

GRiDCASE 1535 EXP Owner's Guide

June 1989

COPYRIGHT © 1989 GRiD Systems Corporation
47211 Lakeview Blvd.
P.O. Box 5003
Fremont, CA 94537-5003
(415) 656-4700

Manual Name: GRiDCASE 1535 EXP Owner's Guide
Order Number: 1535-40
Issue date: June 1989
Revision: B

No part of this publication may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photocopy, recording, or otherwise, without the prior written permission of GRiD Systems Corporation.

The information in this document is subject to change without notice.

Neither GRiD Systems Corporation nor this document makes any expressed or implied warranty, including, but not limited to the implied warranties of merchantability, quality, or fitness for a particular purpose. GRiD Systems Corporation makes no representation as to the accuracy or adequacy of this document. GRiD Systems Corporation has no obligation to update or keep current the information contained in this document.

GRiD System Corporation's software products are copyrighted by and shall remain the property of GRiD Systems Corporation.

Under no circumstances will GRiD Systems Corporation be liable for any loss or other damages arising out of the use of this manual.

GRiD and GRiDCASE are registered trademarks, and GRiDCASE EXP and GRiDCASE 1500 Series are trademarks of GRiD Systems Corporation.

IBM and AT are registered trademarks, and XT is a trademark of International Business Machines Corporation.

MS-DOS is a registered trademark of Microsoft Corporation.

CrossTalk is a trademark of the MicroStuf Corporation.

Smartmodem 1200 and Smartmodem 2400 are registered trademarks, and Hayes is a trademark of Hayes Microcomputer Products, Inc.

Electrohome is a registered trademark of Electrohome Corporation.

Sony is a registered trademark of Sony Corporation.

Vivid Limelight is a trademark of Vivid Systems.

Black Jack is a trademark of Microperipheral Corporation.

Radio Shack is a registered trademark of Tandy Corporation.

HP is a trademark and Hewlett-Packard is a registered trademark of Hewlett-Packard Corporation.

Limited Warranty and Limitation of Liability

You should carefully read the following terms and conditions. You will be deemed to have accepted these terms and conditions if you have not returned the product with your proof of purchase to your GRiD representative within five days of the date of payment.

The term "Products," as used herein, means hardware, hardware parts, and documentation sold by GRiD.

1. Warranty

GRiD warrants that the Products sold hereunder shall be free from defects in materials and workmanship for a period of one year after date of shipment. Defective Products will be repaired or replaced, at GRiD's option, by GRiD during the warranty period. You shall notify GRiD of the defective Product within the one-year period, obtain a Product Repair Order, and return the Product to GRiD along with proof of purchase data. If this Product is delivered by mail, you agree to insure the Product or assume the risk of loss or damage in transit, to prepay shipping charges to the warranty service location, and to use the original shipping containers or equivalent. Contact an authorized GRiD Systems representative, call the GRiD Resource Center (GRC) at 1-800-284-GRID (4743), or write to: GRiD Systems Corporation, GRiD Resource Center, 47211 Lakeview Blvd., P.O. Box 5003, Fremont, California 94537-5003, for further information.

You are responsible for removing any data or programs or keeping backup copies prior to returning Products to GRiD. GRiD shall not be liable for loss of data contained in any returned equipment.

This warranty is not valid if the Products have been misused, altered, neglected, or if repairs are attempted by unauthorized personnel. Except as provided above, GRiD makes no warranties, expressed or implied, including any warranty of merchantability or fitness for a particular purpose.

2. Limitation of Liability

In no event will GRiD be liable for special, incidental, or consequential damages, however caused. GRiD's liability under or for breach of this agreement shall be limited to refund of the purchase price.

3. General

You shall not assign this Agreement nor any rights hereunder without the prior written consent of GRiD. GRiD reserves the right to withhold such consent for any reason whatsoever. Subject to the foregoing, this Agreement shall bind and inure to the benefit of the respective parties hereto and their heirs, personal representatives, successors, and assigns.

The Terms and Conditions of this Limited Warranty and Limitation of Liability and of the Class A Software License Agreement represent the entire Agreement between GRiD and you relating to Product purchases and software licensing and may only be modified in writing, signed by both parties.

By reading this agreement, you acknowledge that you understand it, and agree to be bound by its terms and conditions.

Federal Communications Commission (FCC) Statement

This equipment generates, uses, and can radiate radio frequency energy, and if not installed and used in accordance with the instruction manual, may cause interference with radio and television reception. This computer has been tested and complies with the limits for a Class A computing device pursuant to Subpart J of Part 15 of FCC Rules, which are designed to provide reasonable protection against such interference in a commercial environment. Operation of this equipment in a residential area is likely to cause interference, in which case you, at your own expense, are required to take whatever measures are necessary to correct the interference (FCC, Part 15.818a).

The section DEALING WITH RADIO FREQUENCY INTERFERENCE, in Chapter 8, describes some procedures that may correct the interference.

