

Spectra TFinity Library

Transporter Replacement



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Introduction

This guide provides instructions for replacing a transporter in the Spectra[®] TFinity library (referred to as "the library"). Unless noted, the instructions are the same for the legacy or the high-performance transporter (HPT). The TFinity library has one or two transporters.

Important Do not replace the transporter unless you have been specifically instructed to do so by Spectra Logic Technical Support.

- **Notes:** Depending on the ASM service level you purchased, the transporter may not be included in your on-site ASM kit.
 - The transporter appearance may vary from what appears in this guide.

The transporter is responsible for moving media within the library. It is mounted on the vertical axis of the TeraPorter. The TeraPorter moves horizontally along the horizontal axis (HAX). Movement along these two axes provides access to all media chambers, tape drives, and the TeraPack Access Ports (TAPs) within the library. The transporter holds the TeraPack magazine as is moves from one location to another. The cartridge picking mechanism, which is part of the transporter, selects an individual cartridge from the magazine and inserts it into a tape drive or removes the cartridge from a tape drive and inserts it into a TeraPack magazine slot. It can also move a cartridge from one TeraPack magazine to another.



Figure 1 Front view of the legacy transporter components.



Figure 2 Front view of the high-performance transporter components.

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Prepare for Maintenance

Make sure that you address the requirements in this chapter to prepare for the maintenance procedure.

ESTIMATED TIME TO COMPLETE

Replacing one transporter requires 30 to 45 minutes. This time estimate includes the time required to initialize the transporter after the installation is complete.

CONTINUING BACKUPS

If one transporter in the library experiences an operational problem, the library takes the associated TeraPorter offline. Backups can continue using the other TeraPorter while you perform maintenance procedures on the failed transporter.

ENSURE ESD PROTECTION

The repair environment for the library must be free of conditions that could cause electrostatic discharge (ESD). To protect the library from ESD, follow these procedures when repairing or testing the library:

- Place a static protection mat on the work surface used while removing and installing library components. Use a 1-megohm resistor to ground the static protection mat.
- Wear a static protection wrist band whenever you handle library components that have been removed from their antistatic bags. Connect this wrist band to the static protection mat or to other suitable ESD grounding.
- Keep all electronic components in anti-static bags when not in use.

GATHER TOOLS AND SUPPLIES

ltem	Description		
Replacement transporter from Spectra Logic	Legacy		
Tools from the library tool kit	 #2 Phillips screwdriver 1/8-inch Allen wrench or hex screwdriver 5/32-inch Allen wrench or T-handle hex wrench 		
Additional tools (optional, but recommended)	A medium binder clipFlashlight or head lamp		

You must have the following supplies and tools to complete this procedure.

TFinity Transporter Replacement

This chapter describes replacing a transporter in the TFinity library.

IDENTIFY THE TERAPORTER REQUIRING SERVICE

The library contains two transporters, one mounted on TeraPorter 1, and one mounted on TeraPorter 2. When viewed from the front of the library, TeraPorter 1 is on the left, and TeraPorter 2 is on the right. The two TeraPorters are referred to as Robot 1 and Robot 2, respectively, in the BlueScale[®] user interface.

The library posts system messages when a TeraPorter experiences problems or when it is moved into its service bay. You can also use the Robotics status icon on the General Status screen for a general indication of the overall status of the library's TeraPorters (robotics).

Note: When a TeraPorter is in its service bay, the LED light bar along the top of the service frame is illuminated red indicating the position of the TeraPorter.

If system messages or the Robotics status icon on the General Status screen indicate that a TeraPorter may have a problem, use the following steps to view information about the current status of each TeraPorter.

- **1.** Log into the library as a user with superuser or administrator privileges.
- **2.** From the toolbar menu, select **General …? General Status** to display the library's General Status screen.



Figure 3 The General Status screen.

- **3.** Click **Robotics** to display the Robotics Status screen.
 - **Note:** When viewed from the front of the library, Robot 1 is to the left and Robot 2 is to the right.

Robotics Status					
Robots	Service Frames	Tools			
		Robot 1 Status:	Bad	>> Begin Service) >> Details	
s S		Robot 2 Status:	Good	(>> Begin Service) (>> Details	

Figure 4 The Robotics Status screen.

4. If you need assistance determining which transporter to replace, contact Spectra Logic Technical Support (see Contacting Spectra Logic on page 2).

