

Service Manual

Panasonic

TAPE RECORDER

Panasonic

4-TRACK STEREO TAPE DECK WITH 3-MOTOR, 3-HEAD



RS-715US MECHANISM SERIES

MODEL RS-714US

SPECIFICATIONS

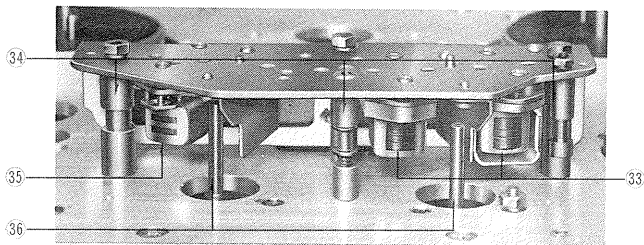
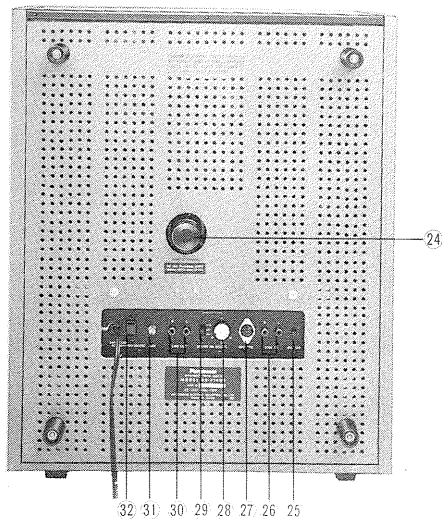
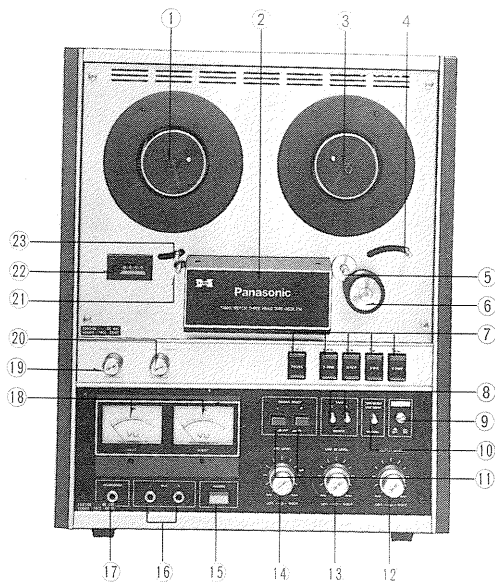
Power Source:	120 volts 60 Hz	Rewind Time:	Less than 60 seconds for standard tape (1200 ft)
Power Consumption:	130 W	Frequency Response:	20~25,000 Hz (30~22,000 Hz $\pm$ 3 dB) at 7-1/2 ips.
Motors:	8/4 poles dual speed hysteresis synchronous motor (1) 4-pole induction motor (2)	Wow & Flutter:	Less than 0.095% at 7-1/2 ips.
Track System:	4 track, 2-channel stereo recording and playback	Inputs:	2 "MIC" (High) -65 dB (0.56 mV)/5~20 k Ω (Low) -73 dB (0.22 mV)/600~5 k Ω
Recording System:	AC bias 180 kHz	Outputs:	2 "LINE IN" -30 dB (30 mV)/200 k Ω 2 "LINE OUT" -6 dB (500 mV)/50 k Ω "HEADPHONE" 8 Ω
Erasing System:	AC erase	Dimensions:	17" (W) $\times$ 20-3/4" (H) $\times$ 9" (D)
Tape Speeds:	2 speeds, 7-1/2 ips. (19 cm/s) and 3-3/4 ips. (9.5 cm/s)	Weight:	52-7/8 lbs.
Maximum Reel Size:	7" reel		
Signal-to-noise Ratio:	53 dB or more		
Fast Forward Time:	Less than 60 seconds for 7" standard tape (1200 ft)		

These specifications are subject to change in order to accommodate improvements in design.

MATSUSHITA ELECTRIC CORP. OF AMERICA
MATSUSHITA ELECTRIC OF HAWAII, INC.
MATSUSHITA ELECTRIC OF CANADA LTD.

Pan-Am Bldg., 200 Park Ave. New York, N.Y. 10017
320 Waiakamilo Road, Honolulu, Hawaii 96817
40 Ronson Drive, Rexdale, Ont.

LOCATION OF PARTS

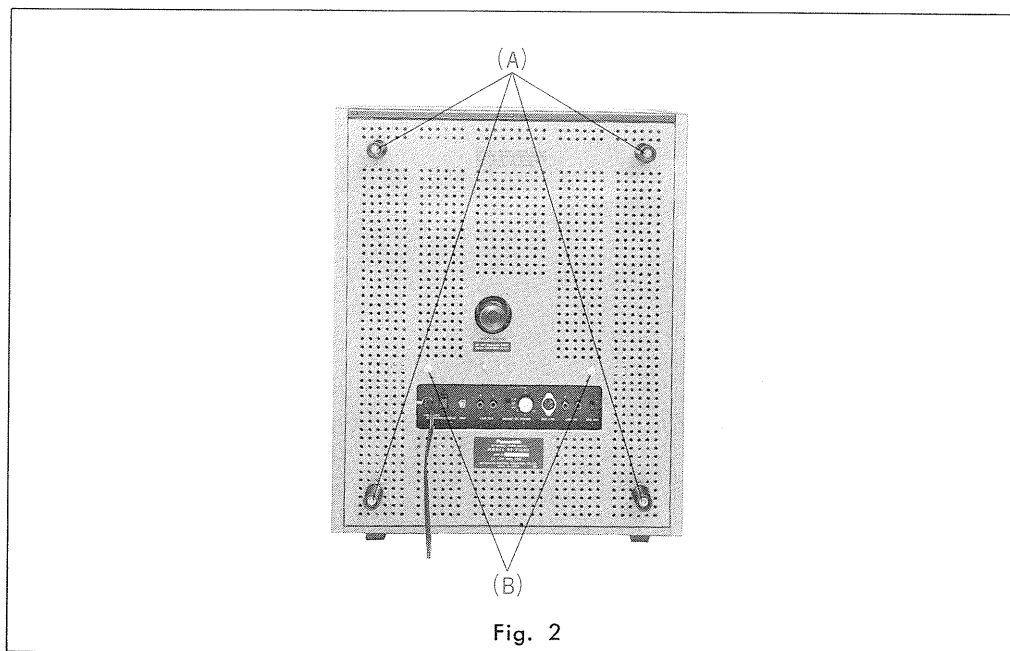


- ① Supply reel table
- ② Head assemble housing
- ③ Takeup reel table
- ④ Right tension arm
- ⑤ Capstan
- ⑥ Pressure roller
- ⑦ Operation buttons
- ⑧ Tape/source selection knobs
- ⑨ Power switch
- ⑩ Tape selector knob
- ⑪ Record selector knobs
- ⑫ Output level control knobs
- ⑬ Line input level control knobs
- ⑭ Microphone input level control knobs
- ⑮ Record button
- ⑯ Microphone jacks
- ⑰ Headphone jack
- ⑱ Level meters
- ⑲ Tape speed selector
- ⑳ Tape tension selector
- ㉑ Guide pin
- ㉒ Tape counter
- ㉓ Left tension arm
- ㉔ Remote control jack
- ㉕ MIC impedance selector
- ㉖ Line in jacks
- ㉗ Recording/playback connector
- ㉘ Sound-on-sound level adjustment control
- ㉙ Sound-on-sound switch
- ㉚ Line out jacks
- ㉛ Ground terminal
- ㉜ Power outlet
- ㉝ Record/playback heads
- ㉞ Tape guides
- ㉟ Erase head
- ㊱ Tape shifters

