



# Spectra T950 Library

## HAX Motor Replacement



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## Part Number

90940118 Revision B

## Revision History

Revision	Date	Description
A	November 2012	Initial release
B	March 2015	Trademark update.

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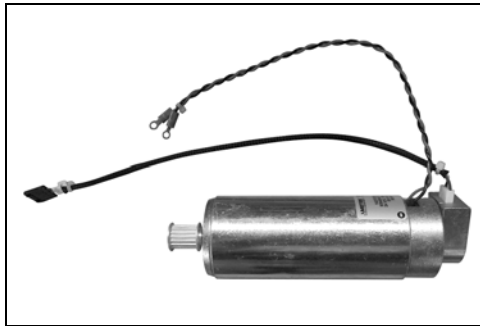
# HAX Motor Replacement

This procedure describes replacing the HAX motor in a Spectra<sup>®</sup> T950 library.

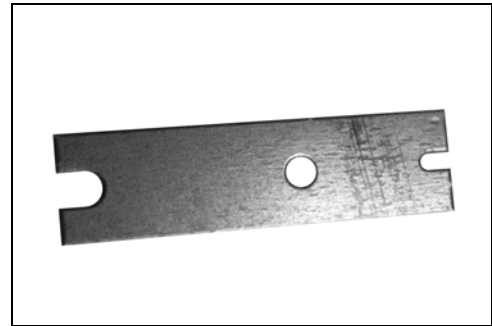
## BEFORE YOU BEGIN

- Provide service access clearance to the left end of a three-frame or larger library or both ends of a one- or two-frame library.
- Obtain the following tools and supplies:
  - 1/8-inch Allen wrench (provided in the library's toolkit)
  - #2 Phillips screwdriver (provided in the library's toolkit)
  - 1/4-inch open end wrench
  - Right-angle #2 Phillips screwdriver
  - Large binder clip
  - Replacement HAX motor (PN 90949028)
  - HAX motor installation tool (provided with FRU)

**Note:** The HAX motor tool shown in these instructions may differ from the provided tool.



**Figure 1** HAX motor.



**Figure 2** HAX motor installation tool.

## Estimated Time to Complete

Replacing the HAX motor requires 3 hours, not including testing.

## PREPARE FOR THE REPLACEMENT

Before beginning the replacement procedure, make sure that the work environment meets the requirements in the following sections.

### 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 or shoe grounding strap whenever you handle library components that have been removed from their antistatic bags. Connect the wrist band to the static protection mat or to other suitable ESD grounding.
- Keep all electronic components in antistatic bags when not in use.

### Discontinue Operations Running on the Library

Backups cannot run during the HAX motor replacement because the library must be powered off.

1. Use your backup software to stop any backup or restore operations running to the library and move any tapes in drives to storage slots.  
If you cannot use your backup software, then move the cartridges as described in the *Spectra T950 Library User Guide*.
2. Pause PostScan, if it is running, as described in the *Spectra T950 Library User Guide*. Any tapes currently being scanned are returned to their storage locations.

### Prepare the Library for Power Off


Use the following sections to prepare the library to be powered off.

## Turn On Obstruction Scan at Startup

An obstruction scan slowly and carefully moves the robot to check the library for obstructions such as TeraPack<sup>®</sup> magazines incorrectly placed on shelves.

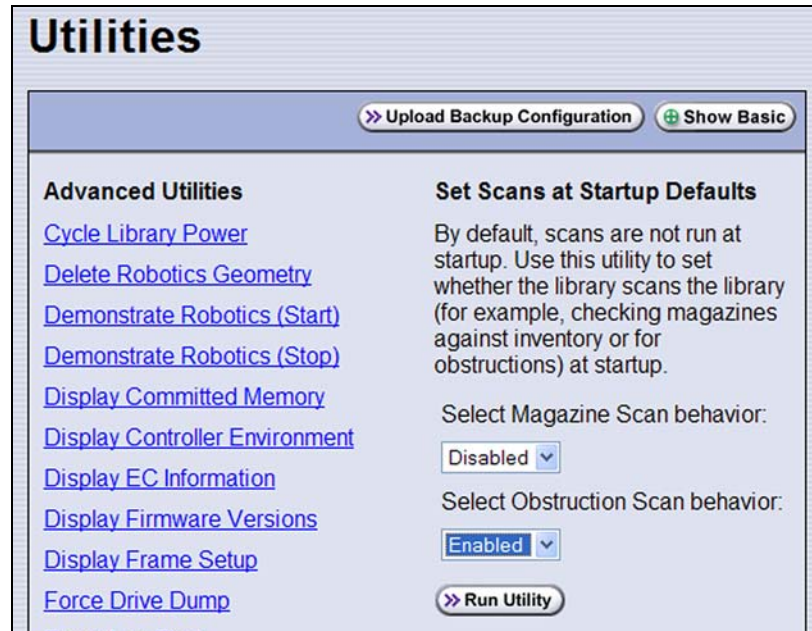
**Note:** This utility is only applicable if your library is running BlueScale12.0 software or later. If you have an earlier version of the BlueScale software, skip to [Move the VAX Column to the Right End of the Library on page 7](#).

Based on the type of frame in the left-most position as you look at the library from the front, determine whether you need to enable obstruction scanning.

- **Bulk TAP frame**—Enabling obstruction scan at startup is optional. If you choose not to enable it, skip to [Move the VAX Column to the Right End of the Library on page 7](#).
- **Main frame**—Enabling obstruction scan at startup is highly recommended. Complete the following steps to enable it.
  1. Log into the library with superuser or administrator privileges.
  2. From the toolbar menu, select **Maintenance**  **Tools**. The Maintenance Tools screen displays.
  3. Select **Utilities**. The Utilities screen displays.
  4. Click **Show Advanced**. The Advanced Utilities Confirmation screen displays.
  5. Click **Next**. The Utilities screen refreshes to show the advanced utilities.

6. Scroll down and select **Set Scans at Startup Defaults**.

The screen refreshes to show the details for the Set Scans at Startup Defaults utility.



**Figure 3** The Set Scans at Startup Defaults Utilities screen.

7. From the **Select Obstruction Scan behavior** drop-down list, select **Enabled**.

**Note:** Do not change the setting for **Select Magazine Scan behavior**.

8. Click **Run Utility**.

A progress screen displays. When the operation is complete, a Utility Results screen displays. The library will now run an obstruction scan when it is next powered on.

## Move the VAX Column to the Right End of the Library

1. On the Results screen, click **Previous** to return to the Advanced Utilities screen.
2. Scroll down and select **Send Controller Command**.

The screen refreshes to show the details for the Send Controller Command utility.



**Figure 4** The Send Controller Command Utilities screen.

3. From the **Select a command to send** drop-down list, select **Prepare Robot for Service [M]**.
4. From the **Select a target controller** drop-down list, select **Motion Control**.
5. Click **Run Utility**.

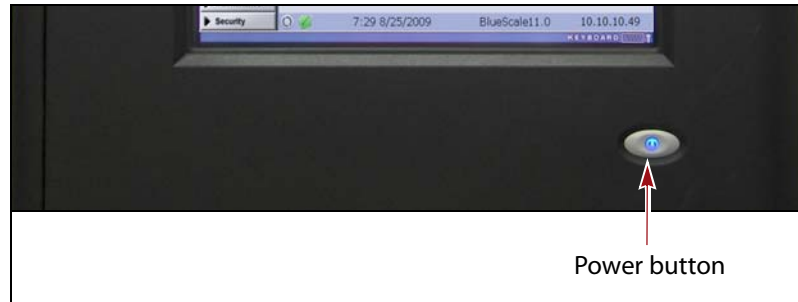
A progress screen displays. When the operation is complete, a Utility Results screen displays. The VAX column is now parked on the right-hand side of the library.

**Note:** If the damaged HAX motor prevents this utility from completing, you can still continue with [Power Off the Library](#) on the next page. You may need to manually move the VAX column out of the way when you begin removing the HAX motor.

## Power Off the Library

1. Press the front panel power button until the button's LED starts to flash. Wait for the power-off sequence to complete, which allows the applications to shut down gracefully.

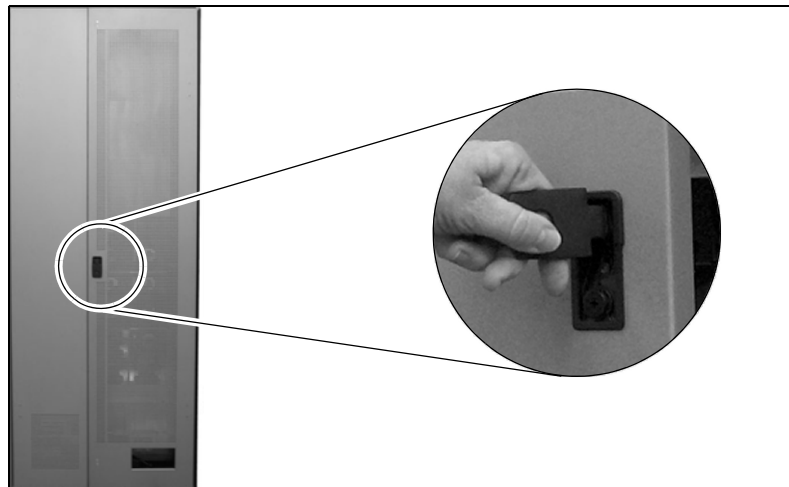
**Note:** If the library does not respond to pressing the front panel power button, it is likely that the BlueScale Soft Power option is enabled. Refer to the *Spectra T950 Library User Guide* for instructions on powering off the library with the BlueScale Soft Power option enabled.



**Figure 5** The front panel power button.

2. Open the rear access doors on the main frame and each drive frame by lifting and rotating the latch clockwise a quarter turn. Pull the doors open.

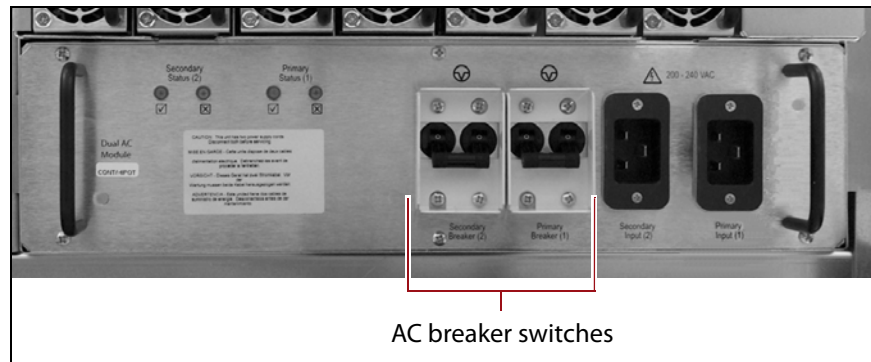
**Note:** You may need to unlock the latch before you can open it.



