

# Illustrated Spare Parts List

## TCD 300

OSLO, NOVEMBER 1972

This book contains a complete list of spare parts for the TCD 300 cassette recorder. A preliminary description of the adjustment procedure and diagrams of the cassette recorder will be available soon.

A complete service manual will be available later.

### INSTRUCTIONS FOR ORDERING SPARE PARTS

When ordering mechanical parts, please give the full part number and name.

(Example: 994107 - TCD 300, Plate, top.)

When ordering electrical parts, please give the full reference number and description.

(Example: D101 - TCD 300, 1N 5243B, Zener 13 V.)

Always give the serial number of the machine when ordering.

The serial number is a 7 digit number which is to be found at the rear of the machine.

TANDBERGS RADIOFABRIKK A/S  
BOKS 9, KORSVOLL, OSLO 8  
NORWAY

# TANDBERG

# MECHANICAL PARTS

Associated parts are arranged in groups and are indicated in the following way:

The letter A denotes a major assembly. Each illustration is one such assembly.

The letter B denotes a sub-assembly of the major assembly. The sub-assembly consists of the part marked B, and all the subsequent parts to the next B.

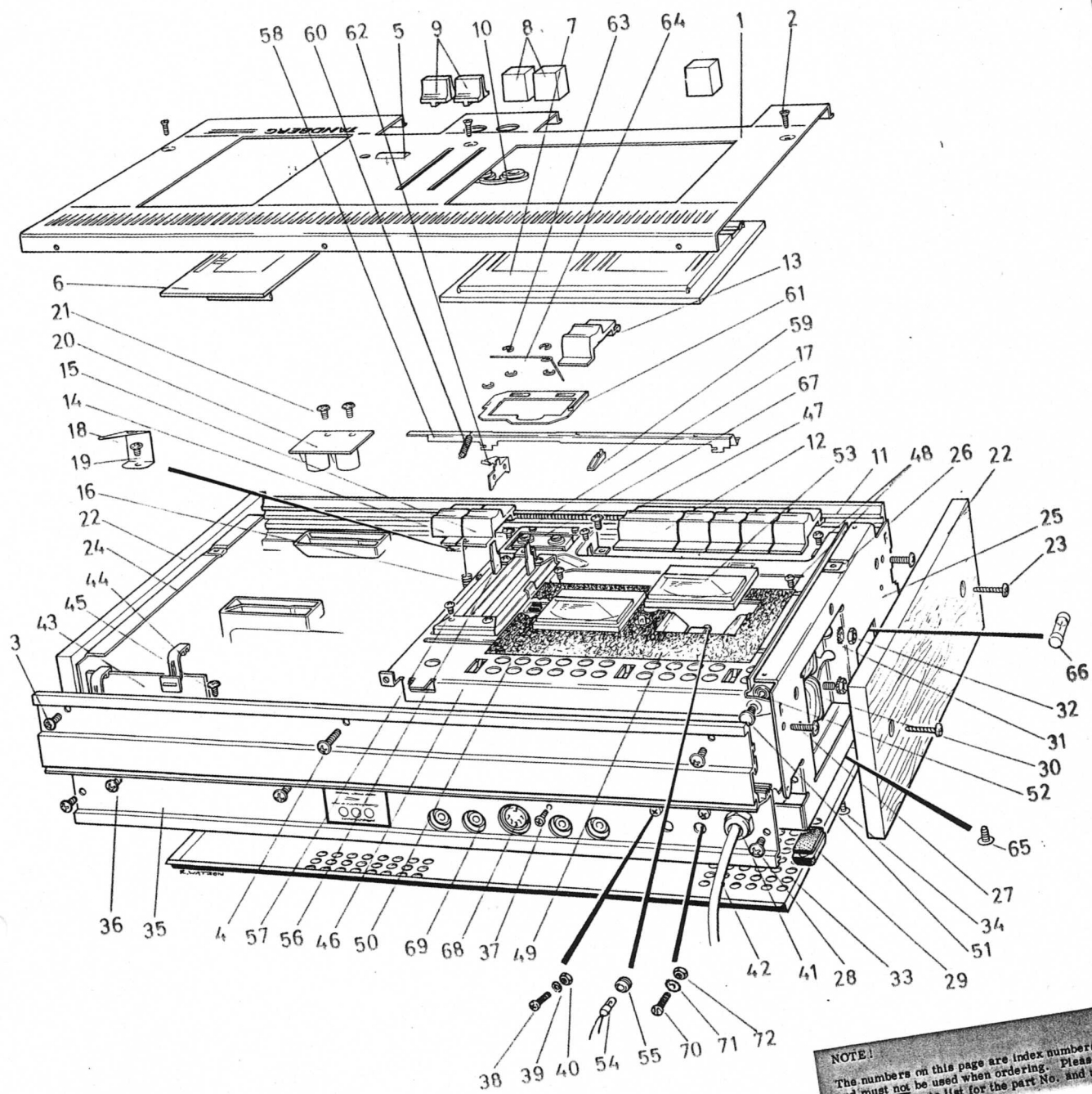
Similarly, the letter C denotes a sub-assembly of the assembly B under which it is listed. The assembly C consists of the part marked C, and all the subsequent parts to the next C or B.

The letter D denotes a group of parts associated with C.

\*These parts are not available as spare parts.

