

SWTPC GT-6144 Graphics Diagnostic BARTST-1

The BARTST diagnostic program is designed to operate in a SWTPC 6800 computer and will help in locating problems in a GT-6144 graphics terminal. The program uses 00C9₁₆ words of memory and starts at location 0000₁₆ and may be stored on tape or loaded in from the terminal instruction by instruction using MIKBUG^R. When loading the program, the program counter locations A048 and A049 should be set to 0016. The program assumes that the parallel interface board in the computer is in the #3 interface slot.

The program itself has several test functions. After initiating the program the first thing done is to erase the terminal's memory. This can be verified if you have the screen in the UNBLANKED condition - going from left to right the screen should go black in a period of about 0.5 seconds. After the erase is over the screen should fill with 32 vertical bars starting at horizontal location 0. After the vertical bars appear the screen blanking/reversing functions can be checked by typing in the appropriate number from 1 - 6 on your keyboard.

- 1 ----- REVERSE SCREEN (black on white)
- 2 ----- NORMAL SCREEN (white on black)
- 3 ----- BLANK CT-1024 (if used)
- 4 ----- ENABLE CT-1024 (if used)
- 5 ----- ENABLE GRAPHICS
- 6 ----- BLANK GRAPHICS

The BARTST program can be modified to test odd numbered vertical bars and odd and even horizontal bars. When using the modifications below be sure to reload the program in its original form and then make the modifications. In all cases the program counter should be set to 0016.

	CHANGE	TO
ODD VERTICAL BARS	0058	41
	005D	81
EVEN HORIZONTAL BARS	0071	7C
	0072	00
	0073	59
	007D	01
	007E	01
	007F	01
ODD HORIZONTAL BARS	0071	7C
	0072	00
	0073	59
	007D	01
	007E	01
	007F	01
	0059	01
	0066	61
	0077	01

0072 01		NOP		00AE 86	TWO:	LDA A #SE1
0073 01		NOP		00AC E1		
0074 20		BRA	INCREM1	00AD 20		BRA OUT1
0075 ED				00AE 16		
0076 86	SPEC1:	LDA A	#00	00AF 86	THREE:	LDA A #SE2
0077 00				00E0 E2		
0078 97		STA A	BHPOS	00E1 20		BRA OUT1
0079 59				00E2 12		
007A 7C		INC	BVPOS	00E3 86	FOUR:	LDA A #SE3
007B 00				00E4 E3		
007C 58				00E5 20		BRA OUT1
007D 7C		INC	BHPOS	00E6 0E		
007E 00				00E7 86	FIVE:	LDA A #SE4
007F 58				00E8 E4		
0080 20		BRA	SKP	00E9 20		BRA OUT1
0081 D8				00EA 0A		
0082 ED	OVER1:	JSR	INEEE	00EB 86	SIX:	LDA A #SE5
0083 E1				00EC E5		
0084 AC				00ED 20		BRA OUT1
0085 81		CMP A	#\$31	00EE 06		
0086 31				00EF 86	SEVEN:	LDA A #SE6
0087 27		BEQ	ONE	00C0 E6		
0088 1E				00C1 20		BRA OUT1
0089 81		CMP A	#\$32	00C2 02		
008A 32				00C3 86	EIGHT:	LDA A #SE7
008B 27		BEQ	TWO	00C4 E7		
008C 1E				00C5 ED	OUT1;	JSR OUTCH
008D 81		CMP A	#\$33	00C6 00		
008E 33				00C7 06		
008F 27		BEQ	THREE	00C8 20		BRA OVER1
0090 1E				00C9 D8		
0091 81		CMP A	#\$34			
0092 34						
0093 27		BEQ	FOUR			
0094 1E						
0095 81		CMP A	#\$35			
0096 35						
0097 27		BEQ	FIVE			
0098 1E						
0099 81		CMP A	#\$36			
009A 36						
009B 27		BEQ	SIX			
009C 1E						
009D 81		CMP A	#\$37			
009E 37						
009F 27		BEQ	SEVEN			
00A0 1E						
00A1 81		CMP A	#\$38			
00A2 38						
00A3 27		BEQ	EIGHT			
00A4 1E						
00A5 20		BRA	OVER			
00A6 DE						
00A7 86	ONE:	LDA A	#\$E0			
00A8 E0						
00A9 20		BRA	OUT1			
00AA 1A						