

Scalar i40 and Scalar i80: Library Desktop Kit Installation

The instructions for installing the Scalar[®] i40 and the Scalar i80 in a desktop kit are the same. The only difference is that the Scalar i40 has two side panels, and the Scalar i80 has four (see Figure 1).





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To install a library, refer to the following sections:

- <u>Desktop Kit Contents</u> on page 2
- <u>Space Requirements</u> on page 3
- Removing the Library From a Rack on page 4
- Installing the Library in the Desktop Kit on page 7
- <u>Reinstalling the Tape Drives and Magazines</u> on page 10
- Restarting the Library on page 11

Desktop Kit Contents

Item	Quantity
Top cover	1
Side panel	2 for the Scalar i40 4 for the Scalar i80
Top cover screws	2
Rubber feet	8

Tools Required:

• Phillips screwdriver

Space Requirements

Make sure the location in which you want to install your library in a desktop kit provides adequate space and air clearance.

- Table 1 provides dimensions and air clearance requirements for the Scalar i40
- <u>Table 2</u> provides dimensions and air clearance requirements for the Scalar i80.

Note: The following specification depths exclude drive sleds. Drive sleds will add up to 1.97 in. (50 mm) to the overall length of the library, depending on version (half-height, full-height, Fibre Channel, SAS).

When planning space requirements, please take into account installed cables (particularly fiber-optic cable radius on Fibre Channel tape drives).

Dimensions	Scalar i40
Height	5.34 in. (135.65 mm)
Width	18.90 in. (480 mm)
Depth (from library front bezel to back of library; excludes drive sleds)	31.22 in. (793 mm)
Air clearance	Open 4 in. (10.2 cm) in front of and behind library for proper air flow

Table 1	Scalar i40	Dimensions
and Air	Clearance	

Table 2	Scalar i80	Dimensions
and Air	Clearance	

Dimensions	Scalar i80
Height	10.58 in. (268.75 mm)
Width	18.90 in. (480 mm)
Depth (from library front bezel to back of library; excludes drive sleds)	31.22 in. (793 mm)
Air clearance	Open 4 in. (10.2 cm) in front of and behind library for proper air flow

Removing the Library From a Rack

	If your Scalar i40 or Scalar i80 library is currently installed in a rack, these instructions explain how to remove it from the rack.	
	Note: If your Scalar i40 or Scalar i80 library is not in a rack, proceed to <u>Installing the Library in the Desktop Kit</u> on page 7.	
	WARNING: Two people are required to safely lift the library.	
	Before you begin the procedure to remove the library from the rack, you should save your library configuration:	
	1 From the Web client, select Tools > Save/Restore Configuration .	
	2 Click Save System Configuration and click Apply.	
	This allows you to restore the most current settings if necessary.	
Removing the Tape Drives From the Library	Remove tape drives to reduce the library weight for rack removal. These instructions explain how to safely remove a tape drive from the library:	
	Note: Make sure each tape drive you remove is empty of media.	
	 Prepare host applications by following the vendor instructions for stopping all commands to the library. 	
	2 From the Operator panel, select Actions > Tape Drive, and select Unload.	
	3 Click each tape drive to unload it.	
	4 For each tape drive in the library, complete the following steps:	
	a Select Actions > Tape Drive, and select Change Mode.	
	b Select a tape drive and press Modify .	
	c Press the Down button to select Offline .	
	d Click Apply.	
	5 Disconnect the cable and the power cord from the back of each tape drive.	
	Note: Label the cables so that you can reconnect them to the correct ports.	
	6 Unscrew the captive thumbscrews securing each drive sled to the back of the library.	
	Half-height tape drives have two thumbscrews. Full-height tape drives have four thumbscrews.	

7 Using the handle, pull each drive sled out of the library. It should slide out smoothly and easily.

Note: Label each drive so you can return it to the same location.

8 Set the drive down gently on a stable surface.

Remove magazines to reduce the library weight for rack removal. These instructions explain how to safely remove the magazines from the library:

- 1 To ensure that you can replace a cartridge back in the same slot position if necessary, generate the Library Configuration report:
 - a From the Web client, select **Reports > Library Configuration**.
 - **b** Click the **Show Barcodes** button.

A map of the library showing the location of each cartridge by barcode is displayed.

c To print the report, click the **Print** icon in the upper right corner.



Note: This report is precautionary. In this procedure, you will need this report only if the cartridges get mixed up or dropped.

- 2 For each magazine, complete the following steps:
 - **a** From the Operator panel, select **Actions > Magazine**.
 - **b** Use the **Up** or **Down** button to select a magazine.
 - c Select Release.

When the magazine is unlocked the following message is displayed:

Magazine is now unlocked. Waiting for the magazine to be moved to the expected position.

You have 30 seconds to remove the magazine from the library before it locks again.

3 Remove the magazine from the library and set it down gently on a stable surface.

Note: Label the magazine to be sure you reinstall it in the same location.

Removing the Magazines From the Library

Shutting Down the Library	These instructions explain how to shut down the library:
	1 To shutdown the library, complete the following steps:
	a Do one of the following:
	 From the Operator panel, select Actions > Shutdown, and select Shutdown Library.
	 From the Web client, select Operations > System Shutdown, and select Showdown.
	Confirm you want to shutdown the system.
	b After the library has completed the shutdown process and the "Ready to power down" message is displayed, press the power button on the front panel to turn the library OFF.
	2 Disconnect the power supply cord and the Ethernet cable from the back of the library.
	3 Look through the magazine slot openings to be sure the robot is resting on the floor of the library. If not, reach inside and gently press down on one of the robot's side metal rods until the robot starts moving. It should drift down to rest on the floor of the library.
	WARNING: Two people are required to safely lift the library. You should have someone help you with <u>Step 4</u> through <u>Step 6</u> on page 7.
	4 Unscrew the captive thumbscrews in the front end of the library (the "rack ears") that secure the library to the rack (see <u>Figure 2</u>).



