3 *Installation*

Introduction

This chapter tells how to install iWarp system cabinets and how to join multiple cabinets.

Installing the System Cabinet

This section describes how to install one or more system cabinets. The cabinets should already be in their final location. Make sure there is adequate access area around the cabinets to perform the installation. The major steps for installing the system cabinets are as follows:

1. Open the cabinet doors
2. Join multiple cabinets
3. Attach the cabinet legs
4. Install cables between cabinets
5. Install external interface cables
6. Replacing the doors
7. Closing the cabinet doors
8. Leveling the cabinets

WARNING

Hazardous voltage and current levels are present in the system cabinet. Do not attempt to open the back door of the system or perform any procedures inside the system cabinet unless you are a qualified Intel Customer Service Engineer.

Opening the Cabinet Doors

To open the front door, move the lever at the bottom right of the door counterclockwise 180°.

To open the back door, insert a 3/16″ Allen wrench in the Allen screw on the top right of the back door. Turn the screw counterclockwise 90° to release the latch. You can then pull the door open.

Joining Multiple Cabinets

To join multiple cabinets, you must do the following:

1. Disconnect the LED connector plate
2. Remove specified cabinet doors.
3. Connect the cabinets at their bases.
4. Connect the cabinets at their tops.

Disconnecting the LED Connector Plate

Before you remove the front door of a cabinet, you must first disconnect the LED connector plate in the front of the cabinet. To disconnect the LED connector plate from the front of the system, do the following:

1. Go to the front of the cabinet and find the LED connector plate at the inside top of the cabinet (Figure 3-1).
2. Remove the four screws that secure the connector plate to the front of the system.
3. Move the bottom of the connector plate away from the system frame and then gently move the plate down and away from the system.

CAUTIONS

Take care when moving the connector plate away from the system; from one to four data cables are connected to the back of the plate.

To avoid damaging the LED cables that run into the system's front door, you must be sure to provide support for the LED connector plate while you are removing the front door in the next procedure.

