



User Guide

Information furnished by Data Protection Solutions (DPS) is believed to be accurate and reliable. However, no responsibility is assumed by (DPS) for its use; nor any infringement of patents or other rights of third parties that may result from its use. No license is granted by implication or otherwise under any patent or patent rights of DPS. DPS reserves the right to change specifications at any time without notice.



The user manual is located on the CD-ROM which was included with this product. You may print this manual from the supplied PDF file using Adobe Acrobat Reader. You may also download the manual from our web site at <http://www.EzD2D.com>.



Introduction

Overview

The **EzCOPY** product provides stand-alone hard disk duplication ability. The **EzCOPY** is an easy and effective means of controlling the duplication process to insure speedy and accurate master disk duplication. All copy operations can be accomplished via the front panel LCD/Switch button interface. Operation is simple and the unit is easy to use.

Key EzCOPY Features

- **EzCOPY** is a driverless IDE, EIDE, UDMA controller designed to provide duplication of IDE drives through a patented hardware based disk copying methodology.
- **EzCOPY** provides **one-to-one** hard drive duplication utilizing a standalone enclosure with two hot swappable drive drawers.

Additional Features

- Easy to use LCD based user interface
- Jumper less, software configurable design
- Selectable percentage of source to speed up the copying process when appropriate.
- Copy or Compare operations selectable via user LCD interface.
- Audible Alarm provided to alert user of drive failures

Contents of the Box

Check the contents of the **EzCOPY** box. You will find:

- **EzCOPY** w/two Drive Drawers
- DD3-**EzCOPY** User Guide (This Manual)
- Set of Two Drive Drawer Keys
- Set of 6 HDD Screws
- Null-Modem Cable - for serial port access
- AC Power Cord

Before You Begin

Before attempting to install your **EzCOPY**:

Be sure to protect yourself, your computer and the **EzCOPY** from static discharge by making sure you are well grounded before touching any electronic components.

CAUTION - To reduce the Risk of electric shock, do not remove cover (or back). No user-serviceable parts inside. Refer servicing to qualified personnel.

Installing the Drives and Setting the EzCOPY

IMPORTANT: Be sure that your Target drive is at least as large as your Source Drive.

- Place the **EzCOPY** on a leveled surface.
- If necessary, unlock the drive caddies using the keys provided, then firmly pull on the caddy handles to remove the two caddies from the **EzCOPY**.
- **Make sure both drives' jumpers are configured as Master/Single Master. Check the diagram on the drive or the manufacturer's manual for proper jumper settings.**
- Be sure to install the "Source" or Master drive into the "Source" slot on the **EzCOPY** unit.
- Install your "Target" or Destination drive into the other drawer and insert it into the "Target" slot. Lock the drawers to enable system access to the drive.
- Attach the AC power cord to the **EzCOPY** unit and plug it into an available outlet and power the unit ON.



1. Connect IDE cable



2. Connect power connector



3. Secure drive



4. Insert and lock drawers



5. Connect the power cord



6. Turn the unit on

Operation

Overview

EzCOPY provides an easy to use LCD/ switch button user interface that provides a quick and effective means to perform the necessary **COPY** management operations without the necessity of an operating system specific utility program.

Operational Modes

The EzCOPY unit has two modes of operation:

- 1) **COPY DRIVES**
Initiates a copy between the Source and Target Drives. Copy speed is approximately 1GB/min.
- 2) **COMPARE DRIVES**
Allows the user to perform image comparison between the Source and the Target drives.

Configuration Modes

The **EzCOPY** unit has three configuration modes:

- 1) **SET PERCENT**
Allows the user to set the percentage of the source drive to copy. This Will allow for faster copies if the user is confident that the useable data is defragmented and resides on only a smaller portion of the hard disk capacity.
- 2) **COPY MODE**
Allows the user to choose one of the following three copy in methods: UDMA, PIO, Auto (default).
- 3) **VIEW FIRMWARE REV.**
Allows the user to view the current EzCOPY firmware.

Before You Begin

During the setup and operation, use either of the blue buttons adjacent to the LCD to select the options displayed on the LCD.

