StorCase® Technology

Data Express®
DE100i-S

Removable
SCSI Narrow Single-Ended
Drive Enclosure

User's Guide

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Part No. D89-0000-0001 H00 December 2002

StorCase Technology, Inc.
17600 Newhope Street
Fountain Valley, CA 92708-9885
Phone (714) 438-1850 Fax (714) 438-1847

LIMITED WARRANTY

STORCASE TECHNOLOGY, Incorporated ("StorCase") warrants that its products will be free from defects in material and workmanship, subject to the conditions and limitations set forth below. StorCase will, at its option, either repair or replace any part of its product that proves defective by reason of improper workmanship or materials. Repair parts or replacement products will be provided by StorCase on an exchange basis, and will be either new or reconditioned to be functionally equivalent to new.

This warranty does not cover any product damage that results from accident, abuse, misuse, natural or personal disaster, external power surge or failure, or any unauthorized disassembly, repair or modification. StorCase will not be responsible for any software, firmware or other customer data stored within, or interfacing with a StorCase product.

Duration of Warranty

Seven-Year Warranty: The following StorCase products are covered by this warranty for a period of seven (7) years from the original date of purchase from StorCase or its authorized reseller: all Data Express® removable device enclosures and all StorCase interface cables and accessories specifically intended for use with these products. Data Silo®, Data Stacker® and InfoStation® products are covered by this warranty for a period of seven (7) years, excepting the RAID controller, power supply, fan and blower components, which are covered by the three-year warranty described below.

Three-Year Warranty: The following StorCase products are covered by this warranty for a period of three (3) years from the original date of purchase from StorCase or its authorized reseller: all Rhino®*JR* external expansion chassis and all RAID controller modules. In addition, the following components of the Data Silo®, Data Stacker®, InfoStation® products are subject to warranty for a period of three (3) years: all power supplies, fans and blowers.

Warranty Claim Requirements

To obtain warranty service, the defective product must be returned to your local authorized StorCase dealer or distributor, or, with prior StorCase approval, to the StorCase factory service center.

For defective products returned directly to StorCase, a Return Material Authorization ("RMA") number must be obtained by calling StorCase Customer Service at (714) 445-3455. The RMA number must be prominently displayed on the outside of the return package. Shipments must be freight-prepaid and insured, and must include the product serial number, a detailed description of the problem experienced, and proof of the original retail purchase date. Products must be properly packaged to prevent damage in transit. Damage resulting from improper packaging will not be covered by this warranty. The StorCase factory service center is located at 17650 Newhope Street, Receiving Dock, Gate #4, Fountain Valley, CA 92780, U.S.A.

Free Technical Support

StorCase provides free technical support. If you experience any difficulty during the installation or subsequent use of a StorCase product, please contact StorCase's Technical Support Department prior to servicing your system. This warranty covers only repair or replacement of defective StorCase products, as described above. StorCase is not liable for, and does not cover under warranty, any costs associated with servicing and/or installation of StorCase products.

StorCase Technical Support can be reached in the U.S. at (714) 438-1858 or toll-free at (888) 435-5460 (U.S. and Canada only). StorCase European Technical Support can be reached in the U.K. at +44 (0) 1932 738900.

Disclaimers

The foregoing is the complete warranty for the products identified above and supersedes all other warranties and representations, whether oral or written. StorCase expressly disclaims all warranties for the identified products, which are not stated herein, including, to the extent permitted by applicable law, any implied warranty of merchantability or fitness for a particular purpose. In no event will StorCase be liable to the purchaser, or to any user of a StorCase product, for any damages, expenses, lost revenues, lost savings, lost profits, or any other incidental or consequential damages arising from the purchase, use or inability to use a StorCase product, even if StorCase has been advised of the possibility of such damages.

StorCase TECHNOLOGY
A Kingston Technology Company

Declaration of Conformity

Company Name:	StorCase Technology, Inc.
Corporate Office Address:	17600 Newhope Street Fountain Valley, CA 92708
Manufacturing Address:	17600 Newhope Street Fountain Valley, CA 92708
Product Name:	Data Express DE100
Model Number:	DE100i-XSXX/XXX

Conforms to the following standards:

EMC Directives: (89/336/EEC)	EN 50081-1: 1992 Generic Emission - EN 55022/CISPR22 Class B EN 50082-1: 1992 General Immunity - IEC 1000-4-2 ESD - IEC 1000-4-3 Radiated Immunity - IEC 1000-4-4 Electrical Fast Transient
Low Voltage Directive: (73/23/EEC)	EN 60950
Safety Standards:	
CSA (NRTL/C)	CAN/CSA-C22.2 No. 950-93 UL 1950
TUV	EN 60950: 1988 EN 60950/A2: 1991 EN 60950/A1: 1990
EMI Standards:	FCC Part 15, Class B
EMC Standards:	AS/NZS 3548 Information Technology Equipment
Year of Manufacture:	1996

Signature:_____
Full name: Dieter Paul
Position: President

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Please check the StorCase web site at http://www.storcase.com or contact your StorCase representative for the latest revision of this document.

DATA EXPRESS® DE100i-S INTRODUCTION

Packaging Information

The StorCase Technology Data Express® system is shipped in a container designed to provide protection and prevent damage during shipment. The Data Express unit was carefully inspected before and during the packing procedure at the factory. Bent or broken connectors, or evidence of other damage to the Data Express should be reported to the shipper immediately. Refer to Figure 1 for the package contents.

If the wrong Data Express model has been received, please call your reseller or StorCase at (800) 435-0642 to arrange for a Return Material Authorization (RMA). StorCase cannot accept returns which do not display an RMA number on the outside of the package. Return the unit with all the original packing materials.

Before removing any component from its packaging, discharge any static electricity by touching a properly grounded metal object.

Serial Numbers

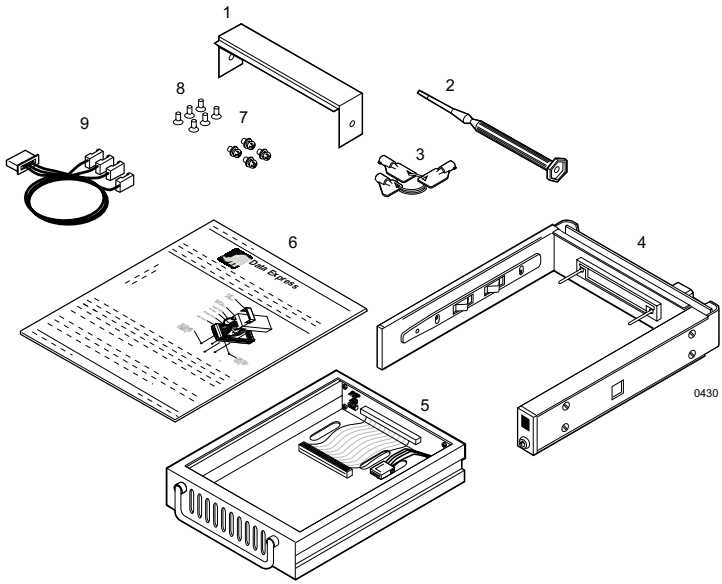
Both the Data Express receiving frame and carrier are labeled with serial numbers. These numbers must be reported to the StorCase Customer Service Representative in order to receive a Return Material Authorization (RMA) for warranty claims. Locate the serial number labels and record the numbers in the spaces provided below.

