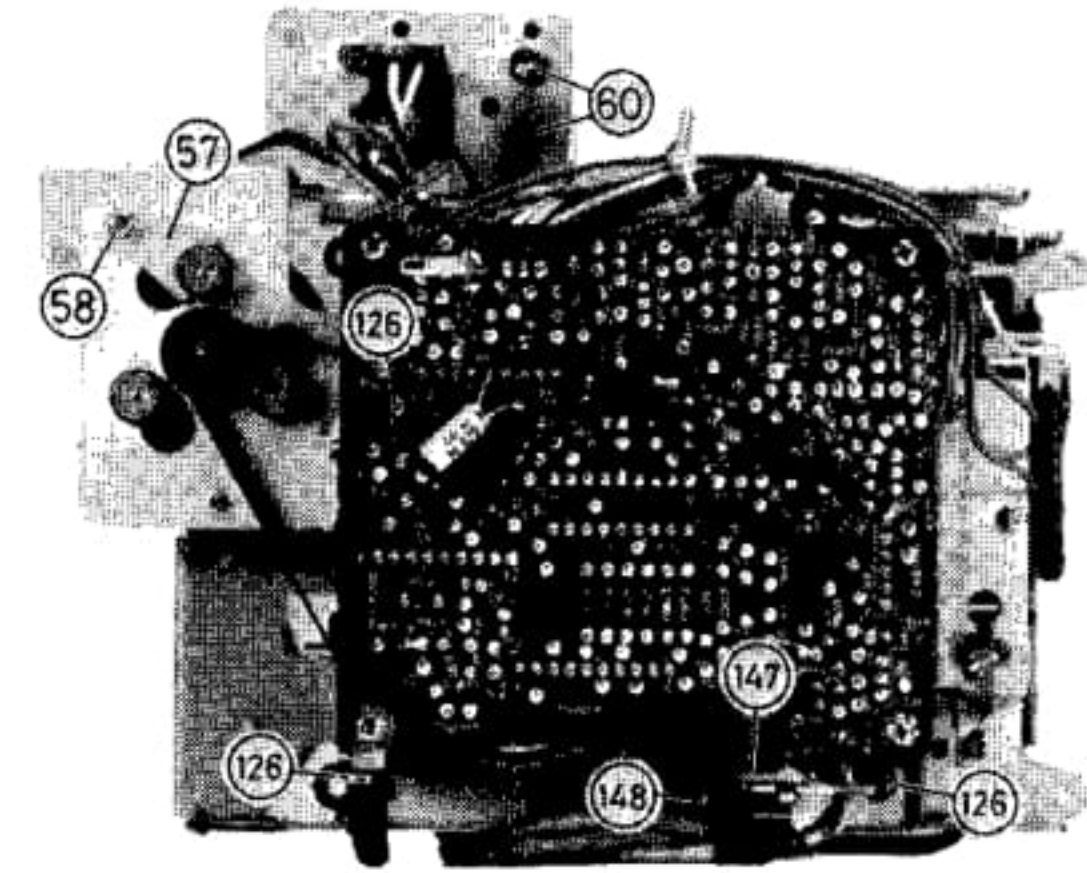
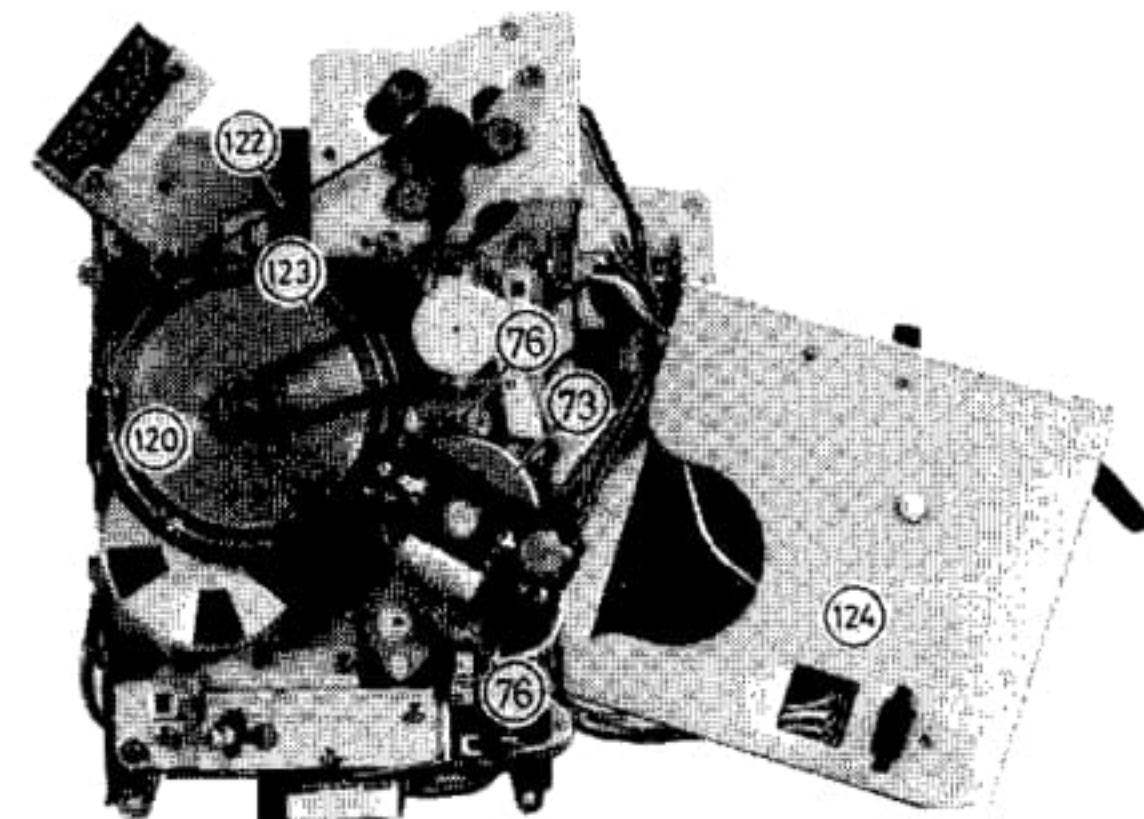
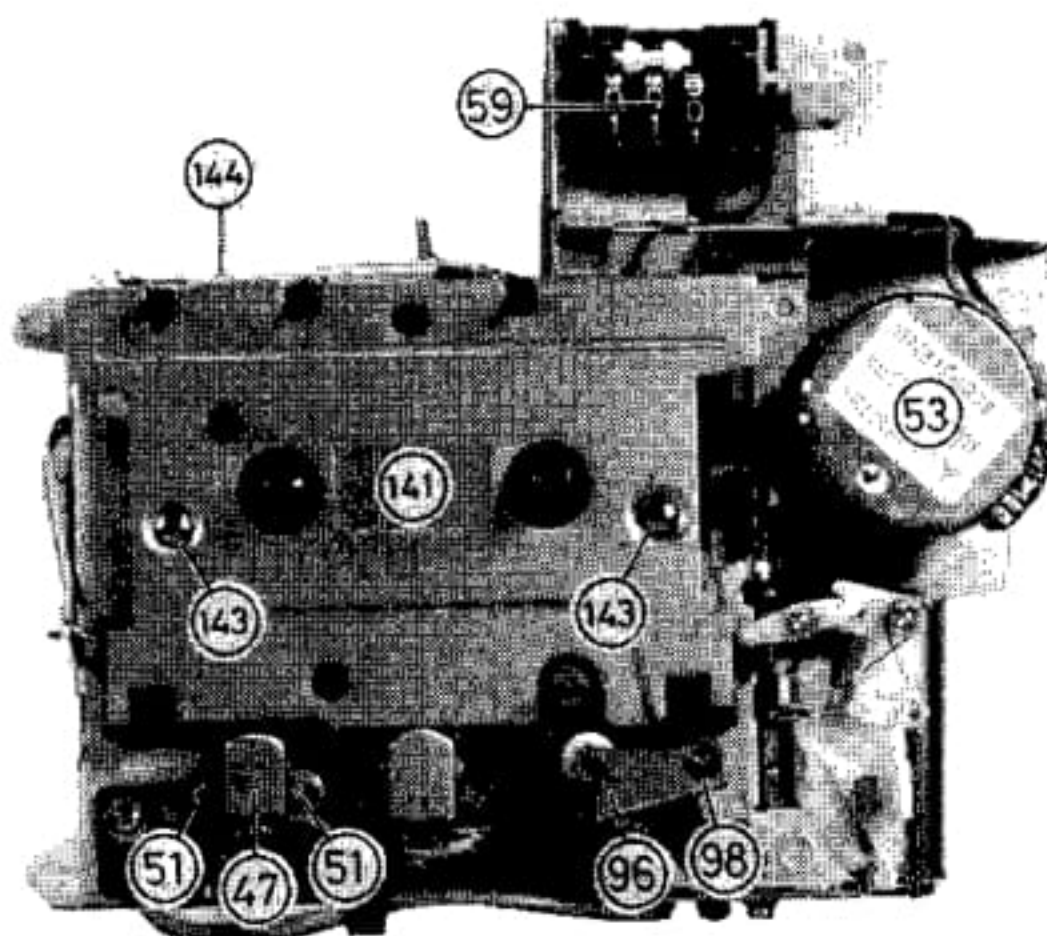
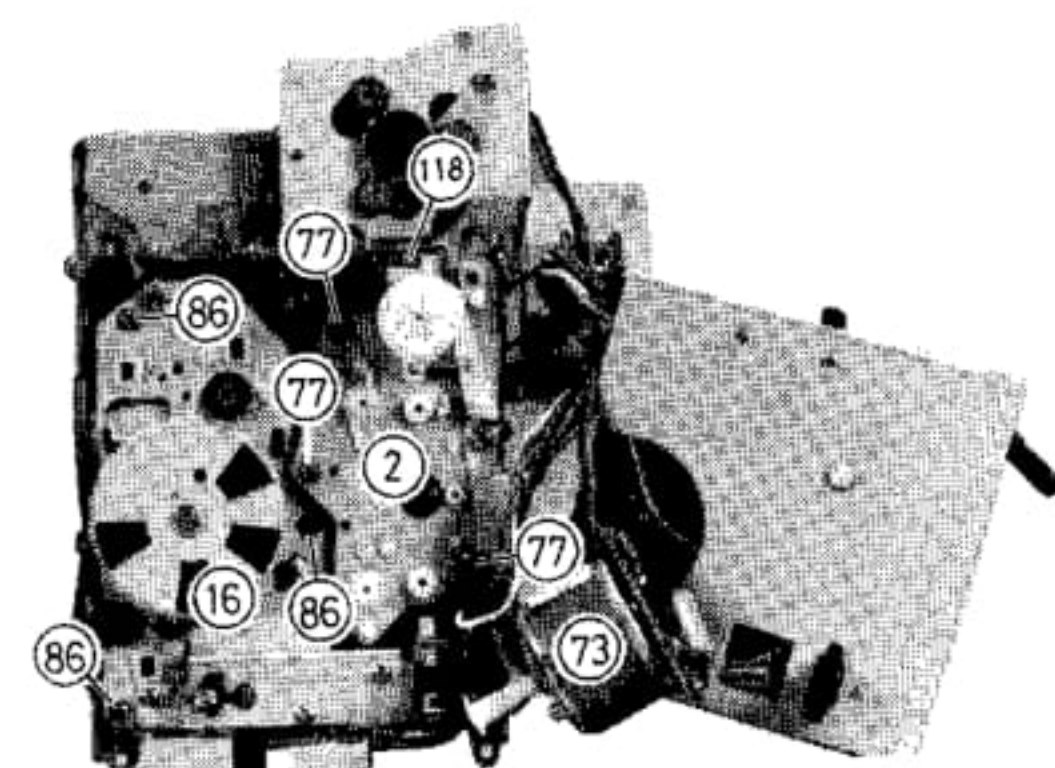
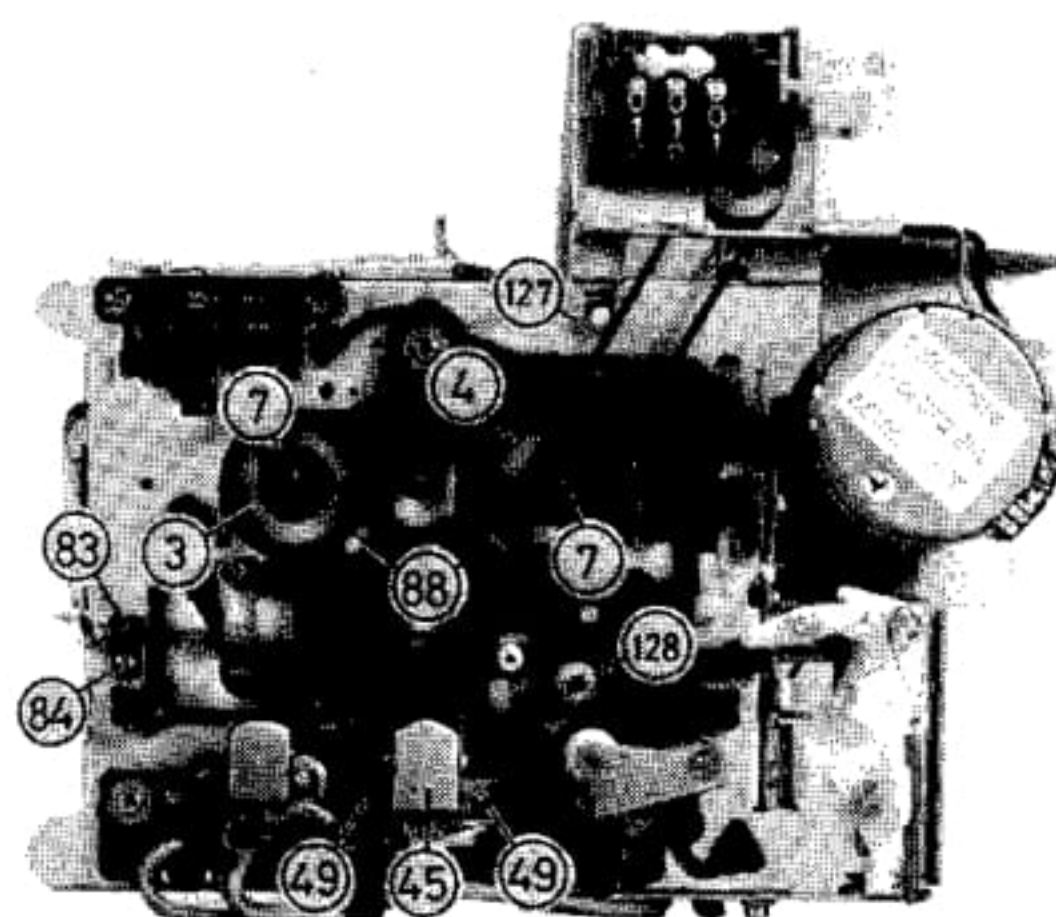
NOTES: 1. Be careful not to lose washer (128) for oil cutting.
2. Be careful not to lose the 2 washers for thrust.

