16 Bit SCSI Host Adapter (250-4161) Settings

HOST ADAPTER CONFIGURATION (250-4161B)

The following section details the hardware installation procedure for the Tandy 16 bit SCSI host adapter. The installation of the board consists of checking a few jumper settings to ensure that they are set for a particular Tandy computer, inserting the board into a full length 16 bit connector, and connecting a SCSI cable from the on board connector to a SCSI target.

The host adapter comes configured with the following default settings:

- \* SCSI Address 7
- \* SCSI Parity Enabled
- \* SCSI Terminators Installed
- \* SCSI Terminators Power Enabled
- \* Synchronous SCSI Negotiation Enabled
- \* DMA Channel 5
- \* Interrupt Channel 11
- \* Port Address 330H
- \* BIOS Address ODC000H
- \* Zero BIOS Wait States
- \* Computer System Configuration Jumper set for Tandy 4000

All jumper block locations and settings are detailed in Appendix A, however, the jumpers should remain in their factory default settings except as noted below.

TANDY 4000/4000LX/3000/3000-12/3000NL/4000SX

The host adapter comes configured for these computer systems. All jumpers should remain in the factory set default locations.

TANDY 3000HL

If you are installing the host adapter in a Tandy 3000HL computer system you need to change the following settings:



x = Jumper Installed

The host adapter configurations as described above will not conflict with any Tandy Monitor Adapters, COM1, COM2, LPT1, LPT2, or the standard hard disk controller.

If you have other adapter boards in your system you may need to change some of the other jumper settings. If this is required, please refer to Appendix A for help.

NOTE: The system must be turned off during the installation procedure.

NOTE: The host adapter, like all electronic equipment, is static sensitive. Please take the proper precautions when handling the board. Keep the board in its conductive wrapping until it is configured and ready to be installed in your system.

# SOFTWARE INSTALLATION

Please refer to your peripheral's installation guide for software installation instructions.

# APPENDIX A

The following diagram shows the approximate location of the various customer configurable items on the host adapter. Except as noted in Section 3.0, these jumpers should remain in their factory set default positions for proper operation in your Tandy system.



NOTE: All of the jumpers have been set at the factory for proper system operation with all Tandy 3000/4000 series computer systems and Tandy option boards except as noted is Section 3.0. This information is provided only as a guide for the use of third party option boards that may create system conflicts. See your authorized Tandy Computer dealer for additional information.

## A.1 SCSI ADDRESS

					J1	
JUMPER PAIR			SCSI		0 0	Pin Pair 1
4	5 6		ADDRESS	-		
					0 0	Pin Pair 4
х	х	х	0		0 0	
-	х	х	1		0 0	
х	-	х	2	-	0 0	
-	-	х	3		0 0	
X	х	-	4		0 0	
-	Х	-	5		0 0	
X	-	-	6		0 0	
-	-	-	7		0 0	
L	I	I	LJ		0 0	

# A.2 SCSI PARITY

Jumper set J1, pin pair 3, is the parity/disable jumper. The SCSI parity checking is disabled if this jumper is installed. The default is parity checking enabled.

#### A.3 SCSI TERMINATORS

RN3, RN4 and RN5 are the SCSI terminators. If the host adapter is not the first or the last SCSI device in a string of SCSI devices, or if inline terminators are used, then these resistors must be removed. Default is terminators installed.

### A.4 SCSI TERMINATOR POWER

J1

F1 controls the terminator power. If another SCSI device is supplying terminator power, then F1 may optionally be removed. No more than 5 SCSI devices should be configured to supply terminator power to a single SCSI bus. Default is F1 installed with the host adapter supplying the terminator power.

#### A.5 SCSI SYNCHRONOUS NEGOTIATION

Jumper set J1, pin pair 1 is the synchronous negotiation enable jumper.

		_			
х	х		 Pin	Pair	1
0	0				
0	0				
0	0				
0	0				
0	0				
0	0				
0	0				
0	0				
0	0				
0	0				
0	0				
0	0				

The host adapter will initiate SCSI synchronous negotiation during initialization of after a SCSI reset if this jumper is installed. If the jumper is not installed, the host adapter will still support synchronous SCSI transfers, but the target must initiate the negotiation.

### A.6 DMA CHANNEL SELECTION

There are three jumper blocks involved in selecting the DMA channel. These are J1 (pin pairs 7 and 8), J14, and J15. The DMA channel reported to the Tandy System during the Return Configuration command is set by these jumpers. The default is DMA channel 5.



x = Jumper Installed

JU	JMPEI	DMA CHANNEL		
1	2	3	4	CHANNEL
x	_	-	-	0
-	x	-	-	5
-	-	Х	-	6
-	-	-	х	7



x = Jumper Installed

JU	JMPEI	R PAI	DMA CHANNEL	
1	2	З	4	CHANNEL
х	-	-	_	0
-	х	-	-	5
-	-	х	-	6
-	-	-	х	7



x = Jumper Installed

## A.7 INTERRUPT CHANNEL

There are two jumper blocks involved in selecting the interrupt channel, J1, pin pairs 9, 10 and 11) and J16. The default is interrupt channel 11.



x = Jumper Installed

		INTERRUPT CHANNEL	JUMPER PAIR					
	J16	CHANNEL	6	5	4	3	2	1
	0 0 0 X 0 0 0 0 0 X 0 0	9 10 11 13		- - -	- - -	- - x	- x -	x - -
Pin Pair 1		13 14 15	- x	- X -	x - -	_ _ _	-	-
Channel 11								

x = Jumper Installed

### A.8 PORT ADDRESS

The starting address of the block of four I/O ports required by the host adapter is selected by the jumpers in jumper block J6. The default address is 0330H.

JUMI	PER I	PAIR	PORT I/O ADDRESS BIT	
1	2	3	ADDRESS BII	
_	_	_	334н	
х	-	-	330н	J6
-	x	-	234Н	[]
x	x	-	230H	0 0 X
-	-	х	134H	0 0 X
x	_	х	130H	L L Pin Pair 1

# A.9 BIOS ADDRESS

The starting address of the block of address space reserved for the BIOS is selected by the jumper pins located in J10. The default address is ODCOOOH. This address must not conflict with any other BIOS in the system.

JUMPE	R PAIR	BIOS ADDRESS
1	2	ADDRESS
x - x -	x x - -	0C8000H 0D8000H 0CC000H 0DC000H



x = Jumper Installed

A.10 BIOS WAIT STATE

Access to the BIOS can have one wait state added by installing the jumper located at J7. The default is no wait state.

A.11 RESERVED JUMPERS

The jumper, pin pair 2 located in jumper block J1, is reserved for factory use.

(SMM/jlc-03/27/94)