Fig. 1

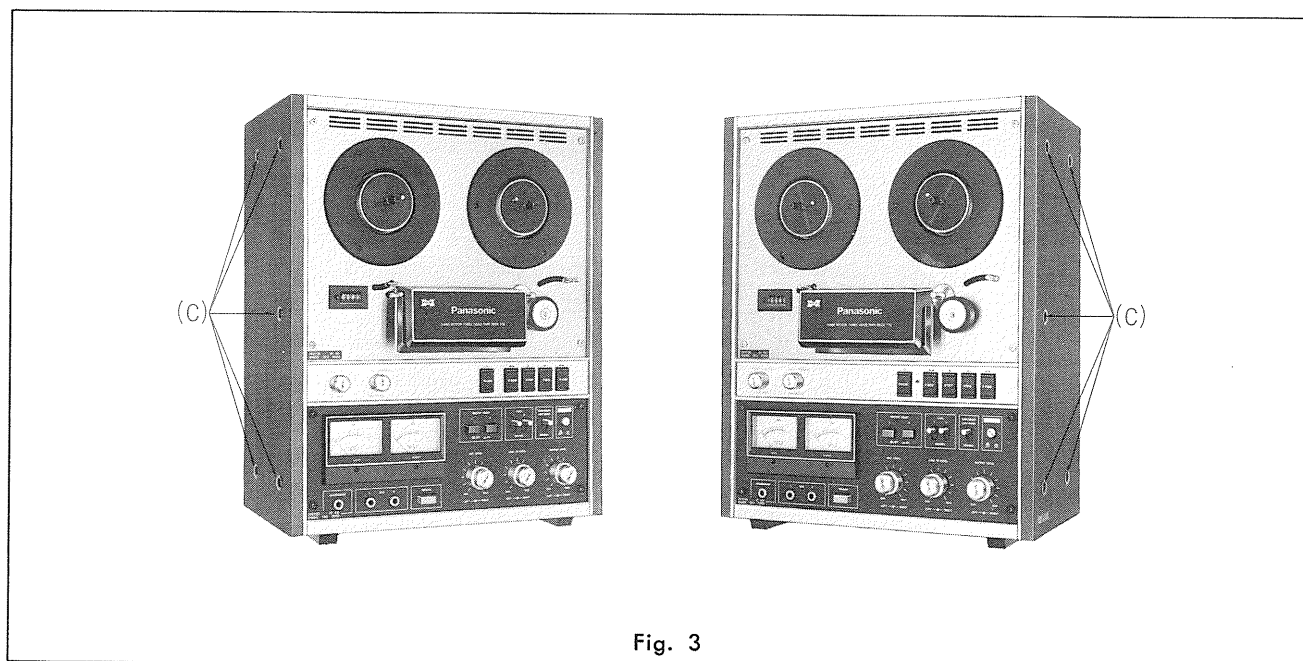
DISASSEMBLY INSTRUCTIONS

HOW TO REMOVE BACK BOARD



1. Remove 4 screws in the rubber feet (A) and 2 back board holding screws (B).
2. Then back board can be removed.

HOW TO REMOVE BODY CASE

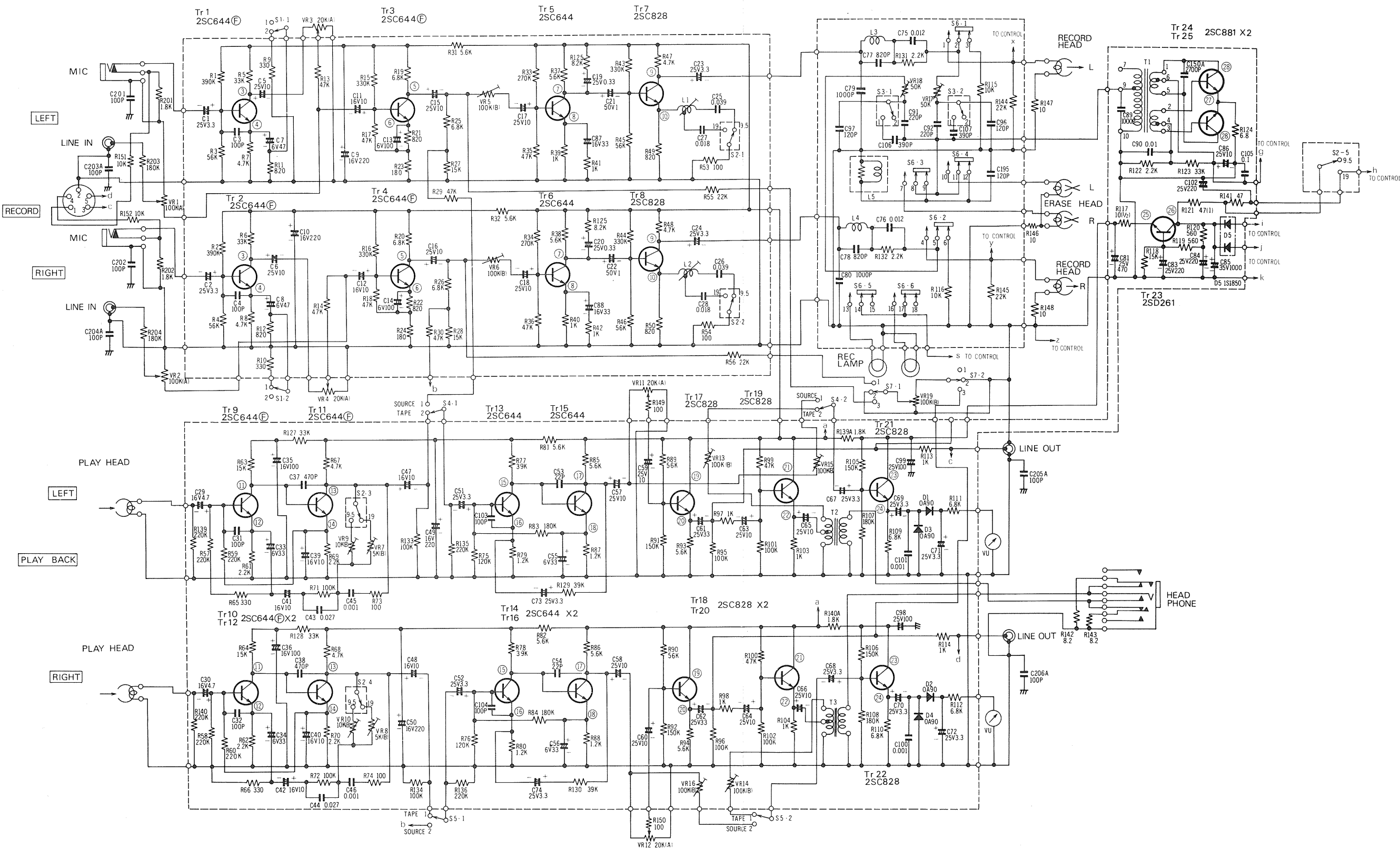


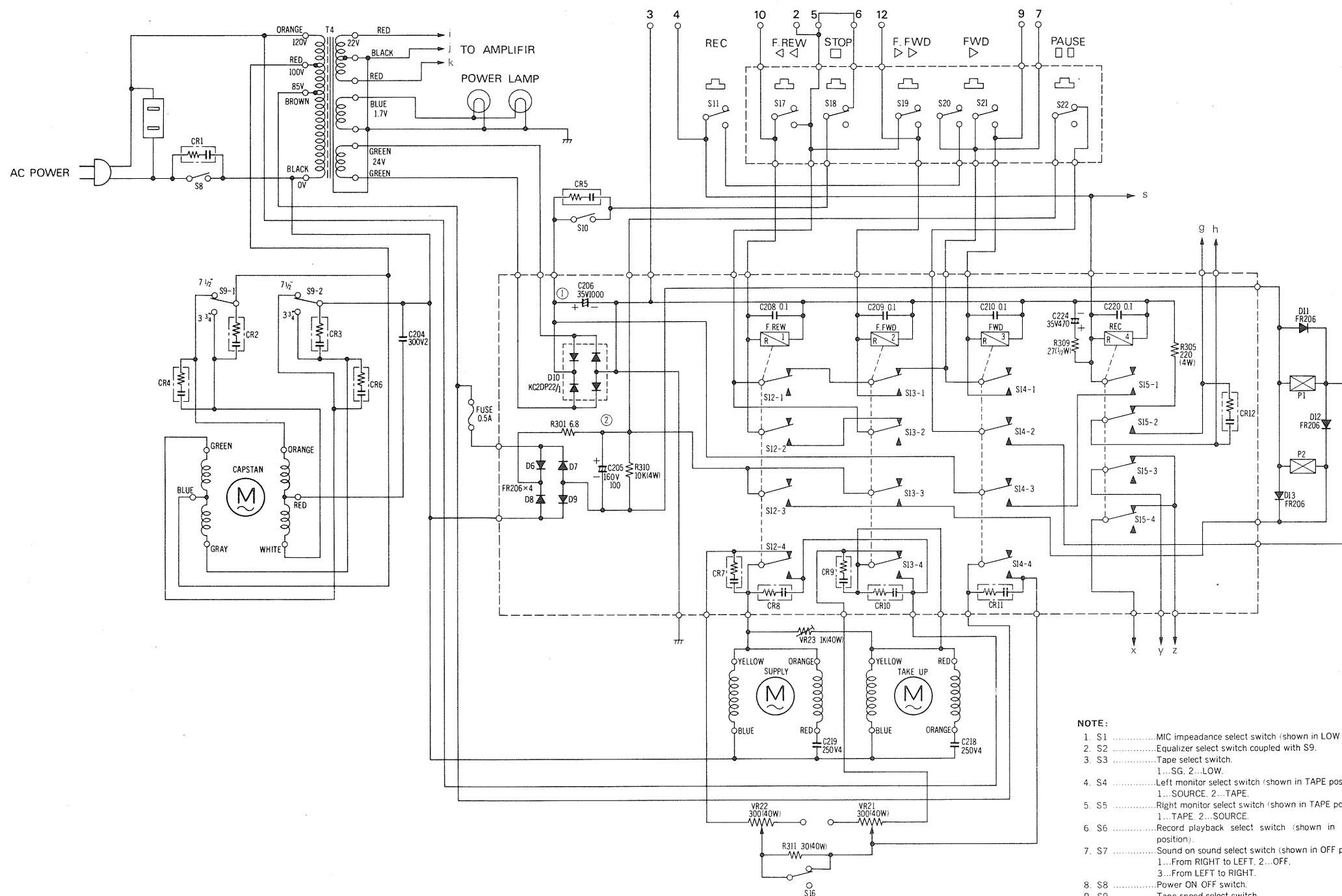
1. Remove 10 body case holding screws (C).
2. Place the set with its panel side up and lift body case (panel side) slowly. Then body case can be removed.

STANDARD VALUE TO TEST

ITEM	VALUE	PARTS TO BE ADJUSTED	REMARKS
Recording bias current.	$1.6 \pm_{0.2}^{0.6}$ mA (when 19 cm/s of tape speed).	VR17 (CH1) VR18 (CH2)	Set S3 to normal position.
Input level.	MIC -73 ± 3 dB LINE IN -30 ± 2 dB DIN -37 ± 2 dB	VR5 (CH1) VR6 (CH2)	To obtain $160 \mu\text{A}$ of recording signal current. Set S1 to low position.
Bias oscillation frequency.	180 ± 10 kHz	—	—
Erase current.	$44 + 6$ mA	—	—
Takeup tension.	48 ± 2 gr-cm	VR21	Change the position of terminal of VR21.
Back tension.	31 ± 2 gr-cm	VR20	Change the position of terminal of VR20.
Pressure of pressure roller.	2.8 ± 0.1 kg	Setting position of pressure arm rod on plunger rod.	Loosen 4 nuts and change the setting position. After complete adjustment, lock the 4 nuts tightly.
Brake tension.	120 ± 29 gr	Brake spring.	By change of hanging position (hole) on brake arms (shown by No. M49 and M51 in exploded views).