FIG. 1. CHASSIS ASSEMBLY

Index	Part number	Part name/Description	Assy	Quantity		Notes
				in assy	total	
	*	<b>CHASSIS ASSEMBLY</b>	A			
1	994107 -TCD 300	Plate, top	B	1	1	with item 5
2	294556 -TCD 300	Screw, 3/8" No. 4		3	3	
3	227899 -TCD 300	Screw, 1/4" No. 6		2	29	
4	288141 -TCD 300	Screw, 3/8" No. 6		1	7	
5	266871 -TCD 300	Window, counter, plastic		1	1	
6	301244 -TCD 300	Cover, plastic		1	1	cassette
7	994110 -TCD 300	Cover, plastic		1	1	meter
8	291711 -TCD 300	Knob, push switch, plastic		3	3	CrO <sub>2</sub> , MONO and DOLBY
9	994119 -TCD 300	Knob, potentiometer, plastic, with spring		2	2	RECORD LEVEL
10	288788 -TCD 300	Cover, microphone jack, plastic		1	1	
11	304204 -TCD 300	Plate, front	B	1	1	PLAY
12	285620 -TCD 300	Button		1	1	POWER, REWIND, STOP, WIND and RECORD
13	289334 -TCD 300	Button		5	5	EJECT
14	287301 -TCD 300	Button		1	1	PAUSE
15	994125 -TCD 300	Button		1	1	PAUSE button
16	272243 -TCD 300	Spring		1	1	
17	294614 -TCD 300	Spring		1	1	
18	286267 -TCD 300	Spring, flat	C	1	1	EJECT button return
19	227899 -TCD 300	Screw, 1/4" No. 6		1	-	
20	994118 -TCD 300	Board, filter	C	1	1	with components
21	227899 -TCD 300	Screw, 1/4" No. 6		2	-	
22	291395 -TCD 300	Plate, side, teak	B	2	2	matched pair
	290030 -TCD 300	Plate, side, walnut		2	2	matched pair
	285799 -TCD 300	Plate, side, rosewood		2	2	matched pair
23	262984 -TCD 300	Screw, 5/8" No. 6		4	6	
24	301948 -TCD 300	Plate, chassis, right	B	1	1	
25	300267 -TCD 300	Plate, chassis, left	B	1	1	
26	272739 -TCD 300	Nut		2	2	common to items 24 and 25
27	288141 -TCD 300	Screw, 3/8" No. 6		6	-	common to items 24 and 25
28	227899 -TCD 300	Screw, 1/4" No. 6		2	-	common to items 24 and 25
29	227949 -TCD 300	Foot, rubber		4	4	common to items 24 and 25
30	287761 -TCD 300	Transformer	C	1	1	T1
31	202332 -TCD 300	Washer, lock, 4.3 mm		4	4	
32	217280 -TCD 300	Nut, 4 mm		4	4	
33	301596 -TCD 300	Cover, bottom	B	1	1	
34	297295 -TCD 300	Screw, 5/16" No. 6		3	3	
35	302523 -TCD 300	Plate, rear	B	1	1	
36	227899 -TCD 300	Screw, 1/4" No. 6		2	-	
37	220392 -TCD 300	Screw, 1/4" No. 4		1	1	
38	292523 -TCD 300	Screw, 3 x 8 mm		2	6	
39	242202 -TCD 300	Washer, lock, 3.2 mm		2	2	
40	219162 -TCD 300	Nut, 3 mm		2	4	
41	284744 -TCD 300	Grommet, cable, power		1	1	European
	281454 -TCD 300	Tube, cable, power		1	1	U. S. A.
42	266957 -TCD 300	Cable, power, U. S. A., without plug		1	1	
	203250 -TCD 300	Cable, power, European, with plug		1	1	
43	994100 -TCD 300	Board, oscillator	C	1	1	with components
44	300612 -TCD 300	Guide, plastic		2	2	
45	227899 -TCD 300	Screw, 1/4" No. 6		1	-	
46	994123 -TCD 300	Plate, top, inner	B	1	1	
47	227899 -TCD 300	Screw, 1/4" No. 6		2	-	
48	269255 -TCD 300	Screw, 3 x 4 mm		4	22	
49	290971 -TCD 300	Plate, fibre		1	1	
50	289765 -TCD 300	Guide, plastic		2	2	
51	303701 -TCD 300	Post, pivot	C	2	2	
52	245649 -TCD 300	Clip, AS4 4 mm		2	4	
53	282790 -TCD 300	Meter	C	2	2	
54	284471 -TCD 300	Bulb, 14 V 80 mA, with wire	C	3	4	
55	285720 -TCD 300	Grommet		3	4	
56	281109 -TCD 300	Potentiometer, 25 kΩ	C	2	2	R1, R2, RECORD LEVEL
57	269255 -TCD 300	Screw, 3 x 4 mm		4	-	
58	293055 -TCD 300	Arm, eject interlock	C	1	1	
59	286755 -TCD 300	Arm, plastic		4	5	interlock
60	279040 -TCD 300	Spring		1	1	eject interlock return
61	291726 -TCD 300	Plate, record interlock	C	1	1	
62	293407 -TCD 300	Lever		1	1	
63	239651 -TCD 300	Circlip, 3.2 mm		5	5	
64	291022 -TCD 300	Spring		1	1	record interlock plate return not shown on illustration
	*	Board, mother	B	1	-	
65	227899 -TCD 300	Screw, 1/4" No. 6		2	-	
66	280763 -TCD 300	Fuse, 2 amp, American, 1 1/4" x 1/4"		1	1	S101
	265736 -TCD 300	Fuse, 2 amp, European, 5 x 20 mm, slow		1	1	S101
67	291366 -TCD 300	Socket, jack, 3.6 mm		2	2	MICROPHONES
68	274162 -TCD 300	Socket, 5 pin DIN		1	1	RADIO
69	283773 -TCD 300	Socket, phono		4	4	INPUT, OUTPUT
70	292523 -TCD 300	Screw, 3 x 8 mm		2	-	
71	*	Washer		2	-	supplied with Q104 and Q108
72	219162 -TCD 300	Nut, 3 mm		2	-	

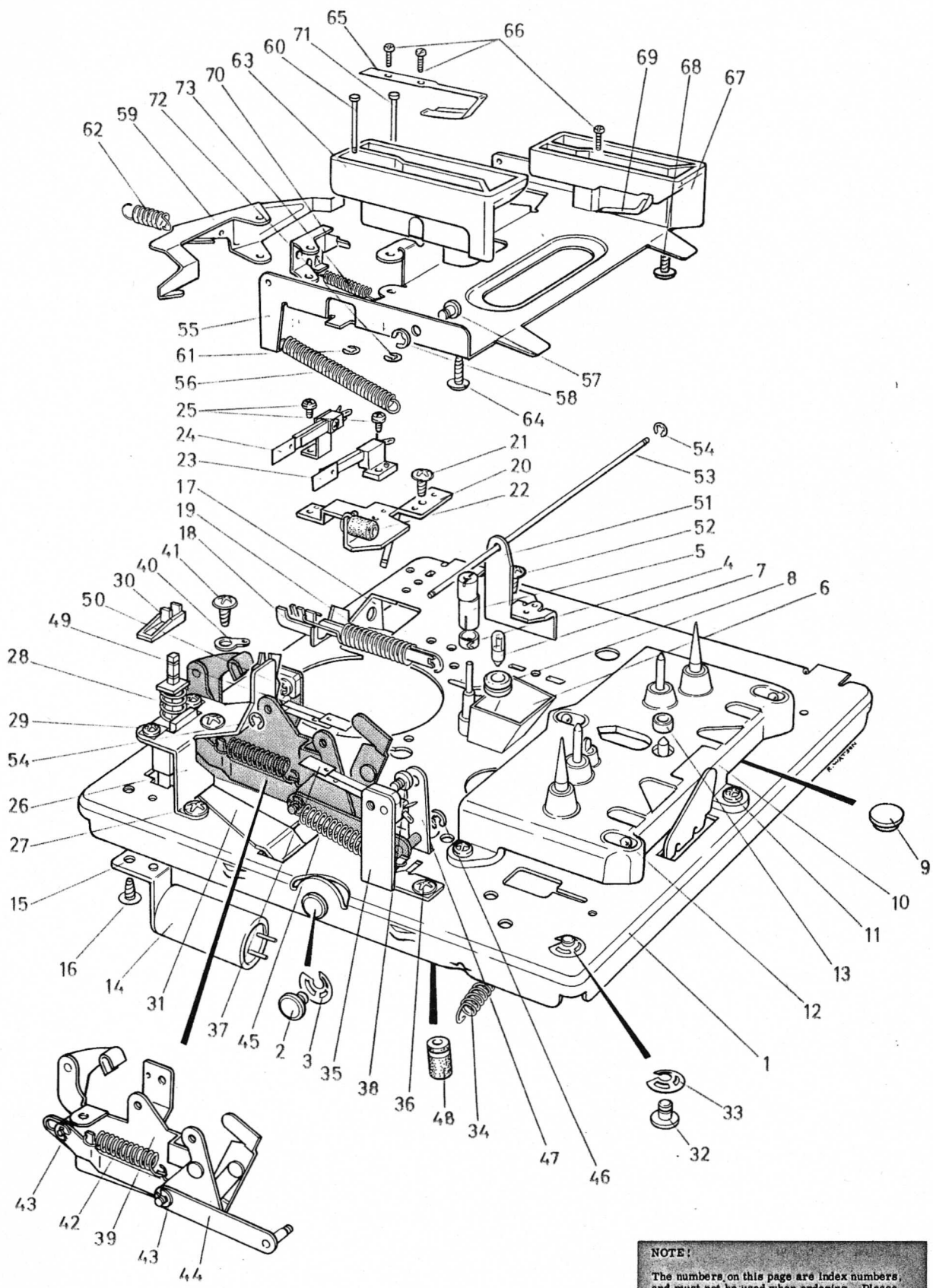


**NOTE:**  
 The numbers on this page are index numbers, and must not be used when ordering. Please refer to the parts list for the part No. and name.

