

# TECHNICAL MANUAL

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*Quality. Uncompromised*

**ROTEL®**

**RD-865**

**STEREO CASSETTE TAPE DECK**

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**THE ROTEL CO., LTD.**

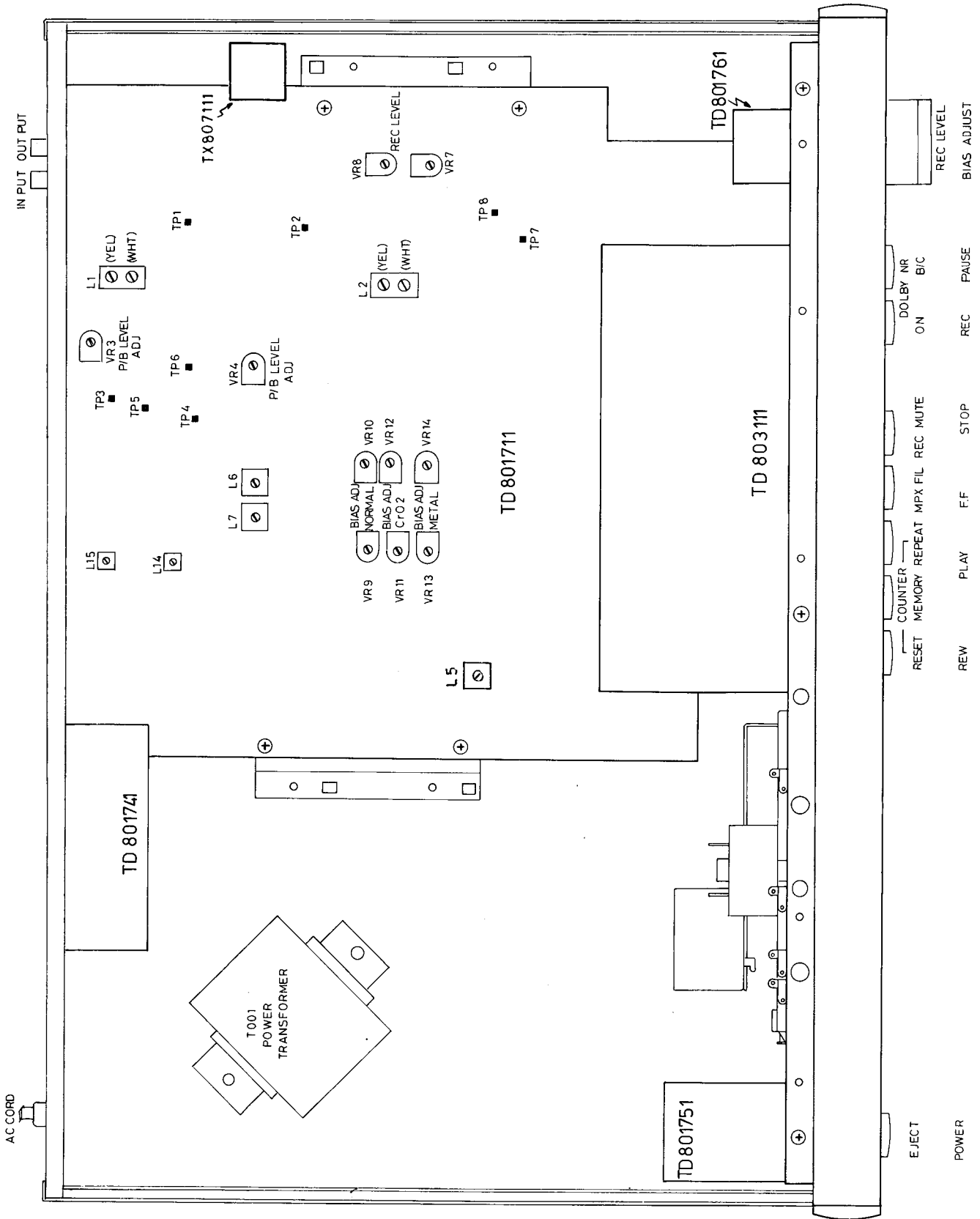
1-36-8 OHOKAYAMA, MEGURO-KU, TOKYO 152, JAPAN

**ROTEL ELECTRONICS CO., LTD.**

ROTEL BLDG., 3F. NO. 35, FUSING N. ROAD, TAIPEI, TAIWAN, REPUBLIC OF CHINA

MN20001536

# Chassis Layout



# Playback Adjustments

**Instruments:** Oscilloscope, AC VTVM, Frequency Counter, Test Tape

**Conditions:** Oscilloscope, AC VTVM, Frequency Counter... LINE OUT, Tape Selector... FE, Dolby NR...OFF

Adjustment Item	Test Tape	Adjust	Adjust for
Azimuth	MTT-114N	Remove Cassette Door Head Screw	Obtain largest wave form on Oscilloscope for both channels
Dolby Level	MTT-150	VR3 (L ch) VR4 (R ch)	AC VTVM reads 245mV at TP 1 (Lch) TP 2 (Rch)
Playback EQ check (70Ω)	MTT-357P	Output Level difference between 125Hz 1 KHz and 14 KHz signal is within ±2.5 db	
Tape speed Deflection check/Tape speed Adjust	TCC-112	Check that allowable margin of deflection at middle of or at the end of winding is in the range of ±2% (at 300Hz allowable margin of deflection of speed is 3045-2955) if Tape speed deflection surpasses above range adjust speed of Motor.	

# Bias Adjustments and MPX Filter Adjustments

**Instruments:** Oscilloscope, Signal Generator, AC VTVM, Blank Tape

**Conditions:** Dolly NR...OFF

Adjustment Item	Conditions	Tape	Adjust	Adjust for
Bias Trap	Set Recording mode Rec. Level....MIN. Oscilloscope.... TP7 (Lch) TP8 (R ch)	Metal	L6 (L ch) L7 (R ch)	Obtain Minimum level on the Oscilloscope
19KHz Filter	S.G. (400 Hz)..LINE IN LINE OUT...720 mV, change S.G. to 19 KHz, Dolby NR...OF Rec. Level....MAX (FIL. SW ON)	FE (normal)	L1 (L ch) L2 (R ch)	AC VTVM reads -32 db (Min)

# REC/PB Adjustments

**Instruments:** Signal Generator, T.H.D. Analyzer, blank Tape

**Conditions:** Dolby NR...OFF, REC. Level...MAX. PLAY, REC. PAUSE...ON

**Blank Tape:** METAL...AC712 CO... AC513 FE...AC223

Adjustment	Conditions	Adjust	Adjust for
REC/PB Output Level	S.G. (400 Hz)....LINE IN LINE OUT....720mV Release Pause Button	VR 7 (L ch) VR 8 (R ch)	Recording and Playback level Difference less than ±0.5 db
Distortion Check	S.G. (400 Hz)...LINE IN LINE OUT.....720mV T.H.D. Analyzer. LINE OUT RELEASE PAUSE Button and Playback it again	Check that distortion is within following range. METAL Tape.....under 1.2% CD Tape.....under 1% FE Tape.....under 1%	
	If the distortion factor exceeds the above, recheck Bias Current Adjustment		
Frequency Response Coarse Adjustment	S.G. (Ref to 400Hz Change to 14 KHz)....LINE IN, LINE OUT...72mV Release PAUSE Button and Playback it again	VR13 (Lch) VR14 (R ch) VR9 (L ch) VR10 (R ch) VR11 (L ch) VR12 (R ch)	REC/PB output level different between 400Hz -14KHz signal is within ±1 db
Frequency Response Fine Adjustment	Use METAL Tape chrome Tape FE Tape		35 Hz ~ 18 KHz ±3 db 35 Hz ~ 17 KHz ±3 db 35 Hz ~ 16 KHz ±3 db

# Parts List

NOTE: THE COMPONENTS IDENTIFIED BY  $\Delta$  MARK ARE FOR SAFETY. REPLACE ONLY WITH ORIGINAL PARTS. DO NOT SUBSTITUTE.








SYMBOL	PARTS NO.	DESCRIPTION
	TD803111	PCB ASSEMBLY
R501	RD15603820	R, CARBON 560K J 1/4W
R502,503	RD22202822	R, CARBON 22K J 1/4W
R504	RD14702825	R, CARBON 47K J 1/4W
R505-510	RD12202825	R, CARBON 22K J 1/4W
R511-515	RN31502059	R, THICK A5153J
R516-518	RD12202825	R, CARBON 22K J 1/4W
R519,522	RD21003829	R, CARBON 100K J 1/4W
R520	RM93300123	R, METAL 330 J 1W
R521,523	RD12202825	R, CARBON 22K J 1/4W
R522	RD21003829	R, CARBON 100K J 1/4W
R524,525	RD21002825	R, CARBON 10K J 1/4W
R526,527	RM29091816	R, METAL 9.09K F 1/4W
R528,529	RD21003829	R, CARBON 100K J 1/4W
R530,531	RM25622815	R, METAL 56.2K F 1/4W
C501	CE01006251	CAP, ELEC. 10uF 25V
C502	CE01005258	CAP, ELEC. 100uF 25V
C503,504	CE04706168	CAP, ELEC. 47uF 16V
C505,506	CE02207501	CAP, ELEC. 2.2uF 50V
D501	DD10000100	DIODE 1N4148
D502	DD20000193	DIODE RD-15E
D503	DD20000200	DIODE RD-5.1E
IC501,502	IC00002041	IC LBI290
IC503	IC00002028	IC TC5054P
IC504	IC00001528	IC TC4013BP
IC505,506	IC00002053	IC BA6146
Q501,502	TR30000248	TRANSISTOR 2SC945
	TD801711	PCB ASSEMBLY
R3,R4	RD42202827	R, CARBON 22K J 1/4W
R5,R6	RD48201821	R, CARBON 8.2K J 1/4W
R7,R8	RM11003713	R, METAL MR25100K 0.4W
R9,R10	RM72210819	R, METAL 221 F 1/4W
R11,12	RM72743810	R, METAL 274K F 1/4W
R13,14	RM79091812	R, METAL 9.09K F 1/4W
R15,16	RM71004811	R, METAL 1M F 1/4W
R17,18	RM02201718	R, METAL MR252K2 0.4W
R19,20	RD12701829	R, CARBON 2.7K J 1/4W
R21,22	RD42203820	R, CARBON 220K J 1/4W
R23,24	RD42202827	R, CARBON 22K J 1/4W
R25,26	RM11001716	R, METAL MR251K 0.4W
R27,28	RD41002820	R, CARBON 10K J 1/4W
R29,30	RD41003823	R, CARBON 100K J 1/4W
R31,32	RD42202827	R, CARBON 22K J 1/4W
R33	RD11502825	R, CARBON 15K J 1/4W
R34,36	RD12202825	R, CARBON 22K J 1/4W
R37	RM71002814	R, METAL 10K F 1/4W
R38,39	RM11002710	R, METAL MR2510K 0.4W
R40	RM11003713	R, METAL MR25100K 0.4W
R41,42	RM12701718	R, METAL MR252K7 0.4W
R43,44	RM01502714	R, METAL MR2515K 0.4W
R45-48	RD42202827	R, CARBON 22K J 1/4W
R49,50	RM15601712	R, METAL MR255K6 0.4W
R51,52	RM14300716	R, METAL MR25430R 0.4W
R53,54	RM15101715	R, METAL MR255K1 0.4W
R55,56	RM12401711	R, METAL MR252K4 0.4W
R57,58	RD46801821	R, CARBON 6.8K J 1/4W
R59,60	RD46800828	R, CARBON 680 J 1/4W
R61,62	RM14702715	R, METAL MR2547K 0.4W
R63,64	RM02201718	R, METAL MR252K2 0.4W
R65,66	RD44701823	R, CARBON 4.7K J 1/4W
R67,68	RM11003713	R, METAL MR25100K 0.4W
R71,72	RM11009715	R, METAL MR2510R 0.4W
R73	RM94709124	R, METAL 47 F 1/4W
R74	RD11009823	R, CARBON 10 J 1/4W
R75,76	RD46802825	R, CARBON 68K J 1/4W
R78	RD11502825	R, CARBON 15K J 1/4W
R79	RD41802823	R, CARBON 18K J 1/4W
R80	RD41003823	R, CARBON 100K J 1/4W