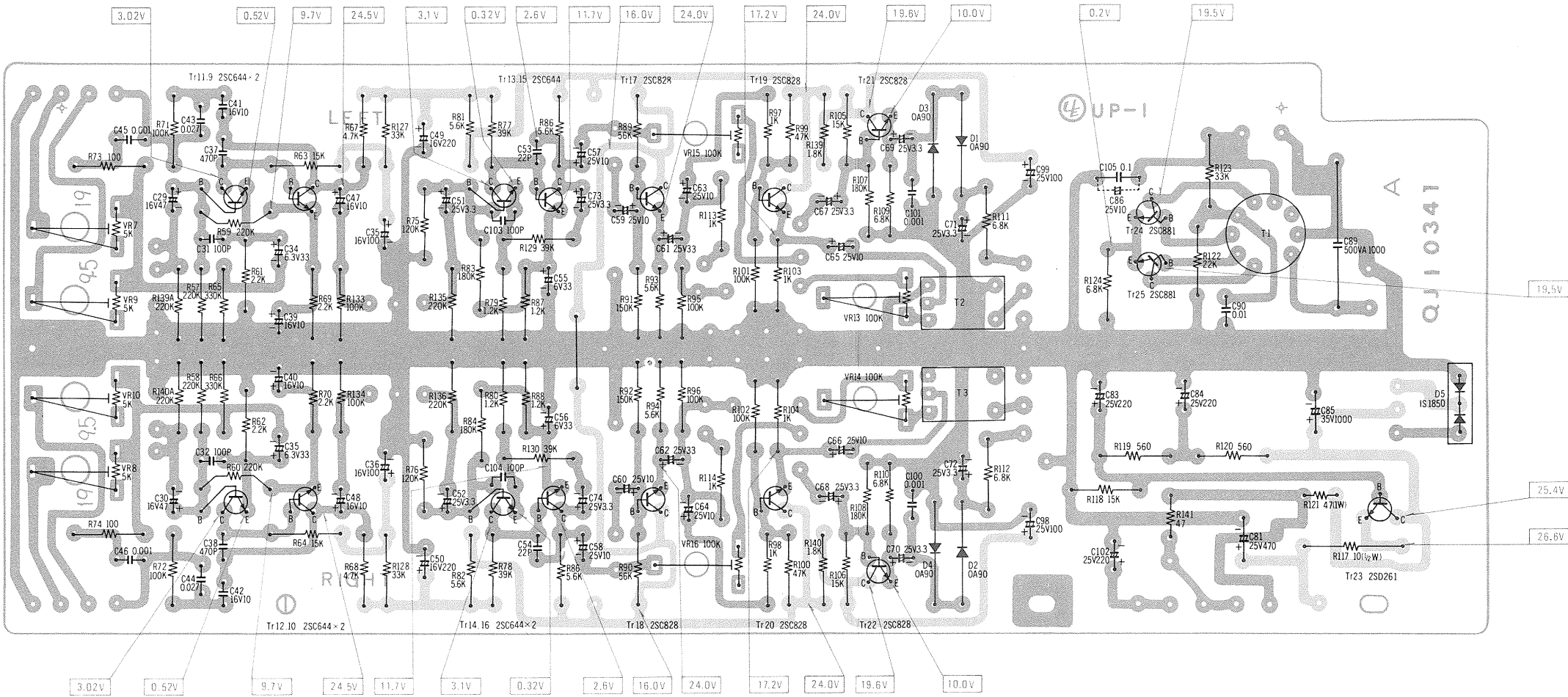
SCHEMATIC DIAGRAM MODEL RS-714US



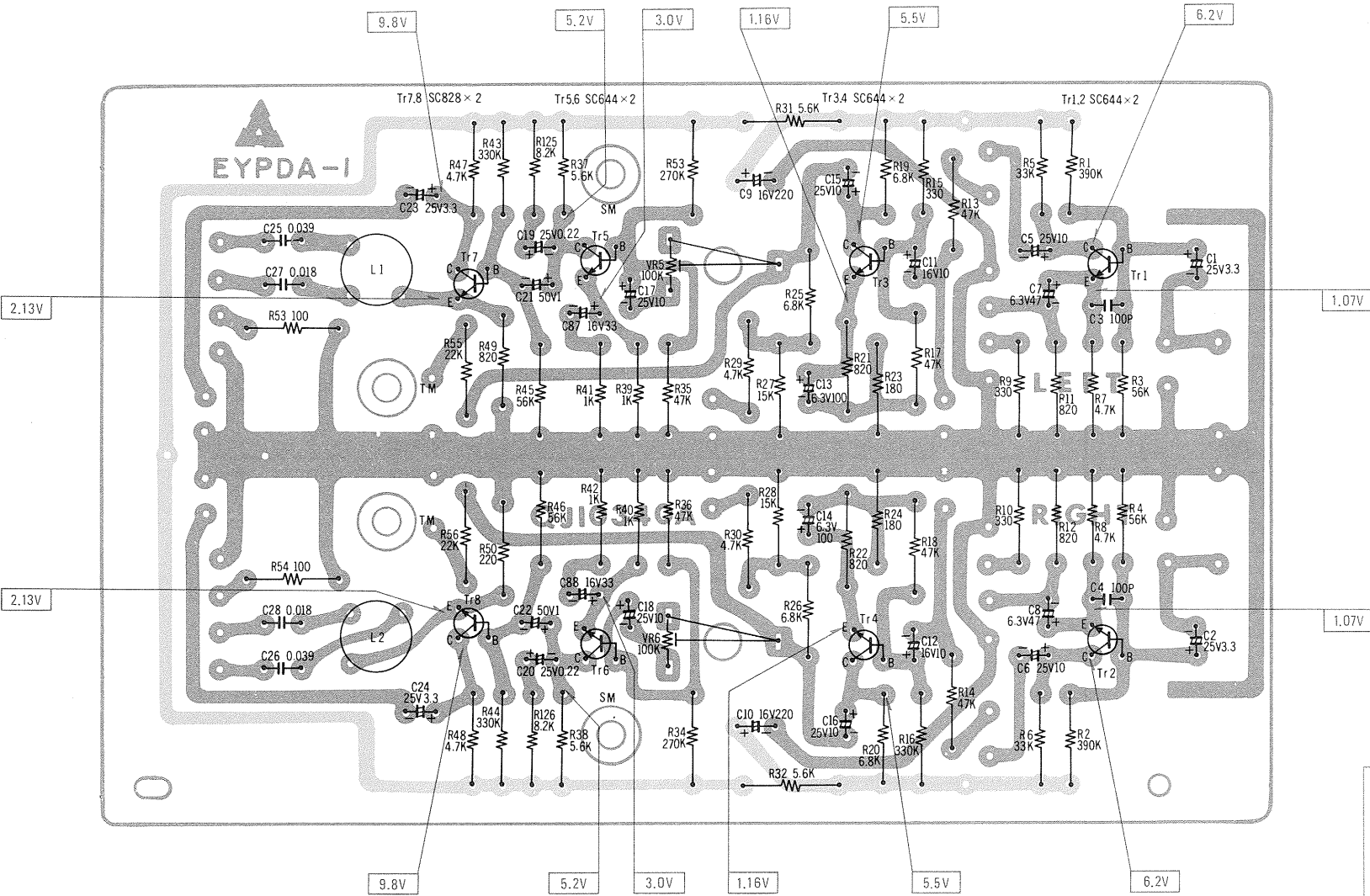


CIRCUIT BOARD

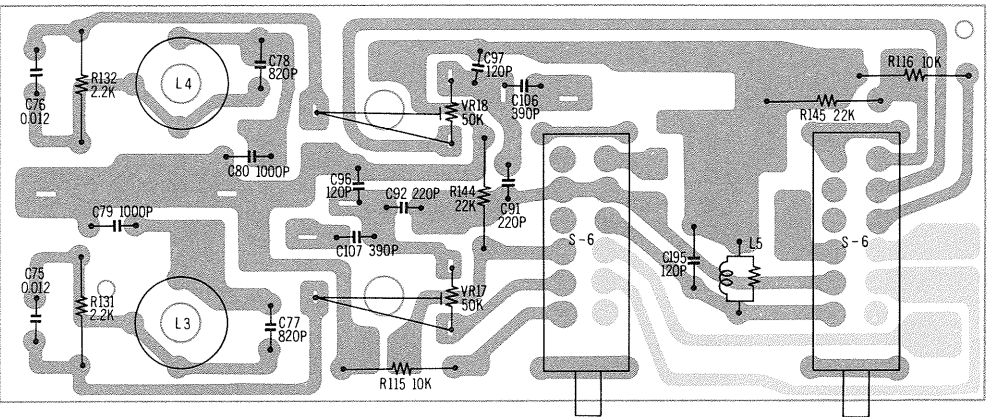
PLAYBACK CIRCUIT BOARD