**FIG. 1. CHASSIS ASSEMBLY**

FIG. 2. MOTOR BOARD ASSEMBLY

Index	Part number	Part name/Description	Assy	Quantity		Notes
				in assy	total	
	*	<b>MOTOR BOARD ASSEMBLY</b>	A			
1	*	Plate, support, motor	B	1	-	
2	302020 -TCD 300	Post, pivot		1	1	
3	245649 -TCD 300	Clip, AS4 4 mm		1	-	
4	229824 -TCD 300	Clip		1	3	
5	301395 -TCD 300	Adjuster, eccentric, nylon		1	1	
6	301747 -TCD 300	Reflector, illumination, meter		1	1	
7	284471 -TCD 300	Bulb, 14 V 80 mA, with wire		1	-	
8	285720 -TCD 300	Grommet		1	-	
9	288551 -TCD 300	Bearing, plastic		2	2	lower flywheel bearing
10	994117 -TCD 300	Plate, mounting, flywheel	C	1	1	
11	290842 -TCD 300	Screw, 3 x 6 mm		3	4	
12	303622 -TCD 300	Bearing, ball		3	3	
13	207173 -TCD 300	Bearing, 2.5 mm		1	1	
14	289291 -TCD 300	Capacitor, 1 $\mu$ F 160 V Electrolytic	C	1	1	with nut and washers
15	286475 -TCD 300	Bracket, support, capacitor		1	1	
16	227899 -TCD 300	Screw, 1/4" No. 6		1	-	
17	301323 -TCD 300	Lever, operating solenoid	C	1	1	
18	300964 -TCD 300	Lever, connecting		1	1	
19	304685 -TCD 300	Spring		1	1	
20	994112 -TCD 300	Bracket, with spindle	C	1	1	
21	227899 -TCD 300	Screw, 1/4" No. 6		1	-	
22	202303 -TCD 300	Stop, rubber		1	2	
23	284119 -TCD 300	Switch, leaf, n/o	D	1	3	Power Dolby
24	289083 -TCD 300	Switch, leaf, c/o, with bracket and screw	D	1	1	MS1, Slide
25	269255 -TCD 300	Screw, 3 x 4 mm		2	-	
26	994122 -TCD 300	Bracket, support, push switch	C	1	1	
27	227899 -TCD 300	Screw, 1/4" No. 6		2	-	
28	300497 -TCD 300	Switch, push, Petrick	D	1	1	see detail page 8
29	269255 -TCD 300	Screw, 3 x 4 mm		2	-	
30	286755 -TCD 300	Arm, plastic		1	-	interlock
31	301675 -TCD 300	Lever, pause	C	1	1	
32	302997 -TCD 300	Post, pivot		1	1	
33	245649 -TCD 300	Clip, AS 4 4 mm		1	-	
34	286051 -TCD 300	Spring		1	1	pause lever return
35	303004 -TCD 300	Bracket, support, leaf switch	C	1	1	
36	227899 -TCD 300	Screw, 1/4" No. 6		1	-	
37	284119 -TCD 300	Switch, leaf, n/o	D	1	-	MS4, Cassette
38	269255 -TCD 300	Screw, 3 x 4 mm		1	-	
39	994114 -TCD 300	Bracket, eject mechanism, cassette	C	1	1	with items 42-44 incl.
40	209487 -TCD 300	Tag, solder, 3.2 mm		1	2	
41	227899 -TCD 300	Screw, 1/4" No. 6		2	-	
42	230363 -TCD 300	Spring		1	2	
43	230542 -TCD 300	Circlip, 2.3 mm		2	4	
44	994124 -TCD 300	Lever, with spindle		1	1	
45	230363 -TCD 300	Spring		1	-	
46	230542 -TCD 300	Circlip, 2.3 mm		1	-	
47	285268 -TCD 300	Lever		1	1	
48	202303 -TCD 300	Stop, rubber		1	-	
49	284119 -TCD 300	Switch, leaf, n/o	D	1	-	MS3, Record
50	269255 -TCD 300	Screw, 3 x 4 mm		1	-	
51	300971 -TCD 300	Bracket, support, cassette drawer	C	1	1	
52	227899 -TCD 300	Screw, 1/4" No. 6		1	-	
53	301668 -TCD 300	Spindle, support, cassette drawer		1	1	
54	237970 -TCD 300	Circlip, 1.5 mm		2	4	
55	300490 -TCD 300	Bracket, cassette drawer	C	1	1	
56	289413 -TCD 300	Spring		1	1	cassette drawer return
57	304678 -TCD 300	Post, pivot		1	1	
58	230542 -TCD 300	Circlip, 2.3 mm		1	-	
59	287380 -TCD 300	Arm	D	1	1	cassette
60	301316 -TCD 300	Post, pivot		1	2	
61	237970 -TCD 300	Circlip, 1.5 mm		1	-	
62	237360 -TCD 300	Spring		1	1	
63	994121 -TCD 300	Guide, cassette, left	D	1	1	with items 65 and 66
64	292875 -TCD 300	Screw, 3/8" No. 4		2	4	
65	290110 -TCD 300	Spring, cassette drawer, left		1	1	
66	299606 -TCD 300	Screw, 3/16" No. 2		4	4	common to items 63 and 67
67	994120 -TCD 300	Guide, cassette, right	D	1	1	with items 66 and 69
68	292875 -TCD 300	Screw, 3/8" No. 4		2	-	
69	291791 -TCD 300	Spring, cassette drawer, right		1	1	
70	304103 -TCD 300	Arm	D	1	1	erase interlock
71	301316 -TCD 300	Post, pivot		1	-	
72	237970 -TCD 300	Circlip, 1.5 mm		1	-	
73	293824 -TCD 300	Spring		1	1	



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**FIG. 2. MOTOR BOARD ASSEMBLY**

FIG. 3. DRIVE ASSEMBLY

Index	Part number	Part name/Description	Assy	Quantity		Notes
				in assy	total	
	*	<b>DRIVE ASSEMBLY</b>	A			
1	230405 -TCD 300	Motor, capstan	B	1	1	
2	302645 -TCD 300	Bracket, support, motor		1	1	
3	262984 -TCD 300	Screw, 5/8" No. 6		2	-	
4	227899 -TCD 300	Screw, 1/4" No. 6		3	-	
5	290389 -TCD 300	Pulley, motor, 50 Hz		1	1	
	292070 -TCD 300	Pulley, motor, 60 Hz		1	1	
6	994108 -TCD 300	Belt, drive, rubber	B	1	1	tape transport
7	994111 -TCD 300	Flywheel	B	2	2	matched pair
8	285369 -TCD 300	Washer, plastic		2	2	
9	284823 -TCD 300	Motor	B	2	2	take-up and supply
10	269255 -TCD 300	Screw, 3 x 4 mm		4	-	
11	994113 -TCD 300	Spindle, tape reel	C	2	2	incl. item 12
12	229824 -TCD 300	Clip		2	-	
13	286597 -TCD 300	Bracket, support, counter	B	1	1	
14	227899 -TCD 300	Screw, 1/4" No. 6		1	-	
15	280132 -TCD 300	Counter		1	1	
16	269255 -TCD 300	Screw, 3 x 4 mm		2	-	
17	994109 -TCD 300	Belt, drive, rubber	B	1	1	counter drive
18	994105 -TCD 300	Solenoid	B	1	1	
19	264212A-TCD 300	Screw, nylon		1	1	
20	302300 -TCD 300	Bracket, rear		1	1	
21	302623 -TCD 300	Bracket, front		1	1	
22	227899 -TCD 300	Screw, 1/4" No. 6		2	-	
23	300942 -TCD 300	Housing, rubber		2	2	
24	202634 -TCD 300	Clamp, cable, nylon, 5 mm		1	1	
25	227899 -TCD 300	Screw, 1/4" No. 6		1	-	

