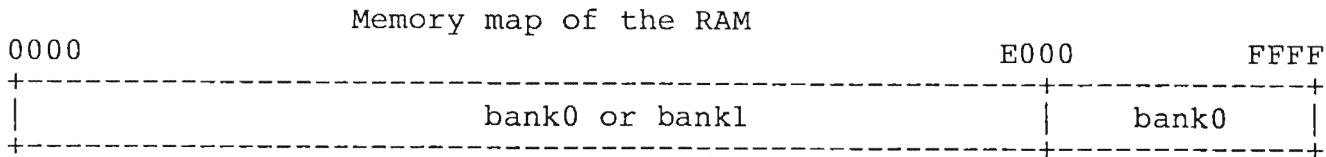


CHAPTER 3 Memory and I/O addresses

3.1 Memory map and Soft switching

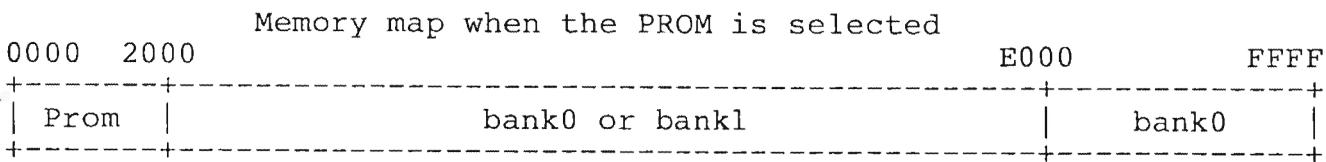
3.1.1 RAM addresses

The Compactboard 80 has an full 64 K (from 0000-FFFF) address space available for transient programs (RAM). For 128 K models a bankswitching is provided. This mechanism replaces the Bank0 ram addresses 0000-DFFF by the ram of Bank1. This method provides a 'common' area of ram (E000-FFFF) which is NOT affected by the bankswitch logic.



3.1.2 PROM addresses

To provide for a 'power-on' program (normally a bootstrap loader) an (E)prom (2732 or 2764) is active from address 0000-1FFF. The prom can be deactivated to supply the full 64 K for RAM use.
See for bankswitching BIOS functions (chapter 6).