Receiving Frame: _____

Drive Carrier: _____

Package Contents

The DE100i-S package contents include the following items. If any item is missing or damaged, contact your StorCase dealer for a replacement.



1. Cable Cover
2. Alignment Tool
3. Drive Lock Keys
4. Receiving Frame
5. Drive Carrier
6. Insert Sheet
7. #6-32 x 1/4" Phillips Machine Hd. Mounting Screws
8. #6-32 x 3/16" Phillips F.H. Mounting Screws
9. 1.25mm/2mm ID Select Cable

Figure 1: Package Contents

General Description

The StorCase Technology **Data Express® DE100i-S** is a removable drive carrier and receiving frame designed to provide durable and reliable mounting for one (1) 3.5” SCSI Narrow drive within 5.25" half-height peripheral slots (Figure 2).

The DE100i-S allows a drive to be removed and transported to another DE100i-S-equipped computer or expansion chassis, and also provides the ability to secure sensitive data by removing and storing the drive safely for future use.

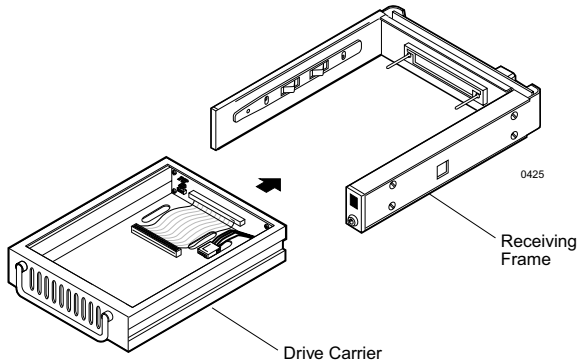


Figure 2: DE100i-S Receiving Frame and Drive Carrier

This User's Guide describes the steps required to install the StorCase Data Express DE100i-S removable enclosure inside a computer peripheral bay or external expansion chassis. This guide supplements documentation provided with the host computer system, operating system, and the drive to be installed within the Data Express carrier.

Receiving Frame Front Panel

(Figure 3)

- **Key Lock/Drive Power Switch:** Performs three functions. The key lock assures proper seating of the device carrier within the receiving frame, turns power to the device carrier on and off, and prevents unauthorized removal or installation of the carrier. For the computer to access data on the DE100i-S disk drive, the key must be turned counterclockwise to the locked position.

  The key can optionally be attached to the locking mechanism as shown in Appendix C.

- **Unit ID Number Indicator** (Figure 4)**:** Displays the physical address of the DE100i-S device carrier if the carrier is *Installed and Locked* in the receiving frame *or* if the carrier is *Removed* from the receiving frame. If the carrier is *Installed but Not Locked* in the receiving frame, a "u" will be displayed to indicate an unlocked condition. The unit ID number is selected by means of the unit ID select switch inside the receiving frame using a special alignment tool supplied with the DE100i-S.

- **Activity Indicator:** A small dot next to the Unit ID Number which illuminates to show when the host computer is accessing the data on the DE100i-S carrier. Depending on the type of interface, this dot will either flash or glow steadily during communication with the host computer.

- **Device Spin Down/Up Timer:** May be disabled by removing Jumper J6 P1-P2 (Figure 5). The timer controls the length of time that the unit number display flashes during device spin down/up, providing a visual indication of drive activity. Refer to Figure 11 for switch settings.

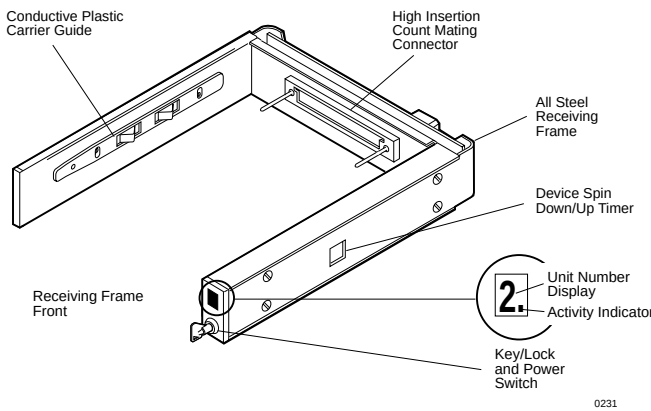


Figure 3: Receiving Frame Front Panel

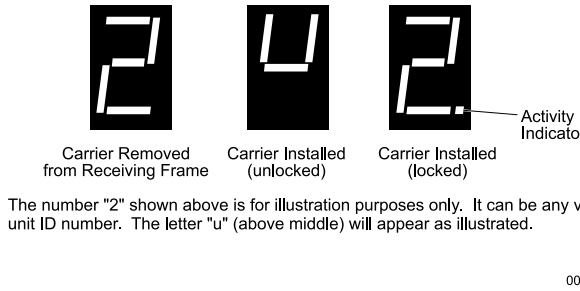


Figure 4: Receiving Frame Unit ID Number and Activity Display

Receiving Frame Rear Panel

(Figure 5)

- **DC Power Connector (J3):** The Data Express uses a standard 4-pin DC Power Connector to accept DC power.

- **I/O Connector (J2):** The input/output connector provides a standard interface for all SCSI signals. See Table 2 for J2 pin assignments.

- **ID Select Pins (J4):** Pins 1-14 are reserved. Pins 15-20 of this connector provide unit SCSI ID selection for the computer system or expansion chassis. For remote ID selection through an expansion chassis, the unit ID must be set to "0" or open (no jumpers installed) on these pins. See Table 1 for J4 pin assignments.

- **Enable Termination Power To/From SCSI Bus (W1):** The rear panel contains the bus terminators (active) for 8-bit Single-Ended SCSI interfaces. Jumper is installed at the factory.

- **Onboard Termination (W2):** Position "A" is installed at the factory and will disable termination. Moving the jumper to Position "B" will enable onboard termination.

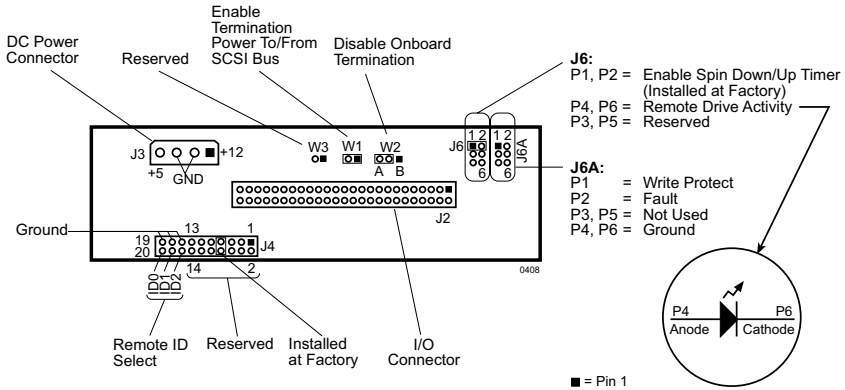


Figure 5: Receiving Frame (Rear View)

INSTALLATION

Installing the Drive into the Carrier

Preparation

While performing the steps in this section, work on a soft surface to prevent excessive shock to the drive being installed. Also refer to the manufacturer's documentation provided with the drive.