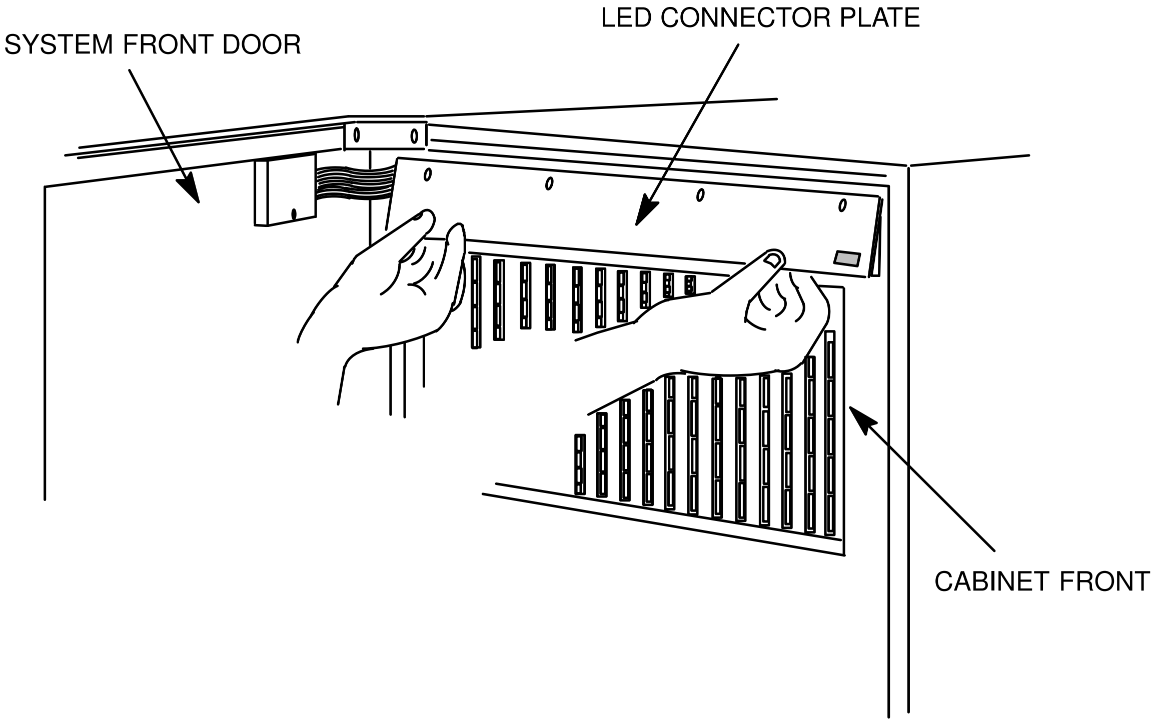

Figure 3-1: Disconnect the LED Cable from the Front of the System

Removing the Doors

When joining multiple cabinets, some of the cabinet doors must be removed. Removing the doors allows you to join the cabinets with splice plates. To connect the cabinets at their bases, you must remove the following doors from the cabinets:

- The front door of the right-most iWarp cabinet
- The back door of the left-most iWarp cabinet.
- The front and back doors of any cabinets positioned between the right-most and left-most iWarp cabinet

To remove doors, do the following:

1. Locate the L-shaped brackets that hold the hinges at the top and bottom of the door, as shown in Figure 3-2.
2. Use a #2 medium-tip Phillips screwdriver to remove the three screws from the L-shaped bracket at the bottom of the door.
3. Remove the three screws from the L-shaped bracket at the top of the door in the order shown in Figure 3-2.
4. Lift the door outward to release it from its hinges.
5. Set the doors and screws aside. You will replace the doors in a later procedure.

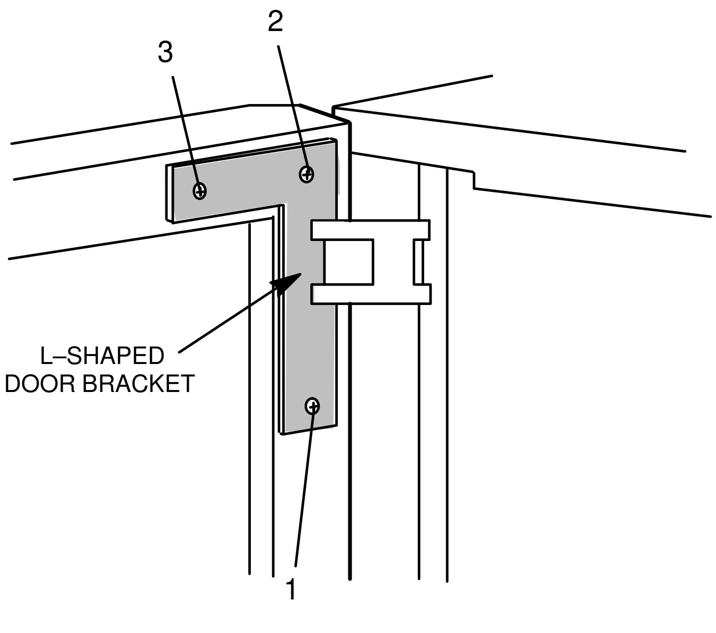

Figure 3-2: L-Shaped Door Bracket

Removing Side Grills

If you are installing multiple cabinets, you will need to remove a side grill from the inside lower edges of each cabinet in the configuration; in other words, remove the grills from the cabinet sides that will be adjacent to each other.

Detach the side grills as follows:

1. Remove the four Phillips head screws securing the grill to the lower edge of the cabinet (Figure 3-3).
2. Gently pry the grill off the side of the cabinet.
3. Store the grill in case you need to replace it in the future.

