N.B. I am assuming the ALU does operations like , where A is the input from the bus, and B is the input from Y register

2-Operand instruction

* MOV
  1. SOURCEout,Yout, NopA, Zin
* ADD
  1. SOURCEout, Yout, ADD, Zin
* ADC
  1. SOURCEout, Yout, ADC, Zin
* SUB (Dest – Src)
  1. SOURCEout, Yout, SUB, Zin
* SBC
  1. SOURCEout, Yout, SBC, Zin
* AND
  1. SOURCEout, Yout, AND, Zin
* OR
  1. SOURCEout, Yout, OR, Zin
* XNOR
  1. SOURCEout, Yout, XNOR, Zin
* CMP
  1. SOURCEout, Yout, SUB,Zin
     1. instructions
* INC
  1. SOURCEout,Yout, IncA, Zin
* DEC
  1. SOURCEout,Yout, DecA, Zin
* CLR
  1. SOURCEout,Yout, Clear, Zin
* INV
  1. SOURCEout,Yout, NotA, Zin
* LSR
  1. SOURCEout,Yout, LSR\_B, Zin
* ROR
  1. SOURCEout,Yout, ROR\_B, Zin
* RRC
  1. SOURCEout,Yout, RRC\_B, Zin
* ASR
  1. SOURCEout,Yout, ASR\_B, Zin
* LSL
  1. SOURCEout,Yout, LSL\_B, Zin
* ROL
  1. SOURCEout,Yout, ROL\_B, Zin
* RLC
  1. SOURCEout,Yout, RLC\_B, Zin