NOTE: A #2 Phillips screwdriver will be required during this procedure.

1. Remove the drive from its protective packaging.

2. **Plastic Drive Bezel:** If the drive came equipped with a plastic front bezel, it must be removed.

3. **SCSI Drive Termination:** Disable or remove the termination resistor packs from the drive. Termination is handled by an external terminator in the DE100i-S receiving frame. Refer to the documentation provided by the drive manufacturer for the location of these terminators or jumpers.

4. **SCSI Drive ID Select Jumpers:** Locate the SCSI ID Select Jumper positions on the disk drive, and remove any jumper plugs in this area. The SCSI ID cable will be installed into this section of the drive.

5. **SCSI ID Cable:** The DE100i-S carrier is supplied with one (1) 4-wire cable. This cable is used for remote ID selection via jumpers located on the rear of the receiving frame.

   The cable consists of **black**, **brown**, **red**, and **yellow** wires. The **black** wire is plugged into the pin used to select ID0, the **brown** wire plugs into the pin for ID1, and the **red** wire plugs into the pin for ID2. The **yellow** wire plugs into the pin for Drive Activity Signal.

   Disk drives use a row of pins to provide ground to the ID signals. This row of pins is not used when installing the ID select cable to the carrier connector. Refer to the drive manufacturer's documentation for more information.

Installation

1. Attach the I/O cable from the rear distribution board of the DE100i-S carrier to the disk drive (Figure 6).

2. Attach the 4-pin DC power cable from the rear distribution board to the disk drive (Figure 6).

3. Install the 4-pin ID select cable into the rear signal distribution board connector and connect to the appropriate drive pins as shown in Figure 7.

4. Carefully insert the drive into the carrier at an angle, cable-end first. **Make sure none of the cables are pinched**. Lower the front of the drive carefully into place. Fasten the drive into the carrier with four (4) of the eight (8) screws provided as shown in Figure 6.

5. Attach the provided cable cover with two (2) #6-32 Phillips F.H. screws as shown in Figure 6.

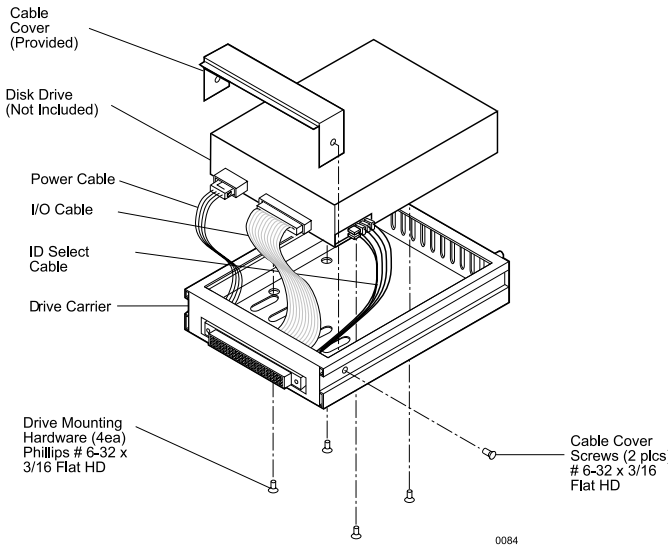


Figure 6: Drive Installation Assembly

SCSI ID Select Cable Connection

Black - Connects to ID0 pin on drive
Brown - Connects to ID1 pin on drive
Red - Connects to ID2 pin on drive
Yellow - Connects to Drive Activity Signal pin on drive

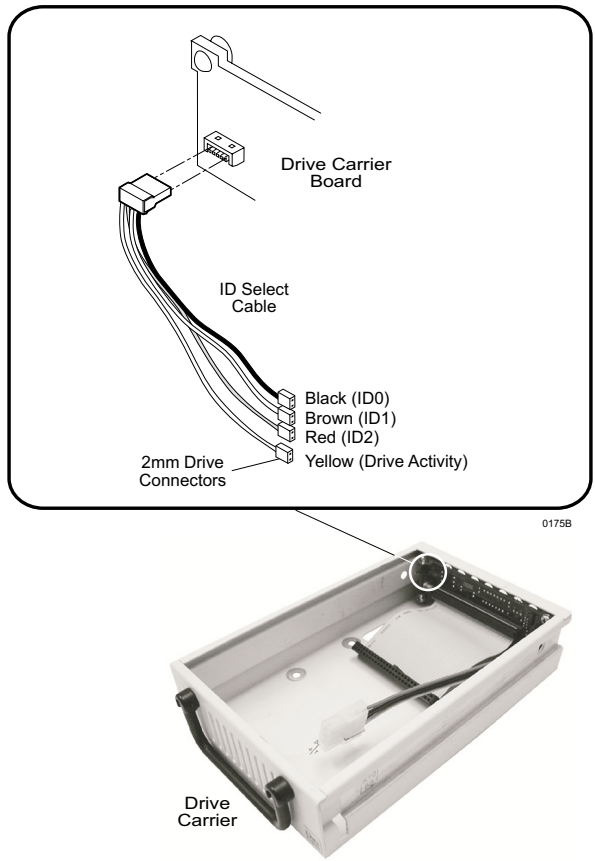


Figure 7: Typical SCSI ID Select Connection

Installing the Receiving Frame

The drive should be installed into the carrier before installing the receiving frame into the mounting bay of a computer or expansion chassis.

NOTE: Use a #2 Phillips screwdriver during this procedure.

1. Turn OFF power to the computer.

2. Open the computer system according to the manufacturer's instructions. If necessary, temporarily remove any expansion boards that may make installation difficult.

3. To select the DE100i-S unit ID remotely through the computer system or external expansion chassis, the appropriate cable from the system must be connected to the ID select connector (J4) on the rear of the receiving frame as shown in Table 1 and Figure 8.

