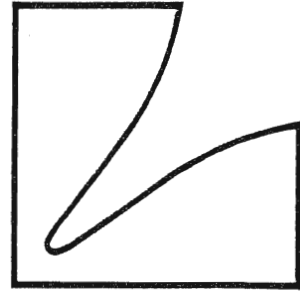


SERVICE MANUAL



Stereo Cassette Deck

K-100



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PRODUCT SAFETY NOTICE

Many electrical and mechanical parts in this chassis have special characteristics. These characteristics often pass unnoticed and the protection afforded by them cannot necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts that have these special safety characteristics are identified in this manual and its supplements, electrical components having such features are identified by a Δ in the schematic diagram and the parts list.

Before replacing any of these components, read the parts list in this manual carefully. The use of substitute replacement parts that do not have the same safety characteristics as specified in the parts list may create shock, fire, or other hazards.

CAUTION:

Check the leakage-current between the exposed metal part and a pole of power cord, before returning the appliance to the customer. It must be measured less than 0.5mA in 120V AC in accordance with the measurements of "Appliance Leakage Current" in UL 1270 paragraph 34.1 to 34.8.

Specifications

Power Source	AC 120V, 60Hz (UC, UQ model only) AC 220 ~ 240V, 50/60 Hz (AD model only)
Tape Speed (MTT-111)	4.76 cm/sec. $\pm 2\%$
Wow & Flutter (MTT-111, JIS WRMS)	0.1%
FF/REW Time (C-60)	95 sec.
Frequency Response (Playback, ± 4 dB)	Normal: 40 Hz ~ 14 kHz CrO ₂ : 40 Hz ~ 15 kHz Metal: 40 Hz ~ 16 kHz
S/N Ratio (JIS weighted "A" curve)	Dolby NR-OFF: Normal 50 dB, CrO ₂ /Metal 52 dB Dolby NR-B: Normal/CrO ₂ /Metal 57 dB Dolby NR-C: Normal/CrO ₂ 63 dB, Metal 65 dB
Input Sensitivity	Line: 100mV Mic: 0.65mV
Output Level/Impedance	Line: 550mV ± 1.5 dB/47K ohm Headphone: 90mV/8 ohm
Distortion 3rd (0 dBm input at 333 Hz)	Normal/CrO ₂ : 3% Metal: 3.5%
Semiconductors	21 IC's, 23 Transistors, 6 FET's, 25 Diodes, 6 Zener Diodes, 2 Bridge Diodes
Chassis Dimensions	438(W) x 85(H) x 313(D) mm
Weight	4.4 kg

Parts Locations and Disassembly Instructions

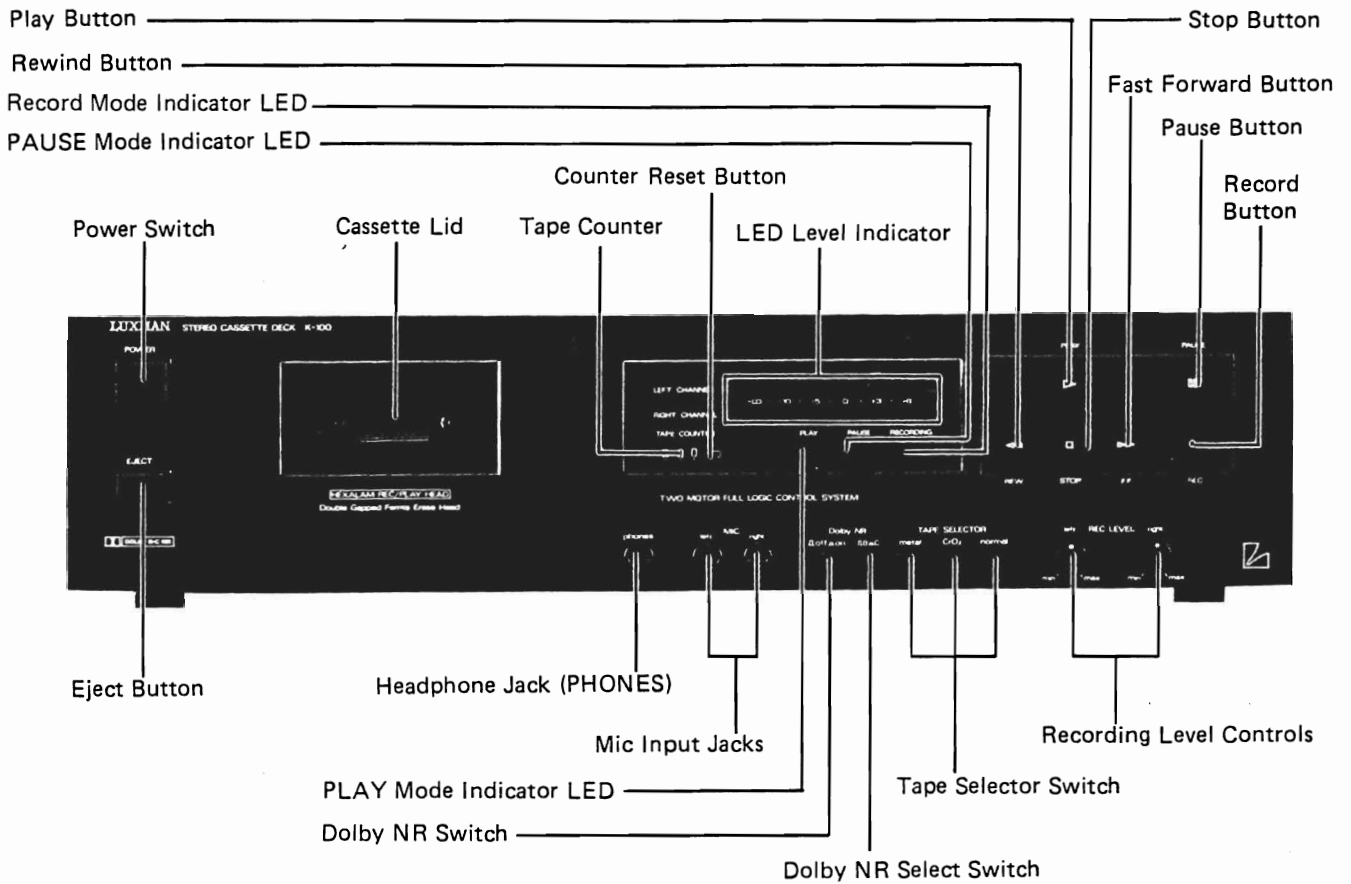


Figure 1

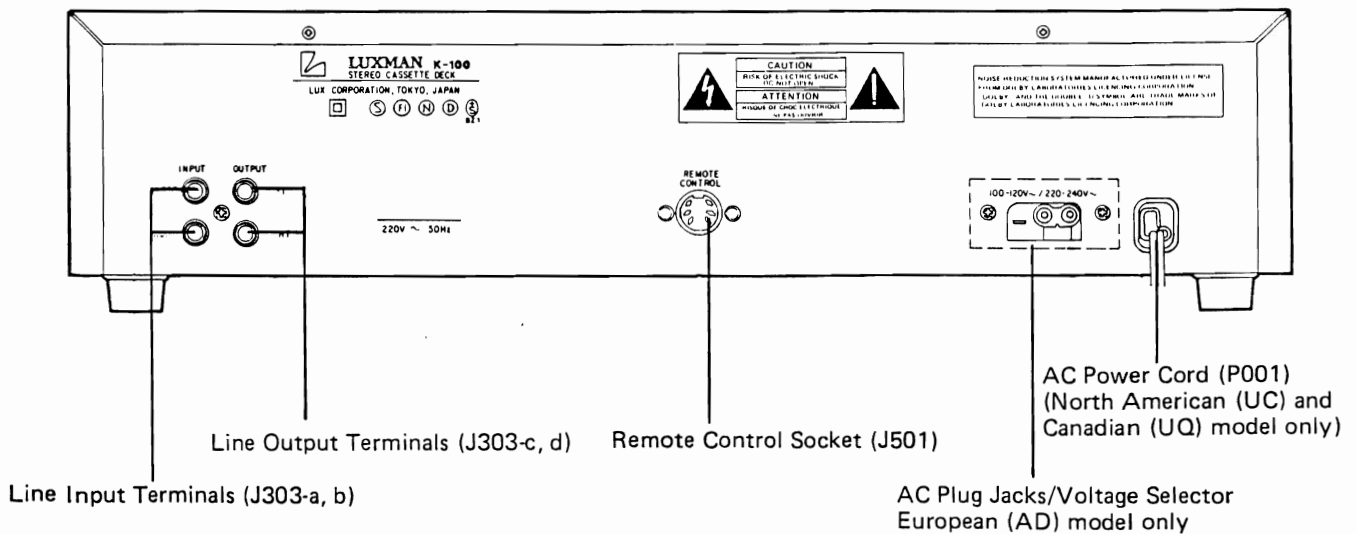


Figure 2

1. Top Cover Removal

- (1) Remove six black screws marked " (A) " as shown in Figure 3.
- (2) By stretching the both sides slightly, lift up the top cover.

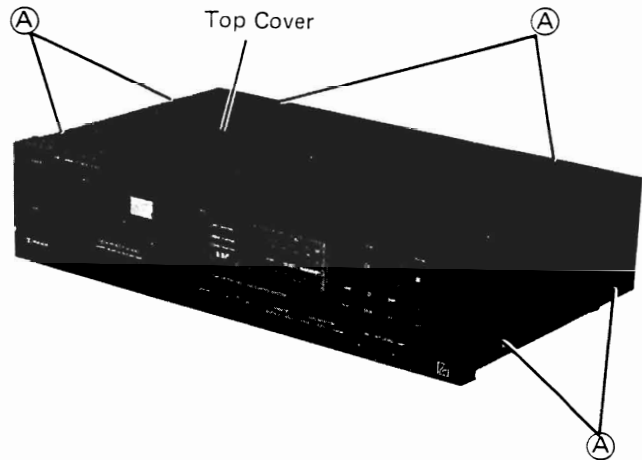


Figure 3

2. Front Panel Removal

- (1) Remove the top cover.
- (2) Remove two screws marked " (B) " on the power switch.
- (3) Disconnect all connectors from the main P.C. Board.
- (4) Remove three screws marked " (C) " from the bottom plate as shown in Figure 4.
- (5) Remove the front panel by pulling it forward you.

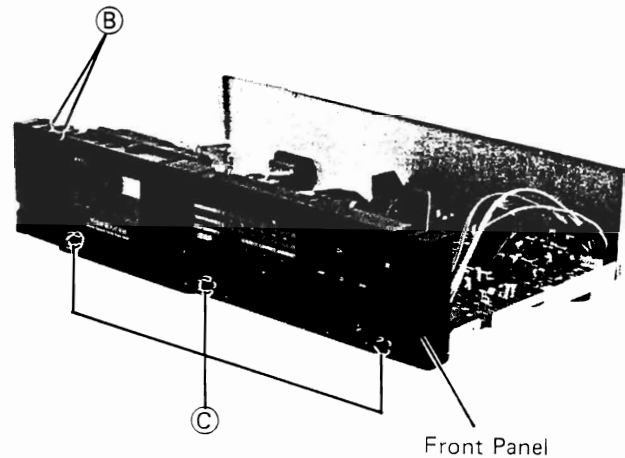


Figure 4

3. Cassette Deck Mechanism Removal

- (1) Remove the top cover.
- (2) Open the cassette door by pressing the eject button.
- (3) Remove the front panel.
- (4) Remove the belt from the relay pulley on the cassette deck mechanism. (Hook the belt on the notch of the mechanism P.C. Board to prevent the belt from missing.)
- (5) Remove four red screws marked " (D) " from the mechanism as shown in Figure 5.
- (6) Remove the cassette deck mechanism.

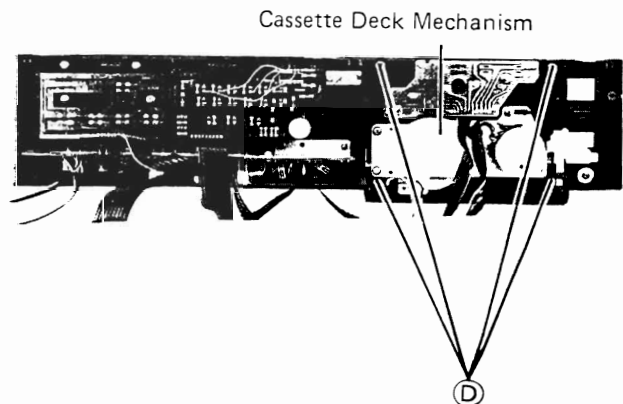


Figure 5

4. Main P.C. Board Removal

- (1) Remove the front panel.
- (2) Remove one screw " (E) " from the pin jack section and two ribets marked " (F) " from the remote control section on the rear side as shown in Figure 6.
- (3) Remove three screws marked " (G) " from the main P.C. Board as shown in Figure 6.

5. Switch P.C. Board Removal

- (1) Remove the front panel.
 - (2) Remove two screws marked " (H) " from the switch P.C. Board as shown in Figure 7.
- Note:** Take care not to miss the ground spring mounted on the screw marked "▲".
- (3) Remove the switch P.C. Board.

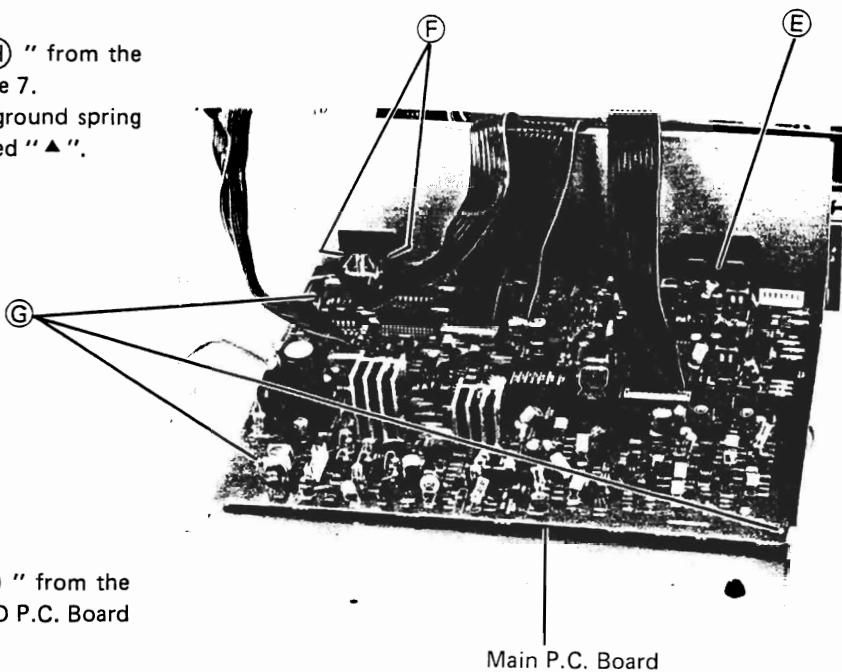


Figure 6

6. LED P.C. Board Removal

- (1) Remove the front panel.
- (2) Disengage three claws marked " (K) " from the LED P.C. Board and remove the LED P.C. Board as shown in Figure 7.

7. Operation P.C. Board Removal

- (1) Remove the front panel.
- (2) Remove four screws marked " (J) " from the operation P.C. Board as shown in Figure 7.
- (3) Remove the operation P.C. Board.

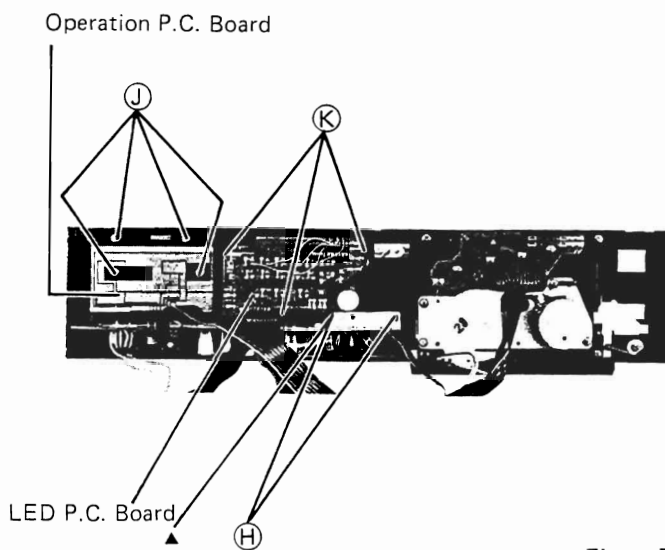
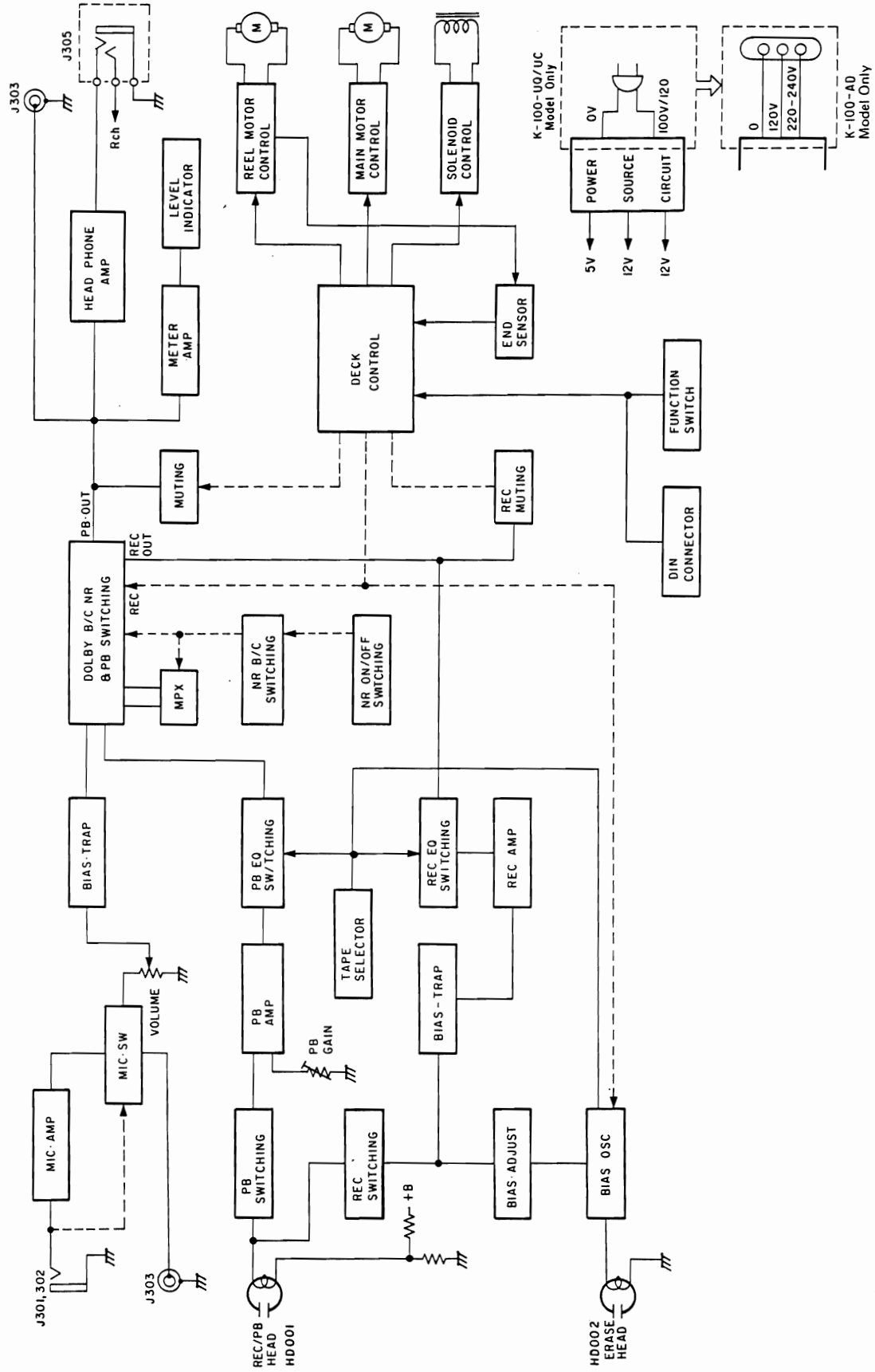


