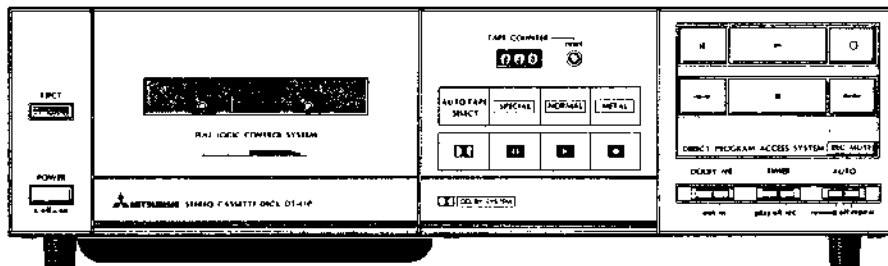


SERVICE MANUAL
STEREO CASSETTE DECK
MODEL DT-41P



15352

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SPECIFICATIONS

Tape4 track, 2 channel Stereo Cassette Deck
Motor type	
Capstan motorDC servo motor
Reel motor .....	.DC motor
Mechanism drive motor .....	.DC motor
Head material	
REC/PB head .....	.Hard permalloy
Erase head .....	.Ferrite
Tape speed .....	.4.75cm/s (1-7/8 ips)
Tape speed accuracy .....	.±1%
Wow and flutter .....	.0.05% Wrms
Fast forward/rewind times .....	.115sec. (C-60 type)
SN ratio (400Hz, 3% THD, Weighted, Metal tape)	
Dolby NR out .....	.58dB (at 5 KHz)
Dolby NR in .....	.68dB (at 5 KHz)
Frequency response (Record level 160 pwb/mm -30dB)	
Normal tape .....	.20-15,000Hz
Special tape .....	.20-17,000Hz
Metal tape .....	.20-18,000Hz
Erasure ratio (1kHz) .....	.60dB (at 1 KHz)
Input sensitivity/impedance	
Line input .....	.150mV (120k ohms)
Bias frequency .....	.85 KHz
Output level	
Line output .....	.440mV (22k ohms load)
Power consumption .....	.16W
Dimensions (W x H x D) .....	.355 x 103 x 230 mm (14 x 4-1/16 x 9-1/16")
Weight .....	.3.9kg (8.6 lbs)

Noise Reduction System manufactured under license from Dolby Laboratories Licensing Corporation.
'Dolby' and the double-D symbol are trademarks of Dolby Laboratories Licensing Corporation.
Specifications of this unit are subject to change without notice for improvement.

DISMANTLING INSTRUCTIONS

1. REMOVAL CASE

- 1) Remove six screws (SCREW-METAL 3 x 8) fixing the case and slide the case backward for removal. (See Fig. 1)

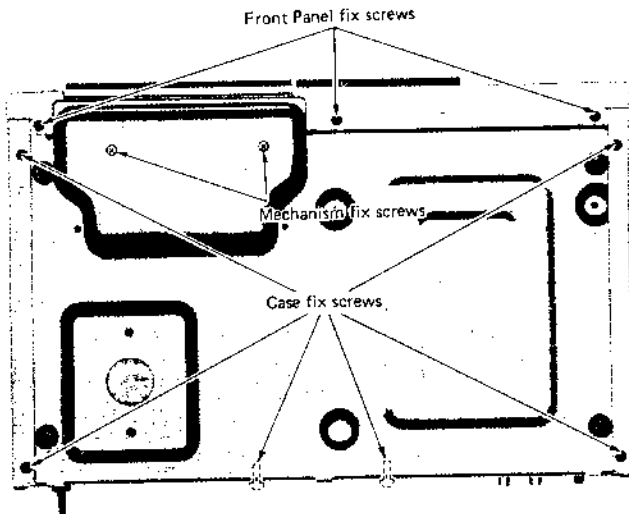


Fig. 1

2. FRONT PANEL REMOVAL

- 1) Remove the case according to the procedure of 1.
- 2) Remove the cassette case.
- 3) Remove front panel fixing screws (two 2-3 x 8 on the top, one 2-3 x 6 on the top and three 2-3 x 6 on the bottom). Front panel can be removed together with the SWITCH PC board. (See Figs. 1 and 2)
- 4) Remove one screw 1-2.6 x 6 fixing the SWITCH PC board. PC board can now be disassembled from the panel.

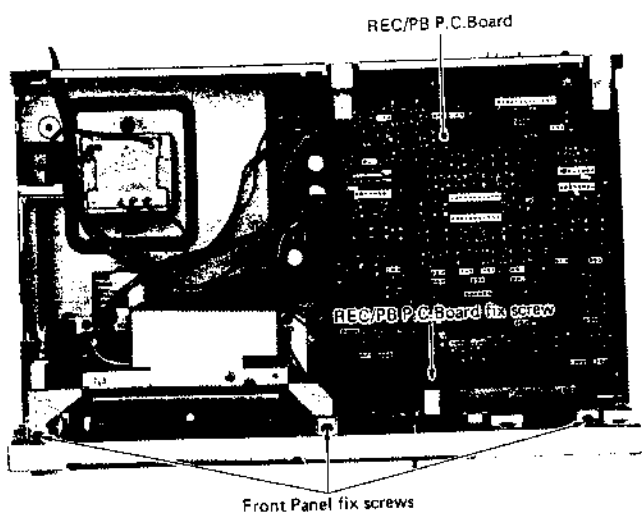


Fig. 2

3. MECHANISM REMOVAL

- 1) Remove the case and front panel according to the procedure of 1 and 2.
- 2) Take off the counter belt from the counter side.
- 3) Remove five screws (2-3 x 6) fixing the mechanism assembly. (See Figs. 3 and 4) (Fig. 1)
- 4) Remove one screw 2-3 x 8 fixing the RECORD PC board. Raise the PC board and disconnect jacks J110, J140, and 510 and jacks J920 and 921 of MECHANISM CONTROL PC board. The mechanism assembly can be removed.

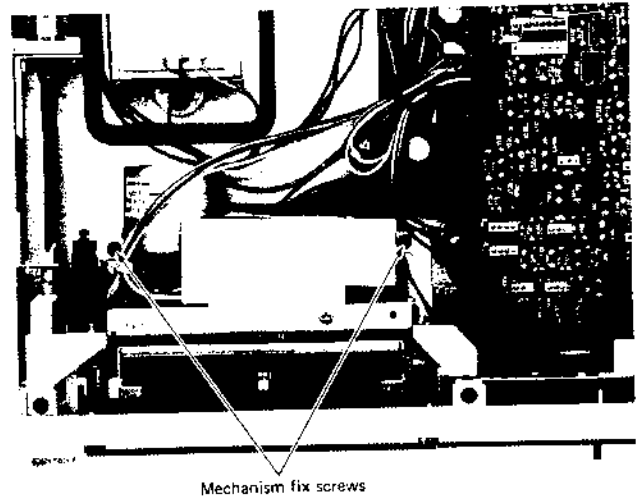


Fig. 3

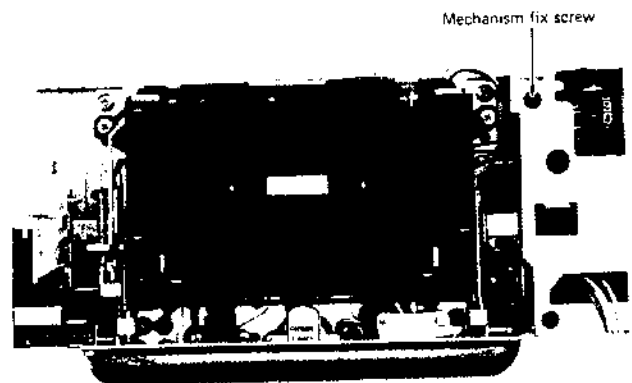


Fig. 4

ADJUSTMENT OF MECHANICAL SECTION

1. ADJUSTING THE TAPE SPEED

- 1) Setting — Connect a frequency counter to the output terminal.
- 2) Test tape — MTT-111 (3 kHz)
- 3) Adjustment procedure — Play back the test tape, and insert a standard screwdriver into the motor adjusting hole and adjust till the frequency counter indicates 3000 Hz.

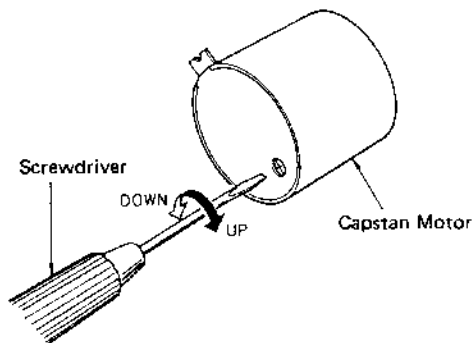


Fig. 5

2. ADJUSTING THE HEAD ANGLE

- 1) Setting Set the PLAY-BACK OUTPUT LEVEL ADJUSTMENT preset control VR102 (L), VR202 (R) to the max. level.
- 2) Test tape MTT-215C (10k/315Hz, -10 dB, NORMAL)
- 3) Location of adjustment Head angle adjusting screw
- 4) Adjustment procedure Play back the test tape and adjust for maximum output on both channels.

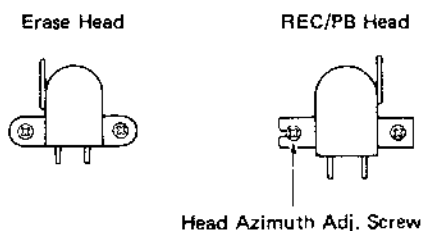
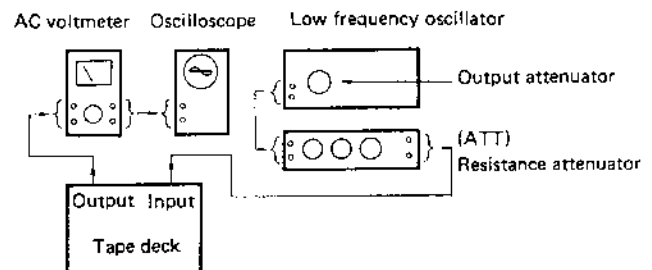


Fig. 6

ADJUSTMENT OF ELECTRICAL SECTION

MEASURING INSTRUMENTS AND TEST TAPES

1. Low-frequency oscillator 20 Hz — 20 kHz
2. Variable resistance attenuator 0 — 90 dB, 0.1 or 0.5 dB step
3. AC voltmeter Measuring range of 20 Hz — 200 kHz or more, input impedance more than 100 kΩ, and -60 dB or more
4. Frequency counter
5. Oscilloscope
6. Test tape
 - MTT-111 (3 kHz)
 - MTT-215C (10K/315 Hz, -10dB, NORMAL)
 - MTT-150 (400Hz dolby level)
 - AC-512 (blank)
7. How to connect the instrument
 - 1) Connect a load resistance 22 kΩ, then the AC voltmeter and oscilloscope to the output terminal of deck.
 - 2) To adjust the recording system, connect the low-frequency oscillator and resistance attenuator to the input terminal of deck.



ADJUSTMENT OF PLAY-BACK SYSTEM

1. ADJUSTING THE PLAY-BACK OUTPUT LEVEL

- 1) Test tape MTT-150 (Dolby level)
- 2) Location of adjustment Preset control VR102 (L), VR202 (R)
- 3) Location of detection (+) side of electrolytic capacitor C129 (L), C229 (R)
- 4) Adjustment procedure Playback the test tape and adjust until the output level on the (+) side of C129 and C229 becomes 580 mV ± 0.25 dB.

2. ADJUSTING THE MPX FILTER

- 1) Setting With the deck kept in the specified recording condition, stop the bias oscillator.

- 2) Location of adjustment FL101 (L), FL201 (R)
- 3) Adjustment procedure Apply a 19kHz signal to the input terminal and adjust FL101 and FL201 for minimum output level.

- 2) Test tape AC-512
- 3) Location of adjustment Preset control VR301 (L), VR401 (R)
- 4) Adjustment procedure Adjust so that the output level for recording and play-back of 400 Hz signal is equal to the level for monitoring.

