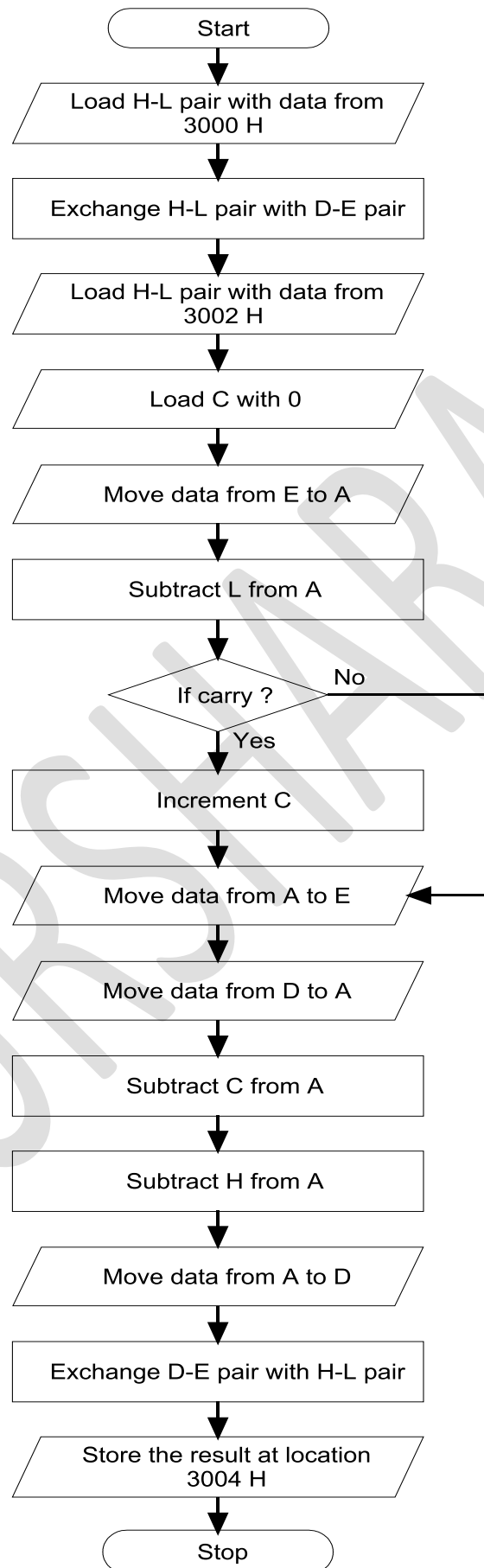


Flow Chart to Subtract Two 16-bit Numbers Without Borrow



Program to Subtract Two 16-bit Numbers Without Borrow

Address	Mnemonics	Operand	Opcode	Remarks
2000	LHLD	3000 H	2A	Load H-L pair with data from 3000 H
2001			00	
2002			30	
2003	XCHG		EB	Exchange H-L pair with D-E pair
2004	LHLD	3002 H	2A	Load H-L pair with data from 3002 H
2005			02	
2006			30	
2007	MVI	C, 00 H	0E	Move 0 to C
2008	MOV	A, E	7B	Move E to A
2009	SUB	L	95	Subtract L from A
200A	JNC	200F H	D2	Jump to location 200F H if no carry
200B			0F	
200C			20	
200D	INR	C	0C	Increment C
200E	MOV	E, A	5F	Move A to E
200F	MOV	A, D	7A	Move D to A
2010	SUB	C	91	Subtract C from A
2011	SUB	H	94	Subtract H from A
2012	MOV	D, A	57	Move A to D
2013	XCHG		EB	Exchange H-L pair with D-E pair
2014	SHLD	3004 H	22	Store the result at location 3004 H
2015			04	
2016			30	
2017	HLT		76	Halt

Before Execution:

3000: 16 H
 3001: 5A H
 3002: 24 H
 3003: 36 H

After Execution:

3004: F2 H
 3005: 23 H