**Figure 6** Open the access doors on the main frame and drive frames.



3. Set both AC breaker switches on the back of the main frame and each drive expansion frame to the off (down) position.



**Figure 7** Turn off the AC breaker switches on the back of the main frame and each drive frame.

4. Disconnect all AC power cords.

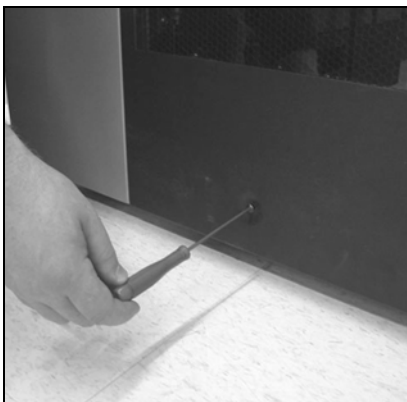
## Remove the Side Access Panel

**WARNING**

Risk of electrical shock. Hazardous moving parts. Turn off the power to the library and disconnect the power cords before accessing the inside of the library.

Use the following steps to remove the access panel from the left side of the library as viewed from the front.

1. Use a 1/8-inch Allen wrench or hex screwdriver to remove the screw at the bottom of the window panel.
2. While holding the panel steady, slide it up to disengage the panel from the hangers on both sides of the chassis' opening (three per side).
3. Lift the panel off of the hangers, out and away from the frame.
4. Set the panel aside.
5. If you are replacing the HAX motor in a one- or two-frame library, repeat the steps in this section to remove the access panel from the right side.



**Figure 8** Remove the screw at the bottom of the window panel.



**Figure 9** Slide the panel up to disengage the hangers.

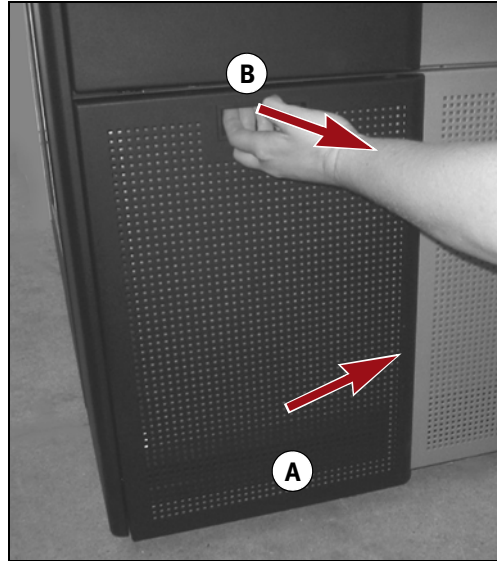


**Figure 10** Lift the panel out and away from the frame

## Prepare the Left Frame

Use the following steps to prepare the left most frame.

1. Remove the cover from the bottom front of the frame by first pulling firmly outward on the bottom center of the panel (**A**), and then pulling outward on the handle at the top of the panel (**B**).



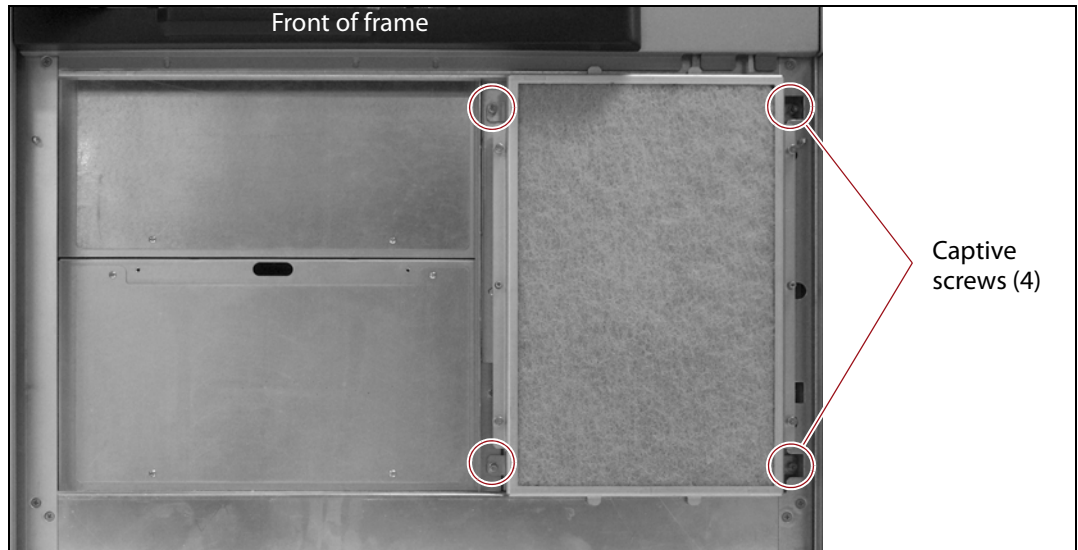
**Figure 11** Remove the filter cover.

2. Set the cover aside.
3. The next step depends on the frame type.
  - If the frame is a bulk TAP frame, continue with [Remove the Fan Assembly and HAX Motor Bay Cover \(Bulk TAP Frame Only\)](#) on page 12.
  - If the frame is the main frame, skip to [Remove the Fan Assembly \(Main Frame Only\)](#) on page 13.

## Remove the Fan Assembly and HAX Motor Bay Cover (Bulk TAP Frame Only)

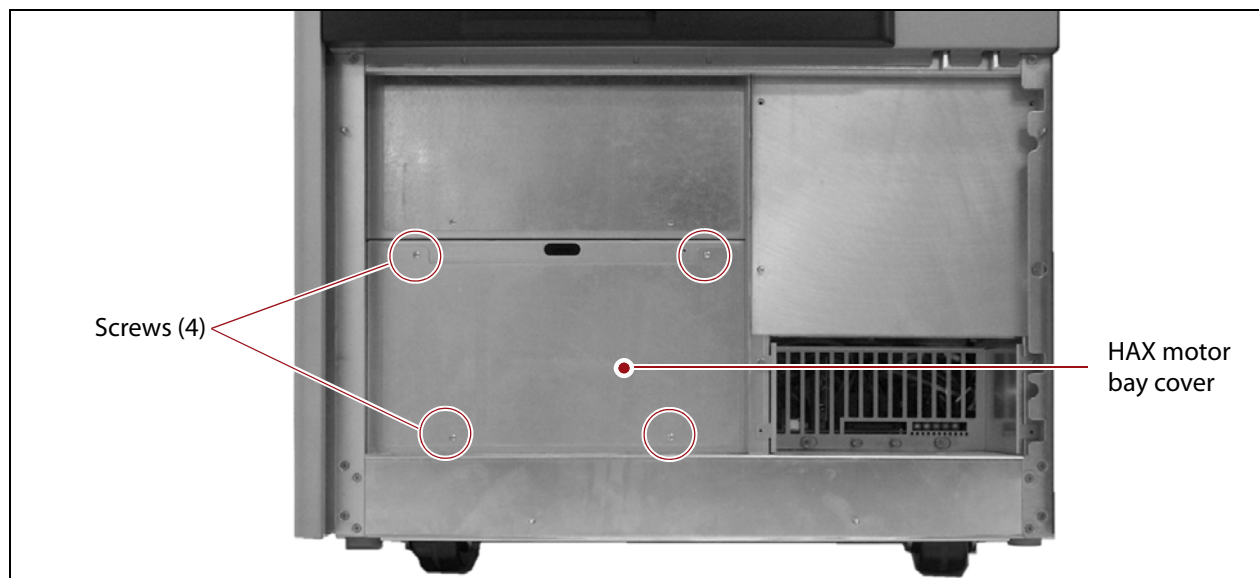
1. Use a #2 Phillips screwdriver to loosen the four captive screws securing the fan assembly to the front of the frame.

**Note:** It is not necessary to remove the filter from the fan assembly.



**Figure 12** Loosen the captive screws securing the fan assembly to the frame.

2. Grasp the lower-middle of the right and left sides of the fan assembly and carefully pull it straight out of the frame.
3. Using a #2 Phillips screwdriver, remove the four screws securing the HAX motor bay cover to the front of the frame. Set the cover and screws aside.



**Figure 13** Remove the HAX motor bay cover.

4. Continue with [Remove the HAX Motor](#) on page 15.

## Remove the Fan Assembly (Main Frame Only)

1. Use a #2 Phillips screwdriver to loosen the four captive screws securing the fan assembly to the front of the frame.

**Note:** Do not remove the filter from the fan assembly.

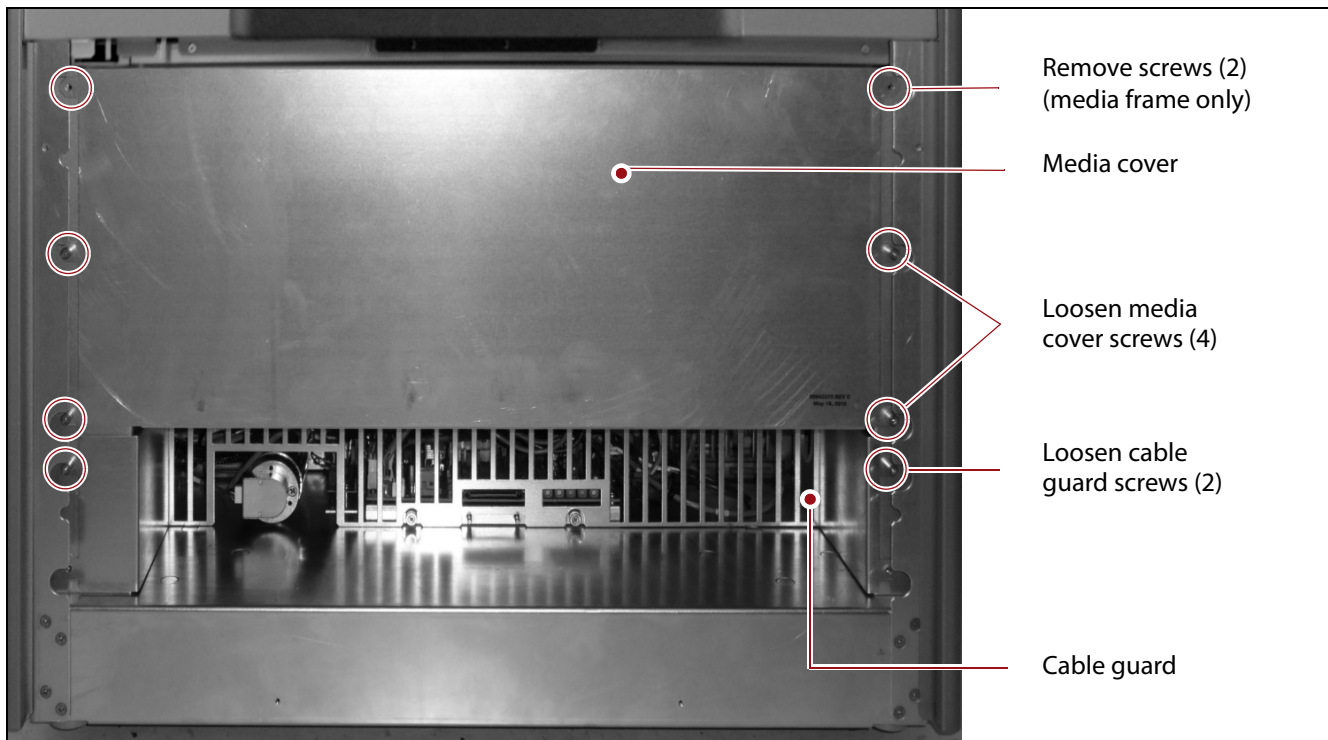


**Figure 14** Loosen the captive screws securing the fan assembly to the frame.

2. Carefully pull the fan assembly straight out of the frame.
3. Set the fan assembly aside.
4. Continue with [Remove the Media Cover, Cable Guard, and Shelves](#) on page 14.