If necessary, consult the GRiD Resource Center or an experienced radio/television technician for additional suggestions. You may find helpful the FCC booklet *How to Identify and Resolve Radio-TV Interference Problems*. This booklet (Stock No. 004-000-00345-4) is available from the United States Government Printing Office, Washington, DC 20402.

Canadian Department of Communications (DOC) Statement

This device does not exceed the Class A limits for radio noise emissions from digital apparatus set out in the Radio Interference Regulations of the Canadian Department of Communications.

CONTENTS

ABOUT THIS BOOK	xv
HOW THIS MANUAL IS ORGANIZED	xv
BOOKS YOU MAY NEED	xvi
CHAPTER 1:	
SETTING UP YOUR GRIDCASE 1535 EXP COMPUTER	1-1
CHECKING THE CONTENTS OF THE BOX	1-1
STARTING UP YOUR GRIDCASE 1535 EXP COMPUTER	1-2
If You Have an Internal Hard Disk	1-9
STARTING UP THE OPERATING SYSTEM (BOOTING)	1-9
WARM RESTART	1-11
SETTING A PASSWORD	1-12
CLOSING YOUR GRIDCASE 1535 EXP COMPUTER	1-13
CHAPTER 2:	
GETTING TO KNOW YOUR GRIDCASE 1535 EXP COMPUTER	2-1
THE TOP VIEW	2-1
THE FRONT VIEW	2-2
Screen	2-2
Contrast/Brightness Control Switch	2-3
Backlight Brightness Control Switch	2-3
Indicator Lights	2-4
ROM Area	2-5
Keyboard	2-6
Using the Numeric Keypad	2-7
Changing the Color Map	2-10
Changing the Video Output	2-11
Changing the Processor Speed	2-11
THE SIDE VIEW	2-12
Internal Diskette Drive	2-13
Diskette Eject Button	2-13
Internal Hard Disk Drive (Optional)	2-13
THE REAR VIEW	2-14
Power Switch	2-14
Shielded Cables	2-15

Keyboard DIN Connector	2-15
Connecting a Keyboard or Keypad to the DIN Connector	2-15
Telephone Connectors (Optional)	2-16
Serial Connector	2-16
Connecting an External Modem to the Serial Connector	2-16
Connecting a Printer to the Serial Connector	2-17
Parallel Connector	2-18
Connecting a Printer to the Parallel Connector	2-18
External Peripheral Connector	2-19
Video Output Connector	2-20
Connecting a Color Monitor to the Video Output Connector	2-20
Connecting a Video Projector to the Video Output Connector	2-21
Power Pack/Accessory Slot	2-21
Power Pack Eject Button	2-22
DC Input Connector	2-22
THE BOTTOM VIEW	2-23
Expansion Bus Connector	2-23

CHAPTER 3:

BUILT-IN OPTIONS	3-1
THE OPTIONS	3-1
DISPLAY	3-2
SYSTEM RAM	3-3
MASS STORAGE	3-3
ROMS	3-3
NUMERIC COPROCESSOR	3-4
MODEM	3-4
Connecting the Telephone Line	3-4
Alternative Telephone Connections	3-6
Using the Modem	3-7

CHAPTER 4:

POWER OPTIONS	4-1
THE POWER OPTIONS	4-1
IMPORTANT SAFETY INSTRUCTIONS	4-4
CONNECTING THE AC POWER PACK EXTERNALLY	4-6
CONNECTING THE AC POWER PACK INTERNALLY	4-7
USING THE INTERNAL BATTERY PACK	4-9
The Life of Your Battery Pack	4-10
Recharging Your Battery Pack	4-12
CONNECTING THE ATTACHABLE BATTERY PACK	4-13

CONNECTING THE CIGARETTE LIGHTER ADAPTER CABLE	4-16
USING THE EXTERNAL BATTERY CHARGER	4-18
CHAPTER 5:	
USING THE INTERNAL DISKETTE AND HARD DISK DRIVES	5-1
TAKING CARE OF THE DISKETTE DRIVE(S)	5-1
FLOPPY DISKETTES	5-2
Inserting and Removing Floppy Diskettes	5-3
Write Protecting Floppy Diskettes	5-4
Formatting Floppy Diskettes	5-5
Taking Care of Floppy Diskettes	5-5
Backing Up Files on Floppy Diskettes	5-6
TAKING CARE OF YOUR HARD DISK	5-7
Backing Up Files on the Hard Disk	5-7
CHAPTER 6:	
CONNECTING EXTERNAL DRIVES	6-1
CONNECTING A 3½-INCH POCKET DISKETTE DRIVE	6-1
CONNECTING A 5¼-INCH POUCH DISKETTE DRIVE	6-3
SWITCH SETTINGS FOR THE EXTERNAL DRIVES	6-6
CONNECTING AN EXTERNAL TAPE DRIVE	6-7
CHAPTER 7:	
USING THE OPTIONAL EXPANSION TRAY	7-1
EXPANSION CARD LIMITATIONS	7-1
ACCESSING THE EXPANSION SLOTS	7-3
POSITIONING THE AUXILIARY FAN	7-4
INSTALLING AN EXPANSION CARD	7-8
ATTACHING THE EXPANSION TRAY	7-11
DETACHING THE EXPANSION TRAY	7-13
REMOVING AN EXPANSION CARD	7-14
POWER SUPPLY CONSIDERATIONS	7-15
Power Consumption	7-15
Heat	7-16
Battery Life	7-16

