



▶ Setting Up the
Polycom® Instructor™ FS HDX
Dual Display on the
Media Cart



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About this Guide

Setting Up the Polycom Instructor FS HDX Dual Display on the Media Cart explains how to set up and install the various hardware components of the Polycom Instructor FS HDX as well as how to install the software and configure the system. This document also includes quick reference information to help you get started using the system.

The majority of this document is intended for installers who set up the Instructor FS HDX equipment. The last chapter of this document, [Polycom Instructor FS HDX Dual Display Quick Reference](#), is for anyone who intends to use the system.

Because the Polycom Instructor FS HDX contains components from different manufacturers, you may have to refer to other documents during the set-up process. This document will describe the steps you need to take and, if necessary, tell you where to look for additional information.

Most of the other documents that you'll have to refer to are included with your Polycom Instructor FS HDX, either as printed documents, available through the CDs that come with the system, or as online help files. These documents include:

- Polycom *Setting Up the HDX 9002 System*
- Polycom *Administrator's Guide for Polycom HDX Systems*
- Polycom *User's Guide for Polycom HDX Systems*
- Polycom Instructor Tools Toolbar online help
- Polycom *Setting Up the Polycom HDX Media Center*
- Polycom *HDX9000 Instructor FS Dual Monitor Electronics Wiring Diagram*
- SMART Board Interactive Whiteboard *Installation Guide for Flat-Panel Displays*
- SMART Board software online help
- Installation and user's manuals for the displays
- Installation and user's manuals for the Soundbar
- Installation and user's manuals for the camera

You can also find most of the Polycom documents at www.polycom.com/videodocumentation.

For support or service, please contact your Polycom distributor or go to Polycom Support at www.polycom.com/support.

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Introducing the Polycom Instructor *FS* HDX Dual Display on the Media Cart

The Polycom Instructor *FS* HDX combines the power of a Polycom HDX 9002 video conferencing system with the capabilities of a SMART Board interactive whiteboard.

With a Polycom Instructor *FS* HDX, you can place and receive video calls and share content just as you would in a typical video conference. But with the addition of the SMART Board interactive whiteboard, you can annotate that content, and you can touch the screen to make selections from the HDX user interface. For example, you can jot down notes on a slide presentation that you're sharing with the far site, draw a pie chart on your Windows desktop, or highlight changes on a file from your computer.

The SMART Board interactive whiteboard connects to a 50-inch flat-panel display. Both of these attach to the top of the Polycom Media Cart. The Media Cart also houses the HDX 9002 system. A PLCM Soundbar provides stereo speakers so you can hear audio from your video conference with added clarity, and it enables you to roll the system from room to room. To use the Polycom Instructor *FS* HDX, you must provide your own PC.

The Instructor *FS* HDX also includes an additional 50-inch flat-panel display to the left of the SMART Board interactive whiteboard display. This display enables you to view the people in the video conference while still viewing the content on the SMART Board.



Figure 1-1 Instructor FS HDX Dual Display on the Media Cart with People Display (on Left) and Content Display (on Right)

Installing the Instructor FS HDX Dual Display Components

This chapter describes the steps you must take to install the components for the Instructor FS Dual Display on the Media Cart.



The displays are heavy and require a minimum of two people to set up. Do not attempt to lift the displays without assistance.

Unpacking and Assembling the Media Carts

Unpack and assemble the Media Carts as instructed in the *Setting Up the Polycom Media Cart* documentation that was shipped with the Media Carts. If you are missing any of the items, contact your Polycom distributor or go to Polycom Support at www.polycom.com/support.

Attaching the People Flat-Panel Display

The People flat-panel display holds the camera and is used to display people.

To attach the People flat-panel display:

- 1 Unpack the People flat-panel display so that it is still vertical in the base of the shipping carton.
- 2 Attach the left monitor bracket to the back of the display by screwing an M8 x 20 bolt into the second mounting position from the top of the monitor bracket and attaching it to the top hole of the display. Insert an M8 x 20 bolt into the slot at the bottom of the monitor bracket.

- 3 Repeat the previous step for the right monitor bracket.



Figure 2-1 Attaching the Monitor Brackets to the People Display

- 4 Attach the two Soundbar brackets to the back of the Media Cart crossbeam using two 1/4-20 screws in each bracket. Attach a flat washer, lock washer, and hex nut to each screw, and tighten.

