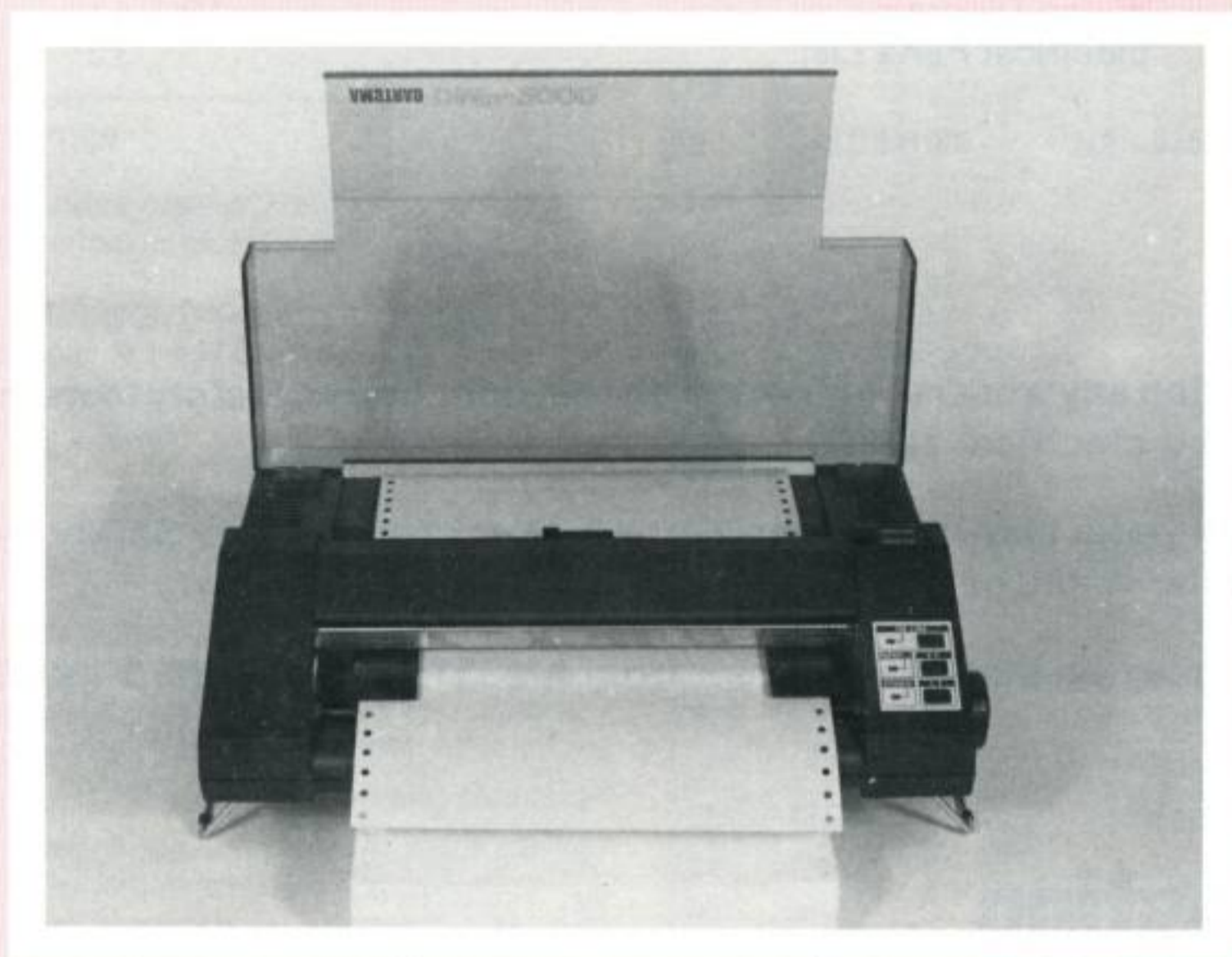


# AMSTRAD



## **DMP2000 PRINTER SERVICE MANUAL**

Price: £5.00

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## **SAFETY TEST**

**PLEASE NOTE:** When any work is completed on this unit, correct safety tests must be carried out to ensure continued electrical safety.

**PLEASE NOTE:** All parts shown with the part number prefix 'S' are Safety Items and must be replaced with similar items having an identical safety specification.

All of these items may be purchased direct from **AMSTRAD CONSUMER ELECTRONICS PLC.**

# **Specification**

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- (1) Print system: Impact dot-matrix
- (2) Print speed: 105 CPS max
- (3) Printing characteristics: (vertical x horizontal):
  - 9 x 9 (normal character)
  - 9 x 10 (expanded character)
  - 9 x chosen amount (9 pin bit-image)
  - 96 characters ASCII + international character sets
- (4) Print sizes:
 

Standard (Pica)	- 10 CPI / 80 CPL
Mini (Elite)	- 12 CPI / 96 CPL
Condensed	- 17 CPI / 137 CPL
Double width Standard	- 5 CPI / 40 CPL
Double width Mini	- 6 CPI / 48 CPL
Double width Condensed	- 8.5 CPI / 68 CPL
- (5) Line feed widths: 1/6, 1/8, 7/72, n/216, n/72 inch (programmable)
- (6) Paper type: Fan-fold, Roll paper, Cut sheet (Friction or tractor feed)
- (7) Number of copies: 2 sheets (incl. original) 40g/m<sup>2</sup> pressure-sensitive paper train
- (8) Ink ribbon: Cassette (1 million characters' life per ribbon)
- (9) Interface: Parallel (Centronics compatible)
- (10) Dimensions (Width x Height x Depth) 380 x 100 x 260

**AMSTRAD CONSUMER ELECTRONICS PLC**  
**BRENTWOOD HOUSE, 169 KINGS ROAD, BRENTWOOD, ESSEX CM14 4EF.**  
 Telephone: 0277 230222 Telex: 995417 Amsele G.