Figure 7

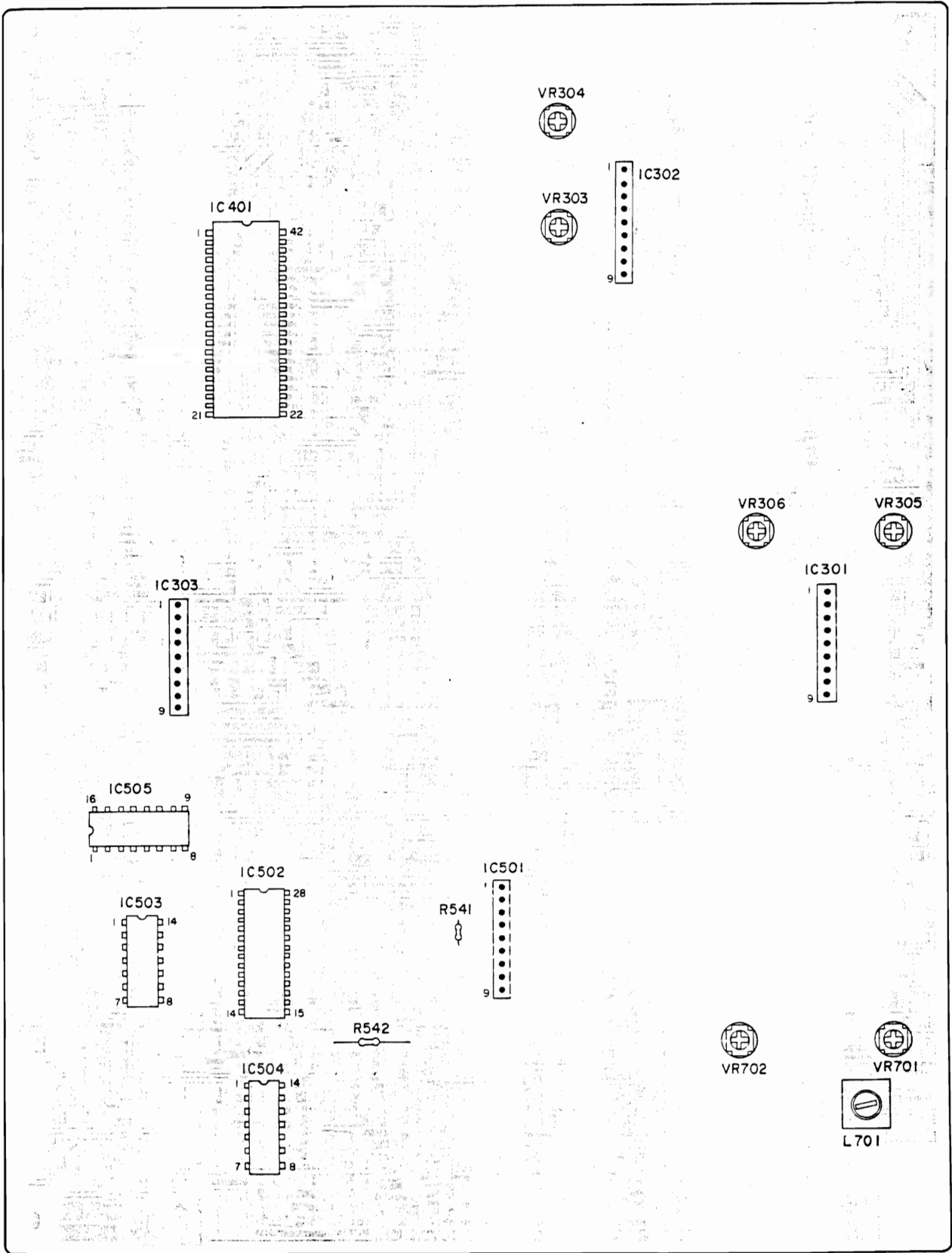
8. Power Switch P.C. Board Removal

- (1) Remove the top cover.
- (2) Remove two screws marked " (B) " holding the power switch as shown in Figure 4.
- (3) Remove the P.C. Board with the power switch.

Block Diagram



Adjustment Locations



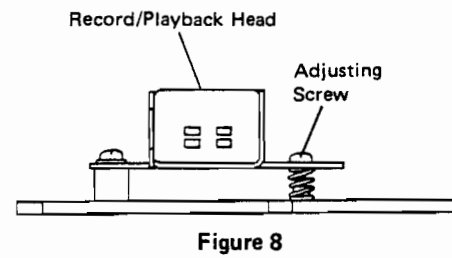
Main P.C. Board

Adjustment Procedures

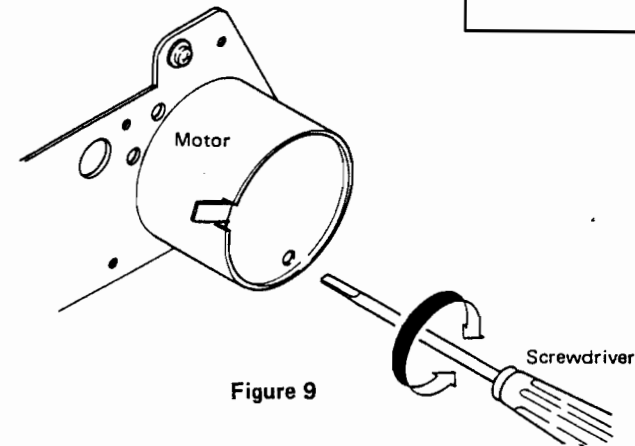
TEST EQUIPMENTS

1. VTVM (Vacuum Tube Voltmeter)
2. Signal Generator
3. Resistance Attenuator
4. Screwdriver
5. Test Tapes:
 MTT-111 (Speed 3 kHz - 5 dB)
 MTT-114 (Azimuth 10 kHz)
 MTT-150 (Dolby 400 Hz Modulation)
 AC-512 (Chrome Tape)
6. Frequency Counter

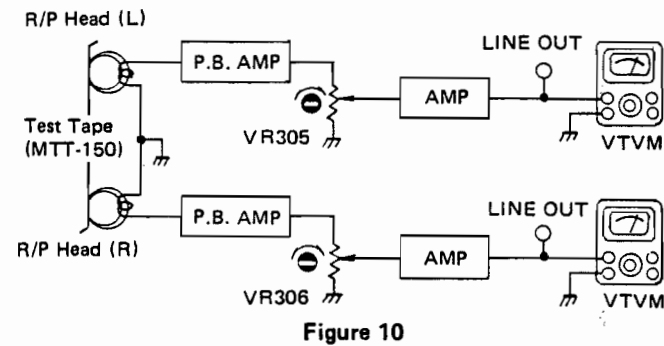
1. HEAD AZIMUTH ADJUSTMENT



2. TAPE SPEED



3. PLAYBACK SENSITIVITY ADJUSTMENT

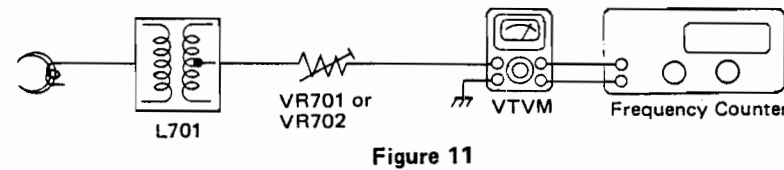


No.	Adjustment Item	Test Value	Test Tape	Rec. Balance Control R408	Rec. Level Control R407	Switch Position			Adjustable Parts	Test Point	Input Frequency	Connection	Remarks
						TAPE	NR	INPUT					
1	Head Azimuth Adjustment	Maximum	MTT-114	-		NOR	OUT		Adjusting Screw	LINE OUT	-	VTVM (LINE OUT)	Apply a lock paint after adjustment.
2	Tape Speed	3000 ±30 Hz	MTT-111	-		NOR	OUT		Internal Semifixed VR of Motor	LINE OUT	-	Frequency Counter (LINE OUT)	Take-up beginning of tape.
3	Playback Sensitivity Adjustment	550 ± 10mV	MTT-150	-		NOR	OUT		VR305, 306	LINE OUT	-	See Figure 10	
4	Bias Oscillator Adjustment	85 kHz ±0.5 kHz	-	-		METAL	OUT		L701	R541 or R542	-	See Figure 11	REC
5	Line Input Sensitivity Adjustment	400 ± 10mV	-	Center	Adjustment	CrO ₂	OUT	LINE IN	REC-VR VR301, 302	LINE OUT	-23 dB	See Figure 12	Do not vary REC-VR after adjustment.
6	Rec/PB Frequency Adjustment	0 ± 1 dB	AC-512	Center	Adjustment	CrO ₂	OUT	LINE IN	VR701, 702,	LINE OUT	400 Hz 10 kHz -43 dB	See Figure 13	Variation of 10 kHz to 400 Hz.
7	Rec/PB Sensitivity Adjustment	Monitor Output	AC-512	Center	Adjustment	CrO ₂	OUT	LINE IN	VR303, 304	LINE OUT	400 Hz -23 dB	See Figure 14	Monitor Output: 400mV, (Reference Value)

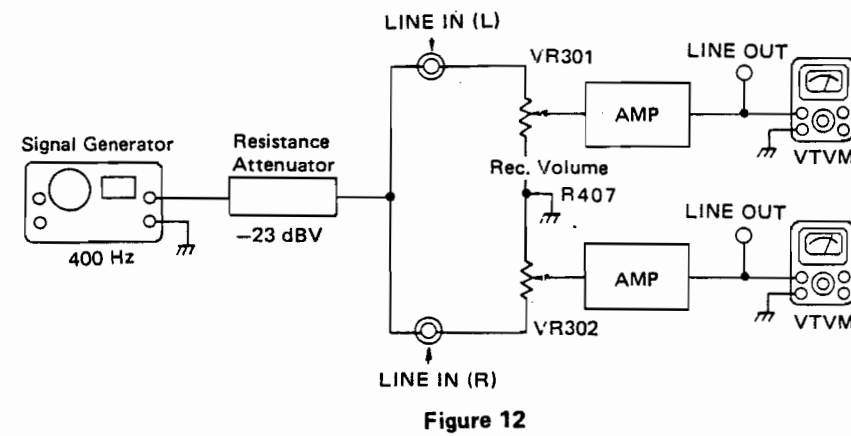
Measurement Condition

- Power Supply: AD = 220 ~ 240V, UC, UQ = 120V
- Input: 0 dB 1V rms • LINE IN (Input Impedance): 600 ohms
- LINE OUT (Load Impedance): 47K ohm • Test Point Load Impedance: Non Load.

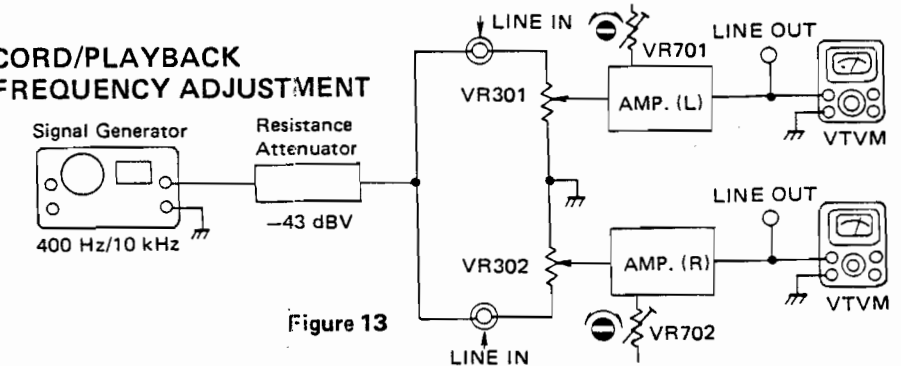
4. BIAS OSCILLATOR ADJUSTMENT



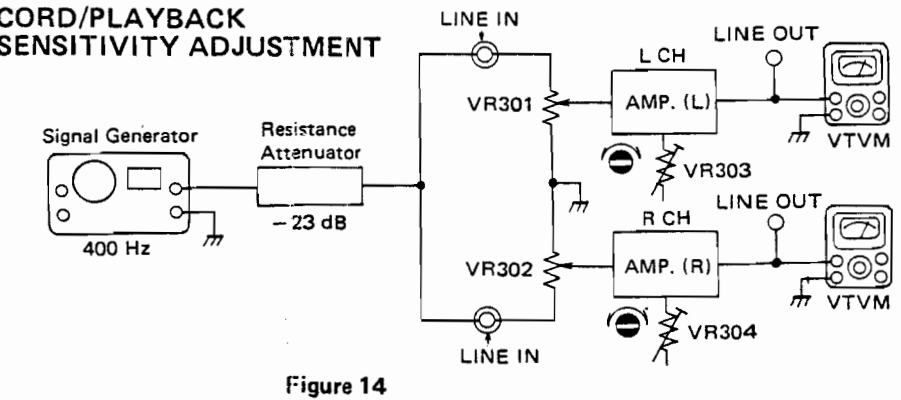
5. LINE INPUT SENSITIVITY ADJUSTMENT



6. RECORD/PLAYBACK FREQUENCY ADJUSTMENT



7. RECORD/PLAYBACK SENSITIVITY ADJUSTMENT



Electrical Parts List

Resistors: Carbon resistors under ¼ watts are not mentioned in the parts List, please confirm them by schematic diagram.
 uF=microfarads, pF=picofarads

PRODUCT SAFETY NOTE: Products marked with a Δ have special characteristics important to safety. Before replacing any of these components, read carefully the Product Safety Notice of this Service Manual. Don't degrade the safety of the product through improper servicing.

Symbol No.	Part No.	Description
IC's/Transistors		
IC301	22117845	NJM2068SD
IC302	92555106	TA75558S
IC303	22117815	NJM4556S
IC401	22117814	CX20187
IC501	40325460	TA7354P
IC502	40413159	TC9310N-060
IC503	40470713	TC4071BP
IC504	40470693	TC4069UBP
IC505	40480672	TC5067BP
IC801	40356660	TA7666P
TR001	36771650	Transistor, 2SC1173
TR002	36771650	Transistor, 2SC1173
TR003	36314470	Transistor, 2SC1627
TR301	36317460	Transistor, 2SC1815
TR302	36317460	Transistor, 2SC1815
TR303	36044630	FET, 2SK246
TR304	36044630	FET, 2SK246
TR305	36040910	FET, 2SJ103
TR306	36040910	FET, 2SJ103
TR307	36044630	FET, 2SK246
TR308	36044630	FET, 2SK246
TR309	36317460	Transistor, 2SC1815
TR310	36317460	Transistor, 2SC1815
TR311	36317460	Transistor, 2SC1815
TR312	36317460	Transistor, 2SC1815
TR313	36317460	Transistor, 2SC1815
TR314	36317460	Transistor, 2SC1815
TR315	36317460	Transistor, 2SC1815
TR316	36317460	Transistor, 2SC1815
TR317	36342200	Transistor, 2SC2878
TR318	36342200	Transistor, 2SC2878
TR401	36317460	Transistor, 2SC1815
TR402	36317460	Transistor, 2SC1815
TR403	36342200	Transistor, 2SC2878
TR404	36342200	Transistor, 2SC2878
TR407	36317460	Transistor, 2SC1815
TR408	36317460	Transistor, 2SC1815
TR409	36534060	Transistor, 2SA1015
TR501	36317460	Transistor, 2SC1815
TR502	36317460	Transistor, 2SC1815

Symbol No.	Part No.	Description
TR503	36317460	Transistor, 2SC1815
TR506	36317460	Transistor, 2SC1815
TR507	36319300	Transistor, 2SC1959
TR508	36534060	Transistor, 2SC1015
TR509	36314470	Transistor, 2SC1627
TR510	36317460	Transistor, 2SC18125
TR511	36319300	Transistor, 2SC1959
TR512	36319300	Transistor, 2SC1959
TR513	36319300	Transistor, 2SC1959
TR514	36317460	Transistor, 2SC1815
TR701	36314470	Transistor, 2SC1627A
Diodes/LEDs		
Δ D001	92115737	KBP01
ZD002	37110412	Zener, 05Z12Z
ZD003	37110076	Zener, 05Z6.2Y
D301	37160614	1SS178
D302	37160614	1SS178
D303	37160614	1SS178
D304	37160614	1SS178
D305	37160614	1SS178
D306	37160614	1SS178
ZD308	37110017	Zener, 05Z5.6-Y
D309	37160574	1SS176
D310	37160574	1SS176
D311	37160574	1SS176
D401	37160574	1SS176
D501	37160614	1SS178
D502	37160574	1SS176
D503	37160574	1SS176
D504	37160574	1SS176
D505	37160574	1SS176
D506	37160574	1SS176
D507	37160574	1SS176
D511	37978380	S-5277B
D512	37160574	1SS176
D513	37160574	1SS176
D514	37160574	1SS176

Symbol No.	Part No.	Description
D515	37160574	1SS176
D516	37160574	1SS176
D517	37160574	1SS176
LD508	38605677	LED, TLG113A (GRN)
LD509	38607951	LED, TLY113A (YEL)
LD510	38600607	LED, TLR113A (RED)
LD801	38600607	LED, TLR113A (RED)
LD802	38600607	LED, TLR113A (RED)
LD803	38600607	LED, TLR113A (RED)
LD804	38600607	LED, TLR113A (RED)
LD805	38607951	LED, TLY113A (YEL)
LD806	38607951	LED, TLY113A (YEL)
LD807	38607951	LED, TLY113A (YEL)
LD808	38607951	LED, TLY113A (YEL)
LD809	38607951	LED, TLY113A (YEL)
LD810	38607951	LED, TLY113A (YEL)
LD812	38607951	LED, TLY113A (YEL)
Coils/Switches		
L301	92232277	Coil, 6.8mH
L302	92232277	Coil, 6.8mH
L701	22215141	Coil, OSC
S301	22190218	Switch
S501	92196601	Switch, Tact
S502	92196601	Switch, Tact
S503	92196601	Switch, Tact
S504	92196601	Switch, Tact
S505	92196601	Switch, Tact
S506	92196601	Switch, Tact
Filters		
LC301	92153229	Filter, Bias
LC302	92153229	Filter, Bias
LC303	92153229	Filter, Bias
LC304	92153229	Filter, Bias
LC401	92153278	Filter, MPX
LC402	92153278	Filter, MPX
LC403	22135065	Coil, Skewing
LC404	22135065	Coil, Skewing

Symbol No.	Part No.	Description	
Capacitors			
uF = microfarads, pF = picofarads			
ABBREVIATIONS: EL = Electrolytic, CE = Ceramic Disk, MY = Mylar			
C002	22446332	EL	3300 uF/25V
C003	22445101	EL	100 uF/16V
C004	22445101	EL	100 uF/16V
C005	22445331	EL	330 uF/16V
C006	22445471	EL	470 uF/16V
C007	22445471	EL	470 uF/16V
C009	22445470	EL	47 uF/16V
C010	22445101	EL	100 uF/16V
C301	22448339	EL	3.3 uF/50V
C302	22448339	EL	3.3 uF/50V
C303	22361221	CE	220 pF
C304	22361221	CE	220 pF
C305	22448339	EL	3.3 uF
C306	22448339	EL	3.3 uF/50V
C307	22445330	EL	33 uF/16V
C309	22342473	CE	0.047 uF
C310	22342473	CE	0.047 uF
C311	22448109	EL	1 uF/50V
C312	22448109	EL	1 uF/50V
C313	22361180	CE	18 pF
C314	22361180	CE	18 pF
C315	22361471	CE	470 pF
C316	22361471	CE	470 pF
C317	22447100	EL	10 uF/35V
C318	22447100	EL	10 uF/35V
C319	22361101	CE	100 pF
C320	22361101	CE	100 pF
C321	22361220	CE	22 pF
C322	22361220	CE	22 pF
C323	22445470	EL	47 uF/16V
C324	22445470	EL	47 uF/16V
C325	22371103	MY	0.01 uF
C326	22371103	MY	0.01 uF
C327	22448479	EL	4.7 uF/50V
C328	22448479	EL	4.7 uF/50V
C329	22371153	MY	0.015 uF
C330	22371153	MY	0.015 uF
C331	22445221	EL	220 uF/16V
C332	22445101	EL	100 uF/16V
C333	22447100	EL	10 uF/35V

