



Installing a Bar Code Scanner: Exabyte® 018, 210, 218, 220

This document provides detailed instructions for installing a bar code scanner on the cartridge handling mechanism (CHM) in the Exabyte® 018 and Exabyte 218 4mm Libraries and the Exabyte 210 and Exabyte 220 8mm Libraries.

To install a bar code scanner, you need the bar code scanner kit, which includes:

- Bar code scanner and screws
- Sample bar code labels
- T-10 and T-15 TORX screwdrivers
- Bar code label specifications (4mm and 8mm)

To order the kit from Exabyte, use part number 315570.

Before you begin

- Make sure the maintenance environment for the library is free of conditions that could cause electrostatic discharge (ESD).
- Turn off the power and unplug the library.
- In addition to the T-10 and T-15 TORX screwdrivers included in the kit, you will need a T-20 TORX screwdriver (some models may require a #2 Phillips screwdriver).

Removing the covers

You may find it easier to replace or install the bar code scanner if you first remove the library covers; however, removing the covers is not a requirement.

Note: This document provides an overview of the cover removal procedure, for detailed instructions, refer to the maintenance manual for your library.

Removing the outer covers (standalone model)

If you have a standalone model of the library, remove the covers as follows:

1. Use a T-20 TORX screwdriver to remove the two screws from the back of the top cover (some models may require a #2 Phillips screwdriver).
2. From the rear, push up on the top cover and pull it towards the rear until the front lip of the cover disengages from the front panel. Remove the cover.
3. Use a T-20 TORX screwdriver to remove the three screws from the top of the right cover (as viewed from the rear). Slide the right cover toward the rear and lift it up to remove it.
4. Position the library horizontally on the work table.

Removing the library from the rack (rack-mount model)

1. Before sliding the library out of the rack, extend the rack's anti-tip legs.
2. Use the key to unlock and open the front door of the library.
3. Pull on the cabinet latch inside the door.
4. Slide the library out of the rack until the rails stop at their spring clips.
5. Press the spring clips to disengage the rails.
6. Using two people, pull the library out of the rack.

Removing the service access cover (both models)

To remove the service access cover, use a T-10 TORX screwdriver to remove the four screws. Pull up on the handle and slide the cover away from the front panel.

Removing the bar code scanner (if necessary)

If you are replacing a bar code scanner:

1. Use a T-10 TORX screwdriver to remove the screw from the strain relief (see Figure 1). Remove the strain relief and set it aside — you will use the same strain relief when you install the new bar code scanner.