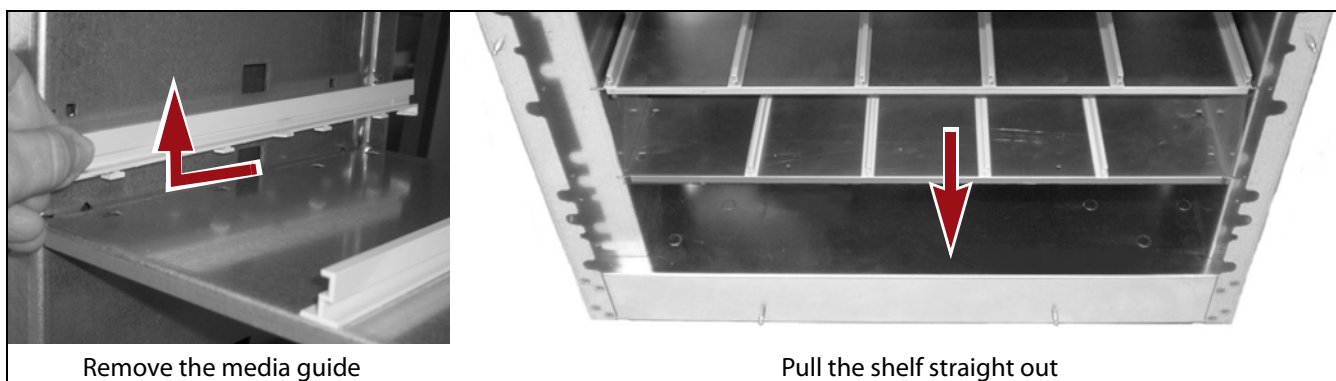
## Remove the Media Cover, Cable Guard, and Shelves

1. Use a #2 Phillips screwdriver to fully loosen the four captive screws securing the media cover to the front of the frame.



**Figure 15** Remove the media cover and cable guard.

2. Carefully remove the media cover from the frame and set it aside.
3. Use a #2 Phillips screwdriver to loosen the two captive screws securing the cable guard to the frame.
4. Carefully remove the cable guard from the frame.
5. Remove any TeraPack magazines on the bottom two shelves, cover them with dust covers if available, and set them aside.
6. Remove the bottom two media shelves to provide access to the interior of the library.



Remove the media guide

Pull the shelf straight out

**Figure 16** Remove the bottom two media shelves.



- a. Slide the far left and far right media guides forward and toward the center of the shelf to release them. Lift the guides off the shelf.
- b. Pull the shelf straight out toward you and set it aside.
- c. Repeat Step a and Step b to remove the second shelf.

## REMOVE THE HAX MOTOR

The HAX motor is mounted on the floor of the left-most frame of the library as viewed from the front. Use the following sections to remove the HAX motor.

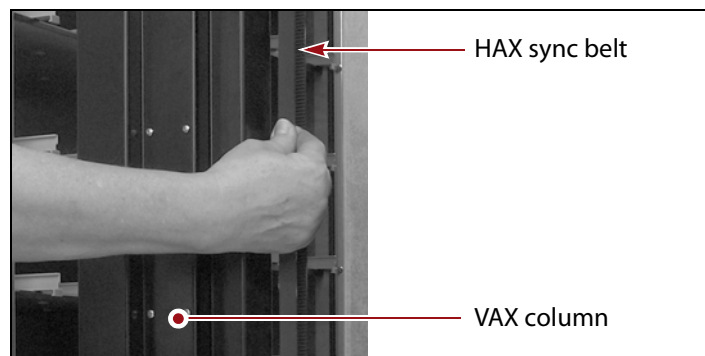
### Disconnect the HAX Motor Cables

1. If the VAX column is not blocking access to the HAX motor power connections, skip to [Step 2 on page 16](#). Otherwise, from the left end of the library, slowly pull straight downward on the HAX sync belt to move the VAX column toward the right, far enough so that you can access the HAX motor power connections.



#### Caution

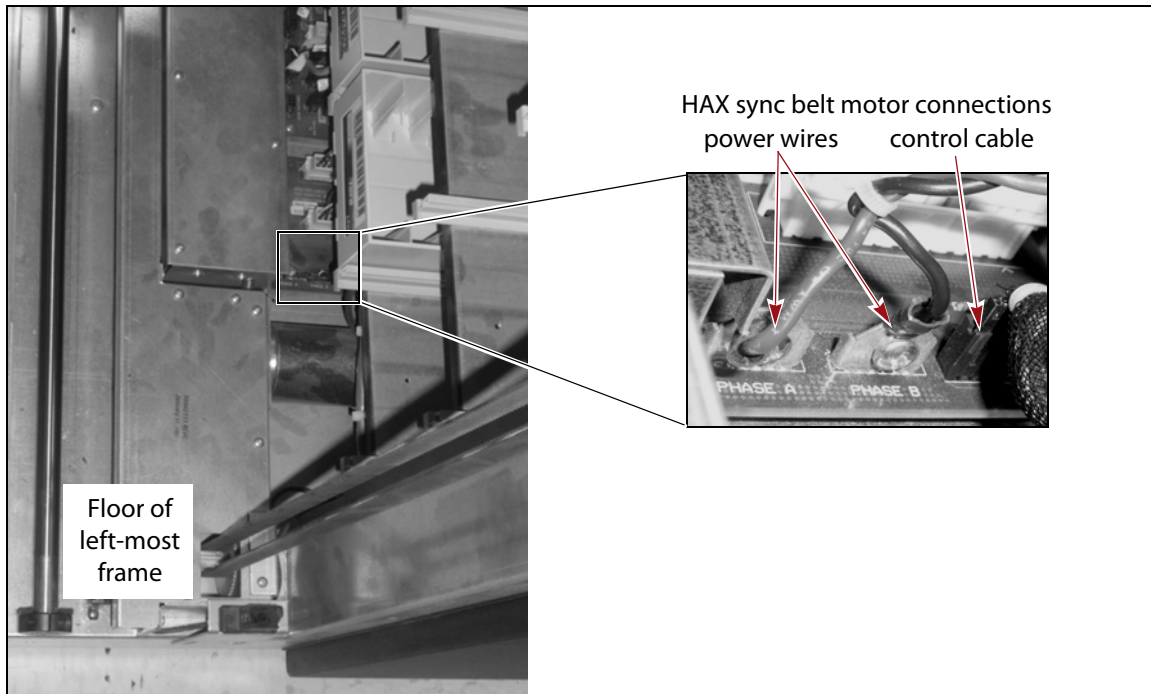
Do not push or pull on the VAX column. Doing so can cause alignment problems. Be careful not to move the HAX sync belt too fast, which can cause it to slip.



**Figure 17** Location of the HAX sync belt.

- Using a right-angle #2 Phillips screwdriver, remove the screws that secure the HAX motor's red and black power wires to the Phase A and Phase B connectors on the HAX passive board.

**Note:** Keep these two screws separated from the other screws used in this procedure so that you can identify them when you need to reattach the cables at the end of the procedure.



**Figure 18** Disconnect the HAX motor power wires and control cable.

- Disconnect the HAX motor control cable from the connector adjacent to the Phase B connector.

## Remove the HAX Belt Cover

- If the VAX column is not all of the way to the right end of the library, pull straight downward on the HAX sync belt (Figure 17 on page 15) to move the column to the right so that it is no longer above the left most section of the HAX belt cover or to move it all of the way to the right end of the library in the case of a single section HAX belt cover.



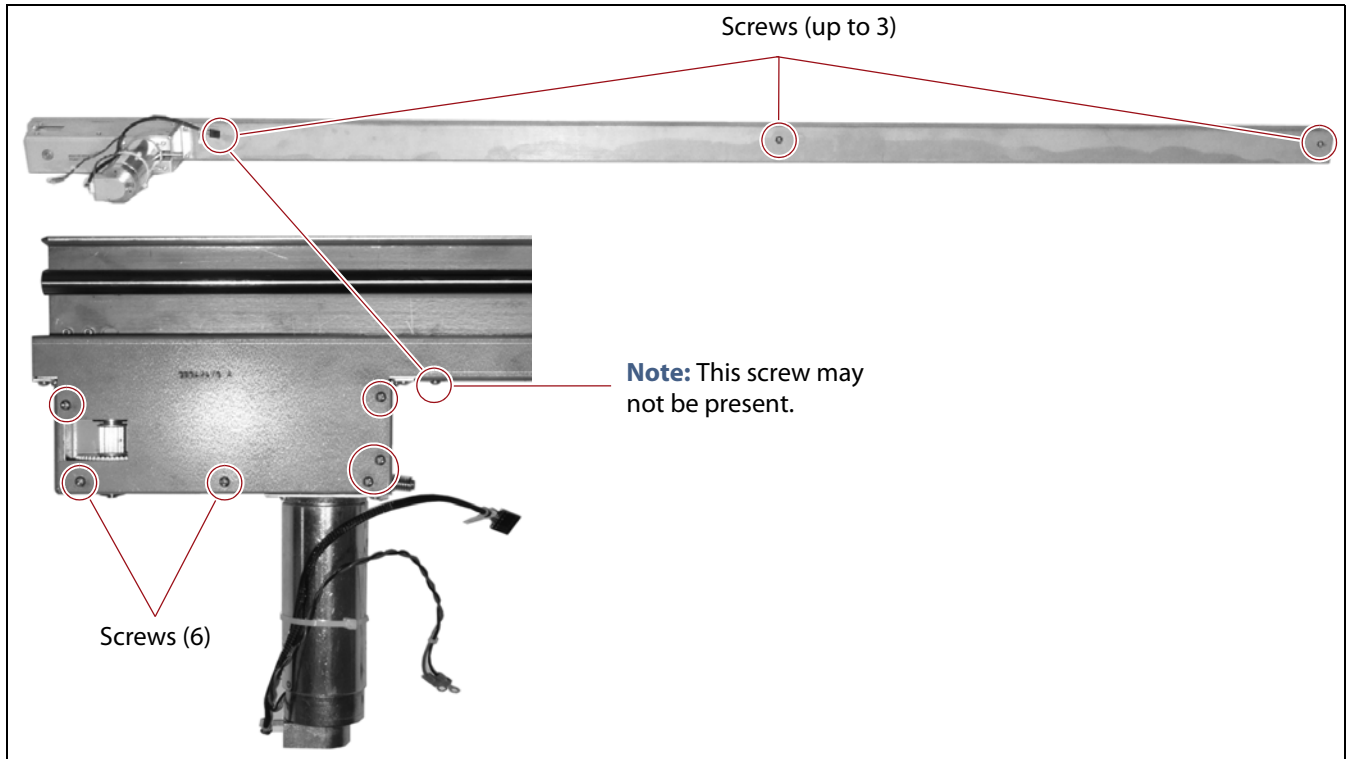
### Caution

Be careful not to move the HAX sync belt too fast, which could cause the VAX column to crash into the other end of the library.