SYMBOL	PARTS NO.	DESCRIPTION
R81	RD11001824	R, CARBON 1K J 1/4W
R82	RD11503829	R, CARBON 150K J 1/4W
R83	RD15602826	R, CARBON 56K J 1/4W
R84	RD11002828	R, CARBON 10K J 1/4W
R85,86	RD41001826	R, CARBON 1K J 1/4W
R87	RD12202825	R, CARBON 22K J 1/4W
R88	RD41802823	R, CARBON 1.8K J 1/4W
R89	RD12702822	R, CARBON 27K J 1/4W
R90	RD41003823	R, CARBON 100K J 1/4W
R91	RD12202825	R, CARBON 22K J 1/4W
R92	RD14702825	R, CARBON 47K J 1/4W
R93	RD45601824	R, CARBON 5.6K J 1/4W
R94	RD42200820	R, CARBON 220 J 1/4W
R95	RD14702825	R, CARBON 47K J 1/4W
R96	RD42701820	R, CARBON 2.7K J 1/4W
R97	RD11002828	R, CARBON 10K J 1/4W
R98-100	RD41501823	R, CARBON 1.5K J 1/4W
R101	RD11002828	R, CARBON 10K J 1/4W
R102	RD41501823	R, CARBON 1.5K J 1/4W
R107,108	RD44701823	R, CARBON 4.7K J 1/4W
R109-111	RD45600820	R, CARBON 560 J 1/4W
R112-114	RD41002820	R, CARBON 10K J 1/4W
R115	RD41003823	R, CARBON 100K J 1/4W
R116,117	RD41001826	R, CARBON 1K J 1/4W
R119	RD41502827	R, CARBON 15K J 1/4W
R120,121	RD43901828	R, CARBON 3.9K J 1/4W
R122	RD41002820	R, CARBON 10K J 1/4W
R123	RD13301823	R, CARBON 3.3K J 1/4W
R124	RD41003823	R, CARBON 100K J 1/4W
R125	RD41002820	R, CARBON 10K J 1/4W
R126,127	RM18201710	R, METAL MR258K2 0.4W
R128,129	RM71003818	R, METAL 100K F 1/4W
R132,133	RM73921811	R, METAL 3.92K F 1/4W
R134,135	RM14702715	R, METAL MR2547K 0.4W
R136,137	RM11801710	R, METAL MR251K8 0.4W
R138,139	RD41802823	R, CARBON 18K J 1/4W
R140	RD44702827	R, CARBON 47K J 1/4W
R142,143	RD15601822	R, CARBON 5.6K J 1/4W
R144	RD42202827	R, CARBON 22K J 1/4W
R145	RD18202823	R, CARBON 82K J 1/4W
R146,147	RM72211812	R, METAL 2.21K F 1/4W
R150,151	RD42203820	R, CARBON 220K J 1/4W
R152,153	RM76819810	R, METAL 68.1 F 1/4W
R154,155	RM74751810	R, METAL 4.75K F 1/4W
R156,157	RD41202820	R, CARBON 12K J 1/4W
R158,159	RD41502827	R, CARBON 15K J 1/4W
R161	RD42203820	R, CARBON 220K J 1/4W
R162,163	RM74759810	R, METAL 47.5 F 1/4W
R164,165	RD41202820	R, CARBON 12K J 1/4W
R166,167	RM71000817	R, METAL 100 F 1/4W
R168,169	RD42203820	R, CARBON 220K J 1/4W
R170,171	RM72211812	R, METAL 2.21K F 1/4W
R172,173	RD41202820	R, CARBON 12K J 1/4W
R174	RD41502827	R, CARBON 15K J 1/4W
R175	RD44702827	R, CARBON 47K J 1/4W
R176,177	RD41502827	R, CARBON 15K J 1/4W
R178	RD41002820	R, CARBON 10K J 1/4W
R179	RD41004827	R, CARBON 1M J 1/4W
R180	RD13300820	R, CARBON 330 J 1/4W
R181-185	RD42202827	R, CARBON 22K J 1/4W
R186	RD44701823	R, CARBON 4.7K J 1/4W
R187	RD41001826	R, CARBON 1K J 1/4W
R188	RD41002820	R, CARBON 10K J 1/4W
R189	RD44701823	R, CARBON 4.7K J 1/4W
R190	RD13900822	R, CARBON 390 J 1/4W
R191,193	RD41002820	R, CARBON 10K J 1/4W
R192,194	RD44701823	R, CARBON 4.7K J 1/4W
R195,198	RD44702827	R, CARBON 47K J 1/4W
R196,199	RD44700820	R, CARBON 470 J 1/4W
R197	RD44701823	R, CARBON 4.7K J 1/4W