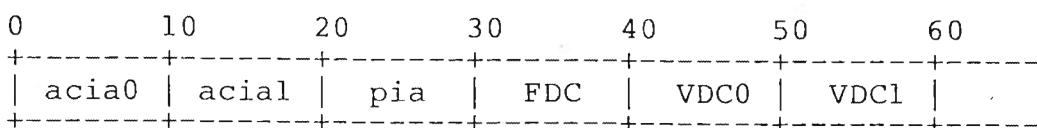


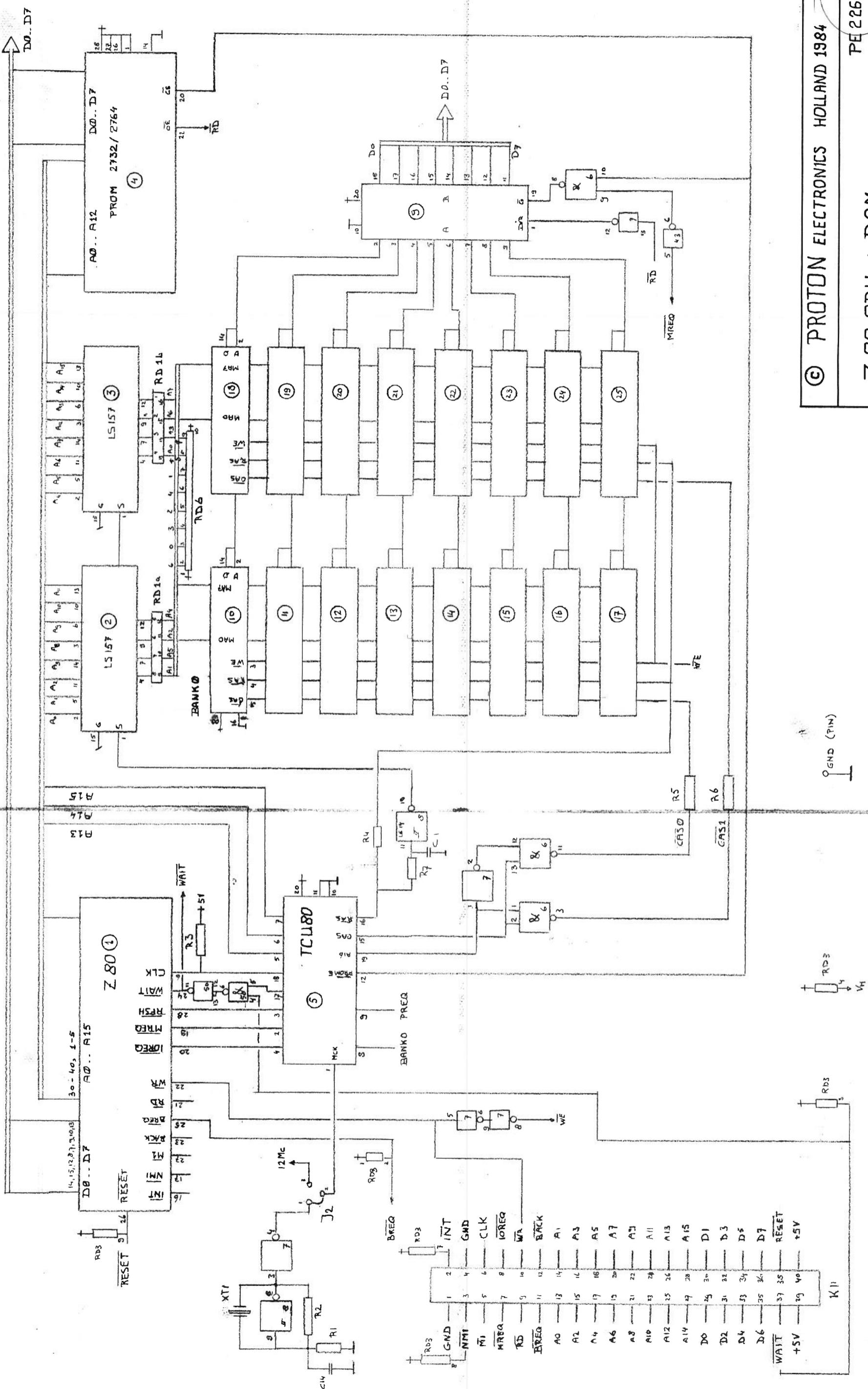
3.2 I/O map

All I/O-devices have read and write registers, so the address map of the input-ports and the address map of the output ports are exactly the same. The following I/O-address table gives the portnumbers of the devices:

device	Output register	Input register	port address (hex)
ACIA 0	Control	Status	00
	Transmit Data	Receive Data	01
ACIA 1	Control	Status	10
	Transmit Data	Receive Data	11
PIA	Data A	Data A	20
	Control A	Control A	21
	Data B	Data B	22
FDC	Control B	Control B	23
	Commands	Status	30
	Track number	Track number	31
VDCa	Sector number	Sector number	32
	Data	Data	34
	Reg0	Reg	40
	Reg1	Data	50

I/O-map:



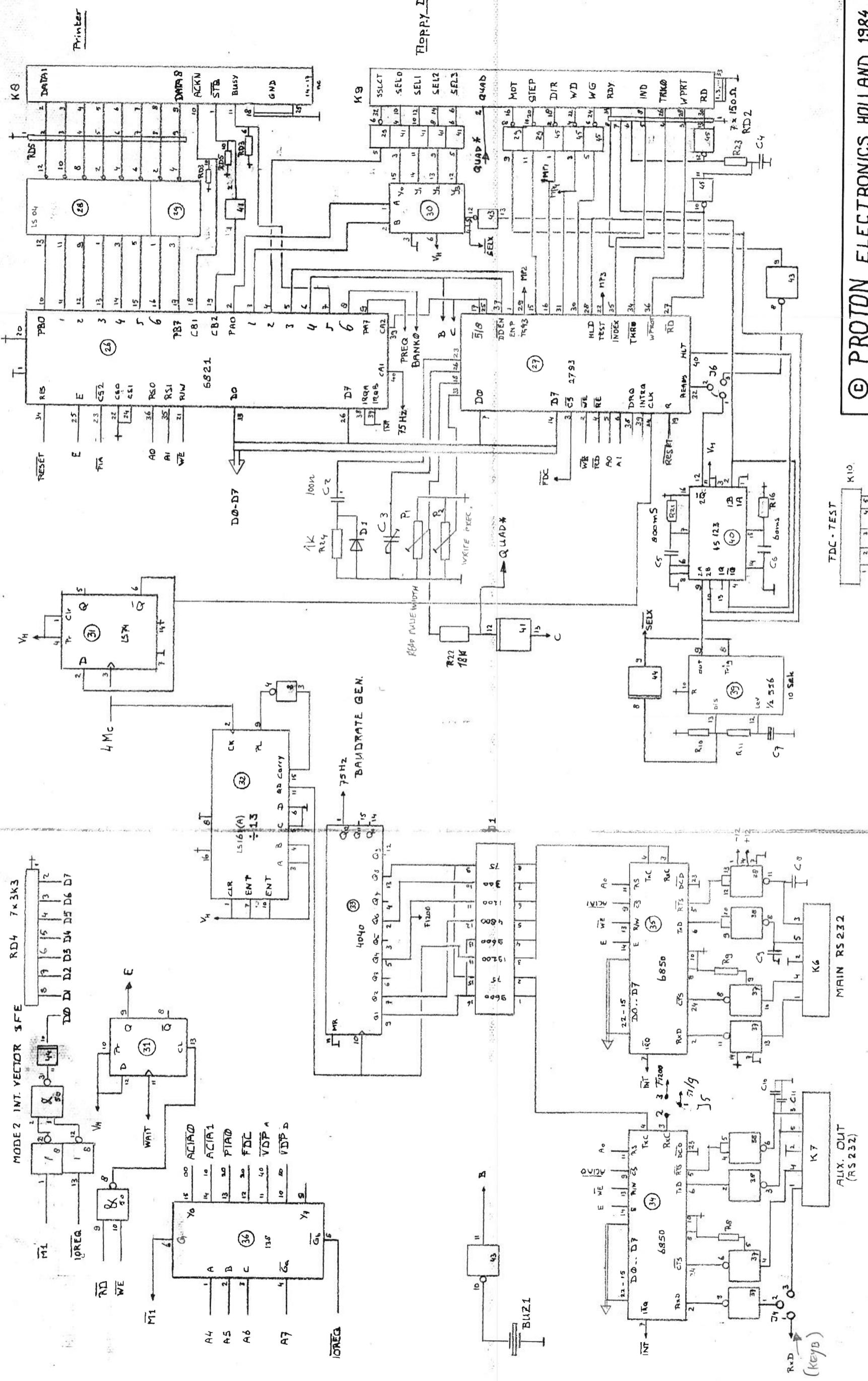


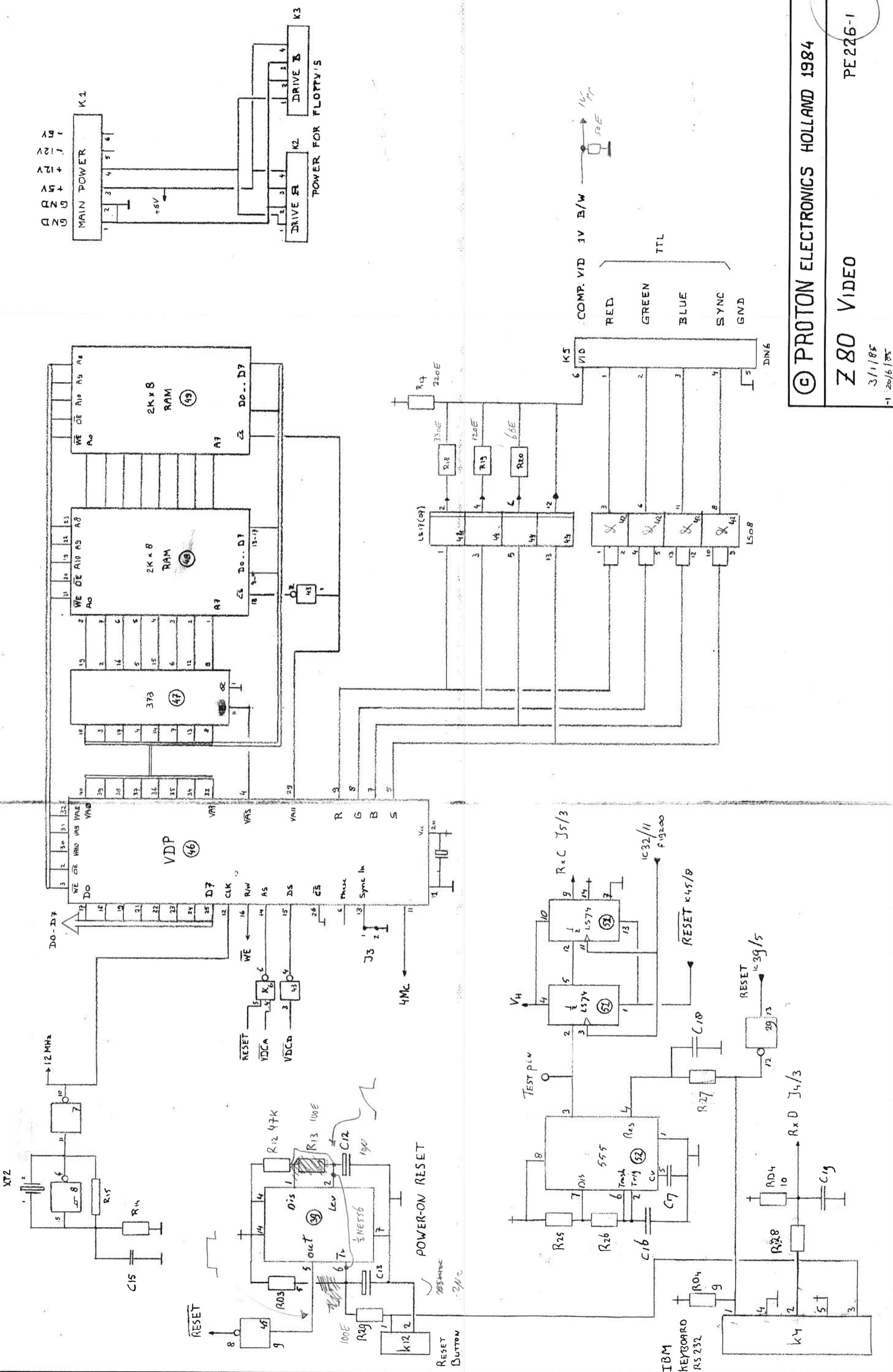
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PE 226-1

Z 80 CPU + RAM

2/1/85
-1 20/6/85



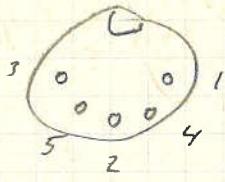
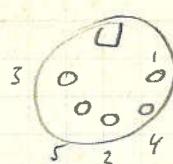
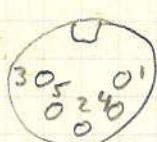
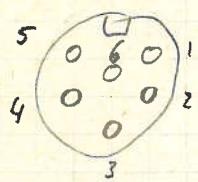


K5
VIDEO

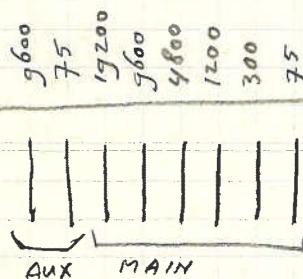
K4
KEYBRD

K7
AUX RS232

K6
MAIN RS232



1	RED	RXIN	RXD (in)	RX (in)
2	GREEN	GND	GND	GND
3	BLUE	+5	RTS (out)	RTS (out)
4	SYNC.	RTS	CTS (in)	CTS (in)
5	GND	REPS*	TXD (out)	TXD (out)
6	CAMP. OUT	—	—	—