Never force the VAX column to move along the Thomson rod. Doing so can permanently damage it. If it does not glide smoothly, stop immediately. Identify and then remove any obstruction.



- From the left end of the library, use a #2 Phillips screwdriver to remove the six screws securing the HAX belt cover to the top of the left HAX rail segment.



**Figure 19** Remove the HAX belt cover from the left HAX rail segment (multi-frame HAX rail segment shown).

- Depending on the number of frames in the library, remove the one to three screws securing the HAX belt cover to the side of the left HAX rail segment.
- Remove the HAX belt cover

**Three-frame or larger library** Carefully lift the HAX belt cover off of the HAX rail and set it aside. On a multi-segment cover there is a lip on the right end of the left segment that fits under the end of the next segment. Slide the cover toward you to disengage the lip. In some cases you will need to remove the screw on the side of the next segment of the HAX belt cover in order to remove the first segment.

—OR—

**One- or two-frame library** Use the following steps to remove the HAX belt cover.

- a. From the right end of the library, support the transporter from underneath and move it up the VAX column to allow better access to the HAX belt cover. Use a large binder clip to pinch the two sides of the VAX belt together, to hold the elevated transporter in place.



**Figure 20** Clamp the VAX belt to hold the transporter.

- b. From the left end of the library, slowly pull straight upward on the HAX sync belt (Figure 17 on page 15) to move the VAX column toward you, to the left end of the library.



### Caution

Be careful not to move the HAX sync belt too fast, which could cause the VAX column to crash into the other end of the library.

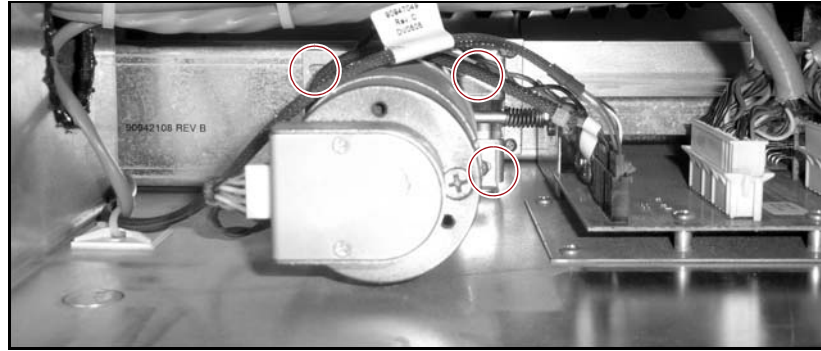
Never force the VAX column to move along the Thomson rod. Doing so can permanently damage it. If it does not glide smoothly, stop immediately. Identify and then remove any obstruction.

- c. From the right end of the library, carefully lift off the HAX belt cover and set it aside.
- d. From the left end of the library, slowly pull straight downward on the HAX sync belt to move the VAX column to the right end of the library.

## Unmount the HAX Motor

1. (Recommended) Using a felt-tip marker, outline the position of the HAX motor mounting bracket on the HAX belt housing. This outline will help you correctly position the mounting bracket later.

2. Reach through the front of the left-most frame and use a #2 Phillips screwdriver to remove the four screws securing the HAX motor mounting bracket to the HAX belt housing.



**Figure 21** Screws securing the HAX motor. The lower left screw is not visible.

3. Remove the motor through the front of the frame.  
**Note:** Take notice of whether there is a HAX motor shim between, but not attached to, the HAX motor mounting bracket and the belt housing.

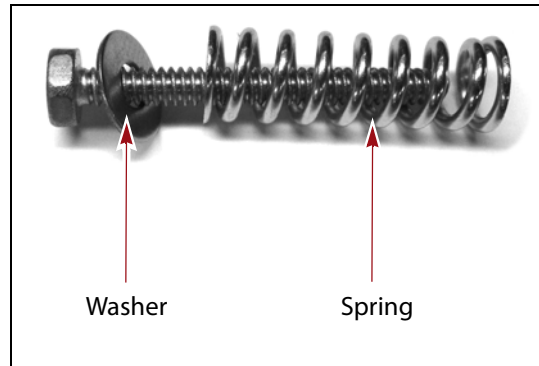
## INSTALL THE HAX MOTOR

Use the steps in the following sections to install the new HAX motor in the library.

### Prepare the HAX Motor for Installation

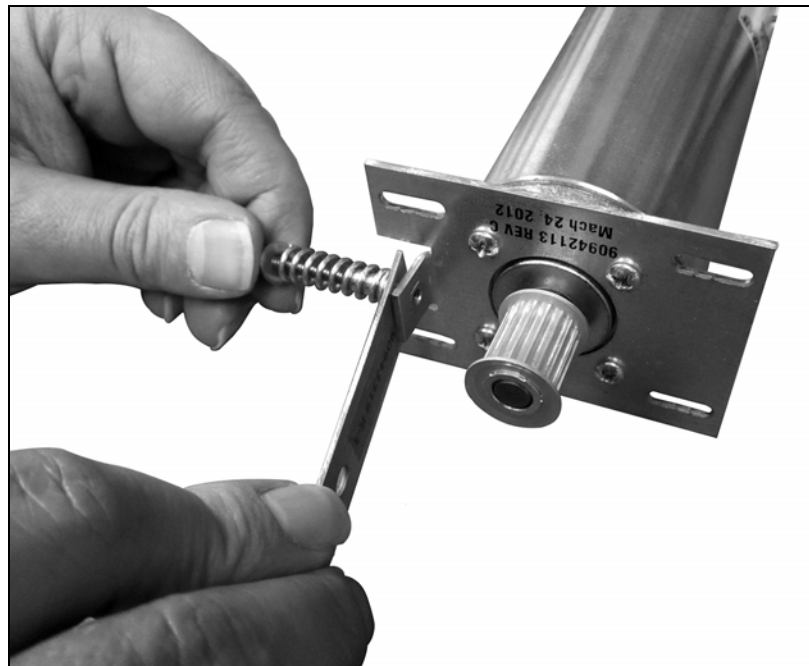
1. Remove the replacement motor from its packaging.  
**Note:** Keep all packaging material to use to return the old motor to Spectra Logic. See [Return the Component](#) on page 38.
2. Place the motor on a work surface with the cables toward the left.
3. Using a 1/4-inch nut driver, remove the tensioning screw, if it is installed.
4. Lay the motor down on a flat surface with the tensioning spring standoff toward the side.

5. Assemble the HAX motor tensioning spring with the washer in between the spring and the screw head.



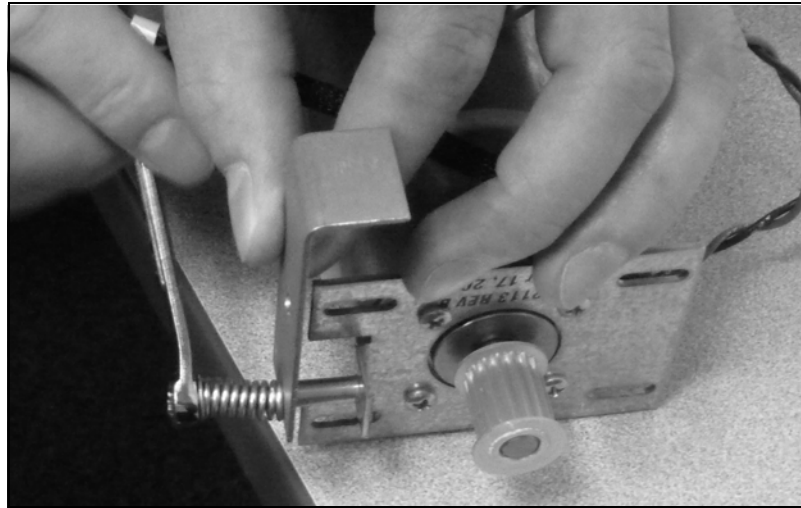
**Figure 22** Ensure the HAX motor tensioning screw is assembled as shown.

6. Position the HAX motor installation tool against the HAX motor mounting bracket so that the notch aligns with the opening in the standoff.
7. Insert the tensioning screw, washer, and spring into the standoff so that the HAX motor installation tool is clamped between the spring and the standoff.
8. Using your thumb, push in on the screw to compress the spring and turn the screw to engage it with the threads in the standoff.



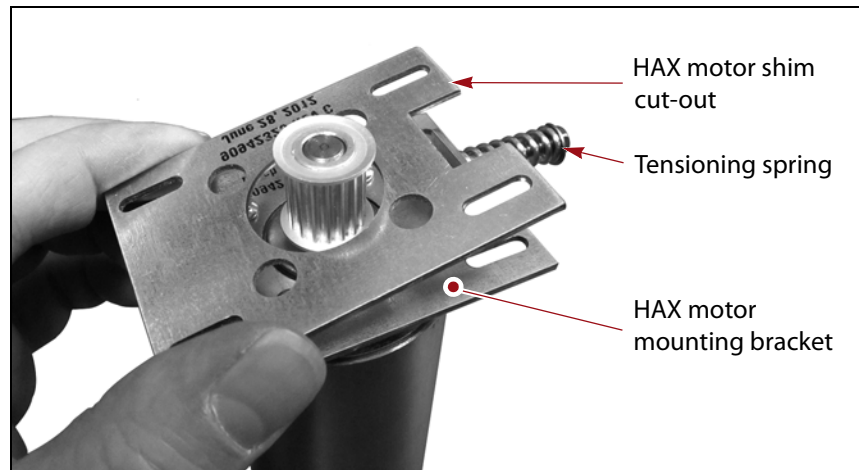
**Figure 23** Start the tensioning spring screw.

- Using a 1/4-inch wrench, tighten the tensioning spring screw until the coils of the spring barely touch and then loosen the screw one half turn.



**Figure 24** Tighten the tensioning spring screw.

- If a shim was present on the old HAX motor, place the shim over the HAX motor shaft so that the tensioning spring standoff fits into the cut-out in the shim.