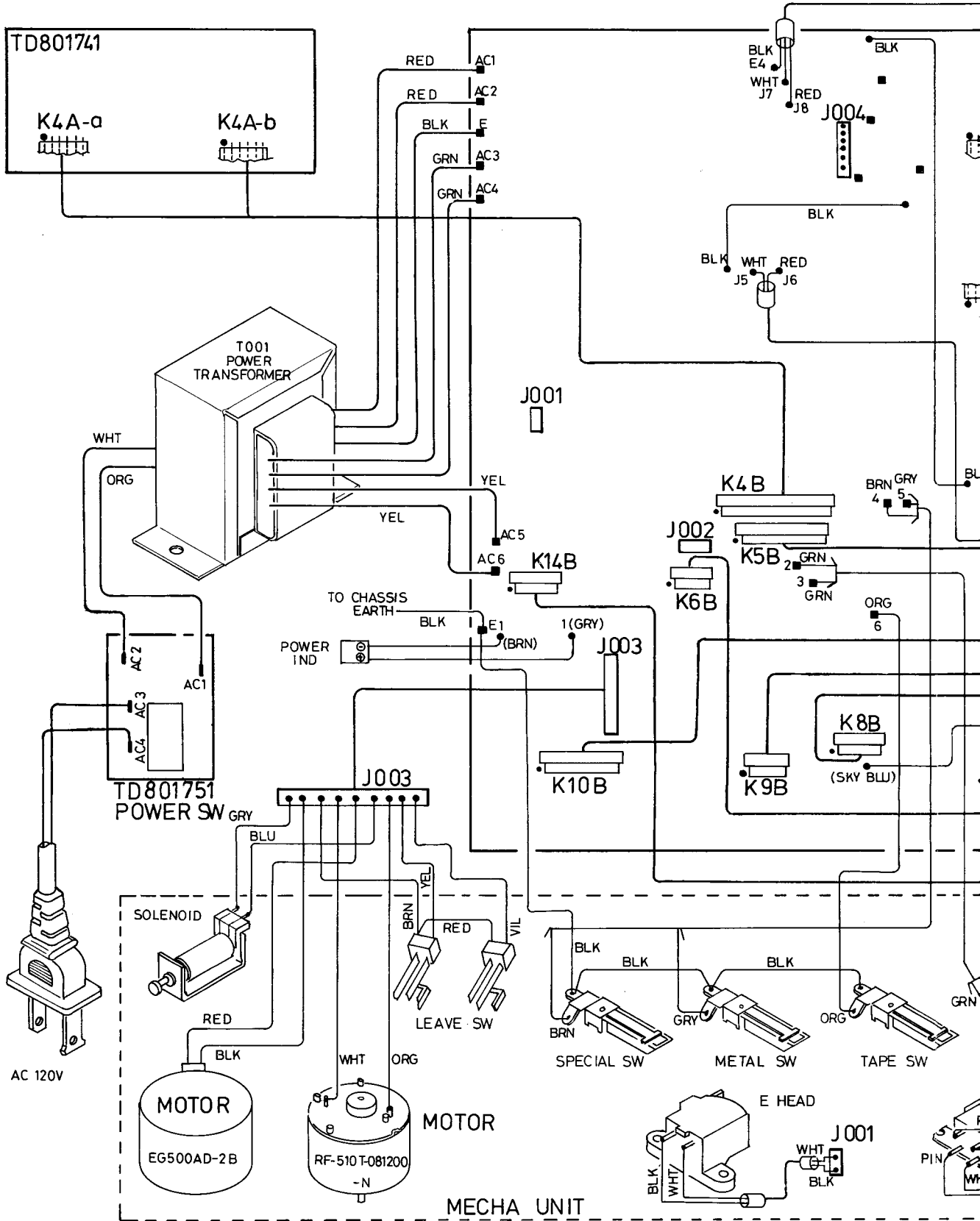
SYMBOL	PARTS NO.	DESCRIPTION
R200,201	RD44702827	R, CARBON 47K J 1/4W
R202	RD11009823	R, CARBON 10 J 1/4W
R203	RD44702827	R, CARBON 47K J 1/4W
R204	RD41502827	R, CARBON 15K J 1/4W
R205	RD42208829	R, CARBON 2.2 J 1/4W
R211	RD41502827	R, CARBON 15K J 1/4W
R212,213	RD44702827	R, CARBON 47K J 1/4W
R218	RD42201823	R, CARBON 2.2K J 1/4W
R220-224	RD44701823	R, CARBON 4.7K J 1/4W
R225	RD18201820	R, CARBON 8.2K J 1/4W
R226	RD41001826	R, CARBON 1K J 1/4W
R227	RD44702827	R, CARBON 47K J 1/4W
R228,229	RD14703829	R, CARBON 470K J 1/4W
R230,231	RD13302827	R, CARBON 33K J 1/4W
R901	RD42200820	R, CARBON 220 J 1/4W
R902	RD41003823	R, CARBON 100K J 1/4W
R903	RD41501823	R, CARBON 1.5K J 1/4W
R904	RD41001826	R, CARBON 1K J 1/4W
R906	RD11500125	R, CARBON 150 J 1W
R907	RD12209125	R, CARBON 22 J 1W
C1,C2	CS45111423	CAP, STYROL 510P 50V
C3,C4	CE54706772	CAP, ELEC. 16BGF47M
C5,C6	CE51005254	CAP, ELEC. 041 UKSIE101M
C7,C8	CP01503312	CAP, P.P 153G 100V
C9	CE01006251	CAP, ELEC. 10uF 25V
C10,11	CE54707478	CAP, ELEC. 50BGF4R7M
C12,13	CM02709423	CAP, MYLAR 273J 50V
C14-18	CE54707478	CAP, ELEC. 50BGF4R7M
C19,20	CE51005254	CAP, ELEC. 041 UKSIE101M
C21,22	CM01010429	CAP, MYLAR 102J 50V
C23,24	CS48211428	CAP, STYROL 820P 50V
C25,26	CS33301308	CAP, P.P 3000P 160V
C27,28	CS36811304	CAP, P.P 680P 160V
C29,30	CE04708505	CAP, ELEC. 0.47uF 50V
C33,34	CE01508256	CAP, ELEC. 0.15uF 25V
C35,36	CM11509423	CAP, MYLAR 153J 50V
C37,38	CE02208505	CAP, ELEC. 0.22 50V
C39,40	CM06809424	CAP, MYLAR 683J 50V
C41,42	CM14709423	CAP, MYLAR 473J 50V
C43,44	CP06810317	CAP, P.P 682G 100V
C45,46	CM11009426	CAP, MYLAR 103J 50V
C47,48	CE54707478	CAP, ELEC. 50BGF4R7M
C49,50	CE51006477	CAP, ELEC. 50BGF10M
C53,54	CM11009426	CAP, MYLAR 103J 50V
C55,56	CE01006251	CAP, ELEC. 10uF 25V
C57,58	CM16810423	CAP, MYLAR 682J 50V
C59,60	CM05610429	CAP, MYLAR 562J 50V
C61	CM02209426	CAP, MYLAR 223J 50V
C62,63	CM11009426	CAP, MYLAR 103J 50V
C64	CE01006251	CAP, ELEC. 10uF 25V
C67,68	CM02009425	CAP, MYLAR 203J 50V
C71,72	CM02209426	CAP, MYLAR 223J 50V
C73,74	CP01503312	CAP, P.P 153G 100V
C75	CE02205164	CAP, ELEC. 220uF 16V
C76	CC31009465	CAP, CERAMIC 0.01uF 50V
C77	CC01008458	CAP, CERAMIC 0.1uF 50V
C79	CE04707252	CAP, ELEC. 4.7uF 25V
C80	CE02206168	CAP, ELEC. 22uF 16V
C83,84	CE54707478	CAP, ELEC. 50BGF4R7M
C85,86	CE04708505	CAP, ELEC. 0.47uF 50V
C87,88	CE51006447	CAP, ELEC. 50BGF10M
C89,90	CS31210306	CAP, P.P 1200P 160V
C92,93	CE51005254	CAP, ELEC. 041 UKSIE101M
C94,95	CM11009426	CAP, MYLAR 103J 50V
C96,97	CE01006251	CAP, ELEC. 10uF 25V
C98,99	CS33311310	CAP, P.P 330P 160V
C100,101	CM14709423	CAP, MYLAR 473J 50V
C102,103	CS44711420	CAP, STYROL 470P 50V
C104,105	CM03309428	CAP, MYLAR 333J 50V
C106,107	CM02209426	CAP, MYLAR 223J 50V

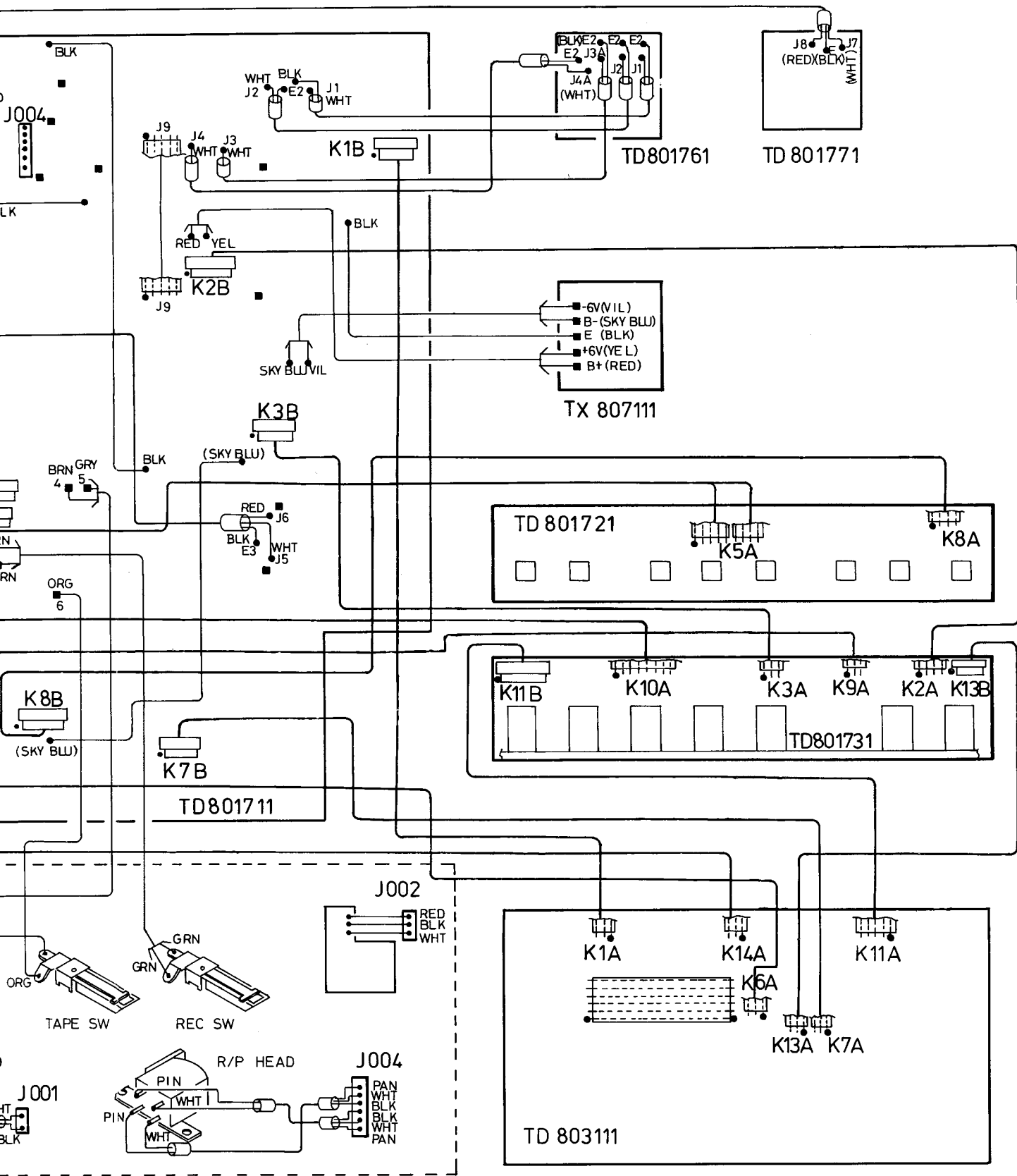
SYMBOL	PARTS NO.	DESCRIPTION
C108	CS32212300	CAP, P.P 22P 160V
C109,110	CS45611420	CAP, STYROL 560P 50V
C901-908	CC01009256	CAP, CERAMIC 0.01 250V
C909	CE04705358	CAP, ELEC. 470UF 35V
C910	CE02205164	CAP, ELEC. 220uF 16V
C911	CE02204354	CAP, ELEC. 2200uF 35V $\Delta$
C912	CE04705255	CAP, ELEC. 470uF 25V
C913	CE02205164	CAP, ELEC. 220uF 16V
C914	CE03304253	CAP, ELEC. 3300uF 25V $\Delta$
C915-918	CE02205164	CAP, ELEC. 220uF 16V
C919	CE01005167	CAP, ELEC. 100uF 16V
D1-D4	DD10000100	DIODE 1N4148
D15	DD20000200	DIODE RD-5.1E
D16	DD20000168	DIODE RD-5.6E
D17-22	DD10000100	DIODE 1N4148
D901-908	DD80000010	DIODE 1N4003
D909	DD20000247	DIODE RD-13E
D910	DD20000144	DIODE RD-10E
D911	DD20000168	DIODE RD-5.6E
Q1-Q6	TR30000327	TRANSISTOR 2SC536
Q7,14	TR30000248	TRANSISTOR 2SC945
Q8-13	TR30000327	TRANSISTOR 2SC536
Q15,16	TR30000121	TRANSISTOR 2SC2274
Q17-21	TR30000327	TRANSISTOR 2SC945
Q23	TR30000327	TRANSISTOR 2SC536
Q24-26	TR30000248	TRANSISTOR 2SC945
Q27-29	TR30000327	TRANSISTOR 2SC536
Q30	TR30000248	TRANSISTOR 2SC945
Q31-43	TR30000327	TRANSISTOR 2SC536
Q44	TR30000248	TRANSISTOR 2SC945
Q45-50	TR10000126	TRANSISTOR 2SA608K
Q51,52	TR30000080	TRANSISTOR 2SD863
Q53,54	TR30000248	TRANSISTOR 2SC945
Q57,58	TR30000248	TRANSISTOR 2SC945
Q59	TR10000126	TRANSISTOR 2SA608K
Q60	TR30000327	TRANSISTOR 2SC536
Q901	TR30000029	TRANSISTOR W/MICA 2SD313
Q902	TR40000069	TRANSISTOR W/MICA 2AD600K
IC01	IC00001693	IC NE5532AN
IC02	IC00001980	IC CX20187
IC03	IC00001085	IC TA7341P
IC04	IC00001693	IC NE5532AN
IC05	IC00002016	IC MPD7520
IC06	IC00001978	IC LB1645N
IC07	IC00001607	IC uPC1297CA
IC901	IC00001991	IC NJM79M12
IC902	IC00000548	IC NJM/L78M20
IC903	IC00000974	IC NJM8M12
L1,L2	LC31010103	COIL RLA101A00
L3,L4	LM00000449	MICRO INDUCTOR 19mH
L5	LC23510003	OSC COIL TRL-351
L6,L7	LC31040107	COIL TRAP RLV104A00T
L8-L11	LM00000413	MICRO INDUCTOR 3.3mH
L12,13	LM00000176	MICRO INDUCTOR 6.8mH
L14,15	LC31260004	COIL.HXPRO RLV-126A00T
F901,902	FU24000033	FUSE UL/CSA 5MA 500mA 250V
F901,902	FU23000013	FUSE 250V 500mA !
F903	FU24000057	FUSE UL/CSA 5MA 1.0A 250V
F903	FU23000025	FUSE 250V 1A !
VR3,4	RV20000235	R,SEMI-FIXED 08-301 50KB
VR7,8	RV20000193	R,SEMI-FIXED 08-301 10KB
VR9,10	RV20000338	R,SEMI-FIXED 08-301 2KB
VR11,12	RV20000296	R,SEMI-FIXED 08-301 3KB
VR13,14	RV20000272	R,SEMI-FIXED 08-301 5KB
	TD801721	PCB ASSEMBLY
D320,322	DD40000940	L.E.D LTL-2231A 3F GREEN/D
D321	DD40000757	L.E.D LTL-2201A RED
S9-S16	SH60000239	KEY BOARD SW 4.3MM 4TR-2301