M. Reel disk ass'y unit (2)

- (1) Remove the flywheel holder.
(Refer to item J.)
- (2) Remove the reel motor.
(Refer to item K.)
- (3) Remove the flywheel ass'y.
(Refer to item L.)
- (4) Remove the cassette plate.
(Refer to item C.)
- (5) Remove arm tension spring (118) of the safety lever.
- (6) Remove 3 screws (77).

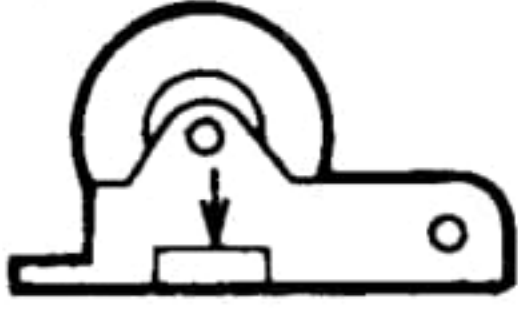
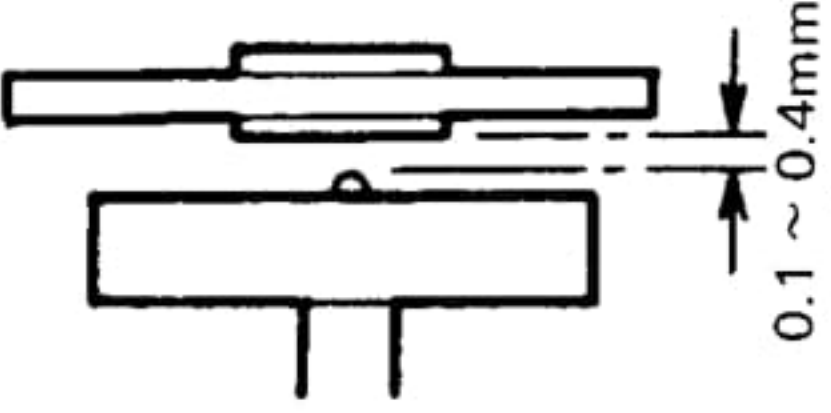
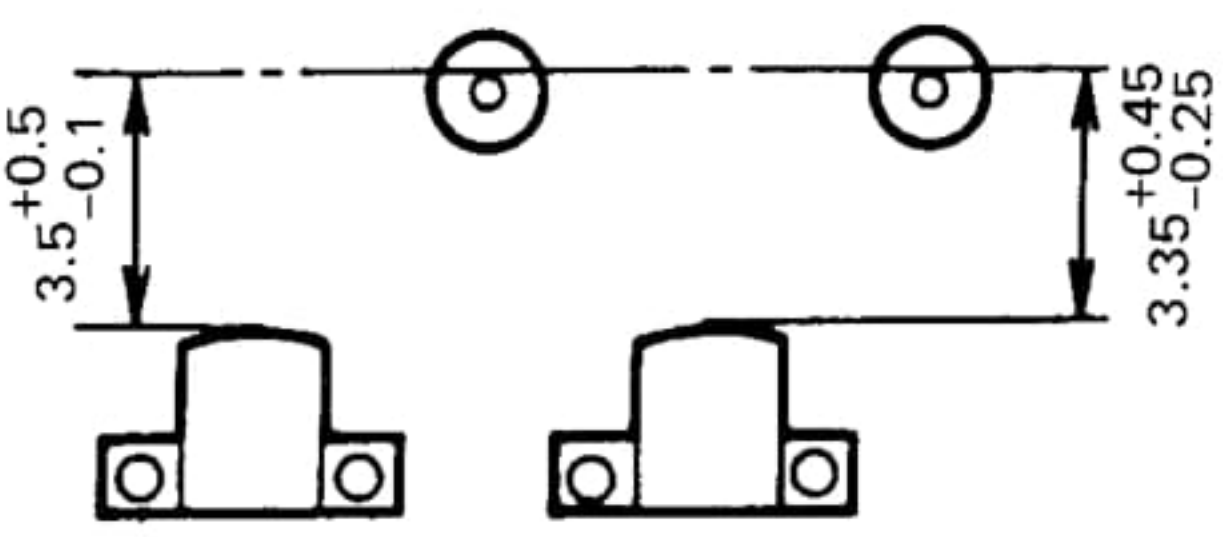
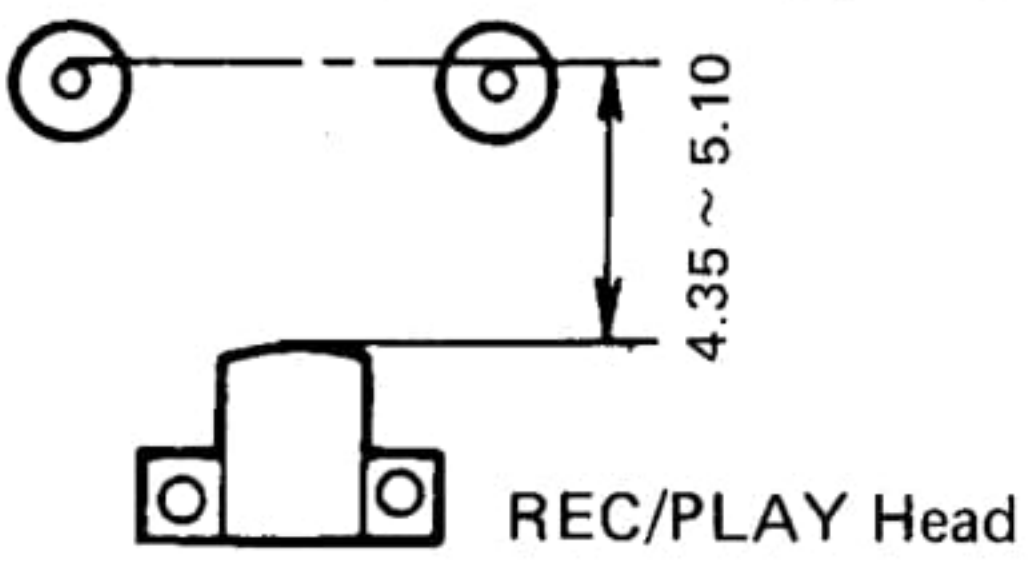
N. Drive gear ass'y unit (16)

- (1) Remove the flywheel holder.
(Refer to item J.)
- (2) Remove the reel motor.
(Refer to item K.)
- (3) Remove the flywheel ass'y.
(Refer to item L.)
- (4) Remove 3 screws (86).

**Fig. 13****Fig. 14****Fig. 11****Fig. 15****Fig. 12**

Specifications of Cassette Mechanism

Check the following items after cassette mechanism parts are replaced.