**Paper type:** 4.5 to 10 inch fan-fold (tractor feed)  
4 to 9.5 inch cut sheet or roll paper (friction feed)

**Number of copies:** 2 sheets (incl. original)  
40 g/m<sup>2</sup> pressure-sensitive paper train

**Interface:** Parallel (Centronics compatible)

**Mains supply:** 220-240 Volt AC 50 Hz

**Dimensions:** 16 (width) x 10 (depth) x 4 (height) inch (400 x 250 x 100 mm)

**Weight:** 4.2Kg

## Interface

PIN	DESIGNATION	I/O	DESCRIPTION	PIN	DESTINATION	I/O	DESCRIPTION
1	DATA	IN	Taking pin low enables receiving of DATA 0 to DATA 7. Minimum necessary pulse width is 0.5 uS.	14	NC		
	STROBE				15	NC	
2	DATA 0 (LSB)	IN	8-bit data signal. Taking pin high or low corresponds to 1 and 0 respectively.	16	OV		
3	DATA 1						
4	DATA 2						
5	DATA 3						
6	DATA 4						
7	DATA 5						
	DATA 6						
	DATA 7 (MSB)			17	CHASSIS GND		
10	ACKNOWLEDGE	OUT	Active low output pulse generated when data entry and processing are completed. After this signal, subsequent data will be accepted. This signal is also generated when changing from off line to on line.	18	+5V	OUT	+5V (50mA max) power supply output.