Symbol No.	Part No.	Description	Symbol No.	Part No.	Description
C334	22447100	EL 10 uF/35V	C419	22448478	EL 0.47 uF/50V
C335	22448108	EL 0.1 uF/50V	C420	22448478	EL 0.47 uF/50V
C336	22448108	EL 0.1 uF/50V	C421	92488158	EL 0.15 uF/50V
C337	22447100	EL 10 uF/35V	C422	92488158	EL 0.15 uF/50V
C338	22447100	EL 10 uF/35V	C423	22371153	MY 0.015 uF
C339	22371103	MY 0.01 uF	C424	22371153	MY 0.015 uF
C340	22371103	MY 0.01 uF	C425	22448228	EL 0.22 uF/50V
C341	22371332	MY 0.0033 uF	C426	22448228	EL 0.22 uF/50V
C342	22371332	MY 0.0033 uF	C427	22371683	MY 0.068 uF
C343	22371222	MY 0.0022 uF	C428	22371683	MY 0.068 uF
C344	22371222	MY 0.0022 uF	C429	22371473	MY 0.047 uF
C345	22371122	MY 0.0012 uF	C430	22371473	MY 0.047 uF
C346	22371122	MY 0.0012 uF	C431	22371682	MY 0.0068 uF
C347	22371682	MY 0.0068 uF	C432	22371682	MY 0.0068 uF
C348	22371682	MY 0.0068 uF	C433	22371103	MY 0.01 uF
C349	22361681	CE 680 pF	C434	22371103	MY 0.01 uF
C350	22361681	CE 680 pF	C435	22448479	EL 4.7 uF/50V
C351	22342102	CE 0.001 uF	C436	22448479	EL 4.7 uF/50V
C352	22342102	CE 0.001 uF	C437	22342102	CE 0.001 uF
C353	22445330	EL 33 uF/16V	C438	22342102	CE 0.001 uF
C354	22445330	EL 33 uF/16V	C439	22445470	EL 47 uF/16V
C355	22445330	EL 33 uF/16V	C440	22445330	EL 33 uF/16V
C356	22445330	EL 33 uF/16V	C501	22447100	EL 10 uF/35V
C357	22448478	EL 0.47 uF/50V	C502	22448339	EL 3.3 uF/50V
C358	22448478	EL 0.47 uF/50V	C503	22346183	CE 0.018 uF
C359	22445101	EL 100 uF/16V	C505	22448339	EL 3.3 uF/50V
C360	22448109	EL 1 uF/50V	C506	22447100	EL 10 uF/35V
C401	22448109	EL 1 uF/50V	C507	22346473	CE 0.047 uF
C402	22445101	EL 100 uF/16V	C508	22371563	MY 0.056 uF
C403	22448229	EL 2.2 uF/50V	C511	22346103	CE 0.01 uF
C404	22448229	EL 2.2 uF/50V	C512	22346223	CE 0.022 uF
C405	22448229	EL 2.2 uF/50V	C513	22346223	CE 0.022 uF
C406	22448229	EL 2.2 uF/50V	C514	22346223	CE 0.022 uF
C407	22448479	EL 4.7 uF/50V	C515	22346223	CE 0.022 uF
C408	22448479	EL 4.7 uF/50V	C516	22346223	CE 0.022 uF
C409	22371332	MY 0.0033 uF	C517	22448339	EL 3.3 uF/50V
C410	22371332	MY 0.0033 uF	C518	22448229	EL 2.2 uF/50V
C411	22448229	EL 2.2 uF/50V	C519	22346562	CE 0.0056 uF
C412	22448229	EL 2.2 uF/50V	C520	22346683	CE 0.068 uF
C413	22443221	EL 220 uF/10V	C544	22342102	CE 0.001 uF
C414	22443221	EL 220 uF/10V	C701	22448479	EL 4.7 uF/50V
C415	22448479	EL 4.7 uF/50V	C702	22371682	MY 0.0068 uF
C416	22448479	EL 4.7 uF/50V	C703	22445470	EL 47 uF/16V
C417	22371472	MY 0.0047 uF	C704	22371103	MY 0.01 uF
C418	22371472	MY 0.0047 uF	C705	22361221	CE 220 pF

Symbol No.	Part No.	Description
C706	22361221	CE 220 pF
C707	22321183	Polypropylene 1500 pF
C801	22448478	EL 0.47 uF/50V
C802	22448478	EL 0.47 uF/50V
C803	22448479	EL 4.7 uF/50V
C804	22448479	EL 4.7 uF/50V
C805	22447100	EL 10 uF/35V

Resistors

All resistors are carbon film 1/6W, $\pm 5\%$ unless otherwise noted. K = 1000, M = 1000000

R002	92547331	330 ohm 1/2W
R003	22519121	120 ohm
R004	22519391	390 ohm
R007	22519102	1K ohm
R008	22519221	220 ohm
R301	22519102	1K ohm
R302	22519102	1K ohm
R303	22519332	3.3K ohm
R304	22519332	3.3K ohm
R305	22519224	220K ohm
R306	22519224	220K ohm
R307	22519473	47K ohm
R308	22519473	47K ohm
R309	22519562	5.6K ohm
R310	22519562	5.6K ohm
R311	22519330	33 ohm
R312	22519330	33 ohm
R313	22519224	220K ohm
R314	22519224	220K ohm
R315	92547221	220 ohm 1/2W
R317	22519334	330K ohm
R318	22519334	330K ohm
R319	22519334	330K ohm
R320	22519334	330K ohm
R321	22519334	330K ohm
R322	22519334	330K ohm
R323	22519103	10K ohm

Symbol No.	Part No.	Description
R324	22519103	10K ohm
R325	22519224	220K ohm
R326	22519224	220K ohm
R327	22519821	820 ohm
R328	22519680	68 ohm
R329	22519334	330K ohm
R330	22519103	10K ohm
R331	22519104	100K ohm
R332	22519104	100K ohm
R333	22519334	330K ohm
R334	22519334	330K ohm
R335	22519123	12K ohm
R336	22519123	12K ohm
R337	22519102	1K ohm
R338	22519102	1K ohm
R339	22519472	4.7K ohm
R340	22519472	4.7K ohm
R341	22519332	3.3K ohm
R342	22519332	3.3K ohm
R343	22519224	220K ohm
R344	22519224	220K ohm
R345	22519333	33K ohm
R346	22519333	33K ohm
R347	22519333	33K ohm
R348	92547221	220 ohm 1/2W
R349	22519823	82K ohm
R350	22519823	82K ohm
R351	22519104	100K ohm
R352	22519104	100K ohm
R353	22519104	100K ohm
R354	22519104	100K ohm
R355	22519273	27K ohm
R356	22519273	27K ohm
R357	22519272	2.7K ohm
R358	22519272	2.7K ohm
R359	22519151	150 ohm
R360	22519151	150 ohm
R361	22519151	150 ohm
R362	22519151	150 ohm
R363	22519151	150 ohm
R364	22519151	150 ohm
R365	22519682	6.8K ohm
R366	22519682	6.8K ohm
R367	22519472	4.7K ohm
R368	22519472	4.7K ohm

Symbol No.	Part No.	Description
R369	22519332	3.3K ohm
R370	22519332	3.3K ohm
R371	22519392	3.9K ohm
R372	22519392	3.9K ohm
R373	22519223	22K ohm
R374	22519223	22K ohm
R375	22519223	22K ohm
R376	22519223	22K ohm
R377	22519223	22K ohm
R378	22519223	22K ohm
R379	22519123	12K ohm
R380	22519123	12K ohm
R381	22519223	22K ohm
R382	22519223	22K ohm
R383	22519333	33K ohm
R384	22519333	33K ohm
R385	22519823	82K ohm
R386	22519823	82K ohm
R387	22519104	100K ohm
R388	22519104	100K ohm
R389	22519472	4.7K ohm
R390	22519472	4.7K ohm
R391	22519273	27K ohm
R392	22519273	27K ohm
R393	22519333	33K ohm
R394	22519333	33K ohm
R395	22519121	120 ohm
R396	22519121	120 ohm
R397	22519472	4.7K ohm
R398	22519472	4.7K ohm
R399	22519103	10K ohm
R400	22519103	10K ohm
R401	22519223	22K ohm
R402	22519103	10K ohm
R405	22519223	22K ohm
R406	22519223	22K ohm
R407	22519473	47K ohm
R408	22519473	47K ohm
R411	22519103	10K ohm
R412	22570777	100K ohm, $\pm 1\%$
R413	22519223	22K ohm
R414	22519223	22K ohm
R415	22519622	6.2K ohm
R416	22519622	6.2K ohm
R417	22519682	6.8K ohm

Symbol No.	Part No.	Description
R418	22519682	6.8K ohm
R419	22519752	7.5K ohm
R420	22519752	7.5K ohm
R421	22519334	330K ohm
R422	22519334	330K ohm
R423	22519392	3.9K ohm
R424	22519392	3.9K ohm
R425	22519431	430 ohm
R426	22519431	430 ohm
R427	22519103	10K ohm
R428	22519103	10K ohm
R429	22519152	1.5K ohm
R430	22519152	1.5K ohm
R431	22519272	2.7K ohm
R432	22519272	2.7K ohm
R433	22519682	6.8K ohm
R434	22519682	6.8K ohm
R435	22519681	680 ohm
R436	22519681	680 ohm
R437	22519472	4.7K ohm
R438	22519472	4.7K ohm
R439	22519102	1K ohm
R440	22519102	1K ohm
R441	22519223	22K ohm
R442	22519223	22K ohm
R445	22519103	10K ohm
R446	22519103	10K ohm
R447	22519103	10K ohm
R448	22519223	22K ohm
R449	22519103	10K ohm
R501	22519681	680 ohm
R502	22519331	330 ohm
R503	22519225	2.2M ohm
R504	22519103	10K ohm
R505	22519333	33K ohm
R506	22519224	220K ohm
R508	22519103	10K ohm
R509	22519103	10K ohm
R510	22519102	1K ohm
R511	22519103	10K ohm
R512	22519102	1K ohm
R513	22519332	3.3K ohm
R514	22519394	390K ohm
R515	22519223	22K ohm
R520	22519472	4.7K ohm

Symbol No.	Part No.	Description
R521	22519471	470 ohm
R523	22519103	10K ohm
R524	22519103	10K ohm
R525	22519103	10K ohm
R526	22519103	10K ohm
R527	22519223	22K ohm
R528	22519473	47K ohm
R529	22519473	47K ohm
R530	22519473	47K ohm
R531	22519103	10K ohm
R532	22519473	47K ohm
R533	22519103	10K ohm
R534	22519104	100K ohm
R535	22519151	150 ohm
R536	22519151	150 ohm
R537	22519221	220 ohm
R539	22519331	330 ohm
R540	22519222	2.2K ohm
R541	22519331	330 ohm
R542	22571151	150 ohm 1W
R543	22519102	1K ohm
R544	22519331	330 ohm
R545	22519102	1K ohm
R548	22519103	10K ohm
R549	22519394	390K ohm
R550	22519104	100K ohm
R551	22519224	220K ohm
R553	22519473	47K ohm
R554	22519472	4.7K ohm
R555	22519104	100K ohm
R556	22519103	10K ohm
R557	22519103	10K ohm
R559	22519103	10K ohm
R560	22519473	47K ohm
R561	22519103	10K ohm
R562	22519104	100K ohm
R563	22519223	22K ohm
R564	22519103	10K ohm
R565	22519394	390K ohm
R566	22519223	22K ohm
R567	22519103	10K ohm
R701	22519222	2.2K ohm
R702	22519473	47K ohm

Symbol No.	Part No.	Description
R703	22519472	4.7K ohm
R705	22519680	68 ohm
R706	92547121	120 ohm 1/2W
R707	92547391	390 ohm 1/2W
R801	22519333	33K ohm
R802	22519333	33K ohm
R803	22519223	22K ohm
R804	22519223	22K ohm
R805	22519473	47K ohm
R806	22519473	47K ohm
R807	22519681	680 ohm
R808	22519681	680 ohm
R809	22519681	680 ohm
R810	22519681	680 ohm
R811	22519561	560 ohm
R812	22519561	560 ohm
R814	22519561	560 ohm
R815	22519561	560 ohm
R816	22519561	560 ohm
R817	22519561	560 ohm
VR301	22615302	Volume Rotary 50K ohm
VR302	22615302	Volume Rotary 50K ohm
VR303	92658764	Semi Volume 50K ohm
VR304	92658764	Semi Volume 50K ohm
VR305	92658756	Semi Volume 500 ohm
VR306	92658756	Semi Volume 500 ohm
VR701	92658766	Semi Volume 200K ohm
VR702	92658766	Semi Volume 200K ohm
Miscellaneous		
M001	95791713	Assembly, Main Motor
HD001	22217500	Head, Rec/Play
HD002	92218256	Head, Erase
● J001	22169225	Socket, AC
J301	22198242	Jack, Mic
J302	22198244	Jack, Mic
J303	92163887	Jack, US 4P
J305	22198243	Jack, Headphone
J501	92169094	Jack, Cont
L705	92147269	Assembly, Solenoid

Note: ● : For West German model only (AD), ■ : For North American model only (UC),
▲ : For Canadian model only (UQ), Others : Common

Symbol No.	Part No.	Description	Symbol No.	Part No.	Description
△ ■	P001	22176756			Cord, Power
△ ▲	P001	22176756			Cord, Power
	M002	95791798			Assembly, Reel Motor
△	S001	92196751			Switch, Power
△	S001	92340228			Switch, Power
	S745	92196436			Switch, Cassette
	S746	92196436			Switch, Cassette
△ ●	T001	22224749			Trans, Power
△ ■	T001	22224748			Trans, Power
△ ▲	T001	22224748			Trans, Power

Note: ● : For West German model only (AD), ■ : For North American model only (UC),
▲ : For Canadian model only (UQ), Others : Common

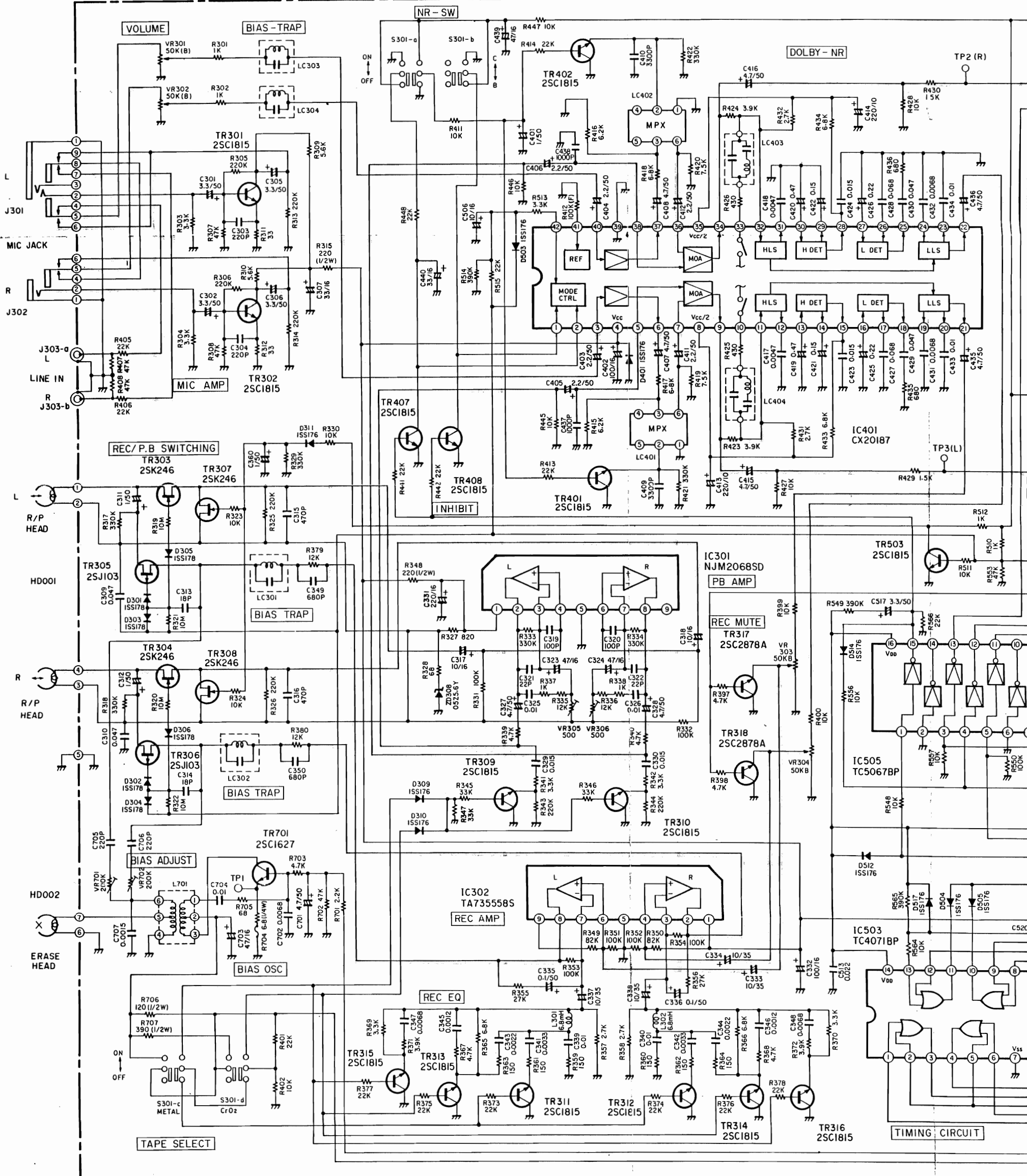
Parts List by the Destination

Symbol No.	Description	POWER SOURCE		
		UQ ▲ 120V	UC ■ 120V	AD ● 220V
		Canada	North America	West Germany
J001	Socket, AC	Not Used	Not Used	22169225
P001	Cord, Power	22176756	22176756	Not Used
T001	Trans Power	22224748	22224748	22224749
60	Bush, Cord	95844322	95844322	Not Used
105-1	Cord, Power	Not Used	Not Used	92176616
105-4	Owners Manual	22954737	22954749	22954737
106	Sack, Polyethylene	92941302	92941302	Not Used

Note: ● : For West German model only (AD), ■ : For North American model only (UC),
▲ : For Canadian model only (UQ), Others : Common

Schematic Diagram

IC	IC301		IC302		IC401		IC505							
Transistor (TR)	TR301 TR302 TR303~TR308	TR301 TR302 TR701	TR407,408 TR315,TR313	TR309 TR311	TR402 TR401 TR310	TR317 TR318	TR314 TR316	TR503						
Diode (D,LD)	D305 D301,D303 D306 D302,D304		D311		ZD308 D309 D310		D503		D401		D514 D512		D517,D504,D505	