ADJUSTMENT OF RECORDING SYSTEM

1. ADJUSTING THE BIAS FREQUENCY

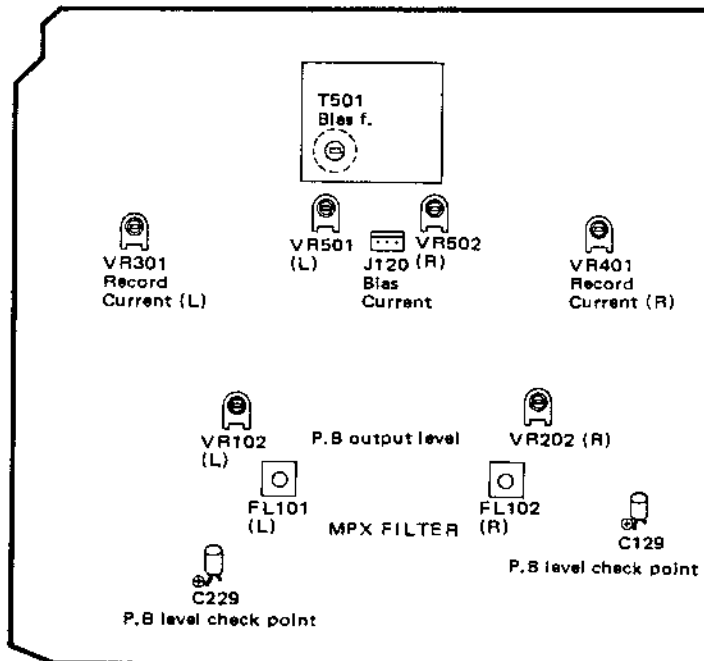
- 1) Setting Connect the frequency counter to pin 1 (L) and pin 3 (R), J120.
- 2) Location of adjustment T501
- 3) Adjustment procedure Adjust until the frequency counter indicates 85 kHz.

3. ADJUSTING THE BIAS CURRENT

- 1) Setting Same as for the adjustment of recording current described in 2.
- 2) Test tape AC512
- 3) Location of adjustment Preset control VR-501 (L), VR502 (R)
- 4) Adjustment procedure Adjust so that the level difference of 8 kHz to 400 Hz is +0.5dB, -0dB when recording and play-back 400 Hz and 8 kHz signals.

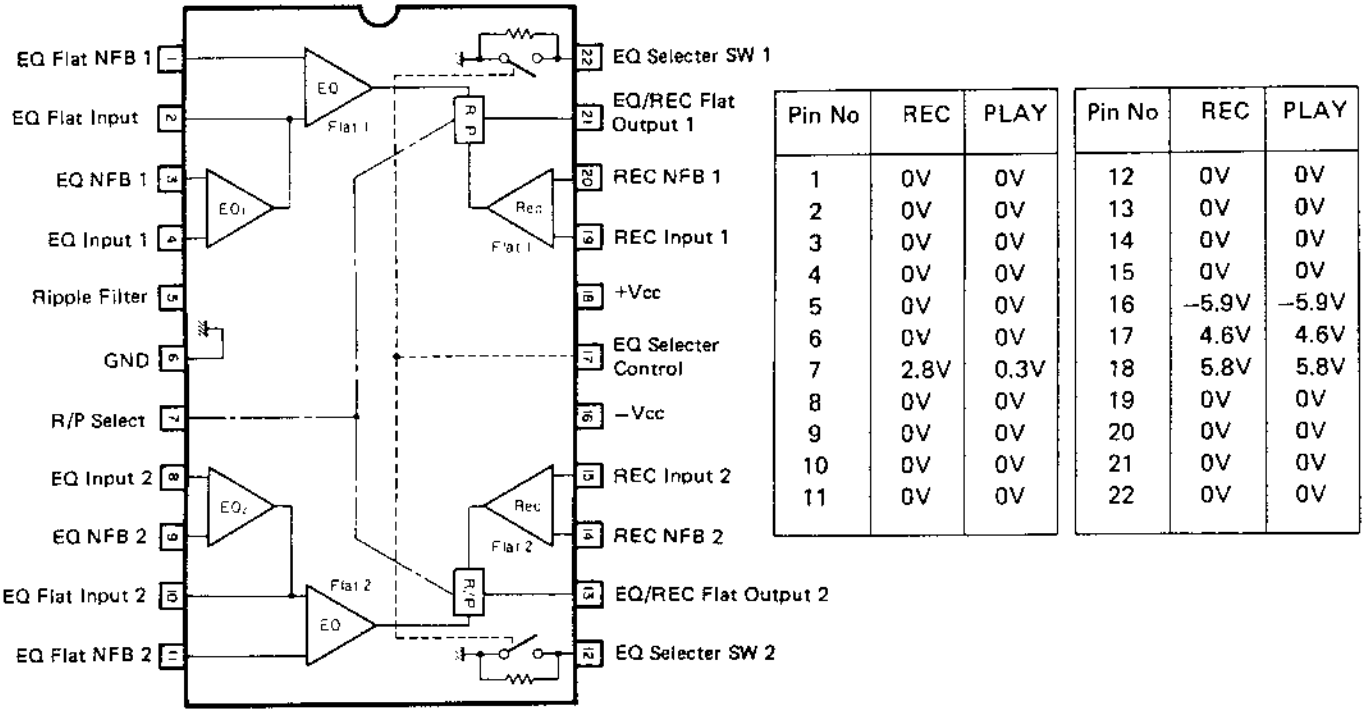
2. ADJUSTING THE RECORDING CURRENT

- 1) Setting With the deck in a recording state, apply a 400 Hz, -10dB signal. Adjust the RECORDING LEVEL CONTROL control until a -7 dB output is obtained at the output terminal. Then lower the input level by 30 dB.

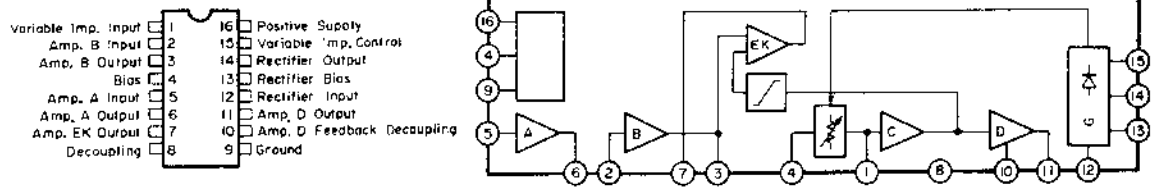


INTERNAL DIAGRAMS AND PINOUT OF INTEGRATED CIRCUITS

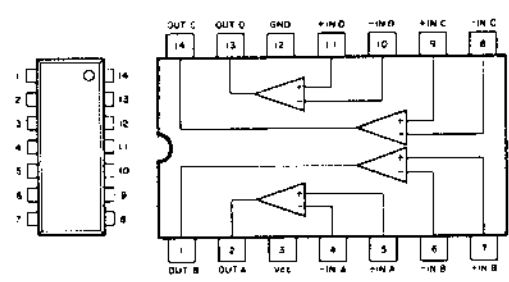
IC101: M51125P



IC102, 202: TA7629P
Dolby B-NR



IC902: MB4204
Comparator



● COMPARATOR



Pin No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14
PLAY	4.1V	4.1V	Vcc	* 3.0V	4.9V	3.0V	4.9V	* 3.0V	4.9V	0.6V	0.6V	GND	5.3V	4.2V
REC	4.1V	4.1V	Vcc	* 3.0V	4.9V	* 3.0V	4.9V	* 3.0V	4.9V	0.6V	0.6V	-	5.3V	4.2V
FF	4.1V	4.1V	Vcc	* 3.0V	4.9V	* 3.0V	4.9V	* 3.0V	4.9V	0.5V	0.5V	-	4.5V	4.2V
REW	4.1V	4.1V	9.4V Vcc	* 3.0V	4.9V	* 3.0V	4.9V	* 3.0V	4.9V	0.5V	0.5V	-	4.3V	4.2V
STOP	4.1V	4.1V	10.4V Vcc	* 3.0V	4.9V	3.0V	4.9V	3.0V	4.9V	0 V	0 V	-	5.5V	4.2V
PAUSE	4.1V	4.1V	10.2V Vcc	* 3.0V	4.9V	* 3.0V	4.9V	* 3.0V	4.9V	0 V	0 V	-	5.5V	4.2V
FWD	3.4V	4.1V	9.3V Vcc	* 3.0V	4.9V	* 3.0V	4.0V	* 3.0V	4.9V	0.5V	0.5V	-	4.5V	4.2V
REV	4.1V	4.1V	9.3V Vcc	* 3.0V	4.9V	* 3.0V	4.9V	* 3.0V	4.9V	0.5V	0.5V	-	4.4V	4.2V

● Vcc... 8.6V

IC901:MB884-584K MICROPROCESSOR (MECHANISM CONTROL)

TERMINAL DESCRIPTION OF MECHANISM CONTROL IC

Pin No.	Pin nomenclature			Function
1	Xtal	—	IN	<ul style="list-style-type: none"> • Clock (3MHz) • 1/2 branched inside to be used as a basic clock (instruction execution time 4MS/STEP)
2	Xtal	—	OUT	
3	$\overline{\text{RESET}}$	$\overline{\text{RESET}}$	IN	<ul style="list-style-type: none"> • Internal initialized with "L" to allow program execution start from an address "0".
4	IRO	TAPE END S. IN.	IN	<ul style="list-style-type: none"> • Interruption handling with "L" to count the number of pulses. • With the interruption handling unexecuted for the second, the end stop function is actuated (in the TAPE RUN mode).
5	SO	BLANK	OUT	Blank
6	SI	BLANK	IN	Blank
7	$\overline{\text{SC/T0}}$	BLANK	IN, OUT	Blank
8	TC	BLANK	IN	Blank
9	P ₀	DA ₀	OUT	<ul style="list-style-type: none"> • D/A control output to produce comparison voltage for key interruption • Output in BCD code. One cycle completed in "F" → "D" → "8" → "9" → "7" → "5" → "3" → "1"
10	P ₁	DA ₁	OUT	
11	P ₂	DA ₂	OUT	
12	P ₃	DA ₃	OUT	
13	O ₀	MPSS Z ₀	OUT	
14	O ₁	MPSS Z ₁	OUT	<ul style="list-style-type: none"> • MPSS set number of skip selection programs/operation display. • Output in BCD code: codes "0" – "8" and "F" used.
15	O ₂	MPSS Z ₂	OUT	
16	O ₃	MPSS Z ₃	OUT	
17	O ₄	$\overline{\text{HEAD CONT.}}$	OUT	<ul style="list-style-type: none"> • Output signal for REC OUT (R_S Z_{pin}) and R/P change-over. • "L" in REC.
18	O ₅	$\overline{\text{BIAS OSC CONT.}}$	OUT	<ul style="list-style-type: none"> • Output signal for ON/OFF of bias oscillation circuit. • "L" in REC PLAN, REC/PLAY/ASPS.
19	O ₆	REC MUTE.	OUT	<ul style="list-style-type: none"> • Output signal for REC MUTE • "H" in MUTE;
20	O ₇	PLAY BACK MUTE	OUT	<ul style="list-style-type: none"> • Output signal for PLAY BACK MUTE (LINE MUTE) • "H" in MUTE.
21	V _{SS}	GND	—	<ul style="list-style-type: none"> • Ground of power supply.