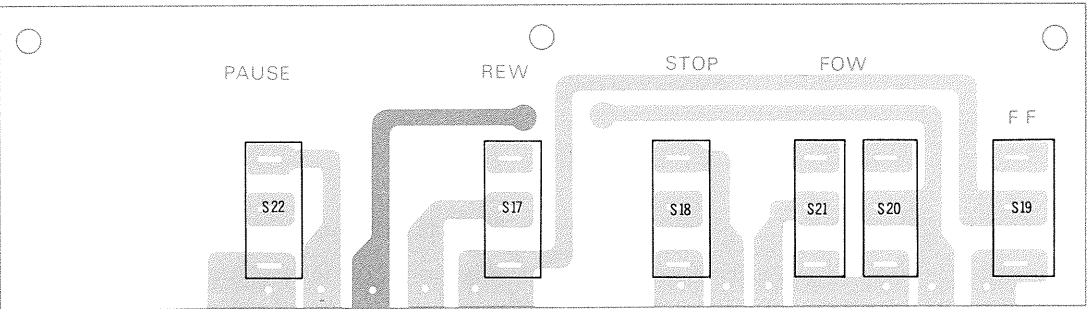
RECORD CIRCUIT BOARD



RECORD/PLAYBACK SELECT CIRCUIT BOARD

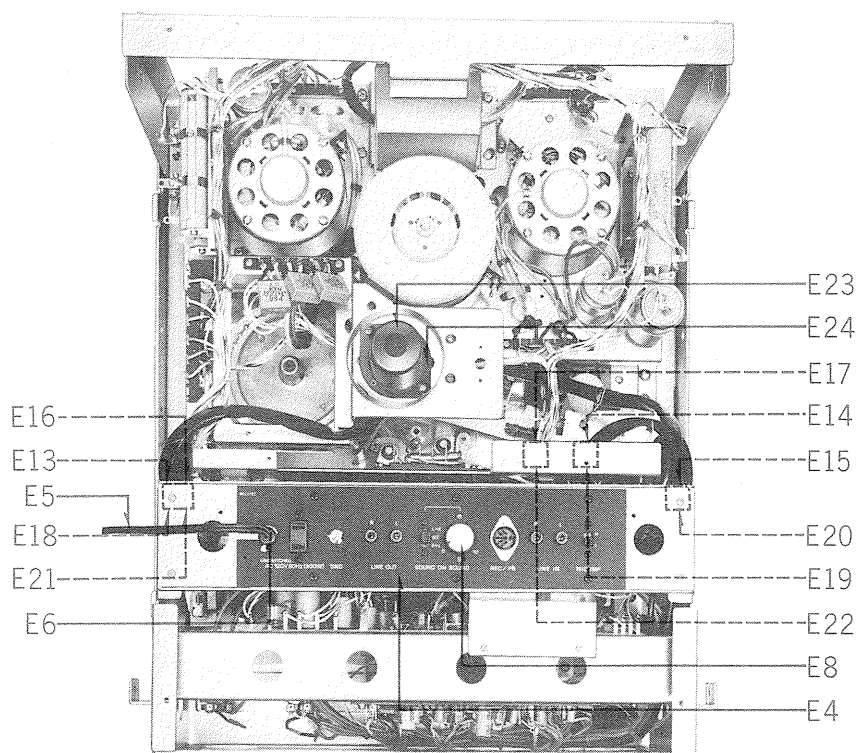
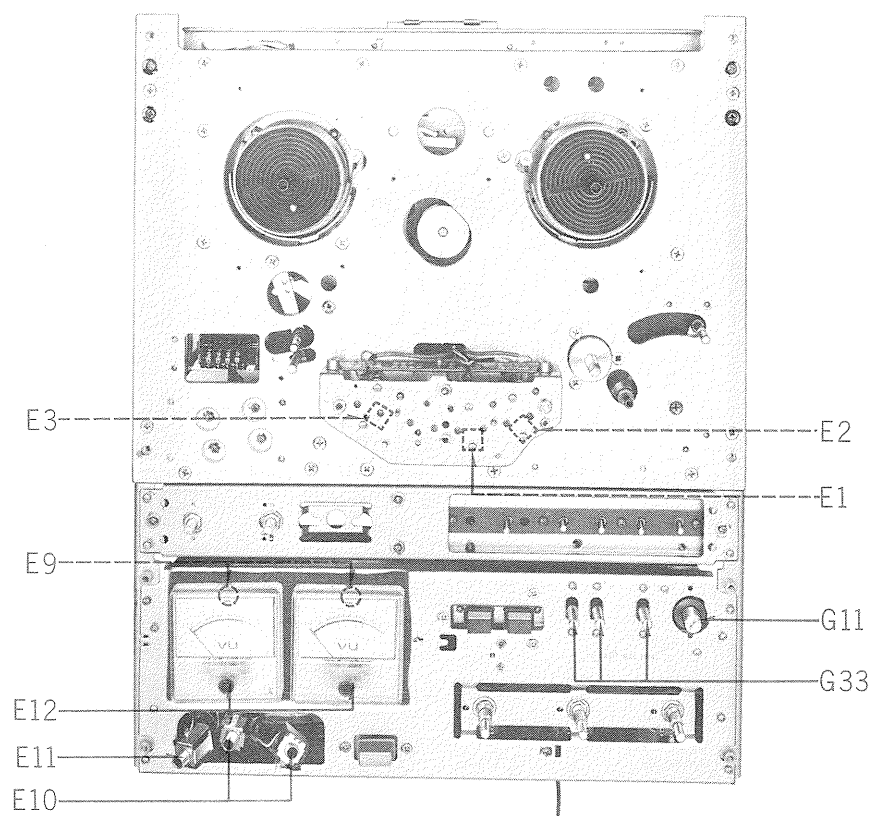