Table 1: Receiving Frame Mother Board Connector J4 Pin Configuration

Pin 1	RESERVED	Pin 11	RESERVED
Pin 2	RESERVED	Pin 12	RESERVED
Pin 3	RESERVED	Pin 13	RESERVED
Pin 4	RESERVED	Pin 14	RESERVED
Pin 5	RESERVED	Pin 15	Ground
Pin 6	RESERVED	Pin 16	ID2
Pin 7	RESERVED	Pin 17	Ground
Pin 8	RESERVED	Pin 18	ID1
Pin 9	RESERVED	Pin 19	Ground
Pin 10	RESERVED	Pin 20	ID0

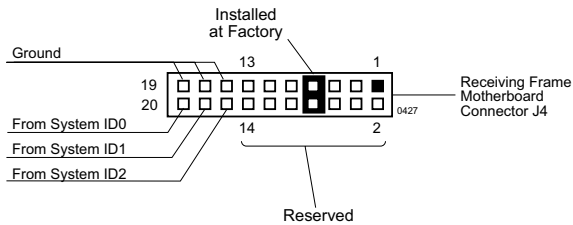


Figure 8: Receiving Frame Connector (J4) Pin Configuration

IMPORTANT NOTE: In order to use remote ID selection from a computer or expansion chassis, the Unit ID number on the DE100i-S receiving frame must be set to "0" with the provided alignment tool. Refer to the section "*Selecting the Unit ID Number*" later in this User's Guide for the Unit ID selection procedure.

4. With the drive carrier locked in place inside the receiving frame, install the DE100i-S into the 5.25" drive opening in the computer or expansion chassis. Use the appropriate guides to position the DE100i-S, and fasten it into place with the four (4) #6-32 Phillips Pan Hd. screws provided. Figure 9 illustrates the location of the mounting holes. Mounting holes are provided on each side and the bottom of the receiving frame to accommodate a variety of mounting configurations. Use the mounting holes which best suit the computer or expansion chassis configuration.

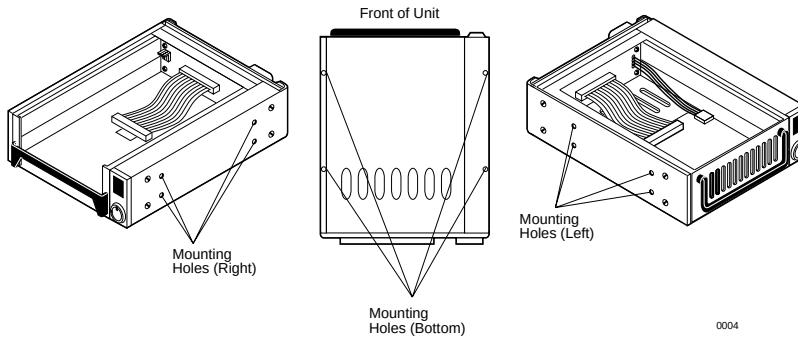


Figure 9: Receiving Frame Mounting Holes

5. Adjust the front of the receiving frame so the carrier slides freely in and out on the receiving frame guides. The position of adjoining peripheral units may require adjustment.

6. To connect the drive to a Remote Activity LED in the computer system or expansion chassis, connect the appropriate cable(s) to the receiving frame mother board as shown in Figure 5. Connect J6 Pins 4 & 6 to a remote activity LED.

7. Connect the I/O cable from the host adapter to the receiving frame. The Pin 1 indicator on the cable must be properly aligned. Refer to Figure 5 for the correct Pin 1 location.

   Make sure that only the last SCSI device is terminated. If the DE100i-S is at the end of a daisy chain, the terminators on the receiving frame **must** be enabled. If the DE100i-S is in the middle of a daisy chain, termination should be disabled (factory default). Refer to jumper W2 in Figure 5.

8. Connect the power cable from the DC power supply in the computer or expansion chassis to the power connector on the DE100i-S receiving frame. Refer to Figure 5 for the receiving frame power connector location.

9. Replace any expansion boards that may have been removed earlier. Replace the system cover according to the manufacturer's instructions.

10. Reconnect any system or peripheral cables removed earlier.

11. Turn ON power to the computer. If the installation has been successful, and all cables have been properly attached, the system should boot normally. Although the computer may not recognize the DE100i-S yet, the appropriate front panel LED indicators on the Data Express should illuminate.

    NOTE: The lock on the DE100i-S receiving frame functions as a lock and a DC power switch for the carrier unit. The lock must be engaged (turned counterclockwise) in order to supply power to the carrier and installed drive unit.

12. The new drive may need to be formatted or initialized prior to use with the operating system and applications software. Refer to the drive and/or computer manufacturer's documentation for formatting information.

Selecting the Unit ID Number

1. Verify that power is turned ON to the DE100i-S receiving frame by turning on the computer or external expansion chassis. A number should appear in the unit ID display window if the carrier is locked in place.

2. Unlock the DE100i-S carrier on the receiving frame. Unless the spin down/up timer has been disabled, the unit ID number will begin flashing, indicating that the drive is spinning down. DO NOT REMOVE THE CARRIER FROM THE RECEIVING FRAME WHILE THE UNIT ID NUMBER IS FLASHING. The length of time that the unit ID number flashes is controlled by a small timing switch located on the side of the receiving frame. Refer to Figure 11 for information on adjusting the timer.

    WARNING: Unlocking the carrier unit switches DC power off to the drive. Since disk drives require a short amount of time to spin down, allow about 15 seconds before pulling the carrier unit out of the receiving frame to avoid possible damage to the drive.

3. A "u" will be displayed once the drive has completed spin down and is ready to be removed from the receiving frame. The indicator will return to the SCSI ID number when the carrier is removed from the receiving frame.

4. Use the alignment tool supplied with the DE100i-S to select the unit ID number of the disk drive. Refer to Figure 10 for the location of the Unit ID Select Switch inside the receiving frame.

5. After selecting an appropriate unit ID number, replace the DE100i-S carrier in the receiving frame, and **LOCK IT IN PLACE**.

   NOTE: The lock on the DE100i-S receiving frame functions as a lock and a DC power switch for the carrier unit. The lock must be engaged (turned counterclockwise) in order to supply power to the carrier and installed drive unit.

6. The new drive may need to be formatted or initialized prior to use with the operating system and applications software. Refer to the drive and/or computer manufacturer's documentation for formatting information.

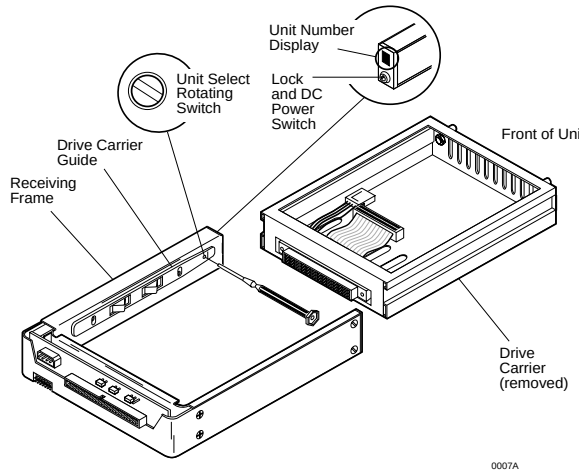


Figure 10: Unit ID Select Switch Location

SCSI Interface Connector J2

The SCSI interface connector (J2) pin assignments are supplied for your convenience. All odd numbered pins, except Pins 25 & 29 must be connected to ground. Pin 25 should be left open. Pin 29 can be used for Synchronized Spindle operation. Pin 26 is reserved for terminator resistor power source.

