

POP

Pop Top of Return Stack

Syntax: `[label] POP`

Operands: None

Operation: (TOS) → bit bucket

Status Affected: None

Encoding:

| | | | |
|------|------|------|------|
| 0000 | 0000 | 0000 | 0110 |
|------|------|------|------|

Description: The TOS value is pulled off the return stack and is discarded. The TOS value then becomes the previous value that was pushed onto the return stack.

This instruction is provided to enable the user to properly manage the return stack to incorporate a software stack.

Words: 1

Cycles: 1

Q Cycle Activity:

| Q1 | Q2 | Q3 | Q4 |
|--------|--------------|---------------|--------------|
| Decode | No operation | POP TOS value | No operation |

Example:

POP
GOTO NEW

Before Instruction

TOS = 0031A2h
Stack (1 level down) = 014332h

After Instruction

TOS = 014332h
PC = NEW

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