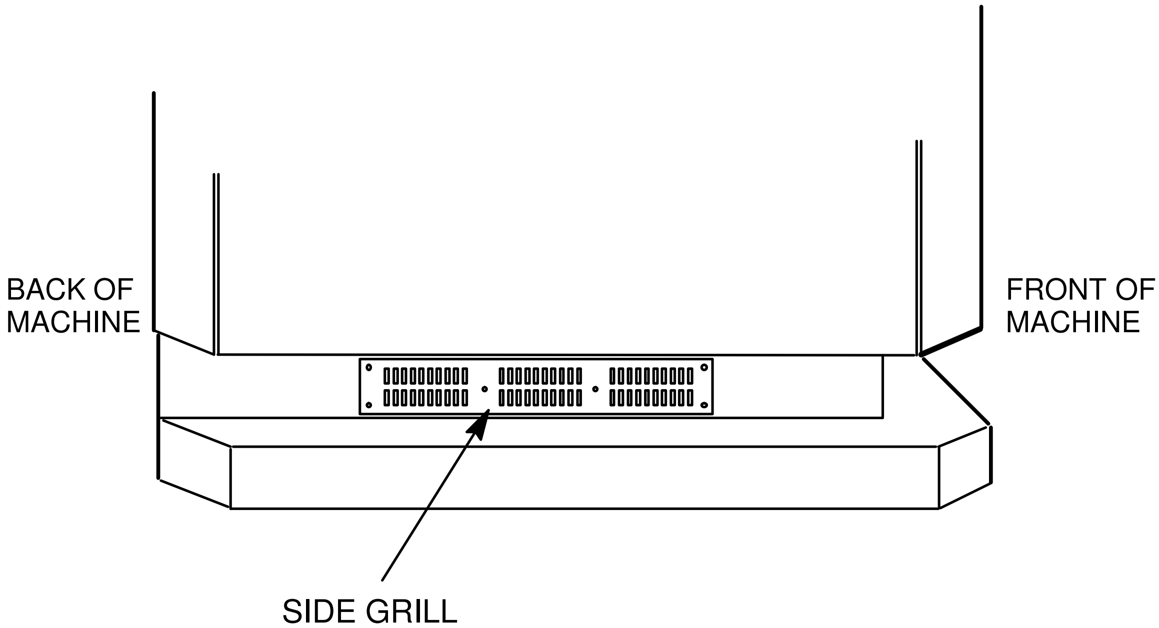

Figure 3-3: Remove the Side Grill

Connecting the Cabinets at their Bases

Multiple cabinets must be connected at their bases on the front and back of the cabinets. To connect two cabinets at their bases, make sure you have the following items from the accessories container:

- Two wedge adapter castings
- Four 1/4-20 UNC by 1/2″ long button head cap screws
- Two wedge adapter covers with self–stick seals

To connect the cabinets, proceed as follows:

1. Roll the cabinets together so they are flush against one another.
2. Make sure the leveler is screwed all the way up into the adapter casting.
3. Slide the tabs on the back of the adapter casting up under the bases of the two cabinets, matching the two screw holes as shown in Figure 3-4.

CAUTION

You may need to tilt the cabinets slightly to insert the adapter casting tabs.
Do not attempt to do this without help.

4. Insert a button head cap screw into each screw hole. Before you tighten the screws on the wedge adapter castings, position both the front and back castings, and place the screws in the screw holes.
5. Start all of the screws with a 5/32″ Allen wrench, then tighten them in place.

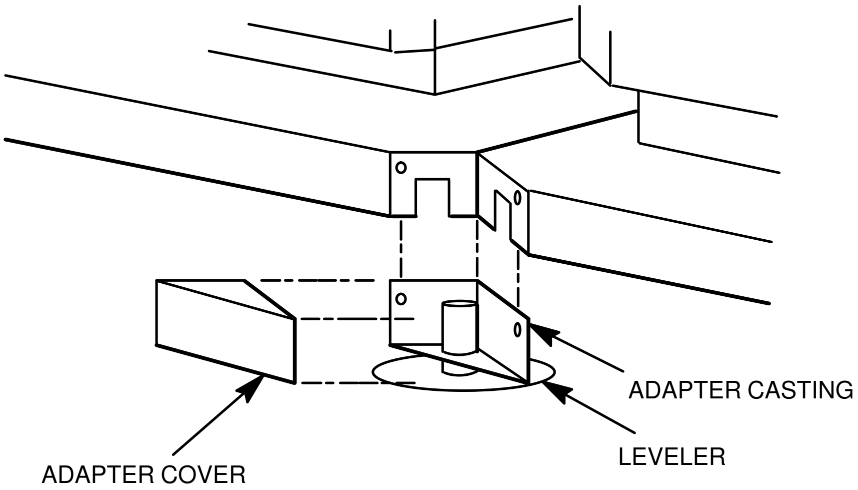

Figure 3-4: Wedge Adapter Castings and Cover

Connecting the Cabinets at their Tops

To connect two cabinets at their tops, make sure you have the following items from the accessories container:

- Two splice plates
- Eight #4-40 UNC by 1/4″ long Phillips-head flat head screw

Install the splice plates as follows:

1. Locate the two holes punched in the door seal approximately four inches from the top of the seal.
2. Gently peel up the seal and mesh over the holes on the two cabinets being joined. Do not cut or damage the seal.
3. Slide the splice plate under the door seal.
4. Align the splice plate over the four holes as shown in Figure 3-5.
5. Insert a flat head screw into each screw hole and start each screw.
6. After starting all screws, tighten both the splice plate and lower wedge screws using a #1 small-tip Phillips screwdriver. Be careful not to strip the threads.
7. Press the door seal back down over the splice plate.