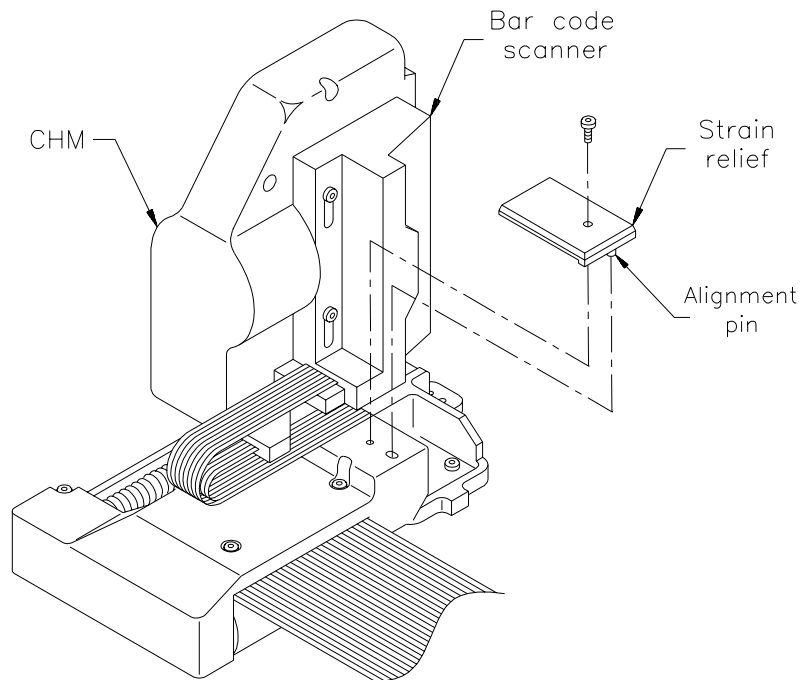


Figure 1 Removing the strain relief

2. Use a T-10 TORX screwdriver to remove the three screws from the CHM cover (see Figure 2).

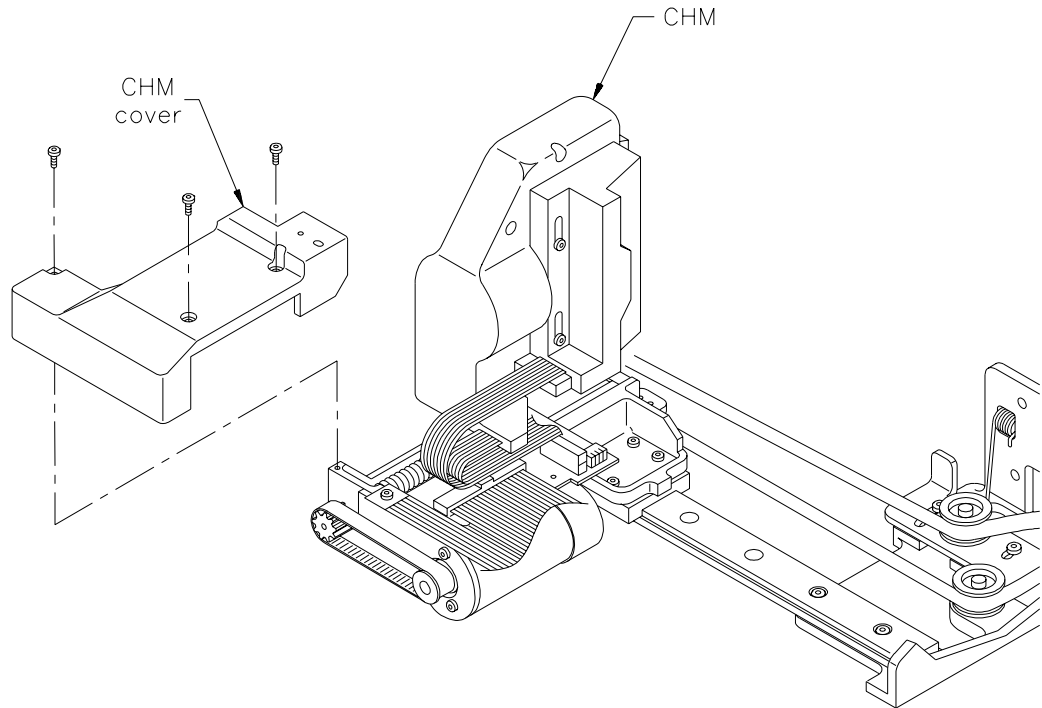


Figure 2 Removing the CHM cover

3. Disconnect the cables (see Figure 3).

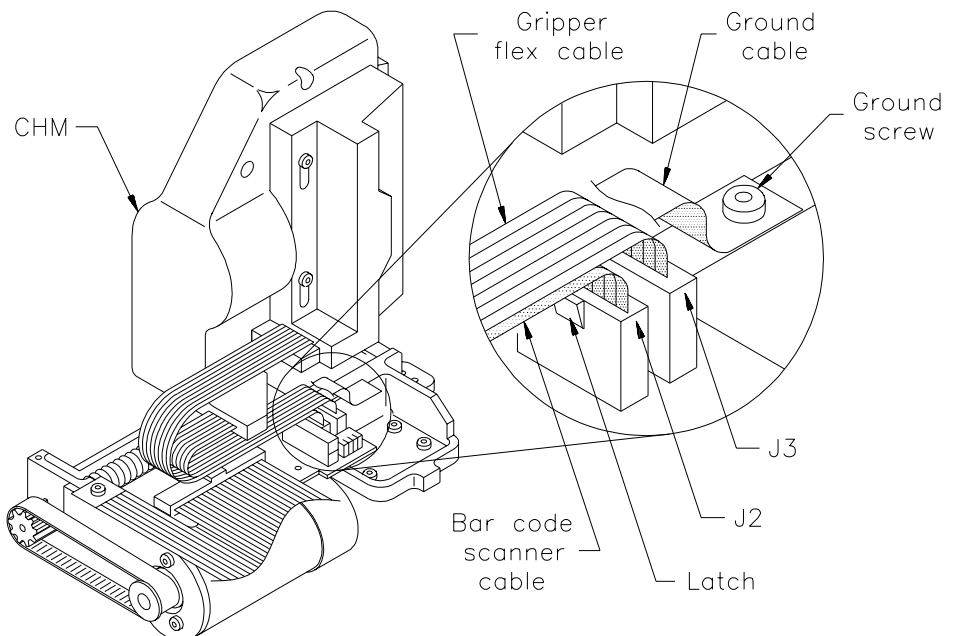


Figure 3 Disconnecting the cables

4. Use a T-15 TORX screwdriver to remove the two screws that secure the old bar code scanner to the CHM. Set these screws aside — you will use them when you install the new bar code scanner.