PREPARE TO REPLACE THE TRANSPORTER

Before a TeraPorter can be serviced, it must be in its service bay with the service bay safety door closed.

Note: The service bay is the outer-most compartment of the service frame.

- If the TeraPorter is already in the service bay, skip to Lift and rotate the latch on the full-length access door on the service frame where the TeraPorter is parked, then pull the door open. on page 11.
- If the failed TeraPorter is not already in its service bay, continue with Move the TeraPorter Into the Service Bay.

Move the TeraPorter Into the Service Bay

If the failed TeraPorter is not already in its service bay, use the following steps to move it there, if possible. If the TeraPorter is already in the service bay, skip to Lift and rotate the latch on the full-length access door on the service frame where the TeraPorter is parked, then pull the door open. on page 11.

- **1.** If you have not already done so, log into the library as a user with superuser or administrator privileges.
- **2.** From the toolbar menu, select **General …? General Status** to display the library's General Status screen.

- **3.** Click **Robotics** to display the Robotics Status screen and select the **Robots** tab (see Figure 3 on page 8).
- **4.** Click **Begin Service** next to the robot you need to move into its service bay in preparation for the service operation. A status message is displayed when the TeraPorter is successfully moved to the service bay (see Figure 4 on page 9).
- **5.** Look through the window on the end of the service frame to confirm that the TeraPorter is in the service bay.
 - **Note:** If the TeraPorter is not in the service bay, contact Spectra Logic Technical Support for assistance (see Contacting Spectra Logic on page 2).
- **6.** Click **OK** on the confirmation screen. The library disengages the solenoid lock on the service bay safety door so that it can be closed. Directions to close and lock the service bay safety door display.

Important

Close the service bay safety door, as described in Close the Service Bay Safety Door on page 11, prior to clicking **OK**.

7. Skip to Close the Service Bay Safety Door on page 11.

Disengage the Service Bay Safety Door

If the library automatically moved the TeraPorter into the service bay, use the following steps to disengage the service bay safety door so that it can be closed.

- **1.** If you have not already done so, log into the library as a user with superuser or administrator privileges.
- **2.** From the toolbar menu, select **General …'s General Status** to display the library's General Status screen (see Figure 3 on page 8).
- **3.** Click **Robotics** to display the Robotics Status screen and select the **Service Frames** tab.



Figure 5 The Robotics Status screen.

4. Click **Close Door** next to the robot that is in its service bay ready for the service operation. The library disengages the solenoid lock on the service bay safety door so that it can be closed. Directions to close and lock the service bay safety door display.

Important

Close the service bay safety door, as described in Close the Service Bay Safety Door, prior to clicking **OK**.

5. Continue with Close the Service Bay Safety Door.

Close the Service Bay Safety Door

The manually operated service bay safety door slides closed to isolate the TeraPorter in the service bay, making it possible to continue library operations while you service the TeraPorter. Use the following steps to physically close and lock the service bay safety door.

Important

There are three doors on the back of the service frame. Only open the full-length door, shown in Figure 6, which provides access to the service bay safety door. Do not open the service access door until after the service bay safety door is closed. A safety interlock on this door immediately turns off the 24 VAC power to the TeraPorter,

- which will prevent the other TeraPorter from performing backup operations.
- **1.** Lift and rotate the latch on the full-length access door on the service frame where the TeraPorter is parked, then pull the door open.

Note: You may need to unlock the latch before you can open it.



Figure 6 Open the full-length service frame access door (service frame for Robot 2 shown).

2. Locate the handle on the service bay safety door. Loosen the captive screw at the top of the handle and rotate it downward to a horizontal position.



Figure 7 Rotate the handle on the service bay safety door down to horizontal (service bay safety door for Robot 2 shown).

- **3.** Using the handle, slide the service bay safety door inward as far as it will go toward the interior of the library.
 - **Note:** Closing the service bay safety door removes power to the TeraPorter while it is in the service bay.



Figure 8 Slide the service bay safety door inward to its closed position.

4. Raise the handle to the vertical position and tighten the captive screw to secure the handle in its upright position.

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- **5.** Return to the front of the library and click **OK** in response to the safety door closed confirmation message. A status message displays.
- 6. Click **OK** in response to the safety door closed status message.