CHAPTER 8:

TROUBLESHOOTING	8-1
IDENTIFYING THE PROBLEM	8-1
User Problems in Setting Up the Computer	8-1
Software or Hardware Problems	8-6
THE GRIDSCAN PROGRAM	8-7
DEALING WITH RADIO FREQUENCY INTERFERENCE	8-8

CHAPTER 9:

MAINTENANCE	9-1
WARNINGS	9-1
CAUTIONS	9-2
CLEANING YOUR GRIDCASE 1535 EXP COMPUTER	9-3
STORING YOUR GRIDCASE 1535 EXP COMPUTER	9-4
TRAVELING WITH YOUR GRIDCASE 1535 EXP COMPUTER	9-4
UPDATING THE CLOCK	9-4

CHAPTER 10:

USING MS-DOS ON THE GRIDCASE 1535 EXP COMPUTER	10-1
WHAT'S DIFFERENT ABOUT THE GRIDCASE 1535 EXP COMPUTER?	10-1
WHY ONLY GRID MS-DOS ON THE GRIDCASE 1535 EXP COMPUTER?	10-2
USING AN EXTERNAL MONITOR AND KEYBOARD	10-4
USING THE INTERNAL HARD DISK OPTION	10-4
THE GRIDCASE 1535 EXP KEYBOARD	10-5
THE GRIDCASE 1535 EXP DISPLAY	10-5
THE INTERNAL MODEM AND THE SERIAL (RS-232C) PORT	10-5
READ ONLY MEMORY (ROM)	10-6
WHAT'S DIFFERENT ABOUT GRID MS-DOS?	10-8
HOW COMMANDS DIFFER	10-8
FC (File Comparison)	10-8
FORMAT	10-9
PCMASTER/PCSLAVE	10-10
MODE	10-10
MODE MODEM=[RESET] [,addressSwitch] [,ON OFF]	10-10
MODE CURSOR=[LINE BLOCK]	10-11
MODE FONT={1..4}	10-11
MODE ROM={d OFF}	10-11
MODE {GRID CRT VGA=[VGA EGA MDA HERC]}	10-12
MODE SPEED={FAST SLOW}	10-12
MODE COLORMAP={1..6}	10-13
MODE BACKLITE={ON OFF 1..60}	10-14

MODE DISPLAY={ON OFF}	10-14
MODE NUMPAD={ON OFF}	10-14
MODE HARDDISK={ON OFF 1..99}	10-15
HELP	10-16
RUNNING BASIC PROGRAMS	10-17
THE INTERNAL MODEM	10-18
MOVING APPLICATION PROGRAMS TO A GRIDCASE 1535 EXP COMPUTER	10-20
A Caution About Copy-Protected Application Programs	10-20
Using A GRID External Diskette Drive	10-21
Using The PC File Transfer Utilities	10-23
File Transfer Error Messages	10-28
File Transfer Troubleshooting	10-29
CREATING A CONFIG.SYS FILE	10-30
APPENDIX A:	
TESTING THE MODEM	A-1
APPENDIX B:	
PRINTER SWITCH SETTINGS	B-1
SETTINGS ON DICONX 150 PORTABLE PARALLEL PRINTERS	B-1
SETTINGS ON HEWLETT-PACKARD 2225C THINKJET PARALLEL PRINTERS	B-1
APPENDIX C:	
GRIDCASE 1535 EXP SPECIFICATIONS	C-1
APPENDIX D:	
TECHNICAL INFORMATION	D-1
HARDWARE INTERRUPT ASSIGNMENTS	D-1
DMA CHANNEL ASSIGNMENTS	D-3
I/O ADDRESSES	D-4
SYSTEM MEMORY	D-5
SYSTEM RESOURCES USED BY GRID EXPANSION CARTRIDGES	D-7
EXPANSION TRAY SPECIFICATIONS AND ENGINEERING DRAWINGS	D-8
INDEX	X-1