Table 2: SCSI Interface Connector J2 Pin Assignments

Pin	Signal	Pin	Signal	Pin	Signal	Pin	Signal
2	-Data Bit 0	16	-Data Bit 7	28	-Ground	40	-RST
4	-Data Bit 1	18	-Data Bit P	30	-Ground	42	-MSG
6	-Data Bit 2	20	Ground	32	-ATN	44	-SEL
8	-Data Bit 3	22	Ground	34	Ground	46	-C/D
10	-Data Bit 4	24	Ground	36	BSY	48	-REQ
12	-Data Bit 5	26	TRMPWR	38	ACK	50	-I/O
14	-Data Bit 6						

Adjusting the Spin Down/Up Timer

NOTE: The timer for device spin down is controlled by a small selector, located in a cutout on the side of the DE100 receiving frame as shown in Figure 11. The amount of time required for a drive to spin down is approximately 15 seconds or more. This number can vary depending on the type of SCSI device and manufacturer (some drives may require 45 seconds or more). The factory configuration is set for 20 seconds. A different delay time may be selected with the provided alignment tool. Refer to the SCSI device manufacturer's manual for more information on required device spin down time.

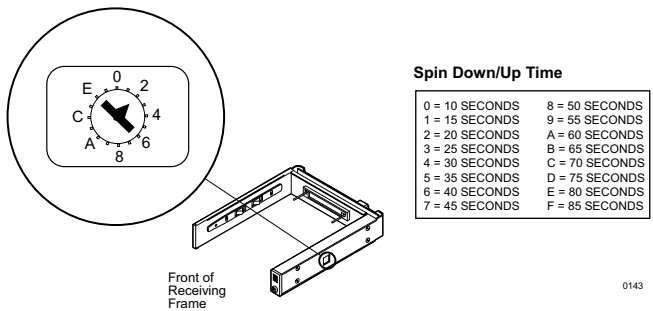


Figure 11: Device Spin Down/Up Timer Switch

APPENDICES

Appendix A - Specifications/Dimensions

SCSI Data Express subsystems conform to the Small Computer Systems Interface (SCSI) Standard set by the American National Standards Institute (ANSI).

Environmental Specifications		
	Operating	**Storage**
Ambient Temperature	0° C to 40° C	-40° C to 70° C
Relative Humidity (1)	10% to 80%	10% to 90%
Altitude	-1000 to 10,000 ft -305m to 3048m	-1000 to 40,000 ft -305m to 12195m
Shock (2)	10g	60g

(1)Non-condensing with maximum gradient of 10% per hour.

(2)11 msec pulse width 1/2 sine wave.

Physical Specifications	Carrier	Receiving Frame
Height	1.68" (42.7mm)	1.70" (43.2mm)
Width	4.67" (118.6mm)	5.75" (146.1mm)
Depth	7.38 (187.5mm)	8.18 (207.8mm)
Weight	1.2lb. (0.55kg)	1.3lb (0.59kg)(1)

(1)With carrier removed.

Chassis Reliability/Maintainability	
MTBF	500,000 Hours
MTTR	5 Minutes
Preventive Maintenance	None

Electrical Specifications		
Input	+5V	65mA
	+12V	400µA

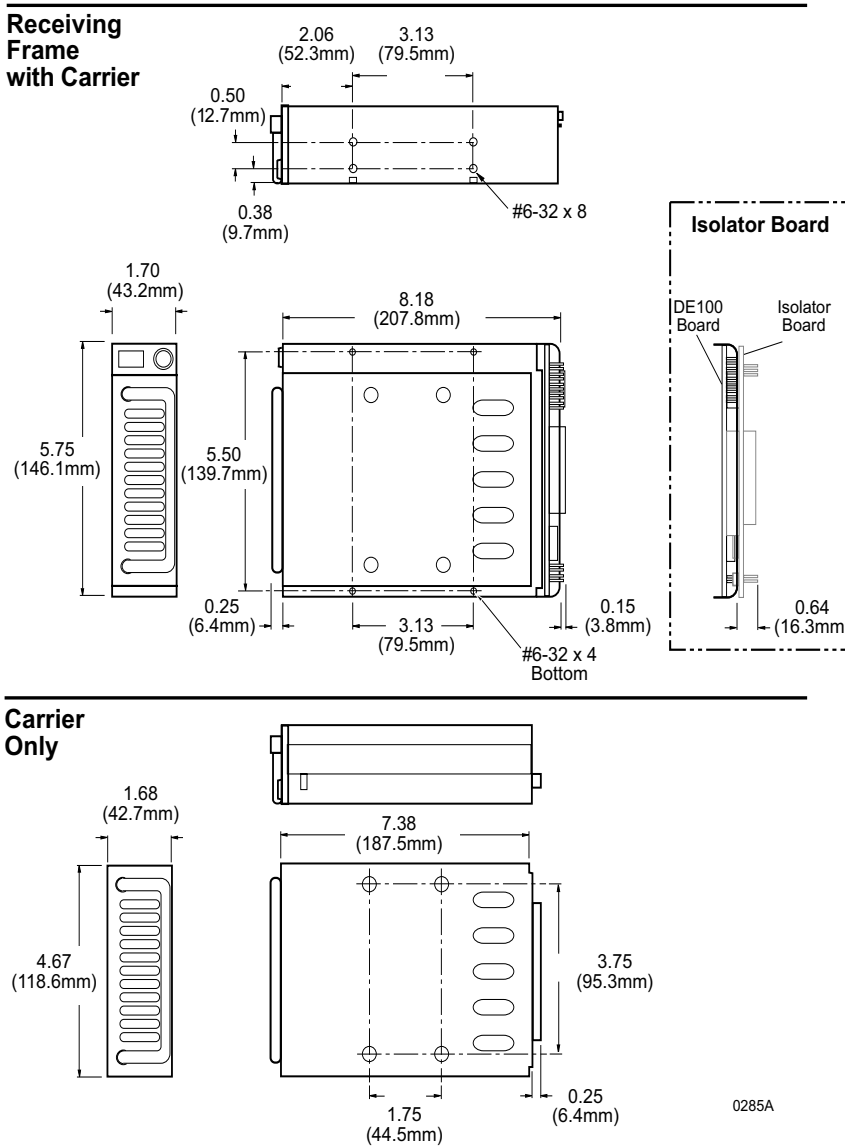


Figure A-1: DE100i-S Physical Dimensions (Dimensions are for reference only)

Appendix B - Factory-Installed Options

Hot Swap Board

The SCSI Hot Swap Board allows the installation, removal or exchange of DE100i-S carriers while your computer system is operating by monitoring and protecting the computer system and other peripheral devices on the SCSI Bus. The Hot Swap option eliminates the need to shut down your system when adding or removing a SCSI device by performing two functions:

1. Delays power up/down of the drive until the time period between SCSI bus cycles. This prevents the interruption of any SCSI bus activity being done by other devices on the bus.