5. Remove the bar code scanner from the CHM.

Installing the bar code scanner

1. If you have not already done so, use a T-10 TORX screwdriver to remove the single screw from the strain relief, shown in Figure 4.

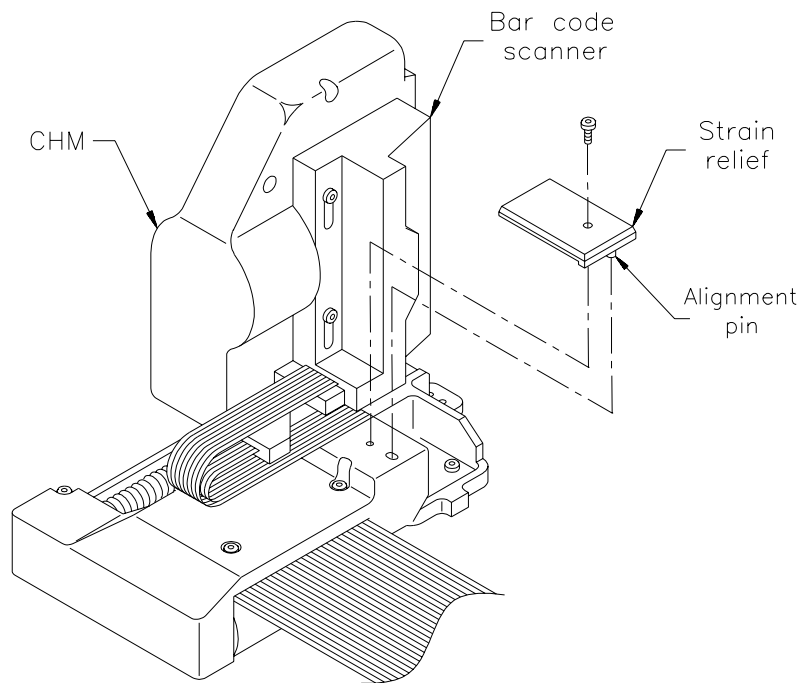


Figure 4 Removing the strain relief

2. Locate the four alignment holes on the side of the CHM and the two alignment pins on the back of the bar code scanner, shown in Figure 5.

