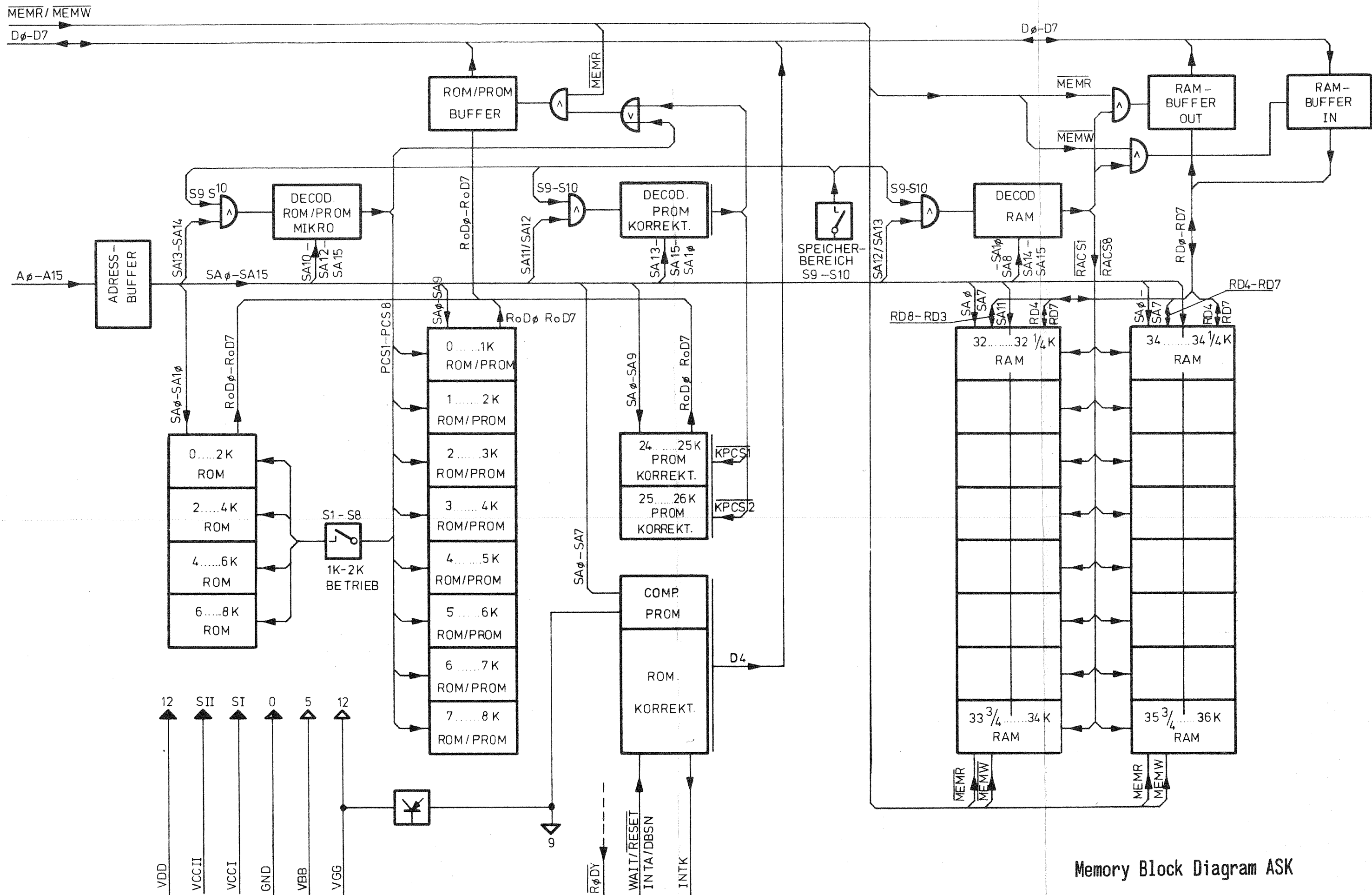


6. Memory board (BAC)

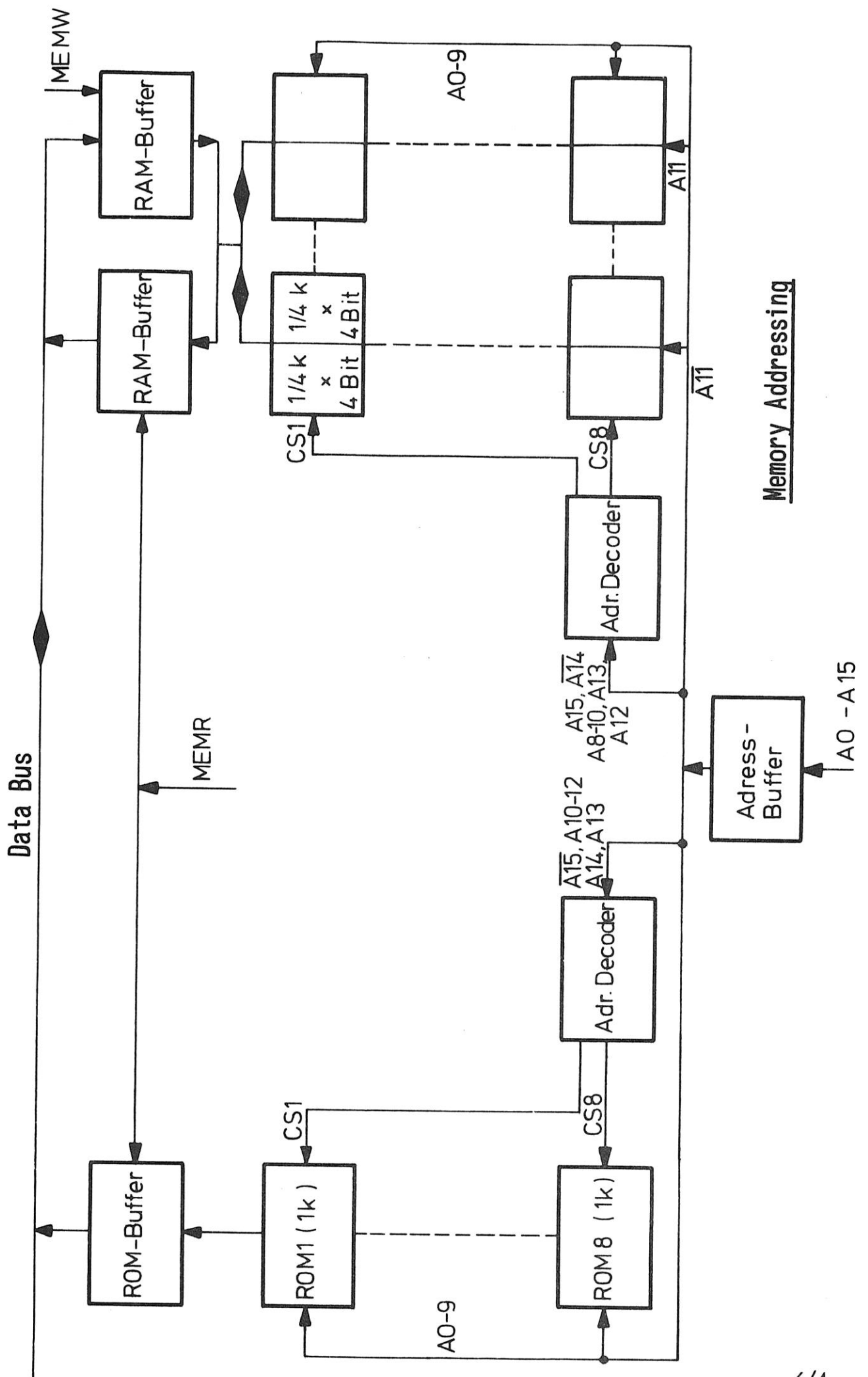
THE MEMORY BOARD BAC

- BAC Ø2 3 K working memory (RAM)
out of these is 1 K for data and 2 K for programme.
Necessary logic board BAB Ø2 or BAB Ø4.
- BAC Ø3 3 K working memory (RAM) out of these is 1 K for data and
2 K for programme. The microprogramme for MBKE 1 is
integrated on BAC Ø3. Thus no I/O card is necessary for
MBKE. Necessary logic board BAB Ø3 or BAB Ø5.
- BAC Ø4 8 K working memory (RAM)
Programme or data in whole area possible. Necessary logic
board BAB Ø2 or BAB Ø4.
- BAC Ø5 8 K working memory (RAM)
Programme or data in whole area possible. The micro-
programme for MBKE 1 is on BAC Ø5 integrated. Thus no
I/O card is necessary for MBKE. Necessary logic board
BAB Ø3 or BAB Ø5.
- BAC Ø6 16 K working memory (RAM)
Programme or data in whole area possible. The microprogramme
for MBKE 1 is integrated on BAC Ø6. Thus no I/O card is
necessary for MBKE 1. Necessary logic board only BAB Ø6.

You will find on the following pages the arrangement of the fixed memories ROM PROM.