2. Prevents drive power sequencing from generating noise on the SCSI bus, thus preventing data transfer corruption on other devices.

Please note that, whereas UNIX and Apple based systems provide mount/dismount drive commands, most PC systems do not provide such a feature. When using one of these operating systems, it may be necessary to reboot the computer after adding or changing a drive. This reboot activity will force the SCSI host adapter to rescan its SCSI bus for physically attached drives, and will then be able to access the new or changed drive.

Attaching the Hot Swap Board

If the Hot Swap Board is not already attached to the DE100 receiving frame, follow the steps below for installation instructions. Otherwise, proceed to the "Using the Hot Swap Board" section for usage instructions.

NOTE: The device carrier should be locked into the receiving frame prior to the following procedures to maintain proper connector alignment between the receiving frame and the device carriers.

1. Remove the two (2) Phillips Pan Hd. screws from the receiving frame motherboard and set the screws aside (Figure B-1).

2. Remove jumpers on the receiving frame motherboard locations J4 - Pins 7 & 8, and J6 - Pins 1 & 2 (Figure 5). Verify that W2 is set to position "A" (default setting) to disable onboard termination from the receiving frame motherboard.

3. Attach the two (2) provided stand-offs into the receiving frame motherboard holes in place of the two removed screws. Carefully align the connectors of the Hot Swap Board with the connectors on the receiving frame motherboard and gently push the Hot Swap Board into position. Make certain that all connectors are properly mated.

4. Attach the Hot Swap Board to the receiving frame motherboard by using the two screws removed earlier and insert them through the Hot Swap Board into the stand-offs.

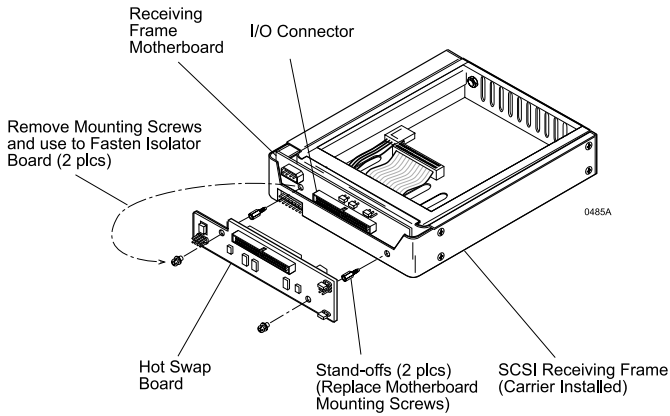


Figure B-1: Attaching the Hot Swap Board

Jumper Options

The jumper pins on the Hot Swap Board are similar to those on the SCSI Data Express motherboard. Removing the jumper at location JP1 will enable onboard receiving frame termination (Figure B-2). Location W1 provides remote ID selection. Jumper J4 Pins 4 and 6 provide a signal to drive remote activity LED logic (Pin 4 = Anode, Pin 6 = Cathode).

Using the Hot Swap Board

Carrier Removal

Follow the procedures below to remove the DE100i-S carrier from the receiving frame equipped with the Hot Swap option.

1. Verify that the drive is not active. If the system is on a network, make certain other users are not accessing the target drive, then disable it from the network. Dismount the drive.

2. Turn the DE100 key lock mechanism (located on the front of the receiving frame), clockwise to the OFF position. This unlocks the drive from the receiving frame and activates the Hot Swap Board. The unit ID number on the display will begin flashing.

WARNING: Be careful not to remove or disturb the carrier unit at this point. Although the carrier is physically unlocked, the drive requires a minimum of 15 seconds to spin down and is subject to vibration and possible damage during this period.

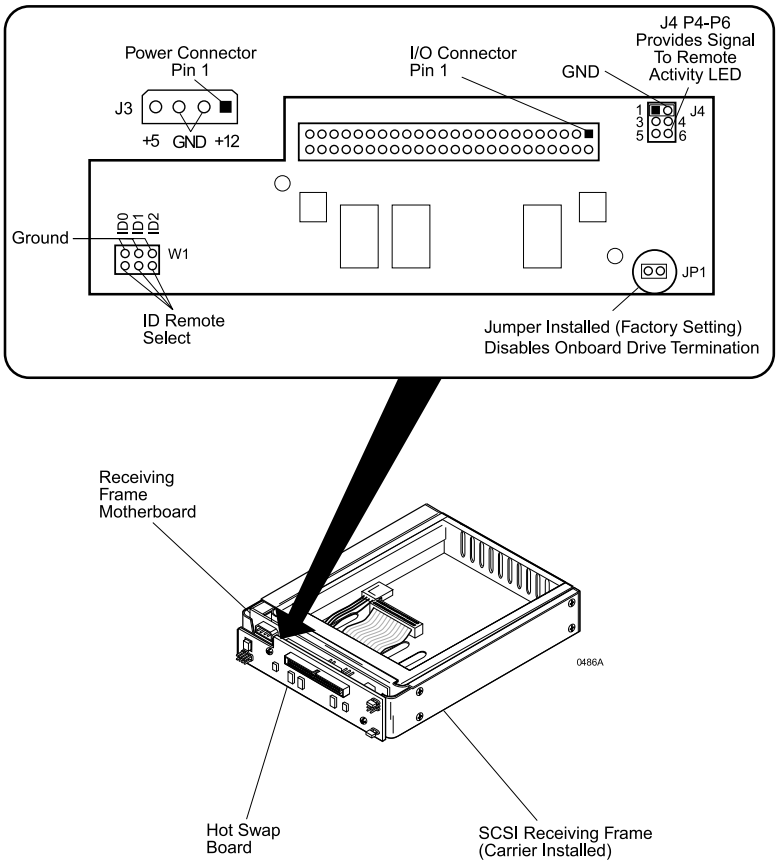


Figure B-2: Hot Swap Board Jumper Options

3. As the unit number flashes, the Hot Swap Board monitors the activity of the SCSI bus. When activity is no longer present, the Hot Swap Board will remove power from the drive and then remove the device from the SCSI Bus. The unit number will continue to flash during this period.

4. After a short length of time the unit display will turn from a flashing unit number to a steady “u”, indicating that the device is powered down, unlocked and ready to be removed from the receiving frame.

Carrier Installation

Follow the procedures below to install the DE100i-S drive carrier into the receiving frame equipped with the Hot Swap option.

1. Install the carrier into the receiving frame. A "u" will be present on the front panel, indicating that the carrier is in an unlocked condition.

2. Turn the key lock mechanism, located on the front of the receiving frame, counter clockwise to the ON position. This locks the drive into the receiving frame and activates the Hot Swap Board. The drive will begin to spin up and the unit number on the display will begin flashing.

3. After a short length of time the unit display will stop flashing, indicating that the device is ready to be used.

Solenoid Drive Lock

The factory installed solenoid option prevents premature removal of the carrier and drive unit until the target drive has fully spun down. For disk drives, this period of time can range from 15-40 seconds, depending on the type of drive being used (e.g. Barracuda drives require up to 50 seconds). Refer to the drive manufacturer's documentation for specific drive information.