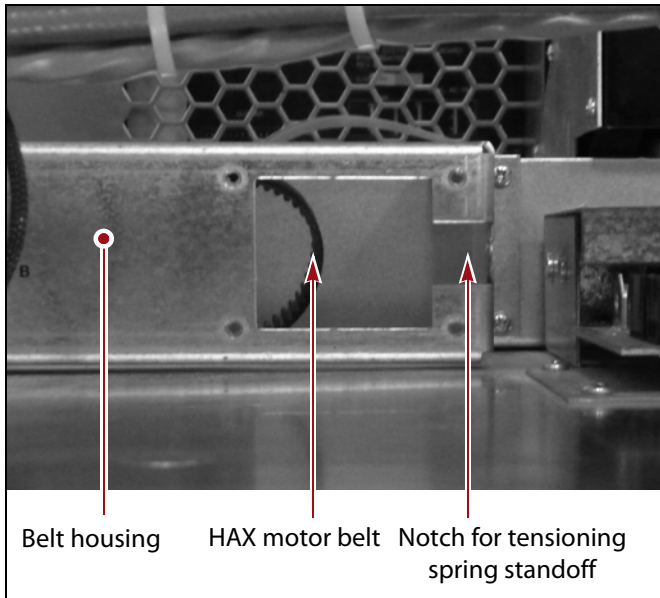


**Figure 25** Position the HAX motor shim.

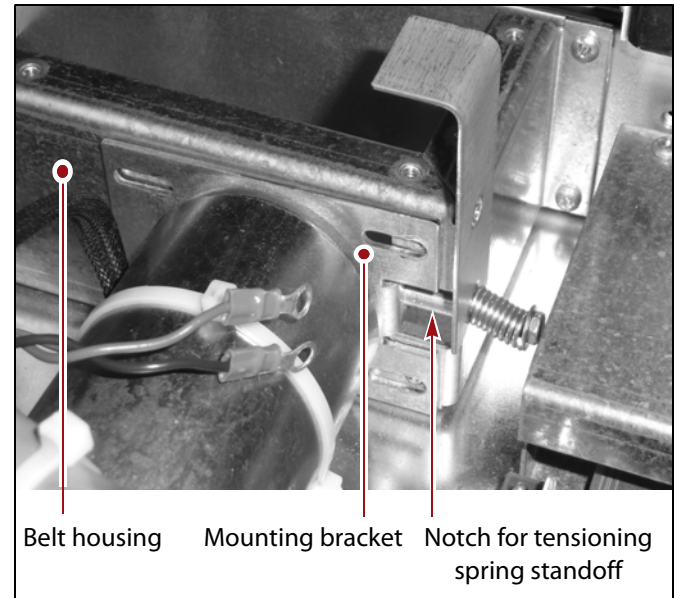
## Mount the HAX Motor

- Orient the HAX motor with the tensioning screw toward the right and the motor gear toward the inside of the library.

- From the front of the library, insert the HAX motor gear through the opening in the HAX belt housing so that the HAX motor belt fits over the gear and the mounting bracket fits flush against the housing.



**Figure 26** Place the HAX motor in the HAX belt housing (viewed from the front of the left-most frame).

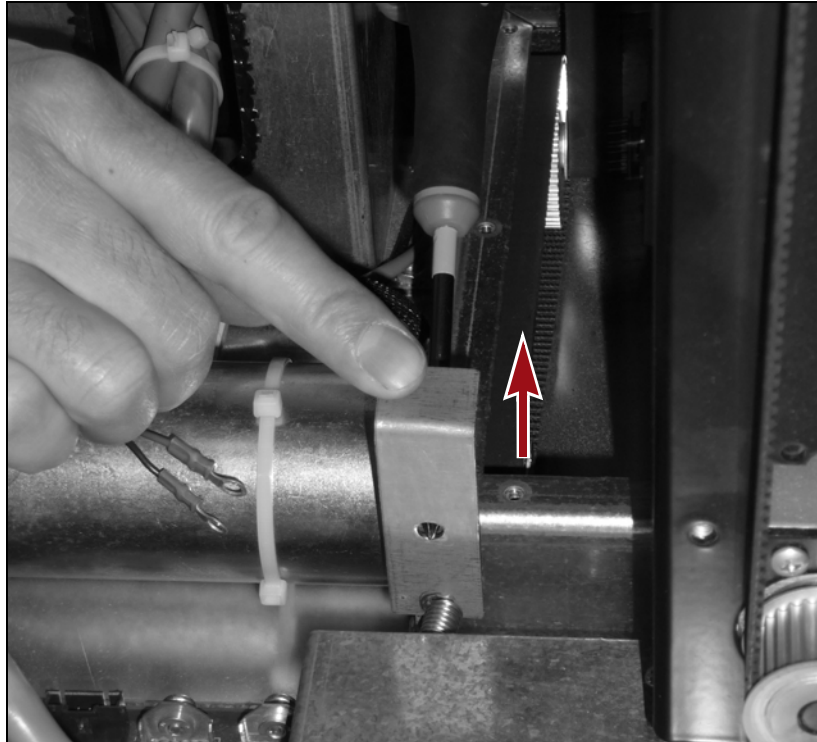


**Figure 27** HAX motor in position.

- Using a #2 Phillips screwdriver, loosely install the four screws securing the motor mounting bracket to the belt housing.



4. From the left side of the library, insert a screwdriver through the hole in the HAX motor replacement tool and use it as leverage to remove the tool.



**Figure 28** Use a screwdriver to remove the HAX motor installation tool.

5. Adjust the HAX motor tensioning screw.
  - a. Slide a single sheet of paper between two winds of the spring. Use a 1/4-inch open-end wrench to loosen the tensioning screw, if necessary. The large slot at the end of the installation tool can be used if a 1/4-inch open-end wrench is not available.
  - b. Using a 1/4-inch open-end wrench, tighten the tensioning screw until the spring grips the sheet of paper.
  - c. Loosen the screw just enough so that the sheet of paper slides out of the spring.

This should align the HAX motor mounting bracket near the outline you drew in [Step 1 on page 18](#).



**Caution**

Do not over-tension the HAX belt. If the belt is over-tensioned it can create enough friction that the motor cannot turn the pulley system.

6. Using a #2 Phillips screwdriver, tighten the four screws to secure the HAX motor mounting bracket to the HAX belt housing.

7. Using the HAX sync belt (Figure 17 on page 15), slowly move the VAX column back and forth along the HAX rail and verify that the HAX drive belt moves smoothly and stays centered on the motor gear.

**Caution**

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Be careful not to move the HAX sync belt too fast, which could cause the VAX column to crash into the other end of the library.

Never force the VAX column to move along the Thomson rod. Doing so can permanently damage it. If it does not glide smoothly, stop immediately. Identify and then remove any obstruction.

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## Install the HAX Belt Cover

1. Place the HAX belt cover on the left HAX rail segment.

**One-or two-frame library**

- a. Make sure that the VAX column is all of the way to the left.
- b. From the right side of the library, place the HAX belt cover over the HAX rail.

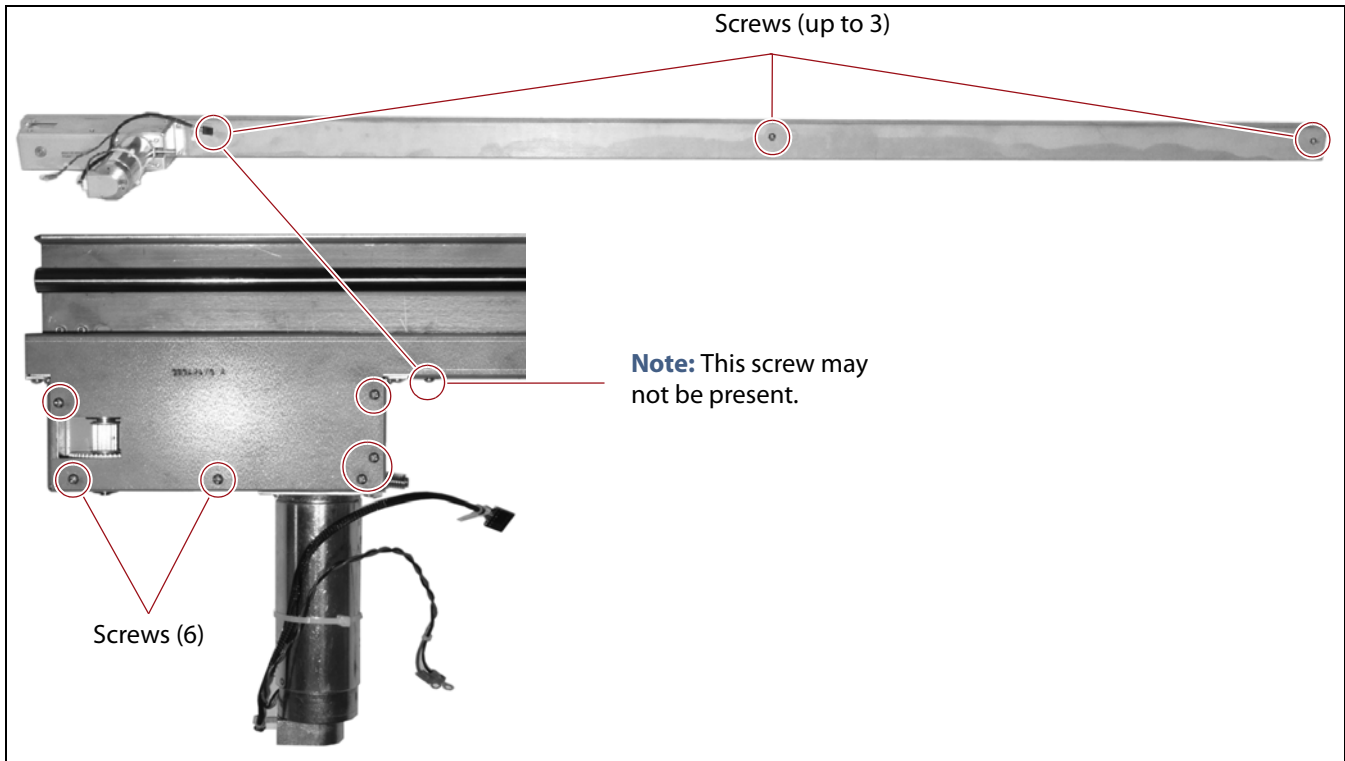
—OR—

**Three-frame or larger library**

- a. Make sure that the VAX column is all the way to the right.
- b. From the left side of the library, place the HAX belt cover over the HAX rail. If the library has a multi-segment HAX belt cover, slide the lip on the end of the HAX belt cover under the edge of the next section of cover and then lower the cover into place over the HAX rail.



- Using a #2 Phillips screwdriver, install the six screws securing the HAX belt cover to the top of the left HAX rail segment.



**Figure 29** Remove the HAX belt cover from the left HAX rail segment (multi-frame HAX rail segment shown).

- Depending on the number of frames in the library, install the one to three screws securing the HAX belt cover to the side of the left HAX rail segment.

