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W I N C H E S T E R R I G I D D I S K S U B S Y S T E M S

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## SECTION 1 - INTRODUCTION

### 1.1 SCOPE

The intent of this manual is to provide the user of the Dynabyte Winchester Rigid Disk Subsystem Model 5011-1x with all the necessary data to integrate the subsystem into his Dynabyte 5100 or 5200 Micro-computer system.

The following subsystems are covered in this manual:

5011-11 and 5011-12

### 1.2 CONTENT

The contents of this manual have been divided into four major sections. These are:

#### Section 1 - Introduction

Describes the scope and the content of the manual, provides a generalized product description and references related publications.

#### Section 2 - Unpacking and Installation

Describes the piece-part description of the product and gives a step by step description of how to install the hardware in a Dynabyte 5100 or 5200 Micro-computer System.

#### Section 3 - Hardware Technical Manual

This section contains reference documentation of the Winchester Rigid Disk Drive and its associated Winchester Controller card.

#### Section 4 - Software Reference Manual

The Software Reference Manual is a complete description of the software package needed to support the Winchester subsystem. Refer to this section for details of how to configure the software for your system.

## SECTION 2 - UNPACKING AND INSTALLATION

This section describes the contents of the packing box that holds a complete 5011-1x Winchester Rigid Disk Subsystem. Please use this list to check the contents of your shipment and report promptly any variations you find to your Dynabyte dealer.

### 2.1 Unpacking Inventory, 5011-1x system

- \_\_\_ 2.1.1 5011-1x Winchester Rigid Disk Subsystem
- \_\_\_ 2.1.2 Winchester Controller Card
- \_\_\_ 2.1.3 Interconnect Cable
- \_\_\_ 2.1.4 AC Line Cord
- \_\_\_ 2.1.5 Ribbon Cable Strain Relief Kit
- \_\_\_ 2.1.5 5011-1x Technical Manual (this manual)
- \_\_\_ 2.1.6 System Software on Floppy Diskette

### 2.2 INSTALLATION

This section provides a step by step procedure for installing the 5011-1x Winchester system into a Dynabyte 5100 or 5200 Micro-computer system.

2.2.1 Open the packing box of your 5011-1x system and check its contents against the inventory listing in Section 2.1, above. Report all discrepancies to your Dynabyte dealer.

2.2.2 Remove the lid of the 5011-1x unit using a Phillips screwdriver or Allen wrench, whichever is appropriate. Remove the three central screws on each side of the lid, but do not remove the screws on the end of each screw row, as these mount the front and back bezels to the bottom chassis panel.

2.2.3 Make sure that the unit is NOT plugged into the AC line. Locate the CARRIAGE LOCKING LEVER at the front of the Winchester drive (i.e. the part of the drive closest to the front panel). It is a white nylon protrusion on top of the drive. When the unit is shipped, this lever is set in the LOCK position to prevent the head carriage assembly from moving. (Refer to Section 3, the Hardware Technical section, if you have trouble identifying the carriage locking lever). Reach in and pull the lever up slightly (i.e., towards the top cover of the 5011) and move it to the FREE position (towards the power supply) to free the head carriage assembly. The power supply can be found mounted at the back of the unit parallel to the back panel.

LOCK = LEVER POSITIONED AWAY FROM THE POWER SUPPLY  
FREE = LEVER POSITIONED TOWARDS THE POWER SUPPLY

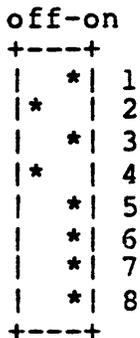
#### 2.2.4 RELOCKING THE HEAD CARRIAGE ASSEMBLY.

2.2.4.1 If, for any reason, you must ship or transport the Winchester Storage unit, the CARRIAGE LOCKING LEVER must be set to its LOCK position to prevent damage to the head carriage assembly. Excessive motion or vibration encountered without the head assembly in the LOCK position will result in damage to the drive and VOID your warranty. In order to do this, the head carriage must be in its track 0 position. To make sure the head is in the proper position, do the following:

2.2.4.2 With the unit on a table, front facing you, lift the back of the unit up and rest it on its front panel face. It would be wise to protect the front panel from scratches by laying a cloth or other soft material in front of the unit before you erect it. Raising the back causes the Winchester drive's head assembly to return to its home position at track 0. Carefully return the unit to its normal position. Make sure the AC line cord is disconnected, then reach in and move the carriage locking lever to the LOCK position, away from the power supply.