OPERATION CIRCUIT BOARD

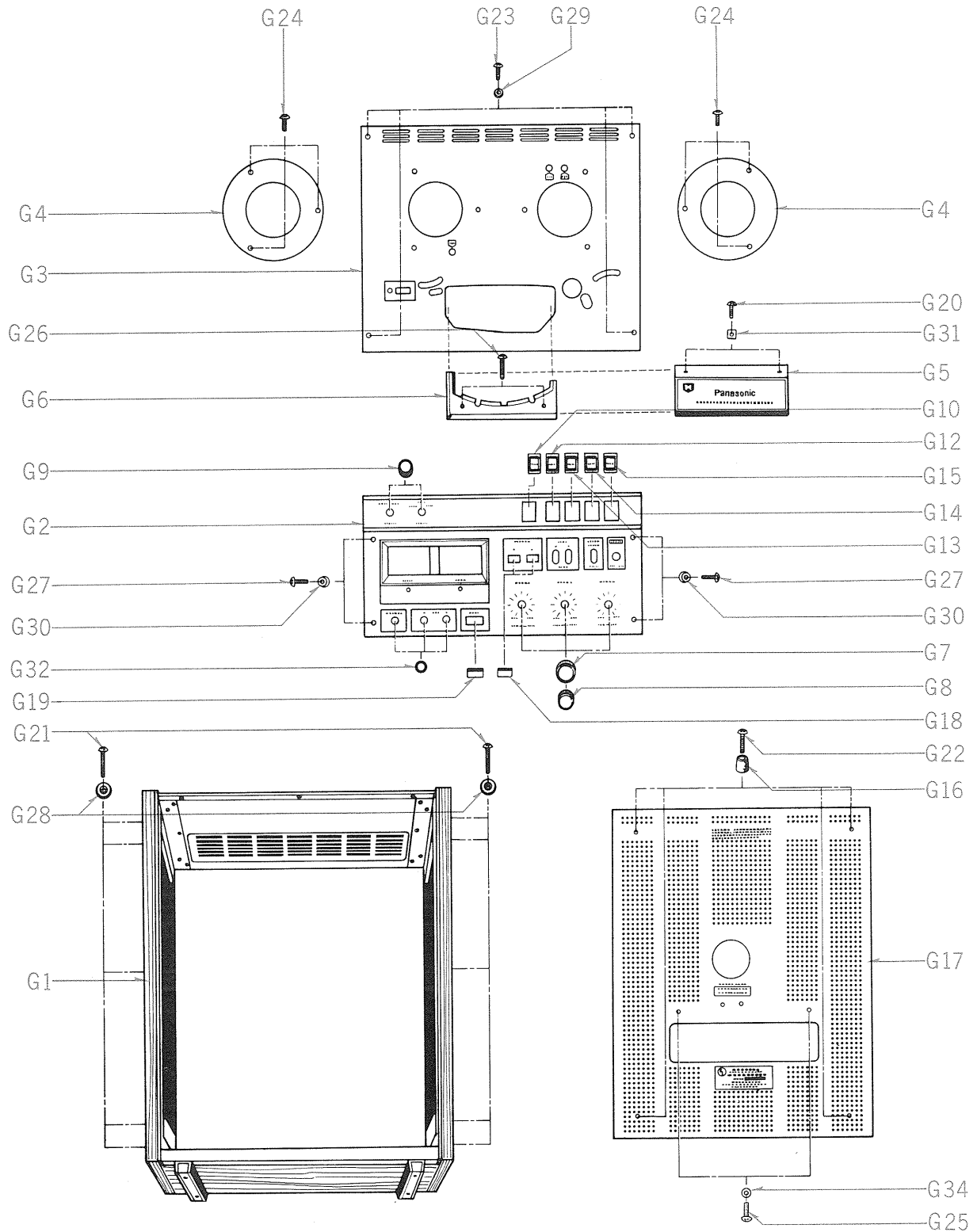


NOTE:
The circuit shown in green on the conductor side is + B circuit.
Values indicated in [] are DC voltages between the chassis and electrical parts.