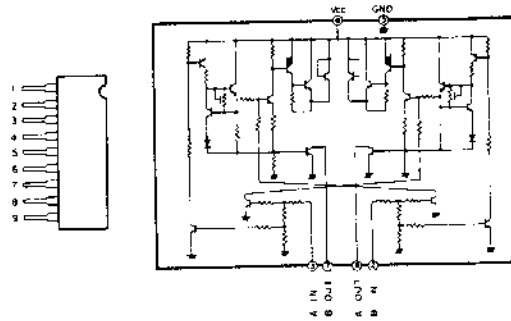
22	R ₀	CAM M. OUT 1	OUT	<ul style="list-style-type: none"> • Cam motor control output signal. • R₀ = "L" and R₁ = "H" output at early stage of power supply application for positioning of stop.
23	R ₁	CAM M. OUT 1	OUT	
24	R ₂	REEL M. OUT 0	OUT	<ul style="list-style-type: none"> • Reel motor control output signal. • R₂ = "L", R₃ = "H" output during play.
25	R ₃	REEL M. OUT 2	OUT	
26	R ₄	PLAY OUT	OUT	<ul style="list-style-type: none"> • Output signal (for display) turning into "L" at PLAY.
27	R ₅	REC OUT	OUT	<ul style="list-style-type: none"> • Output signal (for display) turning into "L" at REC. • Used, together with HEAD CONT (O4 17p/n), for R/P change-over.
28	R ₆	PAUSE OUT	OUT	<ul style="list-style-type: none"> • Output signal (for display) turning into "L" at PAUSE.
29	R ₇	ASPS OUT	OUT	<ul style="list-style-type: none"> • Output signal (for display) turning into "L" at ASPS.
30	R ₈	SHORT R. OUT	OUT	<ul style="list-style-type: none"> • Control output signal turning into "L" during SHORT REPEAT function. • AMP gain change-over signal for MPSS (MSS).
31	R ₉	VOLT OUT	OUT	<ul style="list-style-type: none"> • Reel motor voltage control output signal. • "L" at FF/REC, FWD/REV for change-over to high voltage.
32	R ₁₀	CAPS M. OUT	OUT	<ul style="list-style-type: none"> • Capstan motor control output signal. • "L" at PLAY or PAUSE for motor running.
33	R ₁₁	MPSS OUT	OUT	<ul style="list-style-type: none"> • Output signal turning into "L" at program selection of MPSS (MSS).
34	R ₁₂	MPSS IN	IN	<ul style="list-style-type: none"> • "H" (between programs) and "L" (within program) are input for control of heading.
35	R ₁₃	MEMORY IN	IN	<ul style="list-style-type: none"> • Memory function goes ON with . • ON with  only for MEMORY SHORT REPEAT.
36	R ₁₄	ANTI REC IN	IN	<ul style="list-style-type: none"> • Recording preventive input signal. • "L" input to prevent recording.
37	R ₁₅	PLAY POS.	IN	<ul style="list-style-type: none"> • Head base PLAY position input signal. • "L" input only at PLAY position.
38	K ₀	K ₀ IN	IN	<ul style="list-style-type: none"> • Signal input terminal of switches, STOP, PLAY, FWD, and TIMER REC/PLAY. • ON/OFF judged with code value of DA₀ - DA₃
39	K ₁	K ₁ IN	IN	<ul style="list-style-type: none"> • Signal input terminal of switches, REC, FF, REW, MPSS RESET, MPSS SET, and SPEED TEST. • ON/OFF judgement with code value of DA₀ - DA₃
40	K ₂	K ₂ IN	IN	<ul style="list-style-type: none"> • Signal input terminal of switches, PAUSE, REW, ASPS, and AUTO REPEAT/REW/PLAY. • ON/OFF judgement with code value DA₀ - DA₃
41	K ₃	O. POS.	IN	<ul style="list-style-type: none"> • Position input signal, which is "L" at each position (STOP, FF/REW, PASE, PLAY) of head base.
42	V _{cc}	= 5V		<ul style="list-style-type: none"> • ± 5V power supply

Next Mode	1 Input STOP	1 Input FF	1 Input REW	1 Input PLAY	1 Input PAUSE	2 Input REC/ PAUSE	2 Input REC/ PLAY	3 Input REC/ PLAY/ ASPS	1 Input REC/	1 Input ASRS	1 Input (MPSS) (MSS) REV	1 Input (MPSS) (MSS) FWD	Note ²⁾ (MPSS) (MSS) PLAY
STOP	→	FF (1)	REW (2)	PLAY (3)	PAUSE (4)	REC/ PAUSE/ (5)	REC/ PLAY/ (6)	REC/ PLAY/ ASPS/ (7)	→	→	REV (8)	FWD (9)	X
FF	STOP (10)	→	REW (11)	PLAY (12)	→	→	REC/ PLAY/ (13)	REC/ PLAY/ ASPS/ (14)	→	→	REV (15)	FWD (16)	X
REW	STOP (17)	FF (18)	→	PLAY (19)	→	→	REC/ PLAY/ (20)	REC/ PLAY/ ASPS/ (21)	→	→	REV (22)	FWD (23)	X
PLAY (MPSS) (MSS)	▲ STOP (24)	FF (25)	REW (26)	→	▲ PAUSE (27)	▲ REC/ PAUSE/ (28)	REC/ PLAY/ (29)	REC/ PLAY/ ASPS/ (30)	→	→	REV (31)	FWD (32)	X
PAUSE	STOP (33)	FF (34)	REW (35)	PLAY (36)	→	REC/ PAUSE/ (37)	REC/ PLAY/ (38)	REC/ PLAY/ ASPS/ (39)	→	→	Note 1) REV (40)	Note 1) FWD (41)	X
REC/ PAUSE	STOP (42)	FF (43)	REW (44)	REC/ PLAY/ (45)	→	→	REC/ PLAY/ (45)	REC/ PLAY/ ASPS/ (46)	→	→	REV (47)	FWD (48)	X
REC/ PLAY	▲ STOP (49)	FF (50)	REW (51)	→	▲ REC/ PAUSE/ (52)	▲ REC/ PAUSE/ (52)	→	REC/ PLAY/ ASPS/ (53)	→	REC/ PLAY/ ASPS/ (93)	REC (54)	FWD (55)	X
REC/ PLAY/ ASPS	▲ STOP (56)	FF (57)	REW (58)	REC/ PLAY/ (59)	▲ REC/ PAUSE/ (60)	▲ REC/ PAUSE/ (60)	REC/ PLAY/ (59)	→	→	→	REV (61)	FWD (62)	X
(MPSS) (MSS) REV	STOP (63)	FF (64)	REW (65)	PLAY (66)	PAUSE (67)	→	REC/ PLAY/ (68)	REC/ PLAY/ ASPS/ (69)	→	→	→	(70)	*(MPSS) (MSS) PLAY (66)
(MPSS) (MSS)	STOP (72)	FF (73)	REW (74)	PLAY (76)	PAUSE (76)	→	REC/ PLAY/ (77)	REC/ PLAY/ ASPS/ (78)	→	→	REC (78)	→	*(MPSS) (MSS) PLAY (75)

- ▲ - Rewinding
- * - Function via stop
- → - Indicates continuation of current mode
- X - No combination

Note 1) When PAUSE → REV → FWD is effectuated, PAUSE state is obtained in the order of a selected program and a next program.
 Note 2) This state is a short repeat (repetition of one program) function set only within the mechanical control.

IC903, 904: BA6208
 Reel Motor
 Cam Motor Drive



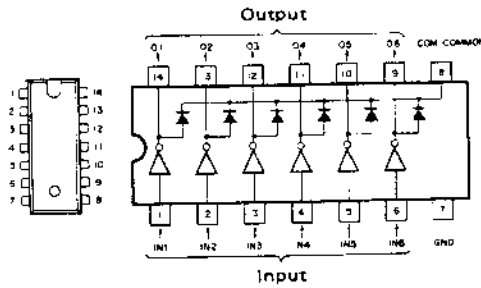
● DRIVE VOLTAGE (REEL MOTOR)

Mode \ Pin No.	1	2	3	4	5	6	7	8	9
STOP	10.5V	2.8V	2.8V	0V	0V	5.7V	0V	0V	0V
PLAY	8.8V	3.1V	0V	0V	0.7V	5.6V	4.6V	0.9V	0V
FF	9.3V	3.1V	0V	0V	0.5V	8.4V	7.5V	0.6V	0V
REW	9.4V	0V	3.0V	0V	0.5V	8.4V	0.6V	7.5V	0V

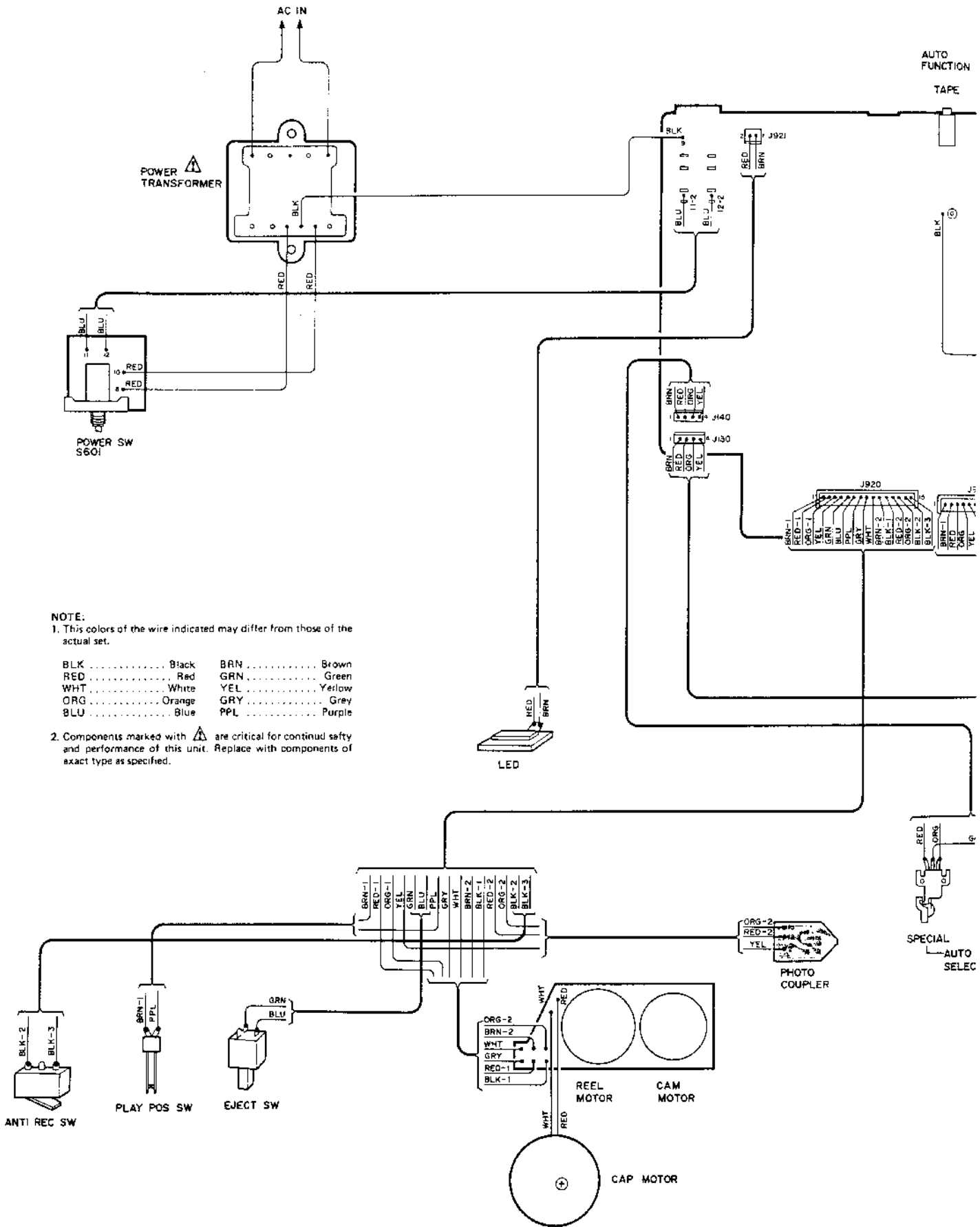
● TRUTH TABLE

A IN	B IN	B OUT	A OUT	Motor
1	1	L	L	Short
1	0	H	L	+
0	2	L	H	-
0	0	-	-	Open

IC905: M54527P
 Interface




WIRING DIAGRAM



NOTE:

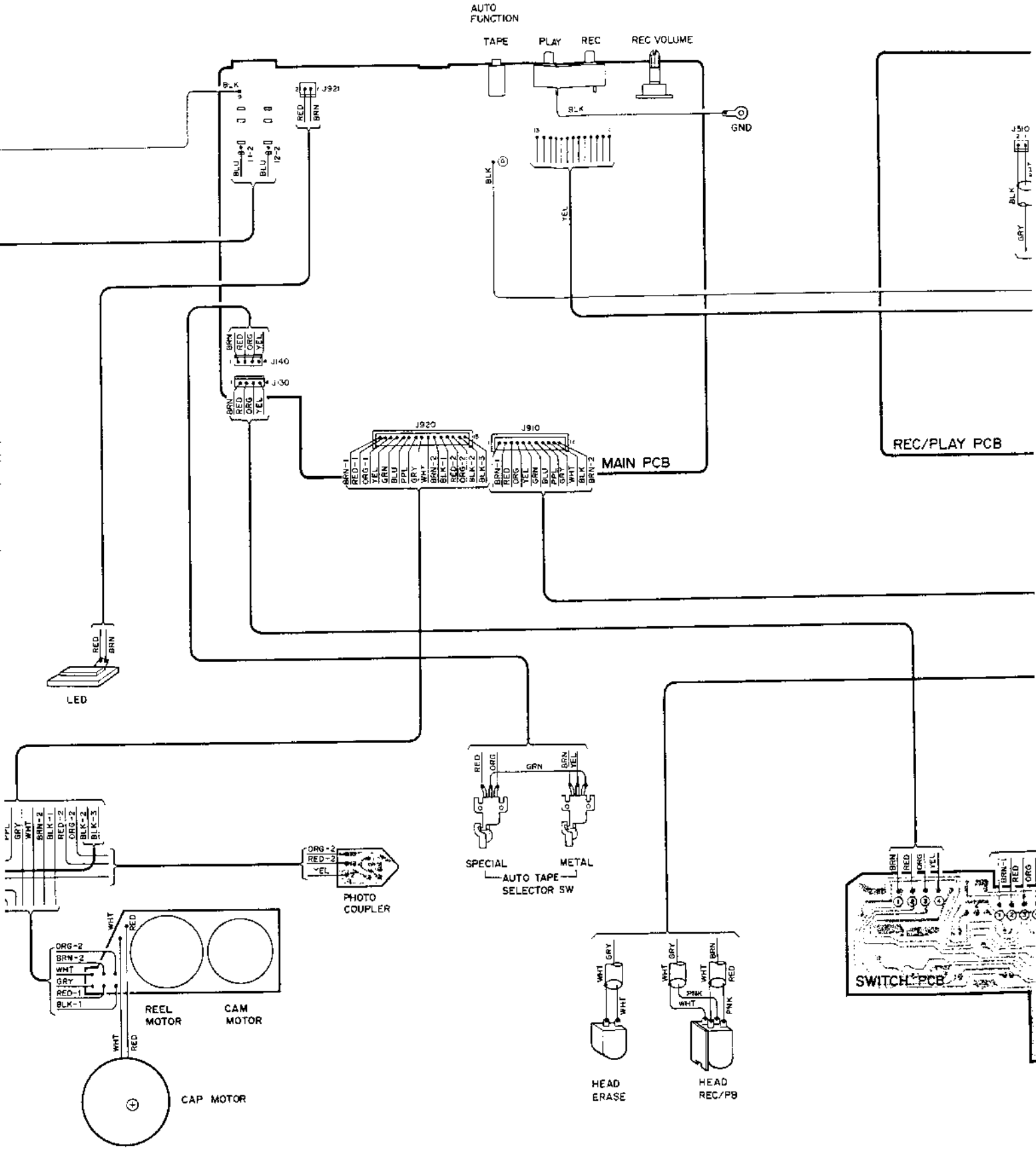
1. This colors of the wire indicated may differ from those of the actual set.

BLK	..... Black	BRN	..... Brown
RED	..... Red	GRN	..... Green
WHT	..... White	YEL	..... Yellow
ORG	..... Orange	GRY	..... Grey
BLU	..... Blue	PPL	..... Purple

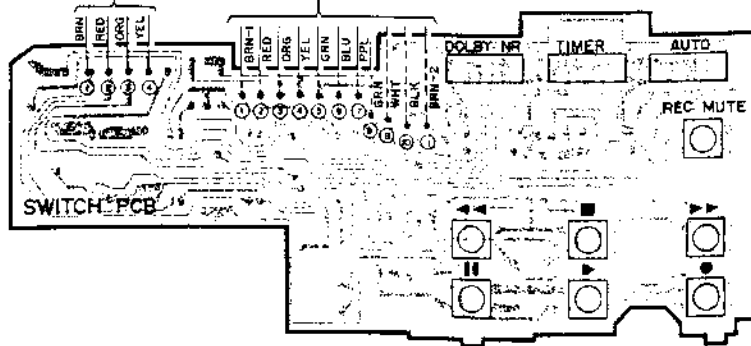
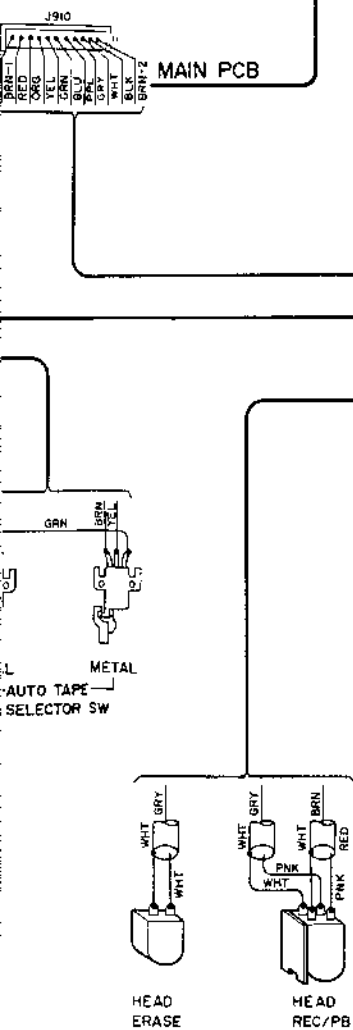
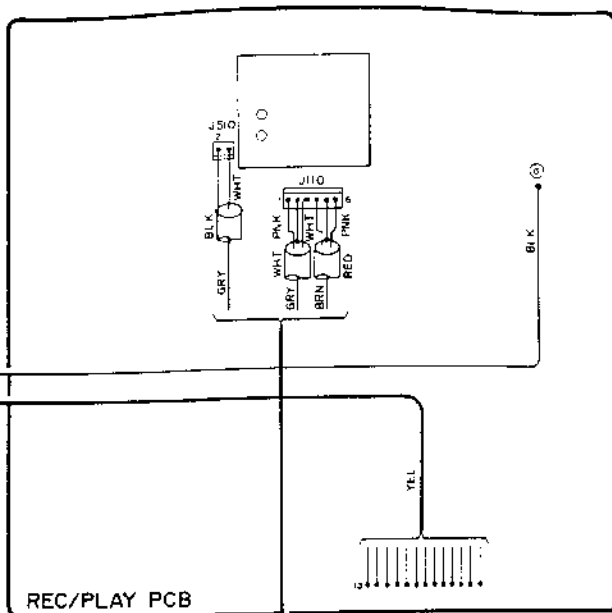
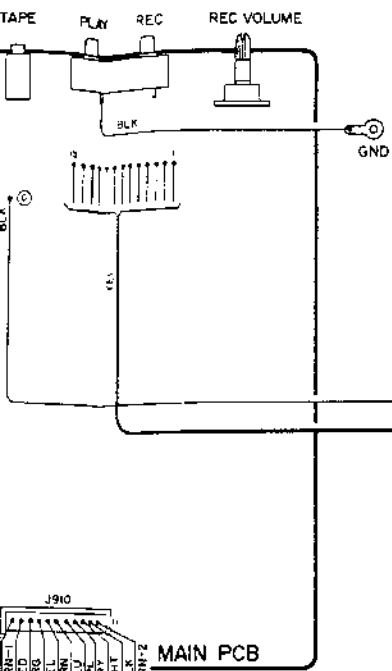
2. Components marked with  are critical for continued safety and performance of this unit. Replace with components of exact type as specified.