SYMBOL	PARTS NO.	DESCRIPTION
	TD801731 PCB ASSEMBLY	
R309	RD15600829	R,CARBON 560 J 1/4W
R310	RD11002828	R,CARBON 10K J 1/4W
R311	RD15601822	R,CARBON 5.6K J 1/4W
R312	RD15600829	R,CARBON 560 J 1/4W
R314, 316	RD11002828	R,CARBON 10K J 1/4W
R318	RD14702825	R,CARBON 47K J 1/4W
C308	CE01006251	CAP,ELEC. 10uF 25V
D351, 352	DD10000100	DIODE 1N4148-85
Q301	TR30000327	TRANSISTOR 2SC536
Q302	TR10000126	TRANSISTOR 2SA608K
S2-S8	SH18000051	8 KEY PUSH SW SUF 4TR-2516
	TD801741 PCB ASSEMBLY	
R401	RD12202825	R,CARBON 22K J 1/4W
R402	RD14702825	R,CARBON 47K J 1/4W
R403	RD11001824	R,CARBON 1K J 1/4W
R404	RD12202825	R,CARBON 22K J 1/4W
R405	RD14702825	R,CARBON 47K J 1/4W
R406	RD11001824	R,CARBON 1K J 1/4W
R407	RD12202825	R,CARBON 22K J 1/4W
R408	RD14702825	R,CARBON 47K J 1/4W
R409	RD11001824	R,CARBON 1K J 1/4W
R410	RD12202825	R,CARBON 22K J 1/4W
R411	RD14702825	R,CARBON 47K J 1/4W
R412	RD11001824	R,CARBON 1K J 1/4W
R413	RD12202825	R,CARBON 22K J 1/4W
R414	RD14702825	R,CARBON 47K J 1/4W
R415	RD11001824	R,CARBON 1K J 1/4W
R416	RD12202825	R,CARBON 22K J 1/4W
R417	RD14702825	R,CARBON 47K J 1/4W
R418, 419	RD14702825	R,CARBON 47K J 1/4W
D401	DD10000100	DIODE 1N4148-85
Q401-406	TR30000248	TRANSISTOR 2SC945
Q407-412	TR10000126	TRANSISTOR 2SA608K
	TD801751 PCB ASSEMBLY	
S01	SH40000120	POWER SW C-3600B-T
C01	CK00000060	SPARK KILLER DE7100 FZ472P
	CK00000035	SPARK KILLER DE7150F472M
	TD801761 PCB ASSEMBLY	
R1, R2	RM14701711	R,METAL MR254K7 0.4W
VR1	RV10000408	R,VARIABLE 4TR-1505
	TD801771 PCB ASSEMBLY	
R215, 216	RD41502827	R,CARBON 15K J 1/4W
R232	RD44700820	R,CARBON 470 J 1/4W
Q61	TR30000248	TRANSISTOR 2SC945
VR2	RV10001085	R,VARIABLE 4TR-2281
	TX807111 PCB ASSEMBLY	
R251, 252	RD12701829	R,CARBON 2.7K J 1/4W
R253, 254	RD13901826	R,CARBON 3.9K J 1/4W
C251, 252	CE01005167	CAP,ELEC. 100uF 16V
Q251	TR30000248	TRANSISTOR 2SC945
Q252	TR10000126	TRANSISTOR 2SA608K

PARTS NO.	DESCRIPTION
	OTHERS
AF40000240	FRONT CHASSIS 2TTS-2A#2
AB00000304	BOTTOM BOARD 3TTS-17
AM00001598	CHASSIS BODY 2TTS-16A#2
AR40000250	PLASTIC REAR BOARD 2TTS-18
PT25207107	POWER TRANSFORMER TT-252-GF 
FT00000138	RUBBER FOOT 4TR-2274 40Fx8
NP00001585	P.V.C NAME PLATE 4TVQ-4#6
CD00000218	AC CORD SPT-2 AWG#18 4TR-670#4-U,C 
CD00000097	AC CORD SPT-2 AWG#18 4TR-670#2-H1,2,3,4
CD00000048	AC POWER CORD 4TR-1037-H5,6,7,E K2 
CD00000085	AC POWER CORD C-2504A-K1 
CD00000115	AC POWER CORD C-3763-T-G 
CD00000267	AC CORE SPT-2 AWG#16 C-2743-A 
VC00000048	VOLTAGE SELECTOR C-4304A-1-U,H1,2,4,5,6
DC00000610	CASSETTE DECK ASS'Y C-90F65B 
OM10000310	TAPE ORNAMENTAL PLATE 4TTS-7
AA40000391	FRONT PANEL 2TTS-1#2
AW00000400	PANEL WINDOW 4TR-2655#2
OM10000048	ORNAMENTAL SIDE PLATE 3TR-2349
OM10000280	FUNCTION PVC PLATE 4TTS-4
OM10000322	FL TUBE ORNAMENTAL PLATE 4TTT-1
OM10000334	ACRYLIC DOOR PLATE 4TTS-8
OM10000371	CASSETTE DOOR PLATE 4TTS-6#2
AU00000658	UPPER COVER 3TUV-6#2
KB10001345	KNOB C-3187#5-T 13F
KB10001436	KNOB 4TR-2366 33F WF
KB10001448	KNOB 4TR-2367 33F WR
KB20001561	PUSH BUTTON 4TR-2176 14x14
KB20002012	BUTTON CAP (A) 4TTL-11 39.5x11.5
KB20002024	BUTTON CAP (B) 4TTL-12 19.5x11.5
KB20002140	PUSH BUTTON 4TR-1515A#0 5x14
PL00000680	STYROL SIDE MOULDING 3TUV-7A TZ-158
TN10002831	INSIDE CARTON 4TUV-10#5