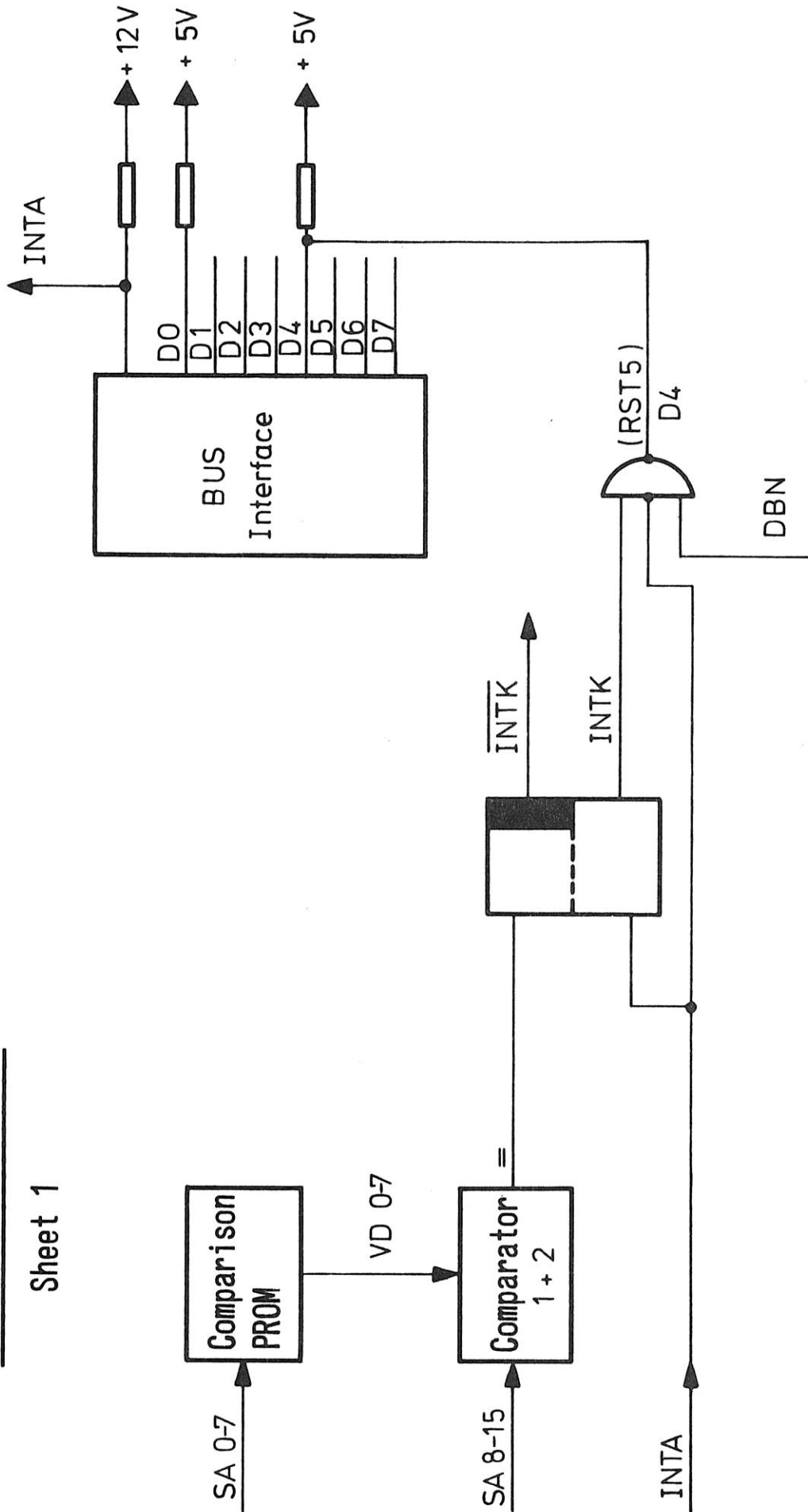
Memory Block Diagram ASK



Memory Addressing

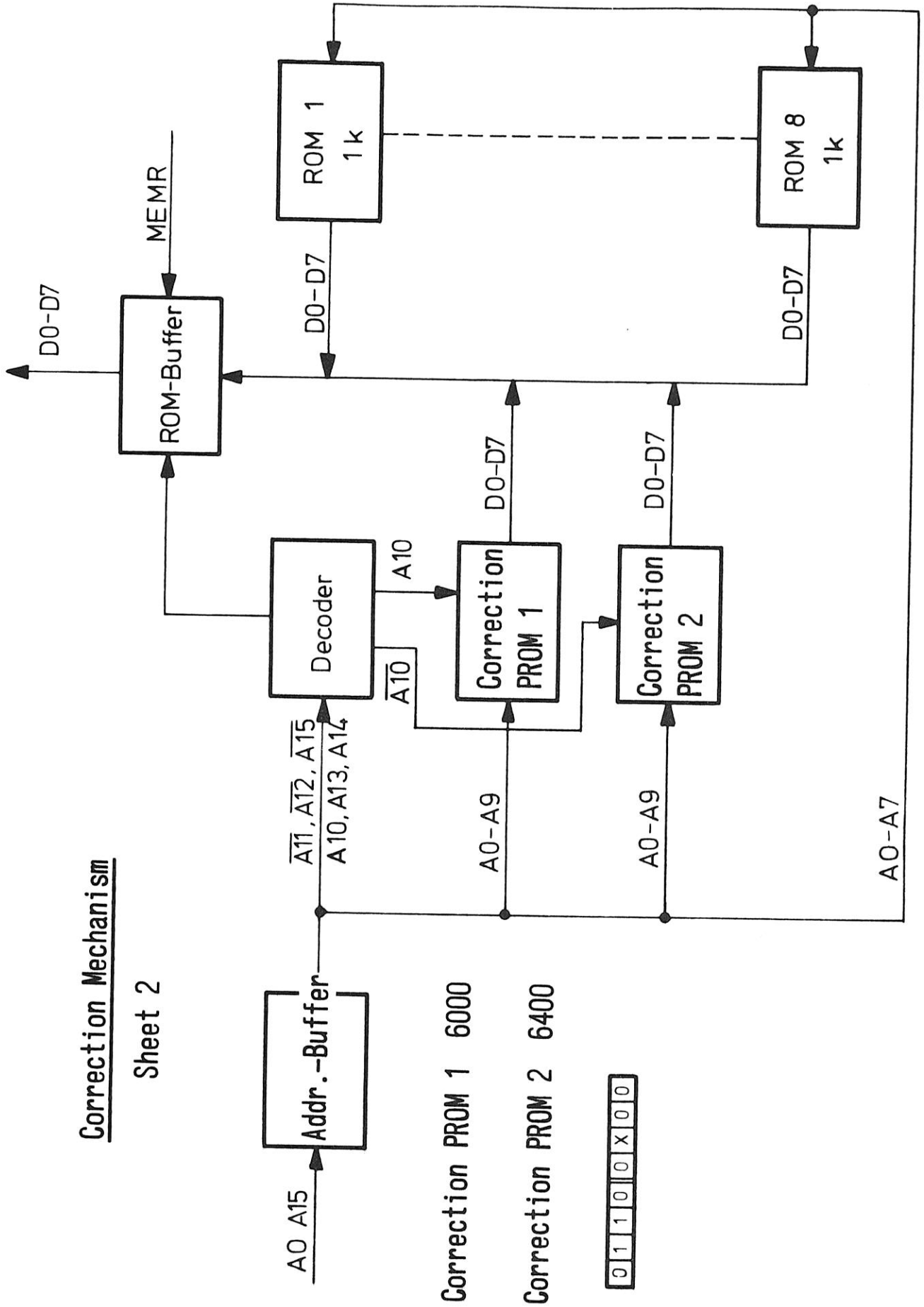
Correction Mechanism

Sheet 1



Correction Mechanism

Sheet 2

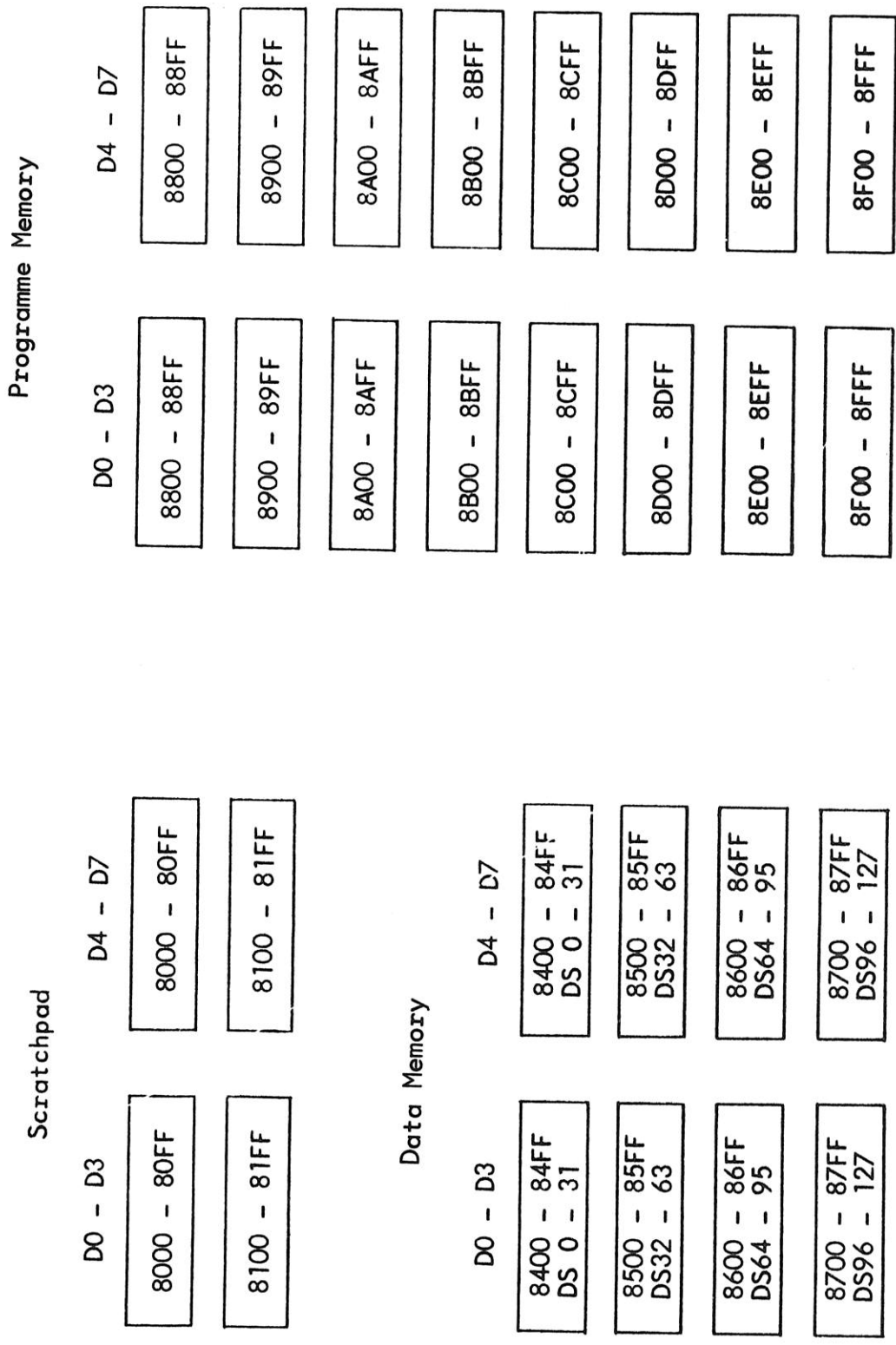


BAC 02 (3K)

0000 - OFFF = BAG01 Interpr. micro
 1000 - 17FF = BAG02 Pr.4
 BAG03 Pr.6
 1800 - 1BFF = BAG09 Pr.6
 BAG10 Pr.4
 1000 - 1FFF = BAG17 NKE Pr.4
 BAG05 MKE/NKE Pr.6

1000 - 1FFF empty	for 2K