DT-41P

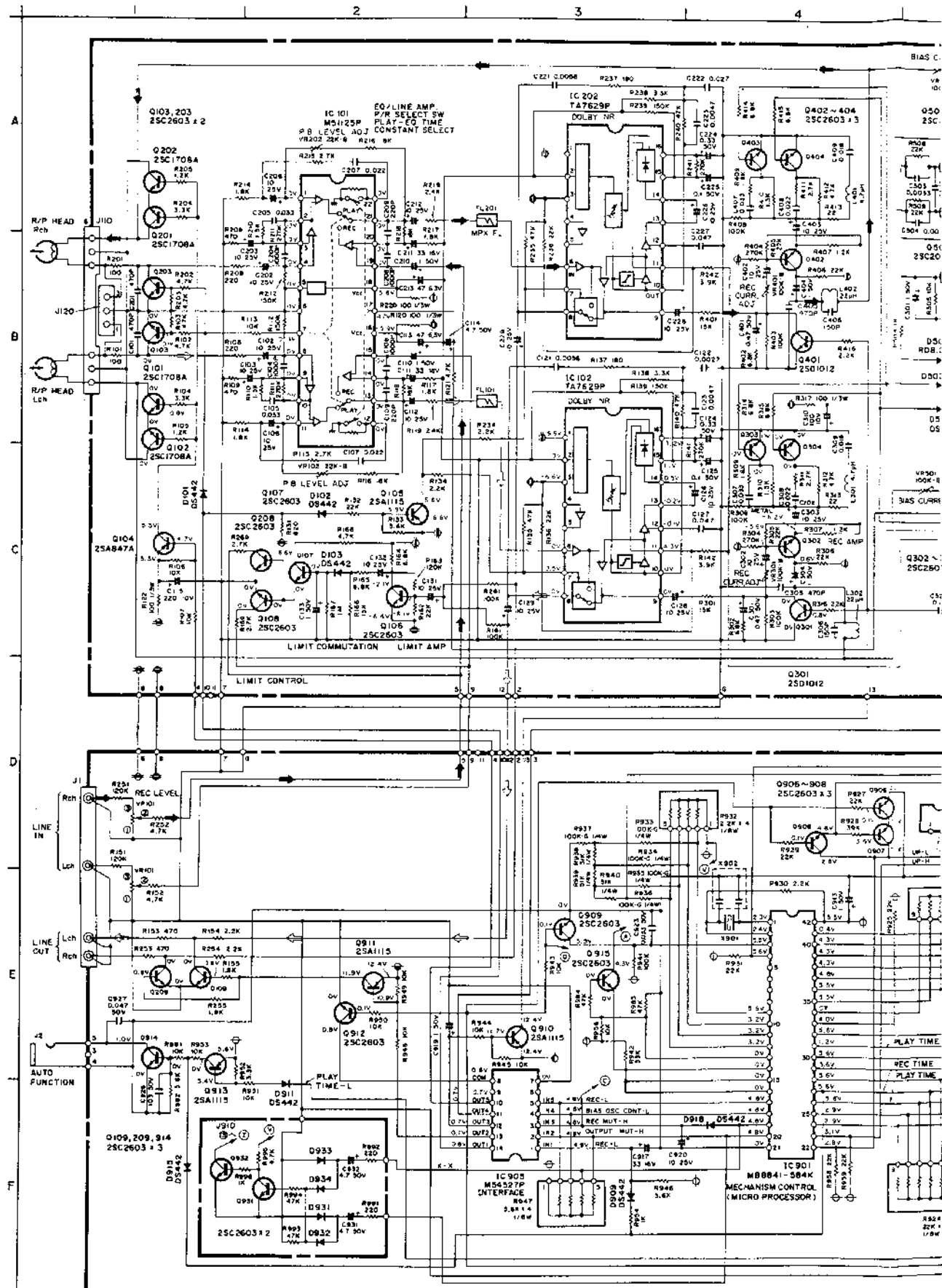
DT-41P

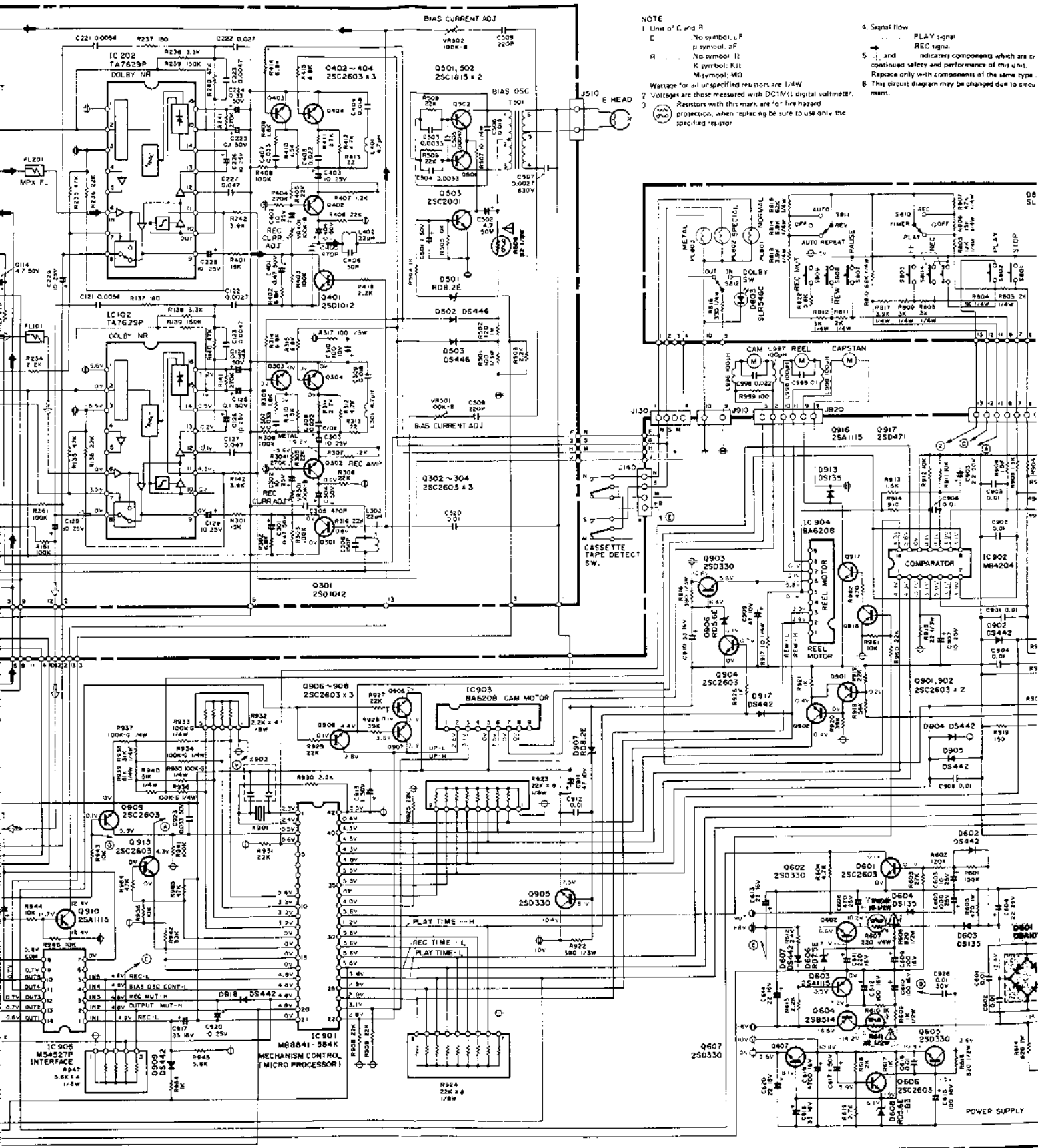


TO
FUNCTION



SCHEMATIC DIAGRAM





NOTE

- Unit of C and R
- No symbol, L
p symbol, pF
No symbol, H
K symbol, KΩ
M symbol, MΩ
- Wattage for all unspecified resistors are 1/4W
Voltage are those measured with DCM11 digital voltmeter.
Resistors with this mark are for fire hazard protection, when replacing be sure to use only the specified resistor
- Signal flow
- PLAY signal
REC signal
- Indicates components which are for continued safety and performance of this unit.
Replace with components of the same type.
The circuit diagram may be changed due to circuit mant.

5

6

7

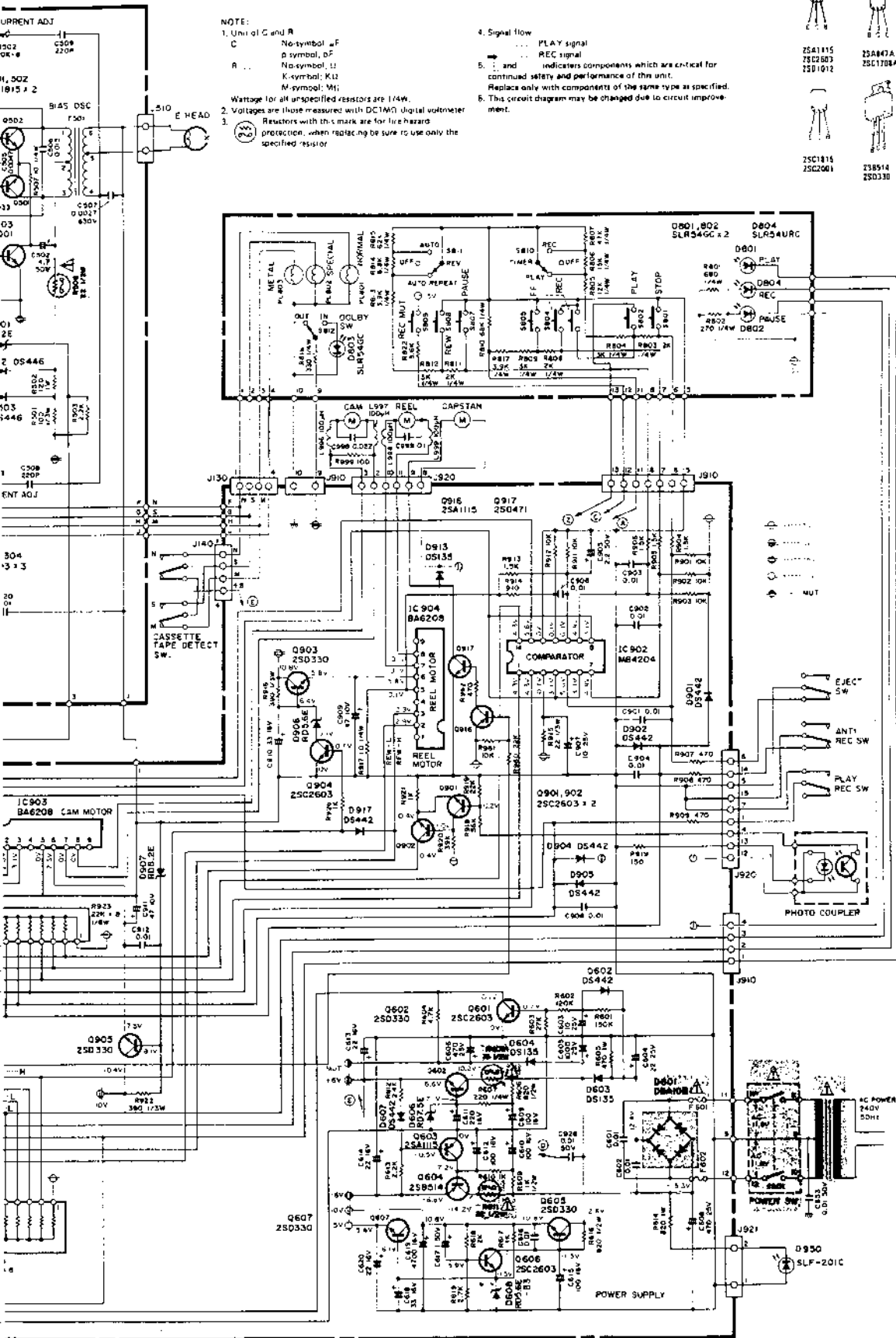
8

NOTE:

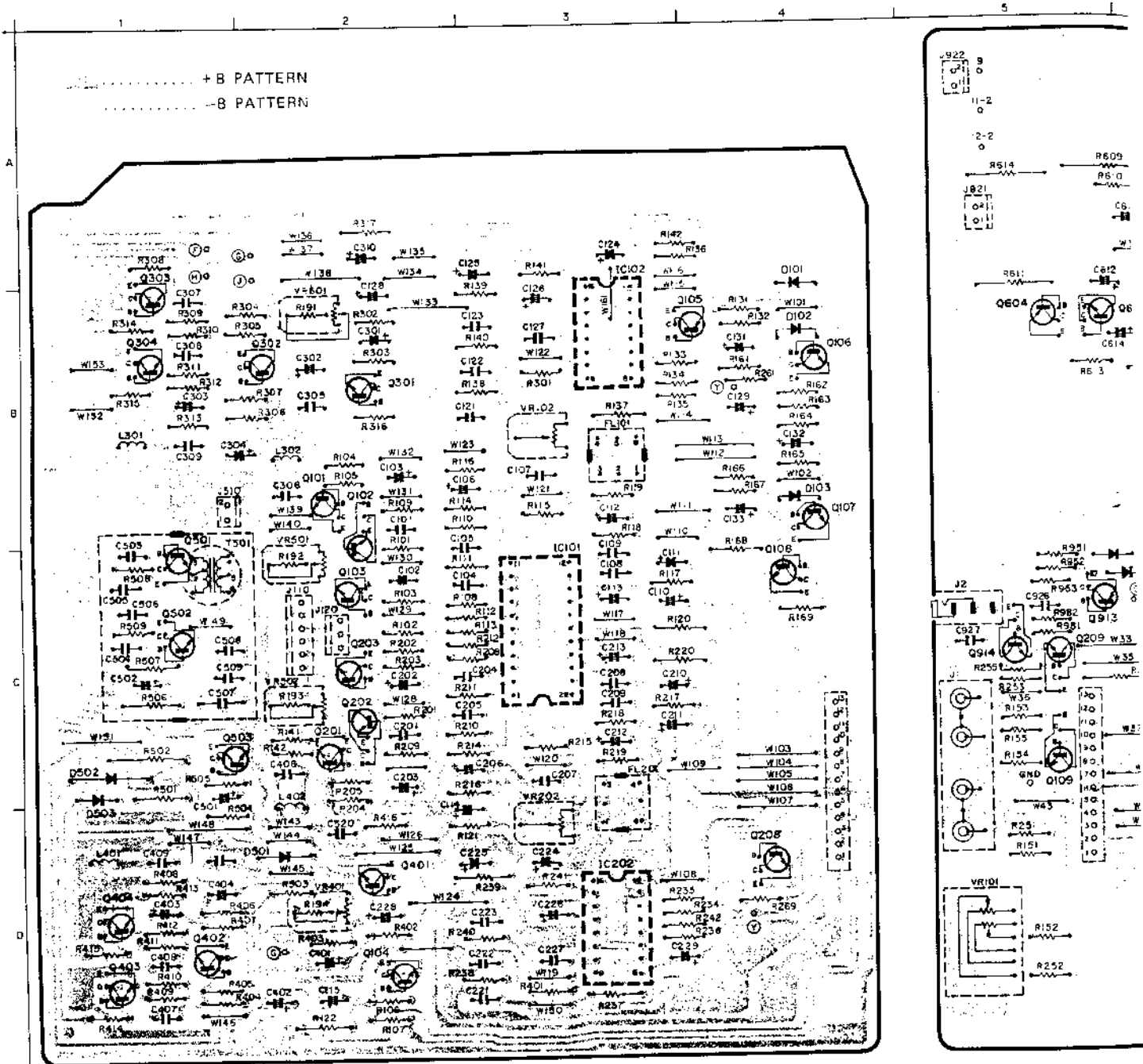
1. Unit of C and R
C No-symbol, μ F
R No-symbol, Ω
K No-symbol, K
K No-symbol, K
M No-symbol, M
2. Wattage for all unspecified resistors are 1/4W.
3. Voltages are those measured with DC100 digital voltmeter.
4. Resistors with this mark are for fire hazard protection, when replacing be sure to use only the specified resistor.