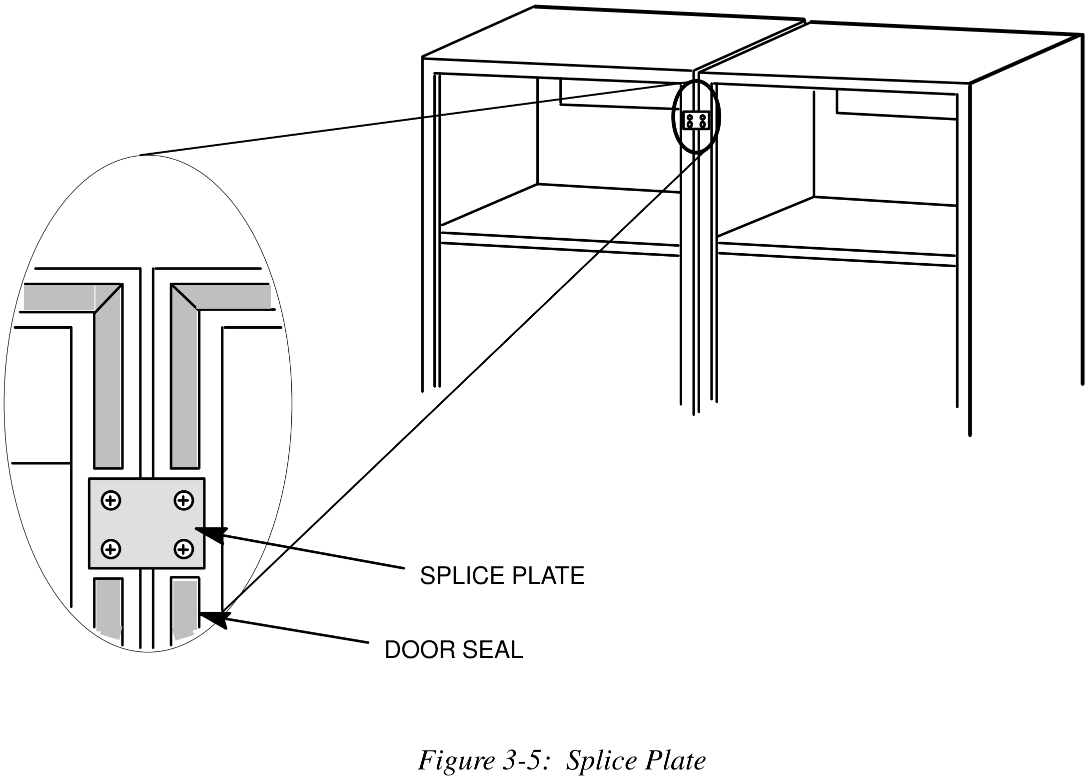

Figure 3-5: Splice Plate

Attaching Front Base Filler Plates (Multiple Cabinets Only)

Attach the front base filler plates to the front of the system cabinets to cover the space left above the adapter cover where the bases touch. To attach the base filler plates, be sure you have the following items from the accessories container:

- Base filler plates (1 for two system cabinets, 2 for three system cabinets, 3 for four system cabinets)
- #8-32 UNC by 1/4″ pan-head screws with black oxide finish (4 for each filler plate)

Attach the base filler plates as follows:

1. Align the base filler plate over the opening above the adapter cover as shown in Figure 3-6.
2. Insert a pan-head screw into each hole.
3. Tighten the screws into place using a #1 small-tip Phillips screwdriver.
4. Repeat process for remaining system cabinets.