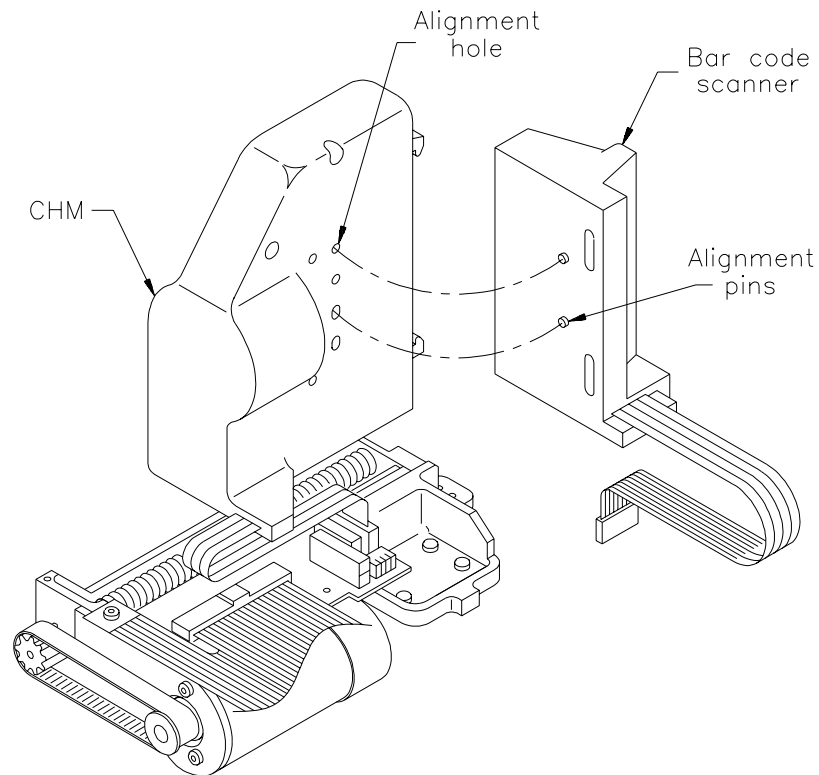


Figure 5 Alignment holes and pins

3. Locate the arrow labelled 2xx on the bar code scanner (see Figure 6).
4. Line up the 2xx arrow on the bar code scanner with the notch on the CHM and insert the two alignment pins into the upper holes (the first and third holes, see Figure 5) on the CHM.

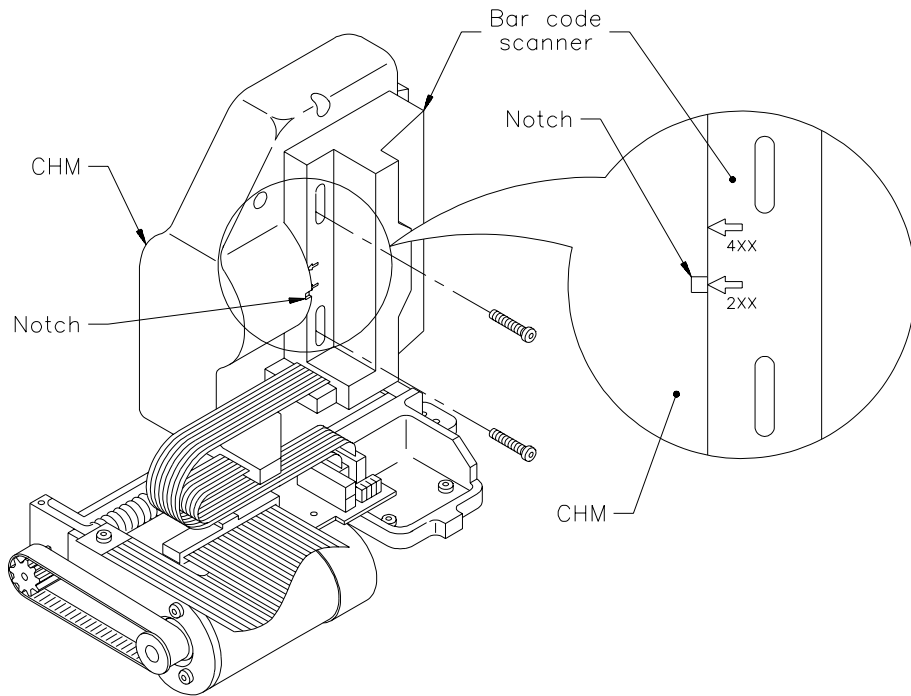


Figure 6 Scanner and screw positions

5. Use a T-15 TORX screwdriver to replace the two panhead screws that attach the bar code scanner to the CHM (see Figure 6). Tighten the screws to 6.0 inch-pounds (6.9 kg-cm) of torque.