Remove the Service Bay Access Panel

- **1.** Remove the window panel.
 - **a.** Use a 1/8-inch Allen wrench or hex screwdriver to remove the screw at the bottom of the window panel.
 - **b.** While holding the panel steady, slide it up to disengage the panel from the hangers on each side of the chassis (three per side).
 - **c.** Lift the panel off of the hangers, out and away from the frame.
- **2.** Set the panel aside.



Figure 9 Remove the screw at the bottom of the window panel.



Figure 10 Slide the panel up to disengage the hangers.



Figure 11 Lift the panel out and away from the frame.

REMOVE THE TRANSPORTER

The transporter is mounted on the front of the TeraPorter VAX column. The procedure you use to remove the transporter depends on which transporter you are removing.

- The transporter for Robot 1 is accessed and removed through the lower access area on the back of service frame 1. When viewed from the back of the library, service frame 1 is to the right. Remove the transporter as described in Remove the Transporter TeraPorter 1, beginning on this page.
- The transporter for Robot 2 is accessed and removed through the side of service frame 2. When viewed from the back of the library, service frame 2 is to the left. Remove the transporter as described in Remove the Transporter - Robot 2, beginning on page 19.

Remove the Transporter - TeraPorter 1

Access the Transporter

1. From the back of the library, lift and rotate the door latch for the lower service access door where the TeraPorter is parked, then pull the door open.

Note: You may need to unlock the latch before you can open it.



Figure 12 Open the lower service access door (service frame 1 shown).

- **2.** Remove the lower cover panel on the end of the service frame to provide access to the transporter in the service bay. See Figure 12 on page 14 for the location of the cover panel.
 - **a.** From the open service access bay, use a #2 Phillips screwdriver to remove the two screws that secure the lower cover panel to the chassis.



Figure 13 Remove the screws securing the lower cover panel to the chassis.

b. Slide the lower cover panel toward the back of the library to remove it.



Figure 14 Slide the lower cover panel off.

Remove the Transporter

- **1.** Secure the transporter at a comfortable working height.
 - **a.** Support the transporter from the bottom with one hand and raise it 2 to 3 inches (5 to 8 cm).
 - **Note:** Do not position the mounting bracket too high or you will not be able to remove the transporter through the access opening in the service bay.
 - **b.** Reach around the VAX column and use a medium binder clip to pinch the two sides of the VAX belt together (see Figure 18 on page 19).
 - **Note:** The VAX belt is the long, toothed belt located on the left side of the VAX column, as viewed from the front of the transporter
- **2.** Locate the ribbon cable connected to the printed circuit board mounted on the back of the transporter.
- **3.** Reach around the back of the cable and pinch inward on the locking tab to release the cable. Then, pull **gently** upward on the connector to disconnect the cable from the printed circuit board.

Caution Do not attempt to pull the cable out of the connector without releasing the locking tab.



Figure 15 Disconnect the ribbon cable from the transporter.

4. Using a 5/32-inch Allen wrench or T-handle hex wrench, remove the four screws that secure the transporter to the mounting bracket on the VAX column.

Keep the screws from dropping into the transporter or onto any of the internal Caution library components. If you drop any screws, they must be located prior to placing the robot back into service.



Figure 16 Remove the screws securing the transporter to the mounting bracket on the VAX column.

5. With one hand supporting the weight of the transporter from underneath and the other hand stabilizing it, lift the transporter upward approximately 2 inches (5 cm) and then to the left to disengage it from the mounting bracket on the VAX column.



Do not lift the transporter using the cartridge picking mechanism or the front of **Caution** the transporter (see Figure 1 on page 5). They are not designed to support the weight of the transporter.

6. Lift the transporter toward you through the opening in the back of the service bay and out of the library. Set the transporter aside.



Caution Be careful not to bump or dislodge any components on the transporter or the library.



Figure 17 Lift the transporter off its mounting bracket and remove it from the library.

- **7.** If you will be returning the transporter to Spectra Logic, see the return instructions in Return the Component on page 37.
- **8.** After you remove the transporter, skip to Install the Transporter on page 23.

Remove the Transporter - Robot 2

The transporter for Robot 2 is accessed and removed through the side of service frame 2. When viewed from the back of the library, service frame 2 is to the left.

- 1. (Optional) Secure the transporter at a comfortable working height.
 - **a.** While supporting the transporter from underneath, move it up the VAX column to a comfortable working height.
 - **b.** Use a medium binder clip to pinch the two sides of the VAX belt together, holding the elevated transporter in place.
 - **Note:** The VAX belt is the long, toothed belt located on the left side of the VAX column, as viewed from the front of the transporter.