1800 - 1BFF 01206	for 2K
1400 - 17FF 01205	for 2K
1000 - 13FF 01204	for 2K
0C00 - 0FFF 38203	6000 - 67FF 1st Correction 04524
0800 - 0BFF 38202	6800 - 6FFF 2nd Correction
0400 - 07FF 38201	Comparator 53663
0000 - 03FF 38200	

BAC 02/03



PIK - Programme
on BAC 02

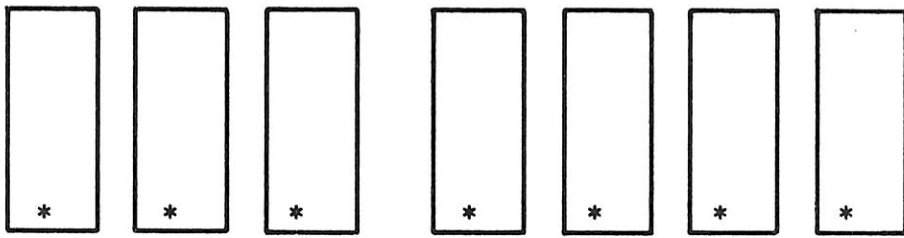
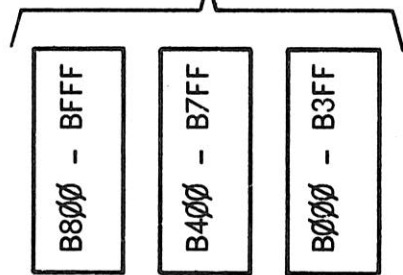
022 15	free
022 14	free
frei	free
022 12	free
022 11	free
022 10	free
022 09	free
022 08	free