-
- **Important** If you are replacing a bar code scanner, use the two mounting screws you removed earlier. If you are installing a new bar code scanner, attach it to the CHM using the mounting screws included in the bar code scanner field kit.

If your bar code scanner field kit includes two sets of mounting screws, use the long screws to mount the bar code scanner. If you can move the bar code scanner after tightening the screws, remove the long mounting screws and reinstall the bar code scanner using the short mounting screws included in the kit.

6. If necessary, use a T-10 TORX screwdriver to remove the ground screw to disconnect the ground cable. Then, remove the gripper flex cable to provide access to the J2 connector for the bar code scanner cable.
7. Connect the bar code scanner cable to the J2 connector on the CHM card, using the latch on the connector for guidance (see Figure 7).

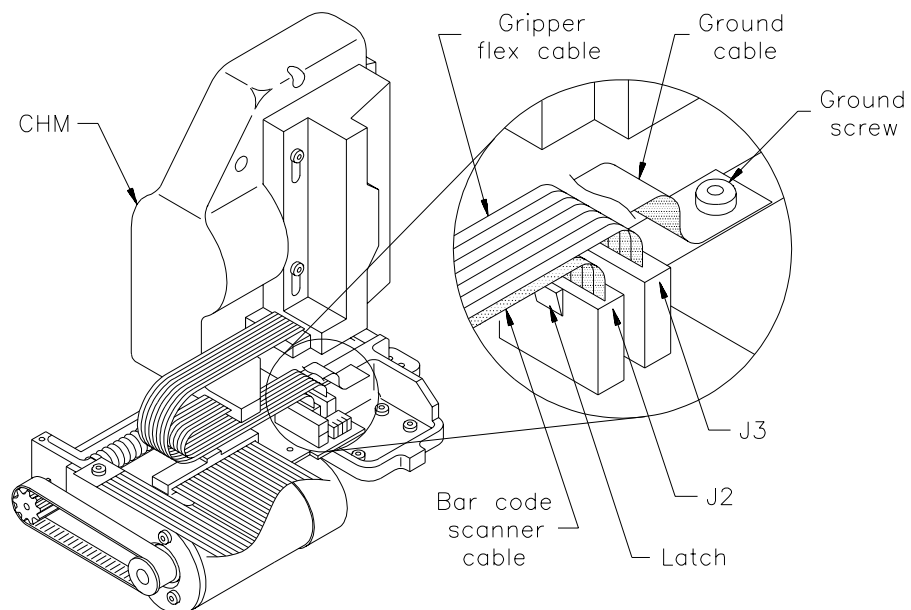


Figure 7 Connecting the bar code scanner

8. If necessary, reconnect the gripper flex cable to the J3 connector (see Figure 7).
9. If you removed it, use a T-10 TORX screwdriver to replace the ground screw and ground cable (see Figure 7).
10. Use a T-10 TORX screwdriver and three 4-40 × 0.375 panhead screws to replace the CHM cover, shown in Figure 8.