FIG. 4. HEAD PLATE ASSEMBLY

	*	<b>HEAD PLATE ASSEMBLY</b>	A			
26	304333 -TCD 300	Bracket, guide, head plate, left	B	1	1	
27	302652 -TCD 300	Bracket, guide, head plate, right	B	1	1	
28	269255 -TCD 300	Screw, 3 x 4 mm		2	-	
29	287732 -TCD 300	Spring		2	2	
30	*	Plate, mounting	B	1	-	
31	890002 -TCD 300	Screw, 3 x 7 mm, unbrako		1	1	
32	994115 -TCD 300	Plate, pressure, left	C	1	1	with items 33 - 41 incl.
33	292523 -TCD 300	Screw, 3 x 8 mm		1	-	
34	293852 -TCD 300	Screw, 3 x 15 mm		1	2	
35	240406A-TCD 300	Spring		1	3	
36	890003 -TCD 300	Screw, 3 x 8 mm, unbrako		2	5	
37	303270 -TCD 300	Bracket, support, roller, left		1	1	
38	300339 -TCD 300	Spacer		1	1	
39	292839 -TCD 300	Screw, 2 x 12 mm		1	1	
40	860004 -TCD 300	Roller, pinch, rubber		1	2	
41	212145 -TCD 300	Circlip, 2.5 mm		1	2	
42	994116 -TCD 300	Plate, pressure, right	C	1	1	with items 33-36, 40, 41 and 43 incl.
43	244377 -TCD 300	Washer, turbax, 6 x 2.5 x 0.3 mm		2	2	
44	285699 -TCD 300	Spring, flat	C	1	1	
45	294520 -TCD 300	Screw, 2.3 x 3 mm		2	2	
46	994104 -TCD 300	Plate, mounting, head	C	1	1	with items 47-57 incl.
47	290842 -TCD 300	Screw, 3 x 6 mm		1	-	
48	292171 -TCD 300	Screw, 3 x 12 mm		1	1	
49	240406A-TCD 300	Spring		1	-	
50	890003 -TCD 300	Screw, 3 x 8 mm, unbrako		1	-	
51	890000 -TCD 300	Screw, 3 x 5 mm, unbrako		1	1	
52	287926 -TCD 300	Plate		1	1	
53	283415 -TCD 300	Head, record and play	D	1	1	
54	292487 -TCD 300	Screw, 2 x 5 mm		1	1	
55	294168 -TCD 300	Screw, 2 x 6 mm		2	2	
56	282086 -TCD 300	Head, erase	D	1	1	
57	290806 -TCD 300	Screw, 1.7 x 3 mm		2	2	

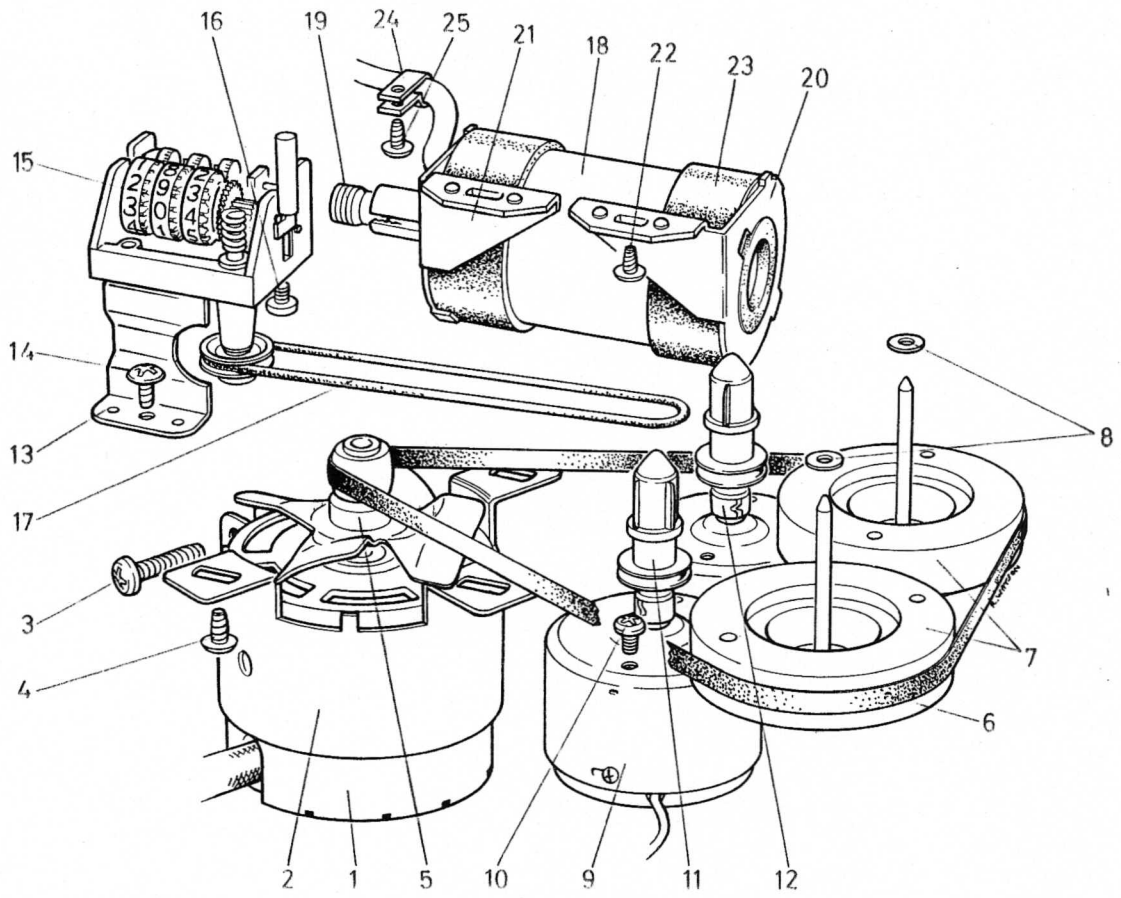
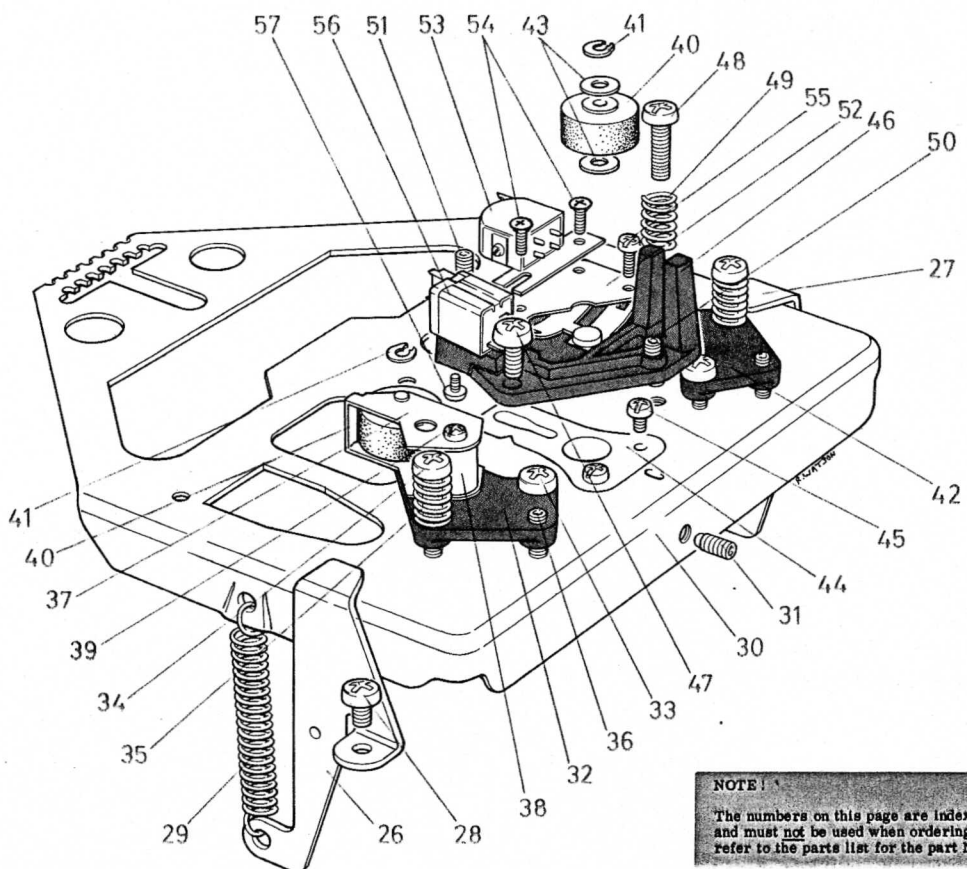