002.14

BAC Ø3

* = Addr. and equipment as BACØ2

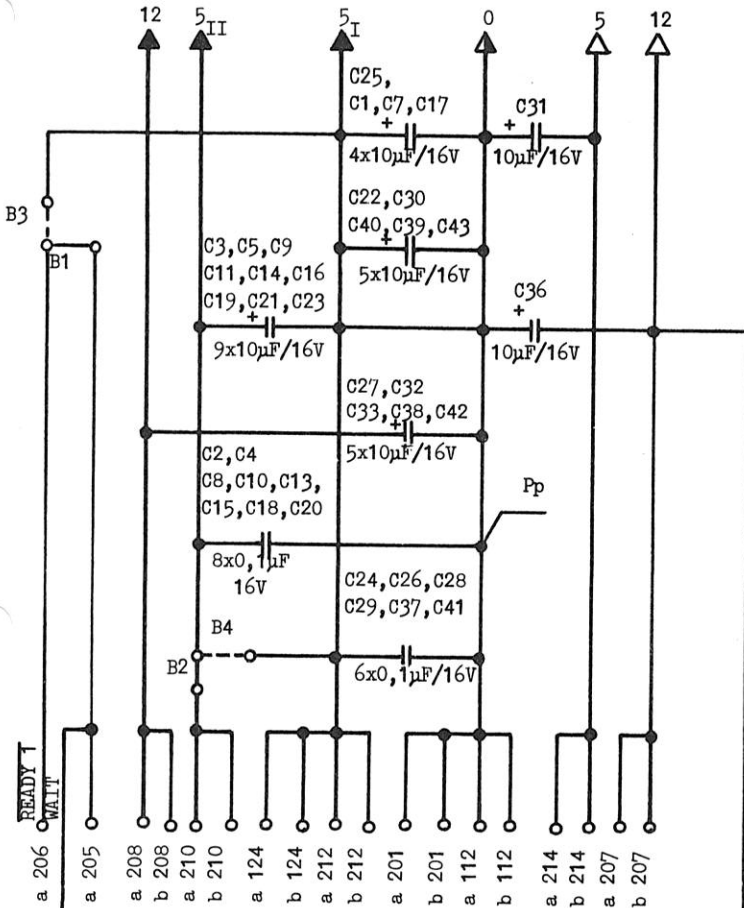
BAG Ø4 ↔ MBKE 1 Micro



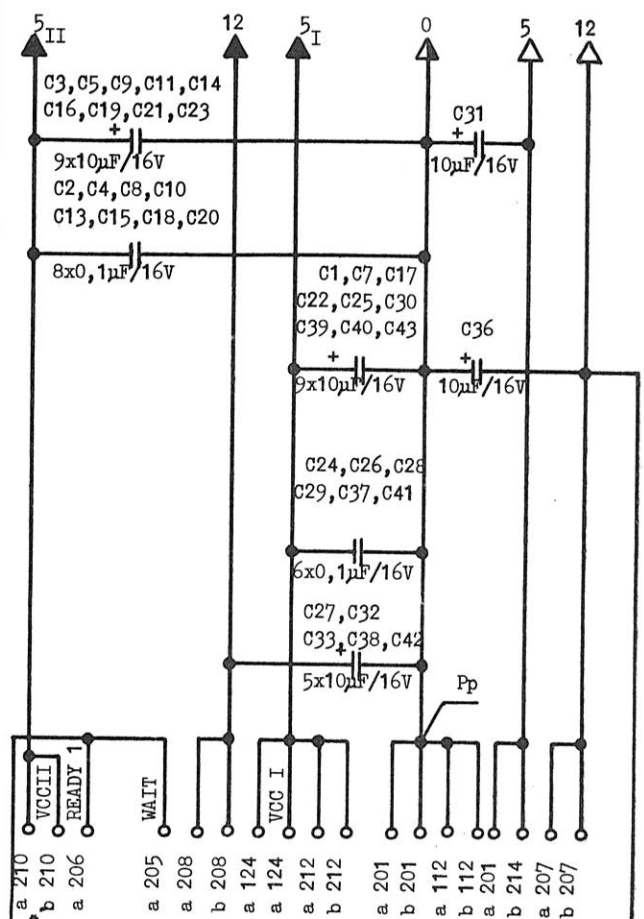
When using BACØ3 logic BABØ3 must be used. Thus no I/O card is necessary for MBKE1.