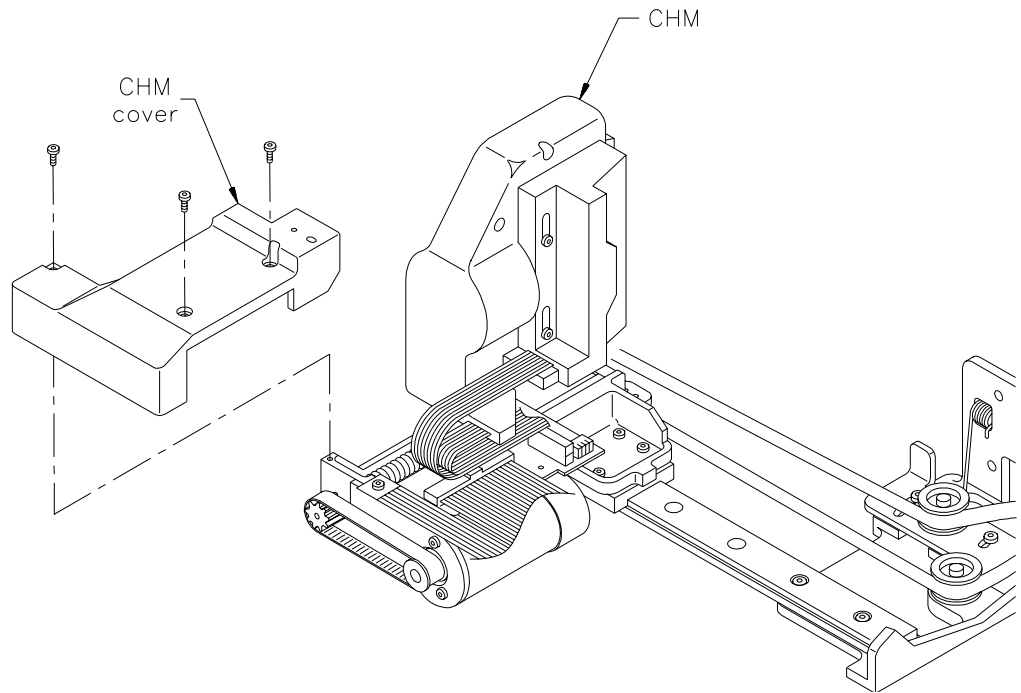


Figure 8 Replacing the CHM cover

11. Use a T-10 TORX screwdriver and one 4-40 × 0.375 panhead screw to replace the strain relief (see Figure 9). Tighten the screw to 4.5 inch-pounds (5.2 kg-cm) of torque.

➤ **Important** Make sure the cables are parallel and neatly clamped to allow smooth flex motion.

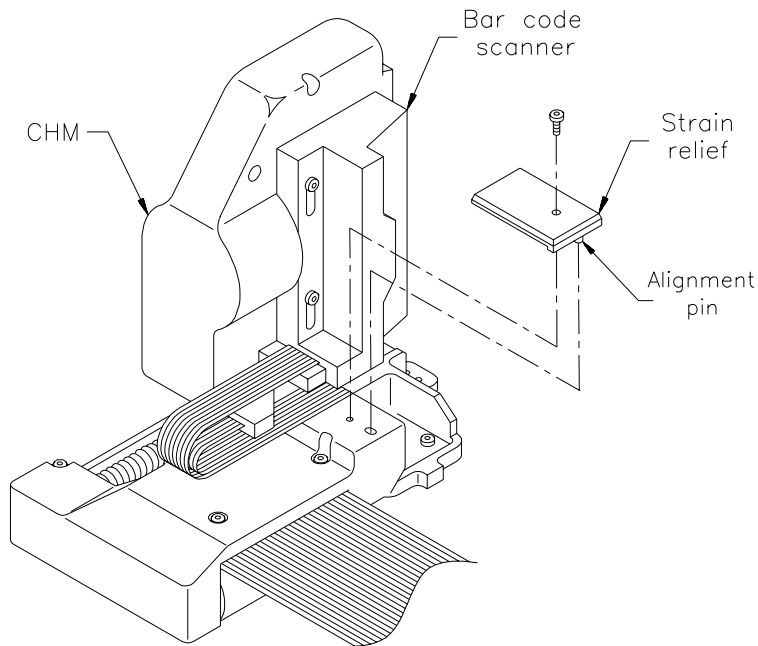


Figure 9 Replacing the strain relief

Testing the bar code scanner

To determine whether you have installed the bar code scanner properly, affix sample bar code labels on test data cartridges and run test scans using the operator panel or your software application.