Figure 18 Clamp the VAX belt with a binder clip to hold the transporter.

2. Grasp the front edge of the cartridge picking mechanism and gently rotate the cartridge picking mechanism clockwise 90° so that it is in a vertical position.



Figure 19 Rotate the cartridge picking mechanism to vertical.

- **3.** Locate the ribbon cable connected to the printed circuit board mounted on the back of the transporter (see Figure 19).
- **4.** Reach around the back of the cable and pinch inward on the locking tab to release the cable. Then, pull **gently** upward on the connector to disconnect the cable from the printed circuit board.

Caution Do not attempt to pull the cable out of the connector without releasing the locking tab.



Figure 20 Disconnect the ribbon cable from the transporter.

- **5.** Rotate the cartridge picking mechanism counterclockwise, back to its horizontal position.
- **6.** Using a 5/32-inch Allen wrench or T-handle hex wrench, remove the four screws that secure the transporter to its mounting bracket.

Caution Keep the screws from dropping into the transporter or onto any of the internal library components. If you drop any screws, they must be located prior to placing the robot back into service.

Note: Insert the wrench through the openings in the side of the transporter to reach the bottom two screws.



Figure 21 Remove the screws securing the transporter to the mounting bracket on the VAX column.

7. With one hand supporting the weight of the transporter from underneath and the other hand stabilizing it, lift the transporter upward approximately 2 inches (5 cm) and then toward you to disengage it from the mounting bracket on the VAX column.

Caution Do not lift the transporter using the cartridge picking mechanism or the front of the transporter (see Figure 1 on page 5). They are not designed to support the weight of the transporter.



Figure 22 Lift the transporter off its mounting bracket and remove it from the library.

8. Lift the transporter out of the library.



n Be careful not to bump or dislodge any components on the transporter or the library.

9. If you will be returning the transporter to Spectra Logic, see the return instructions in Return the Component on page 37.

INSTALL THE TRANSPORTER

1. Identify the bracket hooks on the back of the transporter as well as the slots in the bracket on the VAX column where the hooks engage. When the hooks are correctly attached, the alignments pins at the bottom of the transporter will fit in the slots in the bottom of the mounting bracket.



Figure 23 The transporter mounting hooks and alignment pins. (viewed from the back of the transporter).



Figure 24 The slots on the mounting bracket.

- **2.** Install the transporter. The procedure you use depends on which transporter you are installing.
 - Install the Transporter Robot 1, beginning on this page
 - Install the Transporter Robot 2 on page 29

Install the Transporter - Robot 1

1. With one hand supporting the weight of the transporter from underneath and your other hand stabilizing it, orient the transporter with the bracket hooks toward the mounting bracket on the VAX column (see Figure 23 and Figure 24).

Caution Do not lift the transporter using the cartridge picking mechanism or the front of the transporter (see Figure 1 on page 5). They are not designed to support the weight of the transporter.

- 2. Mount the transporter on the VAX column.
 - **a.** Lift the transporter through the opening in the back of the service access bay and towards the VAX column.

Caution Be careful not to bump or dislodge any components on the transporter or the library.



Figure 25 Lift the transporter through the opening and into the service bay.

b. Position the mounting hooks on the back of the transporter slightly above the slots and against the mounting bracket on the VAX column, then slide the transporter down so that the hooks engage the slots on the mounting bracket. When the hooks are correctly attached, the alignments pins at the bottom of the transporter fit in the slots in the bottom of the mounting bracket.

- **c.** Make sure that the transporter is not touching the bottom of the VAX column. If necessary, adjust the binder clip installed in Step 1 on page 16.
- **d.** Using a 5/32-inch Allen wrench or T-handle hex wrench, loosely install the four screws that secure the transporter to its mounting bracket.

Caution Keep the screws from dropping into the transporter or onto any of the internal library components. If you drop any screws, they must be located prior to placing the robot back into service.

- e. Center the weight of the transporter between the mounting hooks.
 - For the legacy transporter, make sure that the picker is in a horizontal position and centered along the width of the transporter.
 - For the HPT, do the following:
 - **i.** Move both toggle-axis (TAX) mechanisms to their respective home stop positions. To the left for the rear TAX and to the right for the forward TAX.