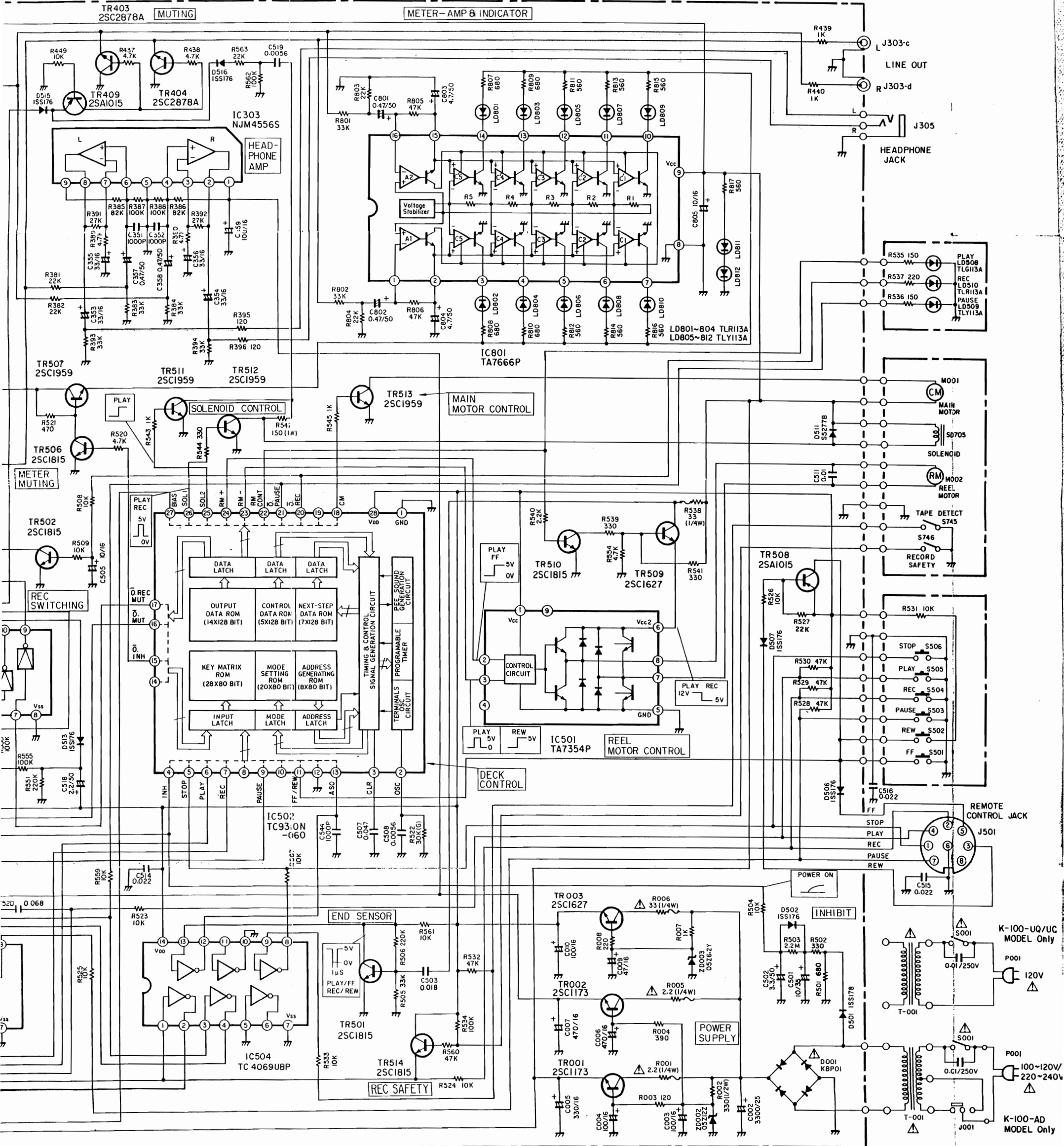
CAUTION:

The Δ mark, the symbol No. in a box in the schematic diagram and the shaded area in the parts list designate components which have special characteristics important for safety and should be replaced only with types identical to those in the original circuit or specified in the parts list.

CAUTION:

Check the leakage-current between the ex customer. It must be measured less than "Current" in UL 1270 paragraph 34.1 to 34.

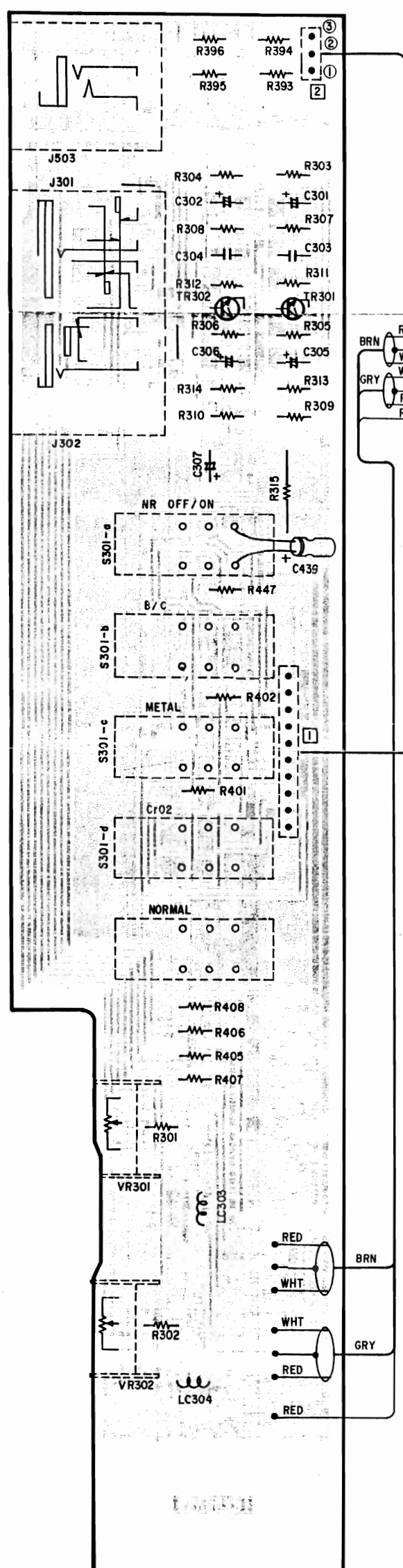
IC 303	IC 504	IC 502	IC 801	IC 501
TR409, TR403 TR507, TR502 TR506	TR404 TR511	TR512	TR513 TR501 TR514	TR510
				TR509
				TR508
D515	D513	D516	LD801~LD810	TR001~TR003
				LD811, LD812 ZD003, ZD002
				D507 D502 D001
				D506 D501
				LD508~LD509



exposed metal part and a pole of power cord, before returning the appliance to the 0.5mA in 120V AC in accordance with the measurements of "Appliance Leakage 34.8.

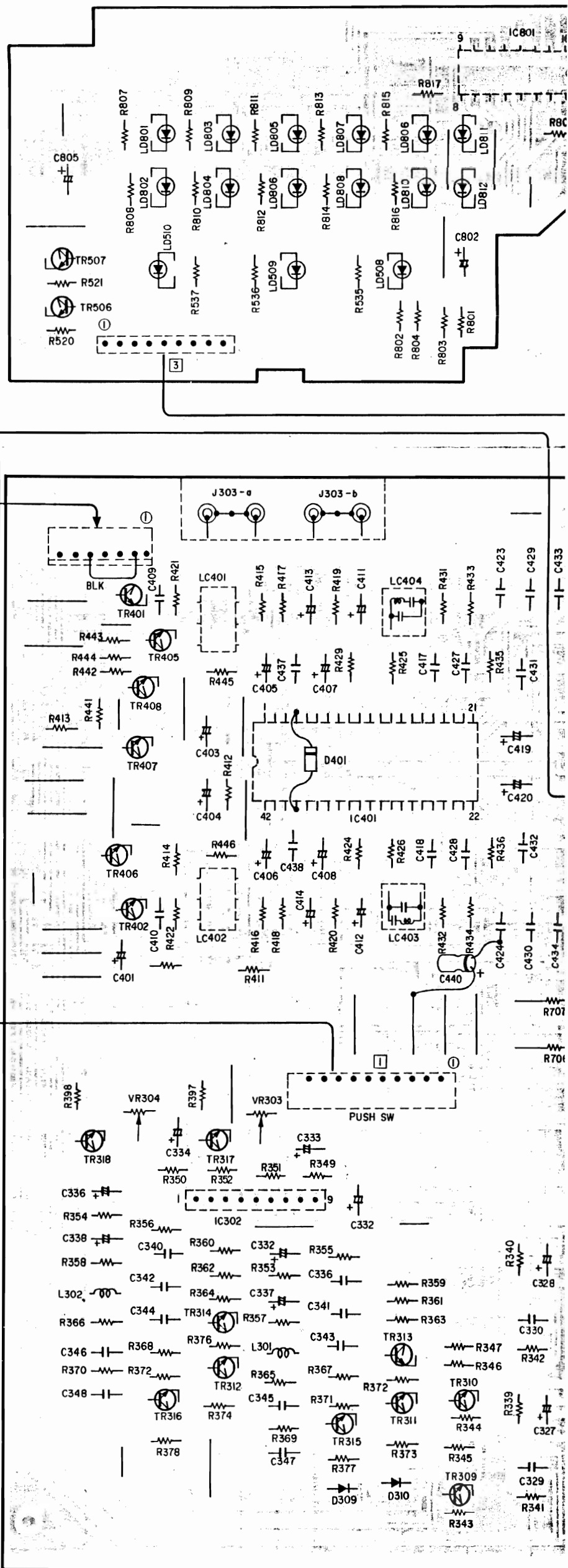
- NOTES:**
1. All resistance values are in ohms. K = 1,000
 2. All capacitance values are in microfarads. P = $\frac{1}{1,000,000}$

Parts Layout on P.C. Boards and Wiring Diagram



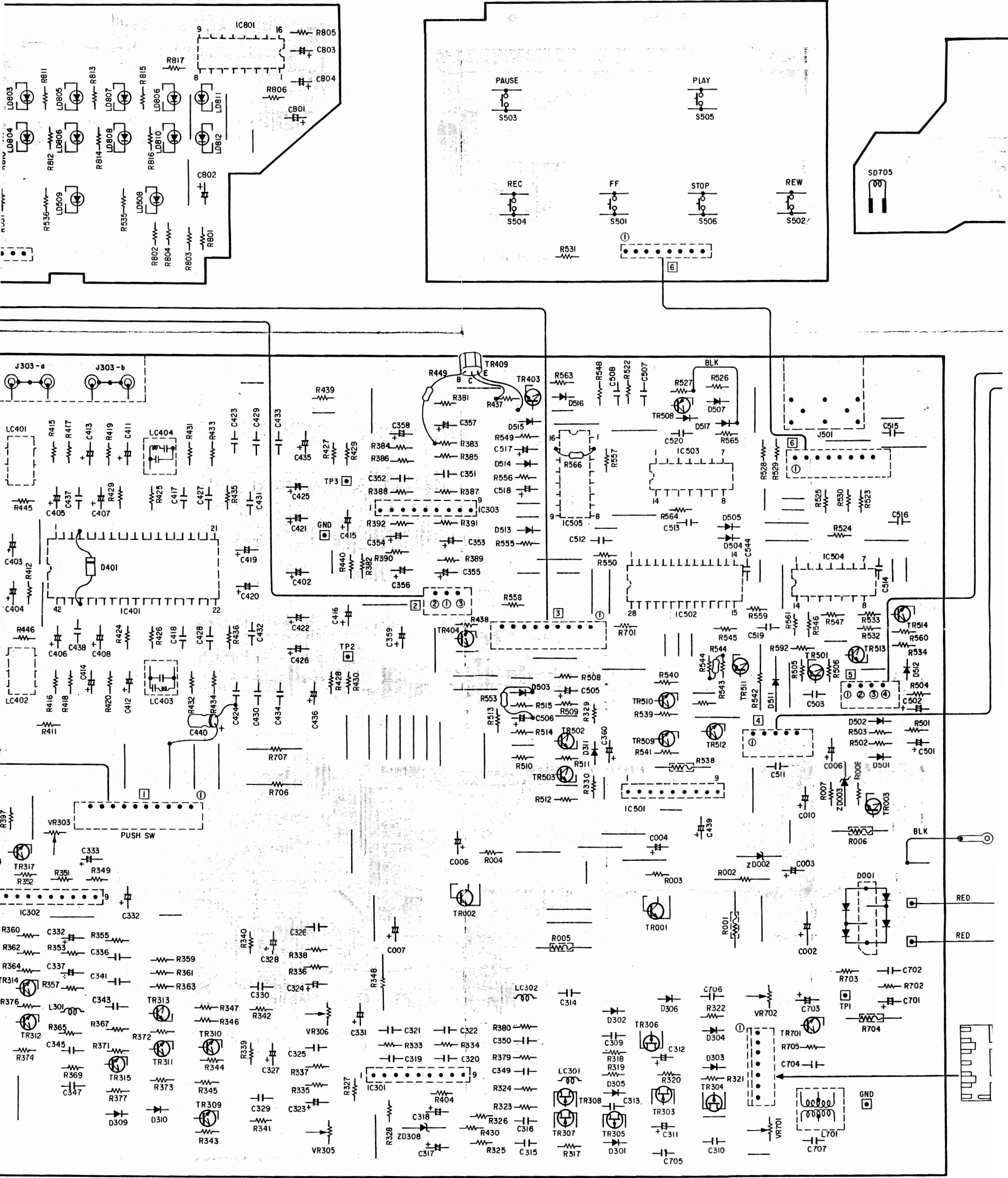
Switch P.C. Board

LED P.C. Board



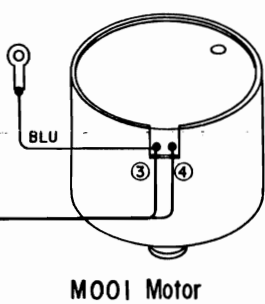
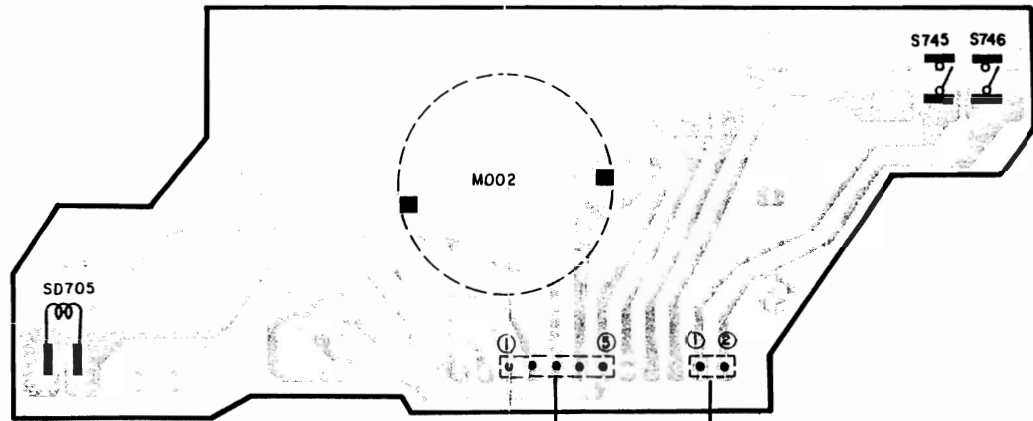
LED P. C. Board

Operate P. C. Board

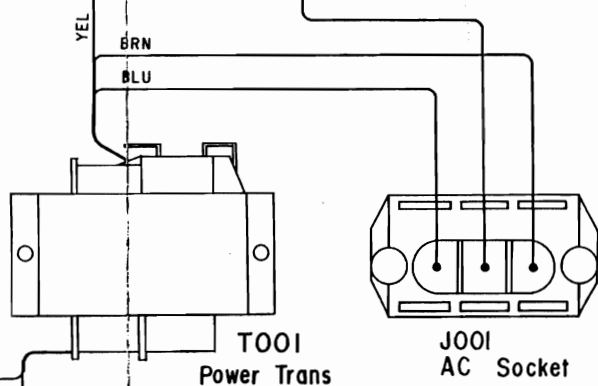
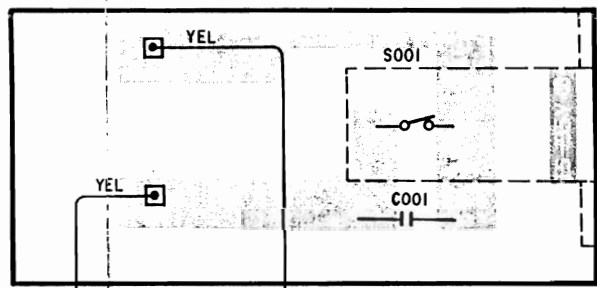


Main P. C. Board

Motor P. C. Board

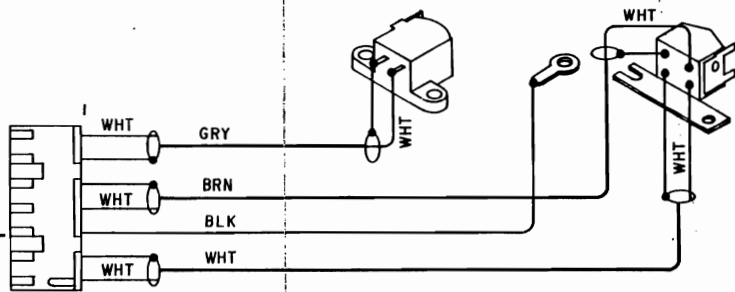


Power P. C. Board



HD002
Erase Head

HD001
R/P Head



- BLU Blue
- GRN Green
- BLK Black
- GRY Gray
- WHT White
- RED Red
- BRN Brown
- ORG Orange
- YEL Yellow
- VIO Violet
- PNK Pink
- GRN/WHT Green/White
- GRY/WHT Gray/White
- GRY/YEL Gray/Yellow
- GRN/YEL Green/Yellow
- SHLD. Shield

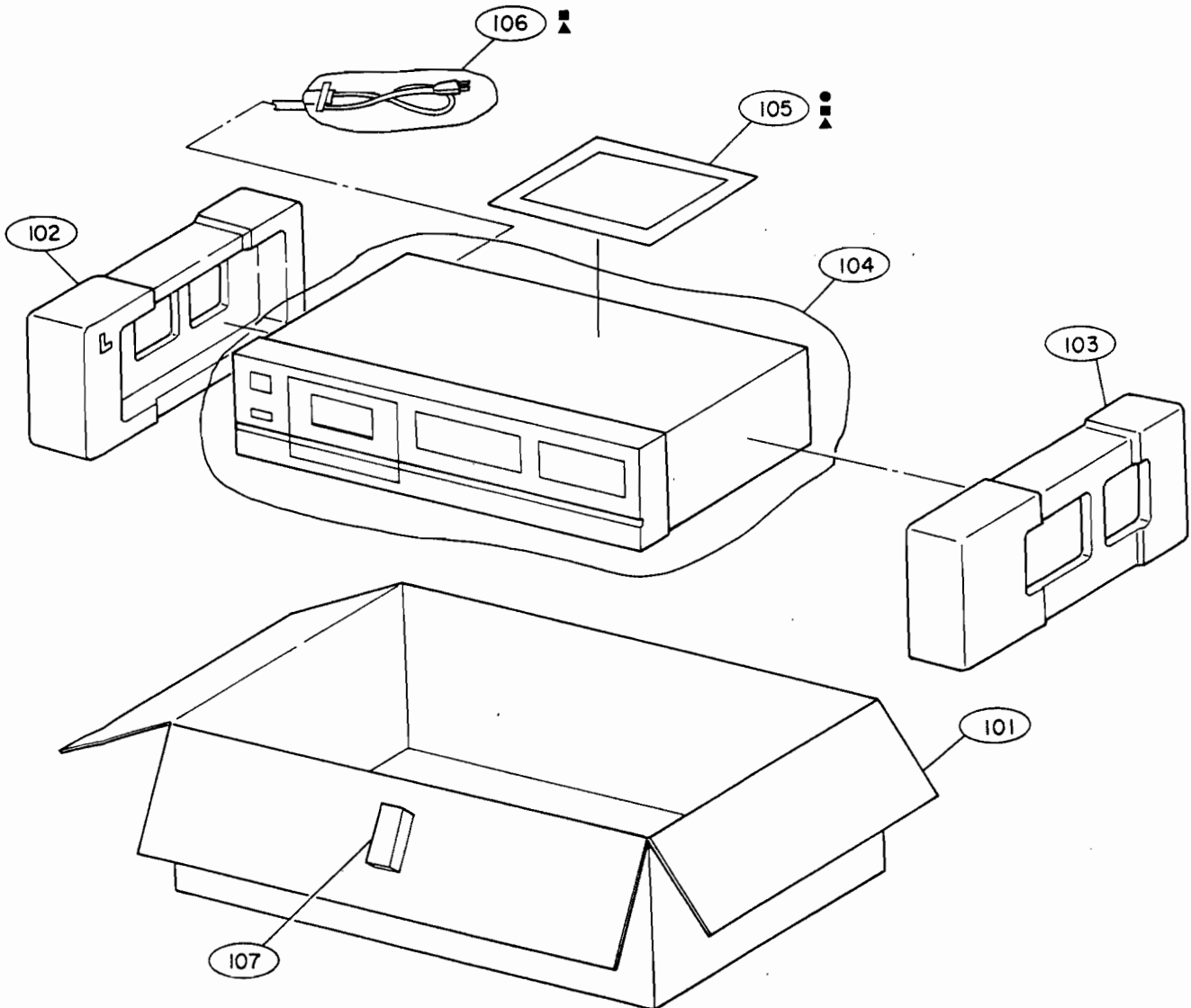
Packing Assembly Parts List

Symbol No.	Part No.	Description
101	22928998	Carton, Packing
102	22939835	Tray, Packing (L)
103	22939836	Tray, Packing (R)
104	92941324	Sack, Polyethylene
● 105-1	92176616	Cord, Power
105-2	22197073	Plug, USIP Cord
● 105-4	22954737	Owners, Manual
■ 105-4	22954749	Owners, Manual
▲ 105-4	22954737	Owners, Manual
■ 106	92941302	Sack, Polyethylene