Item	Requirement	Test equipment	Test tape
1. Source voltage	Rated voltage: 12V DC Motor operating voltage range: 7 – 15 V DC	Regulated power supply	_____
2. Tape speed	4.75 cm/sec +2% (3,000 Hz) -2% Deviation 2%	Frequency counter (digital counter)	VTT-655
3. Wow & flutter	Less than 0.18% (RMS)	Wow meter	VTT-655
4. Take-up torque	PLAY 40 – 70 g.cm FF 75g.cm or more REW 75g.cm or more	During FF and rewind, the idlers, reels and flywheel should not slip against each other when the reels are locked. Torque dial gauge (Tonichi or equivalent)	_____
5. Current consumption (of motor alone)	PLAY 150mA or less FF 300mA or less REW 300mA or less	DC ammeter	C-60 (Take-up torque should be normal when tape is used.)
6. Pinch roller pressure	350 – 500 g	Tension gauge Pull the pinch roller perpendicularly and read the gauge when the pinch roller just stops. 	_____
7. Axial clearance of flywheel		Clearance gauge	_____
8. Head position during PLAY and RECORD	 During PLAY (RECORD) the dimensional requirements given here must be met, and the heads must not contact the cassette case.		Any cassette tape
9. Head position during cueing	 REC/PLAY Head		_____
10. Auto-stop operation	The facility should operate with a reduced voltage of 6.5 V at the end of tape during PLAY/REC, FF, and REW. During REC, a load the same as that of the amplifier is applied.		Any cassette tape

Adjustment of Cassette Recorder Amplifier

Conditions

Source power: 12V DC
 Measurement: at LINE OUT terminals
 Switch setting: FUNCTION: TAPE
 MODE: STEREO
 TAPE: NORMAL or METAL
 BEAT CUT: "1 (NORMAL)"

Adjust in the following sequence.

① Head azimuth

Connect an oscilloscope to the LINE OUT jacks. Using test tape VTT-658 (10 kHz, -15 dB), adjust so the phase difference between the L and R outputs is 0° and maximize the output level at the same time.

② Tape speed

Connect a frequency counter to the LINE OUT jacks. Playing back test tape VTT-656 (3,000 Hz), adjust the semi-fixed resistor in the motor so that the frequency counter reads $3,010 \pm 10$ Hz.

③ Bias frequency

Connect a frequency counter across TP101. Adjust L301 so that the counter reads 66.5 kHz.

④ Alignment of bias current and REC/PLAY frequency response

(1) METAL

Connect an electronic voltmeter across TP101(TP201) adjust VR101 and VR201 so that the voltmeter reads $5.4\text{mV}/10\Omega$ ($540\mu\text{A}$).

(2) Normal

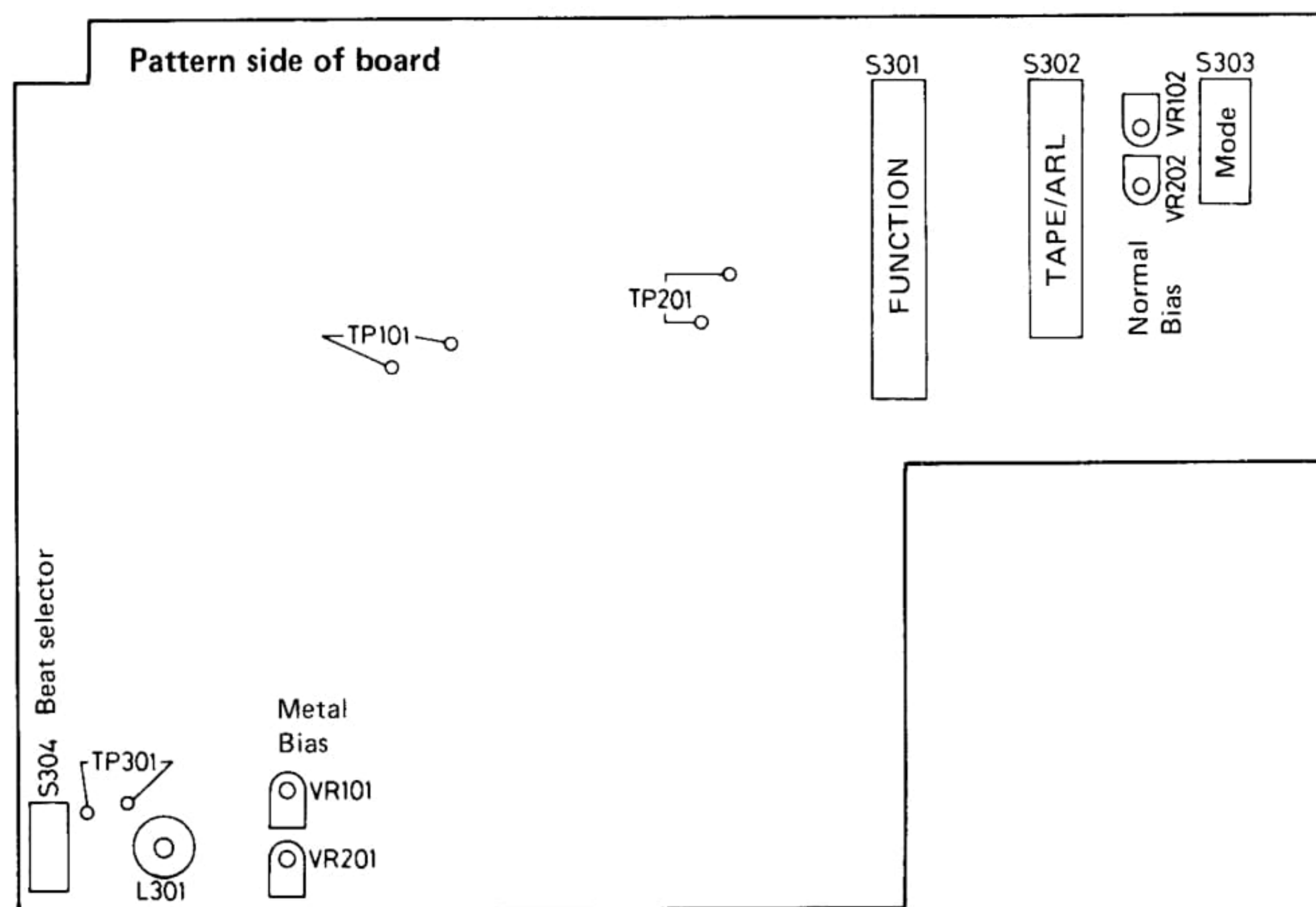
Adjust VR102,202 so that the voltmeter reads $2.7\text{mV}/10\Omega$ ($270\mu\text{A}$).

(1)' METAL

Record and playback applying 1 kHz and 10 kHz (-35dBs) to the LINE IN jacks, and re-adjust VR101,201 so that the voltmeter connecting the LINE OUT jacks, indicates the output difference (10 kHz/1 kHz) $+1_0^1\text{dB}$ at the both test frequencies.

(2)' Normal

Record and playback as same as METAL alignment, and adjust VR102,202 so that the voltmeter indicates the output difference (10 kHz/1 kHz) $+1_0^1\text{dB}$.



TP301 : Test Point for erasing current
 METAL $95 \sim 120\text{mV}/1\Omega$ ($95 \sim 120\text{mA}$)

Fig. 16

How to Engage Dial Cord

1. Turn the dial drum fully counterclockwise (to the lowest frequency).
2. Use Kevlar cord (1,330 mm long and 0.5 mm in diameter).
3. Install the string in the sequence of the numbers.

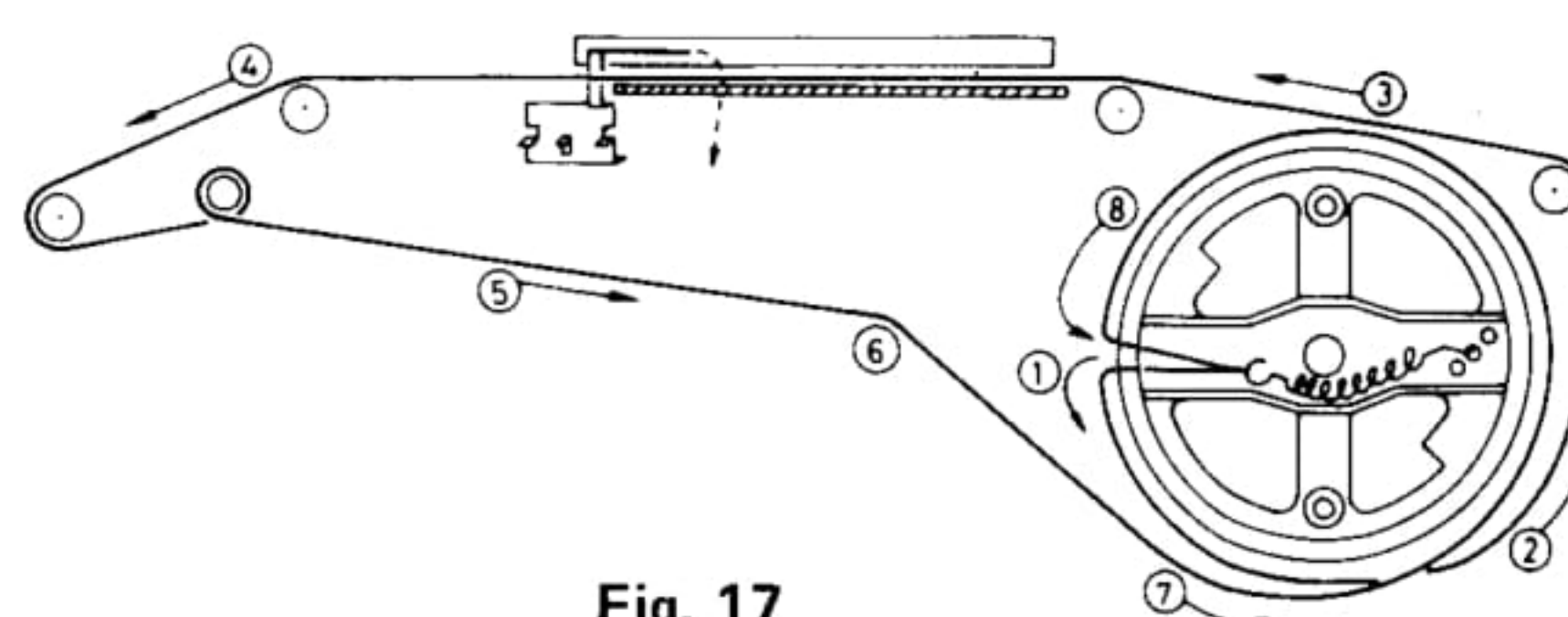


Fig. 17

Tuner Alignment

Output Measuring: Speaker terminal (Impedance = 3.2Ω), output level 50 mW (0.4V/ 3.2Ω)

AM IF & RF Alignment

Input (SSG) Modulation 400 Hz, Modulated to 30%

Step	Frequency Band	Input Signal		Place to be aligned	Set the V. Capacitor to
		Frequency	Given to		
1	MW (IF)	145kHz	Loop Antenna	T4, 5, 3	Minimum
2		Repeat the Step 1, and adjust for no further improvement.			
3	LW	145kHz	Loop Antenna	L14	Maximum
4		360kHz		TC8	Minimum
5		Repeat the Steps 3 & 4.			
6		160kHz	Loop Antenna	L8	160kHz Signal
7		350kHz		TC4	350kHz Signal
8		Repeat the Steps 6 & 7, and adjust for no further improvement.			
9	MW	520kHz	Loop Antenna	L13	Maximum
10		1650kHz		TC7	Minimum
11		Repeat the Steps 9 & 10			
12		620kHz	Loop Antenna	L9	620kHz Signal
13		1400kHz		TC3	1400kHz Signal
14		Repeat the Steps 12 & 13, and adjust for no further improvement.			
15	SW1	5.9MHz	Loop Antenna	L16	Maximum
16		6.3MHz		TC10	Minimum
17		Repeat the Steps 15 & 16			
18		5.9MHz	Loop Antenna	L12	5.9MHz Signal
19		6.3MHz		TC6	6.3MHz Signal
20		Repeat the Steps 18 & 19, and adjust for no further improvement.			
21	SW2	5.8MHz	Rod Antenna through Dummy Antenna	L15	Maximum
22		18.6MHz		TC9	Minimum
23		Repeat the Steps 21 & 22			
24		6.0MHz	Rod Antenna through Dummy Antenna	L10	6.0MHz Signal
25		18.0MHz		TC5	18.0MHz Signal
26		Repeat the Steps 24 & 25, and adjust for no further improvement.			