The solenoid lock is controlled by a timing switch located on the side of the receiving frame. Refer to Figure 11, for information describing the readjustment of the timer setting.

The solenoid option provides an extra step in drive protection by preventing the removal and movement of the drive until the drive motor has fully stopped.

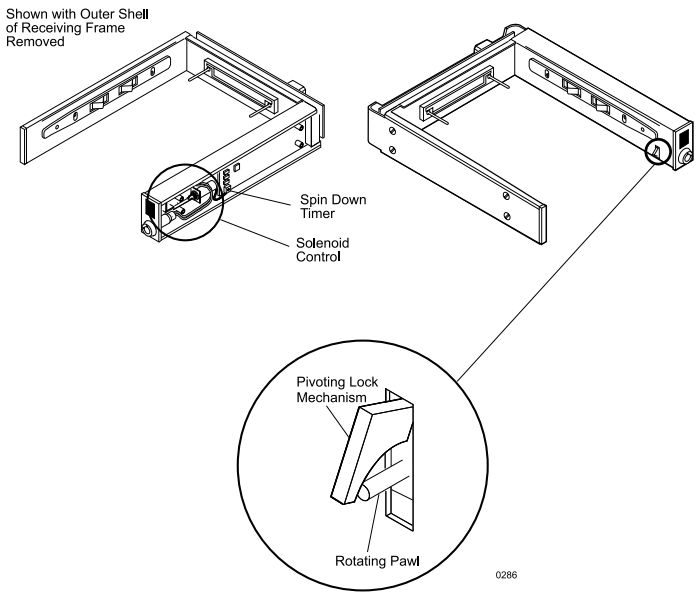
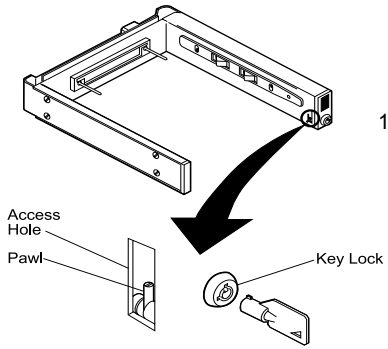


Figure B-4: Solenoid Mechanism

Appendix C - Optional User Configurations

Attaching the ON/OFF Key to Non-Solenoid Units

The following information will provide the necessary steps to attach the ON/OFF key to the key/lock mechanism so that it is non-removable. This configuration is preferred for some applications and is reversible.

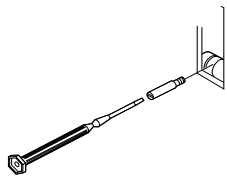


1. Verify that power to the receiving frame is OFF.

   Locate the rectangular shaped key lock mechanism access hole on the inside of the receiving frame. Note that the pawl is in an upright position.

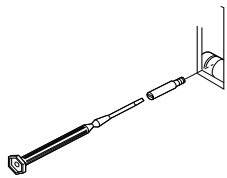
   Insert the key into the key lock.

2. Rotate the key 90 degrees counterclockwise so that the pawl is visible in the access hole (as shown in the figure at left).



3. Using the provided alignment tool, unscrew and remove the pawl from the access hole.

4. Rotate the key 180 degrees clockwise.



5. Reinstall the pawl into the access hole with the alignment tool.

   The drive lock key is now attached to the key lock mechanism.

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Figure C-1: Attaching the ON/OFF Key

DAT Drive SCSI ID Cable Connection

The following information applies to the Data Express DE150i-CSD front-loading device carrier. The procedure for installing a DAT drive into the open front carrier is almost identical to that required for disk drive installation in an enclosed drive carrier.

The ID Select Cable provided for DAT drives is slightly different than the cable used for disk drives. The DAT drive SCSI ID Select Cable uses three (3) separate connectors on the drive end of the cable (one for each wire). Refer to the following figures for a DAT drive connection.