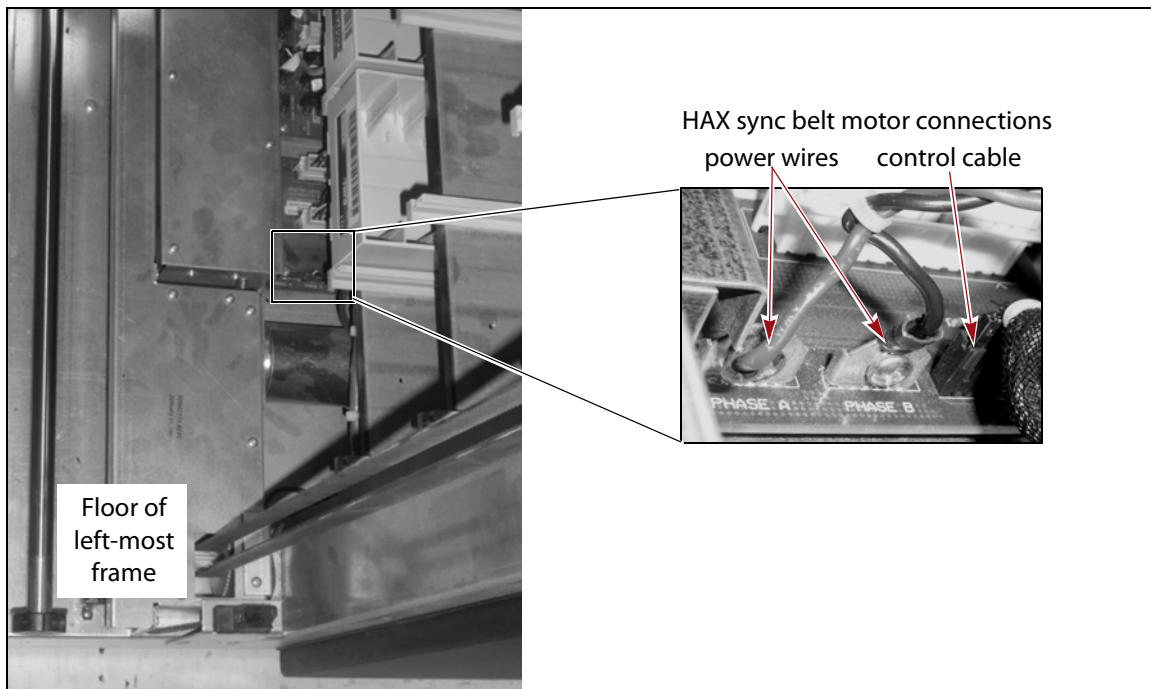
## Connect the HAX Motor Cables

1. Locate the shielded black motor control cable and the red and black power wires attached to the HAX motor.
2. From the left end of the library, use a right angle #2 Phillips screwdriver to secure the HAX motor's red and black power wires to the Phase A and Phase B connectors on the HAX passive board.
  - The red wire connects to the Phase A connector.
  - The black wire connects to the Phase B connector.



### Caution

Make sure that you connect the red and black power cables to the correct connectors using the screws that were removed earlier. Using different screws or not connecting the wires correctly can result in serious damage to the library.



**Figure 30** Connect the power and control connections to the HAX motor on the floor on the right side of the left most frame.

3. Connect the motor control cable from the HAX motor to the connector adjacent to the Phase B connector.



### Important

Make sure that none of the cables press against the HAX motor.

## COMPLETE THE REPLACEMENT

After you install the HAX motor, use the procedures in the following sections to complete the replacement.

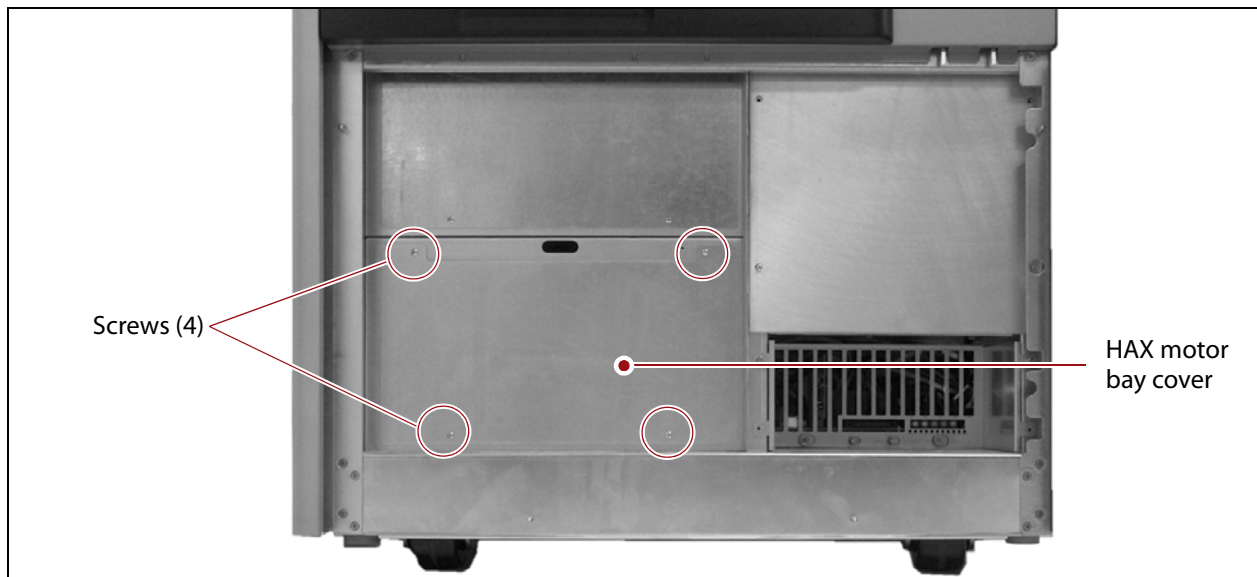
### Reassemble the Left Most Frame

The steps to reassemble the left-most frame depend on the frame type.

- If the frame is a bulk TAP frame, begin with [Install the Fan Assembly and Bay Cover \(Bulk TAP Only\)](#) on this page.
- If the frame is the main frame, skip to [Reinstall the Media Shelves, Cable Guard, and Media Cover](#) on page 29.

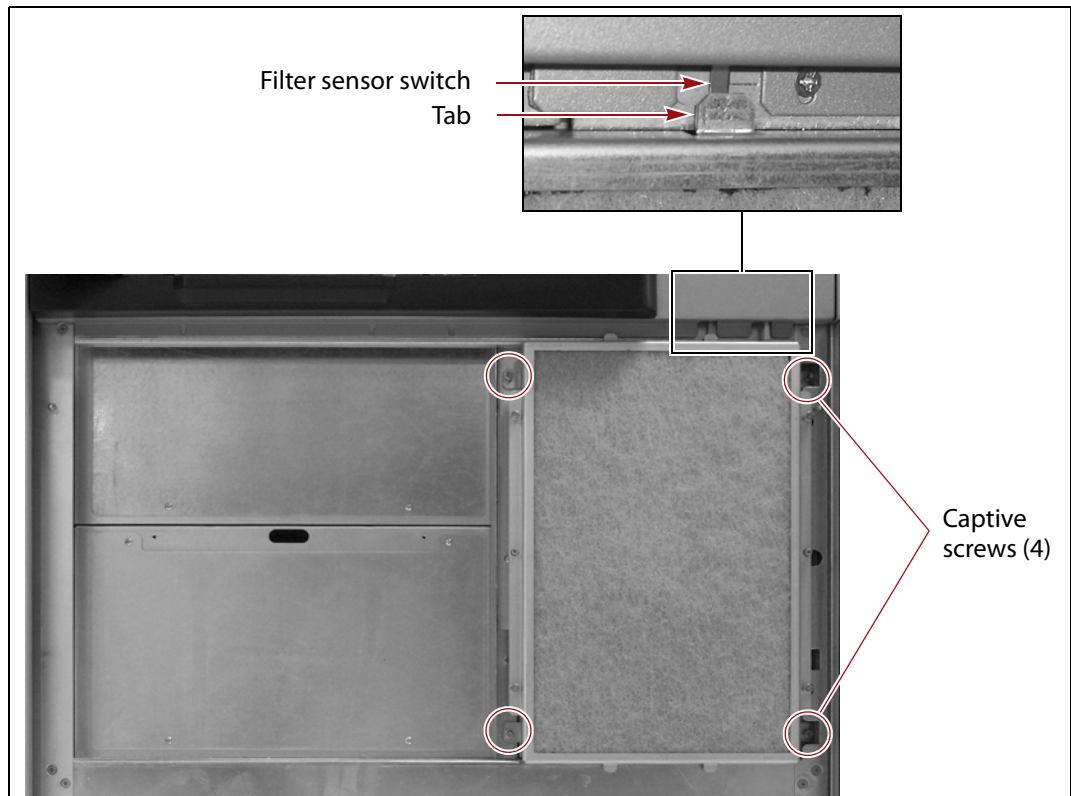
### Install the Fan Assembly and Bay Cover (Bulk TAP Only)

1. Using a #2 Phillips screwdriver, install four screws to secure the HAX motor bay cover to the front of the frame.



**Figure 31** Install the HAX motor bay cover.

- Carefully slide the fan assembly straight into the opening in the bottom front of the frame.  
**Note:** Make sure that the tab on the filter is pressing in on the filter sensor switch.

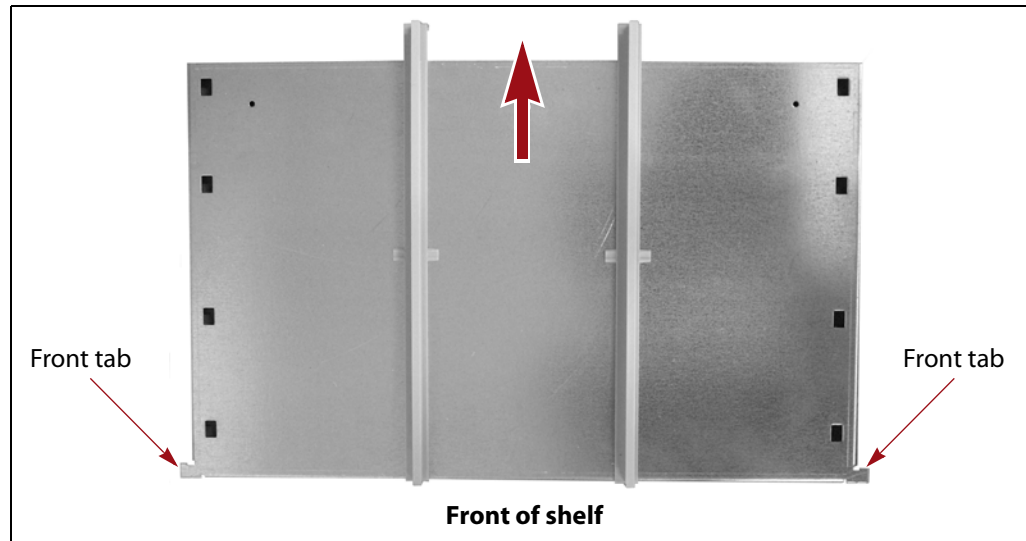


**Figure 32** Tighten the captive screws to secure the fan assembly to the frame.

- Push inward on the bottom of the fan assembly to seat the connector mounted on the back of the assembly.
- Use a #2 Phillips screwdriver to tighten the four captive screws to secure the fan assembly to the frame.
- Position the filter cover over the fan assembly and push firmly inward on the sides of the cover to snap it onto the ball studs extending from each side of the frame.
- Continue with [Replace the Access Panels on page 34](#).

## Reinstall the Media Shelves, Cable Guard, and Media Cover

1. Reinstall the shelves you removed from the front of the frame.
  - a. Orient the shelf with the tabs toward the front of the library and the back of the shelf toward the inside of the library.



**Figure 33** Orient the shelf with the tabs toward the front.

- b. Slide the shelf into the frame. Make sure that the back edge of the shelf fits into the slots in the rear mounting tabs and the front tabs fit into the slots in the front of the frame.