Attaching Rear Base Filler Plates (Multiple Cabinets Only)

Attach the rear base filler plates to the back of the system cabinets to cover the space left above the adapter cover where the bases touch. To attach the base filler plates, be sure you have the following items from the accessories container:

- Base filler plates with wedge extensions (1 for two system cabinets, 2 for three system cabinets, 3 for four system cabinets)
- #8-32 UNC by 1/4″ pan-head screws with black oxide finish (4 for each filler plate)

Attach the base filler plates as follows:

1. Align the base filler plate over the opening above the adapter cover as shown in Figure 3-6.
2. Insert a pan-head screw into each hole.
3. Tighten the screws into place using a #1 small-tip Phillips screwdriver.
4. Repeat the process for the remaining system cabinets.

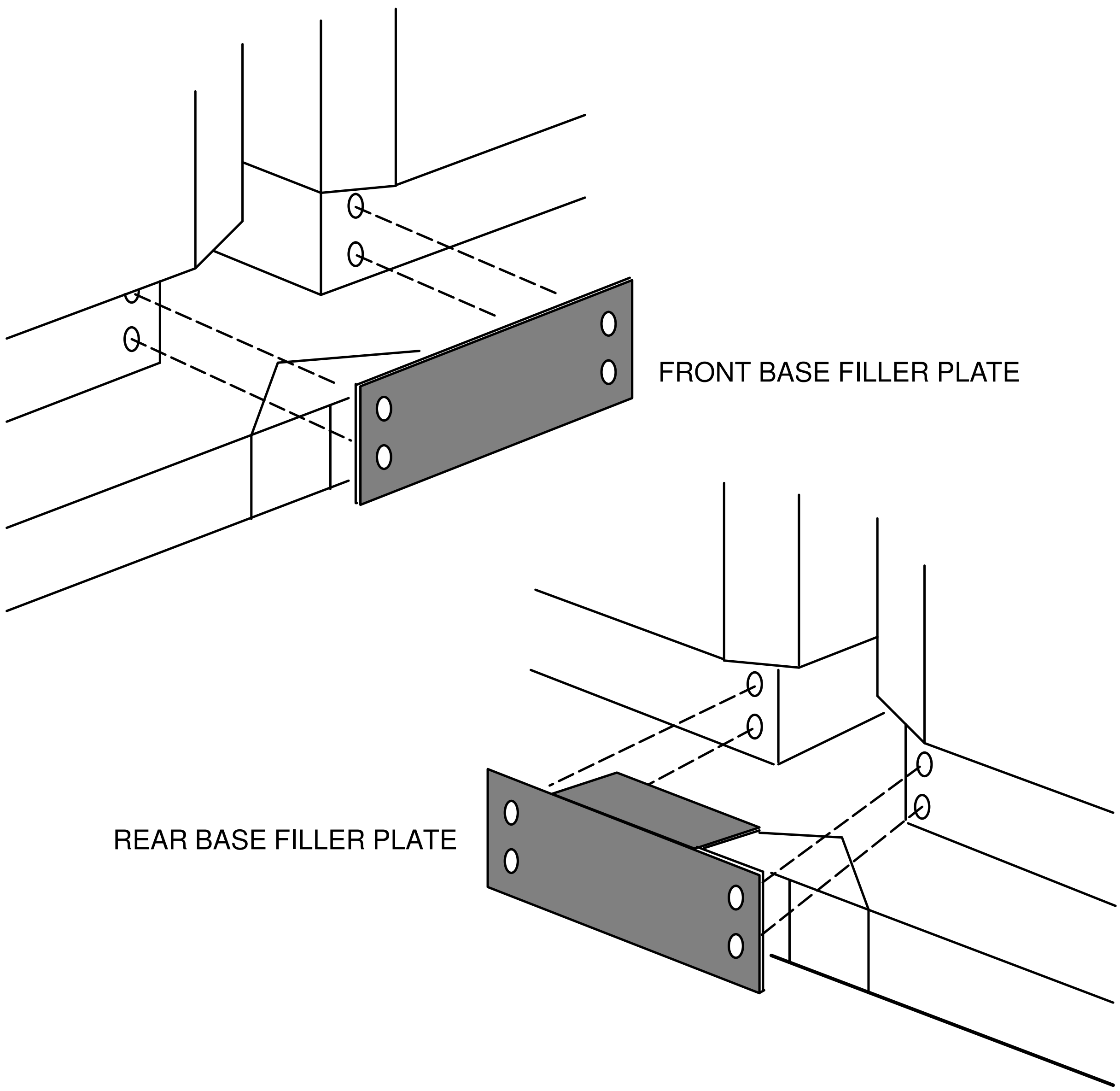

Figure 3-6: Base Filler Plate Installation

Attaching the Cabinet Legs

Attach legs to the four outside corners of the cabinet configuration. Be sure you have the following items from the accessories container:

- Leg castings with levelers (4)
- Foot covers (4)
- 1/4-20 UNC by 1/2″ socket head cap screws (8)

Attach each leg as follows:

1. Make sure the leveler is screwed all the way into the leg casting.
2. Slide the back part of the leg under the slot beneath the two holes, as shown in Figure 3-7.

CAUTION

You may need to tilt the cabinets slightly to insert the adapter casting tabs. Do not attempt to do this without help.

3. Press the leg up and forward. The legs are spring-loaded and will snap into the holes on the base.

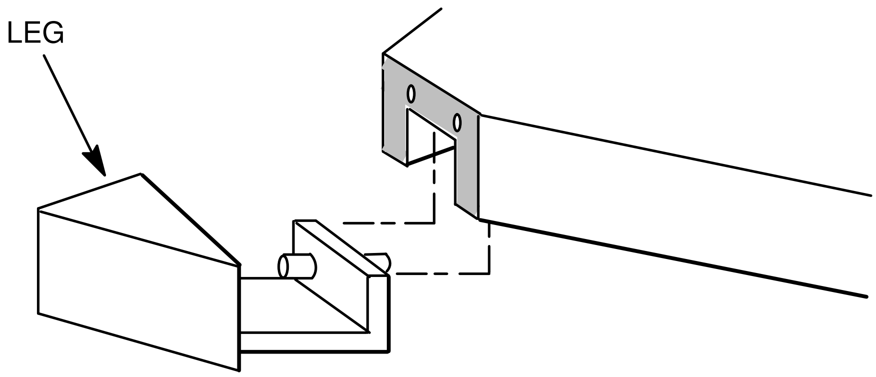

Figure 3-7: Cabinet Leg

Installing Cables Between Cabinets

In multiple cabinet systems, you must connect the external interface boards between cabinets. For information about cabling the multiple cabinets, refer to the block schematic diagrams for the particular system you are installing.

Installing the External Interface Cables

The iWarp system communicates with the Sun server by means of the iWarp Sun Interface Board (SIB). The external interface cables connect the iW arp system to the SIB.

NOTE

The Sun Interface Board (SIB) must be installed in the Sun system cardcage before you can connect the iWarp array to the Sun system. If you haven't installed the SIB yet, you should do so now. The *iWarp Sun Interface Board Installation Guide* tells how to install the SIB in the Sun system.

To connect the external interface cables, do the following:

1. Locate the I/O panel cover at the bottom rear of the iWarp system cabinet (Figure 3-8). Remove the six screws along the bottom of the panel cover. Loosen the ten screws along the top of the cover.
2. Slide the I/O panel cover away from the system frame and lay the cover aside.