# Wiring Diagram



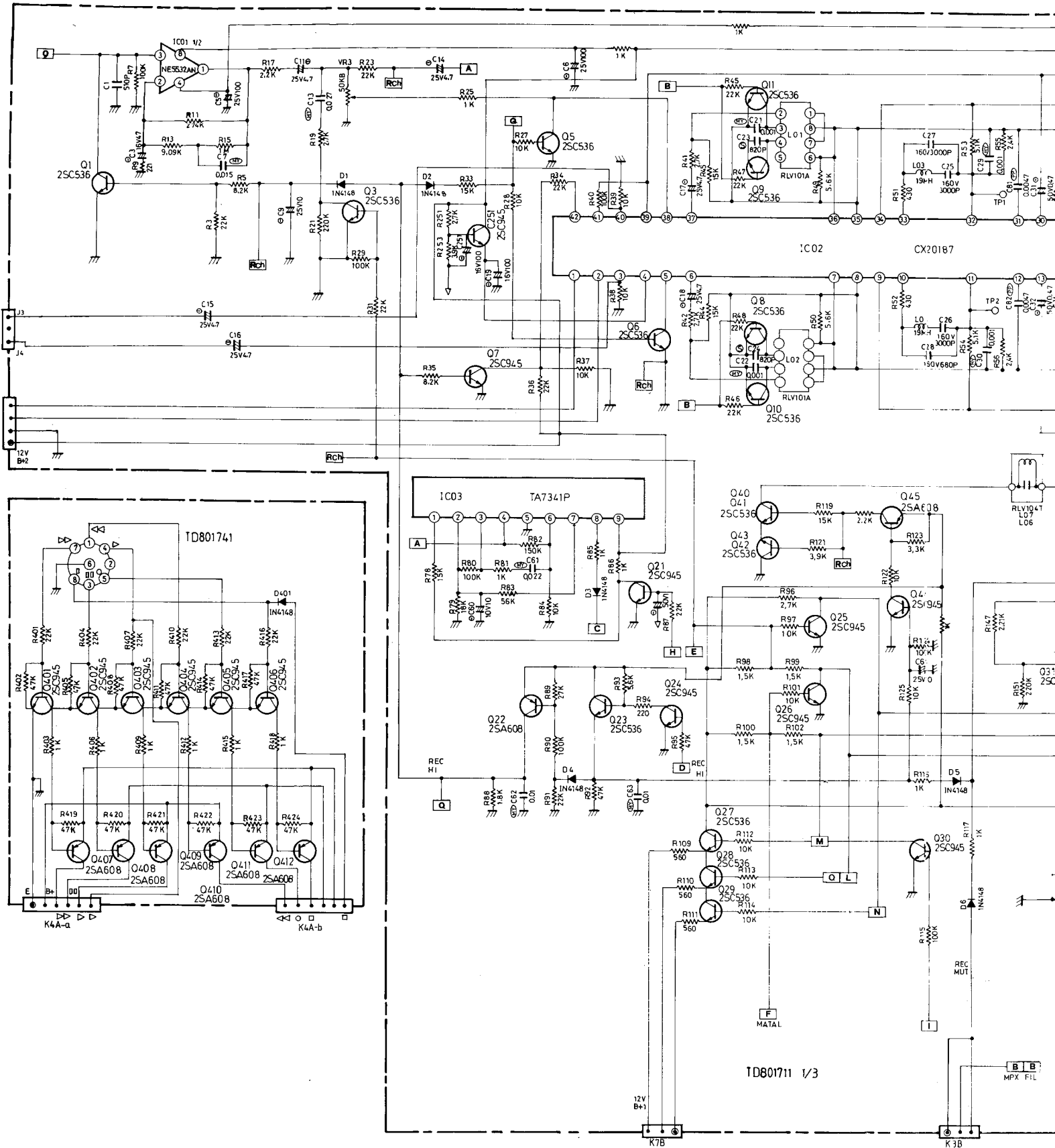


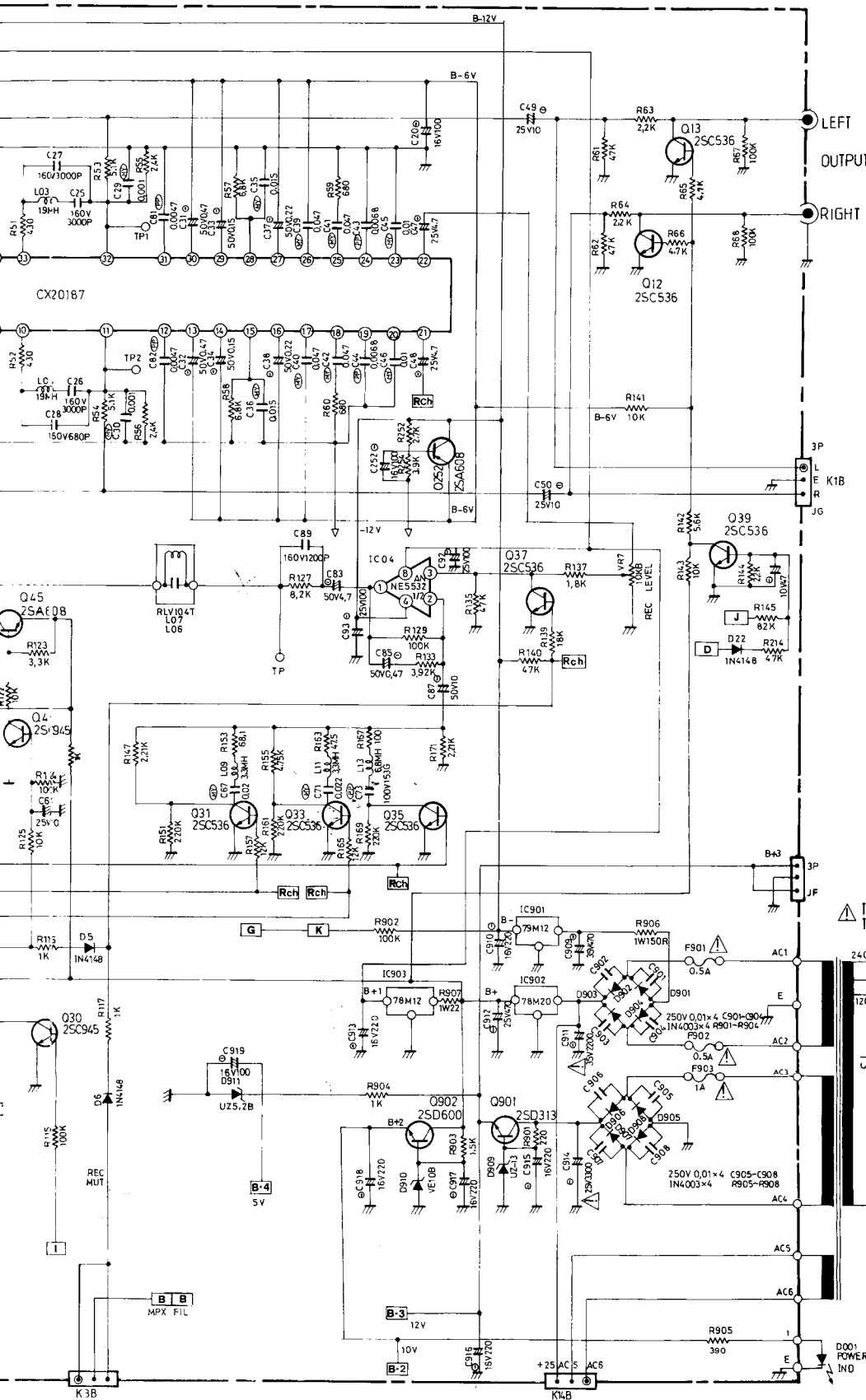


# Schematic Diagram

## SCHEMATIC DIAGRAM RD-865

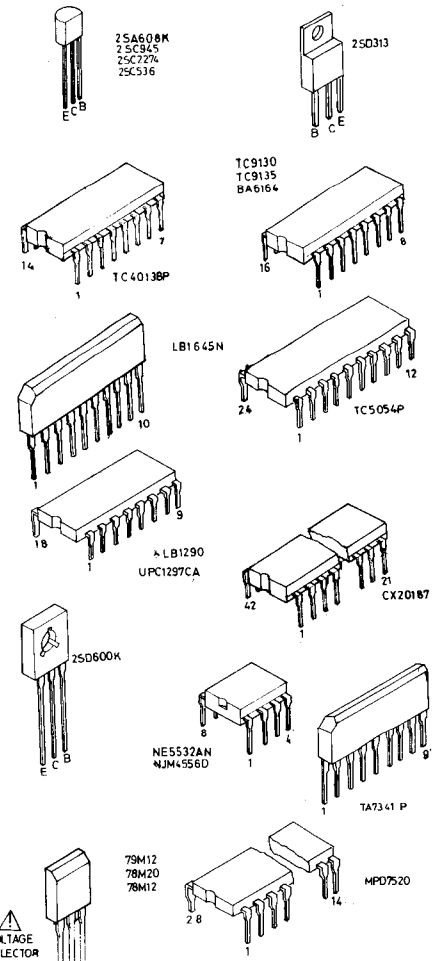
NOTE: PARTS AND CIRCUIT SUBJECT TO CHANGES FOR IMPROVEMENT WITHOUT PRIOR NOTICE





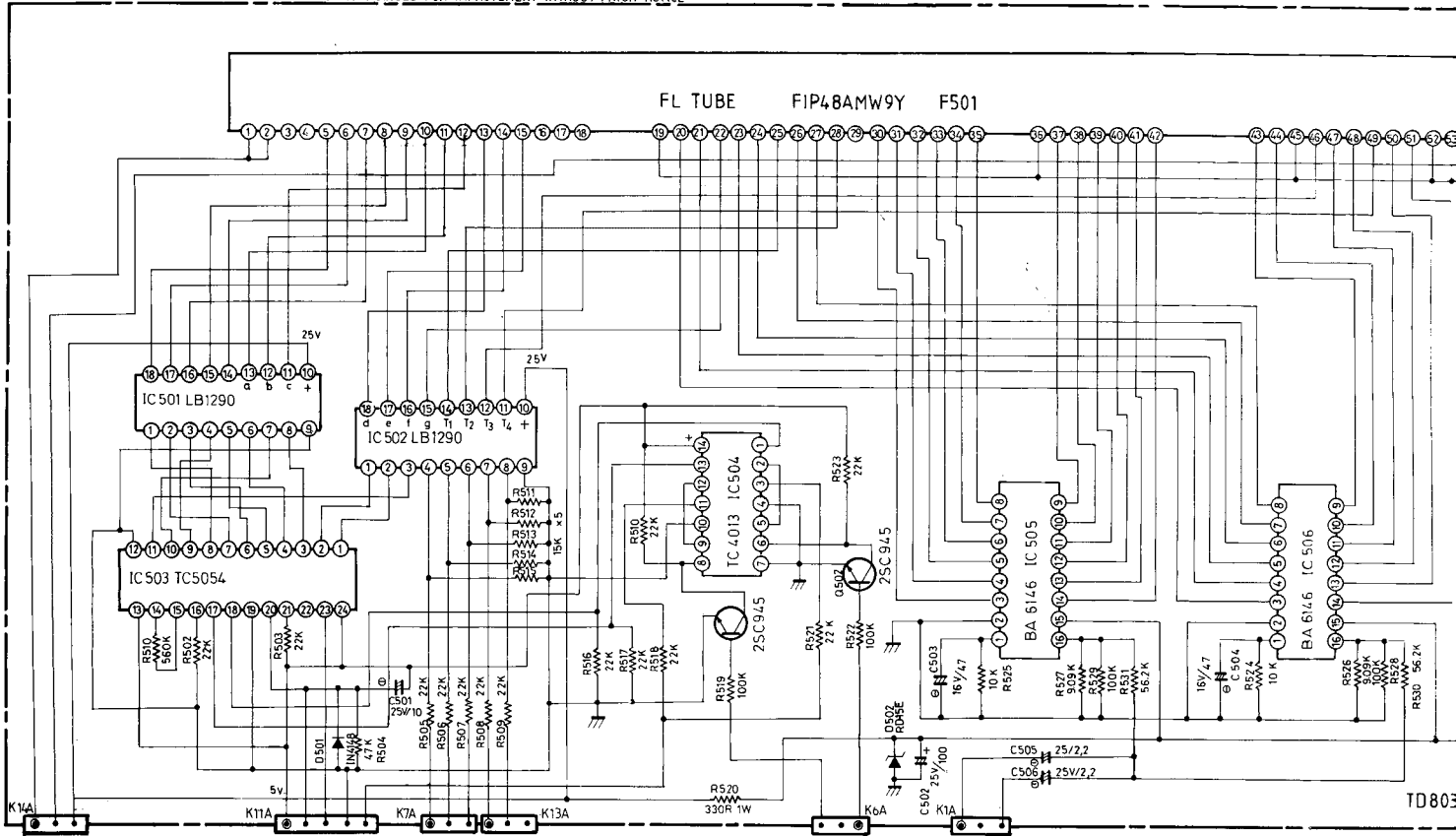
**INSTRUCTIONS FOR SERVICE PERSONNEL**

- 1) TO USE ONLY REPLACEMENT PARTS THAT HAVE THE CRITICAL CHARACTERISTICS RECOMMENDED BY MANUFACTURER.
- 2) TO MAKE LEAKAGE CURRENT OR RESISTANCE MEASUREMENTS TO DETERMINE THAT EXPOSED PARTS ARE ACCEPTABLY INSULATED FROM THE SUPPLY CIRCUIT BEFORE RETURNING THE APPLIANCE TO THE CUSTOMER.

