STEPS TO RUN THE CALCULATOR

BASIC STEPS

1. Select the type of operation, 8 bit or 16 bit. Run the asm code correponding to the required operation.
2. Open command prompt and convert the asm code to hex code by writing the following command:

   c16 –h 8bit.hex -l 8bit.lst 8bit.asm

3. Now open x85.exe and download the asm code by entering the hex file name and pressing Ctrl+D. After that, a window will appear where you have to enter hex file name and starting address of code, which is ***9000H*** in this case. Make sure than in the board you have pressed the switch number 4 to the right which can be verified as the display will be showing **SERIAL**.
4. After code is downloaded, press the switch number 4 to the left.

8 BIT CALCULATOR

1. Addition

Press Exam MEM key and input values which is to be added in address 8000H and 8001H. Input value 0 at 8002H (0 means additon). Press GO key and input 9000H(which is starting address). Press EXEC key and then Exam REG. The answer is stored in register A.

2. Subtraction

Press Exam MEM key and input values which is to be added in address 8000H and 8001H. Input value 1 at 8002H (1 means subtraction). Press GO key and input 9000H(which is starting address). Press EXEC key and then Exam REG. The answer is stored in register A.

3. Multiplication

Press Exam MEM key and input values which is to be added in address 8000H and 8001H. Input value 2 at 8002H (2 means multiplication). Press GO key and input 9000H(which is starting address). Press EXEC key and then Exam REG. The answer is stored in register A.

4. Division

Press Exam MEM key and input values which is to be added in address 8000H and 8001H. Input value 3 at 8002H (3 means division). Press GO key and input 9000H(which is starting address). Press EXEC key and then Exam REG. The answer is stored in register A.

16 BIT CALCULATOR

1. Addition

Press Exam MEM key and input values which is to be added in address 8000H,8001H,8002H and 8003H(2 memory addresses used for single number as it is a 16bit number). Input value 0

at 8004H (0 means additon). Press GO key and input 9000H(which is starting address). Press EXEC key and then Exam REG. The lower bit of answer is stored in register L and the higher bit is stored in register H.

2. Subtraction

Press Exam MEM key and input values which is to be added in address 8000H,8001H,8002H and 8003H(2 memory addresses used for single number as it is a 16bit number). Input value 1 at 8004H (1 means subtraction). Press GO key and input 9000H(which is starting address). Press EXEC key and then Exam REG. The lower bit of answer is stored in register L and the higher bit is stored in register H.

3. Multiplication

Press Exam MEM key and input values which is to be added in address 8000H,8001H,8002H and 8003H(2 memory addresses used for single number as it is a 16bit number). Input value 2 at 8004H (2 means multiplication). Press GO key and input 9000H(which is starting address). Press EXEC key and then Exam REG. The lower bit of answer is stored in register L and the higher bit is stored in register H.

4. Division

Press Exam MEM key and input values which is to be added in address 8000H,8001H,8002H and 8003H(2 memory addresses used for single number as it is a 16bit number). Input value 3 at 8004H (3 means multiplication). Press GO key and input 9000H(which is starting address). Press EXEC key and then Exam REG. The lower bit of answer is stored in register C and the higher bit is stored in register B.