Installing an Entry/Exit Port in the Exabyte Magnum20 Library

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The Magnum20 library is not shipped with the entry/exit port installed. These instructions describe how to install the entry/exit port after you receive the library or how to replace an existing entry/exit port. The procedure involves the following steps:

- Removing the entry/exit port cover and cartridge slot assembly or removing the entry/exit port assembly you are replacing
- Installing the entry/exit port assembly.
- Installing the entry/exit port caddy.

**CONTENTS OF THE KIT**

The entry/exit port kit contains the following items:

- Entry/exit port assembly
- Mounting screws
- Cable ties

In addition, if you purchased an entry/exit port kit to install in a library that did not previously have an entry/exit port, the kit will include an entry/exit port caddy.
Before installing the entry/exit port, do the following:

✔ Make sure the environment is free of conditions that could cause electrostatic discharge (ESD). If possible, use an antistatic mat and a grounded static protection wristband during this procedure.

✔ Obtain the following tools:
  
  ➤ T-15 and T-20 TORX drivers
  ➤ Wire cutters or scissors

✔ Make sure that there are no cartridges loaded in the tape drives. If necessary, use the LCD commands to move cartridges out of the tape drives.

✔ Use the Unlock Entry/Exit Port Door option on the Access menu to unlock the entry/exit port, then remove the entry/exit port caddy, if it is present.

✔ Power off the library and disconnect the power cord.

⚠️ Warning

Before performing this maintenance procedure, be sure that the library power switch is in the off position and that the power cord is disconnected from the library and the outlet.
2 Remove the Entry/Exit Port Cover

This section describes how to remove the entry/exit port cover and cartridge slot assembly from a library that did not previously have an entry/exit port installed. If you are replacing an existing entry/exit port, skip to Section 3, “Remove the Existing Entry/Exit Port,” on page 5.

To remove the entry/exit port cover, follow these steps:

1. Open the door.

2. Remove the single screw from the bottom of the front panel card cover, shown in Figure 1, and rotate the cover up and off the door.

3. Cut the cable ties holding the front door cable in place (see Figure 1).

4. While supporting the entry/exit port cover from the outside of the door, remove the four black plastic screws that secure it to the door from the back of the door (see Figure 1). Remove the cover and set it aside.

5. Remove the six screws that hold the cartridge slot assembly to the back of the door and lift the assembly away from the door, as shown in Figure 1.

Figure 1  Removing the entry/exit port cover and cartridge slot assembly
3 Remove the Existing Entry/Exit Port

If you are not replacing an existing entry/exit port and have already removed the entry/exit port cover and cartridge slot assembly, skip to Section 4, “Install the Entry/Exit Port,” on page 6.

To remove a previously installed entry/exit port, follow these steps:

1. Open the library’s door.

2. Remove the single screw from the bottom of the card cover (shown in Figure 3) and rotate the cover up and off the door.

3. Cut the cable ties holding the front door and entry/exit port cables in place. Do not remove the cable tie anchors.

4. Disconnect the entry/exit port cables from the front panel card, shown in Figure 2.

5. Remove the six screws that hold the entry/exit port assembly to the back of the door and lift the assembly away from the door. See Figure 3 for the location of the screws.

![Figure 2 | Entry/exit port cable connections to the front panel card](image-url)
To install an entry/exit port, follow these steps:

1. Orient the entry/exit port assembly with the motor toward the bottom, as shown in Figure 3. Angle the top of the assembly into the gap between the two sets of cartridge slots, then rotate it down into place. Make sure that no cables are caught under the assembly.

⚠️ **Caution** The entry/exit port state sensors are attached to the top of the assembly. Be careful not to bump the sensors against the cartridge slots above the opening as you move the assembly into place.

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**Figure 3** Installing the entry/exit port assembly (front door cable and front panel cable not shown)
2. Align the screw holes in the entry/exit port assembly with those in the door. Install the top right screw first, then the bottom left screw.

3. Install the remaining four screws, then tighten all six screws.

4. Inspect the springs on the entry/exit port doors and ensure that the ends are seated in their hold-down tabs.

5. Connect the entry/exit port cables listed in Table 1 and shown in Figure 4 to the corresponding connectors on the front panel card. The connectors are all unique and keyed to ensure correct installation. To improve access to the remaining cables, connect the EEport state sensor cable last.

Table 1  Entry/exit port cable connections to the front panel card

<table>
<thead>
<tr>
<th>Cable</th>
<th>Connector</th>
</tr>
</thead>
<tbody>
<tr>
<td>EEPort state sensor</td>
<td>J5</td>
</tr>
<tr>
<td>EEport motor</td>
<td>J7</td>
</tr>
<tr>
<td>EEport lock sensor</td>
<td>J8</td>
</tr>
</tbody>
</table>

Figure 4  Connecting the entry/exit port cables to the front panel card
6. Insert the tab on the card cover into the slot above the front panel card and rotate the card down to cover the card. Make sure that all of the cables fit into the cutouts in the bottom edge of the card cover. Install the screw to secure the cover to the door.

<table>
<thead>
<tr>
<th>Caution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Make sure that no cables are pinched under the cover.</td>
</tr>
</tbody>
</table>

7. Using the cable ties provided, secure the front door and entry/exit port cables to the door.

5 Calibrate the Entry/Exit Port

After replacing an entry/exit port, you must calibrate the new entry/exit port to establish the precise location of the slots in the entry/exit port caddy.

**Note:** If you installed an entry/exit port in a library that did not already have one installed, the library performs the calibration automatically after it completes its power-on self-test (POST).

During calibration, the robot picks the calibration cartridge (shown in Figure 5) and places it into each of the cartridge slots in the entry/exit port caddy, scanning the calibration cartridge’s target to determine its exact position. The robot then returns the calibration cartridge to its slot.

![Calibration cartridge](image)

**Figure 5** Calibration cartridge
To calibrate the entry/exit port, follow these steps:

1. Open the library’s door and make sure that the calibration cartridge is located in the slot immediately above the tape drive bays, as shown in Figure 6. If necessary, install the calibration cartridge with the target window toward the front.

   **Important** Do not remove the calibration cartridge from its slot. If you place the calibration cartridge in a different slot, library operation may be interrupted or terminated.

2. Close the door.

   **Caution** When closing the door, push slowly near the latch, not at the top of the door. Forcing the door closed too quickly or pushing near the top can distort the position of the cartridge slots mounted on the door.

3. Connect the power cord and power on the library. Wait for the library and tape drives to perform their power-on self-tests.

4. Orient the entry/exit port caddy with the handle vertical and the alignment guides toward the top, as shown in Figure 7. The alignment guides fit through corresponding slots in the entry/exit port. Insert the caddy through the entry/exit port doors. Slide it in until the front of the caddy is approximately flush with the library door.

   **Important** Make sure that the caddy is installed in the entry/exit port so that its slot positions can be calibrated.
CALIBRATE THE ENTRY/EXIT PORT

5. Check the Home screen to make sure the robot control mode is set to LCD. If you need to change the control mode, follow these steps:

a. Select the Config tab.

b. Select the Robot tab.

c. Use the arrow next to the New Mode field to scroll through the selections until LCD appears, then select OK.

d. Select OK at the confirmation message.

e. Select the Home tab to return to the Home screen.

6. Select the Maint tab.

7. Select the Calibration tab.

8. Select Calibrate EEPort.

9. When calibration is complete, select OK at the confirmation message.

10. Return the library to its original control mode.

Figure 7 Installing the entry/exit port caddy