FIG. 3. DRIVE ASSEMBLY



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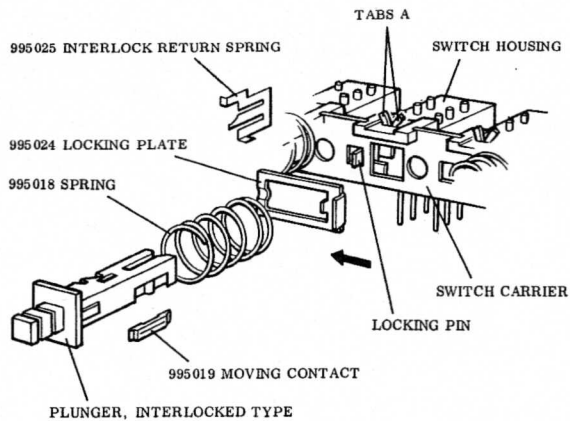
FIG. 4. HEAD PLATE ASSEMBLY

## PETRICK SWITCH MAINTENANCE

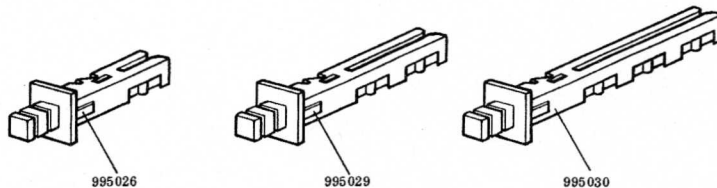
Do not touch the moving contacts with your fingers as this will cause corrosion. When cleaning use only a soft brush and alcohol. Do not use cleaners which contain active substances. Apply a thin layer of vaseline to the moving contacts prior to replacement.

When ordering springs, give the part number of the plunger because the spring strength is dependent on the length of the plunger.

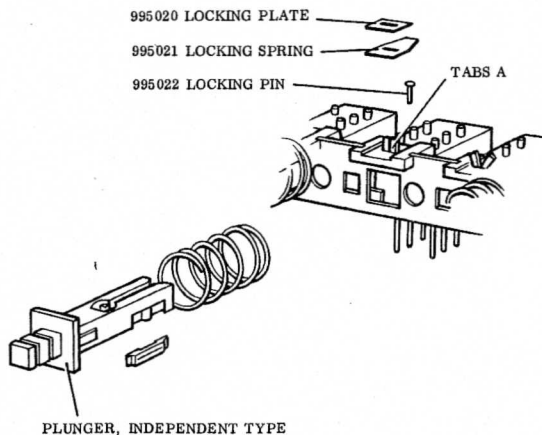
### Interlocked action



To remove the plunger, pull the locking plate forward and while the locking pin is moved in the direction of the arrow prevent all the other plungers from jumping out. Retract the plunger from the switch housing to gain access to the moving contacts. To remove the switch housing, close the two tabs "A", unsolder the associated terminals and remove the switch from the switch carrier. Access to the interlock return spring can only be made by following the above instructions to remove the switch housing. It may not be mounted beside the "interlocked" type of switch.

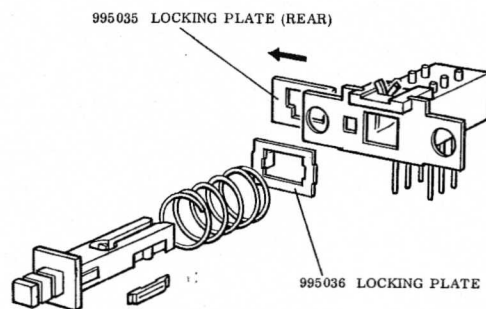


### Independent action

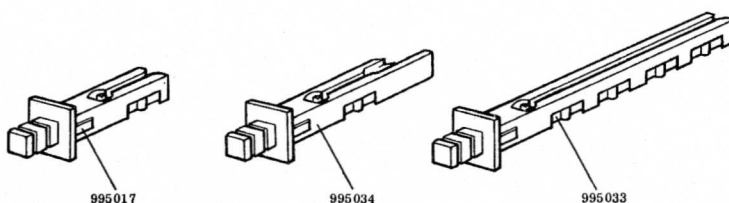


By closing the two tabs "A", the locking plate, locking spring, and locking pin may be removed. The removal of all other pieces is identical to the "interlocked action" type of switch.

When assembling the switch, use a flat surface to push all the plungers in evenly and while they are held, return the locking pin to the locked position.



To remove the plunger, pull the locking plate forward, and while the rear locking plate is moved in the direction of the arrow, prevent the plunger from jumping out. Retract the plunger from the switch housing to gain access to the moving contacts. The removal of all other pieces is described above.