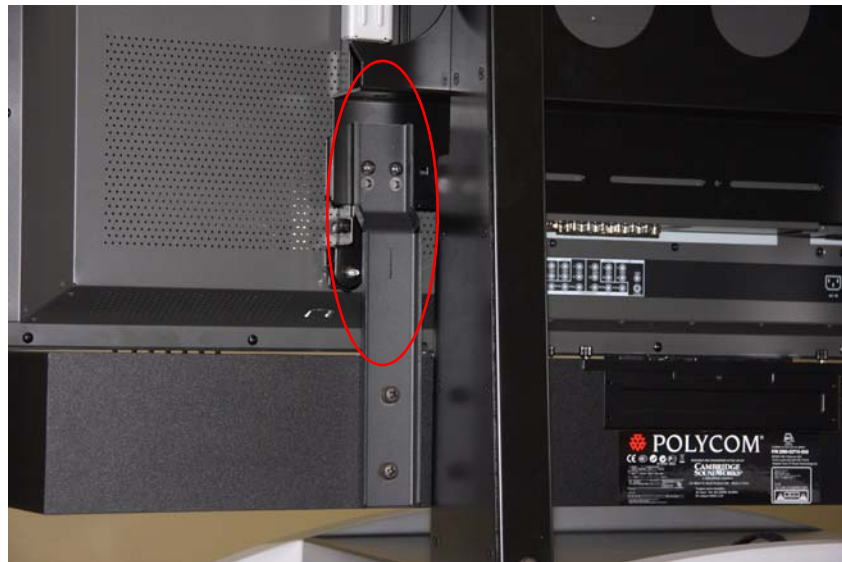


Figure 2-2 Attaching the Soundbar Brackets to the Media Cart

- 5 Attach the People display to the Media Cart as instructed in the *Setting Up the Polycom Media Cart* documentation that was shipped with the Media Carts.

- 6 To prevent the People display from moving around during transport, secure the monitor brackets to the cross beam by attaching a 1/4-20 screw in each monitor bracket. Attach a flat washer, lock washer, and hex nut to each screw, and tighten.



Figure 2-3 Attaching Screws to Stabilize the People Display

- 7 Assemble the Soundbar power supply to the Soundbar, and then attach the Soundbar to the Soundbar mounting brackets on the Media Cart using two M8 x 20 bolts on each side.

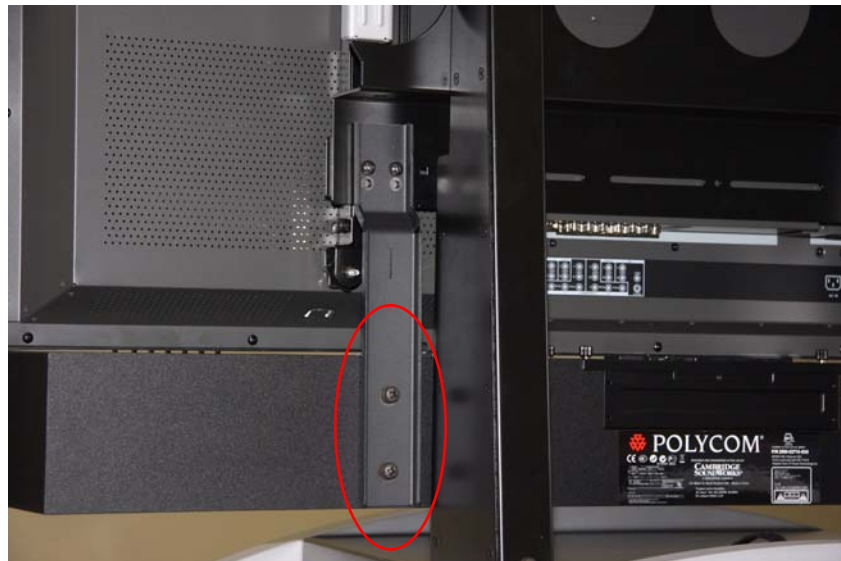


Figure 2-4 Attaching the Soundbar to the Media Cart

- 8 Connect the cables to the display as shown in the following illustration.

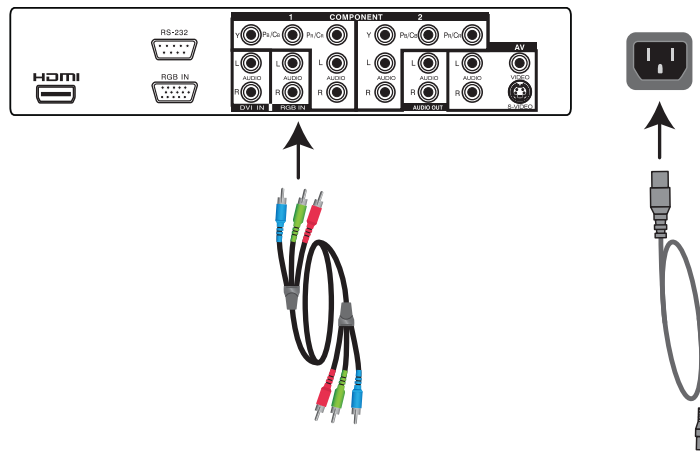


Figure 2-5 Connecting the Cables to the People Display

- 9 Attach the camera to the camera shelf and position the camera on top of the People display as instructed in the documentation that was shipped with the camera.



Figure 2-6 Attaching the Camera to the People Display

Attaching the Content Flat-Panel Display

The Content flat-panel display holds the SMART Board and is used to display content.

To attach the Content flat-panel display:

- 1 Unpack the Content flat-panel display so that it is still vertical in the base of the shipping carton.
- 2 Center and attach the SMART Board mounting bracket and the two monitor brackets to the back of the display as instructed in the documentation that was shipped with the SMART Board.