4. Signal flow

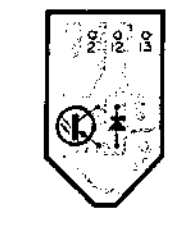
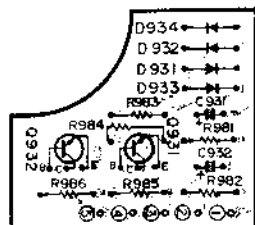
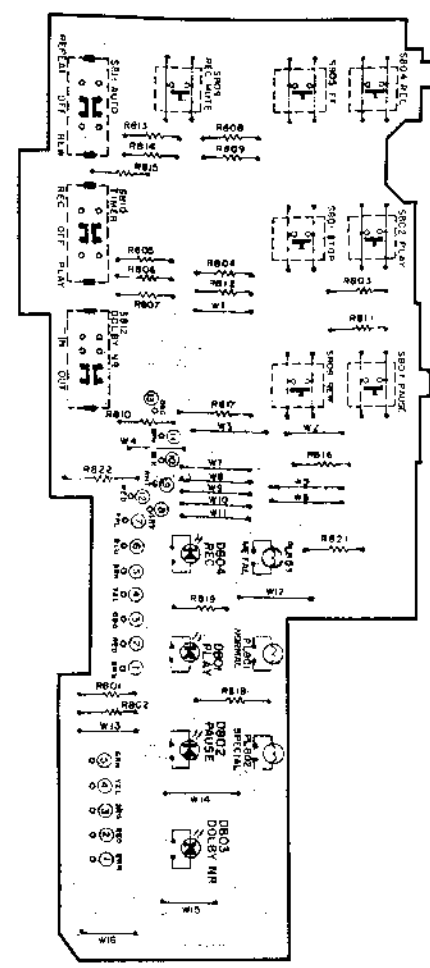
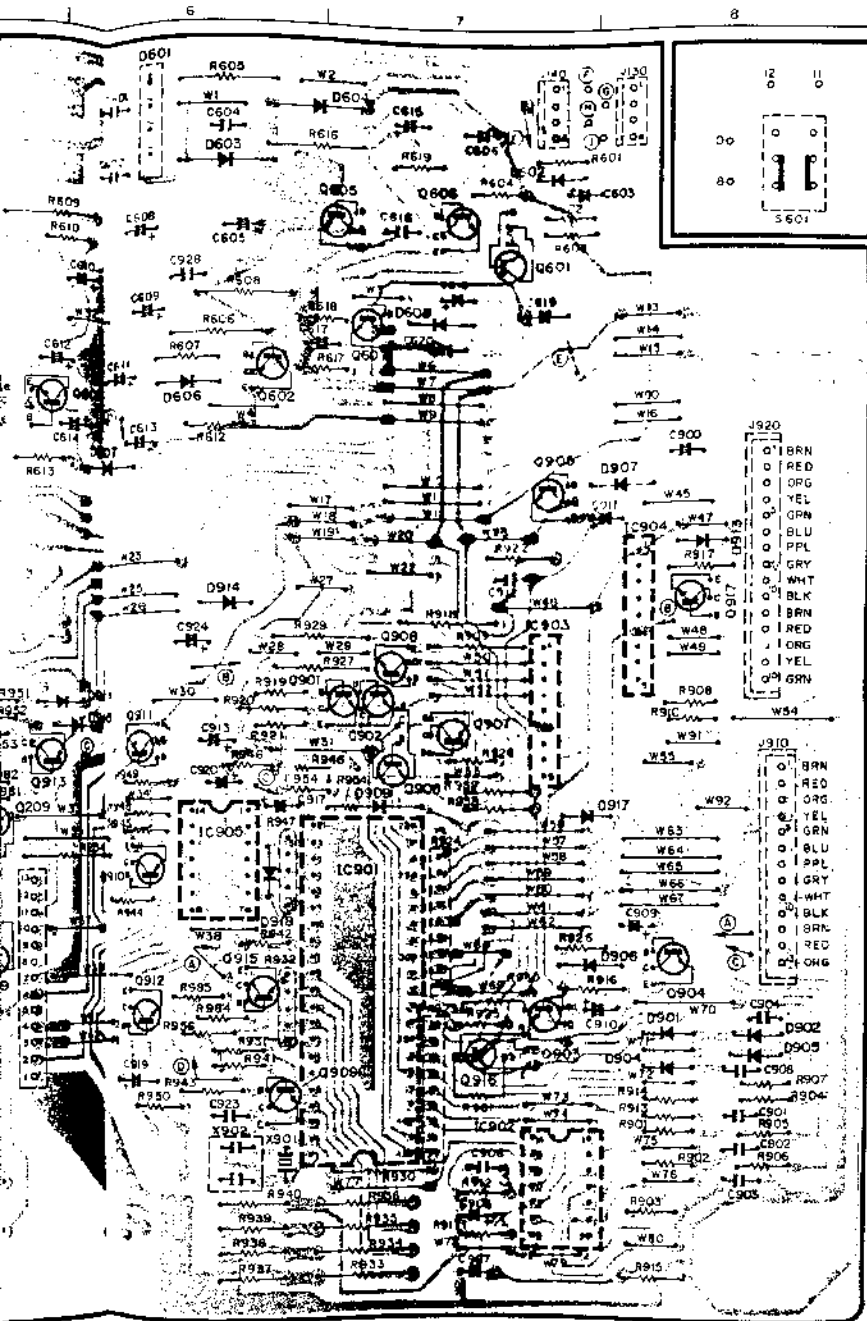
- PLAY signal
- REC signal
- 5. \odot and \ominus indicators components which are critical for continued safety and performance of the unit.
6. Replace only with components of the same type as specified.
7. This circuit diagram may be changed due to circuit improvement.



PRINTED CIRCUIT BOARDS

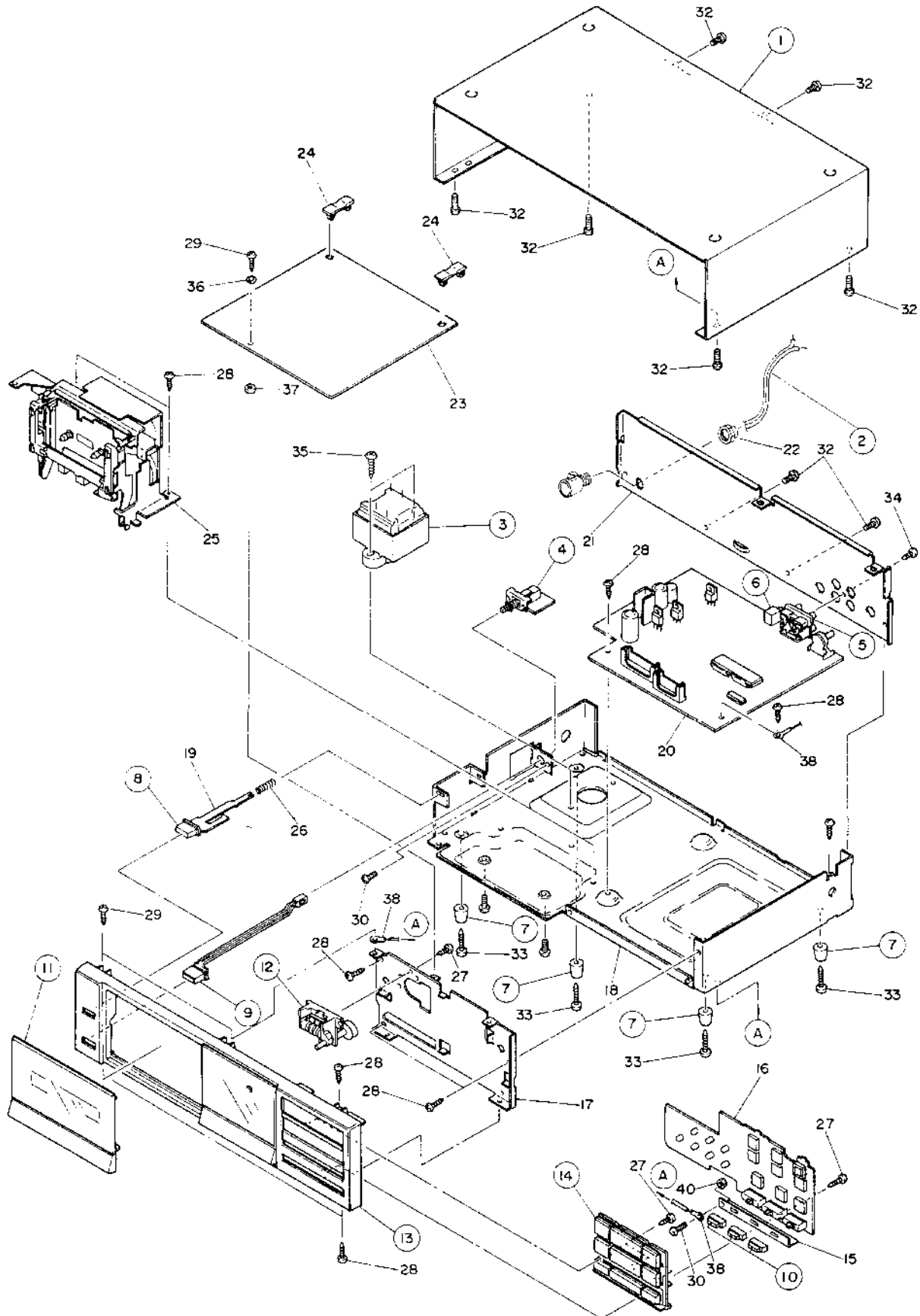


Symbol No.	Address	Symbol No.	Address	Symbol No.	Address	Symbol No.	Address	Symbol No.	Address	Symbol No.	Address	Symbol No.	Address	Symbol No.	Address	Symbol No.	Address	Symbol No.	Address				
C101	B-2	C126	B-3	C216		C310	A-2	C602	A-6	C905	D-7	D101	B-4	D909	C-7	J1	C-5	Q301	B-2	Q804	C-8	R111	C
C102	C-7	C127	B-3	C217				C603	A-7	C906	D-7	D102	B-4	D910	C-6	J2	C-5	Q302	B-2	Q805	B-7	R112	C
C103	B-2	C128	B-2	C218				C604	A-6	C907	D-8	D103	B-4	D911	C-6	L301	B-1	Q303	B-1	Q806	C-7	R113	C
C104	C-3	C129	B-4	C219				C605	A-6	C908	D-8			L302	B-2	Q304	B-1	Q807	C-7	R114	B		
C105	C-3	C130	A-2	C220				C606	A-7	C909	D-8			L401	D-1	Q305	D-2	Q808	B-1	R115	B		
C106	B-3	C131	B-4	C221				C607	D-1	C910	B-8			L402	C-2	Q306	D-1	Q809	D-7	R116	B		
C107	B-2	C132	B-4	C222				C608	D-2	C911	B-8					Q307	D-1	Q810	C-6	R117	C		
C108	D-3	C133	B-4	C223				C609	A-6	C912	B-7					Q308	D-1	Q811	C-6	R118	B		
C109	C-3	C134		C224				C610	A-6	C913	C-7					Q309	C-3	Q812	D-6	R119	B		
C110	C-3			C225				C611	B-6	C914	B-8					Q310	C-3	Q813	C-5	R120	B		
C111	C-3	C501	C-2	C226				C612	B-5	C915	B-5					Q311	C-5	Q814	C-5	R121	C		
C112	B-3	C502	C-2	C227				C613	B-5	C916	B-6					Q312	C-5	Q815	B-8	R122	D		
C113	C-3	C503	C-2	C228				C614	B-6	C917	D-6					Q313	C-5	Q816	B-8	R123	B		
C114	D-3	C504	C-3	C229				C615	A-7	C918	D-6					Q314	C-5	Q817	B-8	R124	B		
C115	D-3	C505	C-3	C230				C616	B-6	C919	C-6					Q315	C-5	Q818	B-8	R125	B		
C116		C506	C-3					C617	B-6	C920	C-6					Q316	C-5	Q819	B-8	R126	B		
C117		C507	C-3					C618	A-7	C921						Q317	C-5	Q820	B-8	R127	B		
C118		C508	C-3					C619	A-7	C922						Q318	C-5	Q821	B-8	R128	B		
C119		C509	C-3					C620	A-7	C923	D-6					Q319	C-5	Q822	B-8	R129	B		
C120		C510	C-3					C621	A-7	C924	D-6					Q320	C-5	Q823	B-8	R130	B		
C121	B-3	C511	C-2					C622	A-7	C925	B-6					Q321	C-5	Q824	B-8	R131	B		
C122	B-3	C512	C-2					C623	A-7	C926	C-6					Q322	C-5	Q825	B-8	R132	B		
C123	B-3	C513	C-3					C624	A-7	C927	C-6					Q323	C-5	Q826	B-8	R133	B		
C124	A-3	C514						C625	A-7	C928	C-6					Q324	C-5	Q827	B-8	R134	B		
C125	A-3	C515														Q325	C-5	Q828	B-8	R135	B		
																Q326	C-5	Q829	B-8	R136	B		
																Q327	C-5	Q830	B-8	R137	B		
																Q328	C-5	Q831	B-8	R138	B		
																Q329	C-5	Q832	B-8	R139	B		
																Q330	C-5	Q833	B-8	R140	B		
																Q331	C-5	Q834	B-8	R141	B		
																Q332	C-5	Q835	B-8	R142	B		