2.2.5 NOTE: Some units do not have the following switch. The port address is set by the circuitry and is not changeable. If your Winchester Controller card does not have a DIP switch, please disregard this section and proceed to section 2.2.7.

Set (or check) the port address DIP switch on the Winchester controller card, located at position '8C'. The switches are set at the factory, but it is wise to check them before installing the card. In the diagram below, the '\*' symbol indicates that the switch is pressed. Set the switches, if necessary, to match this diagram:



2.2.6 NOTE: Some units do not have the extra I/O connectors. If your Winchester Controller card does not have these connectors, please disregard this section and proceed to section 2.2.7.

As you face the component side of the Winchester controller card, edge connector down, note the three 20 pin connectors at the top edge of the card. There must be two 'shorting receptacles'

mounted on the two leftmost connectors. Counting from the right, these receptacles must be mounted on the fourth pair of pins (pins 8 and 9). Verify that these shorting receptacles are in their correct place.

2.2.7 Make sure the Dynabyte 5100 or 5200 Micro-computer is not connected to the AC line.

2.2.8 Remove the lid of the Dynabyte 5100 or 5200 Micro-computer using an appropriate Phillips screwdriver or Allen wrench.

2.2.9 Detach the rear panel assembly by removing the 2ea (side) and 5ea (bottom) screws which secure the assembly to the bottom plate. Care should be taken not to detach any wires connected to the assembly. Install the ribbon cable strain relief bracket in the opening provided in the back panel. (This hole is located at the top of the back panel, to the right of the boxer fan). To do this, remove the fiber blank covering the cable access hole by first removing the plastic retainers. Using the #6 x 32 screws and #6 PEM nuts provided, mount the strain relief bracket (the larger of the two metal parts) to the inside of the back panel as shown in Figure 1. Re-install the rear panel assembly taking care that none of the wires could become pinched between the assembly and the bottom panel.

2.2.10 Install the Winchester Interface Card in one of the available bus slots in the Dynabyte 5100 or 5200 Micro-computer card cage. You may use any slot since they are all electrically identical, but it is advantageous to mount it towards the right-hand side (facing the front of the unit) to allow the ribbon cable to lie in the best position.

2.2.11 Find the ribbon interconnect cable and attach one end of this cable to the 50 pin connector at the top of the Winchester Interface Card. This cable should be installed so that the pin 1 designation (colored stripe) is closest to the front panel. This will position the connector so that the wires exiting from the connector go to the right as viewed from the front.

2.2.12 Fold the ribbon cable so that the path of the cable naturally aims at the exit hole in the back panel. A single right angle bend is best. Run the cable through the hole and clamp it to the strain relief bracket with the strain relief clamp using the two #6 x 32 screws provided. The clamp should be positioned as shown in Figure 1.

2.2.13 Connect the free end of the interconnect cable to the connector marked DISK I/O mounted on the back panel of the 5011-1x unit. Position the cable so that the pin 1 designation is closest to the power cord receptacle.