Switch Positions and Bridges

BAC Ø2



BAC Ø3



Memory area	I	II	III
ROM/PROM	0-7	8-15KB	16-23KB
RAM	32-35KB	36-39KB	40-43KB
CORRECTION	24-25KB	26-27KB	28-29KB
S59/3	Closed	Opened	Closed
S59/2	Closed	Closed	Opened
1KB Equipment	S58/1 upto S58/5, S59/1, S59/4-S59/5 Opened		
Additional chips	2708/8708 (PROM 1K x 8) 8308/9208 (ROM 1K x 8)		
Equipment according to reference list Drawing No. E 08 - 0399			
2KB Equipment	S58/1 upto S58/5; S59/1; S59/4 - S59/5 Closed		
Additional chips	8316 B/9216 (ROM 2K x 8)		
Equipment according to reference list Drawing No. E 08 - 0399			
Bridge B2	Closed	Opened	Opened
Bridge B4	Opened	Closed	Closed
Bridge B1	Closed		
Bridge B3	Opened - 1 WAIT STATE		

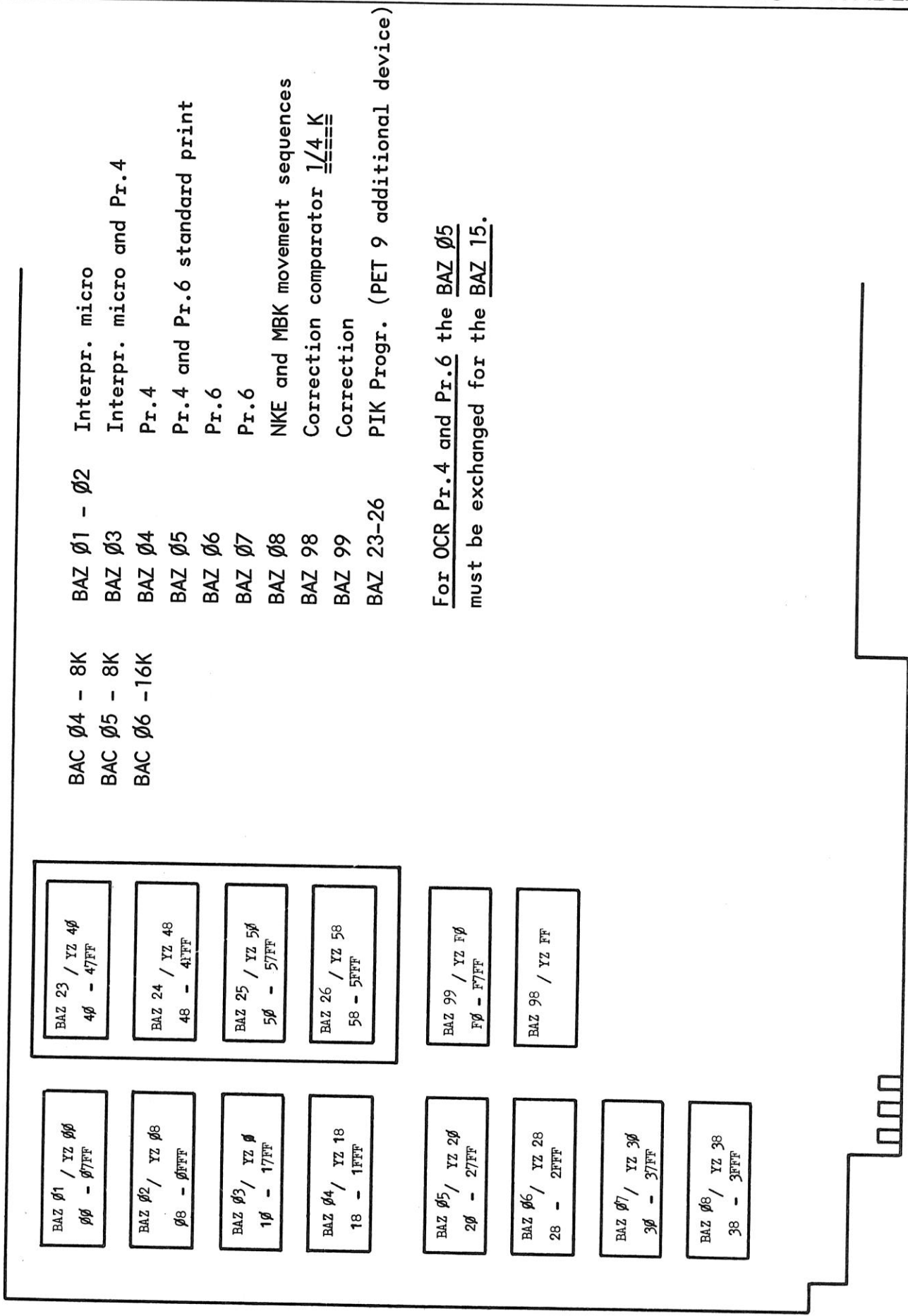
Memory area	I	II	III
Rom/Prom	0-7KB	8-15KB	16-23KB
Rom/Prom	44-46KB	44-46KB	44-46KB
Ram	32-35KB	36-39KB	40-43KB
Correction	24KB	26KB	28KB
M69/9-M69/10	equipped	free	equipped
M69/11-M69/12	equipped	equipped	free
1KB Equipment	SWT1-SWT5; SWT 10-11 pos. 1 - 3 SWT6-SWT9 " 1 - 2		
Additional chips	2708/8708 (PROM 1K x 8) 830319208 (PROM 1K x 8)		
Micro module:	Chip location:		
BAG 01	91, 92, 93, 95		
BAG 02	96, 97		
(BAG 03)	96, 99		
BAG 04	77, 79, 80		
(BAG 08)	97		
(BAG 09)	97		
BAG 10	99		
BAG 99	72, 75		
2KB Equipment	SWT1-SWT5; SWT 10-11 pos. 1 - 2 SWT6-SWT9 " 1 - 3		
Addit.chips	8316 B/9216 (ROM 2K x 8)		
Micro module:	Chip location:		
BAG 31	91, 93		
BAG 32	96		
(BAG 33)	99		
BAG 34	77, 80		
(BAG 38)	96		
(BAG 39)	96		
BAG 40	99		
BAG 99	72, 75		

Designation Modification of the Microprogrammes (3 K Vers.)