Figure 26 Move the TAX mechanisms to their home position.

ii. Rotate the picker to vertical and position the sensor above the upper left hand mounting screw.



Figure 27 Position the vertical picker above the upper left mounting screw.

f. While stabilizing the transporter with one hand, gently rock the transporter from left to right to confirm that both transporter mounting hooks are resting equally and securely seated in the slots on the mounting bracket.

Important If the hooks are properly engaged with the bracket, the transporter moves left-toright slightly. If the hooks are not engaged with the bracket, the transporter pulls away from the mounting bracket. If the transporter pulls away from the VAX column, remove the mounting screws, carefully disengage the transporter hooks from the mounting bracket, and then repeat Step 2.

- **g.** Fully tighten the four screws in an "X" pattern starting with the upper left screw, and then tightening the lower right, upper right, and lower left screws.
- **Note:** For a legacy transporter, insert the wrench through the openings in the side of the transporter to reach the bottom two screws.



Figure 28 Install the screws securing the transporter to the mounting bracket on the VAX column.

3. Plug the flex ribbon cable into the edge connector on the printed circuit board mounted on the back of the transporter. The connector clicks into place.



Figure 29 Connect the ribbon cable to the transporter.

4. While supporting the transporter from underneath, reach around the TeraPorter and remove the binder clip on the VAX belt, if present, and allow the transporter to move to its resting position.

Caution Do not return the robot to operation with the binder clip still in place.

- **5.** Reinstall the lower cover panel on the service bay.
 - **a.** From the back of the library, position the slots on the top and bottom of the lower cover panel over the rails mounted on the side of the service frame and slide the panel into place.



Figure 30 Slide the lower cover panel onto its rails.

b. Using a #2 Phillips screwdriver, install the two screws that secure the lower cover panel to the chassis.



Figure 31 Install the screws to secure the lower cover panel to the chassis.

- **c.** Close the lower service access door and then rotate the latch to its vertical position, latching the door closed (see Figure 12 on page 14).
- **6.** After you install the transporter, skip to Complete the Replacement on page 34.

Install the Transporter - Robot 2

1. With one hand supporting the weight of the transporter from underneath and your other hand stabilizing it, orient the transporter with the bracket hooks toward the mounting bracket on the VAX column (see Figure 23 and Figure 24 on page 23).



Caution Do not lift the transporter using the cartridge picking mechanism or the front of the transporter (see Figure 1 on page 5). They are not designed to support the weight of the transporter.

- **2.** Mount the transporter on the VAX column.
 - **a.** Lift the transporter into the library and position the mounting hooks on the back of the transporter slightly above the slots and against the mounting bracket on the VAX column, then slide the transporter down so that the hooks engage the slots on the mounting bracket. When the hooks are correctly attached, the alignments pins at the bottom of the transporter fit in the slots in the bottom of the mounting bracket.
 - **b.** Make sure that the transporter is not touching the bottom of the VAX column. If necessary, adjust the binder clip installed in Step 1 on page 19.
 - **c.** Using a 5/32-inch Allen wrench or T-handle hex wrench, loosely install the four screws that secure the transporter to its mounting bracket.

Caution Keep the screws from dropping into the transporter or onto any of the internal library components. If you drop any screws, they must be located prior to placing the robot back into service.

- **d.** Center the weight of the transporter between the mounting hooks.
 - For the legacy transporter, make sure that the picker is in a horizontal position and centered along the width of the transporter.
 - For the HPT, do the following:
 - **i.** Move both toggle-axis (TAX) mechanisms to their respective home stop positions. To the left for the rear TAX and to the right for the forward TAX.



Figure 32 Move the TAX mechanisms to their home position.

ii. Rotate the picker to vertical and position the sensor above the upper left hand mounting screw.



Figure 33 Position the vertical picker above the upper left mounting screw.

e. While stabilizing the transporter with one hand, gently rock the transporter from left to right to confirm that both transporter mounting hooks are resting equally and securely seated in the slots on the mounting bracket.

Important If the hooks are properly engaged with the bracket, the transporter moves left-toright slightly. If the hooks are not engaged with the bracket, the transporter pulls away from the mounting bracket. If the transporter pulls away from the VAX column, remove the mounting screws, carefully disengage the transporter hooks from the mounting bracket, and then repeat Step 2.