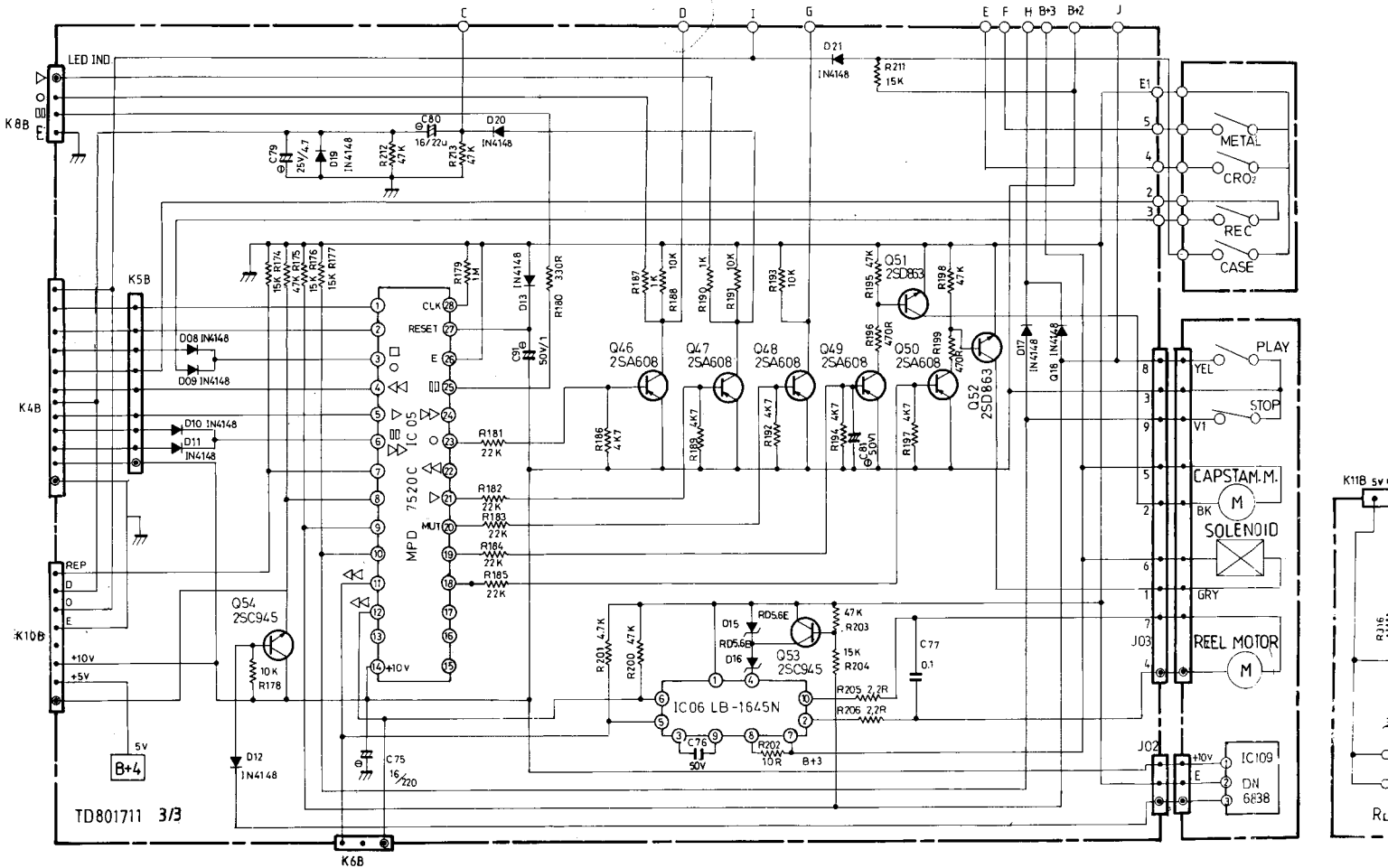


# SCHEMATIC DIAGRAM RD-865

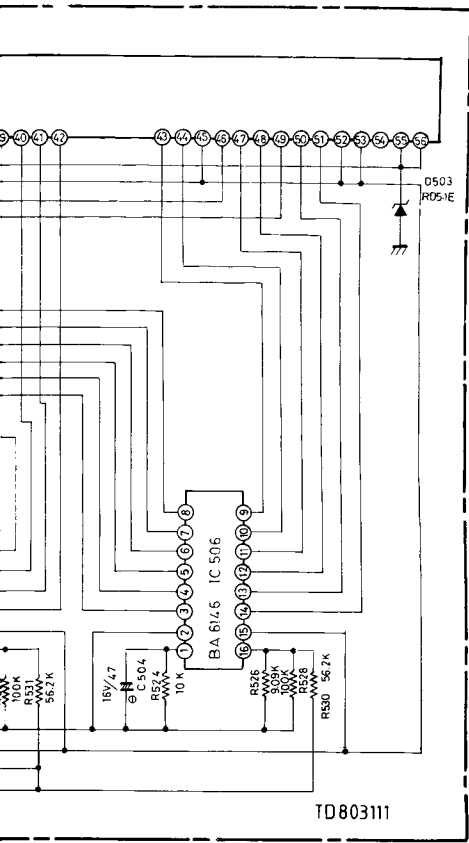
NOTE: PARTS AND CIRCUIT SUBJECT TO CHANGES FOR IMPROVEMENT WITHOUT PRIOR NOTICE



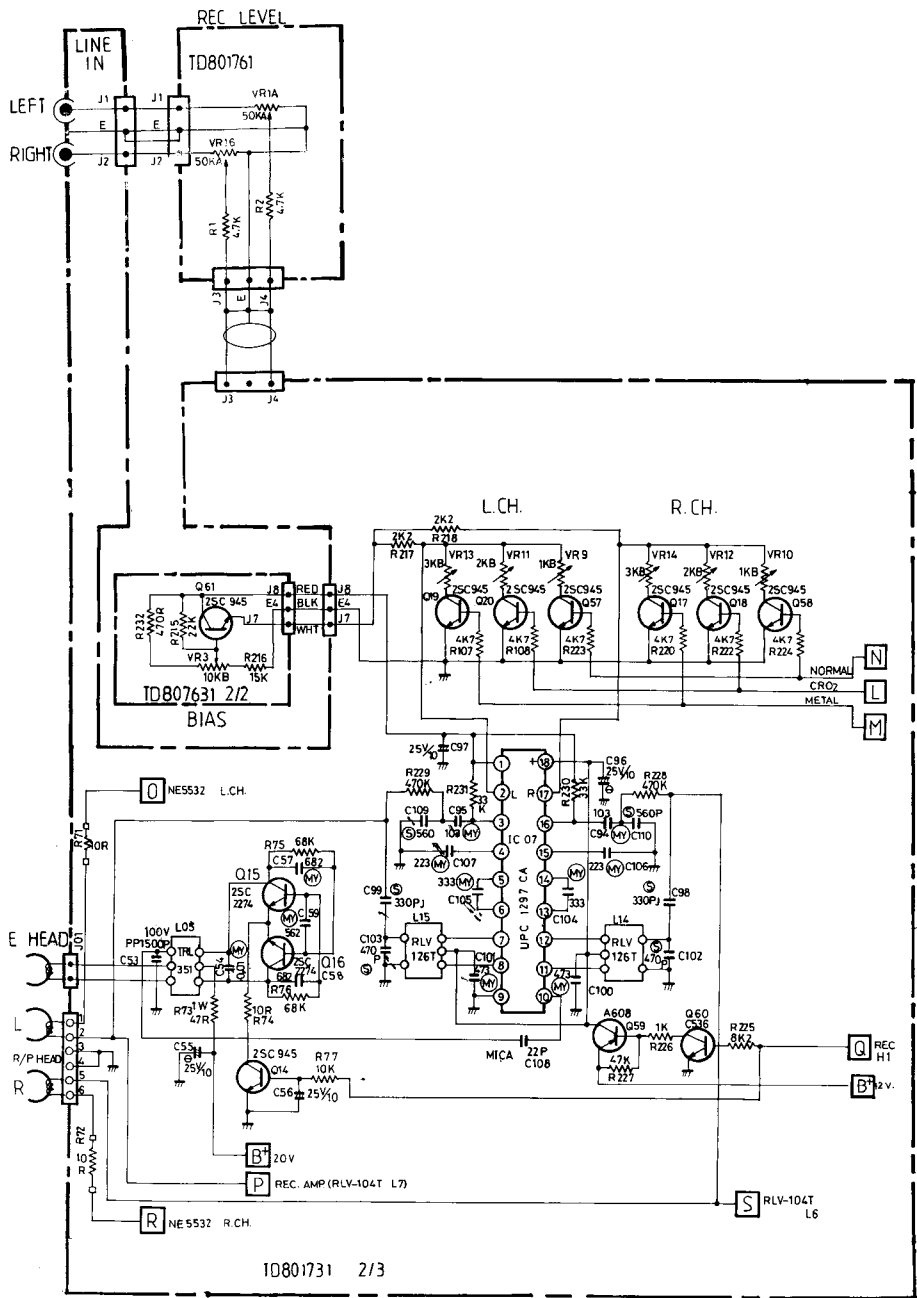
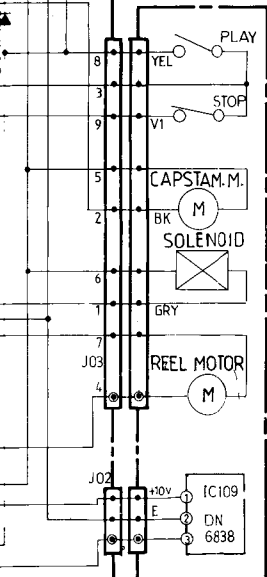
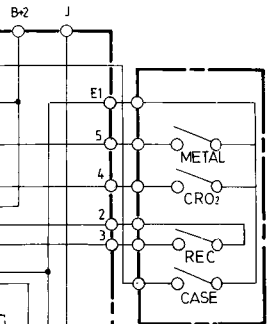
TD803