FM IF & Discriminator Alignment

Input (Sweep Generator): TP3 (hot) & TP2
 Output (Oscilloscope) : 1F TP4(hot) & TP7
 Discriminator TP6(hot) & TP7

Step	Mode	Place to be aligned	Wave form
1	IF	T1	Fig. 18
2	Discriminator	T2	Fig. 19

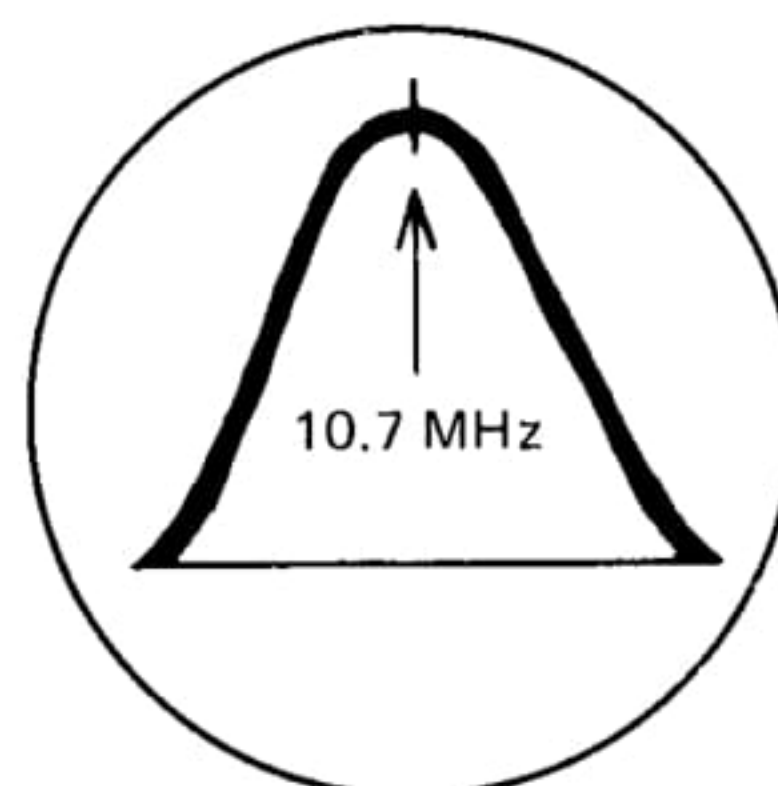


Fig. 18

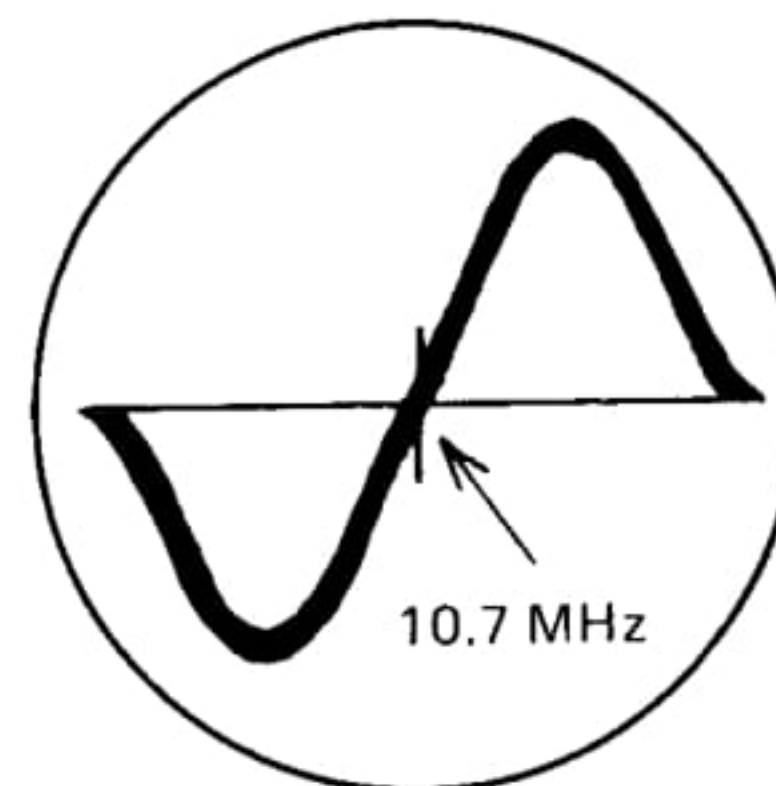


Fig. 19

FM RF Alignment

Input (SSG): Use 75Ω terminal, modulation 400 Hz modulated to 22.5 kHz deviation. Connect Hot side to TP1 and Cold side to TP2.

Step	Frequency Band	Input Signal		Place to be aligned	Set the V. Capacitor to
		Frequency	Given to		
1	FM	87.5 MHz	TP1 & TP2	L4	Maximum
2		109 MHz		TC2	Minimum
3		Repeat the Steps 1 & 2.			
4		90 MHz	TP1 & TP2	L1	90 MHz Signal
5		106 MHz		TC1	106 MHz Signal
6		Repeat the Steps 4 & 5, and adjust for no further improvement.			

FM MPX Alignment

A. 19 kHz Alignment (regular Method)

1. Connect a frequency counter to the test point TP5.
2. Adjust the variable resistor VR1 so that the frequency becomes 19 kHz.

B. 19 kHz Alignment (Simplified Method)

1. Tune to a FM stereo broadcast.
2. Set the variable resistor VR1 to the center position of the range in where the stereo indicator keeps lighting.

C. Separation Alignment

1. Connect a FM stereo signal generator across the test points TP1 & TP2. (98 MHz, 60 dB)
2. Connect a V.T.V.M. or oscilloscope across the test points TP6 & TP7.
3. Adjust the variable resistor VR2 to minimize the output of right channel signal.

Parts Arrangement for Alignment

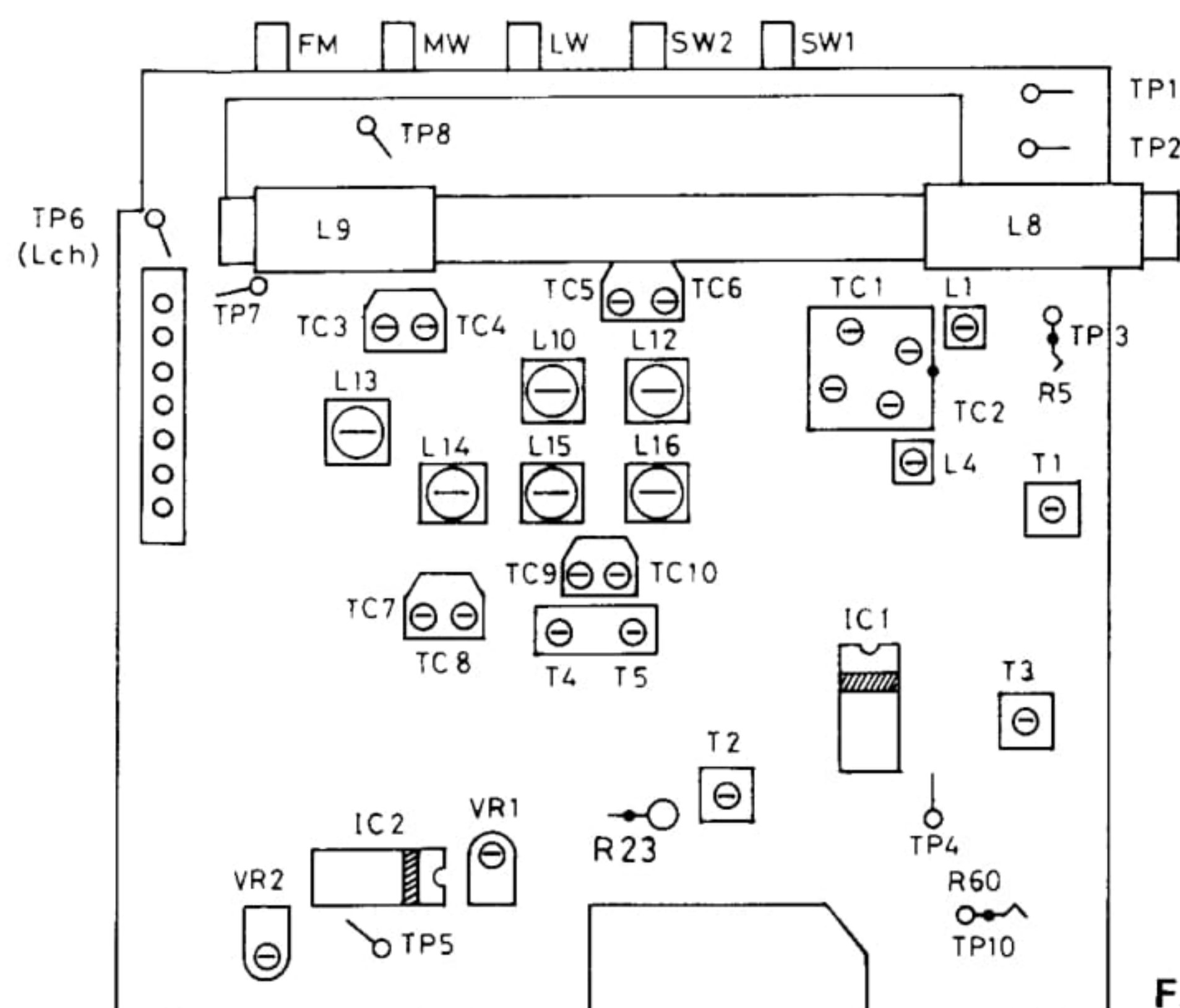
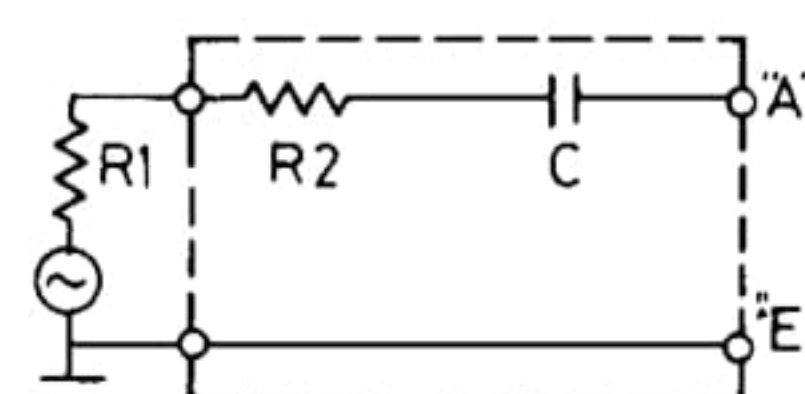


Fig. 20

Dummy Antenna



$$R1 + R2 = 80 \Omega$$

$$C = 10 \text{ pF}$$

R1: Output impedance of S.S.G.