In the correction procedure 1/4 K addr. can be changed. As this was the case these modifications were applied in the matrix of ROM chips. Thus one can start again with zero in the correction. Old and new micro chips cannot work together. For recognition the designations were changed.

Old	New
BAG Ø1	BAG 20 - 21 - 22 - 23
BAG Ø2	BAG 24 - 25
BAG Ø3	BAG 26 - 27
BAG Ø4	BAG 28 - 29 - 30
BAG Ø5	BAG Ø5
BAG Ø6	BAG 18 - 19
BAG Ø7	BAG Ø7
BAG Ø8	BAG Ø8
BAG Ø9	BAG Ø9
BAG 10	BAG 10
BAG 17	BAG 17
BAG 99	BAG 96 - 97 - 98
PIK	BAG 41-42-43-44-45-46-47-48

Our Technical Service Department will inform you about the latest version level.



BAC 04 - 8K
 BAC 05 - 8K
 BAC 06 - 16K

BAZ 01 - 02 Interpr. micro
 BAZ 03 Interpr. micro and Pr.4
 BAZ 04 Pr.4
 BAZ 05 Pr.4 and Pr.6 standard print
 BAZ 06 Pr.6
 BAZ 07 Pr.6
 BAZ 08 NKE and MBK movement sequences
 BAZ 98 Correction comparator 1/4 K
 BAZ 99 Correction
 BAZ 23-26 PIK Progr. (PET 9 additional device)

For OCR Pr.4 and Pr.6 the BAZ 05
 must be exchanged for the BAZ 15.

BAC 04 = 8K

PET 9 - 3 K

Socket available
RAM = Additional
equipment

PET 9 - 3 K

Socket vorhanden
RAM = Zusatzaus-
rüstung

Scratch pad 1 K

Scratchpad 1 K

The data and programme memory area = 8 K is located between 70000 and 8 FFF.

Both areas are not adjacent to each other, can variably be arranged.

Programme lines above 1023 must be jumped with UBI.

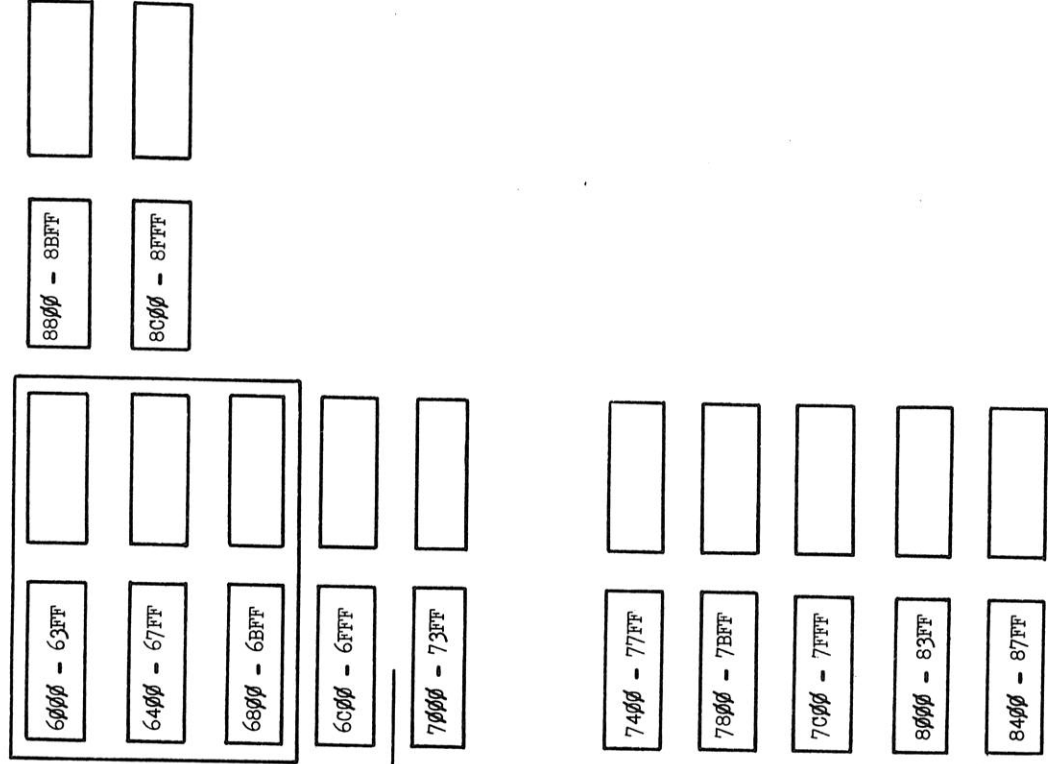
The memory reservation begins with 70000 = Sp.0, memory above 127 must indirectly be programmed.

Von 70000 bis 8 FFF befindet sich der Daten und Progr. Speicherbereich = 8 K.

Beide Bereiche sind gegenüber einander nicht abgegrenzt, können also variabel angelegt werden.

Programmlinien über 1023 müssen mit UBI angesprungen werden.

Die Speicherbelegung beginnt bei 70000 = Sp.0 Speicher über 127 müssen indirekt progr. sein.



BAC Ø5 = 8K

PET 9 - 3 K

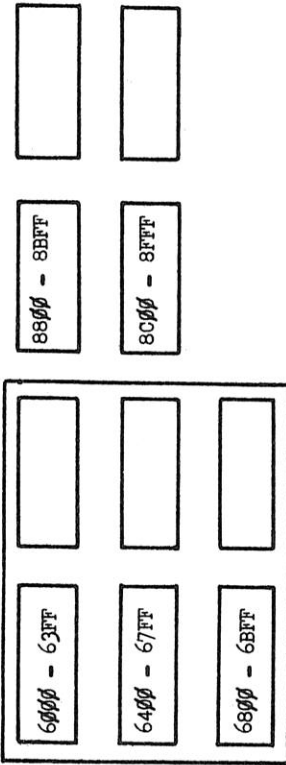
Socket available
RAM = Additional
equipment

PET 9 - 3 K

Socket vorhanden
RAM = Zusatzaus-
rüstung

Scratch pad 1 K

Scratchpad 1 K



The data and programme memory area = 8 K is located between 7000 and 8 FFF.