List of Figures and Tables

Figure 1-1. Contents of Shipping Carton	1-1
Figure 2-1. Top View of the GRiDCASE 1535 EXP Computer	2-1
Figure 2-2. Front View of the GRiDCASE 1535 EXP Computer	2-2
Figure 2-3. GRiDCASE 1535 EXP Keyboard	2-6
Figure 2-4. Side View of the GRiDCASE 1535 EXP Computer Equipped with a Standard 3½-Inch Floppy Diskette Drive	2-12
Figure 2-5. Side View of the GRiDCASE 1535 EXP Computer Equipped with an Optional Hard Disk Drive	2-12
Figure 2-6. Rear View of the GRiDCASE 1535 EXP Computer	2-14
Figure 2-7. Bottom View of the GRiDCASE 1535 EXP Computer	2-23
Figure 3-1. GRiDCASE 1535 EXP Computer Connected to Phone Jack	3-5
Figure 3-2. Modem Connected to Telephone System and Phone	3-5
Figure 4-1. Installing the AC Power Pack Externally	4-7
Figure 4-2. Installing the AC Power Pack Internally	4-8
Figure 4-3. Installing the Battery Pack	4-10
Figure 4-4. Removing Plastic Cap from Rear of Computer	4-13
Figure 4-5. Attaching Latch Clip to Computer	4-14
Figure 4-6. Attachable Battery Clipped to Computer	4-15
Figure 4-7. Connecting the Cigarette Lighter Adapter Cable	4-17
Figure 4-8. Connecting the External Battery Charger	4-18
Figure 5-1. Front and Back Sides of Floppy Diskette	5-3
Figure 5-2. Inserting a Floppy Diskette into the Drive	5-4
Figure 6-1. Connecting the 3½-inch Pocket Diskette Drive	6-1
Figure 6-2. Connecting the 5¼-inch Pouch Diskette Drive	6-3
Figure 6-3. Floppy Diskette Drive Address Switches	6-6
Figure 6-4. Connecting the External Tape Drive	6-7
Figure 7-1. Bottom View of the Expansion Tray	7-4
Figure 7-2. Removing the Auxiliary Fan	7-5
Figure 7-3. Auxiliary Fan Screw Hole Locations	7-6
Figure 7-4. Vent Cover Positions	7-7
Figure 7-5. Installing a Full-Length Card	7-10
Figure 7-6. Installing a Short Card	7-10
Figure 7-7. Preparing to Attach the Expansion Tray to the Computer	7-11
Figure 7-8. Attaching the Expansion Tray	7-12
Figure 10-1. The GRiDCASE 1535 EXP Computer Requires GRiD MS-DOS	10-2
Figure 10-2. Running BASIC Programs on a GRiDCASE 1535 EXP Computer	10-17
Figure 10-3. Running a Program from the GRiD Model 3402 5¼-inch Pouch Diskette Drive	10-21
Figure 10-4. Moving Files Using the PC File Transfer Utilities	10-23

Figure 10-5. PCMASTER/PCSLAVE Cable Connection	10-25
Figure D-1. Power Supply Connector within Expansion Area	D-9
Figure D-2. Expansion Tray Connector to Host (External)	D-10
Figure D-3. XT Card Connector	D-11
Figure D-4. AT Card Connector (Long Slot)	D-12
Figure D-5. AT Card Connector (Short Slot)	D-13
Table 1-1. Order of Devices Searched During Loading	1-10
Table 2-1. IBM PC/AT Special Keys and GRiDCASE 1535 EXP Equivalents	2-8
Table 3-1. Built-in Options Available for the GRiDCASE 1535 EXP Computer	3-1
Table 4-1. Power Options for Your GRiDCASE 1535 EXP Computer	4-2
Table 6-1. Floppy Diskette Drive Address Switch Settings	6-6
Table 7-1. Vent Cover Positions	7-7
Table 8-1. Troubleshooting Chart	8-2
Table 10-1. Color Mapping Modes	10-13
Table 10-2. Internal Modem Switch Settings (Defaults Shown in Bold)	10-19
Table D-1. Hardware Interrupt Assignments	D-2
Table D-2. DMA Channel Assignments	D-3
Table D-3. I/O Register Addresses	D-4
Table D-4. Memory Map	D-6
Table D-5. System Resources Used by Expansion Cartridges	D-7

ABOUT THIS BOOK

This manual introduces you to the GRiDCASE[®] 1535 EXP computer, a powerful, lightweight, portable microcomputer. It shows you how to set up your GRiDCASE 1535 EXP and gives you the basics of how to operate it.

To begin using your GRiDCASE 1535 EXP computer, read the step-by-step setup instructions given in Chapter 1.

HOW THIS MANUAL IS ORGANIZED

This manual is organized as follows:

Chapter 1 explains how to set up and begin using your GRiDCASE 1535 EXP computer. Read this chapter first.

Chapter 2 thoroughly describes the GRiDCASE 1535 EXP computer. Every part of the computer is identified and explained.

Chapter 3 describes all of the built-in options that are available for the GRiDCASE 1535 EXP computer. If you ordered any built-in options for your computer, they are described here.

Chapter 4 describes the options that are available to power your computer.

Chapter 5 describes the use of the internal diskette and the hard disk drives.

Chapter 6 describes the external diskette and tape drives that are available for use with the GRiDCASE 1535 EXP computer and explains how to connect them.

Chapter 7 provides information concerning the use of the expansion tray. Read this chapter if you plan to use the expansion tray.

Chapter 8 provides troubleshooting information.

Chapter 9 provides maintenance information

Chapter 10 describes the special features of the GRiD version of MS-DOS that is available for use on the GRiDCASE 1535 EXP computer. Information is also provided on how to move your application programs and other files from another computer to the GRiDCASE EXP.