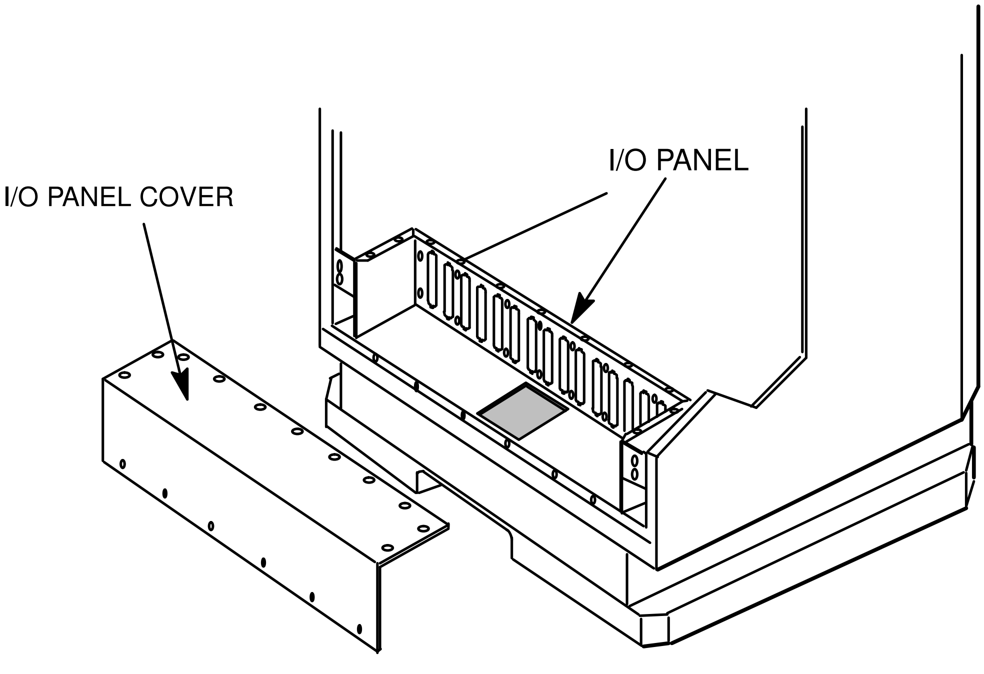

Figure 3-8: Remove the I/O Panel Cover

3. Route the plug end of the two external interface cables through the bottom rear of the cabinet and up through the opening just in front of the I/O panel (Figure 3-9).
4. Connect one external interface cable to the XL connector on the iWarp system I/O panel (Figure 3-9); connect the other end of the cable to the XR connector on the SIB board (Figure 3-10).
5. Connect the second external interface cable to the XR connector on the iWarp system I/O panel (Figure 3-9); connect the other end of the second cable to the XL connector on the SIB board (Figure 3-10).