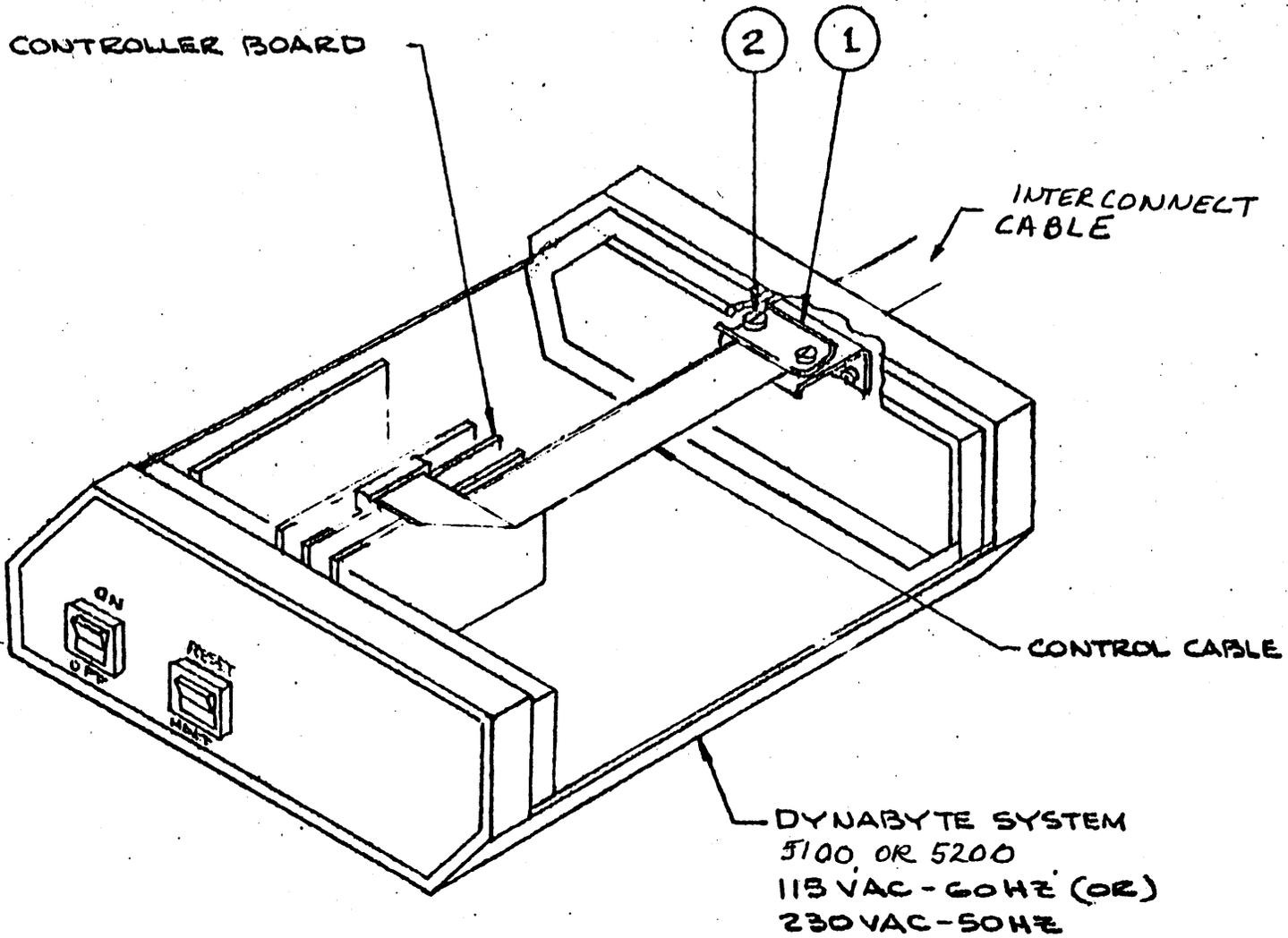
2.2.14 Replace the top covers on both units. You may wish to refrain from putting all the screws in at this point until initial tests are completed.

2.2.15 Install the line cord in the receptacle at the back of the 5011-1x. Do the same for the Dynabyte 5100 or 5200 Micro-computer if it is required.

2.2.16 Your Winchester Rigid Disk subsystem is now completely installed. However, in order for the system to work properly, your software must be configured for your system. Refer to Section 4, the Software Reference Manual, for details about configuring your software system. The specific sections you need to read are:

1. Hard Disk Systems
2. Utility Program, Subchapter FUJFMT
3. System Regeneration-Dynasys
4. Memory Configuration (for MP/M systems)

REV	DATE



- ITEM ① STRAIN RELIEF BRACKET
- ITEM ② STRAIN RELIEF CLAMP

FIG 1

DYNABYTE SYSTEM CONTROLLER  
 CABLING  
 FOR 5011-1X WINCHESTER SYSTEMS