# ELECTRICAL PARTS

## POTENTIOMETERS

Ref. No.	Description
R 1 - TCD 300	25 kohm, RECORD LEVEL, log
R105 - TCD 300	25 kohm, trimming
R115 - TCD 300	50 kohm, trimming
R205 - TCD 300	25 kohm, trimming
R215 - TCD 300	50 kohm, trimming
C317 - TCD 300	25 kohm, trimming
C417 - TCD 300	25 kohm, trimming
R743 - TCD 300	10 kohm, trimming
R744 - TCD 300	1 kohm, trimming

## RESISTORS

Ref. No.	Description
R101 - TCD 300	47 kohm 5% 1/4 W* LCE 0309
R102 - TCD 300	220 kohm 5% 1/4 W* LCE 0309
R103 - TCD 300	1 kohm 5% 1/4 W* LCE 0309
R104 - TCD 300	5.6 kohm 5% 1/4 W* LCE 0309
R106 - TCD 300	10 kohm 5% 1/4 W* LCE 0309
R107 - TCD 300	18 kohm 5% 1/4 W* LCE 0309
R108 - TCD 300	3.3 kohm 5% 1/4 W* LCE 0309
R109 - TCD 300	39 kohm 5% 1/4 W* LCE 0309
R110 - TCD 300	6.8 kohm 5% 1/4 W* LCE 0309
R111 - TCD 300	470 kohm 5% 1/4 W* LCE 0309
R112 - TCD 300	15 kohm 5% 1/4 W* LCE 0309
R113 - TCD 300	10 kohm 5% 1/4 W* LCE 0309
R114 - TCD 300	33 kohm 5% 1/4 W* LCE 0309
R116 - TCD 300	3.9 kohm 5% 1/4 W* LCE 0309
R117 - TCD 300	1 kohm 5% 1/4 W* LCE 0309
R118 - TCD 300	15 kohm 5% 1/4 W* LCE 0309
R119 - TCD 300	56 ohm 5% 1/4 W* LCE 0309
R120 - TCD 300	1 ohm 10% 1.5 W* LCE 0309
R121 - TCD 300	150 ohm 5% 1/4 W* LCE 0309
R122 - TCD 300	1 kohm 5% 1/4 W* LCE 0309
R123 - TCD 300	1 kohm 5% 1/4 W* LCE 0309
R124 - TCD 300	560 ohm 5% 1/4 W* LCE 0309
R125 - TCD 300	100 ohm 5% 1/4 W* LCE 0309
R126 - TCD 300	3.9 kohm 5% 1/4 W* LCE 0309
R127 - TCD 300	56 kohm 5% 1/4 W* LCE 0309
R128 - TCD 300	470 ohm 5% 1/4 W* LCE 0309
R129 - TCD 300	4.7 kohm 5% 1/4 W* LCE 0309
R130 - TCD 300	3.9 kohm 5% 1/4 W* LCE 0309
R131 - TCD 300	33 ohm 5% 1/4 W* LCA 0309
R201 - TCD 300	47 kohm 5% 1/4 W* LCE 0309
R202 - TCD 300	220 kohm 5% 1/4 W* LCE 0309
R203 - TCD 300	1 kohm 5% 1/4 W* LCE 0309
R204 - TCD 300	5.6 kohm 5% 1/4 W* LCE 0309
R206 - TCD 300	10 kohm 5% 1/4 W* LCE 0309
R207 - TCD 300	18 kohm 5% 1/4 W* LCE 0309
R208 - TCD 300	3.3 kohm 5% 1/4 W* LCE 0309
R209 - TCD 300	39 kohm 5% 1/4 W* LCE 0309
R210 - TCD 300	6.8 kohm 5% 1/4 W* LCE 0309
R211 - TCD 300	470 kohm 5% 1/4 W* LCE 0309
R212 - TCD 300	15 kohm 5% 1/4 W* LCE 0309
R213 - TCD 300	10 kohm 5% 1/4 W* LCE 0309
R214 - TCD 300	33 kohm 5% 1/4 W* LCE 0309
R216 - TCD 300	3.9 kohm 5% 1/4 W* LCE 0309
R217 - TCD 300	1 kohm 5% 1/4 W* LCE 0309
R218 - TCD 300	15 kohm 5% 1/4 W* LCE 0309
R301 - TCD 300	15 kohm 5% 1/4 W* LCE 0309
R302 - TCD 300	10 kohm 5% 1/4 W* LCE 0309
R303 - TCD 300	18 kohm 5% 1/4 W* LCE 0309
R304 - TCD 300	330 kohm 5% 1/4 W* LCE 0309
R305 - TCD 300	47 kohm 5% 1/4 W* LCE 0309
R306 - TCD 300	470 ohm 5% 1/4 W* LCE 0309
R307 - TCD 300	56 kohm 5% 1/4 W* LCE 0309
R308 - TCD 300	470 ohm 5% 1/4 W* LCE 0309
R309 - TCD 300	22 kohm 5% 1/4 W* LCE 0309
R310 - TCD 300	270 kohm 5% 1/4 W* LCE 0309
R311 - TCD 300	4.7 kohm 5% 1/4 W* LCE 0309
R312 - TCD 300	680 ohm 5% 1/4 W* LCE 0309
R313 - TCD 300	3.9 kohm 5% 1/4 W* LCE 0309
R314 - TCD 300	1 kohm 5% 1/4 W* LCE 0309
R315 - TCD 300	820 ohm 5% 1/4 W* LCE 0309
R316 - TCD 300	120 kohm 5% 1/4 W* LCE 0309
R318 - TCD 300	33 kohm 5% 1/4 W* LCE 0309
R319 - TCD 300	22 kohm 5% 1/4 W* LCE 0309
R320 - TCD 300	1.5 kohm 5% 1/4 W* LCE 0309
R321 - TCD 300	820 ohm 5% 1/4 W* LCE 0309
R322 - TCD 300	27 ohm 10% 1.5 W* LCA 0309
R323 - TCD 300	330 ohm 5% 1/4 W* LCE 0309
R324 - TCD 300	100 ohm 5% 1/4 W* LCE 0309
R325 - TCD 300	68 kohm 5% 1/4 W* LCE 0309
R326 - TCD 300	82 ohm 5% 1/4 W* LCE 0309
R327 - TCD 300	10 kohm 5% 1/4 W* LCE 0309
R329 - TCD 300	470 ohm 5% 1/4 W* LCE 0309
R330 - TCD 300	47 kohm 5% 1/4 W* LCE 0309
R332 - TCD 300	220 ohm 5% 1/4 W* LCE 0309
R333 - TCD 300	5.6 kohm 5% 1/4 W* LCE 0309
R401 - TCD 300	15 kohm 5% 1/4 W* LCE 0309
R402 - TCD 300	10 kohm 5% 1/4 W* LCE 0309
R403 - TCD 300	18 kohm 5% 1/4 W* LCE 0309
R404 - TCD 300	330 kohm 5% 1/4 W* LCE 0309
R405 - TCD 300	47 kohm 5% 1/4 W* LCE 0309
R406 - TCD 300	470 ohm 5% 1/4 W* LCE 0309
R407 - TCD 300	56 kohm 5% 1/4 W* LCE 0309
R408 - TCD 300	470 ohm 5% 1/4 W* LCE 0309
R409 - TCD 300	22 kohm 5% 1/4 W* LCE 0309
R410 - TCD 300	270 kohm 5% 1/4 W* LCE 0309
R411 - TCD 300	4.7 kohm 5% 1/4 W* LCE 0309
R412 - TCD 300	680 ohm 5% 1/4 W* LCE 0309
R413 - TCD 300	3.9 kohm 5% 1/4 W* LCE 0309
R414 - TCD 300	1 kohm 5% 1/4 W* LCE 0309
R415 - TCD 300	820 ohm 5% 1/4 W* LCE 0309
R416 - TCD 300	120 kohm 5% 1/4 W* LCE 0309
R418 - TCD 300	33 kohm 5% 1/4 W* LCE 0309
R419 - TCD 300	22 kohm 5% 1/4 W* LCE 0309
R501 - TCD 300	470 ohm 5% 1/4 W* LCE 0309
R503 - TCD 300	3.9 kohm 5% 1/4 W* LCE 0309
R504 - TCE 300	15 kohm 5% 1/4 W* LCE 0309
R506 - TCD 300	220 kohm 5% 1/4 W* LCE 0309
R507 - TCD 300	5.6 kohm 5% 1/4 W* LCE 0309
R509 - TCD 300	1.5 kohm 5% 1/4 W* LCE 0309