Symbol No.	Part No.	Description
▲ 106	92941302	Sack, Polyethylene
107	22936621	Cushion

Note: ● : For West German model only (AD), ■ : For North American model only (UC),
 ▲ : For Canadian model only (UQ), Others : Common

Packing Method View



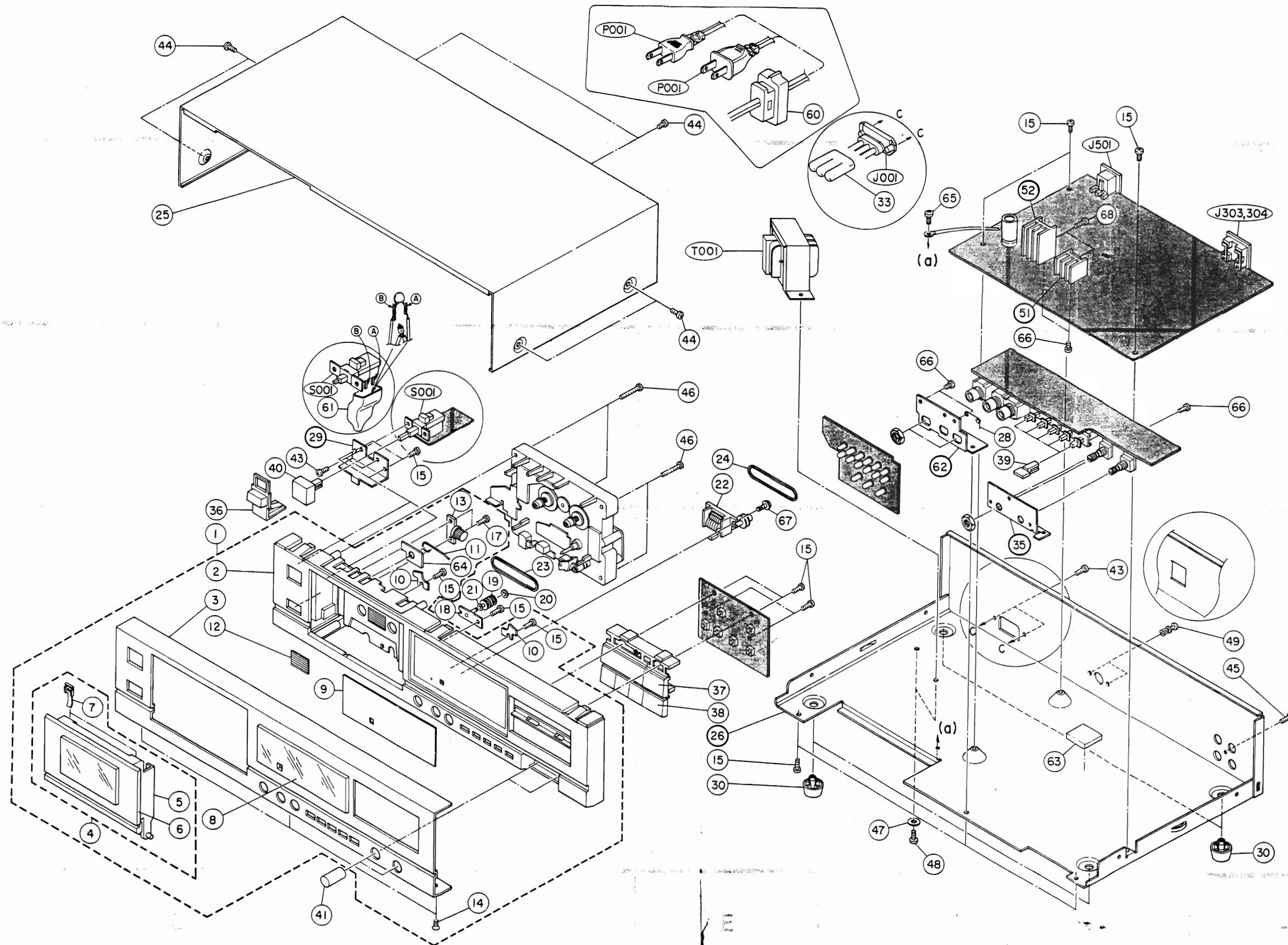
Cabinet Assembly Parts List

Symbol No.	Index	Part No.	Description	Symbol No.	Index	Part No.	Description
1	4-B	25829755	Assembly, Front Panel	48	5-V	92708047	Screw, $\phi 4 \times 8$
2	4-B	25829754	Sub Panel	49	4-H	20798758	Rivet, Special
3	4-B	25829752	Front Panel	■ 60	1-E	95844322	Bush, Cord
4	5-B	25812605	Assembly, Cassette Holder	▲ 60	1-E	95844322	Bush, Cord
5	5-B	25812602	Cassette Holder	61	3-C	92758261	Cover, Switch
6	5-B	25812603	Cover, Cassette	62		25743841	Bracket, Jack
7	5-B	95779272	Spring, C-Hold	63	5-G	22766063	Cushion, Rubber
8	5-B	25812604	Cover, Meter	64	4-C	25737695	Plate, Eject
9	5-C	25824698	Deco	65	2-F	22701881	Screw, $\phi 3 \times 5$
10		22755856	MNT, Cassette Holder	66		92707910	Screw, $\phi 3 \times 6$
11	4-D	22776789	Spring, Eject	67	4-E	92708096	Screw, $\phi 2.6 \times 12$
12	4-B	22747649	Reflector	68	2-G	92708539	Screw, $\phi 3 \times 6$
13	4-D	95883246	Damper, NEW				
14	6-D	22701973	Screw				
15		72707842	Screw, $\phi 3 \times 8$				
16		92708048	Screw, $\phi 3 \times 10$				
17	4-D	92707979	Screw, $\phi 2.6 \times 8$				
18	4-C	25743842	Bracket, Pulley				
19	4-D	20716790	Pulley				
20	4-D	95766050	Washer (W4)				
21	4-D	22753618	Washer (W2.1)				
22	3-E	25873664	Counter				
23	4-D	25759014	Belt, Q (Mechanism)				
24	3-E	25759015	Belt, Q (Counter)				
25	2-B	22882608	Cover, Top				
28	3-F	22776793	Spring, Earth				
30		22874535	Foot				
33	2-F	92184238	Cover, Acinlet				
36	4-B	25826928	Knob, Eject				
37	5-E	25826929	Knob, OPE-A				
38	5-E	25826930	Knob, OPE-B				
39	3-G	25826934	Knob, Push				
40	3-C	25826935	Knob, Power				
41	6-C	25826933	Knob, Volume				
42		22701549	Screw, $\phi 3 \times 6$				
43		92709445	Screw, $\phi 3 \times 6$				
44		92707911	Screw, $\phi 3 \times 8$				
45	4-H	92707826	Screw, $\phi 3 \times 10$				
46		92707806	Screw, $\phi 3 \times 25$				
47	5-F	22703636	Screw, $\phi 2.6 \times 12$				

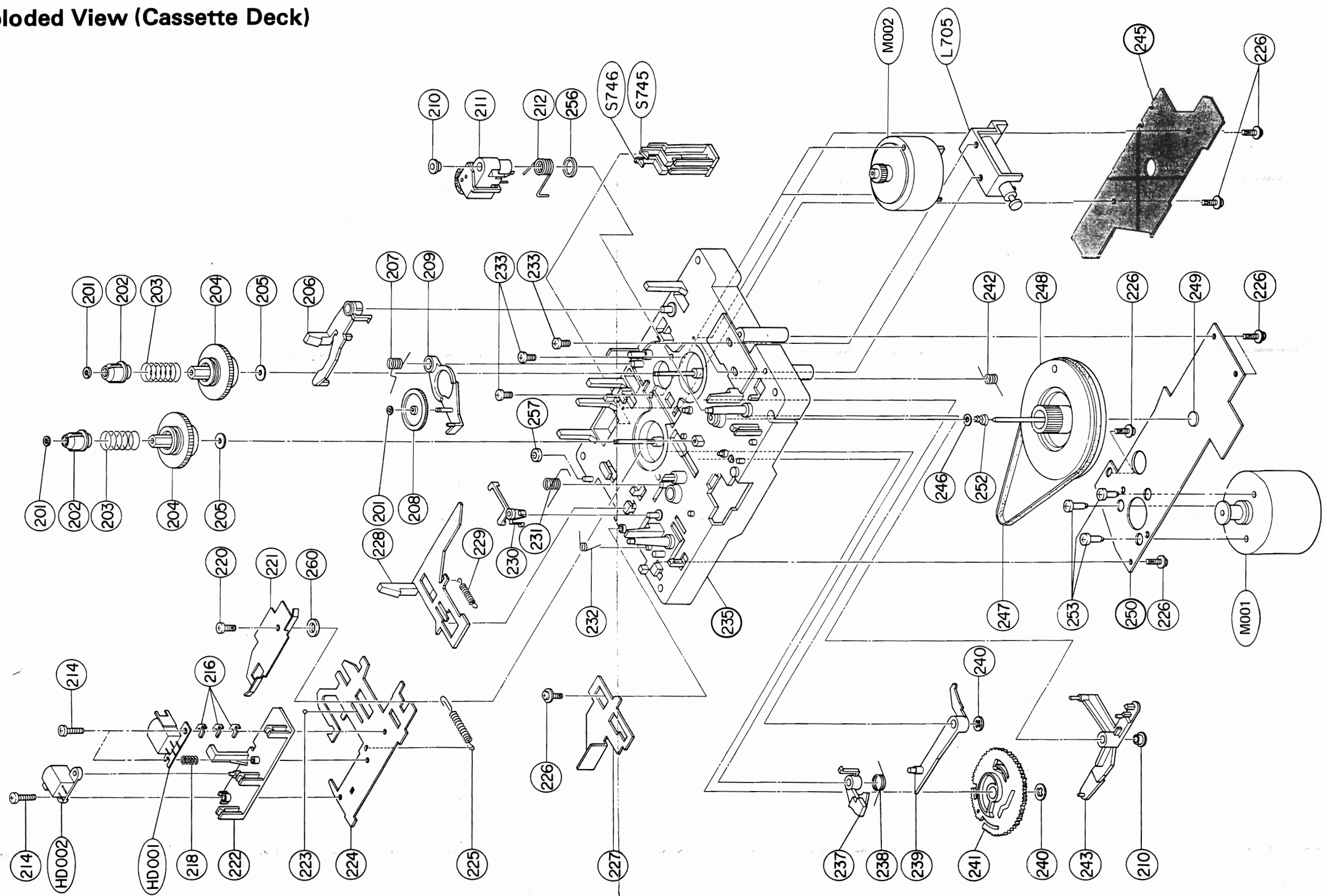
Note: ● : For West German model only (AD), ■ : For North American model only (UC),
▲ : For Canadian model only (UQ), Others : Common

NOTE: The parts without part number are not supplied. — 28 —

Exploded View (Cabinet)



Exploded View (Cassette Deck)



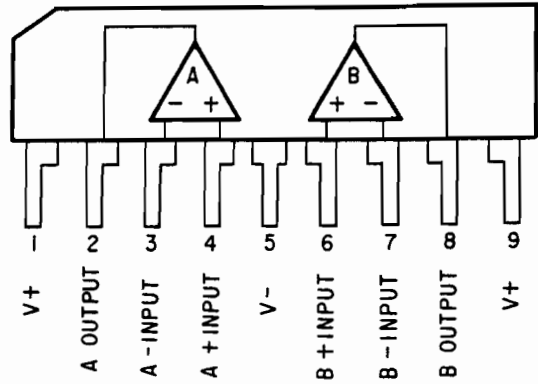
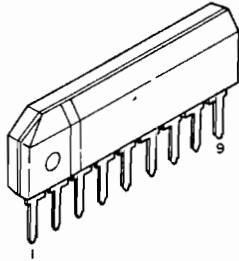
Cassette Deck Assembly Parts List

Symbol No.	Index	Part No.	Description	Symbol No.	Index	Part No.	Description
201		95766050	Washer, ϕ 1.6	252	3-G	95777071	Spring, F.W
202		95754436	Reel, Collar	253	4-G	92708528	Screw, ϕ 2.6 x 3
203		95777392	Spring, Reel	256	1-D	25726762	Spacer
204		95754469	Reel, Drum	257	3-D	95783239	Bushing
205		95764597	Washer, ϕ 1.3	260	4-C	95766211	Washer
206	2-C	95784145	Lever, Holder				
207	2-C	95778161	Spring, Holder				
208	3-C	95756408	Gear, Shift				
209	2-C	95784149	Lever, Take Up				
210		95783260	Bush				
211	1-D	95717600	Assembly, Pinch Roller				
212	1-D	95778159	Spring, P. Lever				
214		92708527	Screw, ϕ 2 x 8				
216	5-B	95735266	Adjust, Spacer				
218	6-B	95777137	Spring, Azimuth				
220	4-B	92708040	Screw, ϕ 2 x 5				
221	4-B	95779427	Spring, Hold				
222	6-B	95781283	Base, Head				
223	6-C	95757132	DG, Ball				
224	6-C	95749073	Head, Slider				
225	6-D	95776721	Spring, Assist				
226		92707361	Screw, ϕ 2.6 x 8				
227	6-D	25732768	Slide, Sub Eject				
228	4-C	95784148	Slider, Eject				
229	4-D	95776722	Spring, Eject				
230	4-D	95784146	Lever, Lock				
231	4-D	95778206	Spring				
232	4-D	95778160	Spring, Lock				
233	2-D	92708529	Screw, ϕ 2.6 x 4				
237	6-F	95784147	Lever, Play - Lock				
238	6-F	95778163	Spring, Play - Lock				
239	6-F	95784150	Lever, Play				
240		90798033	Ring				
241	5-G	95756409	Gear, Cam - Main				
242	2-G	95778162	Spring, Cam - Lock				
243	6-G	95784151	Lever, Cam - Lock				
246	3-F	95764486	Washer, ϕ 2.5				
247	4-G	95755600	Belt, Main				
248	2-G	25751838	Assembly, Flywheel				
249	2-H	95766024	Washer, Thrust				

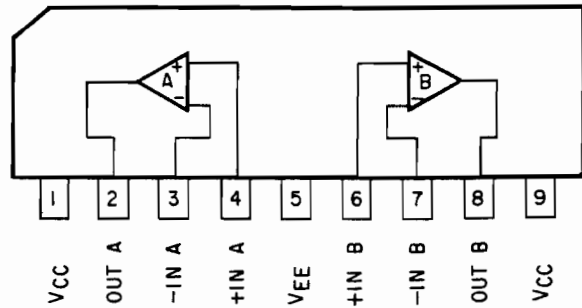
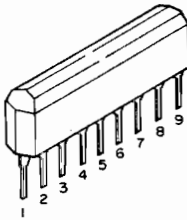
NOTE: The parts without part number are not supplied.

Semi-Conductor Lead Identifications

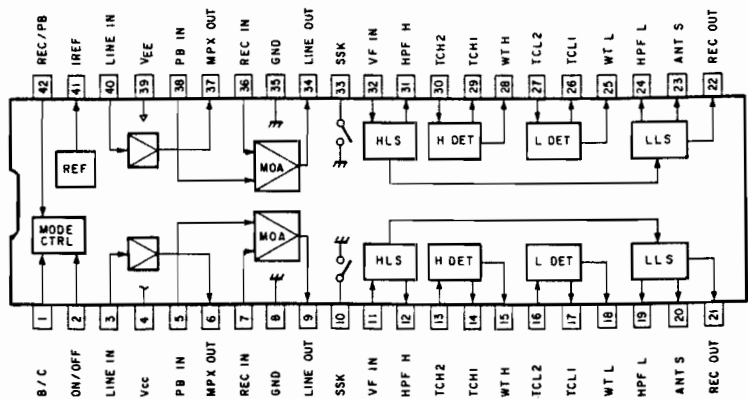
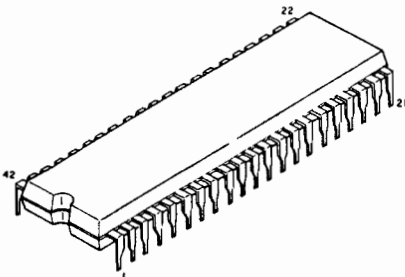
NJM2068SD: IC301
 NJM4556S: IC303



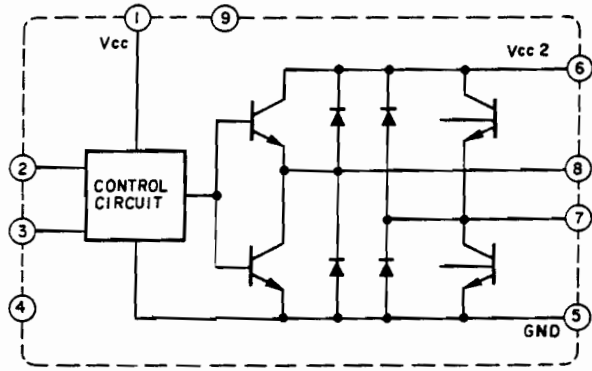
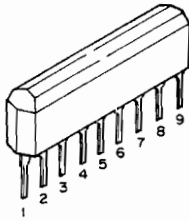
TA75558S: IC302



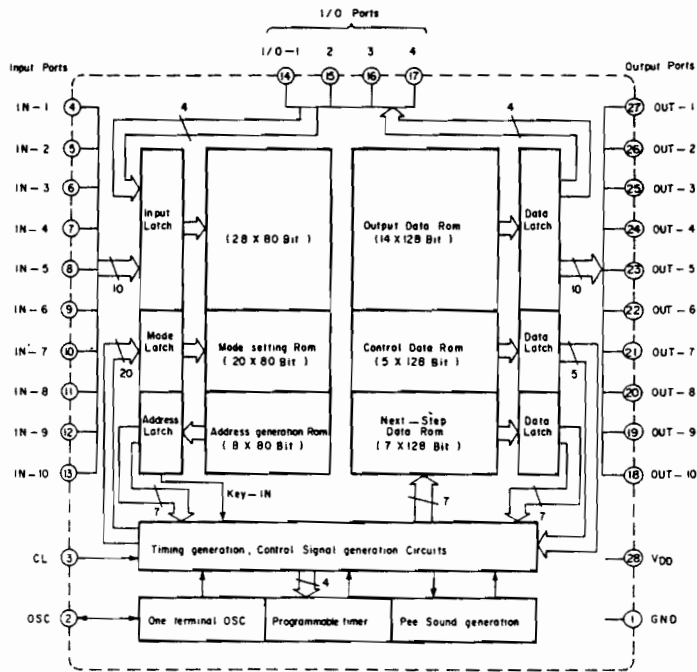
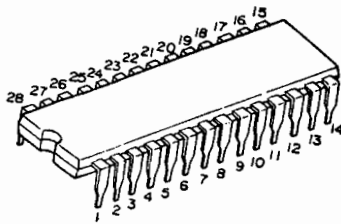
CX20187: IC401