11	BUSY	OUT	Output high under any of the following conditions: a. Going off line. b. Paper feed or printing operation. c. When a control code is received.	19	GND		Signal ground.
12	PE	OUT	Output high when paper is out. (When on line, paper out is sensed after executing a paper feed command. When off line, paper out is always sensed.)	20	GND		Signal ground.
13	SELECT	OUT	On line and off line correspond to high and low respectively. When off line, DATA 0 to DATA 7 are not receivable.	21	GND		Signal ground.
				22	GND		Signal ground.
				23	GND		Signal ground.
				24	GND		Signal ground.
				25	GND		Signal ground.
				26	GND		Signal ground.
				27	GND		Signal ground.
				28	GND		Signal ground.
				29	GND		Signal ground.
				30	GND		Signal ground
				31	INPUT PRIME	IN	Taking pin low initialises printer. Minimum necessary pulse width is 100uS.
				32	FAULT	OUT	Output low when off line.
				33	GND		
				34	NC		
				35	+5V	OUT	

## DIP switch settings

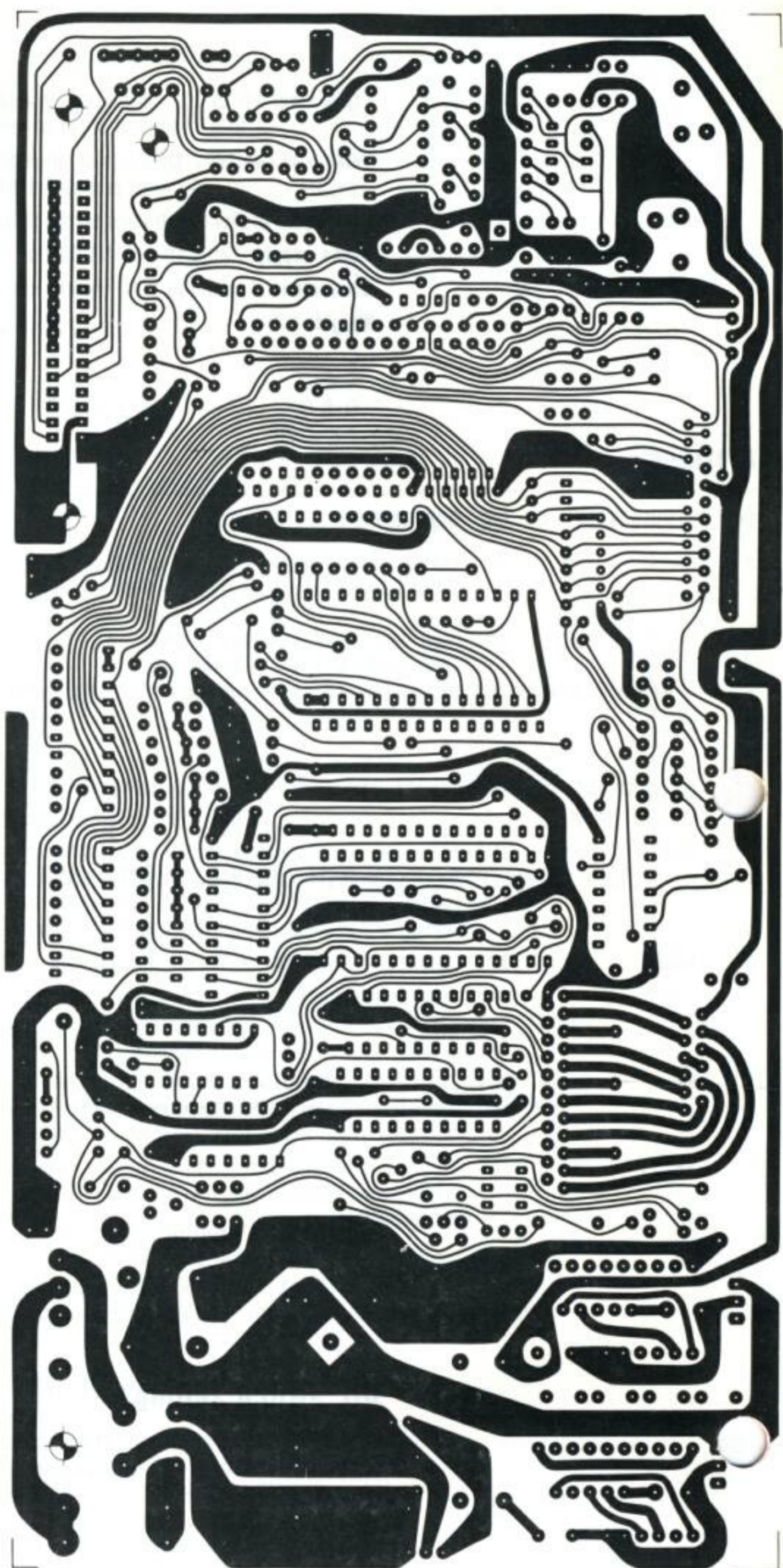
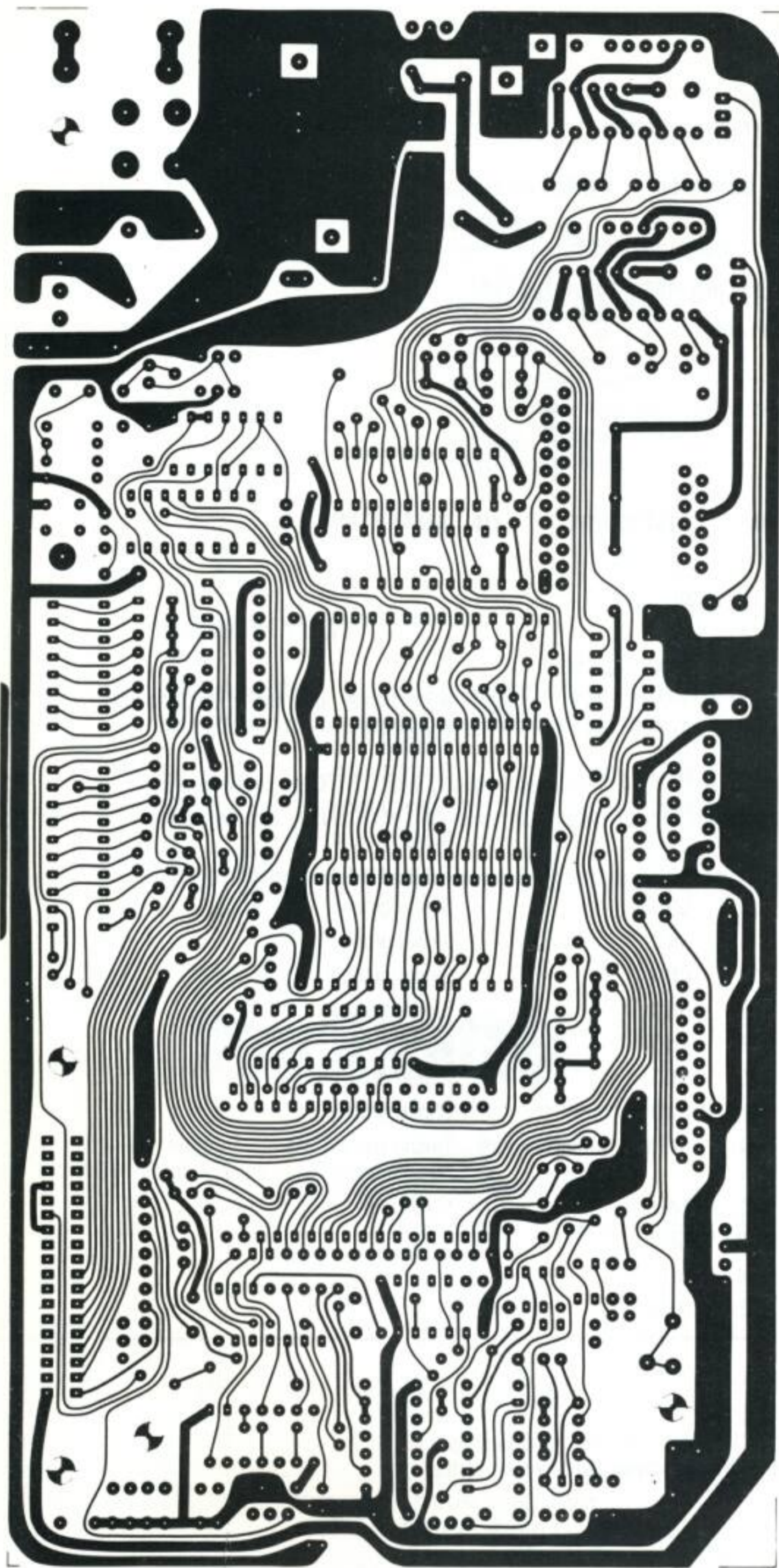
Described below is how to adjust DIP switches DS1-1, DS1-2 and DS1-3 to select one of the international character sets. The following table indicates the functions of the remaining DIP switches:

SWITCH	FUNCTION	OFF	ON
DS1-1	International characters	See Chapter 2	See Chapter 2
DS1-2	International characters	See Chapter 2	See Chapter 2
DS1-3	International characters	See Chapter 2	See Chapter 2
DS1-4	CR function	CR only	CR & LF
DS1-5	Paper out sensor	Enable	Disable
DS1-6	Page length	11 inch	12 inch
DS1-7	Code unit	8 units	7 units*
DS1-8	Default character set	Standard	NLQ-Standard
DS2-1	Zero character	Unslashed	Slashed
DS2-2	Default skip perforation	Disable	Enable
DS2-3	Buffer mode	Character	Graphics
DS2-4	Buffer mode	Character/graphics	Download
DS2-5	SLCT IN signal	Not sent	Automatically sent
DS2-6	Alarm bleeper	Disable	Enable
DS2-7	Default typeface	Bold off	Condensed & Bold on
DS2-8	Default typeface	Condensed off	Bold on
DS2-9	Do not use		
DS2-10	Do not use		

\* Set DS1-7 ON when using the printer with an Apple computer.

**REMEMBER** – Always switch the printer off before adjusting the DIP switches.

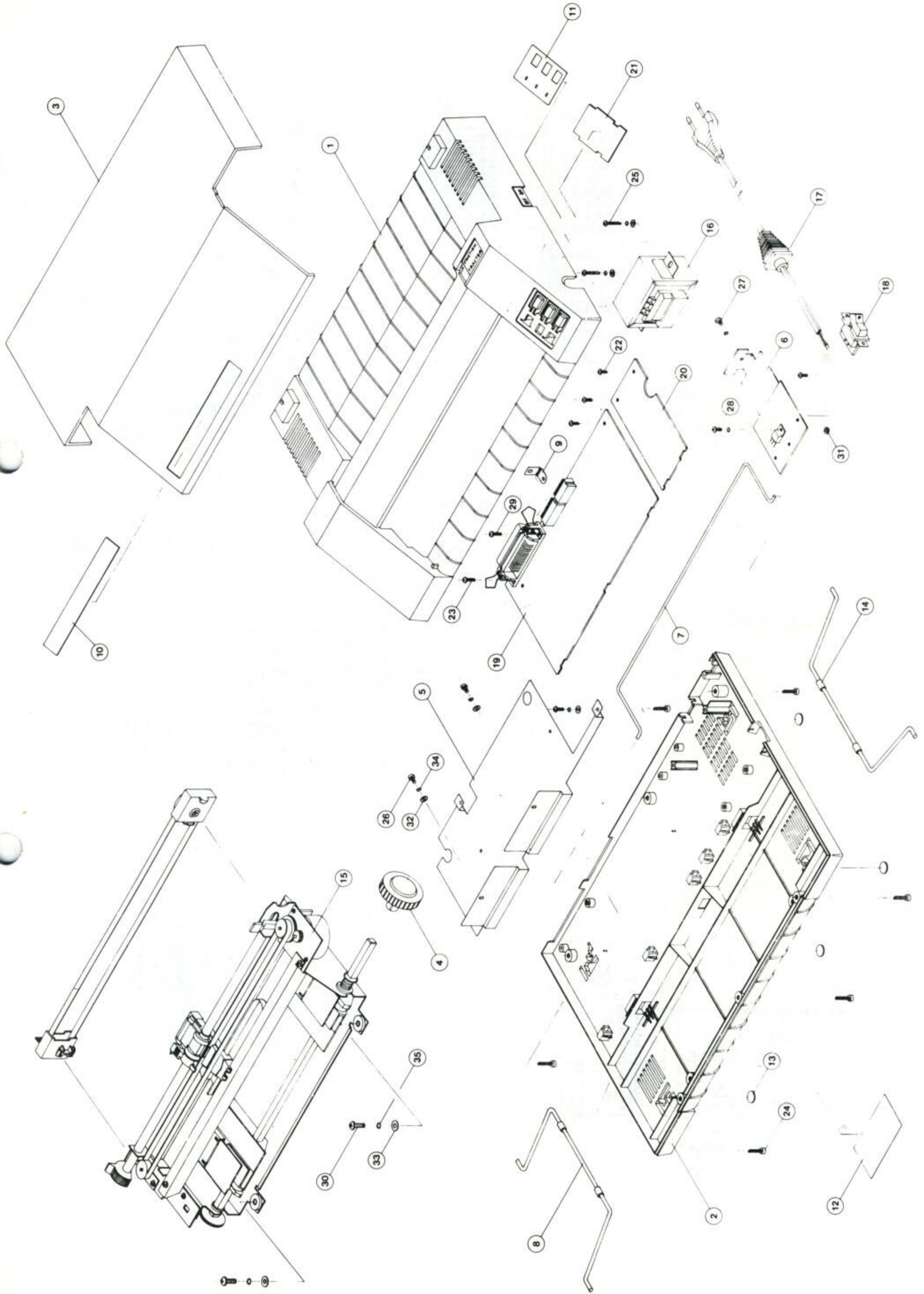
CONTROL P.C.B.'S

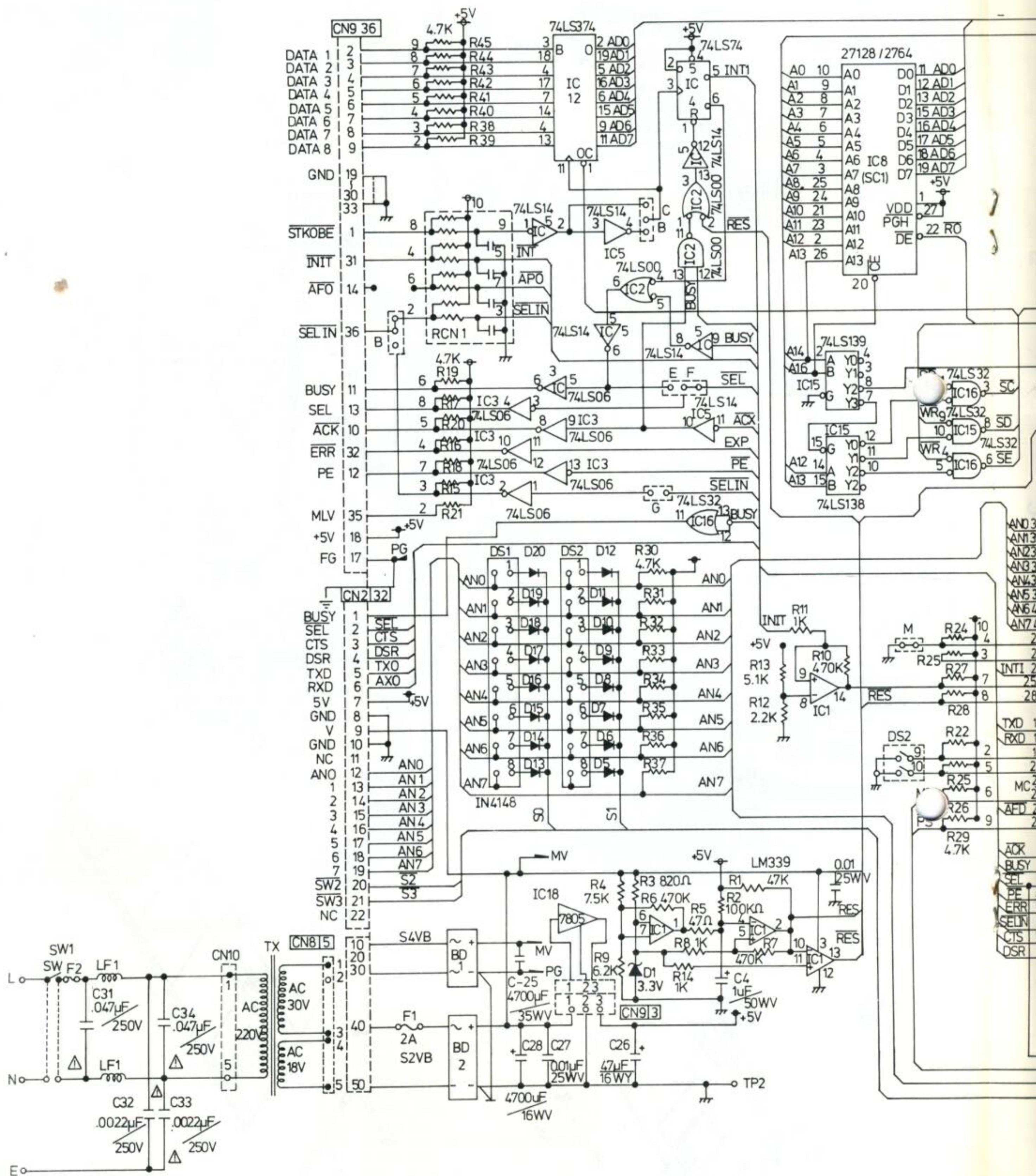


CABINET PARTS LIST

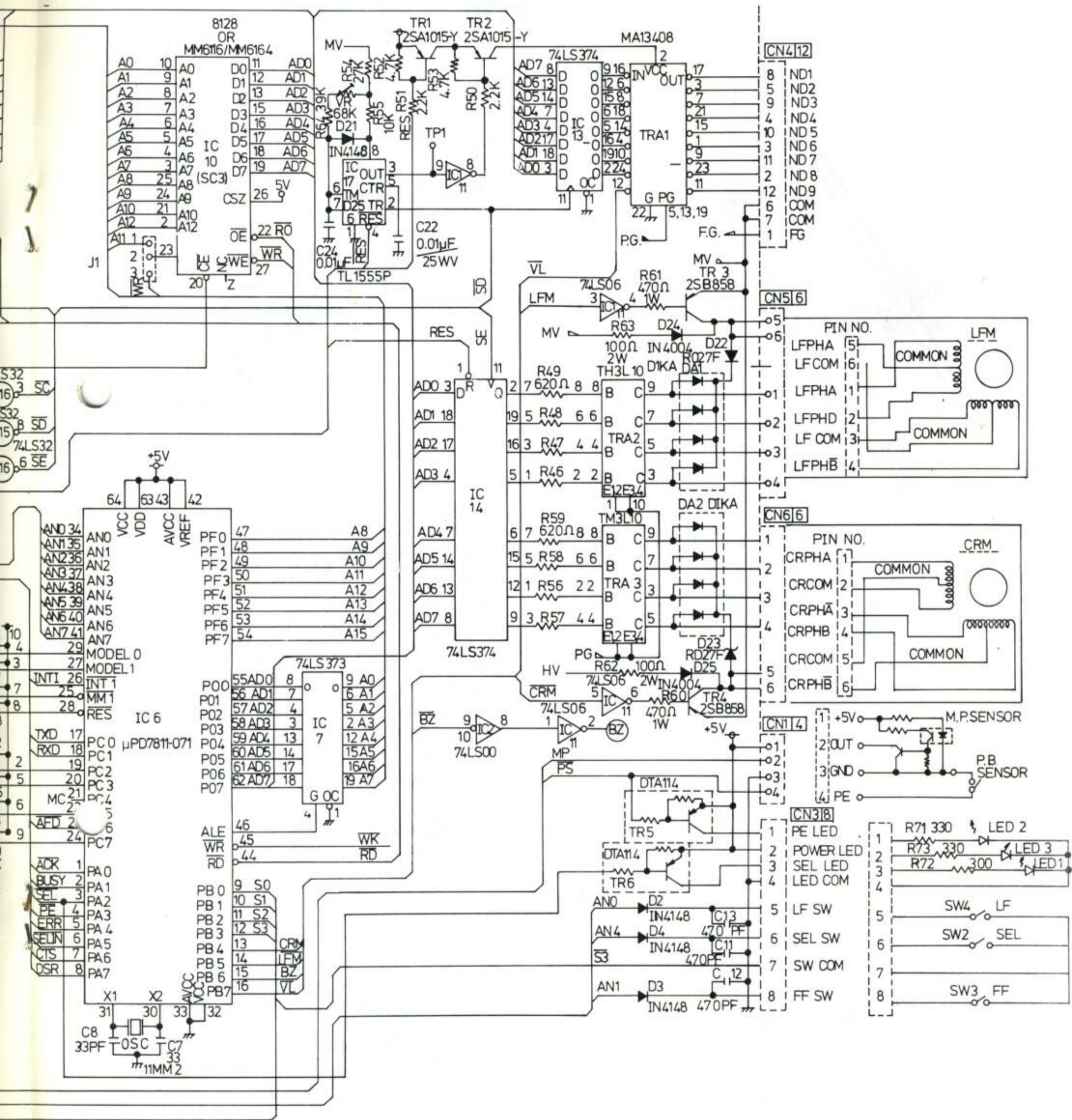
Sym	description	Part No.
1	Top Cabinet	190701
2	Bottom Cabinet	190702
3	Dust Cover	190703
4	Rotary Knob	190704
5	Shield Plate	190705
6	Heat Sink	
7	Paper Guide	190706
8	Metal Leg	190707
9	Earth Tag	
10	Name Plate	190708
11	Function Inlay	190709
12	Bottom Inlay	190710
13	Rubber Foot Dia 10x1.6mm	190711
14	Rubber Ring	
15	Printer Mechanism	190712
16	Mains Transformer	S/190713
17	AC Power Cord BS Lead 3 Core 6'	
18	Power Switch 2Pit SDE3GE	S/190714
19	PCB Main	
20	PCB AC	
21	PCB LED	
	Printer Ribbon	SOFT06049