Fig. 21

Block Diagrams

Amplifier circuit

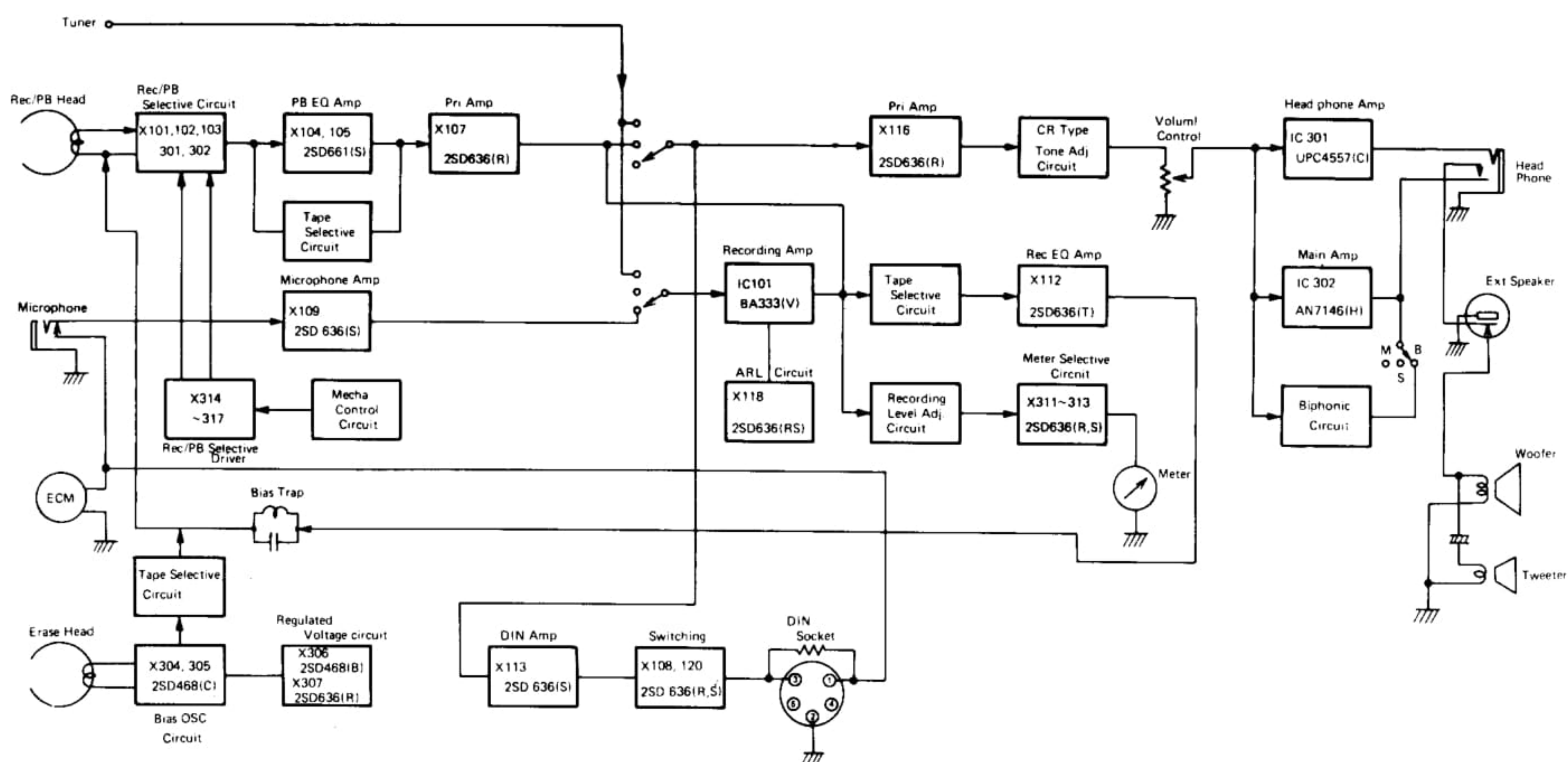


Fig. 22

Tuner circuit

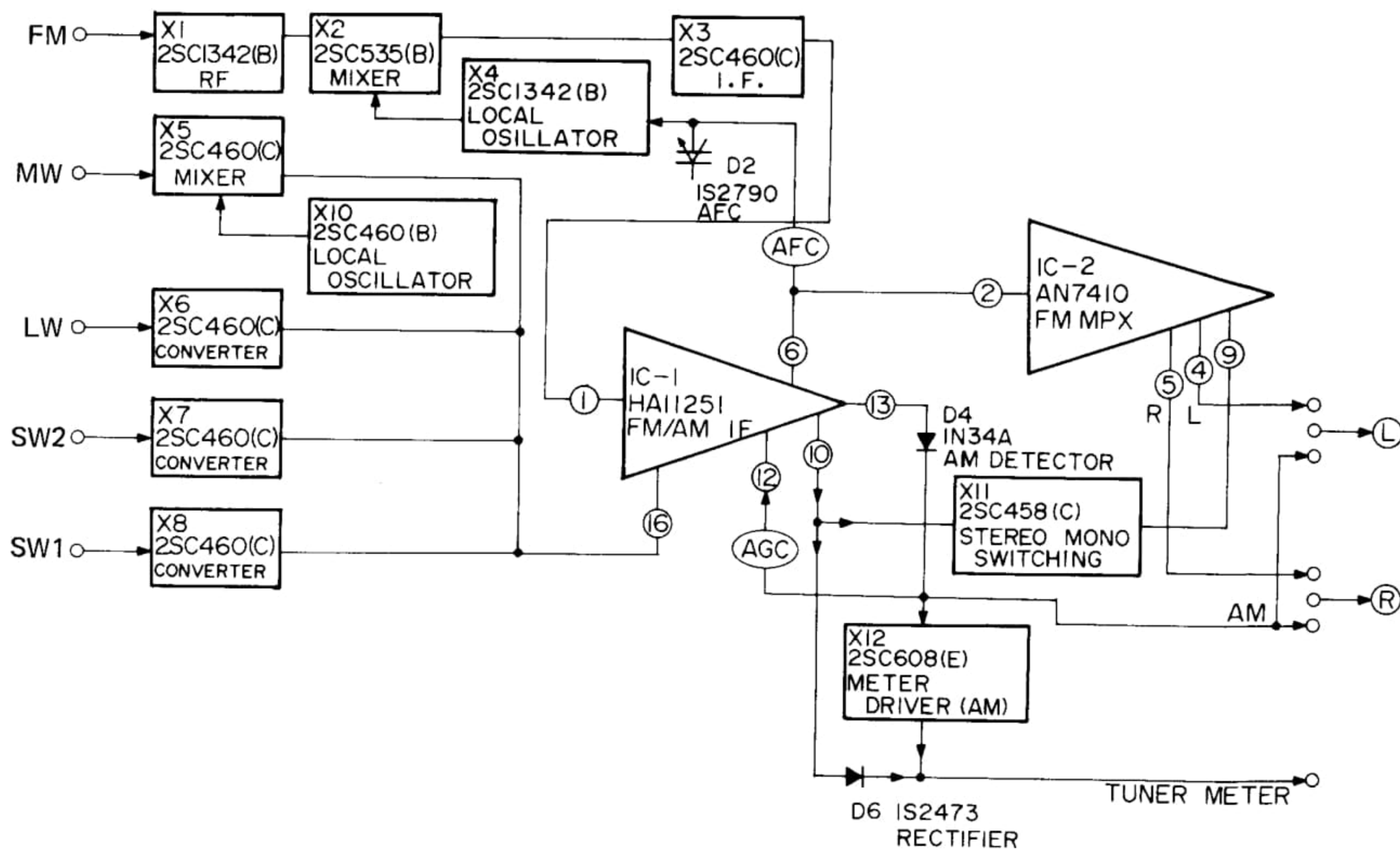


Fig. 23

Rear Cabinet Assembly Parts

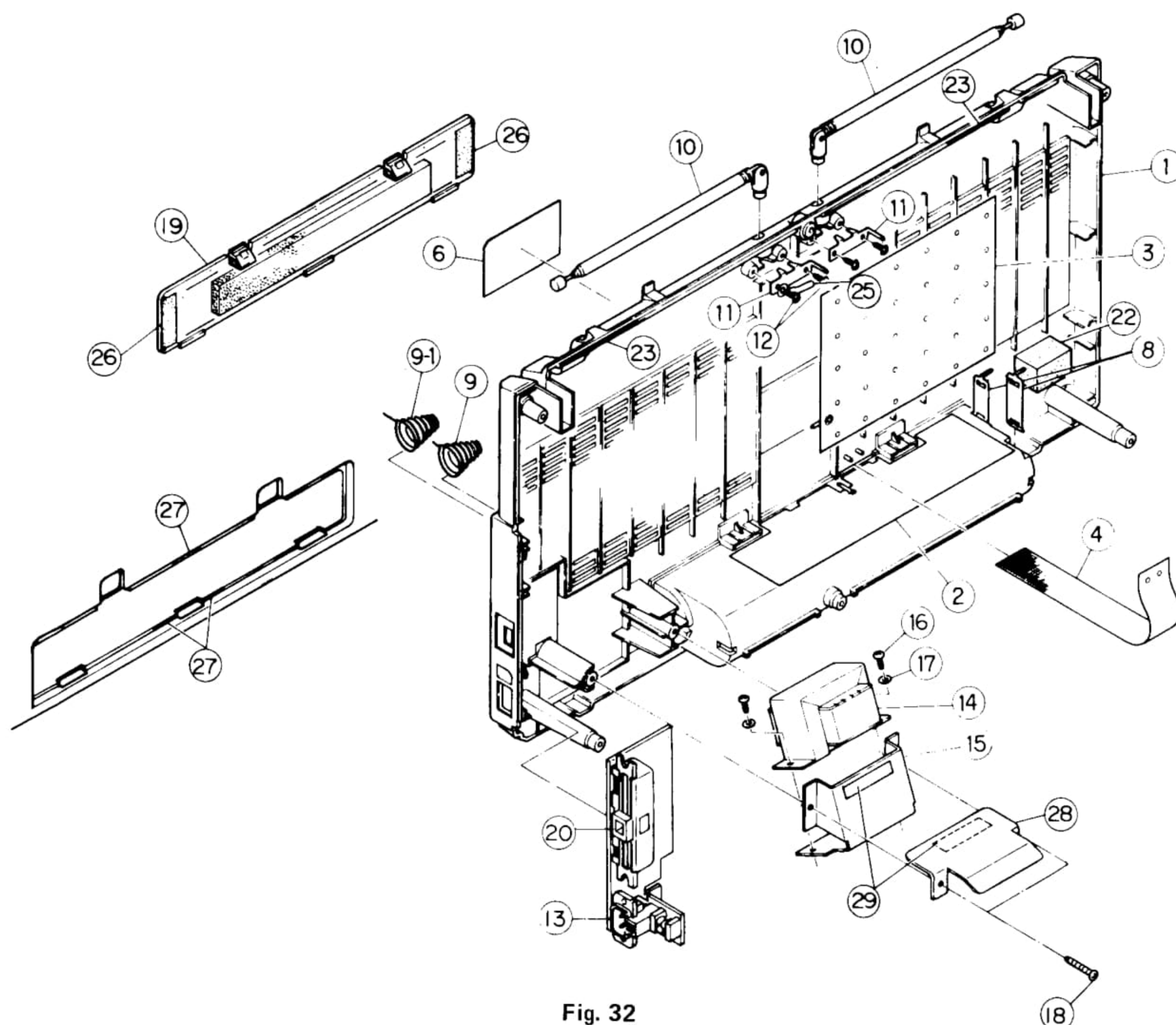


Fig. 32

Rear Cabinet Ass'y Parts List

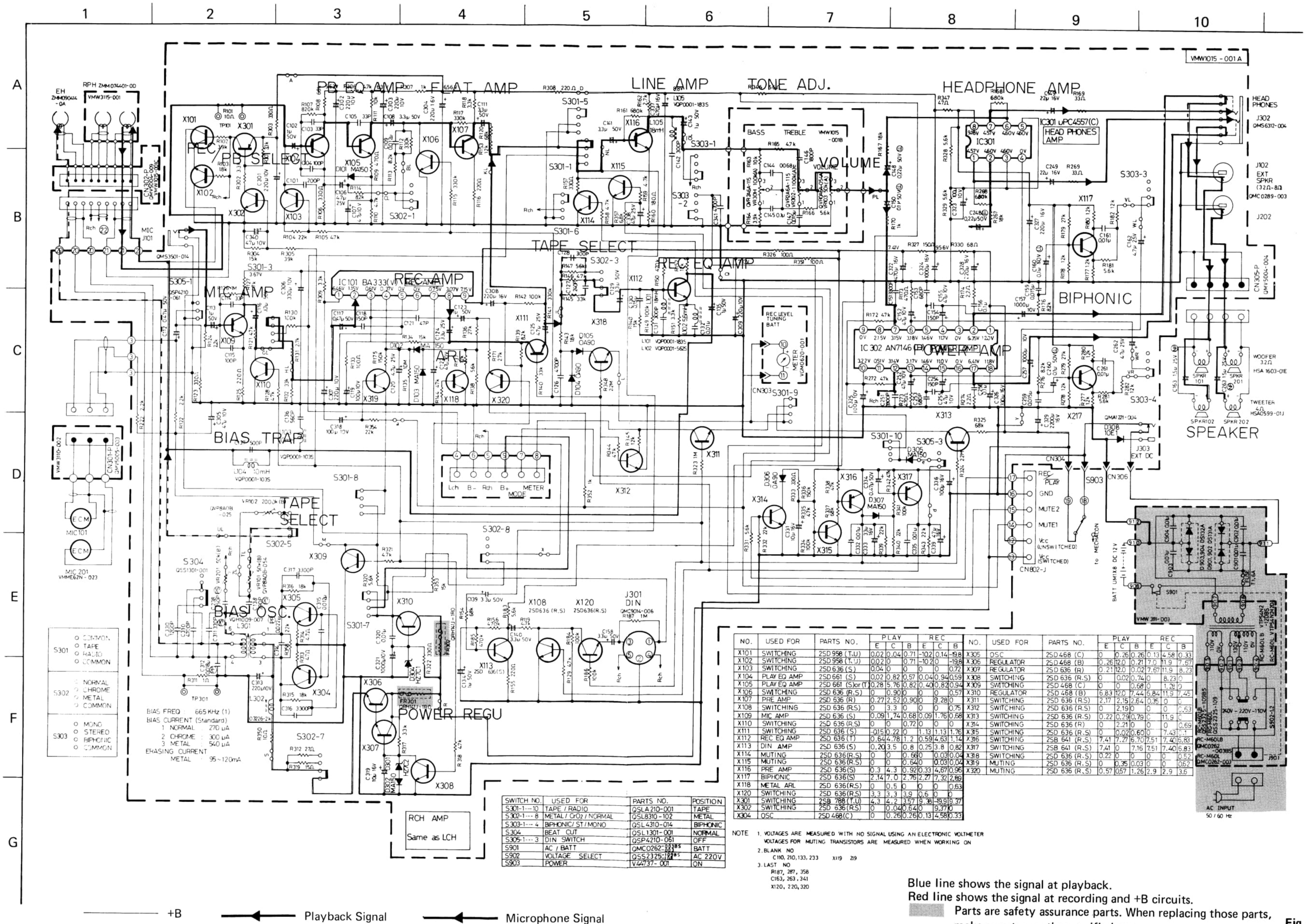
Ref. No.	Parts No.	Parts Name	Remarks	Q'ty
1 ~ 6	ZCRCM60LB-CBR	Rear Cabinet Ass'y		1 set
1	VJC1096-004	Rear Cabinet		1
2	VYH4522-00A	Shield Ass'y		1
3	VYH4509-00B	Shield Ass'y		1
4	V41583-3	Tape		1
6	VYN5060-005C	Name Plate	RC-M60L	1
	VYN5060-004CBS	"	RC-M60LB	1
8	VYH4010-002	Battery Contact		2
9	53738-009	Battery Spring		1
9-1	V44686-002	"		1
10	OZR4147-001U	Rod Antenna		2
11	VYH4189-003	Antenna Holder (B)		2
12	SBSF3008Z	Tapping Screw		4
13	△ QMC0263-002	AC Socket Ass'y	J901, S901, RC-M60L	1
	△ QMC0263-002BS	"	J901, S901, RC-M60LB	1
14	△ VTP54N2-12D	Power Transformer	T901, RC-M60L	1
	△ VTP54N2-12DBS	"	T901, RC-M60LB	1
15	VYH4507-001	Trans Bracket		1
16	LPSP3006ZS	Screw		2
17	Q03091-105	Washer		2
18	SBSF4020C	Tapping Screw		2
19	ZCRCM60LB-BCA	Battery Cover Ass'y		1 set

Ref. No.	Parts No.	Parts Name	Remarks	Q'ty
20	QSS2325-109	Slide Switch	S902-1,2 RC-M60L	1
	QSS2325-109BS	"	" RC-M60LB	1
21	△ VYSR1R5-009	Spacer	for Shield	2