The appendixes provide information on modem testing, switch settings for printers, computer specifications, and technical information that may be necessary when installing expansion cards in the expansion tray.

A postage paid Customer Response Card is provided at the end of this manual. Owners and users are encouraged to use the card to comment on the usefulness and readability of the manual.

BOOKS YOU MAY NEED

You may want to refer to the following books for further information on using the GRiDCASE 1535 EXP.

GRiD386 User's Guide (Order Number: 022160-40), for information on how to use the GRiD386 program to configure the memory in your GRiDCASE 1535 EXP computer. The GRiD386 program is included with every GRiDCASE 1535 EXP computer; it allows you to configure memory beyond 640 KB (kilobytes) as LIM EMS (Lotus/Inte/ Microsoft Expanded Memory Specification) memory or as extended memory.

Internal Modem User's Guide (Order Number: 965800-00), for information on how to use the 2400 baud modem and the MNP 2400 baud modem. This guide contains detailed information on the command sets for each of these modems.

MS-DOS Reference: Release 3.3 (Order Number: 029517-40), for reference information on using MS-DOS on GRiDCASE 1535 EXP computers.

Model 3401 3½-Inch High Density Pocket Diskette Drive Owner's Manual (Order Number: 003401-40), for information on setting up and operating the 3½-inch pocket floppy diskette drive.

Model 3402 5¼-Inch Pouch Diskette Drive Owner's Manual (Order Number: 003402-40), for information on setting up and operating the 5¼-inch double-density pouch floppy diskette drive.

Model 3403 40 MByte Backup Tape System Owner's Manual (Order Number: 003403-40), for information on setting up and operating the tape drive.

Model 3404 5¼-Inch High Density Pouch Diskette Drive Owner's Manual (Order Number: 003404-40), for information on setting up and operating the 5¼-inch high-density pouch floppy diskette drive.

CHAPTER 1: SETTING UP YOUR GRIDCASE 1535 EXP COMPUTER

This chapter describes how to prepare your GRIDCASE 1535 EXP computer for use. It covers checking the contents of the shipping box, setting up the computer, starting up (booting) the operating system, setting a password, and closing the computer for travel.

NOTE: This chapter does not address attaching the expansion tray. For this information, refer to Chapter 7.

CHECKING THE CONTENTS OF THE BOX

Figure 1-1 shows the parts included in the computer shipping carton. The expansion tray is packed separately in its own shipping carton.

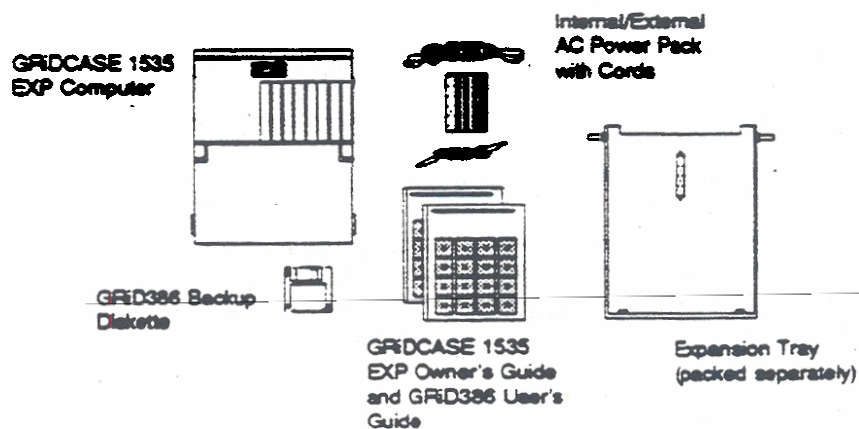


Figure 1-1. Contents of Shipping Carton

Check for shipping damage or missing parts. If any equipment is missing or damaged, immediately contact an authorized GRiD Systems representative, call the GRiD Resource Center (GRC) at 1-800-284-GRID (4743), or write to: GRiD Systems Corporation, GRiD Resource Center, 47211 Lakeview Blvd., P.O. Box 5003, Fremont, California 94537-5003, for further information.

Keep the shipping cartons and all original packing materials in case you need to return your GRIDCASE 1535 EXP for upgrading or service. Do not ship the computer to GRiD Systems until you have received prior authorization from the GRC or your GRiD Systems representative.

The internal/external AC power pack shipped with your GRIDCASE 1535 EXP is used to power the computer. In addition to the power pack, there are other available options for powering your system. Chapter 4 explains all of these options.

STARTING UP YOUR GRIDCASE 1535 EXP COMPUTER

This section explains how to get your computer up and running quickly. It does not cover connecting printers, connecting external drives, or connecting expansion trays. If you want to connect a printer, an external drive, or an expansion tray before starting your computer for the first time, refer to Chapters 2, 6, and 7, respectively.

MS-DOS and GRiD386 have already been installed for you on the internal hard disk, if your system has one. GRiD386 is a program that allows you to configure some or all of the extended memory in your computer as EMS (Expanded Memory Specification) memory. Refer to the *GRiD386 User's Guide* for details.