Ref. No.	Description
R510 - TCD 300	1.8 kohm 5% 1/4 W* LCE 0309
R511 - TCD 300	10 kohm 5% 1/4 W* LCE 0309
R512 - TCD 300	100 kohm 5% 1/4 W* LCE 0309
R513 - TCD 300	10 kohm 5% 1/4 W* LCE 0309
R514 - TCD 300	22 kohm 5% 1/4 W* LCE 0309
R515 - TCD 300	2.2 kohm 5% 1/4 W* LCE 0309
R516 - TCD 300	100 kohm 5% 1/4 W* LCE 0309
R517 - TCD 300	220 kohm 5% 1/4 W* LCE 0309
R518 - TCD 300	22 kohm 5% 1/4 W* LCE 0309
R519 - TCD 300	100 kohm 5% 1/4 W* LCE 0309
R520 - TCD 300	22 kohm 5% 1/4 W* LCE 0309
R522 - TCD 300	1.5 kohm 5% 1/4 W* LCE 0309
R523 - TCD 300	220 ohm 5% 1/4 W* LCE 0309
R524 - TCD 300	560 ohm 5% 1/4 W* LCE 0309
R525 - TCD 300	120 ohm 5% 1/4 W* LCE 0309
R526 - TCD 300	27 ohm 5% 1/4 W* LCE 0309
R527 - TCD 300	100 kohm 5% 1/4 W* LCE 0309
R601 - TCD 300	470 ohm 5% 1/4 W* LCE 0309
R701 - TCD 300	470 kohm 5% 1/4 W* LCE 0309
R702 - TCD 300	68 kohm 5% 1/4 W* LCE 0309
R703 - TCD 300	3.3 kohm 5% 1/4 W* LCE 0309
R704 - TCD 300	270 ohm 5% 1/4 W* LCE 0309
R705 - TCD 300	33 kohm 5% 1/4 W* LCE 0309
R706 - TCD 300	6.8 kohm 5% 1/4 W* LCE 0309
R707 - TCD 300	120 ohm 5% 1/4 W* LCE 0309
R708 - TCD 300	2.2 kohm 5% 1/4 W* LCE 0309
R709 - TCD 300	120 ohm 5% 1/4 W* LCE 0309
R710 - TCD 300	560 ohm 5% 1/4 W* LCE 0309
R711 - TCD 300	180 kohm 5% 1/4 W* LCE 0309
R712 - TCD 300	180 kohm 5% 1/4 W* LCE 0309
R713 - TCD 300	150 kohm 2% 1/3 W* LCE 0309
R714 - TCD 300	33 kohm 5% 1/4 W* LCE 0309
R715 - TCD 300	37 kohm 5% 1/4 W* LCE 0309
R716 - TCD 300	8.2 kohm 5% 1/4 W* LCE 0309
R717 - TCD 300	22 kohm 5% 1/4 W* LCE 0309
R718 - TCD 300	150 kohm 2% 1/3 W* LCE 0309
R719 - TCD 300	2.7 kohm 5% 1/4 W* LCE 0309
R720 - TCD 300	33 kohm 5% 1/4 W* LCE 0309
R721 - TCD 300	39 kohm 5% 1/4 W* LCE 0309
R722 - TCD 300	3.3 kohm 1% 1/4 W** CEA 410
R723 - TCD 300	2.2 kohm 5% 1/4 W* LCE 0309
R724 - TCD 300	2.2 kohm 5% 1/4 W* LCE 0309
R725 - TCD 300	1.8 kohm 5% 1/4 W* LCE 0309
R726 - TCD 300	1.5 Mohm 5% 1/4 W* LCE 0309
R727 - TCD 300	1 Mohm 5% 1/4 W* LCE 0309
R728 - TCD 300	15 kohm 5% 1/4 W* LCE 0309
R729 - TCD 300	8.2 kohm 5% 1/4 W* LCE 0309
R730 - TCD 300	10 kohm 5% 1/4 W* LCE 0309
R731 - TCD 300	8.2 kohm 5% 1/4 W* LCE 0309
R732 - TCD 300	33 kohm 5% 1/4 W* LCE 0309
R733 - TCD 300	8.2 kohm 5% 1/4 W* LCE 0309
R734 - TCD 300	120 kohm 5% 1/4 W* LCE 0309
R735 - TCD 300	47 kohm 5% 1/4 W* LCE 0309
R736 - TCD 300	2.7 kohm 5% 1/4 W* LCE 0309
R737 - TCD 300	47 ohm 5% 1/4 W* LCE 0309
R738 - TCD 300	1 kohm 5% 1/4 W* LCE 0309
R739 - TCD 300	23 ohm 5% 1/4 W* LCE 0309
R740 - TCD 300	15 kohm 5% 1/4 W* LCE 0309
R741 - TCD 300	270 kohm 5% 1/4 W* LCE 0309
R742 - TCD 300	220 kohm 5% 1/4 W* LCE 0309
R801 - TCD 300	270 kohm 5% 1/4 W* LCE 0309
R802 - TCD 300	10 ohm 5% 1/4 W* LCE 0309
R803 - TCD 300	18 ohm 5% 1/4 W* LCE 0309
R804 - TCD 300	47 kohm 5% 1/4 W* LCE 0309
R805 - TCD 300	10 ohm 5% 1/4 W* LCE 0309
R806 - TCD 300	47 kohm 5% 1/4 W* LCE 0309
R807 - TCD 300	18 ohm 5% 1/4 W* LCE 0309
R901 - TCD 300	18 ohm 5% 1/4 W* LCE 0309

\*Carbon film  
\*\*Metallized film

## TRANSISTORS

Ref. No.	Description
Q101 - TCD 300	BC 149C
Q102 - TCD 300	BC 149B
Q103 - TCD 300	BC 149C
Q104 - TCD 300	BD 175
Q105 - TCD 300	BC 147B
Q106 - TCD 300	BC 147B
Q107 - TCD 300	BC 147B
Q108 - TCD 300	BD 175
Q109 - TCD 300	BC 147B
Q201 - TCD 300	BC 149C
Q202 - TCD 300	BC 149B
Q203 - TCD 300	BC 149C
Q301 - TCD 300	BC 149B
Q302 - TCD 300	BC 149C
Q303 - TCD 300	BC 149B
Q304 - TCD 300	BC 149C
Q305 - TCD 300	2N 5087/2M 5087 NF
Q306 - TCD 300	BD 175
Q401 - TCD 300	BC 149B
Q402 - TCD 300	BC 149C
Q403 - TCD 300	BC 149B
Q404 - TCD 300	BC 149C
Q501 - TCD 300	BC 147B
Q502 - TCD 300	BC 147B
Q503 - TCD 300	BC 147B
Q504 - TCD 300	BC 147B
Q505 - TCD 300	BC 147B
Q506 - TCD 300	BC 147B
Q507 - TCD 300	BC 147B
Q701 - TCD 300	BC 149B
Q702 - TCD 300	BC 149B
Q703 - TCD 300	BC 149B
Q704 - TCD 300	MPS 6518
Q705 - TCD 300	BC 149B
Q706 - TCD 300	BC 149B
Q707 - TCD 300	2N 5459
Q708 - TCD 300	BC 149B
Q709 - TCD 300	MPS 6518
Q801 - TCD 300	BC 147B
Q802 - TCD 300	BC 147B