- **f.** Fully tighten the four screws in an "X" pattern starting with the upper left screw, and then tightening the lower right, upper right, and lower left screws.
- **Note:** For a legacy transporter, insert the wrench through the openings in the side of the transporter to reach the bottom two screws.



Figure 34 Install the screws securing the transporter to the mounting bracket on the VAX column.

3. (Optional) Gently rotate the cartridge picking mechanism clockwise 90° so that it is in a vertical position, providing easier access to the ribbon cable edge connector on the back of the transporter (see Figure 19 on page 20).

4. Plug the ribbon cable into the edge connector on the printed circuit board mounted on the back of the transporter. The connector will click into place.



Figure 35 Connect the ribbon cable to the transporter.

- 5. If you rotated the cartridge picker mechanism to its vertical position, gently rotate it counterclockwise, back to its horizontal position.
- 6. While supporting the transporter from underneath, remove the binder clip on the VAX belt, if present, and allow the transporter to move to its resting position at the bottom of the library.



Caution Do not return the robot to operation with the binder clip still in place.

COMPLETE THE REPLACEMENT

After you finish installing the new transporter, follow the steps in the following sections to complete the replacement process.

Install the Service Bay Access Panel

Use the following steps to install the service bay access panel on the service frame.

- **1.** Lift the panel and position the openings on the back of the panel on the hooks located along the sides of the opening in the end of the frame.
- **2.** While holding the panel steady with one hand, slide the panel down into place.
- **3.** Use a 1/8-inch Allen wrench or hex screwdriver to install the screw at the bottom of the side panel.



Figure 36 Lift the panel onto the hooks on the sides of the opening.



Figure 37 Slide the panel down into place.



Figure 38 Install the screw to secure the panel.

Open the Service Bay Safety Door



- **1.** If it is not already displayed, click **Robotics** on the General Status screen to display the Robotics Status screen.
- 2. Select the **Service Frames** tab of the Robotics Status screen and then click **Open Door** to disengage the solenoid lock on the service bay safety door so that it can be opened.

Robotics Status						
Robots	Service Frames	Tools				
⊘ ⊒ <u>≕</u>]	Left Se Overall Door Po Robot P Robot p	rvice Fram Status: osition: Power: present	Service mode. Closed Off	(>> Open Door >> Details		
	Right S Overall Door Po Robot F	ervice Fra Status: osition: Power:	me Normal mode. Fully Open On	>> Close Door		

Figure 39 The Robotics Status screen.

3. Respond as necessary to any messages that are displayed.

Important Do not click **OK** to indicate that the safety door is open until after you open the service bay safety door as described in the following section.

- **4.** If necessary, open the full-length access door on the service bay where the TeraPorter is parked (see Figure 6 on page 11).
- **5.** Open the service bay safety door.
 - **a.** Loosen the captive screw securing the service bay safety door handle in its upright position, then rotate the handle downward to a horizontal position.

b. Using the handle, carefully slide the door toward you, into its open position.



Figure 40 Slide the service bay safety door toward you to its open position.

- **c.** Lift the handle to its vertical position and use the captive screw to secure it to the edge of the door.
- **6.** Close and latch the full-length access door on the back of the service frame where the TeraPorter is parked (see Figure 6 on page 11). Lock the door, if desired.
- **7.** Return to the front of the library and click **OK** to confirm that the safety door is open.

As soon as you confirm that the safety door is open, the library applies power to the TeraPorter and puts it back into operation.

8. Click **OK** in response to the safety door closed status message.

Return the Component

After you complete the replacement procedure, use the information in this section when returning the defective component to Spectra Logic.

Return Guidelines

Unless Spectra Logic Technical Support informs you otherwise, return the defective component to Spectra Logic following the guidelines in this section. If Spectra Logic Technical Support informs you that the component does not need to be returned, dispose of it in a manner appropriate for your company guidelines.

Return Procedures

After you complete the replacement procedure, return the defective component using ALL of the packaging material shipped with the replacement component (including any anti-static bags or foam inserts).



Severe damage can occur if the component is not packaged correctly, and you may be invoiced if it is received with damage due to improper or insufficient packaging.

Use the return label and instructions that were included with the replacement component when preparing to ship the replacement part. If you cannot locate these, contact Spectra Logic for another copy (see Contacting Spectra Logic on page 2). The return label and RMA printed on it are used to associate the returned part with your account. To avoid being invoiced for failure to return the part, do not ship the part back without the RMA return label.