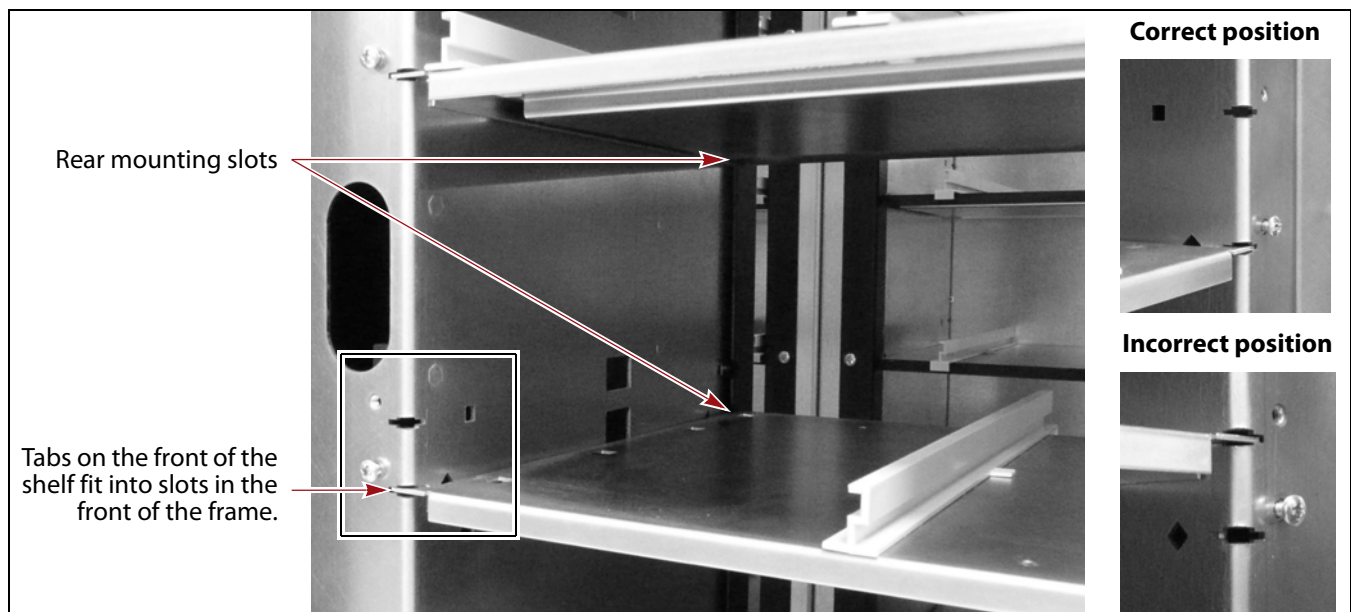
**Caution**

Make sure that the rear top edge of the shelf fits into both of the rear mounting slots so that the shelf is level. Incorrectly installing a shelf will cause motion failures.

**Important**

There may be two sets of mounting slots for the shelves. One set is identified by a diamond-shaped hole next to the front slots; the other set is identified by a square hole next to the front slots. Make sure that you install the shelves in the set of slots identified by the diamond-shaped hole.

**Note:** Do not reinstall the magazines you removed. You will reimport them at the end of the replacement.



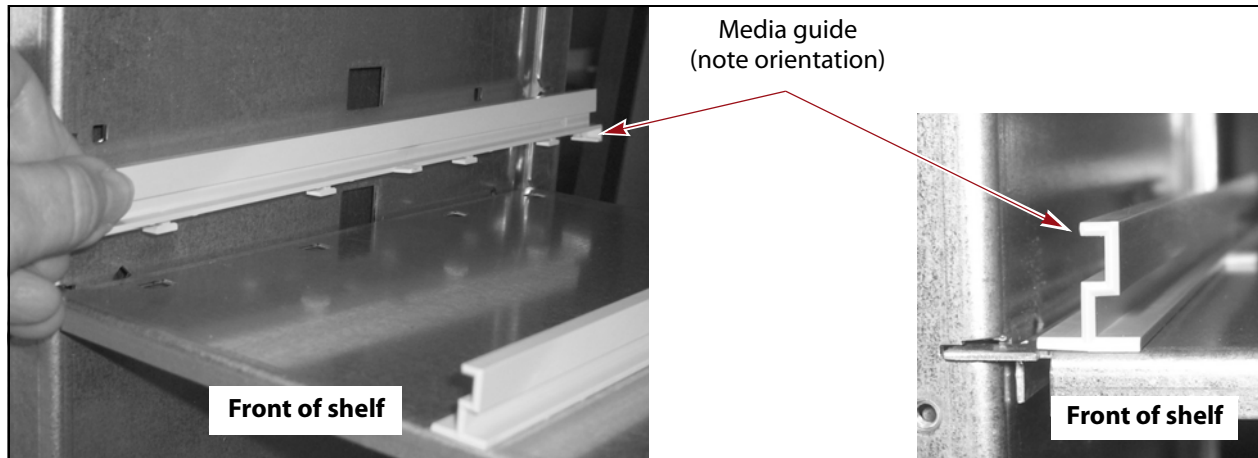
**Figure 34** Install the media shelves.

- c. Install the outer media guides.

Insert the tabs on the bottom edge of each guide into cutouts in the shelf and then slide the guide toward the back of the shelf to latch it in place.

**Important**

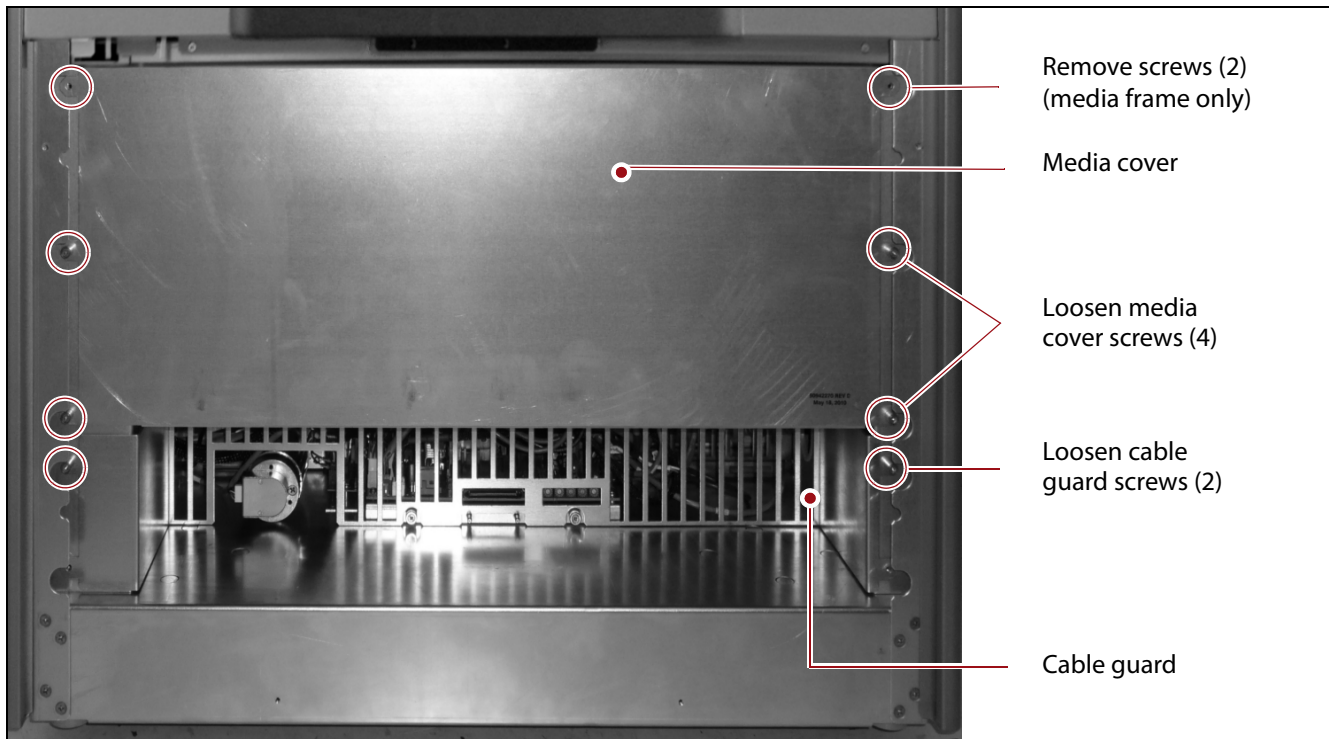
Make sure that the guides are oriented correctly and that the front edge of the media guide is flush with the front of the shelf.



**Figure 35** Install the outer guides on each shelf.



2. Install the cable guard and media cover.
  - a. Slide the cable guard into the opening at the bottom of the frame so that the tabs on each side fit through the cutouts in the front of the frame.



**Figure 36** Install the media cover and cable guard.

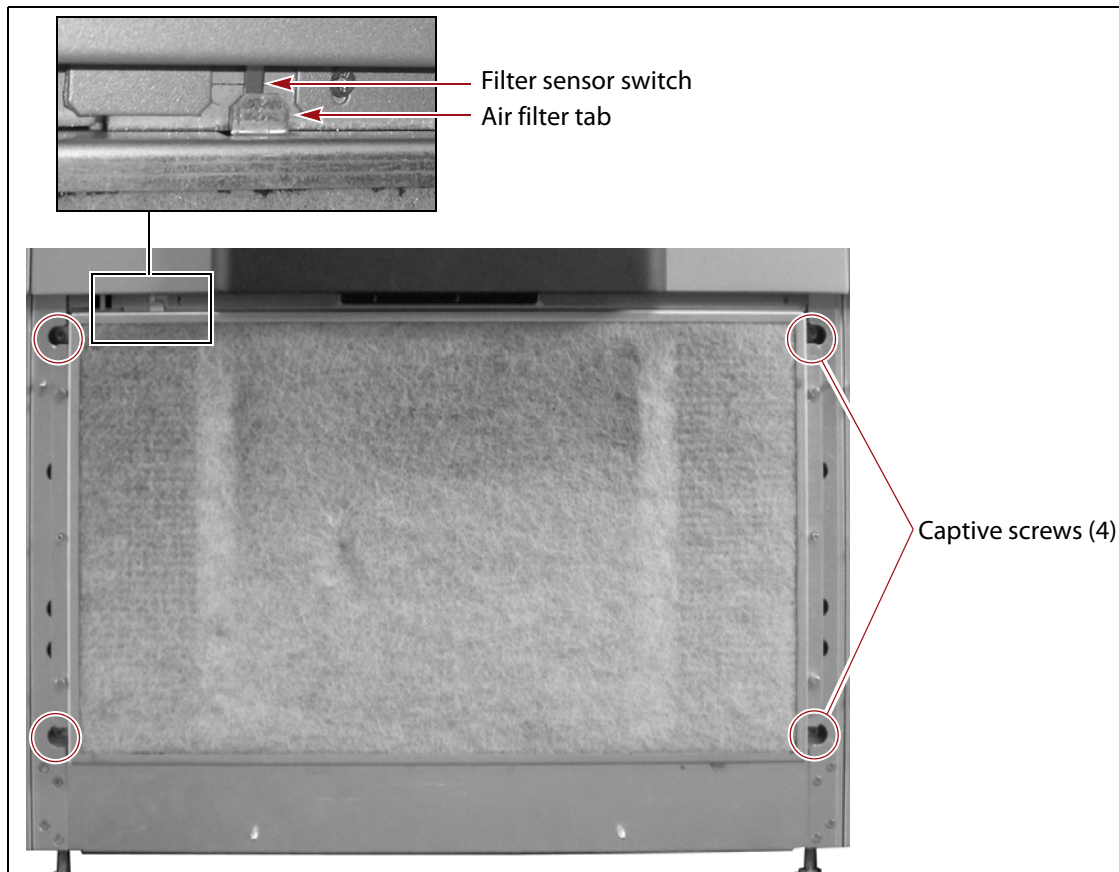
- b. Align the captive screws with the corresponding holes in the frame, then use a #2 Phillips screwdriver to tighten the screws to secure the cable guard to the frame.
    - c. Angle the top edge of the media cover under the filter sensor switches and then position the media cover so that the tabs on each side fit through the cutouts in the front of the frame.
3. Use a #2 Phillips screwdriver to tighten the four captive screws to secure the media cover to the frame. Continue with [Install the Fan Assembly \(Main Frame Only\)](#).