Note: For information about preparing bar code labels for your 8mm library, refer to EXAfacts Document No. 172, “Bar Code Label Specification for 8mm Cartridges”.

Affixing bar code labels

Locate the package of sample bar code labels included with your bar code scanner kit. Affix the labels onto the recessed area of your data cartridges, as shown in Figure 10 for 4mm libraries and in Figure 11 for 8mm libraries.

-
- **Important** For 4mm data cartridges, if the left edge of the label is more than 0.04 inches (1.0 mm) from the left edge of the recess, the bar code scanner may have difficulty reading the label.
-

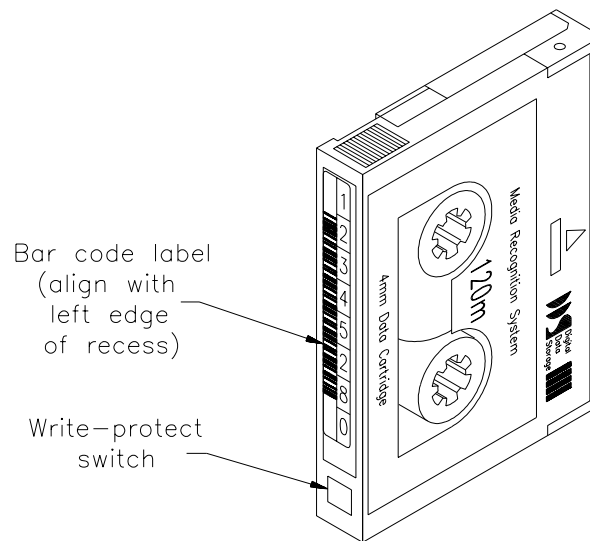


Figure 10 Positioning the bar code label on a 4mm data cartridge

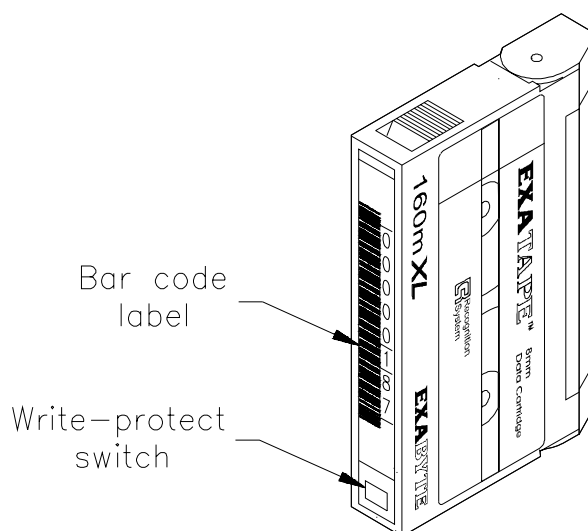


Figure 11 Positioning the bar code label on an 8mm data cartridge

CAUTION

If you remove a bar code label from a data cartridge without replacing it, make sure to clean the label area thoroughly. Bar code labels can leave a sticky adhesive film on the label area, which may cause the data cartridge to stick to the gripper.

Using the operator panel to test the labels

To test the bar code scanner using your application, refer to your software documentation. To scan the labels and check the results of your scan using the operator panel, refer to the instructions in the installation and operation manual for your library. You will need to perform the following tasks:

1. Disable security, if necessary.
2. Change to LCD Interface control mode.
3. Use the Scan or Scan with Range function on the Diagnostics Menu (under Maintenance Menu) to scan the test bar code labels.
4. Display the Label Information screen under the Inventory Menu (under Library Info Menu) to view the results of your scan.

Replacing the covers

Refer to page 2 for guidance in replacing the library covers.