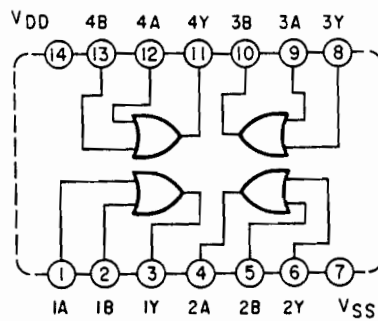
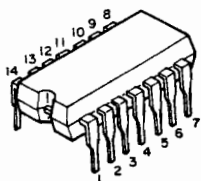
TA7354P: IC501



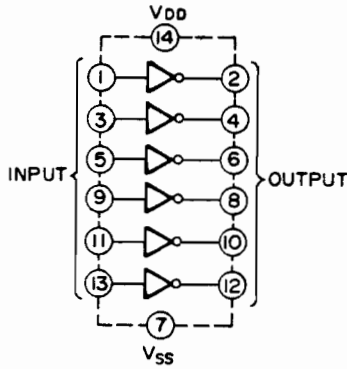
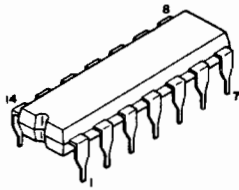
TC9310N-060: IC502



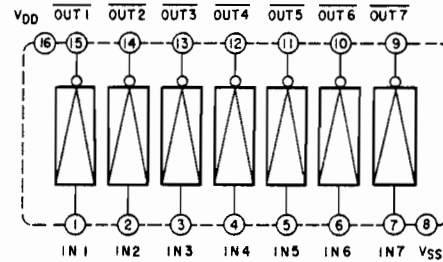
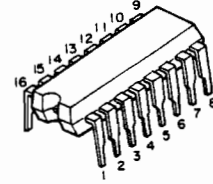
TC4071BP: IC503



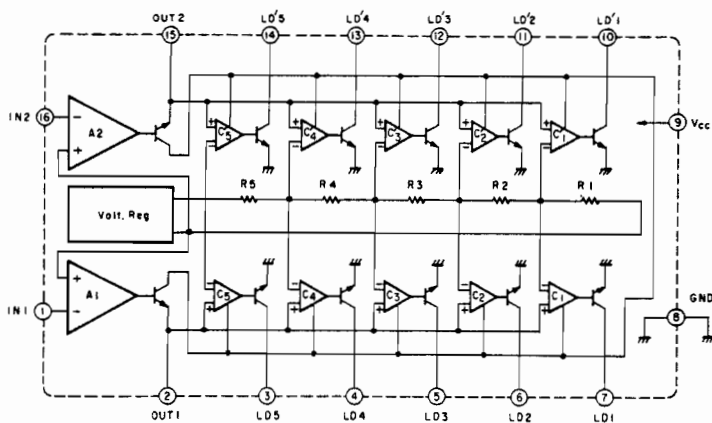
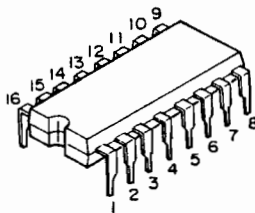
TC4069UBP: IC504



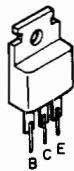
TC5067BP: IC505



TA7666P: IC801



2SC1173: TR001, 002



2SC1627: TR003, 509

2SC1815: TR301, 302, 309 ~ 316, 401, 402, 407, 408, TR501 ~ 503, 506, 510, 514

2SC2878: TR317, 318, 403, 404

2SA1015: TR409

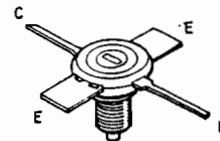
2SC1959: TR507, 511, 512, 513



2SK246: TR303, 304, 307, 308
2SJ103: TR305, 306



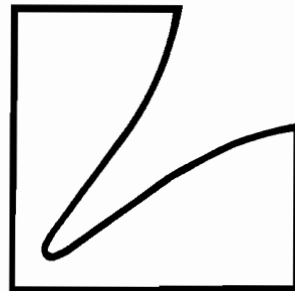
2SC1015: TR508



E: Emitter
C: Collector
B: Base

SH 064/8

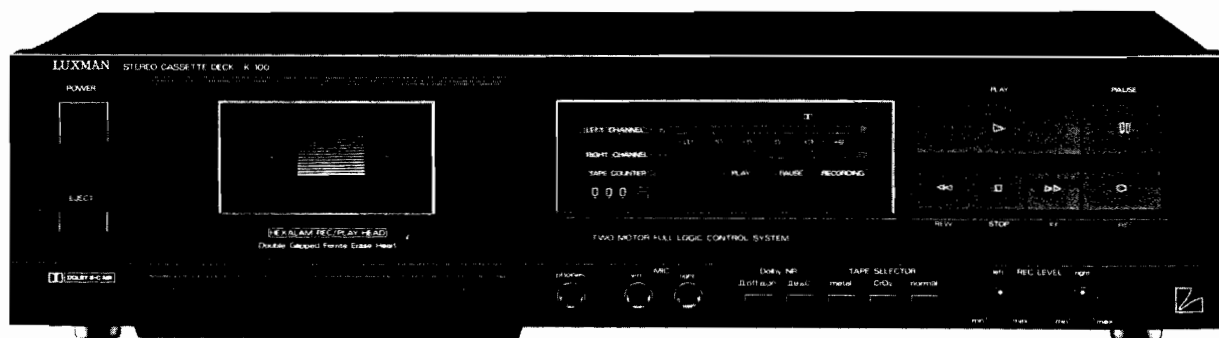
SERVICE MANUAL



Stereo Cassette Deck

K-100

Temporary



81K90 HE

PRODUCT SAFETY NOTICE

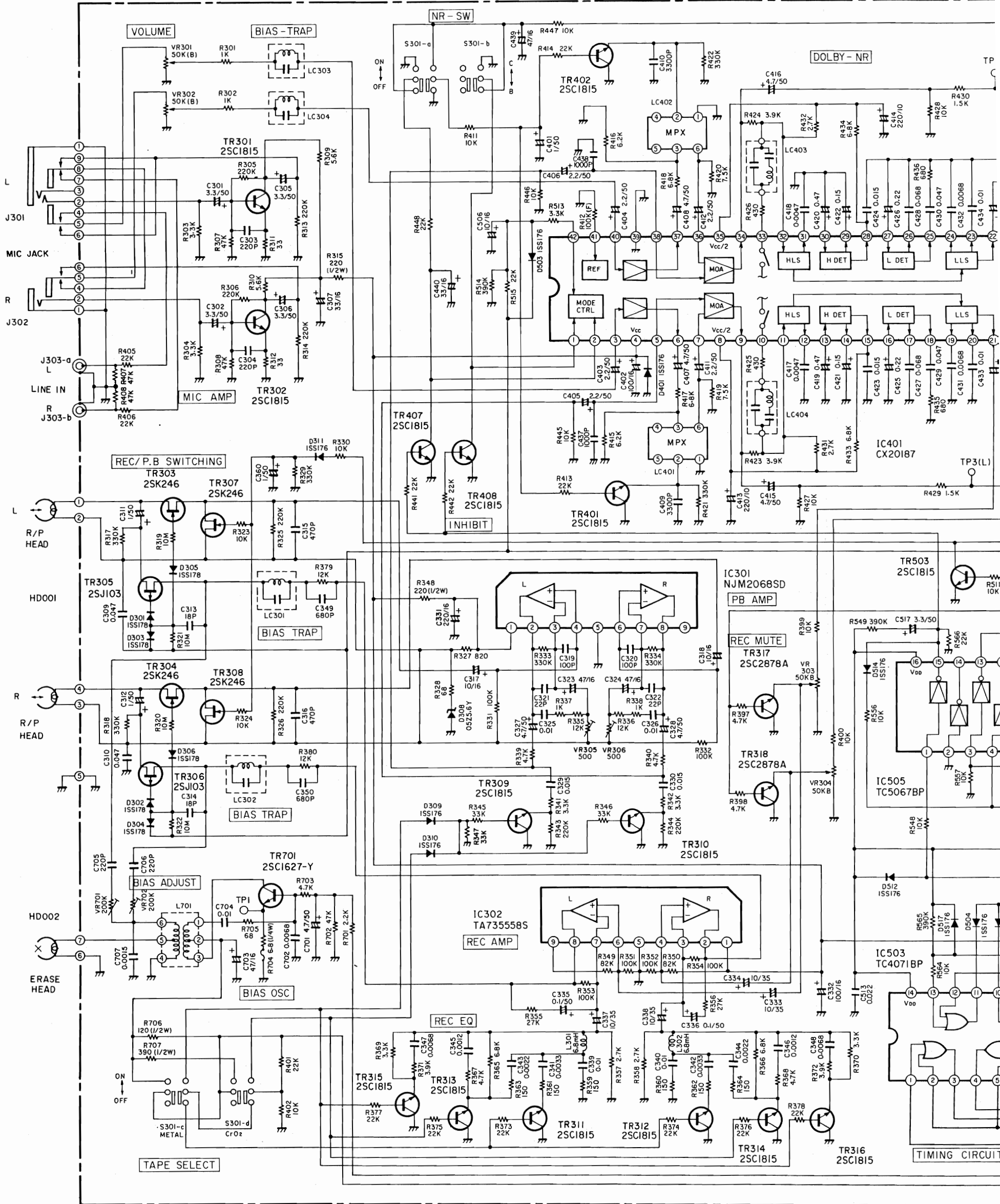
Many electrical and mechanical parts in this chassis have special characteristics. These characteristics often pass unnoticed and the protection afforded by them cannot necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts that have these special safety characteristics are identified in this manual and its supplements, electrical components having such features are identified by a \triangle in the schematic diagram and the parts list.

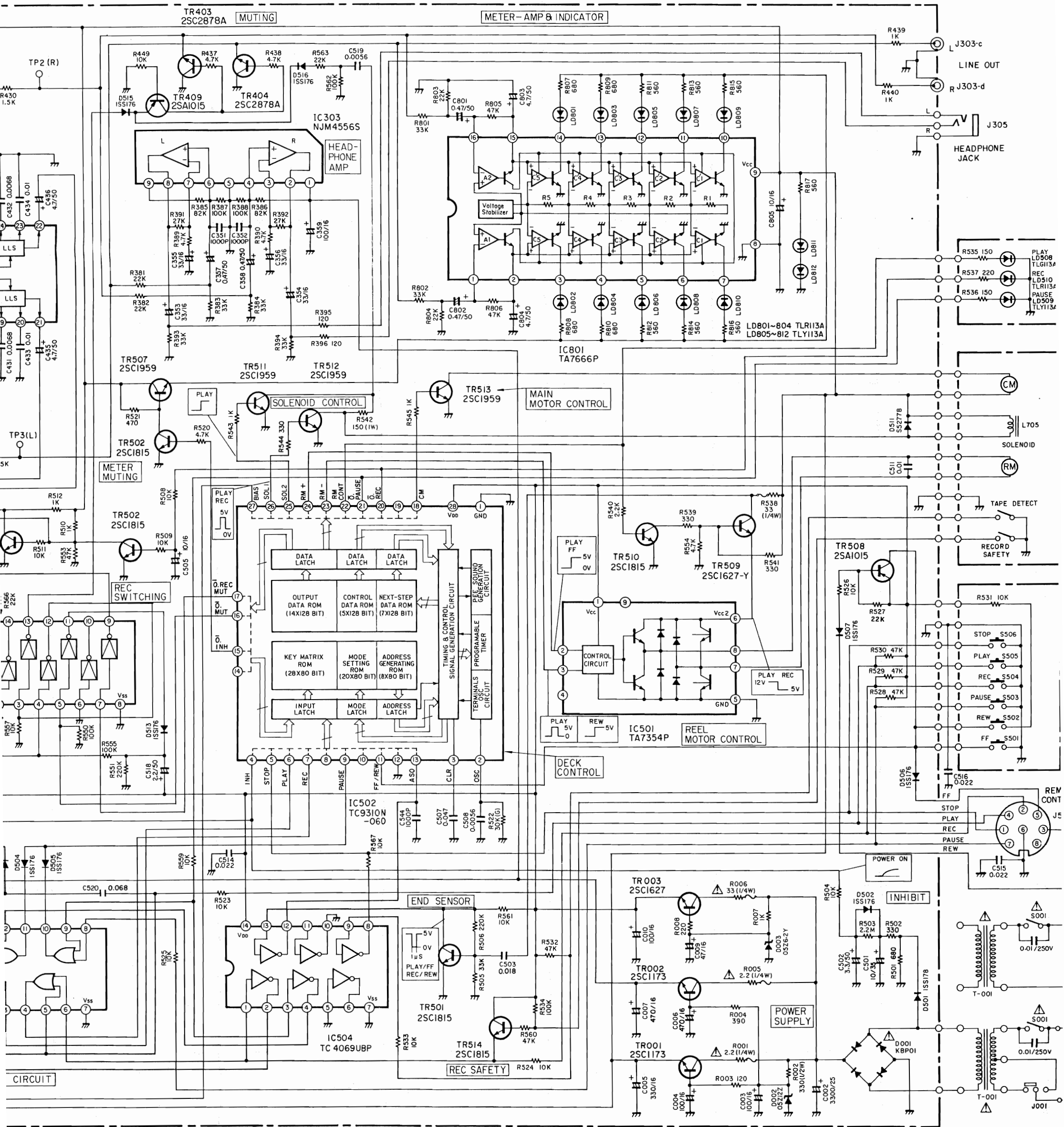
Before replacing any of these components, read the parts list in this manual carefully. The use of substitute replacement parts that do not have the same safety characteristics as specified in the parts list may create shock, fire, or other hazards.

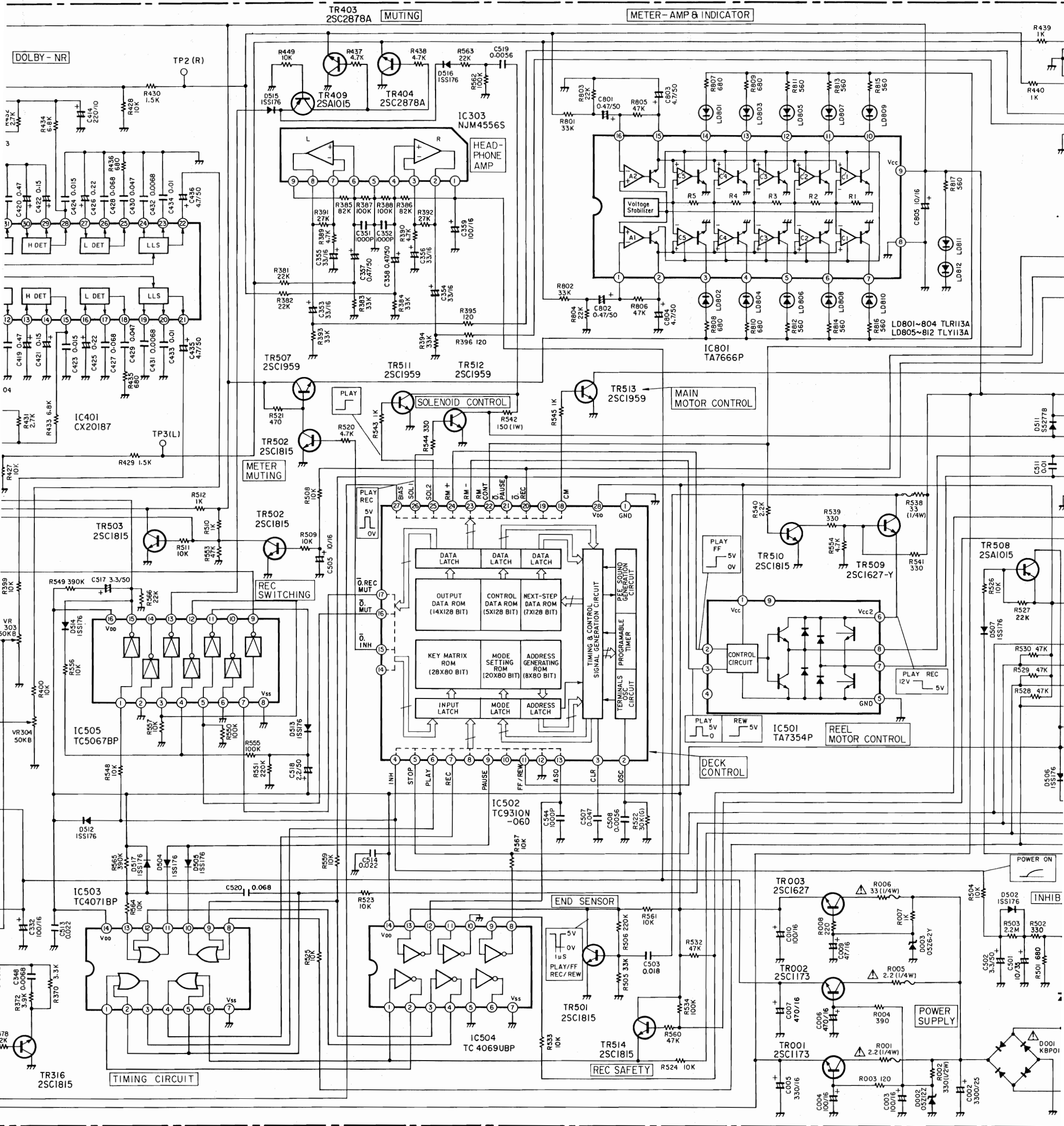
CAUTION:

Check the leakage-current between the exposed metal part and a pole of power cord, before returning the appliance to the customer. It must be measured less than 0.5mA in 120V AC in accordance with the measurements of "Appliance Leakage Current" in UL 1270 paragraph 34.1 to 34.8.

Schematic Diagram





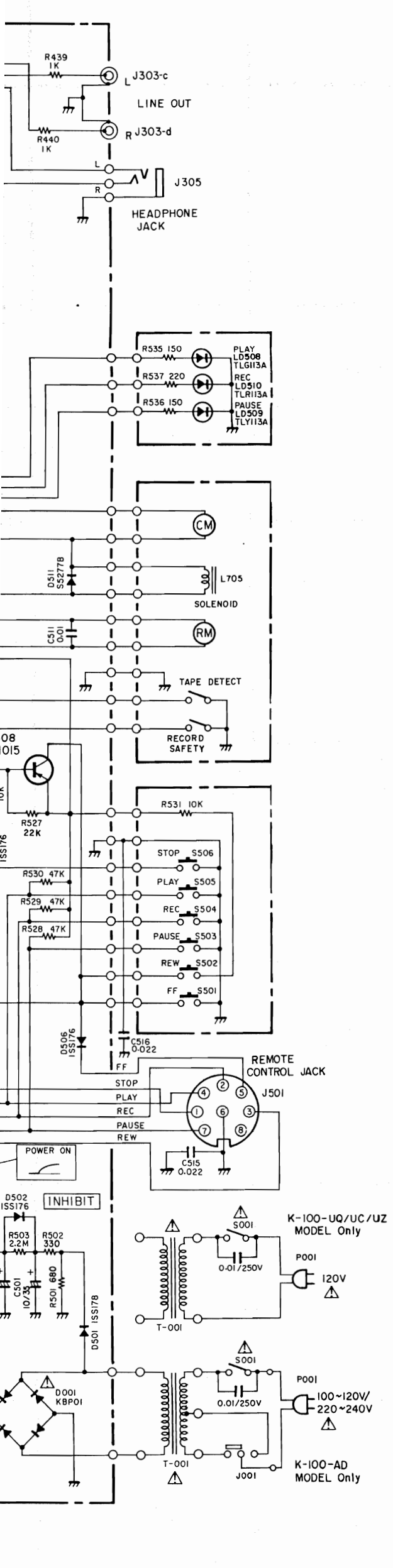


CAUTION:

The Δ mark, the symbol No. in a box in the schematic diagram and the shaded area in the parts list designate components which have special characteristics important for safety and should be replaced only with types identical to those in the original circuit or specified in the parts list.