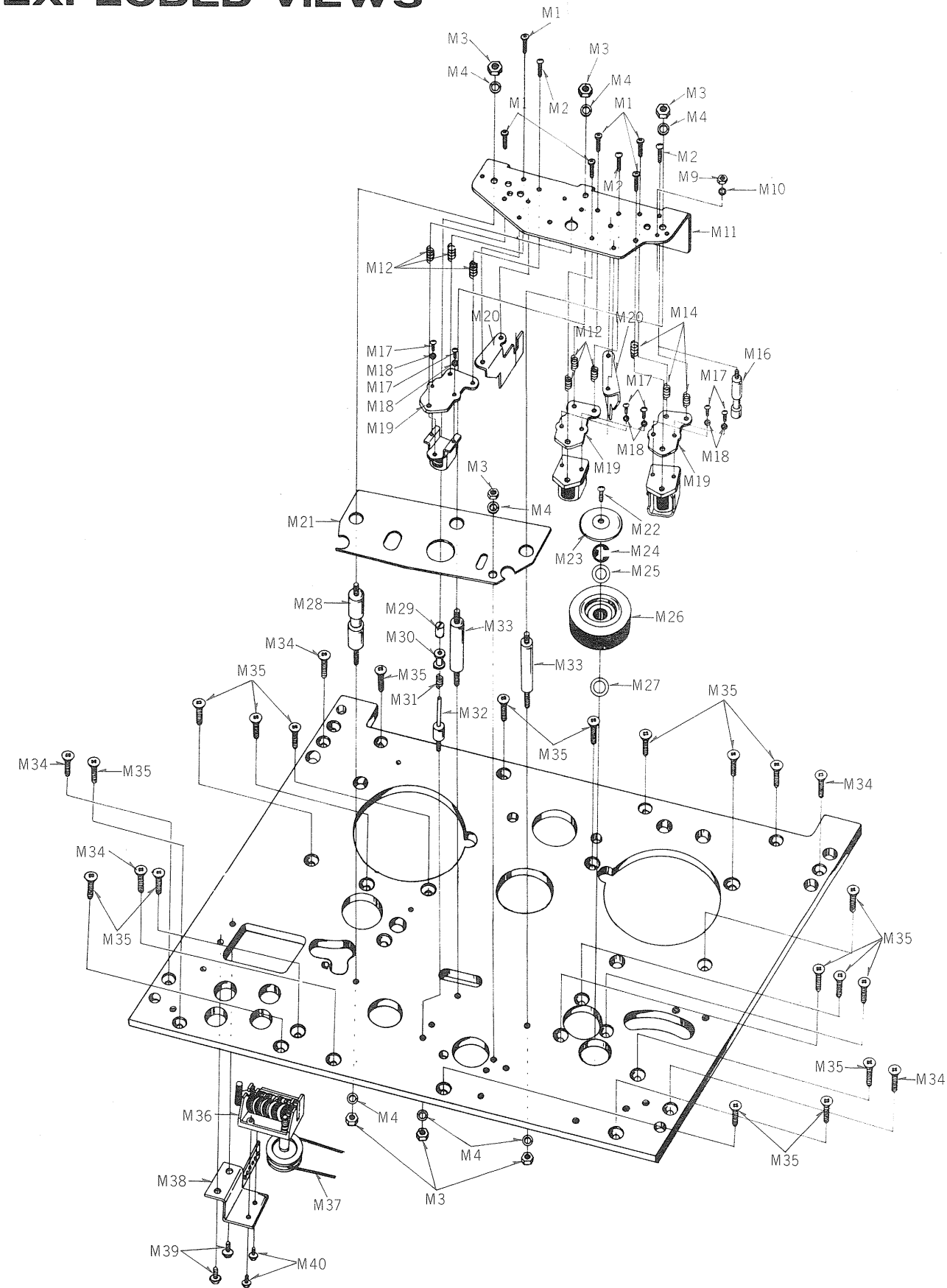
ELECTRICAL PARTS LOCATION

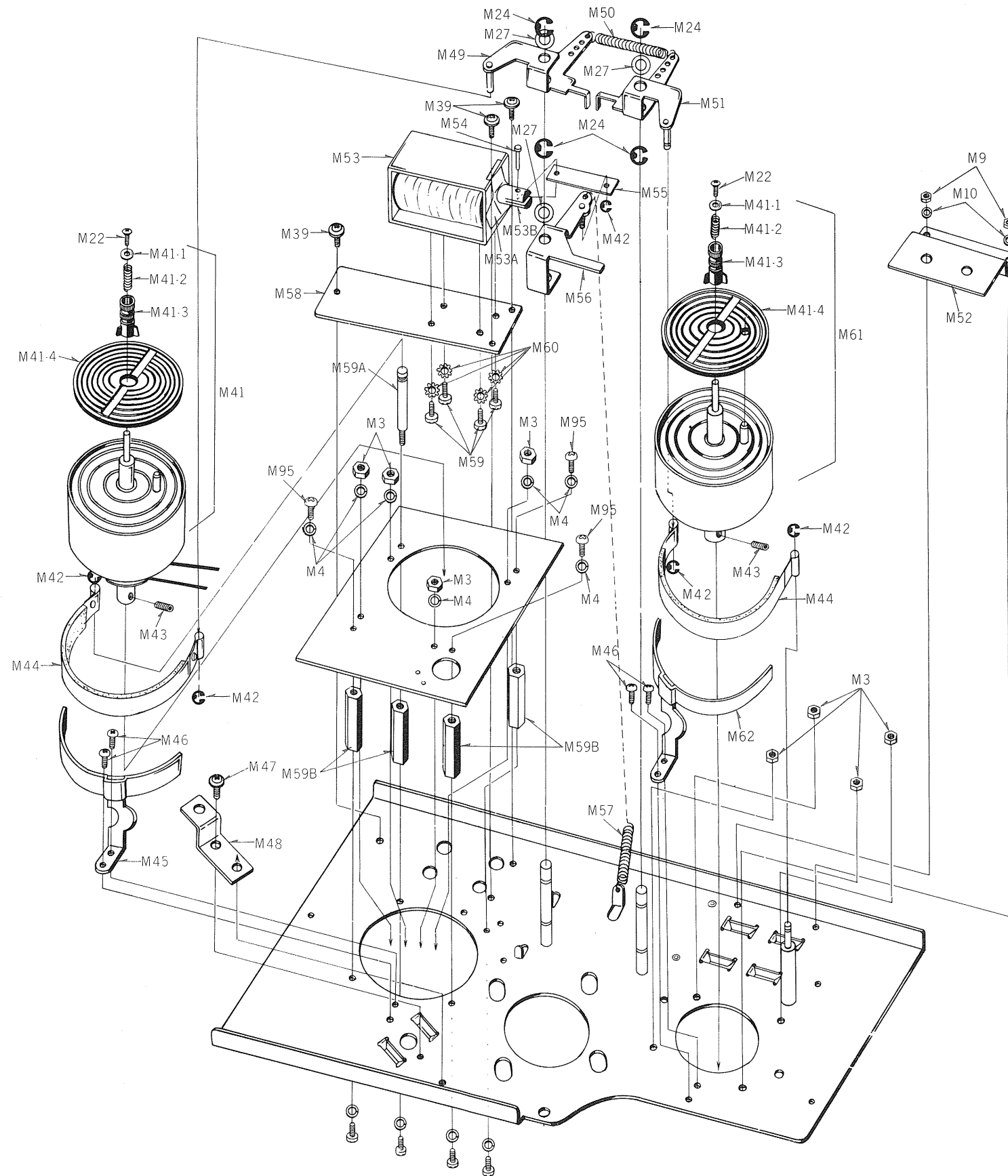


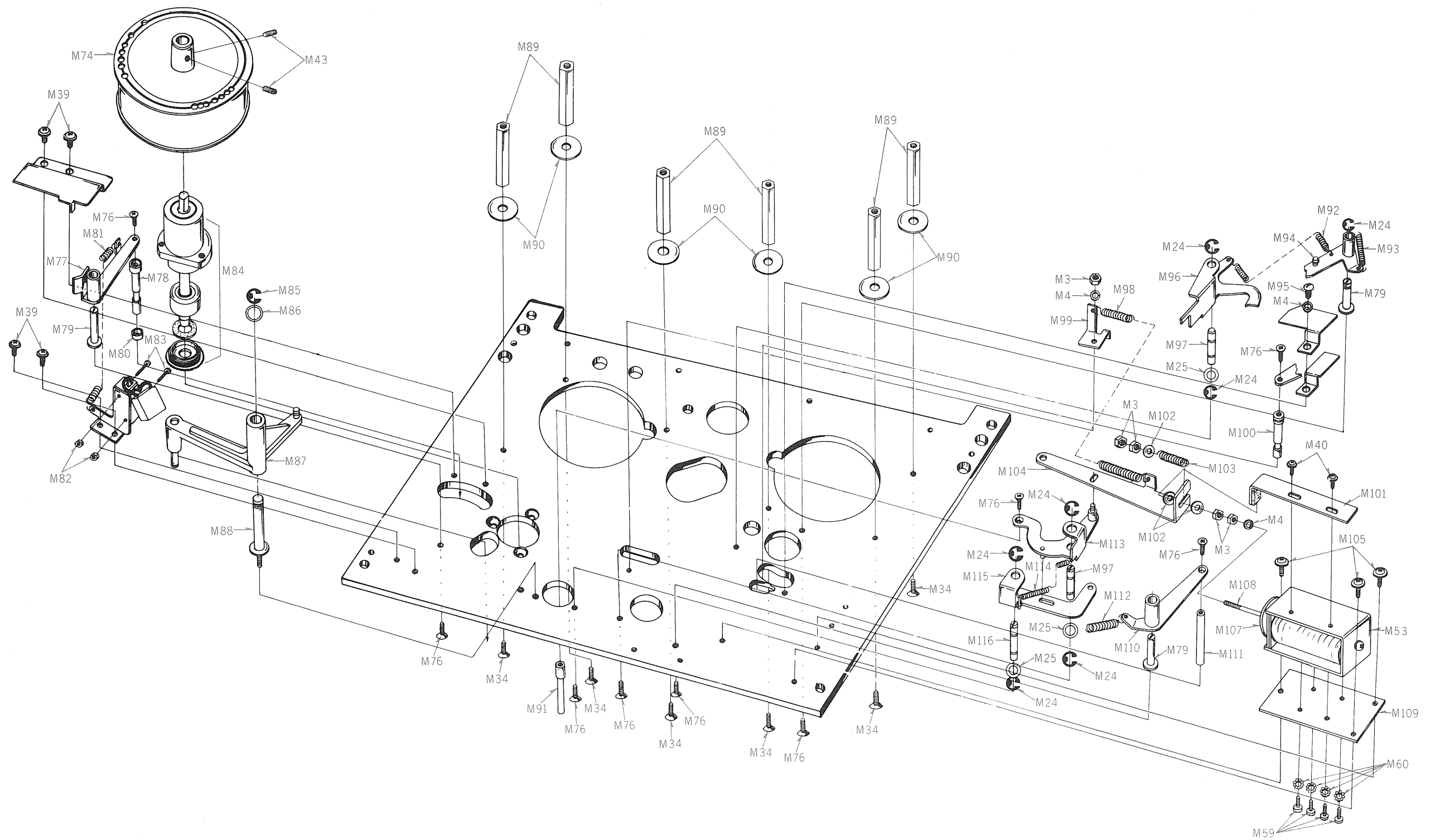
CABINET PARTS