22	VYSR112-005	Spacer	Trans Bracket	1
23	VYSA1R6-015	Spacer		2
25	VKZ4001-007	Wire Holder		1
26	VYSR1R5-004	Spacer		2
27	VYSA1R6-039	Spacer		3
28	VYH4576-001	Shield Bracket		1
29	VYSR1R5-001	Spacer		2

Front Cabinet Ass'y Parts List

Ref. No.	Parts No.	Parts Name	Remarks	Q'ty
1~9,11,12	ZCRCM60LB-CBF	Front Cabinet Ass'y		1 set
1	VJC1095-001	Front Cabinet		1
1-1	VYH4032-001	Roller		5
1-2	WNB2600N	Washer		5
2	VYTA449-002	Dust Cover	Binding Agent (Dia Bond 1600 MA)	2
3	VJD2149-002	Control Panel		1
4	VJD4390-001	Volume Plate		1
5	VJD4393-001	Plate		1
6	QXM2251-003	Mark	Binding Agent (Via Bond 1600 MA)	1
7	VJK2125-002	Dial Scale		1
8	VJK2126-001	Dial Lens		1
9	VJD2150-001	Front Cover	Binding Agent (Dia)	1
10	VJD4355-001	Side Cover		1
11	VJD4356-001	Mic Frame		1
12	VJD4356-002	"		1
13	VJD4354-001	Head Cover		1
14	VJT3051-00A	Door Ass'y		1
15	TJL271485-01	Head Mark		1
	VKY4195-001	Cassette Spring		1
16~17	ZERCM60JW-CCA	Cassette Lens Ass'y		1 set
16	VJK3151-002	Cassette Lens		1
17	VJD4352-001	Door Plate		1
18	VYH4506-001	Foot Supporter	(Right)	1
19	VYH4506-002	"	(Left)	1
20	SDSP2606Z	Screw		4
21	VJH3005-00L	Handle Ass'y		1

Schematic Diagram of RC-M60L/LB (Amplifier circuit)



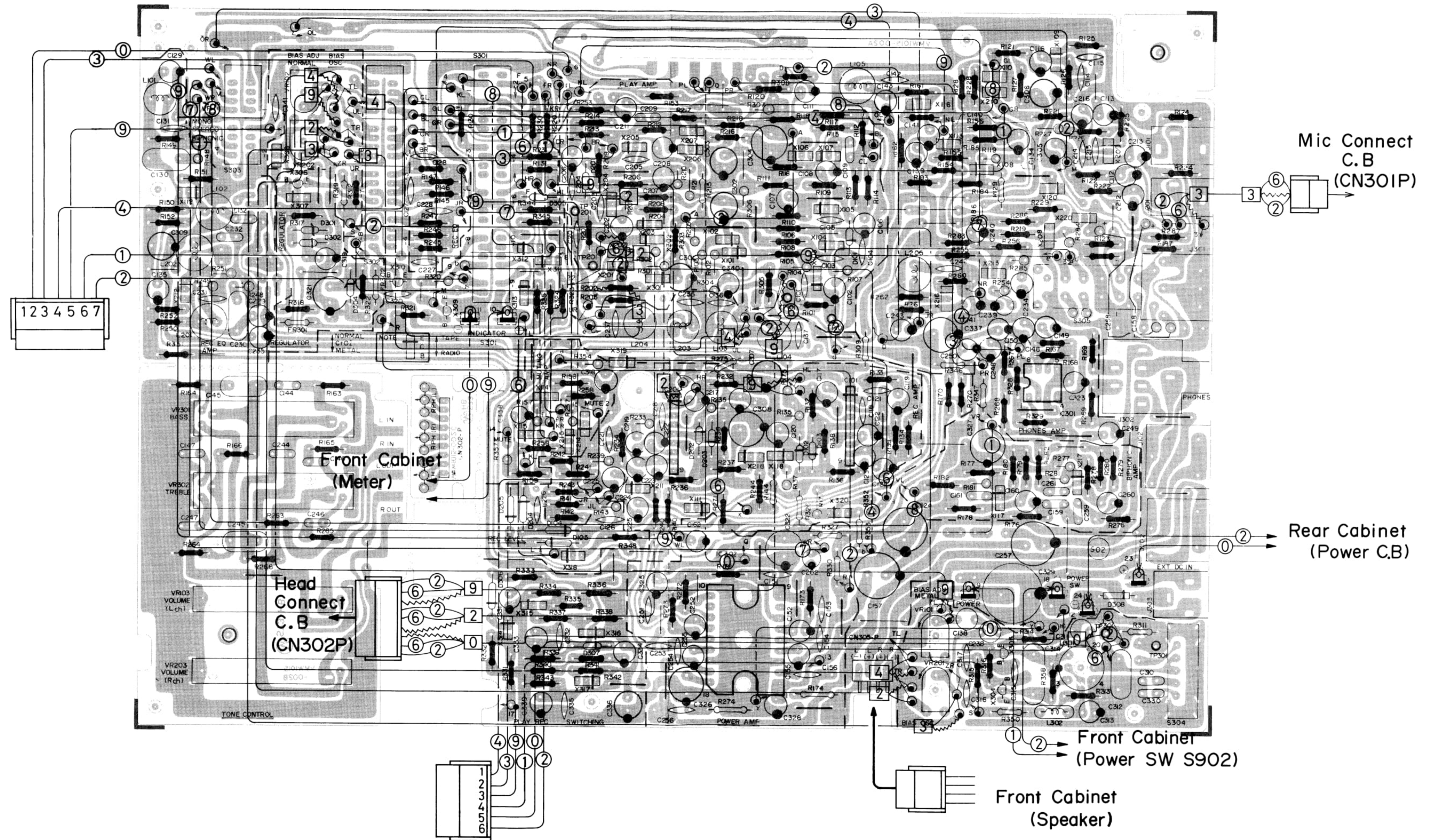
[illegible]