CAUTION:

Check the leakage-current between the exposed metal part and a pole of power cord, before returning the appliance to the customer. It must be measured less than 0.5mA in 120V AC in accordance with the measurements of "Appliance Leakage Current" in UL 1270 paragraph 34.1 to 34.8.



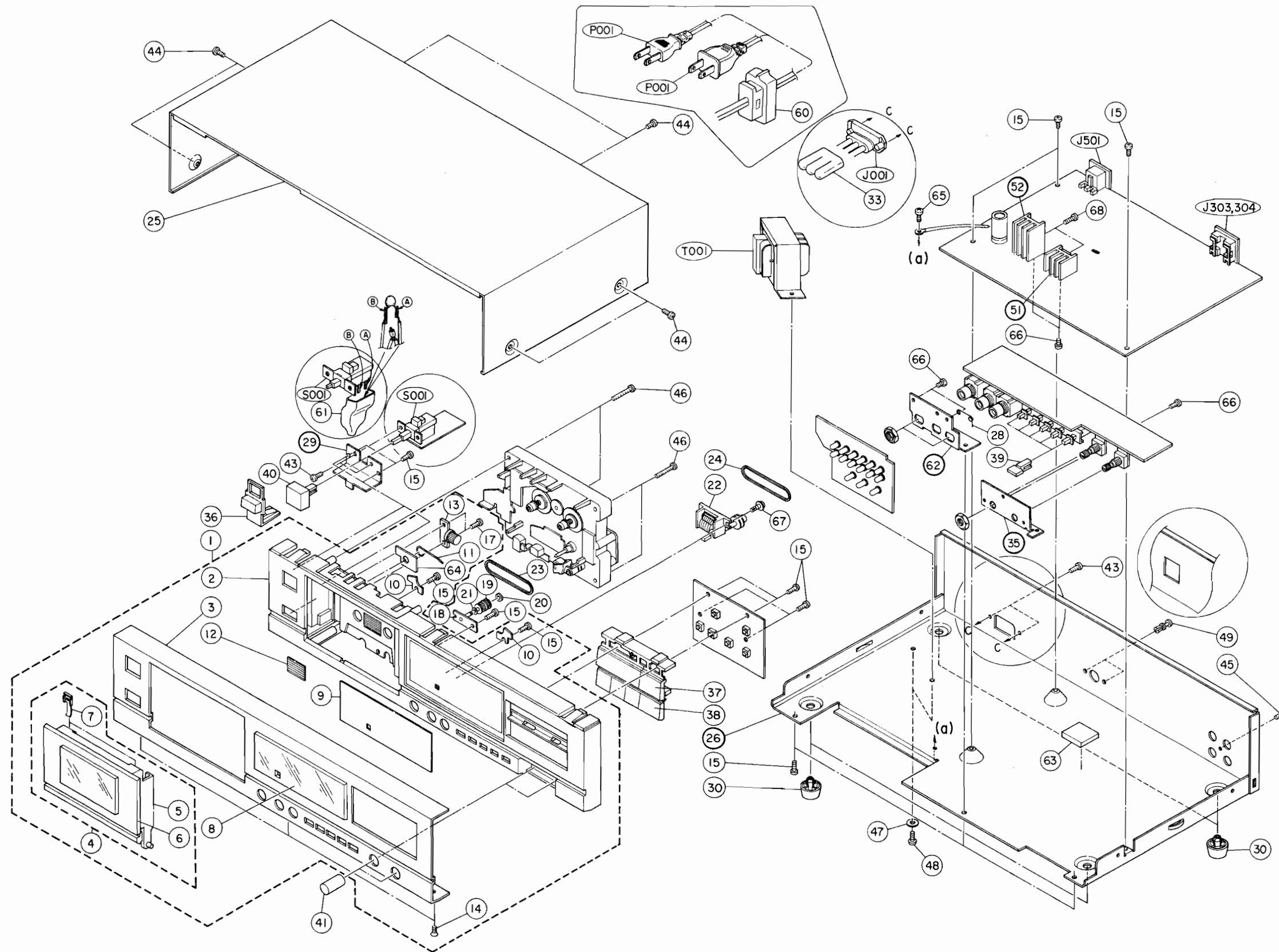
IC301	IC302	IC303	IC401	IC502	IC503	IC504	IC505	TR309, 310	TR503	TR506	TR507	TR508	TR509	TR510	TR511	TR512	TR513	TR514	TR403	TR404	TR407	TR408	TR409	TR501	TR502	TR301	TR302	TR303	TR304	TR305	TR306	TR307	TR308	TR701
1 9.8V 2 5.9V 3 6V 4 5.9V 5 0V 6 5.9V 7 6V 8 5.9V 9 9.8V	1 11.9V 2 6.6V 3 6.6V 4 6.6V 5 0V 6 6.6V 7 6.6V 8 6.6V 9 11.9V	1 11.9V 2 6.6V 3 6.6V 4 6.6V 5 0V 6 6.5V 7 6.5V 8 6.5V 9 11.9V	Dolby - B 8.2V Dolby - C 0V Others 11.8V Dolby - ON 0V Others 11.8V	1 0V 2 2.8V 3 5.5V 4 4.3V 5 5.5V 6 5.5V 7 5.5V 8 5.5V 9 5.5V 10 5.5V 11 2.8V 12 0V 13 0V 14 0V 15 0V 16 Play, REC 4.8V Others 0V REC 5V Others 0V Play, REC 4.7V Others 0V REC 4.7V Others 0V Pause 4.7V Others 0V Play, REC 4.7V Others 0V REW 4.9V Others 0V Play, REC, FF 4.8V Others 0V Play, REC 4.7V Others 0V REC 4.8V Others 0V 5.5V	1 0V 2 5.5V 3 5.5V 4 5.5V 5 5.5V 6 5.5V 7 0V 8 5.5V 9 Pause 4.7V Others 0V 10 5.6V 11 5.6V 12 0V 13 Others 5.6V 14 5.6V	1 5.5V 2 0V 3 Pause 4.7V Others 0V 4 0V 5 0V 6 5.6V 7 0V 8 5.6V 9 0V 10 5.6V 11 0V 12 0V 13 5.3V 14 5.6V	1 4.4V 2 0V 3 Play, REC 5.4V Others 0V 4 Play, REC 0V Others 5.1V 5 Play, REC 4.9V Others 0V 6 0V 7 REC 4.9V Others 0V 8 REC 0V Others 5.3V 9 5.6V 10 Play, REC 5.4V Others 0V 11 Play, REC 5.4V Others 0V 12 Play, REC 5.3V Others 0V 13 5.6V 14 5.6V 15 1.4V 16 5.6V	Normal Cr O2 Metal E 0V 0V 0V C 0V 0V 0V B 0V 0.6V 0.6V	Others REC E 0V 0V C 0V 11V B 0.7V 0.1V	E 0V C 11.9V B 0V	E 11.5V C 11.9V B 11.9V	E 5.6V C 2.8V B 5.6V	Others Play REC E 10.7V 4.8V C 11.9V 10.7V B 11.2V 5.5V	Others Play REC E 0V 0V C 11.2V 0V B 0V 0V	Others Play REC E 0V 0V C 11.9V 0.1V B 0V 0.8V	Others Play REC E 0V 0V C 11.9V 9.2V B 0V 0V	Others Play REC E 0V 0V C 10.9V 0V B 0V 0.8V	Tape OUT IN E 5.5V 5.5V C 5.6V 5.6V B 5.5V 0V	Others Play REC E 0V 0V C 11.8V 0V B 0.7V -0.3V	Others Play REC E 0V 0V C 11.8V 9.2V B 0V 0V	Others Play REC E 0V 0V C 10.9V 0V B 0V 0.8V	Others Play REC E 4.7V 0.1V C 4.7V -0.7V B 4V 0V	Others Play REC E 0V C 5.3V B 0.5V	Others Play REC E 0V 0V C 10.7V 0.1V B 0V 0.7V	Others REC E 0V C 6V B 0V	Others REC E 0V C 6V B 0V	Others REC E 0V C 6V B 0V	Others REC E 5.8V 6.4V G 6V 37.9V D 6.5V 6.5V	Others REC E 5.8V 6.4V G 6V 38.2V D 6.5V 6.5V	Others REC E 6V 6V G 0V 6.6V D 6V 6V	Others REC E 6V 6V G 0V 6.6V D 6V 6V	Others REC E 0V 0.3V 0.3V 0.4V C 11.9V 5.6V 6.4V 11.2V B 0V 0.7V 0.7V 0.4V		

NOTES:

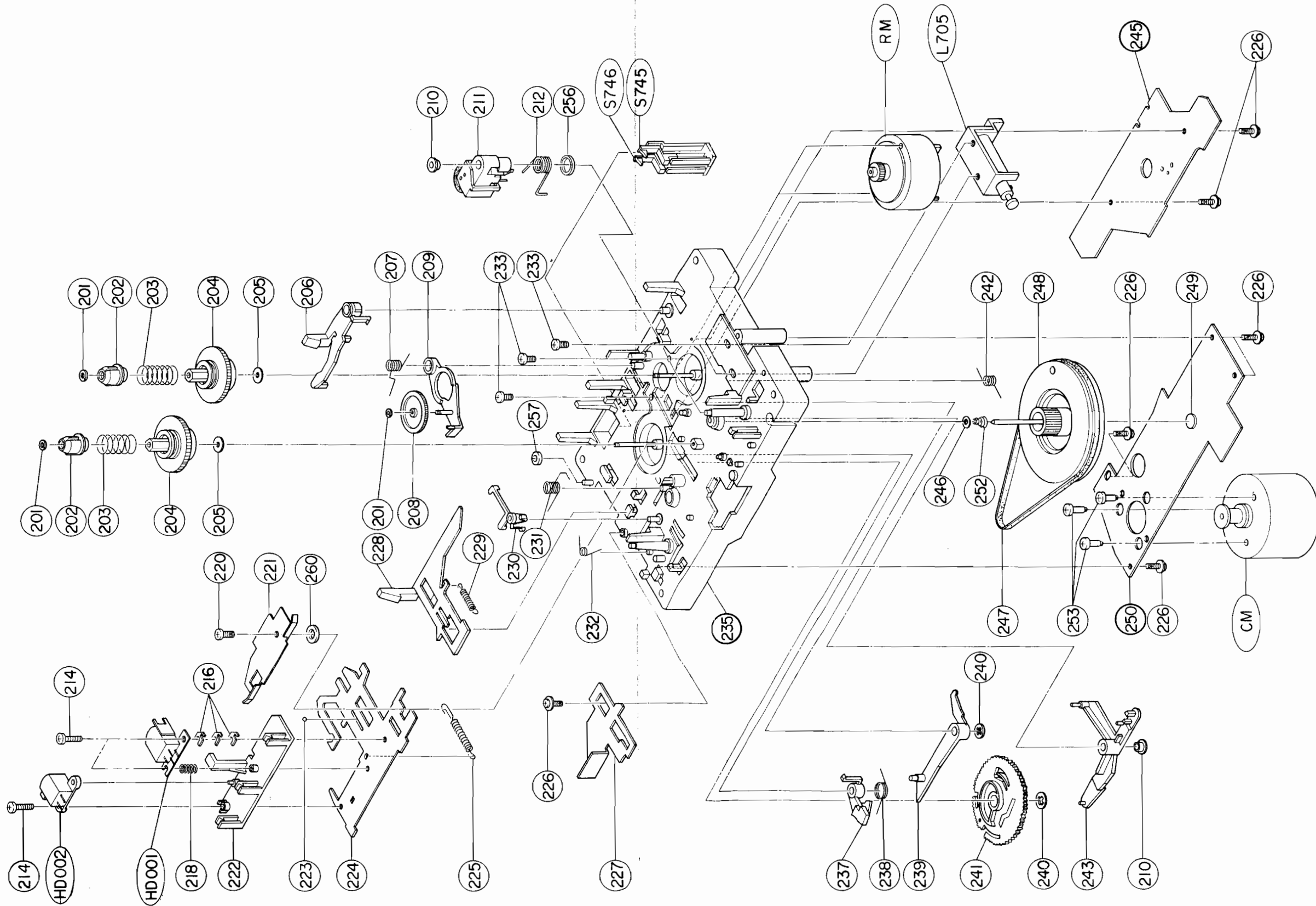
1. All resistance values are in ohms. K = 1,000
2. All capacitance values are in microfarads. P = $\frac{1}{1,000,000}$

K-100

Exploded View (Cabinet)



Exploded View (Cassette Deck)



Electrical Parts List

PRODUCT SAFETY NOTE: Products marked with a \triangle have special characteristics important to safety. Before replacing any of these components, read carefully the Product Safety Notice of this Service Manual. Don't degrade the safety of the product through improper servicing.

Symbol No.	Part No.	Description
IC's/Transistors		
IC301	22117845	IC, NJM2068SD
IC302	92555106	IC, TA75558S
IC303	22117815	IC, NJM4556S
IC401	22117814	IC, CX20187
IC501	40325460	IC, TA7354P
IC502	40413159	IC, TC9310N-060
IC503	40470713	IC, TC4071BP
IC504	40470693	IC, TC4069UBP
IC505	40480672	IC, TC5067BP
IC801	40356660	IC, TA7666P
TR001	36771650	Transistor, 2SC1173
TR002	36771650	Transistor, 2SC1173
TR003	36314470	Transistor, 2SC1627
TR301	36317460	Transistor, 2SC1815
TR302	36317460	Transistor, 2SC1815
TR303	36044630	FET, 2SK246
TR304	36044630	FET, 2SK246
TR305	36040910	FET, 2SJ103
TR306	36040910	FET, 2SJ103
TR307	36044630	FET, 2SK246
TR308	36044630	FET, 2SK246
TR309	36317460	Transistor, 2SC1815
TR310	36317460	Transistor, 2SC1815
TR311	36317460	Transistor, 2SC1815
TR312	36317460	Transistor, 2SC1815
TR313	36317460	Transistor, 2SC1815
TR314	36317460	Transistor, 2SC1815
TR315	36317460	Transistor, 2SC1815
TR316	36317460	Transistor, 2SC1815
TR317	36342200	Transistor, 2SC2878
TR318	36342200	Transistor, 2SC2878
TR401	36317460	Transistor, 2SC1815
TR402	36317460	Transistor, 2SC1815
TR403	36342200	Transistor, 2SC2878
TR404	36342200	Transistor, 2SC2878
TR407	36317460	Transistor, 2SC1815
TR408	36317460	Transistor, 2SC1815
TR409	36534060	Transistor, 2SA1015
TR501	36317460	Transistor, 2SC1815
TR502	36317460	Transistor, 2SC1815

Symbol No.	Part No.	Description
TR503	36317460	Transistor, 2SC1815
TR506	36317460	Transistor, 2SC1815
TR507	36319300	Transistor, 2SC1959
TR508	36534060	Transistor, 2SC1015
TR509	36314470	Transistor, 2SC1627
TR510	36317460	Transistor, 2SC18125
TR511	36319300	Transistor, 2SC1959
TR512	36319300	Transistor, 2SC1959
TR513	36319300	Transistor, 2SC1959
TR514	36317460	Transistor, 2SC1815
TR701	36314470	Transistor, 2SC1627A
Diodes/LEDs		
\triangle D001	92115737	KBP01
D002	37110412	Zener, 05Z12Z
D003	37110076	Zener, 05Z6.2Y
D301	37160614	1SS178
D302	37160614	1SS178
D303	37160614	1SS178
D304	37160614	1SS178
D305	37160614	1SS178
D306	37160614	1SS178
D308	37110017	Zener, 05Z5.6-Y
D309	37160574	1SS176
D310	37160574	1SS176
D311	37160574	1SS176
D401	37160574	1SS176
D501	37160614	1SS178
D502	37160574	1SS176
D503	37160574	1SS176
D504	37160574	1SS176
D505	37160574	1SS176
D506	37160574	1SS176
D507	37160574	1SS176
D511	37978380	S-5277B
D512	37160574	1SS176
D513	37160574	1SS176
D514	37160574	1SS176

Symbol No.	Part No.	Description
D515	37160574	1SS176
D516	37160574	1SS176
D517	37160574	1SS176
LD508	38605677	LED, TLG113A (GRN)
LD509	38607951	LED, TLY113A (YEL)
LD510	38600607	LED, TLR113A (RED)
LD801	38600607	LED, TLR113A (RED)
LD802	38600607	LED, TLR113A (RED)
LD803	38600607	LED, TLR113A (RED)
LD804	38600607	LED, TLR113A (RED)
LD805	38607951	LED, TLY113A (YEL)
LD806	38607951	LED, TLY113A (YEL)
LD807	38607951	LED, TLY113A (YEL)
LD808	38607951	LED, TLY113A (YEL)
LD809	38607951	LED, TLY113A (YEL)
LD810	38607951	LED, TLY113A (YEL)
LD812	38607951	LED, TLY113A (YEL)
Coils/Switches		
L301	92232277	Coil, 6.8mH
L302	92232277	Coil, 6.8mH
L701	22215141	Coil, OSC
S301	22190218	Switch
S501	92196601	Switch, Tact
S502	92196601	Switch, Tact
S503	92196601	Switch, Tact
S504	92196601	Switch, Tact
S505	92196601	Switch, Tact
S506	92196601	Switch, Tact
Filters		
LC301	92153229	Filter, Bias
LC302	92153229	Filter, Bias
LC303	92153229	Filter, Bias
LC304	92153229	Filter, Bias
LC401	92153278	Filter, MPX
LC402	92153278	Filter, MPX
LC403	22135065	Coil, Skewing
LC404	22135065	Coil, Skewing

Symbol No.	Part No.	Description
Capacitors		
uF = microfarads, pF = picofarads ABBREVIATIONS: EL = Electrolytic, CE = Ceramic Disk, MY = Mylar		
C002	22446332	EL 3300 uF/25V
C003	22445101	EL 100 uF/16V
C004	22445101	EL 100 uF/16V
C005	22445331	EL 330 uF/16V
C006	22445471	EL 470 uF/16V
C007	22445471	EL 470 uF/16V
C009	22445470	EL 47 uF/16V
C010	22445101	EL 100 uF/16V
C301	22448339	EL 3.3 uF/50V
C302	22448339	EL 3.3 uF/50V
C303	22361221	CE 220 pF
C304	22361221	CE 220 pF
C305	22448339	EL 3.3 uF
C306	22448339	EL 3.3 uF/50V
C307	22445330	EL 33 uF/16V
C309	22342473	CE 0.047 uF
C310	22342473	CE 0.047 uF
C311	22448109	EL 1 uF/50V
C312	22448109	EL 1 uF/50V
C313	22361180	CE 18 pF
C314	22361180	CE 18 pF
C315	22361471	CE 470 pF
C316	22361471	CE 470 pF
C317	22447100	EL 10 uF/35V
C318	22447100	EL 10 uF/35V
C319	22361101	CE 100 pF
C320	22361101	CE 100 pF
C321	22361220	CE 22 pF
C322	22361220	CE 22 pF
C323	22445470	EL 47 uF/16V
C324	22445470	EL 47 uF/16V
C325	22371103	MY 0.01 uF
C326	22371103	MY 0.01 uF
C327	22448479	EL 4.7 uF/50V
C328	22448479	EL 4.7 uF/50V
C329	22371153	MY 0.015 uF
C330	22371153	MY 0.015 uF
C331	22445221	EL 220 uF/16V
C332	22445101	EL 100 uF/16V
C333	22447100	EL 10 uF/35V