Both areas are not adjacent to each other, can variably be arranged.

Programme lines above 1023 must be jumped with UBI.

The memory reservation begins with 7000 = Sp.Ø, memory above 127 must indirectly be programmed.

BAG 50/51/52/56 = microprogramme for MBKE1

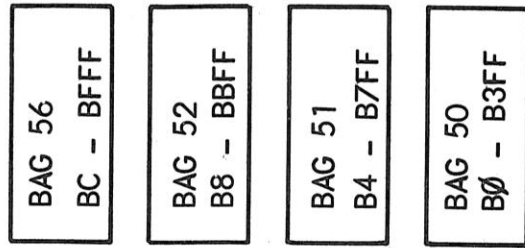
Von 7000 bis 8 FFF befindet sich der Daten und Progr. Speicherbereich = 8 K.

Beide Bereiche sind gegenüber einander nicht abgegrenzt, können also variabel angelegt werden.

Programmlinien über 1023 müssen mit UBI angesprungen werden.

Die Speicherbelegung beginnt bei 7000 = Sp.Ø Speicher über 127 müssen indirekt progr. sein.

BAG 50/51/52/56 = Mikroprogramm für MBKE1

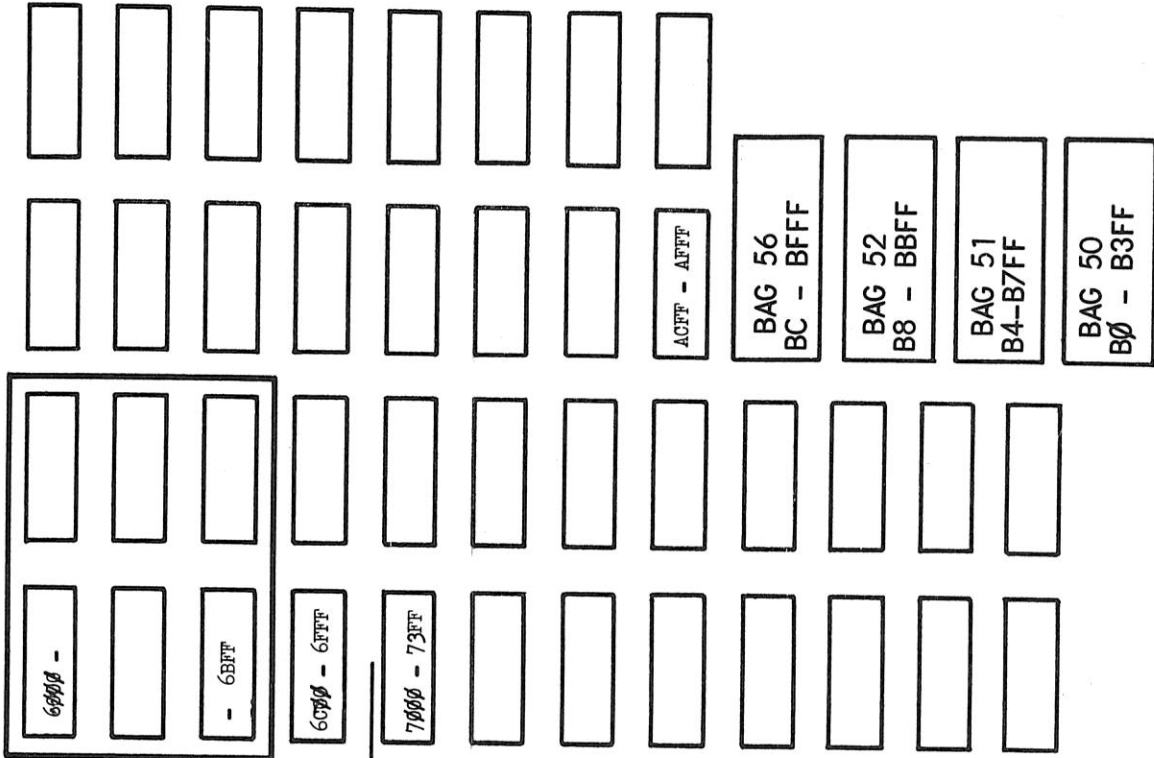


BAC 06 - 16K

PET 9

Socket available
RAM = Additional
equipment

Scratchpad 1K



The data and programme memory area = 16 K is located between 7000 - AFFF.

Both areas are not adjacent to each other, can variably be arranged.

Programme lines above 1023 must be jumped with UBI 50)51)52)56 = MBKE1 microprogramme.

Switch Settings and Bridges

BAC Ø4 - BAC Ø5 - BAC Ø6

Bridge B1 closed Bridge B2 opened	≅ 1 WAIT STATE
Bridge B1 opened Bridge B2 closed	≅ Without WAIT STATE
Bridge B3 closed Bridge B4 opened	≅ RAM 24K-35K - 5V _{II}
Bridge B3 openend Bridge B4 closed	≅ RAM 24K-35K - 5V _I

If the 3 point connection marked as Sch 1 is located on board, also connection 1-3 must be maintained. The plug is only destined for repair purposes. Thus Mem.W. can be disconnected.