ADAPTEC ACB-2322B TROUBLESHOOTING CHECKLIST

□ Gets a 1790 at boot-up:

A 1790 Error is normal for an unformatted drive. Just press F1 to continue.

Long boot time:

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Some PC AT systems may continue to retry booting to the hard arive 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.

Can't read floppy or boot to A:

Check floppy cables; be sure J1 goes to both floppy 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 the last connector on the twisted cable should be used. A floppy cable has wires 10-16 twisted between the two drive connectors.

Recal 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 hard drive cables; Be sure J4 goes to Drive 1, J3 goes to Drive 2, and J5 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 J5 and J4 should be used.

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 that the controller jumpers are correctly set.

Excessive defects, or falls to format:

Make sure the drive is ESDI certified. Check with the drive manufacturer.

Won't boot to C:

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Check to see that the SETUP program and CMOS RAM show drive type 1 is selected.

☐ Intermittent 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 DTK 10 MHz 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 2322B controller with another 2322B controller

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F.C.C. CERTIFICATION

This equipment generates and uses radio frequency, and if not installed and used pioperly, that is, in stitict 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 of radio on, the user is encouraged to try to correct the interference by one or more of the following measures:

Reorient 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) repolating or (iii) giving credit for, any such products which shall, within five (5) years from actie of shipment, be returned to the Seller's sciotory, Iransportation charges pepaid, and which are, offier examination, disclosed to the Seller's scristaction to be thus defective. THIS WARRANITY IS EXPRESSED IN LEU OF ALL OTHER WARRANITIES, OF SELERS DIVINED OF ALL OTHER WARRANITIES, OF THE SELERS AND OF ALL OTHER OBLIGATIONS OR LUBBILITIES ON THE SELER'S PART, AND FINESS FOR A PARTICULAR PURPOSE. AND OF ALL OTHER OBLIGATIONS OR LUBBILITIES ON THE SELER'S PART, AND IN RETHER ASSUMES NOR AUTHORIZES ANY OTHER PERSON TO ASSUME FOR THE SELER ANY OTHER LUBBILITIES 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 affered, except by the Seller, or which shall have been subjected to misuse, negligence, or accident. The attrementioned provisions do not extend the original warranty period of any product which has either been repaired or 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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cable them together. Run a floppy cable from "FD Install controller and drives into your PC AT, and Connect one 20-pin cable each from "DR1" to the cable from HD and connect to both hard drives. first hard drive, and from "DR2" to the second hard the cable goes to drive 1. Run a 34-pin hard drive to both floppy drives. The connector on the END of

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N Run your PC AT "SETUP" and set the hard drive to type

pins are cut to allow cable-keying

---- J7

TP14

J21

82072L

BIOS(27128)

= jumper installed

Boot to DOS, and run DEBUG

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- Type in : A > DEBUG <CR>
 -G=C800:5 <CR>
- ₹ Adaptec format menu will be displayed
- Choose: 1 to primary-format drive 1.

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cylinders from the drive. The manufacturer's defect list will also be read in. The controller will read the number of heads and

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Now just keep hitting <CR>, (to take the defaults)

ACB-2322

U24

AIC-560L

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- program* After format is complete, Choose q - to end this
- Now you are ready to install your operating system software. Go to DOS FDISK and FORMAT, or SPEED-STOR, DISK MANAGER, SCO XENIX, OS/2, UNIX, etc.

ACB-2322B Board Layout

1032

AIC-011

*Note: If you are using DOS and your hard drive has more than 1024 cylinders, select option 3, then then install your operating system.

enable 63-sector translation. Quit the program and

MICROCODE 27128

AIC-300

CONNECTORS

- J1 FLOPPY DRIVE J3 - HARD DRIVE 2. DATA CABLE J4 - HARD DRIVE 1. DATA CABLE
- J5 HARD DRIVE CONTROL CABLE
- J6 DRIVE ACTIVITY LIGHT

JUMPERS

J23 - BUFFER SIZE 1-2, 4-TP15 = 8K1-2, 3-4 = 16K

- J7- BIOS ADDRESS SELECTION
 - C8000-CBFFF * 1-2
 - 2-3 CC000-CFFFF 2-TP14 BIOS DISABLED
- J13 HARD DRIVE INTERRUPT REQUEST

JUMPERS

- *1-2 IRQ14
- 2-3 IRQ15
- J20 FLOPPY DRIVE DMA REQUEST
 - *1-2 DREQ2
 - 2-3 DREQ3
- J21 FLOPPY DRIVE DMA ACKNOWLEDGE
 - *1-2 DACK2
 - 2-3 DACK3
- J22 FLOPPY DRIVE INTERRUPT
 - * 1-2 IRQ6 2-3 IRQ10
- * = as shipped

JUMPERS

HARD DRIVE PORT ADDRESS Not installed = 1F0 - 1F7

Installed = 170 - 177

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J23

ACB2322

- FLOPPY DISK PORT ADDRESS J2-2 Not installed = 3FO - 3F7 Installed = 370-377
- BUS WAIT STATE J2-3 Not installed = Early Installed = Late
- J2-4 **NOT USED**
- READ AHEAD CACHE J2-5 Not installed = Enabled Installed = Disabled
- NOT USED J2-6
- J2-7 NOT USED

* = as shipped