Begin by clearing a sturdy, flat work surface.

You should have on hand the power pack you plan on using to power the computer. This can be the internal/external AC power pack included with your computer, the optional internal battery pack, or the optional external battery pack. For information on powering your computer, see Chapter 4.

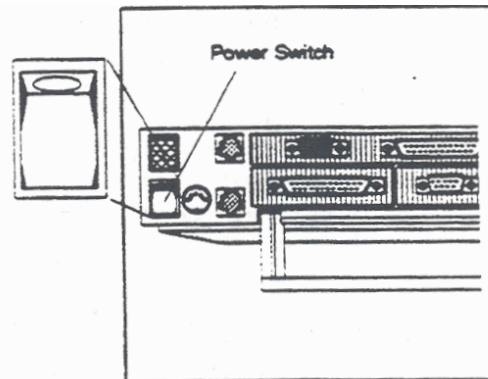
NOTE: If you have attached an expansion tray to your GRIDCASE 1535 EXP, you cannot use any internal power supply, or the computer will not start up when you turn it on.

Further, if your computer is equipped with a plasma screen, you cannot use the internal/external AC power supply internally. (In this circumstance, you can use the internal battery pack if the expansion tray is not attached. See Chapter 4 for the battery power option available with the expansion tray attached.)

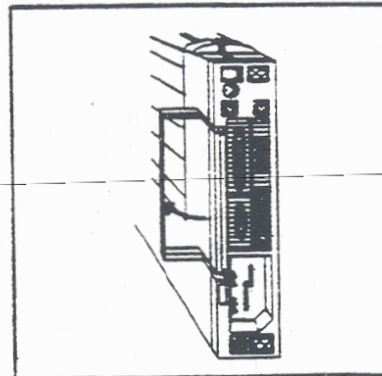
To set up and start the computer, follow the steps listed below.

1. **Make sure the power switch is off.**

The power switch is on the back of the computer at the far left as you face the rear of the computer. Press the bottom of this switch to turn off the computer.



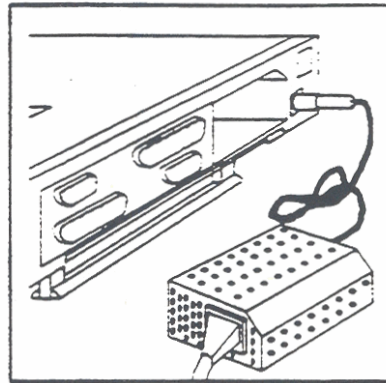
2. **Pull down the computer's handle/leg (optional).**
You can use the leg to improve your viewing/typing angle. Pivot the handle on the back of the computer down 90° to act as a leg. Do not extend the leg if you intend to attach the expansion tray to the computer.



CAUTION

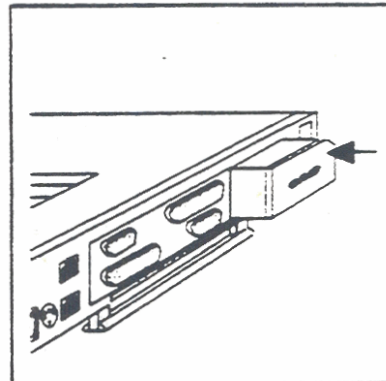
Make sure that the power switch is turned off before connecting the power pack or battery pack.

- 3a. If you are using the internal/external AC power pack externally, connect it to the computer and plug it in. Plug one end of your power pack cord into the DC input connector on the back of the computer and the other end into the AC power pack. Then plug one end of your power cord into the power cord socket on the AC power pack, and the other end into a wall outlet that accepts a three-prong grounded plug. If you use a plug adapter, make sure it is properly grounded. If you have a 100 MB hard disk, you must use the AC power pack externally.

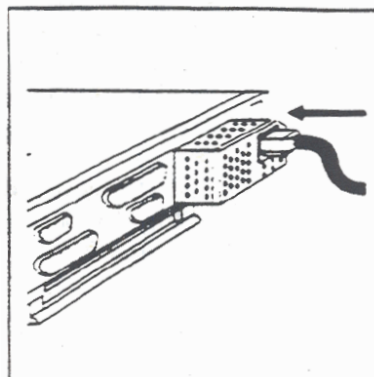


- 3b. If you are using the internal battery pack, insert it into the computer.
NOTE: If you have attached an expansion tray to your computer, you cannot use the internal battery pack. The computer will not start up when you turn it on.

Hold the battery pack with the label facing you. Insert it into the power pack/accessory slot on the back of the computer until it clicks into place.



- 3c. **If you are using the internal/external AC power pack internally, insert it into the computer.** Hold the AC power pack with the power cord socket facing you. Plug one end of the power cord into the power cord socket on the back of the power pack. Insert the power pack into the power pack/accessory slot on the back of the computer until it clicks into place. Then plug the other end of the power cord into a wall outlet that accepts a three-prong plug. If you use a plug adapter, make sure it is properly grounded.

