| Sequencer -> | S0 | S0 | S2 | S2 | S4 | S4 | S6 | S6 | |
|--------------|-----|-----|-----|-----|-----|-----|-----|-----------|---------------------------------------------------------------|
| | S7 | S1 | S1 | S3 | S3 | S5 | S5 | S7 | |
| Signals | S0A | S1A | S2A | S3A | S4A | S5A | S6A | S7A | |
| ENABIN | | | | | | | | | |
| CLRIN | | | | | | | | | Read Instruction and M value |
| STOIN | | | | | | | | | |
| DECON | | | | | | | | | Decode the instruction so ALU knows what to do |
| ENABXY | | | | | | | | | |
| CLRXY | | | | | | | | | Can't store Y until we have M since it may be an ALU argument |
| STOXY | | | | | | | | | |
| ALUON | | | | | | | | | ALU needs to maintain result until end of instruction |
| ENABOUT | | | | | | | | | |
| CLROUT | | | | | | | | | Store M, A, D, PC as needed |
| STOOUT | | | | | | | | | |
| | | | | | | | | | Store M, A, D, PC as needed |