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Wiring Connection (1) – Amplifier P.W. Board

Parts ass'y side view

Amplifier P.W. Board Ass'y



Colour code are shown below

1Brown	4Yellow	7Violet	0Black
2Red	5Green	8Grey	
3Orange	6Blue	9White	

Fig. 27

Wiring Connection (2) — Front Cabinet Relation Parts

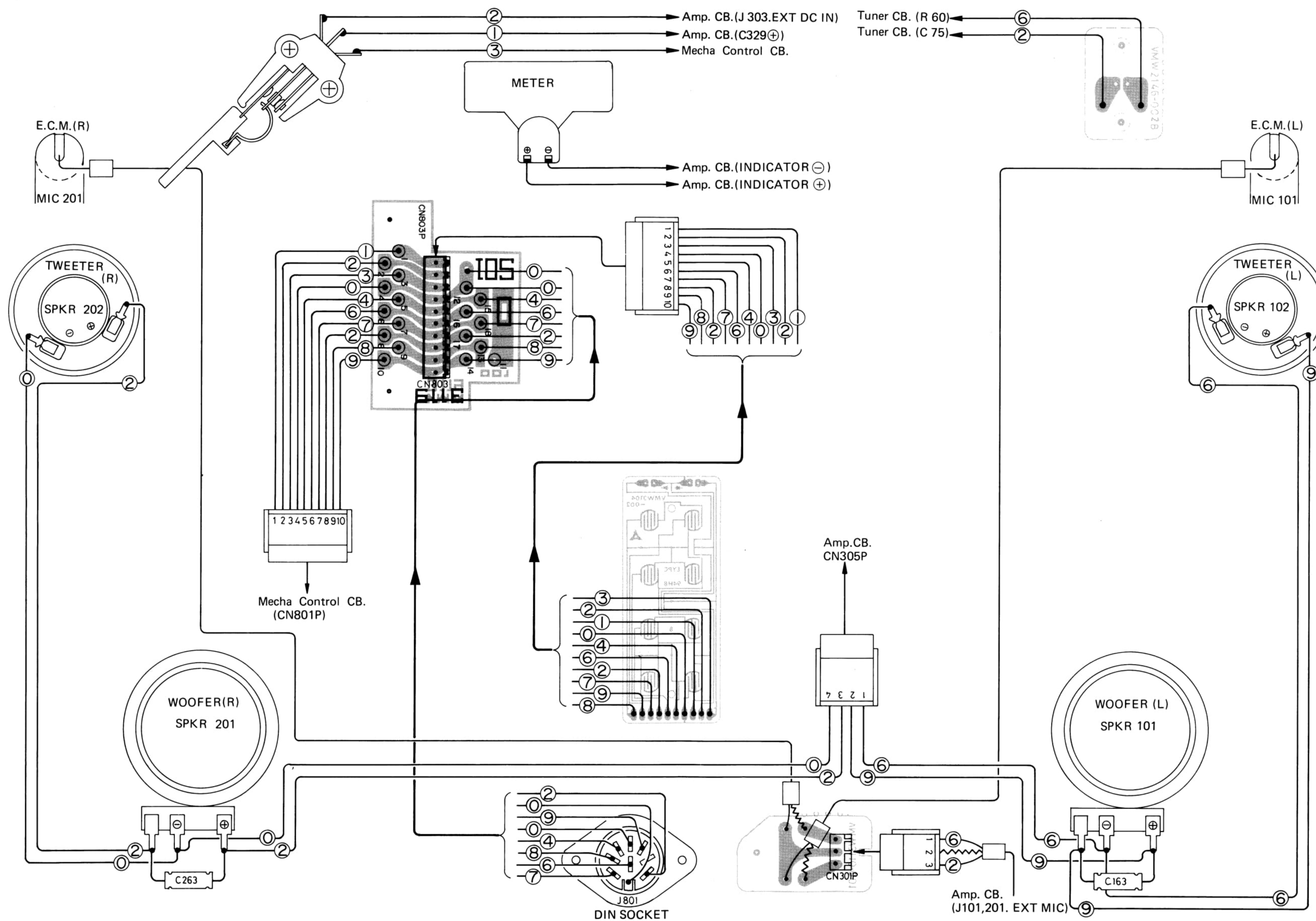


Fig. 28

Wiring Connection (3)