## Install the Fan Assembly (Main Frame Only)

1. Carefully slide the fan assembly straight into the opening at the bottom of the frame.

**Note:** Make sure that the tab on the air filter is pressing in on the filter sensor switch.

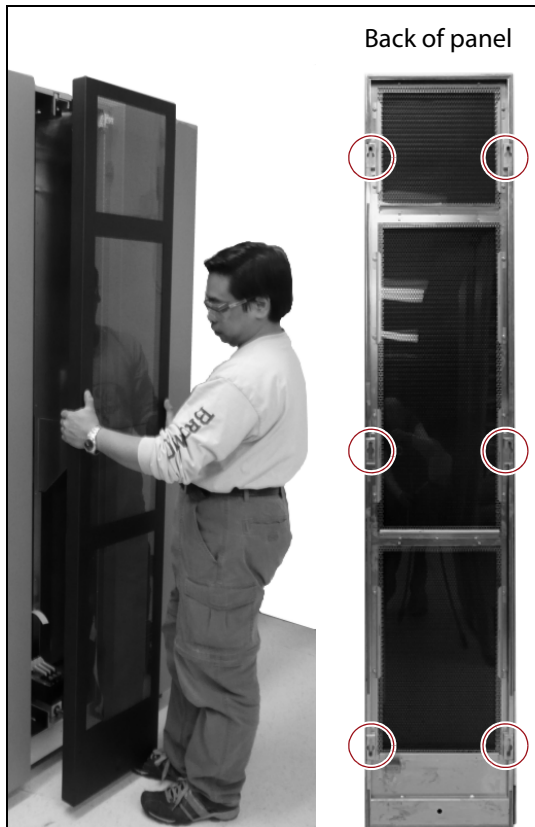


**Figure 37** Tighten the captive screws to secure the fan assembly to the frame.

2. Push inward on the bottom of the fan assembly to seat the connector mounted on the back of the assembly.
3. Make sure that the tab on the filter is pressing in on the switch.
4. Use a #2 Phillips screwdriver to tighten the four captive screws securing the fan assembly to the frame.
5. Position the filter cover over the fan assembly and then push firmly inward on the sides of the cover to snap it onto the ball studs extending from each side of the frame.

## Replace the Access Panels

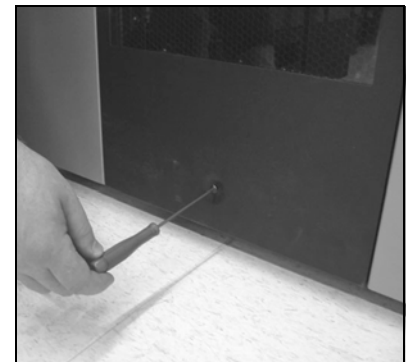
Use the following steps to install access panels that were removed.



**Figure 38** Lift the panel onto the hooks on the sides of the opening.



**Figure 39** Slide the panel down into place.

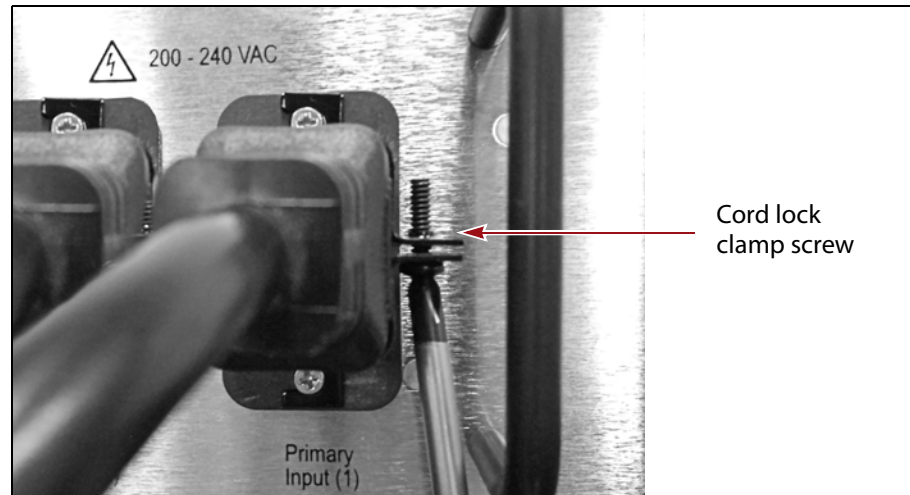


**Figure 40** Install the screw to secure the panel.

1. Lift the panel and position the openings on the back of the panel on the hooks on 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.

## Power On the Library

1. Reconnect the AC power cords.
2. If there are cord locks on the AC power modules, use a #2 Phillips screwdriver to tighten the cord lock clamp screw.



**Figure 41** Tighten the cord lock clamp screw.


3. For each power cable you connected, set the corresponding AC breaker switch to the on (up) position.
4. Press and hold the front panel power button ([Figure 5 on page 8](#)) for two to three seconds or until the button's LED illuminates.

The library will begin its power-on sequence, which includes an obstruction scan.

## Test the Robotics

After the library successfully completes the obstruction scan, perform the following test to confirm that the robotics are functioning correctly.

**All Motion Basic Tests** runs a series of diagnostics to test all of the basic motion parameters.

1. Select **Maintenance**  **Diagnostics**. The Diagnostics screen displays.
2. Select **All Motion Basic Tests**. The screen refreshes to show the details for the diagnostic.
3. Click **Run Diagnostic**. Progress screens display as each test runs.
4. When all of the tests are complete, the Diagnostic Results screen displays. Each of the individual tests run by the diagnostic has a report of Success, Warning, or Fail.
  - If all of the tests results are success, skip to [Turn Off Obstruction Scan \(Optional\) on page 36](#).

- If a test result is either Warning or Fail, proceed to [Step 5](#).



**Figure 42** The Diagnostics Results detail screen for All Motion Basic Tests.

5. Click **Detail** on the Diagnostic Results screen to view detailed result information.
6. Follow any instructions provided on the results screen to resolve the issues encountered by the tests.
7. Repeat the **All Basic Motion Tests** described in this section.
8. If any of the tests still do not complete successfully, copy the information on the Diagnostic Results detail screen to a text file and contact Spectra Logic Technical Support for assistance (see [Spectra Logic Technical Support on page 2](#)).

## Turn Off Obstruction Scan (Optional)

The obstruction scan enabled at the beginning of this replacement procedure was needed to ensure that there were no obstructions in the library after the VAX column was replaced. To speed up the power-on initialization process, you can use the following steps to turn off the obstruction scan.

**Note:** This utility is only applicable if your library is running BlueScale12.0 software or later. If you have an earlier version of the BlueScale software, skip to [Reimport Exported Magazines on page 37](#).

1. Select **Maintenance ... Tools**. The Maintenance Tools screen displays.
2. Select **Utilities**. The Utilities screen displays.
3. Click **Show Advanced**. The Advanced Utilities Confirmation screen displays.
4. Click **Next**. The Utilities screen refreshes to show the Advanced Utilities.

5. Scroll down and select **Set Scans at Startup Defaults**.

The screen refreshes to show the details for the Set Scans at Startup Defaults utility. From the **Select Obstruction Scan behavior** drop-down list, select **Disabled**.

6. Click **Run Utility**.

A progress screen displays. When the operation is complete, a Utility Results screen displays. The library will no longer run an obstruction scan as part of its power-on sequence.

## Reimport Exported Magazines

If you removed magazines from the shelves which were removed, use the following steps to update the library inventory and reimport the magazines. If you did not remove magazines, skip to [Restart Backups on page 38](#).

1. Select **Maintenance**  **Tools**. The Maintenance Tools screen displays.

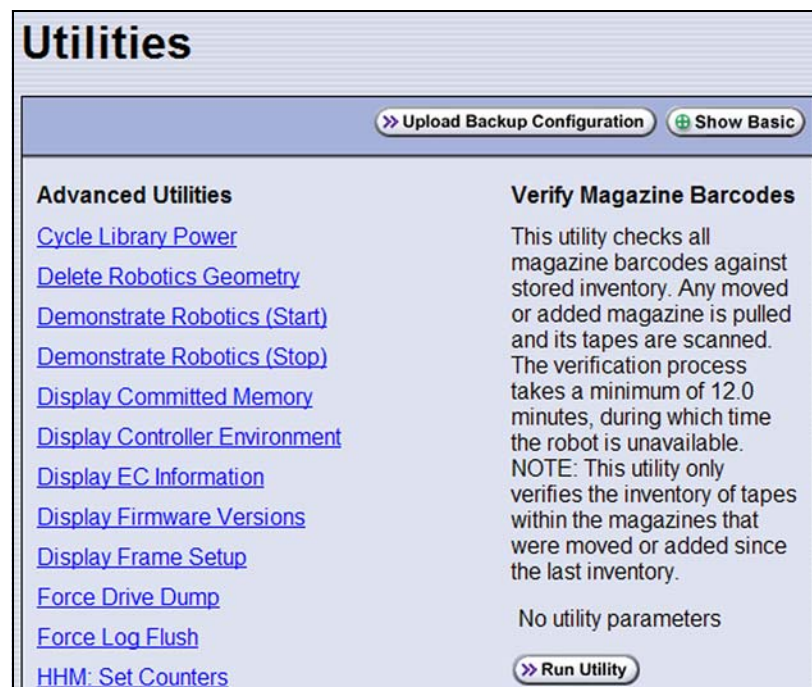
2. Select **Utilities**. The Utilities screen displays.

3. Click **Show Advanced**. The Advanced Utilities Confirmation screen displays.

4. Click **Next**. The Utilities screen refreshes to show the Advanced Utilities.

5. Scroll down and select **Verify Magazine Barcodes**.

The screen refreshes to show the details for the Verify Magazine Barcodes utility.



**Figure 43** The Verify Magazine Barcodes utility.

**6. Click [Run Utility](#).**

A progress screen displays. When the operation is complete, a Utility Results screen displays. The library inventory will now reflect the magazines that were removed during [Prepare the Left Frame on page 11](#).

**7. Reimport any magazines you removed at the beginning of the replacement procedure as described in the [Spectra T950 Library User Guide](#).**

## Restart Backups

Use your backup software to restart any backup processes running on the library.

## RETURN THE COMPONENT

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 consistent with 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).

**Caution**

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.