10

**Control Instructions** 

HLT

Halt

HLT

P851M P852M P856M P857M

Syntax:

[label] HLT

This instruction sets the machine to halt mode. No further instructions or interrupts will be serviced until the RUN button is pressed.

Type

T8

Condition register:

Unchanged

bit 0 1 4 5 7 8 15 0 0 1 0 0 0 0 0 1 1 1 1 1 1 1

Remark:

This instruction may only be used in system mode.

INH

Inhibit interrupt

INH

P851M P852M P856M P857M

Syntax:

[label] \_ INH

This instruction resets the permit interrupt to prohibit all interrupts

(including Power Failure/Automatic Restart).

INH is automatically set by any hardware interrupt.

Type

T8

Condition register:

Unchanged

bit 0 1 4 5 7 8 9 10 15
0 0 1 0 0 0 0 1 0 1 1 1 1 1 1 1

Remark:

This instruction may only be used in system mode,

ENB

Enable interrupt

ENB

P851M P852M P856M P857M

Syntax:

[label] \_ ENB

This instruction sets the machine to permit interrupt.

Note: Though the instruction is accepted in user mode it is only useful when working in system mode as in user mode all interrupts are

enabled.

Type

T8

Condition register:

Unchanged

bit 0 1 4 5 7 8 15 0 0 1 0 1 0 0 0 0 0 0 0 0 0 0 LKM

Link to monitor

LKM

P851M P852M P856M P857M

Syntax:

[label] LKM

This instruction sets a program interrupt flip-flop, which sets the CPU from user mode to system mode.

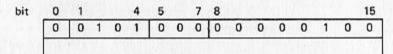
If the interrupts are inhibited then the next instruction is executed. If the interrupts are enabled then a branch is made to the address in the interrupt table, provided by the user, corresponding with LKM.

Type

T8

Condition register:

Unchanged



RIT

Reset internal interrupt

RIT

P851M P852M P856M P857M

Hexa value k

Syntax:

[label] \_ RIT \_ k

This command is used to clear one of the internal interrupt bits which is indicated by a zero-bit in the k field (other bits being one).

k is a 5-bit hexadecimal constant. This instruction may only be used in

system mode.

Internal interrupts are:

bit number 10 = control panel

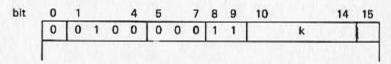
10 = control panel /0F 11 = power failure/automatic restart /17

12 = real time clock /1B 13 = program error /1D

Type T8

Condition register:

Unchanged



Remark:

This instruction may only be used in system mode.

SMD

Set mode

SMD

P856M P857M

Syntax:

[label] \_ SMD

This instruction switches the machine from system mode to user mode to allow a user program to run.

On the P852 there is only the system mode.

- Note: 1. See also the note under RTN A15.
  - 2. On the P856M and P857M the switch from system mode to user mode can also be made with a RTN A15 instruction.

Type

T8

Condition register:

Unchanged

7 8 9 bit 0 0 0 0 0 1 0 0 0 0 0