### Status / Input Instruction

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| NORM | INSTR | RES | EXP4 | EXP3 | EXP2 | EXP1 | EXP0 | OP2 | OP1 | OP0 | IN4 | IN3 | IN2 | IN1 | IN0 |
| 15 | 14 | 13 | 12 | 11 | 10 | 9 | 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 | 0 |

NORM – system is operating normally.

INSTR – set this bit on new instruction.

RES – reserved.

EXP – 5-bit output port.

{OP, IN} – Instruction input bus.

### Instructions and Opcodes

* LDW &val – load immediate value to working register.

OP[2:0] = 000

&val=val[4:0]=out[4:0]

e.g. LDW d’29

corresponds to 0001\_1101 mach code.

* EXP – exports lower 5 bits of value stored in the working register to [12:8] in status register.

OP[2:0] = 001

All other bits are ignored.

* EXT – stop computation.

OP[2:0] = 111

All other bits are ignored.