Copying Drives

- To perform the COPY via the LCD user interface, insure that the Source drive is in the “Source” slot and the Target drive is in the “Target” slot.
- Turn the **EzCOPY** on.
- The LCD will prompt you to “Copy Drive”. Before you proceed, follow section “Setting Percent via the LCD interface” and make sure **copy percent is set to 100%**. Then choose “Select” to start the COPY process.
- Make sure the LCD reads “Copy In Progress” , the copy percentage is progressing and the size of the source drive is correct.

Note: You can interrupt the copy process at any time by pressing the “Stop” button. **We recommend always performing 100% COPY.**

Comparing Drives

- Select “Next” at the “Copy Drives” prompt.
- Press “Select” to start perform the copy drives.
- Make sure the LCD reads “Copy In Progress” , the copy percentage is progressing and the size of the source drive is correct.

Note: You can interrupt the compare process at any time by pressing the “Stop” button.

Setting Percent Via the LCD Interface

- At the “Copy Drives” prompt, press “Next” until you reach the “Set Percent ” prompts. Press “Select.”
- Using the “Inc” option, select the percent desired and save. The increment granularity is 5%, ranges from 5% to 100%.
We recommend always performing 100% backup.

Setting Copy Mode Via the LCD Interface

Note: The factory default for Copy mode is “Auto.” That means that the hardware chooses the mode for data transfer between the two drives. There are three modes from which you can choose: **UDMA** (Ultra Direct Memory Access) , **PIO** (Programmed Input/Output) and **Auto**.

- At the “Copy Drives” prompt, press “Next” until you reach the “Copy Mode ” prompts. Press “Select.”
- At this prompt, you are asked to either choose **Auto** mode by pressing the “Save” or “Next” to choose the next mode.
- If “Next” was chosen, you are asked to either choose **Udma** mode by pressing the “Save” or “Next” to choose the next mode.
- If “Next” was chosen, you are asked to either choose **PIO** mode by pressing the “Save” or “Next” to choose the next mode.
- If “Save” was chosen, you will be prompted back to “Copy Drives”.

View Firmware Rev. Via the LCD Interface

- At the “Copy Drives” prompt, press “Next” until you reach the “View Firmware Rev. prompt. Press “Select.”
- The Firmware revision will appear on the screen.
- Press “Continue”, you will be prompted back to “Copy Drives”.

Firmware Upgrade

For a detailed instructions on how to perform **EzCOPY** firmware upgrade, please visit our web at:

http://www.ezd2d.com/support_downloads.php and follow the link to: “**Firmware Upgrade for EzCOPY.**”

Interpreting the LEDs

Interpreting the External Control Panel Lights (LEDs)

The **EzCOPY** is outfitted with a status panel which provides feedback via colored lights (LEDs) as well as two input select pushbuttons that provide for user interaction and the ability to reset the audible alarm (Buzzer).

Understanding the control panel signals will help you to know if your **EzCOPY** is operating properly. The following provides an interpretation of the Control Panel display and functions:

- **Source (Src) and Target (Tar) LED's** monitor status of the channels as follows:

Solid Green	Drive installed on the current channel
Solid Red	Drive not installed
Orange	Channel activity (read/write)

- **Status (Stat) LED** shows the status of the **EzCOPY** drive channel as follows:

Flashing Orange	Scanning for drives
Flashing Red	Copy/Compare is in progress
Solid Green	Copy/Compare completed successfully.
Solid Red	Copy/Compare failed.

At the completion of a successful copy operation, all LEDs will be solid green. To copy another drive, from the same source, remove the "Target" drive and install the new drive into the drawer reinsert it into the "Target" slot.

Specifications

Model	EzCOPY
Host Interface	Stand Alone, no connection to Host
Drive Interface	IDE/ E-IDE/ UDMA
Drive Capacity	Accepts Hard Drives up to 144 Pete Bytes.
Copy Speed	1 GByte/min
Serial Port	RS-232, 9600 bps, 8-Bit, None Parity, 1 Stop Bit and None Flow Control. Used for firmware upgrade.
Electrical Input	Voltage: 90-264 Volt AC
	Power: 80 Watts
Physical Dimensions	Height: 6.5 Inches
	Width: 7 Inches
	Length: 13 Inches
Operating Temperature	10° to 40° Celsius
Humidity	8 to 87% non-condensing
MTBF	MIL-HDBK-217= 580,383 Hours Bellcore rating = 2,695,418 Hours
EMC/EMI Compliance	FCC Class B certification



One-Year Limited Warranty

This warranty gives you specific legal rights. You may also have other rights that vary from one jurisdiction to another.

