PSHA

Push A onto Stack

PSHA

(SP) - \$0001 ⇒ SP Operation:

 $(A) \Rightarrow M_{(SP)}$

Description: Stacks the content of accumulator A. The stack pointer is decremented by

one. The content of A is then stored at the address the SP points to.

Push instructions are commonly used to save the contents of one or more CPU registers at the start of a subroutine. Complementary pull instructions can be used to restore the saved CPU registers just before returning from

the subroutine.

CCR Details:

S	X	Н	1	N	Z	٧	С
-	-	-	-	-	-	-	-

Source Form	Address Mode	Object Code	Access Detail HCS12	M68HC12
PSHA	INH	36	Os	Os

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Instruction Glossary

PULA

Pull A from Stack

PULA

Operation:

 $(M_{(SP)}) \Rightarrow A$ (SP) + \$0001 \Rightarrow SP

Description:

Accumulator A is loaded from the address indicated by the stack pointer. The SP is then incremented by one.

Pull instructions are commonly used at the end of a subroutine, to restore the contents of CPU registers that were pushed onto the stack before

subroutine execution.

CCR Details:

s	Х	н	ı	N	z	٧	С
-	-	-	-	-	-	1	-

Source Form	Address	Object Code	Access Detail		
Source r orm	Mode		HCS12	M68HC12	
PULA	INH	32	ufO	uf0	

Instruction Glossary

PSHX

Push Index Register X onto Stack

PSHX

(SP) - \$0002 ⇒ SP Operation:

 $(X_H: X_L) \Rightarrow M_{(SP)}: M_{(SP+1)}$

Stacks the content of index register X. The stack pointer is decremented by two. The content of X is then stored at the address to which the SP points. Description:

After PSHX executes, the SP points to the stacked value of the high-order

half of X.

Push instructions are commonly used to save the contents of one or more CPU registers at the start of a subroutine. Complementary pull instructions can be used to restore the saved CPU registers just before returning from

the subroutine.

CCR Details:

s	X	Н	ı	N	Z	٧	С
-	-	-	-	-	-	-	-

Source Form	Address	Object Code	Access Detail		
Source r orm	Mode	Object Code	HCS12	M68HC12	
PSHX	INH	34	OS	os	

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Instruction Glossary

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PULX

Pull Index Register X from Stack

PULX

Operation: $\begin{array}{l} (M_{(SP)}:M_{(SP+1)}) \Rightarrow X_H:X_L \\ (SP) + \$0002 \Rightarrow SP \end{array}$

Index register X is loaded from the address indicated by the stack pointer. Description:

The SP is then incremented by two.

Pull instructions are commonly used at the end of a subroutine to restore the contents of CPU registers that were pushed onto the stack before

subroutine execution.

SXHINZVC **CCR Details:** - - - - - - -

Source Form	Address Mode	Object Code	HCS12	Access Detail M68HC12
PULX	INH	30	UfO	UfO