

ADAPTEC ACB-2320B TROUBLESHOOTING CHECKLIST

F.C.C. CERTIFICATION

This equipment generates and uses radio frequency, and if not installed and used properly, that is, in strict accordance with the manufacturer's instructions, may cause interference to radio and television reception. It has been type-tested and found to comply with the limits for a Class B computing device in accordance with the specifications in "Subpart J of Part 15 of FCC Rules", which are designed to provide reasonable protection against such interference in a residential installation. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Relocate receiving antenna.
- Relocate the computer with respect to the receiver.
- Move the computer away from the receiver.
- Plug the computer into a different outlet so that computer and receiver are on different branch circuits.

If necessary, the user should consult the dealer or an experienced radio/television technician for additional suggestions. The user may find the following booklet prepared by the Federal Communications Commission helpful.

How to Identify and Resolve Radio-TV Interference Problems. This booklet is available from the U.S. Government Printing Office, Washington, D.C. 20402. Stock No. 004-000-00345-4.

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FIVE-YEAR LIMITED LIFE-TIME WARRANTY

The Seller warrants that the products to be delivered under this purchase order will be free from defects in material and workmanship under normal use and service. Seller's obligations under this Warranty are limited, at its sole option, to: (i) replacing or (ii) repairing or (iii) giving credit for, any such products which shall, within five (5) years from date of shipment, be returned to the Seller's factory, transportation charges prepaid, and which are, after examination, disclosed to the Seller's satisfaction to be thus defective. THIS WARRANTY IS EXPRESSED IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED, STATUTORY, OR IMPLIED, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, AND OF ALL OTHER OBLIGATIONS OR LIABILITIES ON THE SELLER'S PART, AND IT NEITHER ASSUMES NOR AUTHORIZES ANY OTHER PERSON TO ASSUME FOR THE SELLER ANY OTHER LIABILITIES IN CONNECTION WITH THE SALE OF THE SAID ARTICLES. This warranty shall not apply to any of such products which shall have been repaired or altered, except by the Seller, or which shall have been subjected to misuse, negligence, or accident; the aforementioned provisions do not extend the original warranty period of any product which has either been repaired or replaced by Seller. Prior to returning any products to Seller, Buyer must request and obtain a Return Material Authorization ("RMA").

CHANGES

The material in this guide is for information only and is subject to change without notice. Adaptec reserves the right to make changes in the product design without reservation and without notification to its users.

If you require further information or other technical support, please contact your authorized dealer.