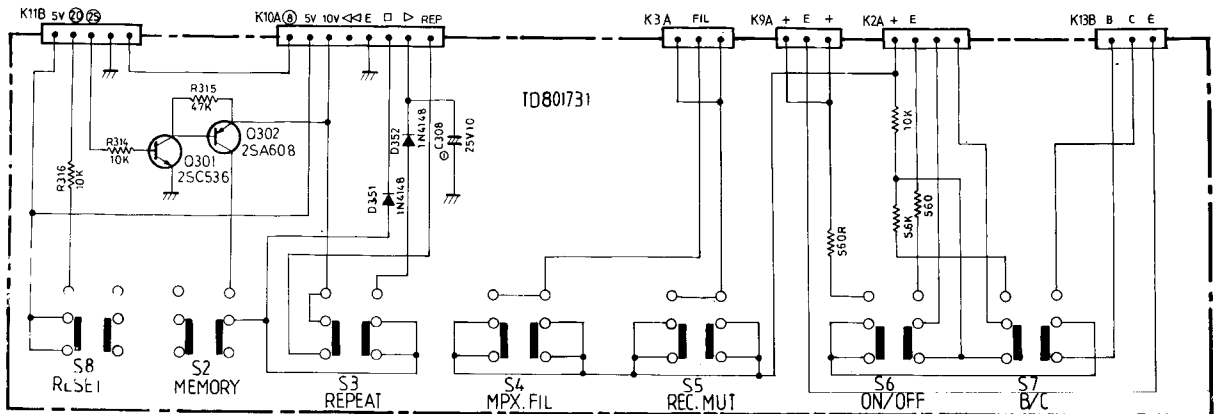
TD801711 3/3



TD803111

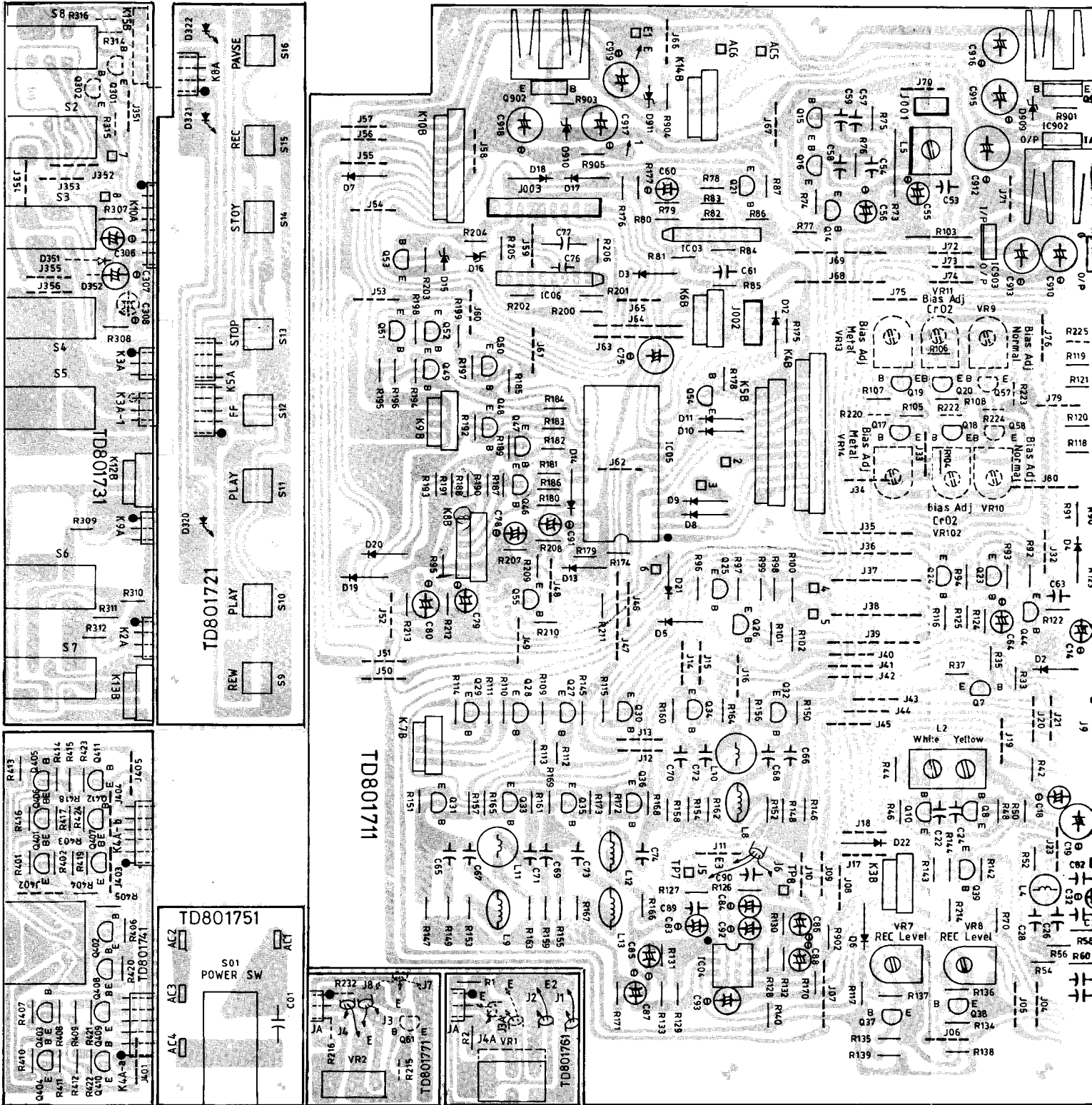


TD801731 2/3

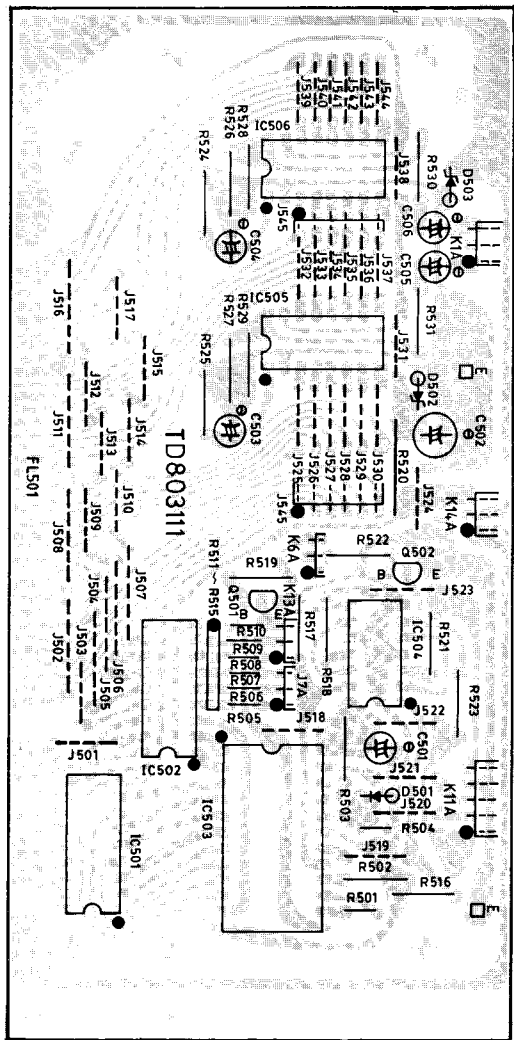
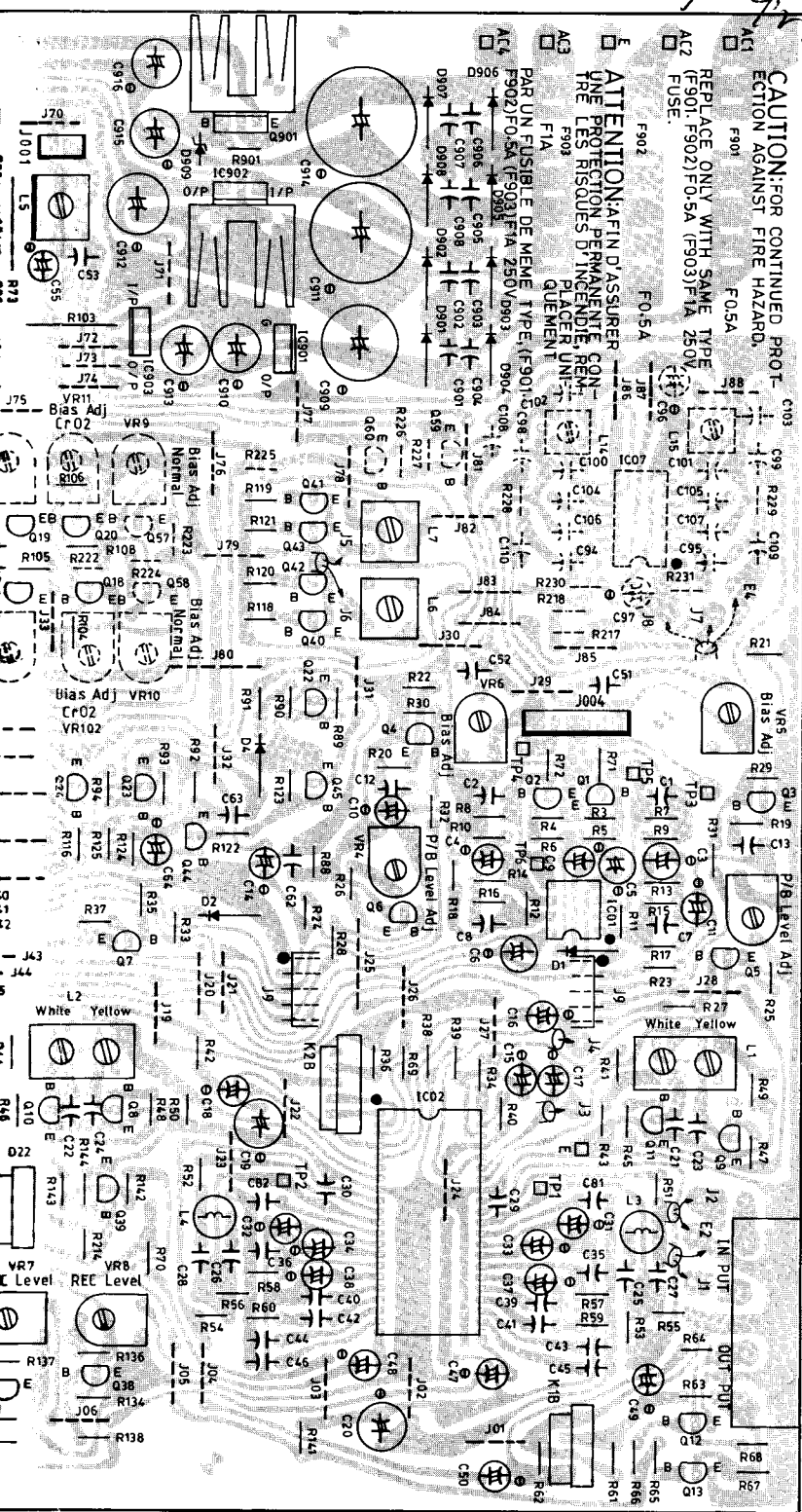
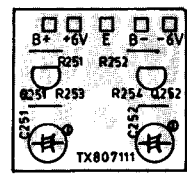