# CABINET DRAWING

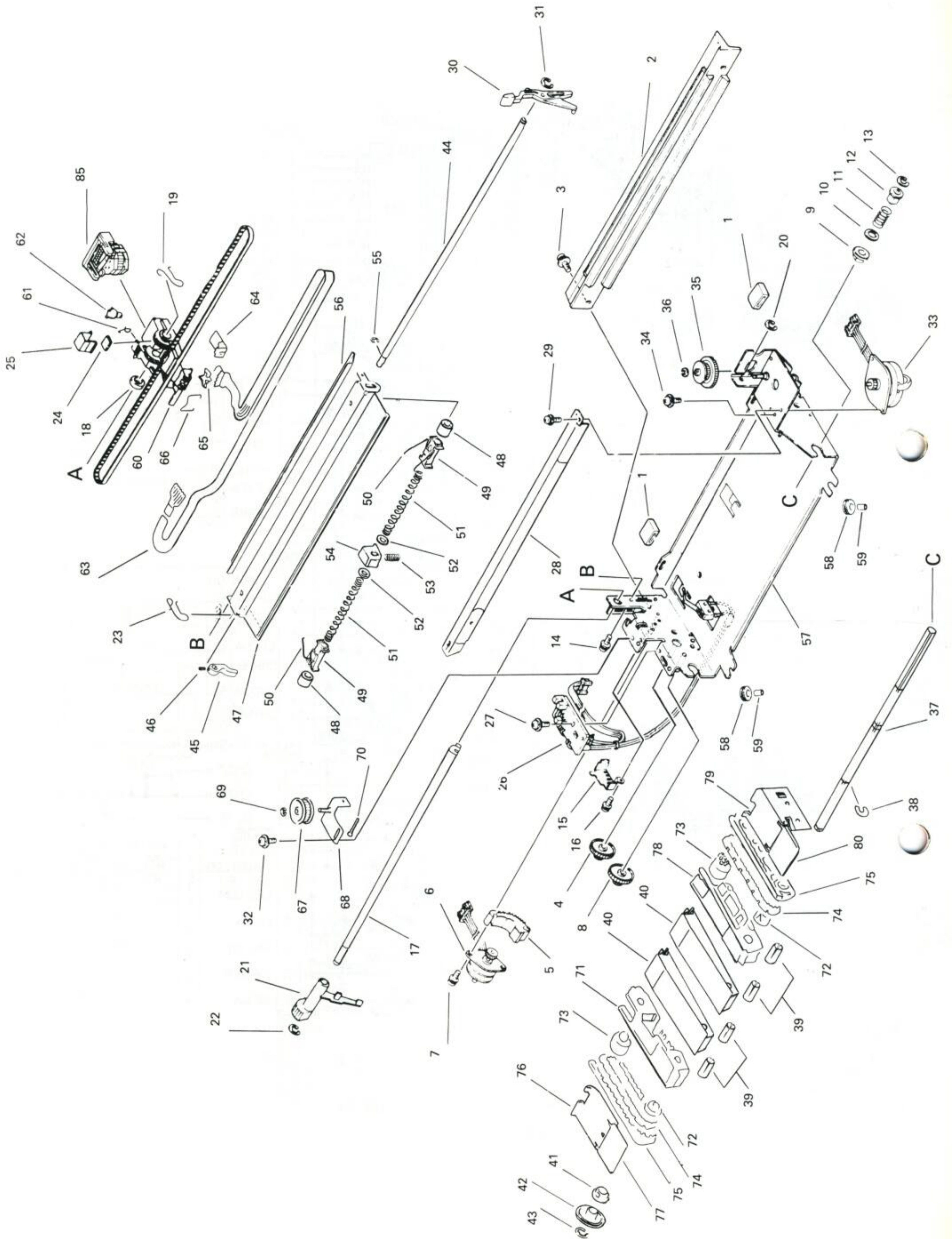




UIT DIAGRAM



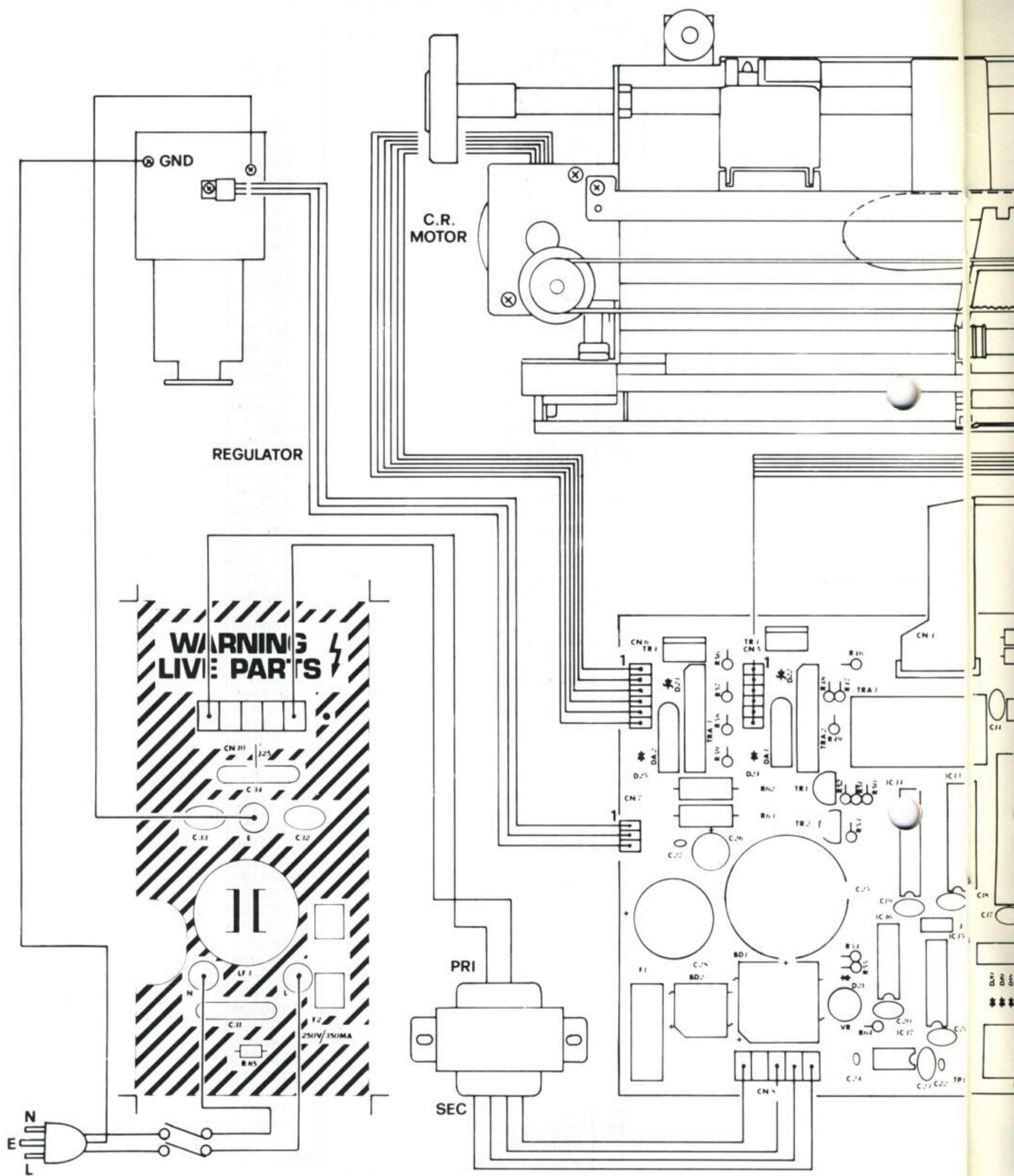