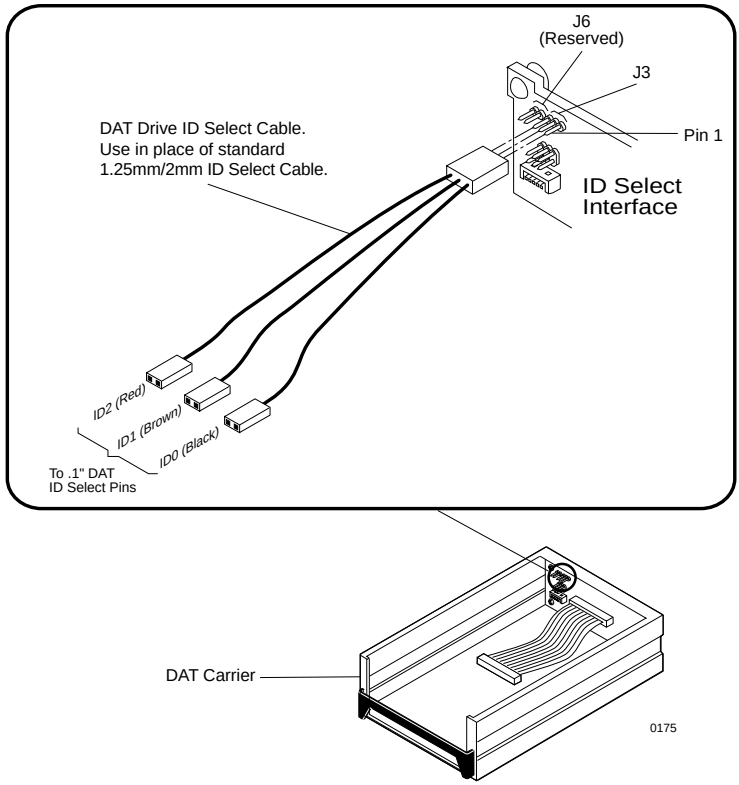

Figure C-2: DAT Drive Open Front Carrier Signal Distribution Board

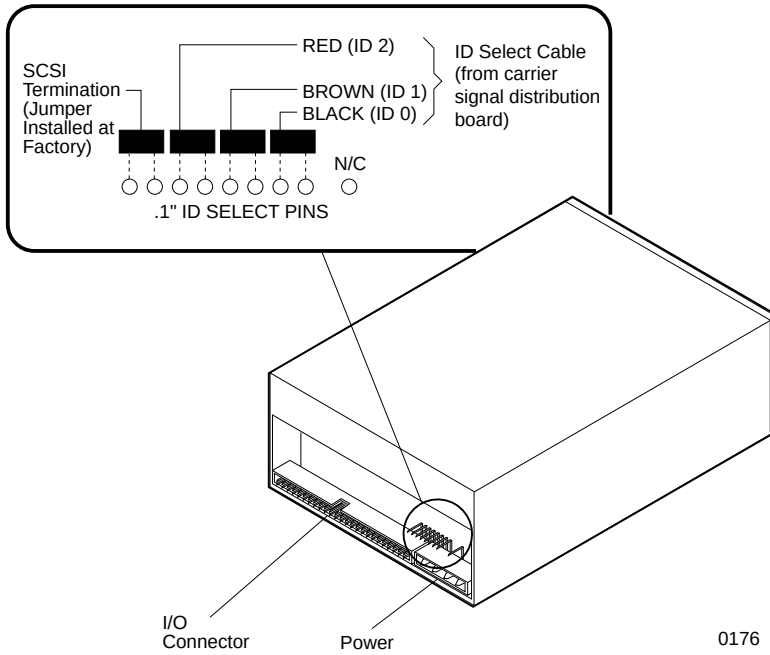

Figure C-3: Typical DAT Drive SCSI ID Cable Connection

Appendix D - Optional Accessories

Carrying Case

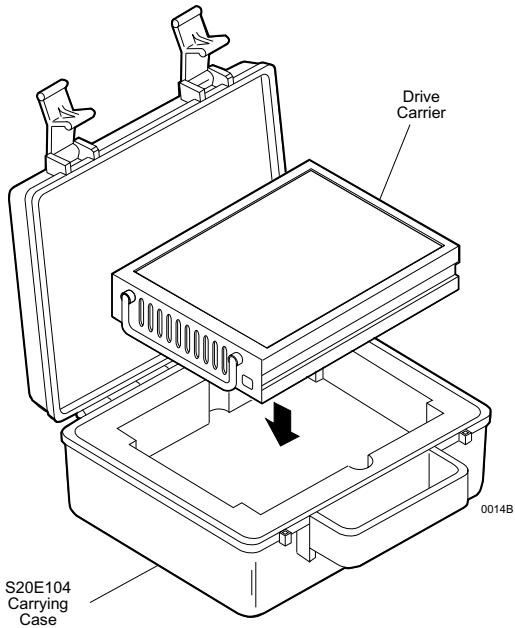

Figure D-1: Carrying Case

The optional molded plastic carrying case is designed to transport the DE100i-S carrier from one site to another in a safe, impact and moisture resistant environment. Its compact dimensions, 7” long x 9” wide x 3.5” high, make it easy to carry and to store. The foam lining is contoured to fit a single Data Express carrier. Contact your StorCase dealer for further details and ordering information.

Front Loading Drive Adapter Kit

This kit adapts 1" high (3.5" form factor) removable media devices to the StorCase open front Data Express® carrier unit (DE150i-CSD).

NOTE: Drive and carrier unit shown are not included with the DX150-KIT. Contact StorCase for ordering information.

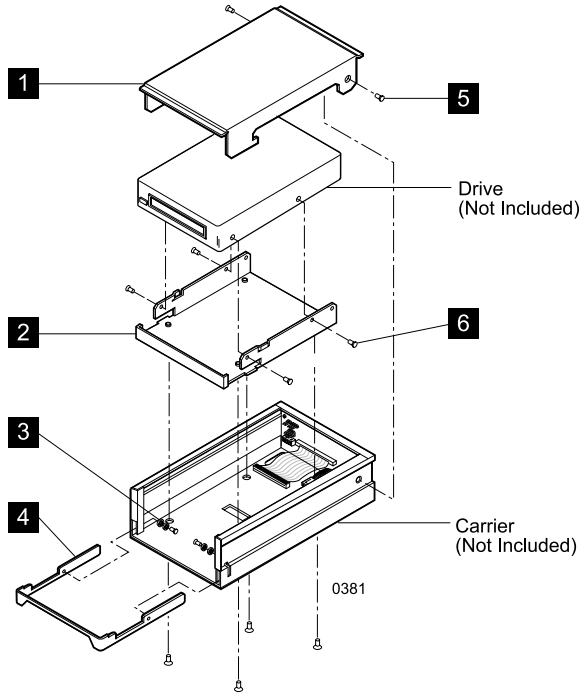

Figure D-2: DX150-KIT

Drive Cover

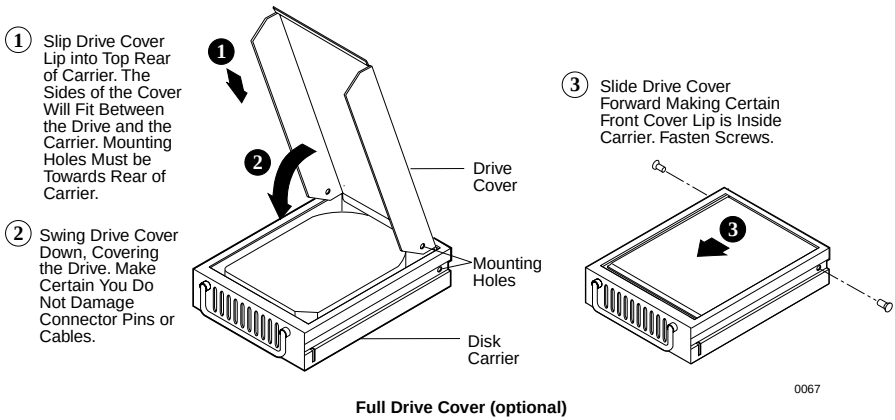

Figure D-3: Full Drive Cover

The full drive cover (P/N DX100-COV) is an attractive metal cover which can provide additional protection to the drive, preventing foreign material from coming in contact with the drive and cables. The full drive cover is similar to the cable cover provided with the DE100i-S except the optional drive cover protects the drive as well as the cables. It is easily installed with two (2) #6-32 Phillips F. H. screws as shown in the illustration above.

NOTE: The full drive cover may not be compatible with all 3.5" half-height drives. Exact drive height and fit within the Data Express frame can vary between drive manufacturers. Please contact StorCase for technical assistance before ordering the Data Express drive cover.

Drive Plug

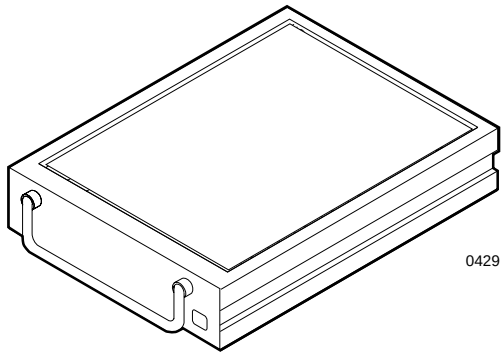

Figure D-4: Drive Plug

The drive plug (P/N DX100-PLUG), is designed to fill system or external enclosure bays that are occupied by receiving frames that have no carrier units installed. The purpose of the plug is to provide an attractive and functional method of directing proper air flow to the other installed devices in the system or external enclosure. Contact StorCase for ordering information.

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Reader's Comments

Please take a few moments when your computer system is up and running to send us your ideas and suggestions for improving our products and documentation. Did the installation go smoothly for you? Are there any changes you would like us to make, either with the hardware itself, or with the installation instructions? Everyone at StorCase Technology is working toward the goal of providing you with the highest quality, most cost effective, products available on the market, and we need your comments to guide our efforts. We look forward to hearing from you soon!

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