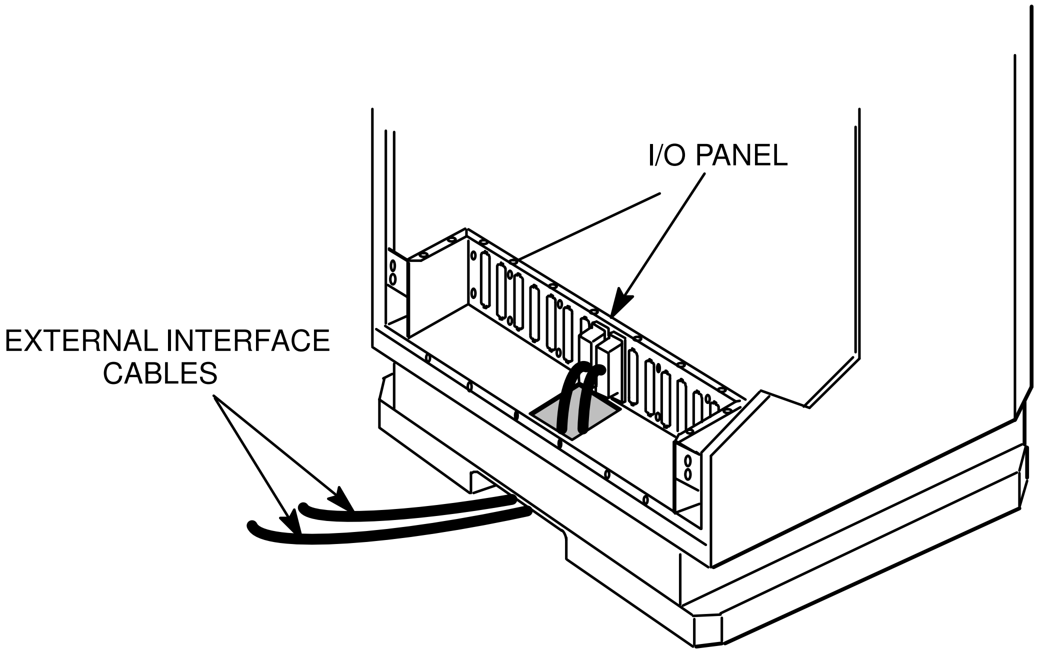

Figure 3-9: Connect the External Interface Cables to the iWarp I/O Panel

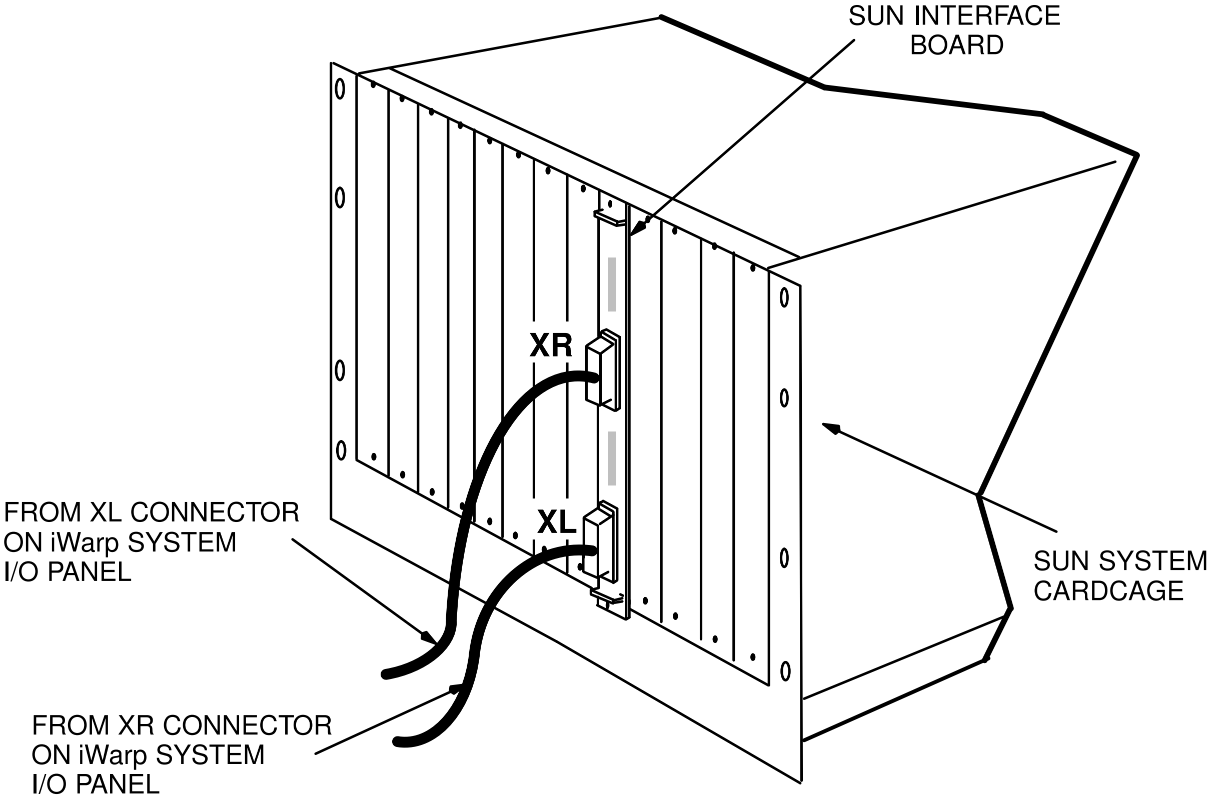

Figure 3-10: Connect the External Interface Cables to the SIB Board

Replacing the Doors

Replace the doors on any cabinet from which they were removed as follows:

1. Align the holes in the doors with the holes in the L-shaped brackets as shown previously in Figure 3-2.
2. Insert and tighten the screws in reverse order from their removal. First put the screws in the top bracket and then the bottom bracket.
3. Reconnect the LED cable by performing in reverse order the procedure "Disconnecting the LED Cable From the Front of the System."

Closing the Cabinet Doors

NOTE

Before closing the doors, check the power supply and fan pack plugs on the power strip to ensure that they were not loosened during shipment.

To shut the cabinet doors,

1. Close the rear door until the spring-loaded latch catches.
2. Insert a 5/16″ Allen wrench into the screw at the top right-hand side of the door. Turn the screw clockwise 90° to fasten the door.
3. Move the lever at the bottom of the front door away from the cabinet until you feel the spring tension.
4. Close the front door and fasten it by moving the lever clockwise 180° toward the cabinet.

Leveling the Cabinets

After closing the doors, level the cabinets as follows:

1. Adjust the levelers in both the wedge adapter castings (between multiple cabinets) and the legs so they fit snugly against the floor.
2. Place the wedge adapter cover over the wedge adapter casting, fastening the self–stick seals to secure the cover.
3. Place the foot covers over the legs, fastening the self–stick seals to secure the covers.