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**KEY:**

- **Mnemonic**: The mnemonic column represents the operation codes for each instruction.
- **instruction format**: The format of the instructions is shown, typically including the operation code (OP) and the condition flag setting (CF).
- **condition flag setting**: The condition flag setting indicates how the condition flags are affected by the instruction. For example, the CLRI instruction sets the carry flag (C) if the operation requires it.
### CONDITION FLAG REGISTER (CFR) SETTINGS

<table>
<thead>
<tr>
<th>Code</th>
<th>Condition</th>
<th>CFRLit</th>
<th>S</th>
<th>Applicable Branches</th>
<th>Side Effects</th>
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<td>1 (off)</td>
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<td>&gt;</td>
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<td>&lt;</td>
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<td>R</td>
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<td>-found</td>
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### UNARY INSTRUCTIONS

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### CONTROL REGISTERS

- **ICMR Format**
  - P: P-L, k
  - D: Data Table
  - K: Keyboard
  - F: Function Keys
  - A: Meta
  - QFR: Don't touch!

### Mask Bytes for BCF Instructions (X'BD')

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### Stack Format

- **Stack Prefix**
  - Entry: Address of Procedure + ICMR
  - Entries:
    - Sp = address of procedure + ICMR
    - Current Stack Top
    - Last Stack Top
    - Extended Inst.
    - Self-Interrupt
    - Procedure Check
    - Meta
    - SIMALE
    - Vender General
VG REGISTER NAMES

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VG REGISTER FORMATS

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ETC REGISTERS

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BLOCK FORMAT

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Pointer to next block, relative to start of DATA area (pointed to DBG).

SUB-BLOCK FORMAT

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<tr>
<td>4</td>
</tr>
</tbody>
</table>

Length of sub-block, in bytes. Must include 4 bytes for header.

MACROS

[labels_1] DATA
[labels_2] BLK next_blk [PREV= label | SECOND=value ]
[labels_3] SUBLK VG | simile_info
[labels_4] ENDSUBLK
[labels_5] ENDBLK
[labels_6] ENDDATA
VGNOP

0000

0 4 15

VGSPEC [DATA = value][, PBIT = N/Y]

P 010 | value

0 1 4 15

VGLOAD reg1, value1, ..., valueN

VGOR

VGAND

VGADD

op | reg1

0 4 9 15

value1

0 12 15

valueN

0 12 15

op | command

0100 VGLOAD

0101 VGOR

0110 VGAND

0111 VGADD

VGABS

[MODE = m1]

VGREL

0001

m1 | op

0 4 10 12 15

VGCHAR [SIZE = <size>][, SLANT = <s>]

0001

s | siz | 1111

0 4 9 12 15

< Bit <

0 HORIZONTAL (default)

1 VERTICAL

siz | <size> | width | height

000 PREVIOUS - - -

100 60x120 .0167 (34) .0333 (68)

101 40x80 .0250 (51) .0500 (102)

110 30x60 .0333 (68) .0667 (136)

111 16x32 .0625 (128) .1250 (256)

Notes: the <size> figures are the number of characters, in rows x columns per screen. The width and height are the character spacings, in coordinate fractions and (raster units).

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