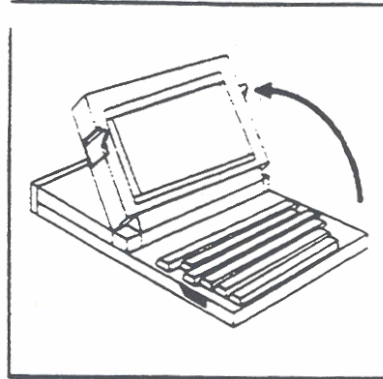


CAUTION

If you have a 100 MB (megabyte) hard disk, a plasma display, or an attached expansion tray, you must use the AC power pack externally. That is, the AC power pack must not be inserted into the computer (see Chapter 4).

- Lift up the screen.**
The screen is locked to the frame by one latch on each side. Pull these latches toward you and lift the screen.

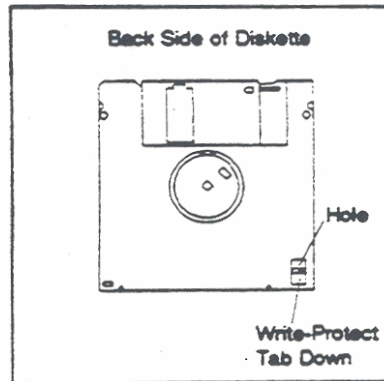
If your computer is equipped with the optional internal hard disk, skip to Step 7.



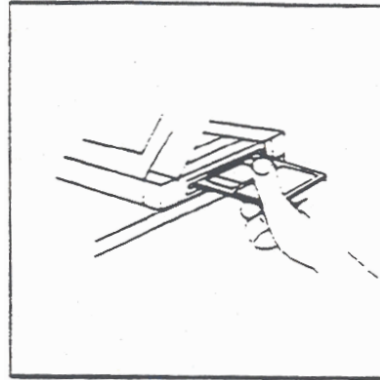
CAUTION

The screen must be treated with care. Never use abrasive substances on the screen. For complete information on cleaning the screen, see the section **CLEANING YOUR GRIDCASE 1535 EXP COMPUTER**, in Chapter 9.

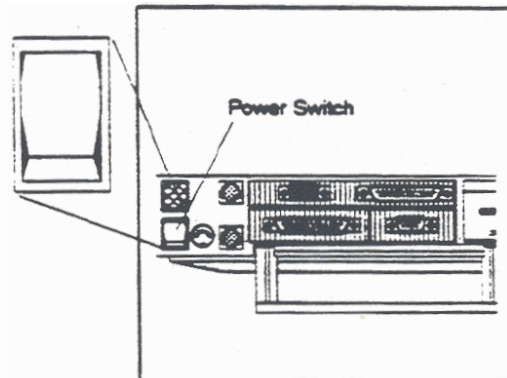
- Write protect the operating system diskette (optional).**
To protect the data on your 3½-inch operating system diskette, slide the write-protect tab on the back side of the diskette until the hole is uncovered.



6. **Insert the operating system diskette in the internal diskette drive until it clicks into place. (This step is not required if you have the operating system in ROM.)**
Hold the diskette with the label facing upwards and the metal edge closest to the disk drive opening. Insert it into the internal diskette drive. An arrow on the diskette shows the proper direction for insertion.



7. **Turn the computer on.**
Press the top of this switch to turn on the computer.



When you turn on the power, the computer runs a self-test and loads the MS-DOS operating system into main memory (RAM) from read only memory (ROM), from the 3½-inch diskette in the internal diskette drive, or from the hard disk. This takes between 10 and 20 seconds, depending on your system's configuration.

NOTE: If you have the operating system in ROM, the computer will load it unless you designate otherwise. If you want to use an operating system located on another disk or diskette device, see the section **STARTING UP THE OPERATING SYSTEM (BOOTING)**, below, for instructions.

When the loading is finished, the initial operating system screen is displayed.

You may want to adjust the screen angle by tilting the screen to the desired position. Also, depending on the lighting conditions, you may need to adjust the contrast/brightness of the screen using the contrast/brightness control switch to the right of the screen. Units equipped with LCD screens also have an LCD backlight brightness switch immediately to the left of the screen. Slide this switch up to increase screen readability in areas where ambient lighting is poor.

Note that increasing the brightness of the computer's screen will increase power consumption and, therefore, decrease battery life.

If you want to connect any other devices to your computer, such as a printer or pocket floppy diskette drive, see the section **THE REAR VIEW**, in Chapter 2, and see Chapter 6.

CAUTION

To avoid damaging your GRiDCASE 1535 EXP computer, before connecting or disconnecting any external device, always turn off the power of both the GRiDCASE and the external device. The GRiDCASE 1535 EXP computer contains low power circuitry, which can be damaged by static discharge. Static discharge occurs any time you connect or disconnect any external device (printer, storage device, power pack, and so on) on the computer when the power is on.

If You Have an Internal Hard Disk

If your GRIDCASE 1535 EXP computer has an internal hard disk, the hard disk is already formatted and contains all the MS-DOS operating system files. You can load MS-DOS from the hard disk simply by turning the computer on.

