

# USER MANUAL FOR OMEGA SAP-1 COMPUTER

01. Connect the 5V DC power supply to the suitable terminals of the OMEGA SAP-1 Computer.
02. Turn on the power supply.
03. Press the RESET button to reset the OMEGA SAP-1 Computer.
04. Press the MODE button in the MAIN CLOCK UNIT to stop the auto clock mode.
05. Press the MODE button in the MAR UNIT to enable the program mode.  
(PROG LED will indicate a successive attempt)
06. Add the program to be executed. (Use the TEST program for testing)

ADDRESS (MAR)	INSTRUCTION	RAM DATA VALUE	
		OPCODE	LOCATION
0000	LDA 14	0000	1110
0001	ADD 15	0001	1111
0010	OUT	1110	0000
0011	HLT	1111	0000
1110	DATA IN REG14	0000 1010	
1111	DATA IN REG15	0000 1011	

*(The output will be binary 0001 0101 or decimal 21)*

07. Press the MODE button in the MAR UNIT again to enable the run mode.  
(RUN LED will indicate a successive attempt)
08. Press the MODE button in the MAIN CLOCK UNIT again to enable the auto clock mode.
09. Press the RESET button to reset the OMEGA SAP-1 Computer again.

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10. Then the program will execute properly.
11. By pressing the RESET button at any time you can reset the OMEGA SAP-1 Computer.

## OPCODES FOR OMEGA SAP-1 COMPUTER

INSTRUCTION	OPCODE
LDA	0000
ADD	0001
SUB	0010
XOR	0011
AND	0100
OR	0101
NAND	0110
NOR	0111
OUT	1110
HLT	1111

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