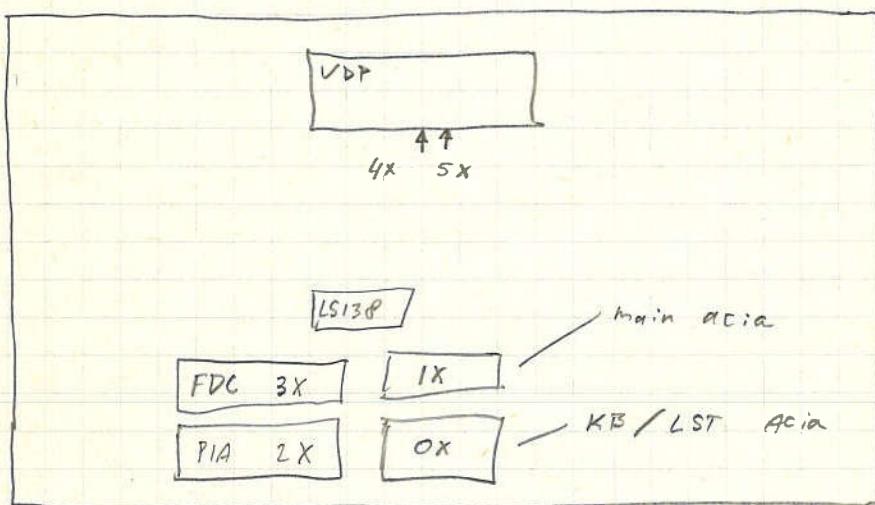
BAUDRATE
CONNECTOR.

ROUTINE

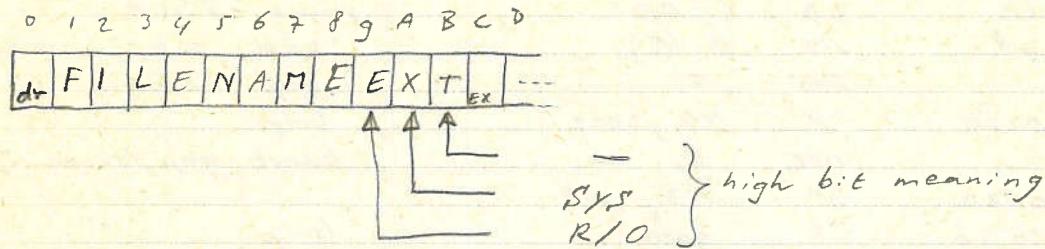
SCAN I/O PORTS

COMPACT-80

2000	OE	00	LD	C 00	;	point first
2002	ED	78	IN	A, (C)	;	read one
2004	OC		INC	C	;	step next
2005	C2	0220	JP	NZ, 2002	;	loop
2008	OC		INC	C	;	burst gap/scope sync
2009	C2	0020	JP	NZ, 2008		
200C	C3	0020	JP	2000	;	loop.



DIR. SYSTEM / RO / ~ bits:



PATCH TO STARTUP.COM:

100	NOP	$\left\{ \begin{array}{l} \text{patch to CALL 290} \\ \text{OLD} \\ \hline \end{array} \right.$
01	NOP	
02	NOP	
03	LD DE, 010C	
06	LD C, 09	
08	CALL 0005	
0B	RET	
10C	~~~~ string ~~~~ FF	$\left\{ \begin{array}{l} \text{Nop} \\ \hline \end{array} \right.$
281	Nop	
	{	
290	LD E, 0AAH	j IOBYTE value
292	LD C, 08H	j set it
294	CALL 0005	
297	RET	

PROCEDURE

- REN STARTOLD.COM = STARTUP.COM
- ZSID STARTOLD.COM
- A 100 2
CALL 290 2
2
- A 290
LD {
RET 2
2
- ↑C
- SAVE 2 STARTUP.COM

IOBYTE VALUES (@ 0003)

CPM:

	LIST	PUNCH	READER	CONSOLE
--	------	-------	--------	---------

00	TTY	TTY	TTY	TTY
01	CRT	PUN	RDR	CRT
10	LPT	UPI	UR1	BAT
11	UL1	UP2	UR2	UC1

NOTE: EXCHANGED
I & O !!

COMBIDOS:

	LIST	AUX IN	AUX OUT	CON
--	------	--------	---------	-----

default: LPP - LPS - LPS - SER
 10 10 10 10 = 9AAH

old default: LPP - SER - SER - CRT
 10 01 01 10 = 95AH

PRINTER CABLE