TD801731

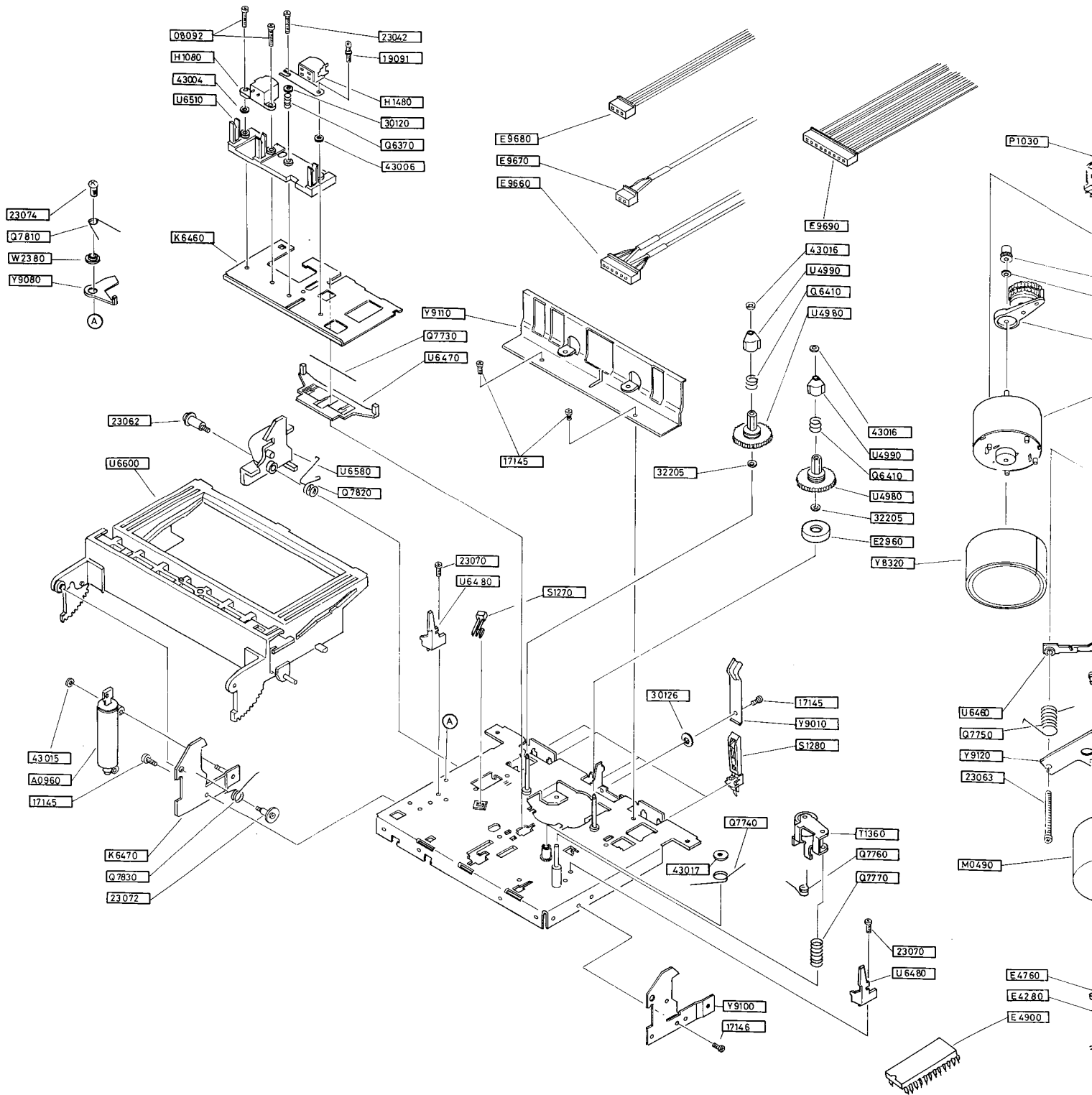
# PRINTED CIRCUIT BOARDS



connect E to  
and 1.5 to  
Pet 1.1 of humm  
and class



# Disassembly Diagram



SYMBOL DESCRIPTION

A00960	SOFT DUMP ASS'Y 3B
A01950	RF ASS'Y 90A
E02650	HOLE IC DN6838-A
E02950	IC P.C BOARD IC-20
E02960	MAGNETIC 15x7.2x3-12
E04280	WIRE 35x3x3#28
E04760	CABLE TIE PL-100
E04900	MICON UPD PD7520C-087
E09660	CONNECTOR ASS'Y EHR-06-08
E09670	CONNECTOR ASS'Y EHR-02-13
E09680	CONNECTOR ASS'Y EHR-03-06
E09690	CONNECTOR ASS'Y EHR-09-02
F00510	FLYWHEEL 90B
H01080	E HEAD 886-01-17
H01480	RP HEAD 245-30-18
J01760	PINCH ROLLER
J01910	HOLDER 90A
K06450	LOCKER 90B
K06460	HEAD SUPPORT 90A
K06470	CASE HOLDER 90A-L
M00490	MOTOR EG500AD-2B
M00640	MOTOR RF-510T-081200-N
P01030	SOLENOID NSO-4-00102-12V19
Q06210	SPRING CAPSTAN HOLDER 8RA
Q06370	SPRING HEAD 9FA
Q06410	SPRING REEL 9FA
Q07720	SPRING LEVER TRIGGER 90A
Q07730	SPRING ARM BRAKE 90A
Q07740	SPRING HEAD PANEL 90A
Q07750	SPRING ARM GEAR 90A
Q07760	SPRING PINCH ROLLER 90A
Q07770	SPRING PINCH ROLLER 90A
Q07810	SPRING ARM SHIFT 90A
Q07820	SPRING CASE LOCK 90A
Q07830	SPRING CASSETTE CASE 90A
S01270	LEAVE SW LSA-1119R-1
S01280	LEAVE SW LSA-1132FAU
T01360	PINCH ROLLER
U03960	CAPSTAN HOLDER
U04980	REEL BASE 9FA
U04990	HUB MOUNT 9FA
U05070	DRIVE BELT 58.5x3.5x0.4
U05080	MOTOR PULLEY 9.2R-U
U06430	GEAR DRIVE 90A
U06440	GEAR BASE 90A
U06450	LEVER TRIGGER 90A
U06460	ARM GEAR 90A
U06470	ARM BRAKE 90A
U06480	CASSETTE GUIDE 90A
U06510	HEAD BASE 90A
U06600	CASSETTE CASE 90A
U06670	GEAR RF PULLEY 90A
U06810	CASE LOCK LEVER 90B
U06870	DIE-CASTING FLYWHEEL 9FA
V04530	PING ROLLER SHAFT
W02310	REEL JICK 90A
W02320	JIC PING ROLLER ARM 90A
W02380	COLLAR ARM SHIFT 90A
W02430	JIC DVIER ARM 90B
Y08320	SHLIDE BOARD T-2.0 30x17
Y09000	PING ROLLER ARM 90A
Y09010	PACK HOLDER SUPPING BOARD 90A
Y09080	ARM SHIFT 90A
Y09100	CASE HOLSER 90A-R
Y09110	SWITCH COVER 90A
Y09120	FLYWHEEL HOLDER 90A
080920	BIND SCREW 2.0x11
170860	SCREW 2.0x5
171450	SCREW 2.6x4
171460	SCREW 2.6x6
171470	SCREW 2.6x6
190850	SCREW 2.0x4SW
190920	SCREW 2.0x11SW
230370	SCREW 2.6x2.5
230420	(+) (-) BIND SCREW 2.0x10
230620	SCREW 2.6x9
230630	SCREW 2.6x23.5
230700	SCREW 2.0x4
230720	SCREW 2.6x5
230740	SCREW 2.6x6
301200	F.WASHER 2.2x6.0x0.4
301260	F WASHER 2.8x7.5x0.5
322020	PSW 2.1x4.0x0.25
322050	PSW 2.1x4.0x0.5
400010	SPACER M2.6x20 ZMC
430040	HEAD WASHER 0.10
430060	HEAD WASHER 0.20
430150	PSW 2.1x4.0x0.4
430160	PSW 1.6x3.2x0.40 CUT
430170	NLW 1.9x7.0x0.5