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510040-00 SM/MAC 12/88

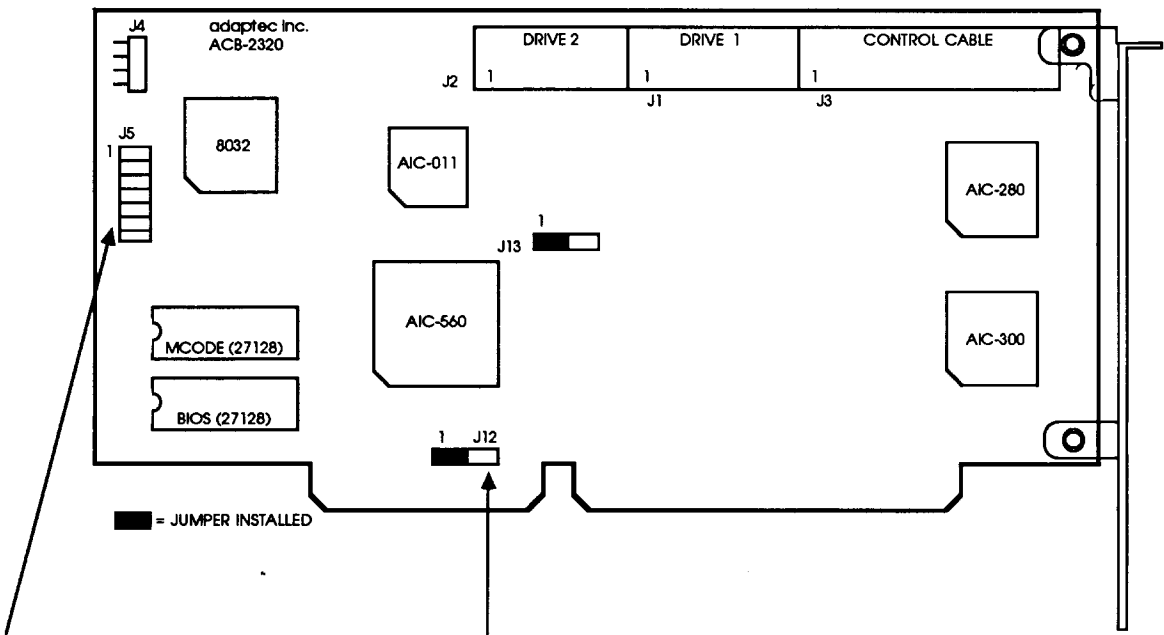
ACB-2320B Installation Guide

- **Gets a 1790 at boot-up:**
A 1790 Error is normal for an unformatted drive. Just press F1 to continue.
- **Long boot time:**
Some PC AT systems may continue to retry booting to the hard drive even though it has not been formatted yet! You will have to allow this re-trying to continue for up to two minutes before the system will boot to the floppy drive. Then you can proceed to Debug and format the drive.
- **Recall error, or no drive attached error:**
Check the drive select jumper on the hard disk drive; be sure that it is correctly set for the type of cable you are using.
Check drive cables. Be sure J1 goes to Drive 1, J2 goes to Drive 2, and J3 goes to both drives. Be sure that Pin 1 on the controller is connected to Pin 1 of the drive. If only one drive is being used, only J1 and J3 should be used. Do not use a floppy cable on the hard drive.
- **Incorrect drive parameters:**
ESDI drives have jumpers for "number of sectors per track" and for "bytes per sector", also for hard or soft sectoring. Consult your drive vendor for proper settings of these jumpers.
- **Misc. errors, or no format routine:**
Check jumpers on controller.
- **Excessive defects, or fails to format:**
Make sure the drive is ESDI certified. Check with the drive manufacturer.
- **Won't boot to C:**
Check to see that the SETUP program and CMOS RAM show drive type 1 is selected.
- **Intermittant operation errors, or Read/Write errors:**
Check that the terminator on each drive is set properly.
Check that the power supply can support the added current required by the drive. Be sure that the +5V and +12V voltages are correct. Consult with the drive vendor for the correct drive power requirements.
- **System hang or boot problems:**
Try installing the BUS WAIT STATE jumper. The D1K 10MHz system needs this jumper installed on the controller board.
If none of the above steps cure the problem, then swap out components in this order and try again:
Replace the cables with known-good cables
Swap the drive with a known-good drive.
Swap the 2320B controller with another 2320B controller.

QUICK INSTALLATION

1. Install controller and drives into your PC AT, and cable them together. Run a 34-pin hard drive control cable from J3 and connect it to both hard drives. Connect one 20-pin cable from J1 to hard drive 1, and one 20-pin cable from J2 to hard drive 2 (if installed). Don't forget to plug a system power cable into the hard drive!
2. Run your PC AT 'SETUP' and set the hard drive to type 1.
 1. Boot to DOS, and run DEBUG.
 2. Type in : A > DEBUG <CR>
-G=C800:5 <CR>
 3. The Adaptec format menu will be displayed:
 4. Choose: 1 - to primary-format drive 1.
 5. The controller will read the number of heads and cylinders from the drive. The manufacturer's defect list will also be read in.
 6. Now just keep hitting <CR>, (to take the defaults).
 7. After format is complete, Choose q - to end this program*.
 8. Now you are ready to install your operating system software. Go to DOS FDISK and FORMAT, or, SPEED-STORE, DISK MANAGER, SCO XENIX, OS/2, UNIX, etc.
 9. Note: If you are using DOS and your hard drive has more than 1024 cylinders, select option 3, then enable 63-sector translation. Quit the program and then install your operating system (DOS).

ACB-2320B Board Layout



JUMPERS	
J5-1	HARD DRIVE PORT ADDRESS * Not installed = 1F0 - 1F7 Installed = 170 - 177
J5-2	NOT USED
J5-3	BUS WAIT STATE * Not installed = Early Installed = Late
J5-4	NOT USED
J5-5	READ AHEAD * Not installed = Enabled Installed = Disabled
J5-6	NOT USED
J2-7	NOT USED

JUMPERS	
J13	BIOS ADDRESS * 1-2 C8000-CBFFF 2-3 CC000-CFFFF NO JUMPER = BIOS DISABLED
J12	HARD DRIVE INTERRUPT REQUEST * 1-2 IRQ14 2-3 IRQ15 3-4 NOT USED

* = as shipped

CONNECTORS	
J3	HARD DRIVE CONTROL CABLE
J1	HARD DRIVE 1, DATA CABLE
J2	HARD DRIVE 2, DATA CABLE
J4	DRIVE ACTIVITY LIGHT

* = as shipped