

# ADAPTEC ACB-2310/12 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:**

Some 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 format the drive.
- Can't read floppy or boot to A: (ACB-2312 only)**

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, the last connector on the twisted cable should be connected to the drive. A floppy cable has 7 wires twisted, between the drive connectors.
- Fails to begin format:**

Check the drive select jumper on hard disk drive; be sure that it is correctly set for the type of cable you are using.  
Check hard disk 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. Do not use a floppy cable for hard drives.
- Won't boot to C:**

Check to see that the SETUP program shows the correct drive type 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 I/O WATT STATE Jumper (J9-1). The DIK, 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 231X controller with another 231X controller.

## F.C.C. CERTIFICATION

This equipment generates and uses radio frequency energy. 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. These limits are designed to provide reasonable protection against harmful interference in a residential installation. However, there is no guarantee that interference will not occur in a particular installation. If interference should occur, you may wish to take the following steps: 1. Reorient or relocate the receiving antenna. 2. Move the computer away from the receiver. 3. Plug the computer into a different outlet so that the receiver is on a different branch circuit. 4. Consult the dealer or an experienced radio/television technician for additional suggestions. The following booklet prepared by the Federal Communications Commission is 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. 004-000-003-45-4.

Relocate the computer with respect to the receiver.  
Move the computer into a different outlet so that the receiver are on different branch circuits.

If necessary, the user should consult the dealer or an experienced radio/television technician for additional suggestions. The following booklet prepared by the Federal Communications Commission is 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. 004-000-003-45-4.

## COPYRIGHT

© Copyright 1988 by Adaptec, Inc. All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, transmitted, in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the prior written consent of Adaptec, Inc., 691 South Milpitas Blvd., Milpitas, California 95035.

## WARRANTY

Adaptec, Inc. products have a five-year limited warranty. For more details, contact your local Adaptec office. Phone: (415) 950-3355.

## 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 of notification to its users.

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

adaptec • 691 south milpitas Blvd. • milpitas, california • 95035

510033-00 SM

# ACB-2310/12 Installation Guide

adaptec

# QUICK INSTALLATION

## PRODUCT FEATURES:

- 100% format-compatible with WD1003-WA2
- 100% Software-compatible with WD1003-WA2
- 1:1 Non-interleaved performance
- Surface mount construction
- Two hard disks, two floppy support

## INSTALLATION PROCEDURE:

1. Install controller, drives and cables into your AT as you would in a standard IBM AT or compatible system.  
Connect a 34-pin hard-drive cable from J5 to the hard drive(s).  
Connect a 20-pin cable from J4 to the first hard drive.  
Connect a 20-pin cable from J3 to the second hard drive.  
Connect the system's drive-activity LED to J6.  
*(ACB-2312 only)*  
Connect a 34-pin floppy cable from J1 to both floppy drives. There must be no other floppy controller active in your system.
2. Turn the power on and run your AT "Setup" program. Set the drive type to match your particular disk drive. Consult the Technical Reference Manual for your system and drive(s) to determine the correct type(s).
3. You are now ready to execute a low-level format on your drive(s).

### WARNING!

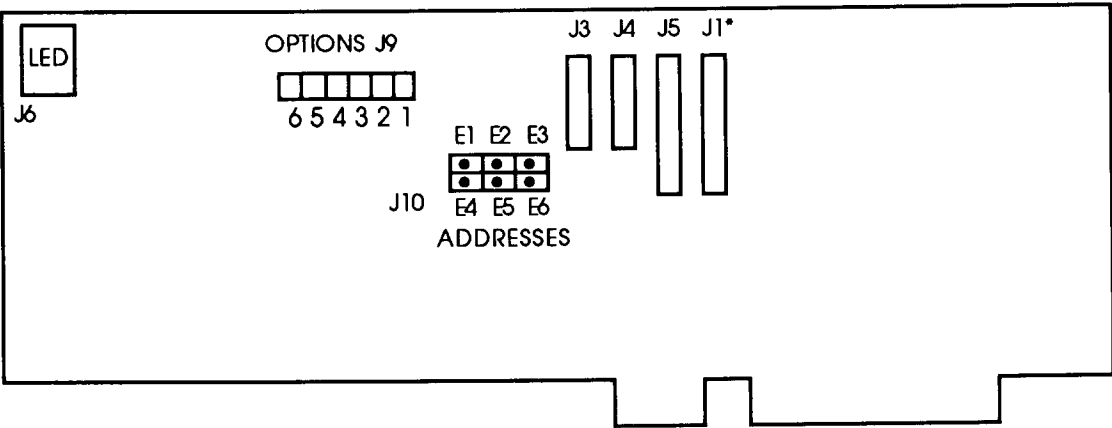
ANY PREVIOUS DATA ON YOUR DRIVE(S) WILL BE LOST DURING THIS STEP!

Insert your advanced diagnostic diskette and execute the low-level formatter.

Note: There is no on-board formatter for the ACB-2312 as there is with many other Adaptec controller products due to the fact that the ACB-2312 does not contain a BIOS ROM (Basic Input/Output System Read Only Memory). Do not attempt to use the Adaptec formatter via DOS debug. Results will be unpredictable.

4. Insert your DOS diskette and run FDISK and FORMAT. Follow the instructions in your DOS reference manual for this step.

Note: Most Advanced Diagnostic Routines will format the drive with an interleave factor of 3:1. In order to take advantage of the high-performance capability of the Adaptec ACB-2312, you must use a formatter capable of formatting 1:1 interleave. One such program is available from Storage Dimensions.



\* J1 is installed on ACB-2312 only

NOTE: The ACB-2310/12 is shipped with no jumpers installed. Do not install jumpers unless directed by qualified personnel.

| J10 PORT ADDRESS  |                              |
|---|------------------------------|
| HARD DISK BASE ADDRESS<br>1F0H (PRIMARY)<br>170H (SECONDARY)  | JUMPER PINS<br>NONE<br>E4-E5 |
| FLOPPY DISK BASE ADDRESS<br>3F0 (PRIMARY)<br>370H (SECONDARY) | JUMPER PINS<br>NONE<br>E1-E2 |

| J9 OPTION JUMPERS        |          |
|--------------------------|----------|
| DISABLE I/O WAIT STATE   | JUMPER 1 |
| TRK-1 RECAL, STEP=35μSEC | JUMPER 2 |
| NOT USED                 | JUMPER 3 |
| SERIAL MONITOR MODE      | JUMPER 4 |
| DIAGNOSTICS ENABLE       | JUMPER 5 |
| RESERVED                 | JUMPER 6 |

**LIBRARY COPY**