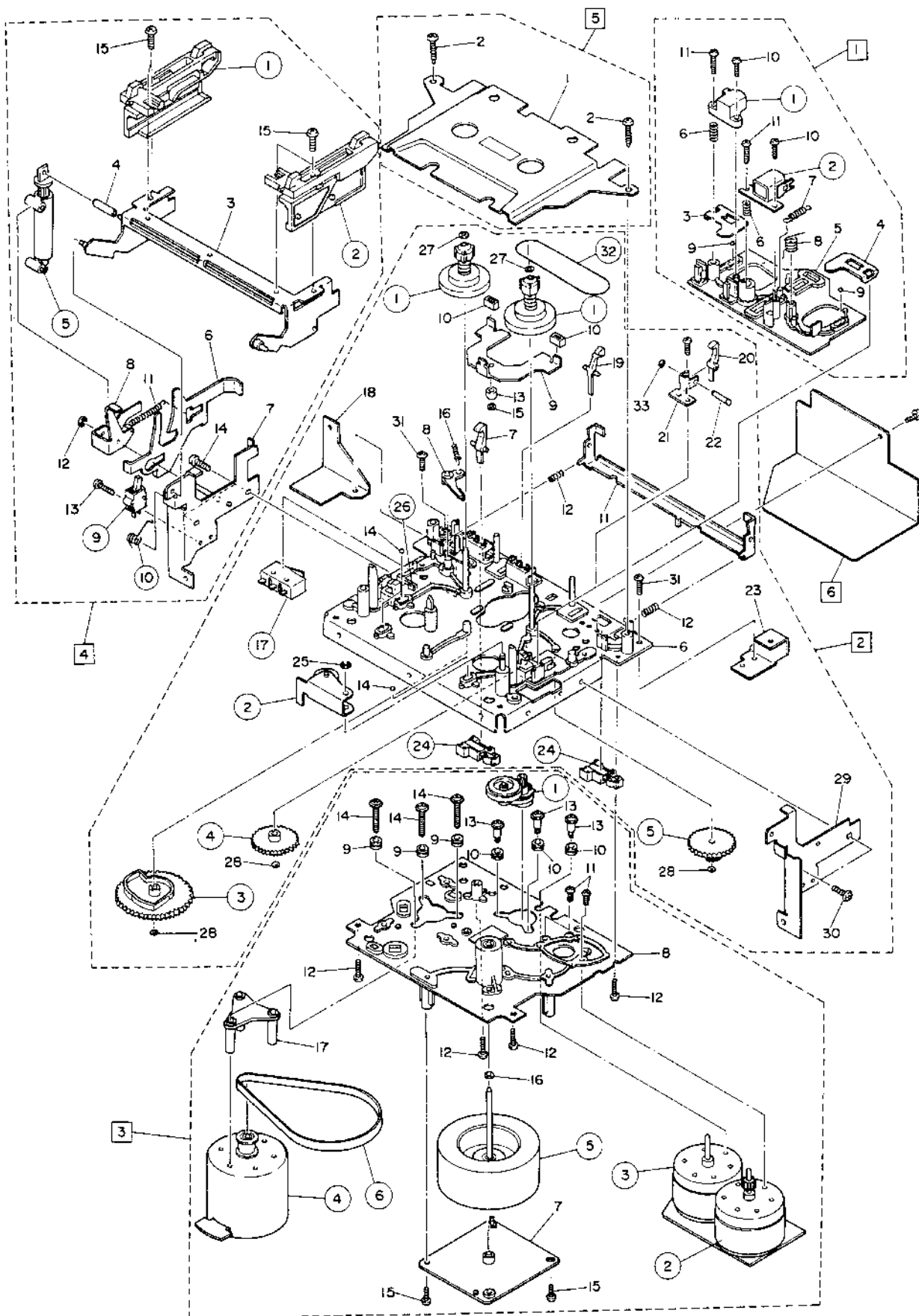


Symbol No.	Address	Symbol No.	Address	Symbol No.	Address	Symbol No.	Address	Symbol No.	Address	Symbol No.	Address	Symbol No.	Address	Symbol No.	Address	Symbol No.	Address
R111	C-7	R151	D-5	R205	C-2	R238	D-3	R312	B-1	R502	C-3	R617	B-6	R822	B-7	R947	C-6
R112	C-8	R152	D-6	R206	C-3	R240	D-3	R313	B-1	R503	D-2	R618	A-6	R823	C-7	R948	C-6
R113	C-9	R153	D-7	R207	C-3	R241	D-4	R314	B-1	R504	D-1	R619	A-7	R824	D-7	R949	C-6
R114	B-2	R154	C-5	R208	C-3	R242	D-4	R315	B-1	R505	C-1	R620	C-1	R825	D-7	R950	D-6
R115	B-3	R155	C-6	R209	C-2	R243	D-5	R316	B-2	R506	C-7	R621	D-8	R826	C-7	R951	C-5
R116	B-4	R156	C-7	R210	C-2	R244	D-6	R317	A-2	R507	C-1	R622	D-8	R827	B-7	R952	C-5
R117	C-3	R157	B-4	R211	C-2	R245	D-7	R318	B-2	R508	C-1	R623	D-8	R828	C-8	R953	C-6
R118	B-3	R158	B-4	R212	C-2	R246	D-8	R319	B-2	R509	C-1	R624	D-8	R829	B-8	R954	C-6
R119	C-3	R159	B-4	R213	C-2	R247	D-9	R320	B-2	R510	C-8	R625	D-8	R830	D-7	R955	D-6
R120	B-3	R160	B-4	R214	C-3	R248	D-10	R321	B-2	R511	D-7	R626	D-8	R831	D-7	R956	D-6
R121	D-7	R161	B-4	R215	C-3	R249	D-1	R322	B-2	R512	D-7	R627	D-8	R832	C-6	R957	D-6
R122	D-7	R162	B-4	R216	C-2	R250	C-8	R323	B-2	R513	D-8	R628	D-8	R833	D-7	R958	D-6
R123	B-4	R163	B-4	R217	C-3	R251	C-8	R324	B-2	R514	D-8	R629	D-8	R834	D-7	R959	C-7
R124	B-4	R164	B-4	R218	C-3	R252	C-8	R325	B-2	R515	D-8	R630	D-8	R835	D-7	R960	C-7
R125	B-4	R165	B-4	R219	C-3	R253	C-8	R326	B-2	R516	D-8	R631	D-8	R836	D-7	R961	D-7
R126	B-4	R166	B-4	R220	C-3	R254	C-8	R327	B-2	R517	D-8	R632	D-8	R837	D-7	R962	D-7
R127	B-4	R167	B-4	R221	C-3	R255	C-8	R328	B-2	R518	D-8	R633	D-8	R838	D-7	R963	D-7
R128	B-4	R168	B-4	R222	C-3	R256	C-8	R329	B-2	R519	D-8	R634	D-8	R839	D-7	R964	D-7
R129	B-4	R169	B-4	R223	C-3	R257	C-8	R330	B-2	R520	D-8	R635	D-8	R840	D-7	R965	D-7
R130	B-4	R170	B-4	R224	C-3	R258	C-8	R331	B-2	R521	D-8	R636	D-8	R841	D-7	R966	D-7
R131	B-4	R171	B-4	R225	C-3	R259	C-8	R332	B-2	R522	D-8	R637	D-8	R842	D-7	R967	D-7
R132	B-4	R172	B-4	R226	C-3	R260	C-8	R333	B-2	R523	D-8	R638	D-8	R843	D-7	R968	D-7
R133	B-4	R173	B-4	R227	C-3	R261	C-8	R334	B-2	R524	D-8	R639	D-8	R844	D-7	R969	D-7
R134	B-4	R174	B-4	R228	C-3	R262	C-8	R335	B-2	R525	D-8	R640	D-8	R845	D-7	R970	D-7
R135	B-4	R175	B-4	R229	C-3	R263	C-8	R336	B-2	R526	D-8	R641	D-8	R846	D-7	R971	D-7
R136	B-4	R176	B-4	R230	C-3	R264	C-8	R337	B-2	R527	D-8	R642	D-8	R847	D-7	R972	D-7
R137	B-4	R177	B-4	R231	C-3	R265	C-8	R338	B-2	R528	D-8	R643	D-8	R848	D-7	R973	D-7
R138	B-4	R178	B-4	R232	C-3	R266	C-8	R339	B-2	R529	D-8	R644	D-8	R849	D-7	R974	D-7
R139	B-4	R179	B-4	R233	C-3	R267	C-8	R340	B-2	R530	D-8	R645	D-8	R850	D-7	R975	D-7
R140	B-4	R180	B-4	R234	C-3	R268	C-8	R341	B-2	R531	D-8	R646	D-8	R851	D-7	R976	D-7
R141	B-4	R181	B-4	R235	C-3	R269	C-8	R342	B-2	R532	D-8	R647	D-8	R852	D-7	R977	D-7
R142	B-4	R182	B-4	R236	C-3	R270	C-8	R343	B-2	R533	D-8	R648	D-8	R853	D-7	R978	D-7
R143	B-4	R183	B-4	R237	C-3	R271	C-8	R344	B-2	R534	D-8	R649	D-8	R854	D-7	R979	D-7
R144	B-4	R184	B-4	R238	C-3	R272	C-8	R345	B-2	R535	D-8	R650	D-8	R855	D-7	R980	D-7
R145	B-4	R185	B-4	R239	C-3	R273	C-8	R346	B-2	R536	D-8	R651	D-8	R856	D-7	R981	D-7
R146	B-4	R186	B-4	R240	C-3	R274	C-8	R347	B-2	R537	D-8	R652	D-8	R857	D-7	R982	D-7
R147	B-4	R187	B-4	R241	C-3	R275	C-8	R348	B-2	R538	D-8	R653	D-8	R858	D-7	R983	D-7
R148	B-4	R188	B-4	R242	C-3	R276	C-8	R349	B-2	R539	D-8	R654	D-8	R859	D-7	R984	D-7
R149	B-4	R189	B-4	R243	C-3	R277	C-8	R350	B-2	R540	D-8	R655	D-8	R860	D-7	R985	D-7
R150	B-4	R190	B-4	R244	C-3	R278	C-8	R351	B-2	R541	D-8	R656	D-8	R861	D-7	R986	D-7
R151	B-4	R191	B-4	R245	C-3	R279	C-8	R352	B-2	R542	D-8	R657	D-8	R862	D-7	R987	D-7
R152	B-4	R192	B-4	R246	C-3	R280	C-8	R353	B-2	R543	D-8	R658	D-8	R863	D-7	R988	D-7
R153	B-4	R193	B-4	R247	C-3	R281	C-8	R354	B-2	R544	D-8	R659	D-8	R864	D-7	R989	D-7
R154	B-4	R194	B-4	R248	C-3	R282	C-8	R355	B-2	R545	D-8	R660	D-8	R865	D-7	R990	D-7
R155	B-4	R195	B-4	R249	C-3	R283	C-8	R356	B-2	R546	D-8	R661	D-8	R866	D-7	R991	D-7
R156	B-4	R196	B-4	R250	C-3	R284	C-8	R357	B-2	R547	D-8	R662	D-8	R867	D-7	R992	D-7
R157	B-4	R197	B-4	R251	C-3	R285	C-8	R358	B-2	R548	D-8	R663	D-8	R868	D-7	R993	D-7
R158	B-4	R198	B-4	R252	C-3	R286	C-8	R359	B-2	R549	D-8	R664	D-8	R869	D-7	R994	D-7
R159	B-4	R199	B-4	R253	C-3	R287	C-8	R360	B-2	R550	D-8	R665	D-8	R870	D-7	R995	D-7
R160	B-4	R200	B-4	R254	C-3	R288	C-8	R361	B-2	R551	D-8	R666	D-8	R871	D-7	R996	D-7
R161	B-4	R201	B-4	R255	C-3	R289	C-8	R362	B-2	R552	D-8	R667	D-8	R872	D-7	R997	D-7
R162	B-4	R202	B-4	R256	C-3	R290	C-8	R363	B-2	R553	D-8	R668	D-8	R873	D-7	R998	D-7
R163	B-4	R203	B-4	R257	C-3	R291	C-8	R364	B-2	R554	D-8	R669	D-8	R874	D-7	R999	D-7
R164	B-4	R204	B-4	R258	C-3	R292	C-8	R365	B-2	R555	D-8	R670	D-8	R875	D-7	R1000	D-7