THE WARRANTIES GIVEN HEREIN, TOGETHER WITH ANY IMPLIED WARRANTIES COVERING THE HARDWARE, INCLUDING ANY WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, ARE LIMITED IN DURATION TO ONE YEAR FROM THE DATE OF DELIVERY TO PURCHASER.

Data Protection Solutions by ARCO (“DPS”) warrants to the Purchaser that DPS’ hardware is free from defects in workmanship or material under normal use and service. This warranty commences on the date of delivery of the hardware to the Purchaser. Any claim under the warranty must include a dated proof of purchase or invoice. In any event, DPS’ liability for defective hardware is limited to repairing or replacing the hardware.

During the warranty period, DPS agrees to repair or replace, at its sole option, without charge to Purchaser, any defective component part of the hardware. To obtain service, Purchaser must contact Technical Support to obtain a Return Merchandise Authorization (RMA) number. Return the hardware to DPS or an authorized DPS distributor in an adequate container for shipping. The postage, shipping and insurance charges incurred in shipping to DPS will be paid by Purchaser and all risk for the hardware shall remain with Purchaser until such time as DPS takes receipt of the hardware. Upon receipt, DPS will promptly repair or replace the defective unit and then return said unit to Purchaser, postage, shipping, and insurance prepaid. DPS may use reconditioned or like new parts or units, at its sole option, when repairing any hardware. Repaired products shall carry the remaining warranty period pertaining to original purchase. This warranty is contingent upon proper use of the hardware by Purchaser and does not cover: hardware or software incompatibility (covered under DPS’ 30 Days Money Back Guarantee Policy), damage due to accident, unusual physical, electrical, or electromechanical stress, neglect, misuse, failure of electric power, air conditioning, humidity control, transportation, operation with media not approved by DPS, or tampering with or altering of the hardware.

DPS’ 30 Days Money Back Guarantee Policy

DPS GUARANTEES MONEY BACK WITHIN THE 30 DAYS AFTER PURCHASE, FOR THE FOLLOWING REASONS: NOT SATISFIED WITH THE PRODUCT OR ANY HARDWARE AND SOFTWARE INCOMPATIBILITY.

DPS SHALL NOT BE LIABLE TO YOU FOR LOSS OF DATA, LOSS OF PROFITS, LOST SAVINGS, SPECIAL INDIRECTION, CONSEQUENTIAL, INCIDENTAL OR OTHER SIMILAR DAMAGES ARISING FROM BREACH OF WARRANTY, BREACH OF CONTRACT, NEGLIGENCE, OR OTHER LEGAL ACTION EVEN IF DPS OR ITS AGENT HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES, OR FOR ANY CLAIM BROUGHT AGAINST YOU BY ANOTHER PARTY.

This warranty allocates risks of product failure between Purchaser and DPS. DPS' hardware pricing reflects this allocation of risk and limitations of liability contained in this warranty. The warranty set forth above is in lieu of all other expressed warranties, whether oral or written. The agents, employees, distributors, and dealers of DPS are not authorized to make modifications to this warranty, or additional warranties binding on DPS. Accordingly, additional statements such as dealer advertising or presentations, whether oral or written, do not constitute warranties by DPS and should not be relied upon.

Returning the product to Data Protection Solutions by ARCO requires contacting DPS' Technical Support to obtain a Return Merchandise Authorization (RMA) number. You must have an RMA number before returning the product to us. Ship the product back in the original container with the RMA number, name, and address on the shipping label. Purchaser should address all matters concerning this warranty to:

Data Protection Solutions by Arco
3100 North 29th Court
Hollywood, Florida 33020 U.S.A.
E-mail: info@arcoide.com
Web Site: [http:// www.arcoide.com](http://www.arcoide.com)

Telephone: 954-925-2688
Facsimile: 954-925-2889
Tech Support: 954-925-7347

This product is protected under U.S. Patent No. 5740397