Symbol No.	Part No.	Description
C334	22447100	EL 10 uF/35V
C335	22448108	EL 0.1 uF/50V
C336	22448108	EL 0.1 uF/50V
C337	22447100	EL 10 uF/35V
C338	22447100	EL 10 uF/35V
C339	22371103	MY 0.01 uF
C340	22371103	MY 0.01 uF
C341	22371332	MY 0.0033 uF
C342	22371332	MY 0.0033 uF
C343	22371222	MY 0.0022 uF
C344	22371222	MY 0.0022 uF
C345	22371122	MY 0.0012 uF
C346	22371122	MY 0.0012 uF
C347	22371682	MY 0.0068 uF
C348	22371682	MY 0.0068 uF
C349	22361681	CE 680 pF
C350	22361681	CE 680 pF
C351	22342102	CE 0.001 uF
C352	22342102	CE 0.001 uF
C353	22445330	EL 33 uF/16V
C354	22445330	EL 33 uF/16V
C355	22445330	EL 33 uF/16V
C356	22445330	EL 33 uF/16V
C357	22448478	EL 0.47 uF/50V
C358	22448478	EL 0.47 uF/50V
C359	22445101	EL 100 uF/16V
C360	22448109	EL 1 uF/50V
C401	22448109	EL 1 uF/50V
C402	22445101	EL 100 uF/16V
C403	22448229	EL 2.2 uF/50V
C404	22448229	EL 2.2 uF/50V
C405	22448229	EL 2.2 uF/50V
C406	22448229	EL 2.2 uF/50V
C407	22448479	EL 4.7 uF/50V
C408	22448479	EL 4.7 uF/50V
C409	22371332	MY 0.0033 uF
C410	22371332	MY 0.0033 uF
C411	22448229	EL 2.2 uF/50V
C412	22448229	EL 2.2 uF/50V
C413	22443221	EL 220 uF/10V
C414	22443221	EL 220 uF/10V
C415	22448479	EL 4.7 uF/50V
C416	22448479	EL 4.7 uF/50V
C417	22371472	MY 0.0047 uF
C418	22371472	MY 0.0047 uF

Symbol No.	Part No.	Description
C419	22448478	EL 0.47 uF/50V
C420	22448478	EL 0.47 uF/50V
C421	92488158	EL 0.15 uF/50V
C422	92488158	EL 0.15 uF/50V
C423	22371153	MY 0.015 uF
C424	22371153	MY 0.015 uF
C425	22448228	EL 0.22 uF/50V
C426	22448228	EL 0.22 uF/50V
C427	22371683	MY 0.068 uF
C428	22371683	MY 0.068 uF
C429	22371473	MY 0.047 uF
C430	22371473	MY 0.047 uF
C431	22371682	MY 0.0068 uF
C432	22371682	MY 0.0068 uF
C433	22371103	MY 0.01 uF
C434	22371103	MY 0.01 uF
C435	22448479	EL 4.7 uF/50V
C436	22448479	EL 4.7 uF/50V
C437	22342102	CE 0.001 uF
C438	22342102	CE 0.001 uF
C439	22445470	EL 47 uF/16V
C440	22445330	EL 33 uF/16V
C501	22447100	EL 10 uF/35V
C502	22448339	EL 3.3 uF/50V
C503	22346183	CE 0.018 uF
C505	22448339	EL 3.3 uF/50V
C506	22447100	EL 10 uF/35V
C507	22346473	CE 0.047 uF
C508	22371563	MY 0.056 uF
C511	22346103	CE 0.01 uF
C512	22346223	CE 0.022 uF
C513	22346223	CE 0.022 uF
C514	22346223	CE 0.022 uF
C515	22346223	CE 0.022 uF
C516	22346223	CE 0.022 uF
C517	22448339	EL 3.3 uF/50V
C518	22448229	EL 2.2 uF/50V
C519	22346562	CE 0.0056 uF
C520	22346683	CE 0.068 uF
C544	22342102	CE 0.001 uF
C701	22448479	EL 4.7 uF/50V
C702	22371682	MY 0.0068 uF
C703	22445470	EL 47 uF/16V
C704	22371103	MY 0.01 uF
C705	22361221	CE 220 pF

Symbol No.	Part No.	Description
C706	22361221	CE 220 pF
C707	22321183	Polypropylene 1500 pF
C801	22448478	EL 0.47 uF/50V
C802	22448478	EL 0.47 uF/50V
C803	22448479	EL 4.7 uF/50V
C804	22448479	EL 4.7 uF/50V
C805	22447100	EL 10 uF/35V
Resistors		
All resistors are carbon film 1/6W, $\pm 5\%$ unless otherwise noted. K = 1000, M = 1000000		
⚠ R001	22500313	Fuse 2.2 ohm 1/4W
R002	92547331	330 ohm 1/2W
R003	22519121	120 ohm
R004	22519391	390 ohm
⚠ R005	22500313	Fuse 2.2 ohm 1/4W
⚠ R006	92500177	Fuse 33 ohm 1/4W
R007	22519102	1K ohm
R008	22519221	220 ohm
R301	22519102	1K ohm
R302	22519102	1K ohm
R303	22519332	3.3K ohm
R304	22519332	3.3K ohm
R305	22519224	220K ohm
R306	22519224	220K ohm
R307	22519473	47K ohm
R308	22519473	47K ohm
R309	22519562	5.6K ohm
R310	22519562	5.6K ohm
R311	22519330	33 ohm
R312	22519330	33 ohm
R313	22519224	220K ohm
R314	22519224	220K ohm
R315	92547221	220 ohm 1/2W
R317	22519334	330K ohm
R318	22519334	330K ohm
R319	22519334	330K ohm
R320	22519334	330K ohm
R321	22519334	330K ohm
R322	22519334	330K ohm
R323	22519103	10K ohm

Symbol No.	Part No.	Description
R324	22519103	10K ohm
R325	22519224	220K ohm
R326	22519224	220K ohm
R327	22519821	820 ohm
R328	22519680	68 ohm
R329	22519334	330K ohm
R330	22519103	10K ohm
R331	22519104	100K ohm
R332	22519104	100K ohm
R333	22519334	330K ohm
R334	22519334	330K ohm
R335	22519123	12K ohm
R336	22519123	12K ohm
R337	22519102	1K ohm
R338	22519102	1K ohm
R339	22519472	4.7K ohm
R340	22519472	4.7K ohm
R341	22519332	3.3K ohm
R342	22519332	3.3K ohm
R343	22519224	220K ohm
R344	22519224	220K ohm
R345	22519333	33K ohm
R346	22519333	33K ohm
R347	22519333	33K ohm
R348	92547221	220 ohm 1/2W
R349	22519823	82K ohm
R350	22519823	82K ohm
R351	22519104	100K ohm
R352	22519104	100K ohm
R353	22519104	100K ohm
R354	22519104	100K ohm
R355	22519273	27K ohm
R356	22519273	27K ohm
R357	22519272	2.7K ohm
R358	22519272	2.7K ohm
R359	22519151	150 ohm
R360	22519151	150 ohm
R361	22519151	150 ohm
R362	22519151	150 ohm
R363	22519151	150 ohm
R364	22519151	150 ohm
R365	22519682	6.8K ohm
R366	22519682	6.8K ohm
R367	22519472	4.7K ohm
R368	22519472	4.7K ohm

Symbol No.	Part No.	Description	Symbol No.	Part No.	Description
R369	22519332	3.3K ohm	R418	22519682	6.8K ohm
R370	22519332	3.3K ohm	R419	22519752	7.5K ohm
R371	22519392	3.9K ohm	R420	22519752	7.5K ohm
R372	22519392	3.9K ohm	R421	22519334	330K ohm
R373	22519223	22K ohm	R422	22519334	330K ohm
R374	22519223	22K ohm	R423	22519392	3.9K ohm
R375	22519223	22K ohm	R424	22519392	3.9K ohm
R376	22519223	22K ohm	R425	22519431	430 ohm
R377	22519223	22K ohm	R426	22519431	430 ohm
R378	22519223	22K ohm	R427	22519103	10K ohm
R379	22519123	12K ohm	R428	22519103	10K ohm
R380	22519123	12K ohm	R429	22519152	1.5K ohm
R381	22519223	22K ohm	R430	22519152	1.5K ohm
R382	22519223	22K ohm	R431	22519272	2.7K ohm
R383	22519333	33K ohm	R432	22519272	2.7K ohm
R384	22519333	33K ohm	R433	22519682	6.8K ohm
R385	22519823	82K ohm	R434	22519682	6.8K ohm
R386	22519823	82K ohm	R435	22519681	680 ohm
R387	22519104	100K ohm	R436	22519681	680 ohm
R388	22519104	100K ohm	R437	22519472	4.7K ohm
R389	22519472	4.7K ohm	R438	22519472	4.7K ohm
R390	22519472	4.7K ohm	R439	22519102	1K ohm
R391	22519273	27K ohm	R440	22519102	1K ohm
R392	22519273	27K ohm	R441	22519223	22K ohm
R393	22519333	33K ohm	R442	22519223	22K ohm
R394	22519333	33K ohm	R445	22519103	10K ohm
R395	22519121	120 ohm	R446	22519103	10K ohm
R396	22519121	120 ohm	R447	22519103	10K ohm
R397	22519472	4.7K ohm	R448	22519223	22K ohm
R398	22519472	4.7K ohm	R449	22519103	10K ohm
R399	22519103	10K ohm	R501	22519681	680 ohm
R400	22519103	10K ohm	R502	22519331	330 ohm
R401	22519223	22K ohm	R503	22519225	2.2M ohm
R402	22519103	10K ohm	R504	22519103	10K ohm
R405	22519223	22K ohm	R505	22519333	33K ohm
R406	22519223	22K ohm	R506	22519224	220K ohm
R407	22519473	47K ohm	R508	22519103	10K ohm
R408	22519473	47K ohm	R509	22519103	10K ohm
R411	22519103	10K ohm	R510	22519102	1K ohm
R412	22570777	100K ohm, $\pm 1\%$	R511	22519103	10K ohm
R413	22519223	22K ohm	R512	22519102	1K ohm
R414	22519223	22K ohm	R513	22519332	3.3K ohm
R415	22519622	6.2K ohm	R514	22519394	390K ohm
R416	22519622	6.2K ohm	R515	22519223	22K ohm
R417	22519682	6.8K ohm	R520	22519472	4.7K ohm

Symbol No.	Part No.	Description
R521	22519471	470 ohm
R522	92550497	30K ohm 1/4W, ±2%
R523	22519103	10K ohm
R524	22519103	10K ohm
R525	22519103	10K ohm
R526	22519103	10K ohm
R527	22519223	22K ohm
R528	22519473	47K ohm
R529	22519473	47K ohm
R530	22519473	47K ohm
R531	22519103	10K ohm
R532	22519473	47K ohm
R533	22519103	10K ohm
R534	22519104	100K ohm
R535	22519151	150 ohm
R536	22519151	150 ohm
R537	22519221	220 ohm
R538	92500177	Fuse 33 ohm 1/4W
R539	22519331	330 ohm
R540	22519222	2.2K ohm
R541	22519331	330 ohm
R542	22571151	150 ohm 1W
R543	22519102	1K ohm
R544	22519331	330 ohm
R545	22519102	1K ohm
R548	22519103	10K ohm
R549	22519394	390K ohm
R550	22519104	100K ohm
R551	22519224	220K ohm
R553	22519473	47K ohm
R554	22519472	4.7K ohm
R555	22519104	100K ohm
R556	22519103	10K ohm
R557	22519103	10K ohm
R559	22519103	10K ohm
R560	22519473	47K ohm
R561	22519103	10K ohm
R562	22519104	100K ohm
R563	22519223	22K ohm
R564	22519103	10K ohm
R565	22519394	390K ohm
R566	22519223	22K ohm
R567	22519103	10K ohm
R701	22519222	2.2K ohm
R702	22519473	47K ohm

Symbol No.	Part No.	Description
R703	22519472	4.7K ohm
R704	92500171	Fuse 6.8 ohm 1/4W
R705	22519680	68 ohm
R706	92547121	120 ohm 1/2W
R707	92547391	390 ohm 1/2W
R801	22519333	33K ohm
R802	22519333	33K ohm
R803	22519223	22K ohm
R804	22519223	22K ohm
R805	22519473	47K ohm
R806	22519473	47K ohm
R807	22519681	680 ohm
R808	22519681	680 ohm
R809	22519681	680 ohm
R810	22519681	680 ohm
R811	22519561	560 ohm
R812	22519561	560 ohm
R814	22519561	560 ohm
R815	22519561	560 ohm
R816	22519561	560 ohm
R817	22519561	560 ohm
VR301	22615302	Volume Rotary 50K ohm
VR302	22615302	Volume Rotary 50K ohm
VR303	92658764	Semi Volume 50K ohm
VR304	92658764	Semi Volume 50K ohm
VR305	92658756	Semi Volume 500 ohm
VR306	92658756	Semi Volume 500 ohm
VR701	92658766	Semi Volume 200K ohm
VR702	92658766	Semi Volume 200K ohm
Miscellaneous		
CM	95791713	Assembly, Main Motor
HD001	22217500	Head, Rec/Play
HD002	92218256	Head, Erase
• J001	22169225	Socket, AC
J301	22198242	Jack, Mic
J302	22198244	Jack, Mic
J303	92163887	Jack, US 4P
J305	22198243	Jack, Headphone
J501	92169094	Jack, Cont
L705	92147269	Assembly, Solenoid

Note: • : For European model only (AD)

Symbol No.	Part No.	Description
△ ■ P001	22176756	Cord, Power
△ ▲ P001	22176756	Cord, Power
RM	95791798	Assembly, Reel Motor
△ S001	92196751	Switch, Power
△ S001	92340228	Switch, Power
S745	92196436	Switch, Cassette
S746	92196436	Switch, Cassette
△ ● T001	22224749	Trans, Power
△ ■ T001	22224748	Trans, Power
△ ▲ T001	22224748	Trans, Power

Symbol No.	Part No.	Description
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Note: ● : For European model only (AD), ■ : For North American model only (UC),
 ▲ : For Canadian model only (UQ), Other: Common

Cabinet Assembly Parts List

Symbol No.	Index	Part No.	Description	Symbol No.	Index	Part No.	Description
1		25829755	Assembly, Front Panel	48		92708047	Screw, $\phi 4$ x
2		25829754	Sub Panel	49		20798758	Rivet, Special
3		25829752	Front Panel	■ 60		95844322	Bush, Cord
4		25812605	Assembly, Cassette Holder	▲ 60		95844322	Bush, Cord
5		25812602	Cassette Holder	61		92758261	Cover, Switch
6		25812603	Cover, Cassette	62		25743841	Bracket, Jack
7		95779272	Spring, C-Hold	63		22766063	Cushion, Rubber
8		25812604	Cover, Meter	64		25737695	Plate, Eject
9		25824698	Deco	65		22701881	Screw, $\phi 3$ x 5
10		22755856	MNT, Cassette Holder	66		92707910	Screw, $\phi 3$ x 6
11		22776789	Spring, Eject	67		92708096	Screw, $\phi 2.6$ x 12
12		22747649	Reflector	68		92708539	Screw, $\phi 3$ x 6
13		95883246	Damper, NEW				
14		22701973	Screw				
15		72707842	Screw, $\phi 3$ x 8				
16		92708048	Screw, $\phi 3$ x 10				
17		92707979	Screw, $\phi 2.6$ x 8				
18		25743842	Bracket, Pulley				
19		20716790	Pulley				
20		95766050	Washer (W4)				
21		22753618	Washer (W2.1)				
22		25873664	Counter				
23		25759014	Belt, Q (Mechanism)				
24		25759015	Belt, Q (Counter)				
25		22882608	Cover, Top				
28		22776793	Spring, Earth				
30		22874535	Foot				
33		92184238	Cover, Acinlet				
36		25826928	Knob, Eject				
37		25826929	Knob, OPE-A				
38		25826930	Knob, OPE-B				
39		25826934	Knob, Push				
40		25826935	Knob, Power				
41		25826933	Knob, Volume				
42		22701549	Screw, $\phi 3$ x 6				
43		92709445	Screw, $\phi 3$ x 6				
44		92707911	Screw, $\phi 3$ x 8				
45		92707826	Screw, $\phi 3$ x 10				
46		92707806	Screw, $\phi 3$ x 25				
47		22703636	Screw, $\phi 2.6$ x 12				

Note. ● : For European model only (AD), ■ : For North American model only (UC),
▲ : For Canadian model only (UQ), Other: Common

Cassette Deck Assembly Parts List

Symbol No.	Index	Part No.	Description	Symbol No.	Index	Part No.	Description
201		95766050	Washer, ϕ 1.6	252		95777071	Spring, F.W
202		95754436	Reel, Collar	253		92708528	Screw, ϕ 2.6 x 3
203		95777392	Spring, Reel	256		25726762	Spacer
204		95754469	Reel, Drum	257		95783239	Bushing
205		95764597	Washer, ϕ 1.3	260		95766211	Washer
206		95784145	Lever, Holder				
207		95778161	Spring, Holder				
208		95756408	Gear, Shift				
209		95784149	Lever, Take Up				
210		95783260	Bush				
211		95717600	Assembly, Pinch Roller				
212		95778159	Spring, P. Lever				
214		92708527	Screw, ϕ 2 x 8				
216		95735266	Adjust, Spacer				
218		95777137	Spring, Azimuth				
220		92708040	Screw, ϕ 2 x 5				
221		95779427	Spring, Hold				
222		95781283	Base, Head				
223		95757132	DG, Ball				
224		95749073	Head, Slider				
225		95776721	Spring, Assist				
226		92707361	Screw, ϕ 2.6 x 8				
227		25732768	Slide, Sub Eject				
228		95784148	Slider, Eject				
229		95776722	Spring, Eject				
230		95784146	Lever, Lock				
231		95778206	Spring				
232		95778160	Spring, Lock				
233		92708529	Screw, ϕ 2.6 x 4				
237		95784147	Lever, Play · Lock				
238		95778163	Spring, Play · Lock				
239		95784150	Lever, Play				
240		90798033	Ring				
241		95756409	Gear, Cam · Main				
242		95778162	Spring, Cam · Lock				
243		95784151	Lever, Cam · Lock				
246		95764486	Washer, ϕ 2.5				
247		95755600	Belt, Main				
248		25751838	Assembly, Flywheel				
249		95766024	Washer, Thrust				

Packing Assembly Parts List

Symbol No.	Part No.	Description
101	22928998	Carton, Packing
102	22939835	Tray, Packing (L)
103	22939836	Tray, Packing (R)
104	92941324	Sack, Polyethylene
● 105-1	92176616	Cord, Power
105-2	22197073	Plug, USIP Cord
● 105-4	22954737	Owners, Manual
■ 105-4	22954749	Owners, Manual
▲ 105-4	22954737	Owners, Manual
■ 106	92941302	Sack, Polyethylene
▲ 106	92941302	Sack, Polyethylene
107	22936621	Cushion

Symbol No.	Part No.	Description

Note: ● : For European model only (AD), ■ : For North American model only (UC),
▲ : For Canadian model only (UQ), Other: Common

Parts List by the Destination

Symbol No.	Description	POWER SOURCE		
		UQ ▲ 120V	UC ■ 120V	AD ● 220V
		Canada	North America	West Germany
J001	Socket, AC	Not Used	Not Used	22169225
P001	Cord, Power	22176756	22176756	Not Used
T001	Trans Power	22224748	22224748	22224749
60	Bush, Cord	95844322	95844322	Not Used
105-1	Cord, Power	Not Used	Not Used	92176616
105-3	Card, VDE	Not Used	Not Used	22906874
105-4	Owners Manual	22954737	22954749	22954737
105-5	Card, Warranty	ALN8603004	ALN8603003	Not Used
105-6	Card, Reply	Not Used	ALN8603005	Not Used
106	Sack, Polyethylene	92941302	92941302	Not Used