— Rear Cabinet Relation Parts

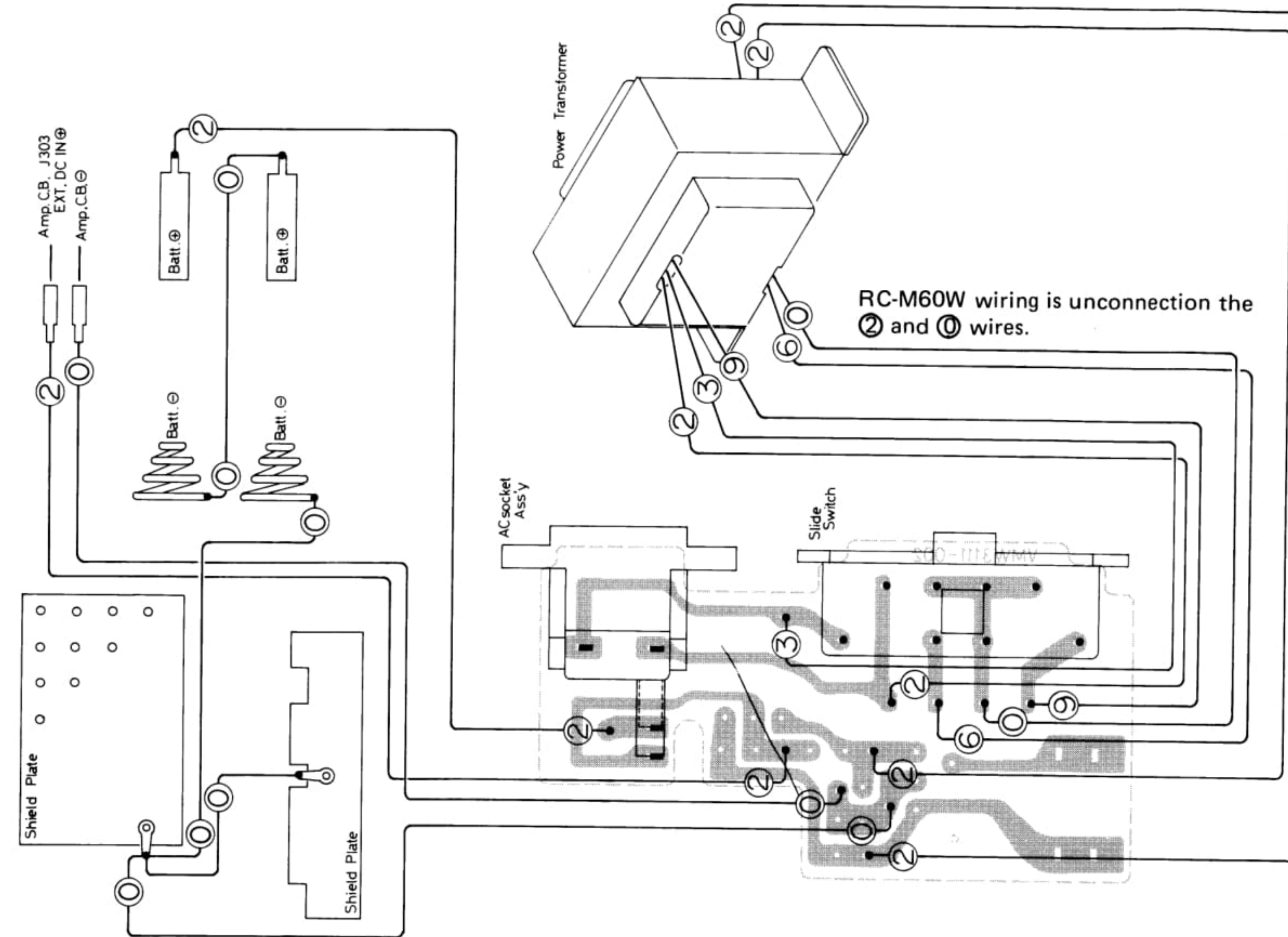


Fig. 29

— Cassette Mecha Relation Parts

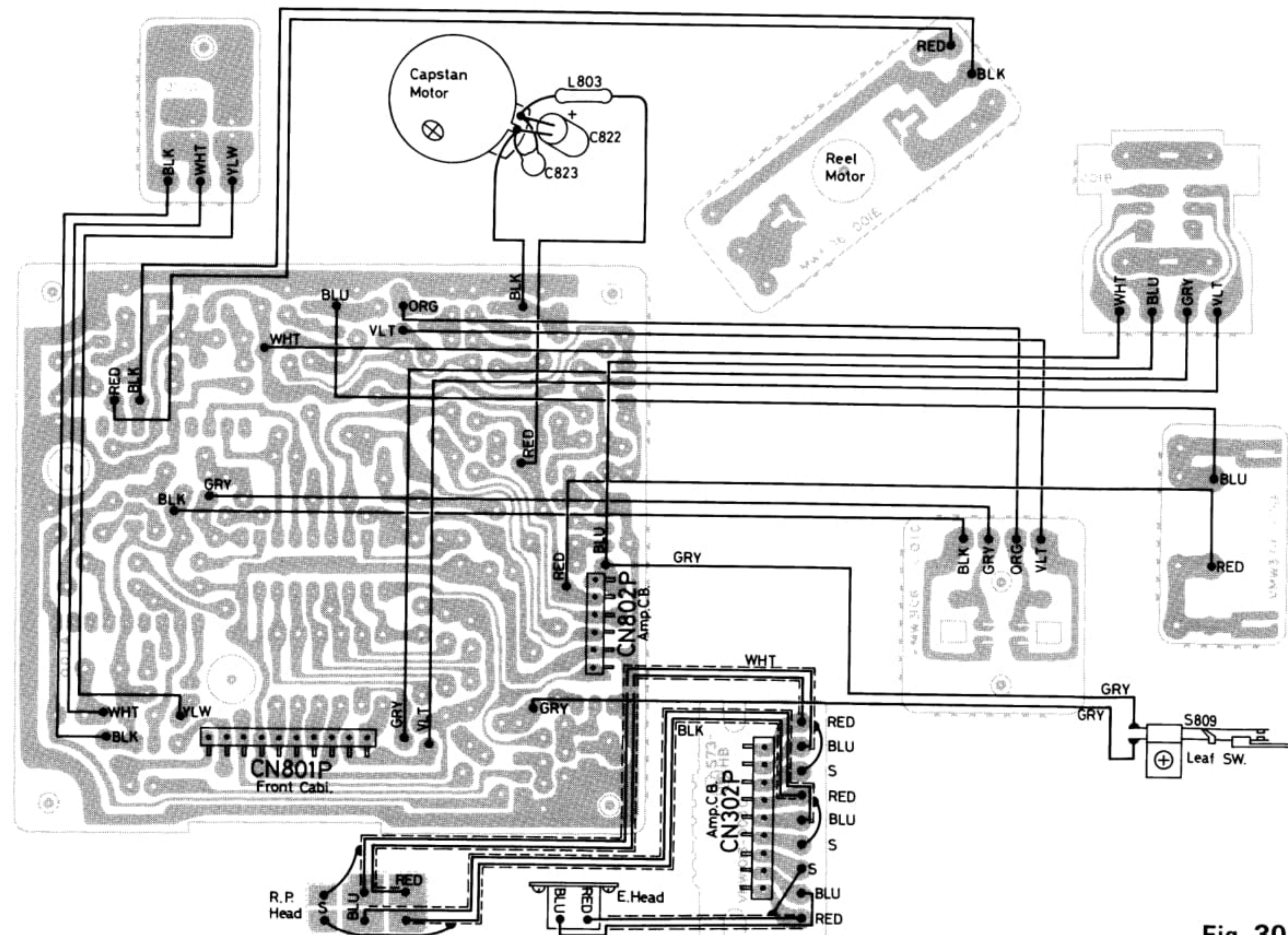


Fig. 30

No. 1416

Mecha Button Unit Parts

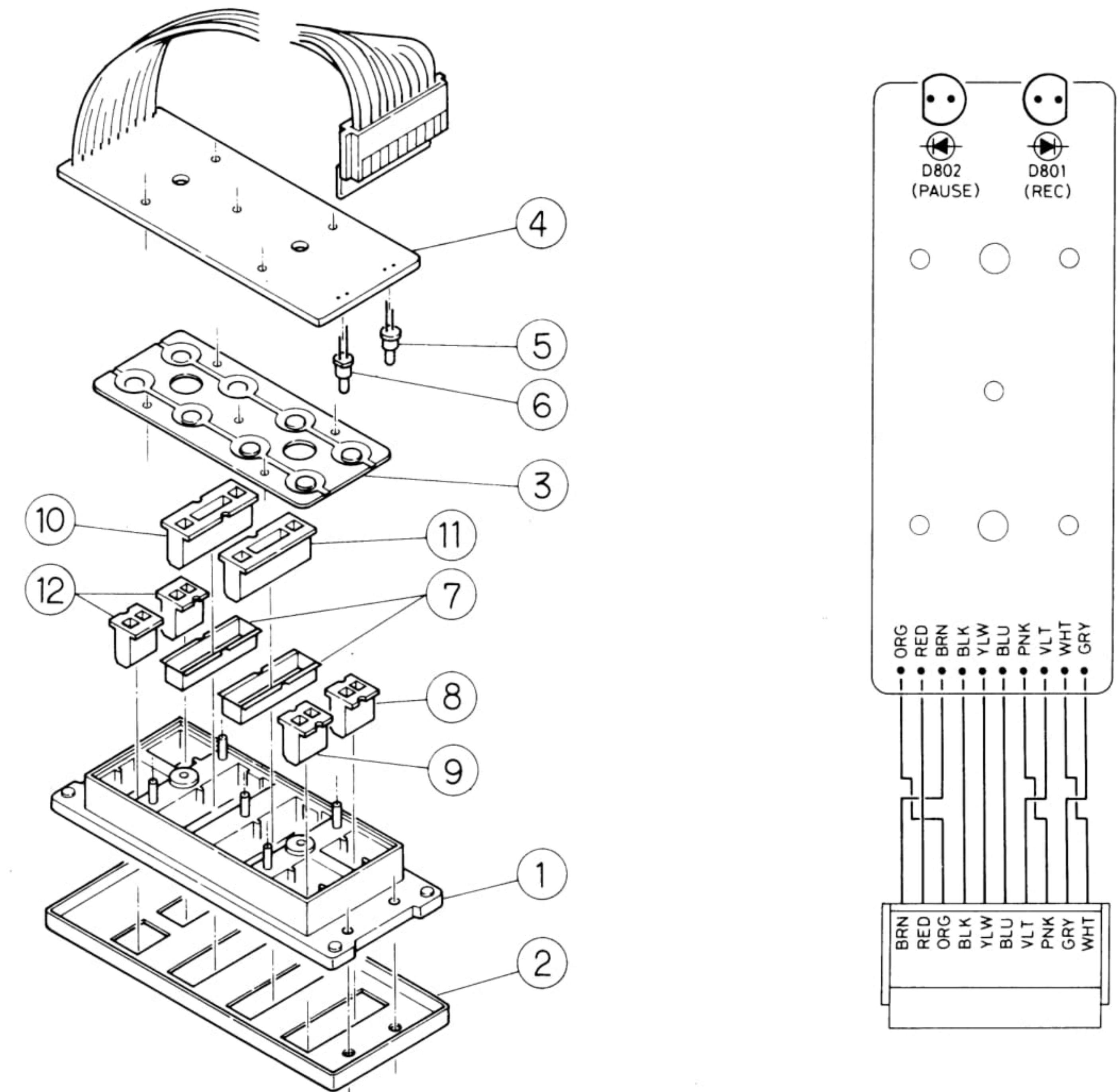


Fig. 31

Mecha Button Unit Parts List

Ref. No.	Parts No.	Parts Name	Remarks	Q'ty
1	VYH3164-002	Button Frame		1
2	VJD4353-002	Panel		1
3	VYH4026-001	Rubber		1
4	VMW3104-003	P.W. Board		1
5	SLP146B	LED	for REC D801	1
6	SLP246B	LED	for PAUSE D802	1
7	VYH4493-001	Pipe	J14 Play, Stop	2
8	VXP4062-001	Mecha Button	REC	1
9	VXP4062-002	"	PAUSE	1
10	VXP4063-001	"	STOP	1
11	VXP4063-002	"	PLAY	1
12	VXP4062-003	"	REVIEW, CUE	2

Front Cabinet Assembly Parts

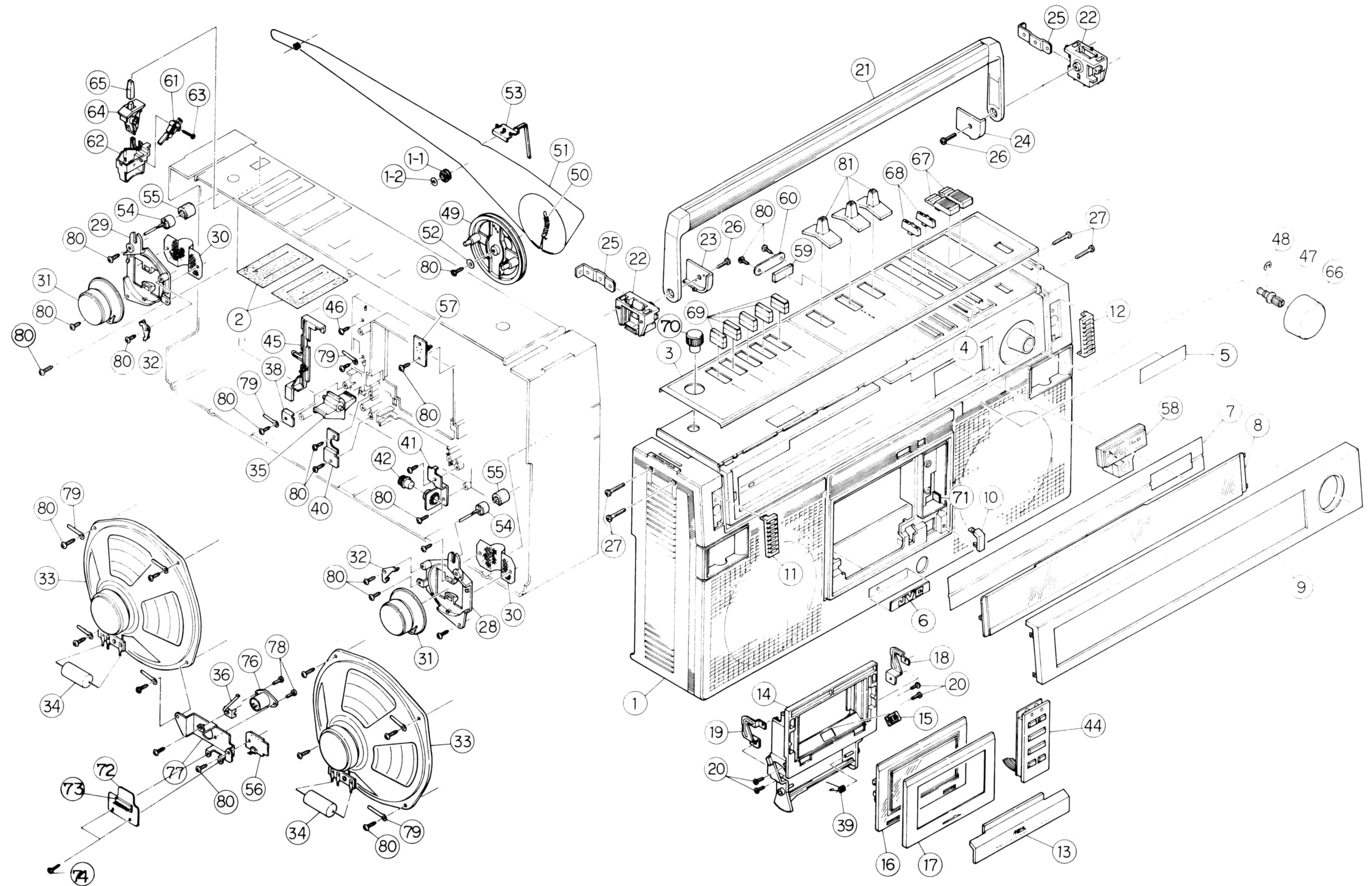


Fig. 33