DIODES

Ref. No.	Description
D101 - TCD 300	1N 5243B Zener 13 V
D102 - TCD 300	1N 5230B Zener 4.7 V
D301 - TCD 300	BYX 10
D302 - TCD 300	BYX 10
D303 - TCD 300	1N 4148
D501 - TCD 300	1N 4148
D502 - TCD 300	1N 4148
D503 - TCD 300	1N 4148
D504 - TCD 300	1N 4148
D701 - TCD 300	2AA 119
D702 - TCD 300	1N 5237B Zener 8.2 V
D703 - TCD 300	1N 4148
D704 - TCD 300	1N 4148
D705 - TCD 300	2AA 119
D706 - TCD 300	1N 4148

CAPACITORS

Ref. No.	Description
C101 - TCD 300	2.2 $\mu$ F 63 V Electrolytic
C102 - TCD 300	2.2 $\mu$ F 63 V Electrolytic
C103 - TCD 300	22 $\mu$ F 35 V Electrolytic
C104 - TCD 300	150 pF 63 V 2 % Ceramic 1
C105 - TCD 300	100 pF 25 V Electrolytic
C106 - TCD 300	180 pF 500 V 10 % Ceramic 2
C107 - TCD 300	0.047 $\mu$ F min. 100 V 5 % Foil
C108 - TCD 300	2.2 $\mu$ F 63 V Electrolytic
C109 - TCD 300	100 $\mu$ F 25 V Electrolytic
C110 - TCD 300	100 $\mu$ F 25 V Electrolytic
C111 - TCD 300	2.2 $\mu$ F 63 V Electrolytic
C112 - TCD 300	100 $\mu$ F 25 V Electrolytic
C113 - TCD 300	2200 $\mu$ F 25 V Electrolytic
C114 - TCD 300	0.1 $\mu$ F min. 100 V 20 % Foil
C115 - TCD 300	0.1 $\mu$ F min. 100 V 20 % Foil
C116 - TCD 300	820 pF min. 160 V 2.5 % Polystyrene
C201 - TCD 300	2.2 $\mu$ F 63 V Electrolytic
C202 - TCD 300	2.2 $\mu$ F 63 V Electrolytic
C203 - TCD 300	22 $\mu$ F 35 V Electrolytic
C204 - TCD 300	150 pF 63 V 2 % Ceramic 1
C205 - TCD 300	100 $\mu$ F 25 V Electrolytic
C206 - TCD 300	180 pF 500 V 10 % Ceramic 2
C207 - TCD 300	0.047 $\mu$ F min. 100 V 5 % Foil
C208 - TCD 300	2.2 $\mu$ F 63 V Electrolytic
C209 - TCD 300	820 pF 160 V 2.5 % Polystyrene
C301 - TCD 300	22 $\mu$ F 35 V Electrolytic
C302 - TCD 300	2.2 $\mu$ F 63 V Electrolytic
C303 - TCD 300	6800 pF min. 100 V 5 % Foil
C304 - TCD 300	330 pF min. 400 V 10 % Ceramic 2
C305 - TCD 300	2200 pF min. 50 V 10 % Ceramic 2
C306 - TCD 300	22 $\mu$ F 35 V Electrolytic
C307 - TCD 300	220 pF 40 V 2 % Ceramic 1

Ref. No.	Description
C308 - TCD 300	22 $\mu$ F 35 V Electrolytic
C309 - TCD 300	22 $\mu$ F 35 V Electrolytic
C310 - TCD 300	820 pF min. 400 V 10 % Ceramic 2
C311 - TCD 300	47 $\mu$ F 35 V Electrolytic
C312 - TCD 300	22 $\mu$ F 35 V Electrolytic
C313 - TCD 300	47 $\mu$ F 35 V Electrolytic
C314 - TCD 300	47 $\mu$ F 35 V Electrolytic
C315 - TCD 300	22 $\mu$ F 35 V Electrolytic
C316 - TCD 300	47 $\mu$ F 35 V Electrolytic
C317 - TCD 300	47 $\mu$ F 35 V Electrolytic
C401 - TCD 300	22 $\mu$ F 35 V Electrolytic
C402 - TCD 300	2.2 $\mu$ F 63 V Electrolytic
C403 - TCD 300	6800 pF min. 100 V 5 % Foil
C404 - TCD 300	330 pF min. 400 V 10 % Ceramic 2
C405 - TCD 300	2200 pF min. 50 V 10 % Ceramic 2
C406 - TCD 300	22 $\mu$ F 35 V Electrolytic
C407 - TCD 300	220 pF 40 V 2 % Ceramic 1
C408 - TCD 300	22 $\mu$ F 35 V Electrolytic
C409 - TCD 300	22 $\mu$ F 35 V Electrolytic
C410 - TCD 300	820 pF min. 400 V 10 % Ceramic 2
C501 - TCD 300	6800 pF min. 100 V 5 % Foil
C503 - TCD 300	6800 pF min. 100 V 5 % Foil
C505 - TCD 300	0.047 $\mu$ F min. 100 V 5 % Foil
C506 - TCD 300	100 $\mu$ F 25 V Electrolytic
C507 - TCD 300	22 $\mu$ F 35 V Electrolytic
C509 - TCD 300	22 $\mu$ F 35 V Electrolytic
C601 - TCD 300	6800 pF min. 100 V 5 % Foil
C603 - TCD 300	6800 pF min. 100 V 5 % Foil
C701 - TCD 300	10 $\mu$ F 63 V Electrolytic
C702 - TCD 300	3300 pF 63 V 2.5 % Polystyrene
C703 - TCD 300	3900 pF 63 V 2.5 % Polystyrene
C704 - TCD 300	2200 pF 63 V 2.5 % Polystyrene
C705 - TCD 300	10 $\mu$ F 63 V Electrolytic
C706 - TCD 300	10 $\mu$ F 63 V Electrolytic
C707 - TCD 300	10 $\mu$ F 63 V Electrolytic
C708 - TCD 300	10 $\mu$ F 63 V Electrolytic
C709 - TCD 300	5600 pF 63 V 1 % Polystyrene
C711 - TCD 300	27000 pF 63 V 1 % Polystyrene
C712 - TCD 300	10 $\mu$ F 63 V Electrolytic
C713 - TCD 300	0.1 $\mu$ F min. 100 V 10 % Foil
C714 - TCD 300	47 $\mu$ F 35 V Electrolytic
C715 - TCD 300	10 $\mu$ F 63 V Electrolytic
C716 - TCD 300	0.1 $\mu$ F min. 100 V 10 % Foil
C717 - TCD 300	0.1 $\mu$ F min. 100 V 5 % Foil
C718 - TCD 300	10 $\mu$ F 63 V Electrolytic
C719 - TCD 300	0.1 $\mu$ F min. 100 V 10 % Foil
C720 - TCD 300	0.33 $\mu$ F min. 100 V 20 % Foil
C801 - TCD 300	8 - 135 pF Trimming capacitor
C802 - TCD 300	6800 pF min. 100 V 5 % Foil
C803 - TCD 300	2.2 $\mu$ F 63 V Electrolytic
C804 - TCD 300	1000 pF min. 400 V 10 % Ceramic 2
C805 - TCD 300	0.01 $\mu$ F 10 % Ceramic 2
C806 - TCD 300	0.01 $\mu$ F 10 % Ceramic 2
C807 - TCD 300	0.01 $\mu$ F 10 % Ceramic 2
C901 - TCD 300	8 - 135 pF Trimming capacitor