To load programs and data onto the hard disk, you need either a ROM cartridge or a floppy diskette drive. If you do not have access to an external drive, call your GRID representative for more information and assistance.

If you should ever need to reload MS-DOS onto the hard disk, use the SYS command to copy the operating system from a diskette in an attached floppy diskette drive to the hard disk.

STARTING UP THE OPERATING SYSTEM (BOOTING)

Whenever you turn on the GRIDCASE 1535 EXP, it loads the MS-DOS operating system from either ROM, the hard disk, or a diskette into main memory (RAM). Loading the operating system in this way is sometimes called a cold start-up or a cold boot.

When you cold start the computer, it follows a specific order when choosing the storage device from which to load the operating system software. This device ordering is shown in Table 1-1. The computer first searches for the operating system software in ROM, and if it does not find the software there, it looks on the hard disk, if your system is equipped with one. If your system does not have a hard disk, the computer looks on drive A (either the internal floppy diskette drive or an attached floppy diskette drive set as drive A).

NOTE: On systems equipped with an external floppy diskette drive and a hard disk (and no MS-DOS ROMs), the operating system is always loaded from the hard disk, unless you explicitly override the normal search sequence (see below). This is unlike most other PC/AT-compatible computers, which search for the operating system on floppy diskette drive A before looking on the hard disk.

You can override the order in which the computer searches devices and choose the device from which you want the computer to load the operating system software. To start from another device, press the key indicated in Table 1-1 after you turn on the computer and the beep sounds. For example, to start from an external floppy diskette drive A on a system equipped with a hard disk, you would turn on the power, wait for the beep to sound, and then immediately press F. On computers equipped with a hard disk and an external diskette drive, E and F are identical.

NOTE: If the computer does start up from ROM, it executes the CONFIG.SYS and AUTOEXEC.BAT files on the device to which the ROM is appended, if these files are found there. For example, if you start up from ROM, and the ROM is appended to drive C, the CONFIG.SYS and AUTOEXEC.BAT files on drive C are executed. See the section READ ONLY MEMORY (ROM), in Chapter 10, for more information about ROM.

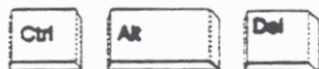
Table 1-1. Order of Devices Searched During Loading

Device	Key
Read Only Memory (ROM)	
Hard Disk	H
Floppy	F (Internal diskette drive, if you have one; otherwise, external diskette drive)
External Floppy	E (External floppy diskette drive, if you have both internal and external drives or external drive only)

WARM RESTART

Once start-up is complete, you may on occasion find it necessary to restart your computer again as you work. For example, it may be necessary to restart your computer if the software you are using locks up the computer.

At this point, you should reboot the computer by pressing and holding the **Ctrl** and **Alt** keys and then pressing the **Del** key:



This method, called a warm restart or warm boot, restarts the operating system while leaving your power supply on. This saves wear and tear on the power supply and power switch, and the booting time is faster than if you pressed the power switch. A warm restart also uses less battery power than a cold start.

To override the normal start-up device search sequence during a warm restart, press the key indicated in Table 1-1 immediately after the computer beeps.

If the warm restart method is unsuccessful, turn the computer off. Then wait several seconds before turning the computer on again. This ensures that the software is loaded properly.

SETTING A PASSWORD

The GRiDCASE 1535 EXP computer provides the ability to protect your file system from unauthorized use by allowing you to set a password. If you set a password on your computer, you will be required to enter the password each time you turn on or restart the computer.

To set or change a password, type the following command at the MS-DOS system prompt:

```
C>SETPASS
```

The password screen is displayed, giving you the ability to add a new password, change an existing password, or disable the password. The password screen provides all the instructions you need to use the password facility. Once you have set (or enabled) a password, you must enter that exact password each time you turn on or restart the computer to gain access to your files and programs. If you enter a wrong password at the password prompt, your computer will restart each time until you enter the correct password. If you forget your password, call the GRiD Resource Center at 1-800-284-GRID (4743) to obtain a new password.

The password screen also allows you to select a message language for your password prompt. The prompt requesting the password each time you turn on or restart your computer is displayed in the language selected as the message language.

CLOSING YOUR GRIDCASE 1535 EXP COMPUTER

To prepare your GRIDCASE 1535 EXP computer for travel, follow the steps listed below:

1. Save any files you are working on. Refer to the documentation for your application program for information on saving files.

CAUTION

If you have an internal hard disk, wait until the disk in-use light on the front of the computer goes out before you turn off the power. This ensures that you won't lose any data. The hard disk in-use light indicates when disk access is occurring; turning off the power during disk access could cause loss of data.

2. Turn off any external devices connected to the computer.
3. Remove your working diskette from the internal diskette drive, if your computer is equipped with one.
4. Turn the computer power switch off.
5. Close the screen panel. Press it down gently until you hear it click shut.
6. Disconnect all cords and cables from the computer.

Your GRIDCASE 1535 EXP computer is now ready to move. Don't forget your peripherals, cables, diskettes, manuals, and any accessories you want to take with you.