Flow Chart to Find 1's Complement of 16-bit Number

Start

Load H-L pair address 3000 H

Move lower order 8-bit data to A

Complement A

Store the result at location 3002 H

Increment H-L pair

Move higher order 8-bit data to A

Complement A

Store the result at location 3003 H

Stop
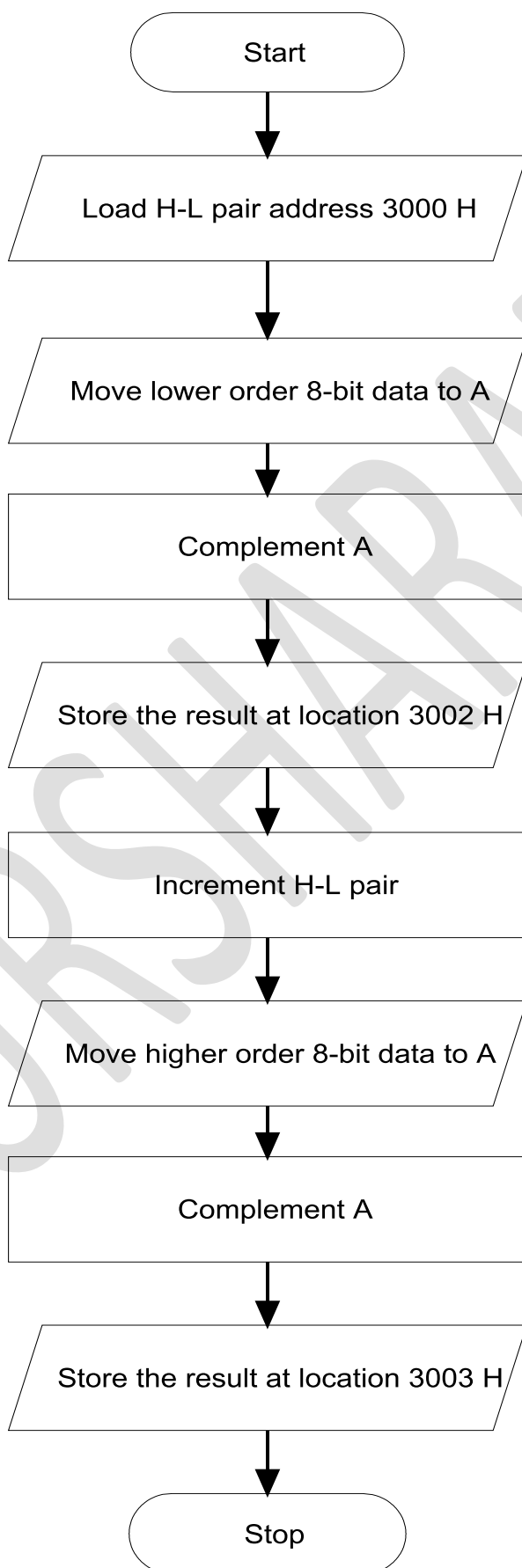
Program to Find 1's Complement of 16-bit Number

Address	Mnemonics	Operand	Opcode	Remarks
2000	LXI	H, 3000 H	21	Load H-L pair with address 3000 H
2001			00	
2002			30	
2003	MOV	A, M	7E	Move lower order 8-bit data to A
2004	CMA		2F	Complement A
2005	STA	3002 H	32	Store the result at location 3002 H
2006			02	
2007			30	
2008	INX	H	23	Increment H-L pair
2009	MOV	A, M	7E	Move higher order 8-bit data to A
200A	CMA		2F	Complement A
200B	STA	3003 H	32	Store the result at location 3003 H
200C			03	
200D			30	
200E	HLT		76	Halt

Before Execution:

3000: 45 H
3001: 6A H

After Execution:

3002: BA H
3003: 95 H