# PRINTER MECHANISM

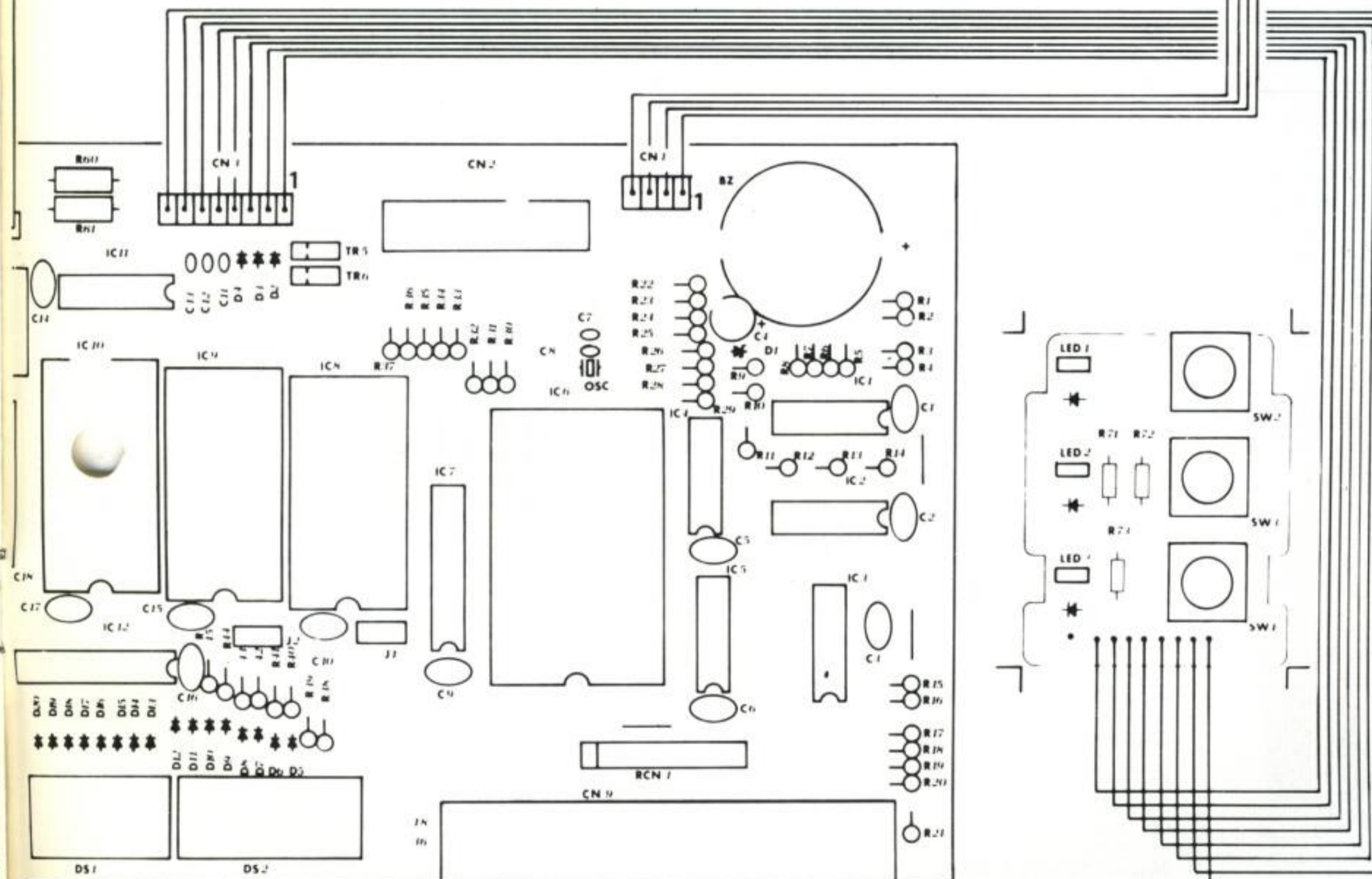
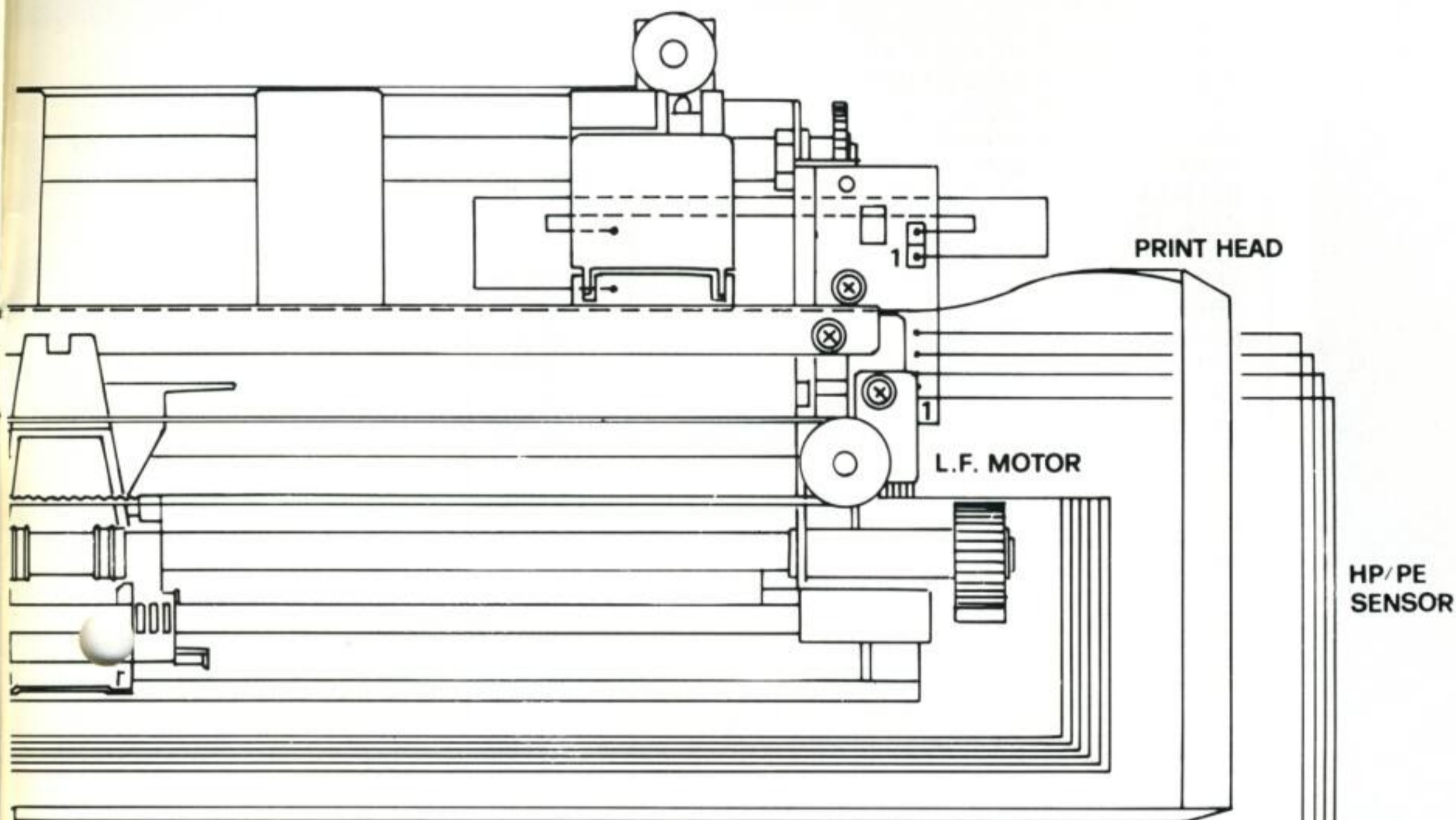