EXPLODED VIEW OF CABINET












EXPLODED VIEW OF MECHANISM



PARTS LIST

NOTE:  and  marks components on Parts list have special characteristics to keep safety performance of this unit. When replacing any of these parts, be sure to use only specified parts.

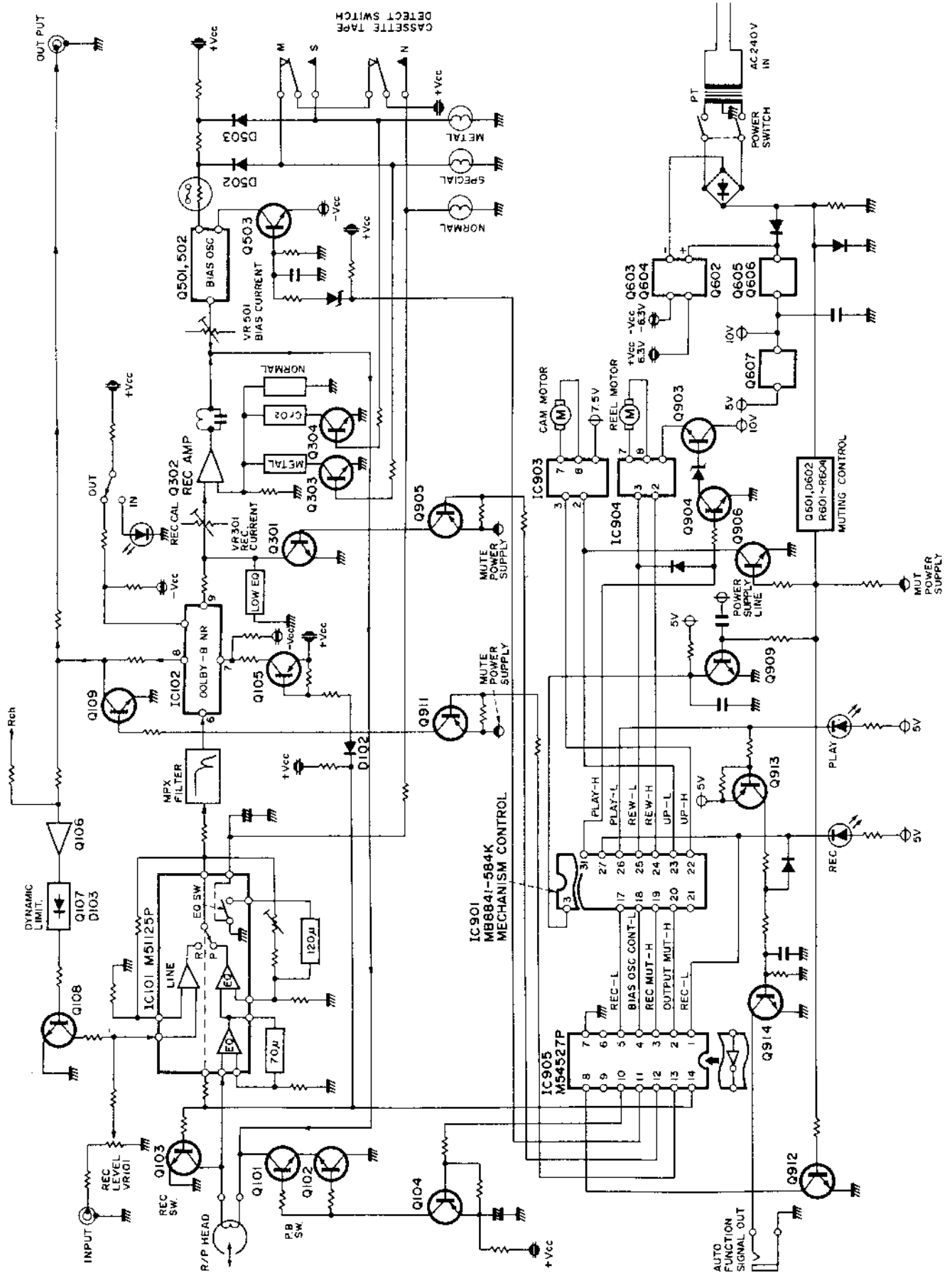
Symbol No.	Part No.	Description
Cabinet		
1	M05237162	Case (Top cover)
2	M07556490	Power cord
3	M05247500	Trans-Power
4	M04174357	SW-Power
5	M04172480	Terminal (Line, Out/In)
6	M05237475	Jack (Auto Function)
7	M05237190	Leg
8	M05237201	Knob (Eject)
9	M05211205	Knob (Power)
10	M05237200	Knob (Auto, Timer, Dolby)
11	M05245132	Cover Ass'y (Cassette)
12	M05206404	Counter
13	M05245100	Panel Ass'y (Front)
14	M05245200	Knob (Mechanism Control)
15		Holder
16		Mechanism Control P.C.B.
17		Panel-Front
18		Chassis Base
19		Link
20		Main P.C.B.
21		Back Panel
22	M07535060	Clamper
23		
24		Hinge
25		Mechanism Ass'y
26		Spring
27		Screw 1-2.6 x 6
28		Screw 2-3 x 6
29		Screw 2-3 x 8
30		Screw M3 x 6
31		
32		Screw M3 x 8 (V)
33		Screw 2-3 x 16
34		Screw 1-3 x 8
35		Screw 2-4 x 16
36		Washer
37		Rubber Cushion
38		Lug-terminal
39		
40		Nut M3
41		Clamper
Mechanical Parts		
		Head Base Ass'y
		Chassis Ass'y
		Motor Base Ass'y
		Eject Mechanism Ass'y
		Holder
		Shield
		Head Base Ass'y
1	M04172524	Erase Head
2	M04172520	Rec/PB Head
3		Plate Spring (Stopper L)
4		Plate Spring (Stopper R)

Symbol No.	Part No.	Description
5		Head Base
6		Spring (Head)
7		Spring (Head)
8		Spring (Pinch Roller)
9	M07314627	Steel Ball
10		Screw 1-2 x 8
11		Screw M2 x 4
		Chassis Base Ass'y
1	M05232702	Reel Rest Ass'y
2	M05232720	Pinch Roller
3	M05232732	Main Gear
4	M05232730	Gear (Centre)
5	M05232731	Gear (Centre)
6		Chassis Base Ass'y
7		Lever (AR)
8		Lever (Back Tension)
9		Link (Blerk)
10		Rubber Cushion
11		Holder (Cassette Stopper)
12		Spring
13		Pulley
14	M05021627	Steel Ball
15		PL Washer
16		Spring (Back Tension)
17	M07602381	Micro SW (AR)
18		Holder L
19		Lever (Tape Auto Select)
20		Lever (Tape Auto Select)
21		Holder
22		Pin
23		Holder U
24	M05202435	Micro SW (Tape Auto Select)
25		E-ring
26	M05208390	Spring SW
27		PL Washer
28		PL Washer
29		Holder
30		Screw 2-3 x 6
31		Screw 2-3 x 8
32	M05237713	Counter Belt
33		E-ring 2
		Motor Base Ass'y
1	M05232632	Pulley Ass'y (FF/REW)
2	M05232552	Cam Motor
3	M05232551	Reel Motor
4	M05232550	Capstan Motor
5	M05232756	Flywheel
6	M05232713	Main Belt
7		Holder (for Fly Wheel)
8		Motor Base
9		Rubber Cushion (Capstan Motor)
10		Rubber Cushion (Reel Motor)
11		Screw M2.6 x 5
12		Screw-B 2.6 x 14
13		Screw M2.6 x 5
14		Screw M2.6 x 25
15		Screw 1-2.6 x 8
16		PL Washer

Symbol No.	Part No.	Description
17		Holder (for Motor)
④		Eject Mechanism Ass'y
1	M05207148	Holder (L)
2	M05207147	Holder (R)
3		Cassette Holder
4		Spacer
5	M04165625	Damper
6		Link
7		Holder
8		Lever
9	M05237380	Micro-SW
10	M05237760	Spring
11		Spring
12		E-ring 2
13		Screw M2 x 8
14		Screw 2-3 x 6
15		Screw 2-2.6 x 5
⑤		Holder
1		Holder
2		Screw 8 2.6 x 14

Symbol No.	Part No.	Description
Diodes		
D101	M07556320	DS442
D102	M07556320	DS442
D103	M07556320	DS442
D501	M05232327	RD8.2E-B2
D502	M07556320	DS442
D503		DS446
D601	M05223320	DBA10B
D602	M07556320	DS442
D603	M07568320	DS135
D604	M07568320	DS135
D606	M05232326	RD7.5E-B1
D607	M07556320	DS442
D608	M05232331	RD5.6E-B3
D801	M07460321	SLR54GC
D802	M07460321	SLR54GC
D803	M07460321	SLR54GC
D804	M07520326	SLR54URC
D901	M07556320	DS442
D902	M07556320	DS442
D903		
D904	M07556320	DS442
D905	M07556320	DS442
D906	M05232329	RD5.6E-B1
D907	M05232327	RD8.2E-B2
D909	M07556320	DS442
D911	M07556320	DS442
D913	M07568320	DS135
D915	M07556320	DS442
D917	M07556320	DS442
D918	M07556320	DS442
D931	M07556320	DS442
D932	M07556320	DS442
D933	M07556320	DS442
D934	M07556320	DS442
D950	M05237320	SLF-201C
ICs		
IC101	M05237310	M51125P
IC102	M05225314	TA7629P
IC202	M05225314	TA7629P
TC901	M05232312	MB8841-584K
IC902	M05232313	MB4204
IC903	M07568310	BA6208
IC904	M07568310	BA6208
IC905	M05232314	M54527P
Transistors		
Q101	M07113310	2SC1708A
Q102	M07113310	2SC1708A
Q103	M07390303	2SC2603
Q104	M07140303	2SA847A
Q105	M07390304	2SA1115

BLOCK DIAGRAM



PACKING INSTRUCTIONS