Figure 2 Removing the Screws Securing the Scalar i40 and the Scalar i80 in the Rack **5** Slide the library out of the rack.

Keep the library level as you slide it out of the rack.

6 Place the library on a flat, stable surface.

Installing the Library in the Desktop Kit

These instructions explain how to install the library in the desktop kit.

1 Turn the library carefully on its side (either the left or right side). Make sure the front end of the library (the "rack ear") overhangs the edge of the table, so that the library lies flat.

WARNING: You should have a second person help you to turn the library and to stabilize it at the edge of the table.

2 Install the eight rubber feet on the bottom of the library as follows:

There are eight holes in the bottom of the library into which you will press the rubber feet. Four holes are located along the right edge and four along the left edge. <u>Figure 3</u> on page 8 shows the locations of these holes.

a Use your fingers to press each foot into a hole.

Twisting the foot as you push it may make it easier to get it into the hole.

b Carefully turn the library back to an upright position so that it is resting on its rubber feet.

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Figure 3 Location of Rubber Feet on Bottom of Library



- **3** Install the side panels (in any order) as follows (see Figure 4 on page 9):
 - a Orient the side panel correctly. Each panel can only be installed one way.
 - **b** Line up the eight posts on the inside of the side panel with the holes in the side wall of the library.
 - **c** Line up the screw hole in the bottom front of the side panel with the captive thumbscrew behind the magazine on the library chassis.
 - **d** Press the side panel against the wall so that the posts go into the holes.
 - e Slide the side panel toward the front of the library about half an inch until it stops, and make sure that the posts are engaged in the holes.

The side panel should be flush with the side of the library chassis.

f Tighten the thumbscrew at the front of the library to secure the side panel to the library.

Figure 4 Installing the side panels



Inset showing captive thumbscrew behind open magazine

- 4 Install the top cover as follows (see <u>Figure 5</u> on page 10):
 - a Slide the top cover onto the library, from back to front.

The back of the top cover has two screw holes and overhangs the back of the library.

b Install the two top cover screws through the top cover and into the screw holes in the top of the side panels.

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Figure 5 Installing the Top Cover

Insert the Tape Drives

into the Library



- **5** Connect the power supply cord and the Ethernet cable to the back of the library.
- 6 Connect the power supply cord to the electrical outlet.

Reinstalling the Tape Drives and Magazines

If you removed the tape drives and magazines from the Scalar i40 or Scalar i80 library before installing it in the desktop kit, you must reinstall them in their previous locations.

These instructions explain how to reinstall the tape drives into your Scalar i40 or Scalar i80 library

1 Insert a tape drive into the same drive slot from which you removed it.

Note: It is recommended that you start installing the tape drives at the bottom and work up.

The "shelf" on the bottom of the drive sled fits into the notch in the library chassis and slides on the plastic guide rails (see <u>Figure 6</u> on page 11). The tape drive must be level to slide in smoothly. At the very end of the slide, you will feel a slight "click" as the tape drive sled connector connects into its matching connector in the library chassis.

Figure 6 Installing a Tape Drive



- **2** To secure the tape drive to the library chassis, tighten the tape drive's captive thumbscrews finger tight.
- **3** Reattach the tape drive's power cable to the tape drive and the outlet.

The tape drive LED illuminates red for up to 30 seconds. Then the tape drive fan starts and the LED turns amber, indicating the tape drive is offline.

4 Reconnect the tape drive cable from the tape drive to the host.

The tape drive takes about 2 minutes to reach a ready state.

Reinstalling the Magazines These instructions explain how to reinstall the magazine into your Scalar i40 or Scalar i80 library.

- 1 Slide a magazine into the same slot from which your removed it.
- 2 Slide it all the way back until it stops.

Restarting the Library

These instructions explain how to restart the Scalar i40 or Scalar i80 library after it is installed in the desktop kit.

1 Press the power button on the front of the library to turn the library **ON**.

During the startup, the library performs an inventory of the tape drives and magazine slots. All the tape drives that were offline are brought back online. The reboot takes approximately 5 minutes.

2 Run the Installation and Verification Test (IVT).

You should run the full IVT upon installation of a new library, and whenever you remove, replace, or service components that require you to move the library into or out of a rack or desktop kit. The test calibrates the robot to the library, verifies that the robot is functioning properly, and verifies that the magazines and tape drives are installed correctly and reachable by the robot. The test also verifies that the barcode labels can be read by the robot scanning operation.

- **a** Be sure the following prerequisites are met before running the test (for more information, see the *Quantum Scalar i40 and Scalar i80 User's Guide*):
 - All diagnostic tickets must be closed
 - I/E station slots must be allocated (minimum of five)
 - All magazines must be installed in the library (two in the Scalar i40; four in the Scalar i80)
 - Tape drives must be in the ready state. (You can check this from the Web client: select Setup > Drive Settings to list the drives in the Ready state.)
 - A scratch tape must be in the top I/E station slot and assigned to the System partition.
- **b** From the Operator panel, select **Tools > IVT**.

After you confirm you want to continue with the test, a message displays informing you that partitions will be taken offline and all Web users will be logged out. The library conducts a series of tests; each prerequisite is listed as the library checks it.

- If there is a problem, the operation panel provides a message of explanation about how to fix it; you must fix the problem and run the test again.
- After the test checks the prerequisites, it performs three sub tests. If any of the sub tests fail, check the library diagnostic tickets to help determine and resolve the problem and run the test again.