### PRINTER MECHANISM PARTS LIST

Sym	Description	Part No.
1	Damper R	190748
2	Set Platen	190749
3	LF gear	190750
5	LF Heat Sink	190751
6	Set LF Motor	190752
9	Bush	190753
10	Poly Slider	190754
11	LF Spring	190755
12	LF Collar	190756
13	E Ring E-6	190757
15	Clip Plate	190758
17	Set CR Shaft	190759
18	Felt Ring	190760
19	CR Spring R	190761
20	E Ring E-4	190762
21	Gap Lever	190763
23	CR Spring L	190764
24	Upper Felt	190765
25	Upper Spring	190766
26	Sensor Assy.	190767
28	Set Guide Frame	190768
30	Release Lever	190769
31	E Ring E-3	190770
33	Set CR Motor	190771
35	Set CR Gear	190772
36	E Ring E-2	190773
37	LF Shaft	190774
38	C Ring	190775
39	Tractor Stopper	190776
40	Paper Guide	190777
42	LF Shaft Gear	190778
44	Roller Shaft	190779
45	S Release Lever	190780
46	Screw M3x6	190781
47	Sub Frame	190782
48	Set Roller	190783
49	SP Bracket	190784
50	Roller Spring	190785
51	Guide Spring	190786
52	Washer	190787
53	Guide Spring-B	190788
54	Centre Guide	190789
56	Paper Press	190790
57	Set Base	190791
58	Damper F	190792
59	Damper Collar	190793
60	Set Carriage	190794
61	Stopper Spring	190795
62	Ribbon Stopper	190796
63	Set FPC	190797
64	Cable Clamp	190798
65	Pressure BD	190799
66	Pressure Spring	190800
67	ADJ Pulley	190801
68	Set ADJ. Plate	190802
71	Tractor L	190803
72	Main Sprocket	190804
73	Set Feed Roller	190805
74	Pin Belt	190806
75	Tractor Plate	190807
76	Tractor Cover L	190808
77	Cover Plate L	190809
78	Tractor R	190810
79	Tractor Cover R	190811
80	Cover Plate R	190812
85	Print Head With Ribbon Mask	190813
86	Printer Ribbon	SOFT06049





## ELECTRICAL PARTS LIST

Circ. Ref.	Description	Part No.
<b>IC's</b>		
IC1	LM339/HA17339	190724
IC2	HD74LS00P	190728
IC3, 11	MB74LS06	190729
IC4	HD74LS74AP	4001412
IC5	HD74LS14P	190730
IC6	uPD7811G-071	190733
IC7	HD74LS373P	170108
IC8	HN4827128G-25 50nS	190722
IC10	MB8128-15	190723
IC12-14	HD74LS374P	190727
IC15, 16	HD74LS139P	190722
IC17	HA17555	190725
TRA1	HA13408	190814
TRA2, 3	TH3L10	190734
IC18	L7805CY	190731
TR1, 2	2SA1015-Y	170453
TR3, 4	2SB858B	190721
TR5, 6	DTA114E	151096
D1	Zener Diode 3.3V DC	190719
D2-22	Sig Diode IN4148	190715
D23	Zener Diode 27VDC	190720
D24, 25	IN4004	190716
BD1	Bridge Rect S4VB10	190718
BD2	Bridge Rect S2VB10	190717
DA1, 2	Diode Array D1CA	190815
LED1, 2	LED Grn TLG211	190744
LED 2	LED Red TLR211	190743
DS1	8 Way Dip Switch N/O	190737
DS2	10 Way Dip Switch N/O	190738
SW1	Power Switch 2Pit	S/190714
SW2-4	P/B Tact Switch 1 Pit	190739
TX	Mains Transformer BS	S/190713
LF1	Mains Filter Coil	190740
BZ	Piezo Bleeper	190736
OSC	Ceramic Resonator 11MHz	190742
VR	Semifixed Resistor 68 ohm	190745
RCN1	RC Network T002	190732
<b>Resistors</b>		
Desc.	Circ. ref.	Part No.
47ohm	R5	10020
82 ohm	R3	10031
330ohm	R7, 72, 73	10044
620ohm	R46-49, 56-59	190816
1kohm	R8, 11, 14	10061
2.2kohm	R12, 50, 51	10069
4.7kohm	R15-22, 24-45, 52, 53	10077
5.1kohm	R13	190817
6.2kohm	R9	190818
7.5kohm	R4	190819
10kohm	R55	10085
27kohm	R54	10095
39kohm	R64	10099
47kohm	R1	10101
100kohm	R2	10109
470kohm	R6, 7, 10	10131
100ohm/2W	R62, 63	190820
470ohm/1W	R60, 61	190821
<b>Ceramic Capacitors</b>		
33pF	C7, 8	150514
470pF	C11-13	190822
0.01uF	C22, 27	24011
<b>Mono Glass Capacitors</b>		
0.1uF/50V DC	C1-3, 5, 6, 9, 10, 14-21, 23	190823
<b>Mylar Capacitors</b>		
0.01uF	C24	21006
<b>Electrolytic Capacitors</b>		
1uF/50V	C1, 4	20062
47uF/16V	C26	20049
4700pF/16V	C28	150479
<b>Polystyrene Capacitors</b>		
0.0022uF/250V	C32, 33	190824
0.047uF/250V	C31, 34	190825