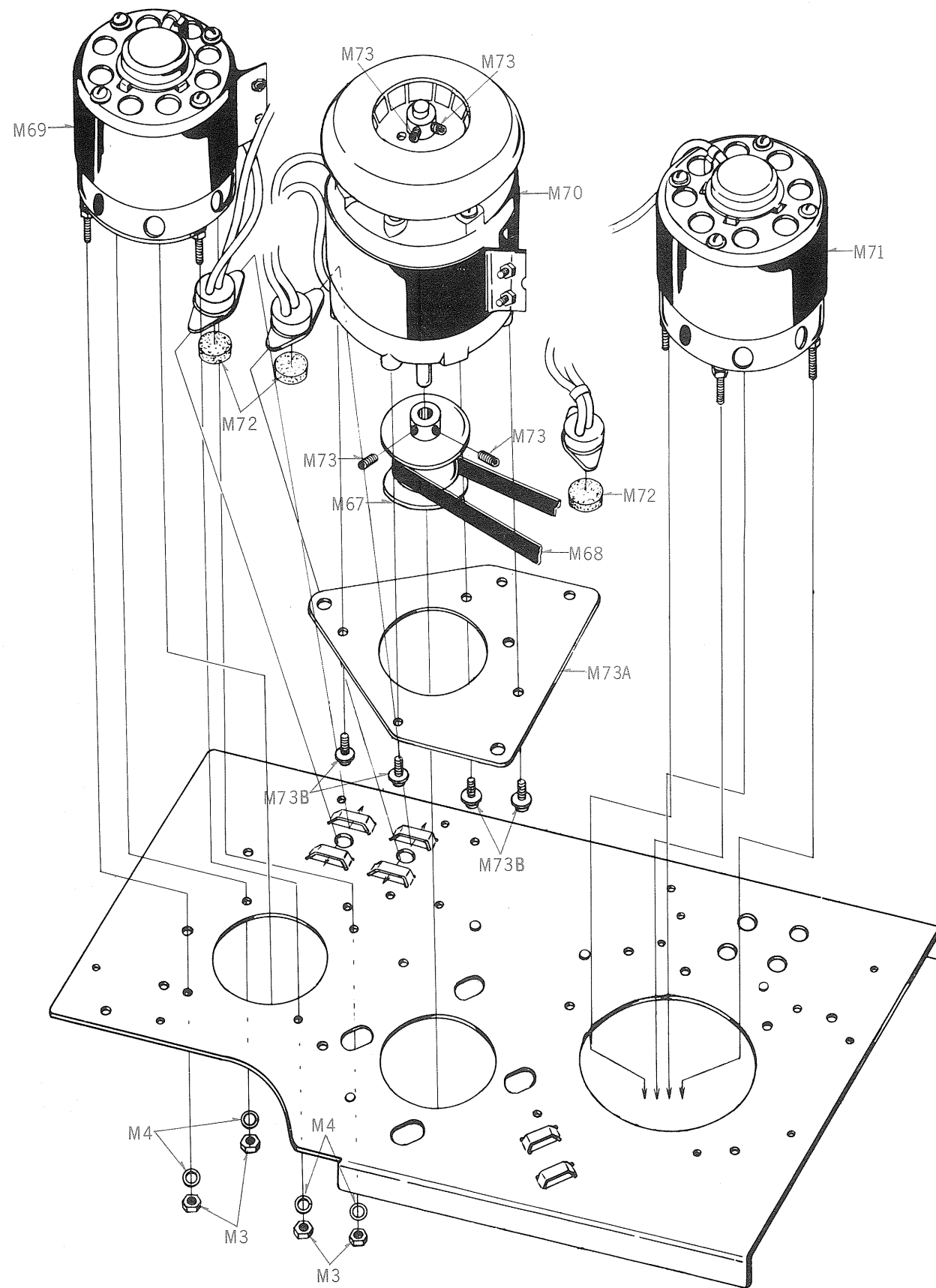


EXPLODED VIEWS

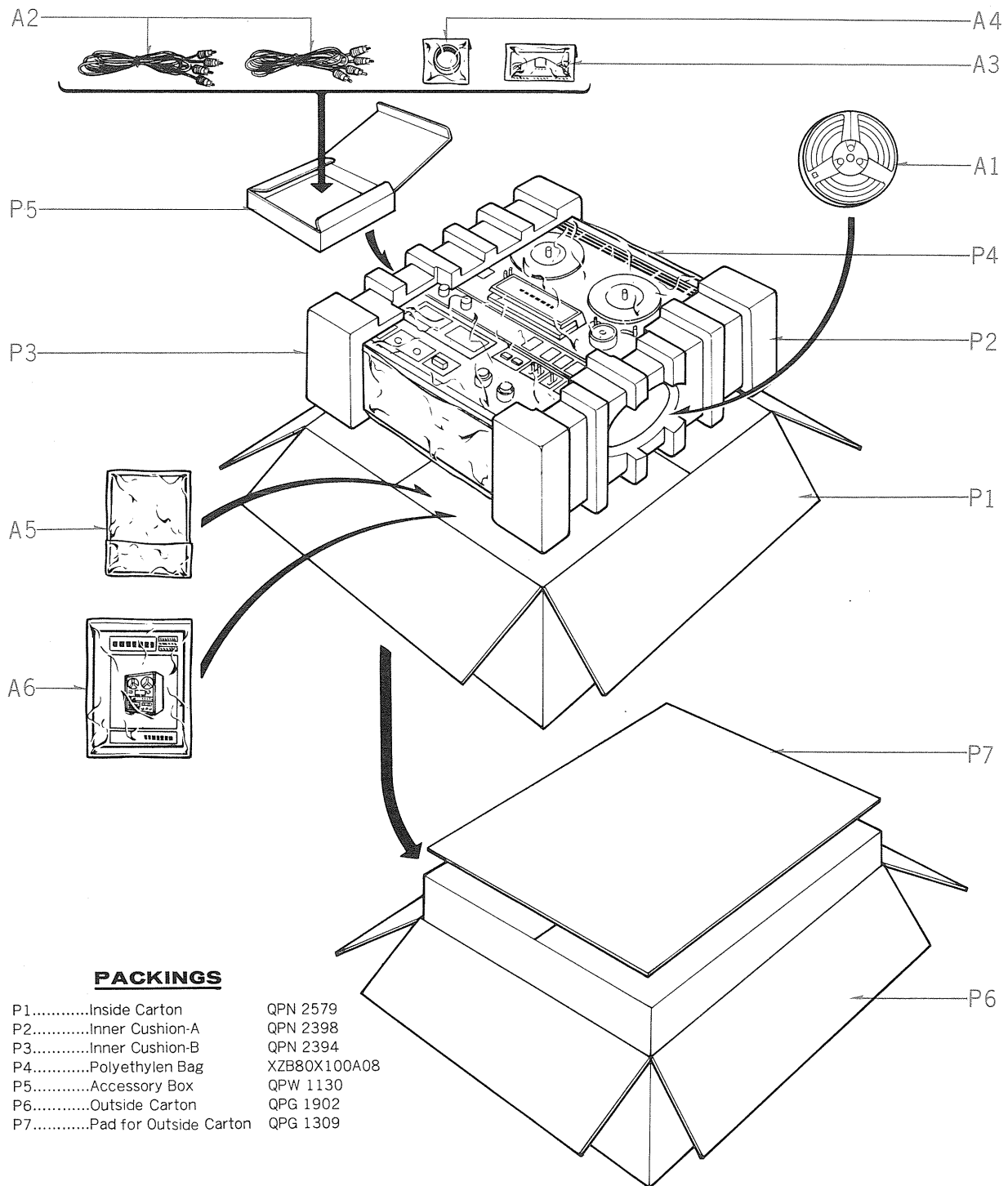








COMPONENT PACKING



PACKINGS

P1.....	Inside Carton	QPN 2579
P2.....	Inner Cushion-A	QPN 2398
P3.....	Inner Cushion-B	QPN 2394
P4.....	Polyethylen Bag	XZB80X100A08
P5.....	Accessory Box	QPW 1130
P6.....	Outside Carton	QPG 1902
P7.....	Pad for Outside Carton	QPG 1309