To properly mount the SMART Board, it is important to use the slot at the bottom of the SMART Board mounting bracket and the second mounting position from the top of the monitor bracket.



Figure 2-7 Attaching the SMART Board Brackets and the Monitor Brackets

- 3 Attach the Content display to the Media Cart as instructed in the *Setting Up the Polycom Media Cart* documentation that was shipped with the Media Cart.

- 4 To prevent the Content display from moving around during transport, secure the monitor brackets to the cross beam by attaching a 1/4-20 screw in each monitor bracket. Attach a flat washer, lock washer, and hex nut to each screw, and tighten. Refer to [Figure 2-3](#).
- 5 Adjust the display tilt angle by turning the star wheel knob to the furthest position, and then tighten the locking nut.



Figure 2-8 Adjusting the Display Tilt Angle

- 6 Connect the cables to the Content display as shown in the following illustration.

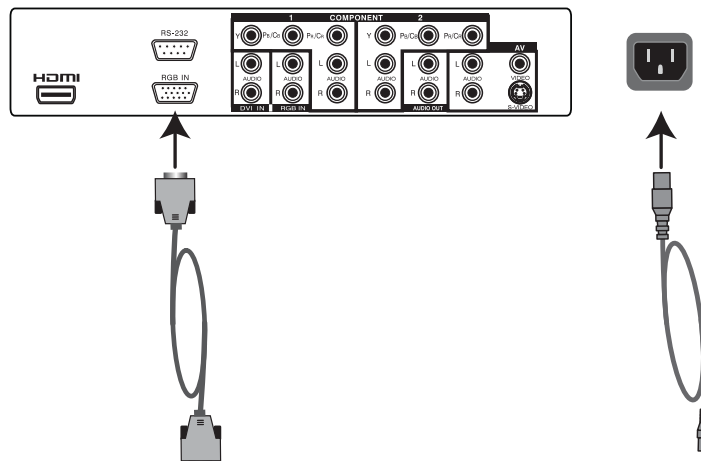


Figure 2-9 Connecting the Cables to the Content Display

Attaching the SMART Board Overlay to the Content Display

To attach the SMART Board overlay to the Content display:

- 1 Attach the SMART Board overlay on top of the Content display on the Media Cart as instructed in the documentation that was shipped with the SMART Board.



Figure 2-10 Attaching the SMART Board Overlay to the Content Display

- 2 Attach the power, serial, and interconnect cables to the SMART Board overlay as instructed in the documentation that was shipped with the SMART Board.



Figure 2-11 Attaching the Cables to the SMART Board Overlay

Completing the Setup

To complete the setup:

- 1 Place the electronics on the shelves in the Content Media Cart.
- 2 Connect the wiring according to the Polycom *HDX9000 Instructor FS Dual Monitor Electronics Wiring Diagram* (part number 1725-28331-001).
- 3 If you are planning to move the Instructor FS HDX Dual Display on the Media Cart:
 - a Attach the Velcro clamps, which provide convenient storage for the cables when moving the Media Carts.

To attach the Velcro clamps, insert a ¼-20 screw through the left side of the rear door of the Media Cart. Then, attach a flat washer, lock washer, and hex nut to the screw and tighten. Repeat this for the Velcro clamp on the right side of the rear door.
 - b Disconnect the video, audio, and camera cables from the codec and loop them through the Velcro clamps.

- c Disconnect the power cables from both Media Carts before moving them.



Figure 2-12 Attaching the Velcro Clamps to the Media Cart

Installing the Software and Configuring the System

Now that you have set up the hardware for the Instructor *FS* HDX, you can power on the system, install the software, and configure and use the system as described in this chapter.

Powering On and Configuring the System

The instructions in this section assume that the customer-supplied PC has been set up and configured using a regular keyboard, mouse, and PC display before connecting it to the Instructor *FS* system. The PC display resolution should be set to 1024 x 768 @ 60Hz.

To power on and configure the system, and install the software:

- 1 Power on the Content display by pressing the button on the bottom right corner of the Content display or by using the Polycom display remote control.

For models using the Polycom Soundbar, it may be necessary to open the right speaker grill to reach the **Power On** button for the Content display.



You must keep the Polycom display remote control close to the Content display and point it at the bottom right corner of the display so that it does not affect the People display.

- 2 Point the Polycom display remote control at the Content display, and then press the **RGB** button on the remote control.

Make sure Input 1 is selected on the Extron switcher.

This enables you to see the HDX display on the Content display. For more information about using the Polycom display remote control, refer to the *User's Guide for Polycom Displays*.

- 3 Press the power button on the HDX codec. The setup wizard will begin to run.
- 4 Follow the setup wizard and set the HDX monitor settings as listed in the following table.
 - a Make sure to take note of the Admin password if it is left enabled after running the setup wizard. The default Admin password is set to be the HDX serial number. It will be needed later when configuring the Polycom Instructor Tools. For more information about the setup wizard, refer to the *Administrator's Guide for Polycom HDX Systems*.

| Setting | Monitor 1 (Content) | Monitor 2 (People) |
|-------------------------------------|---------------------|---------------------|
| Monitor 1/Monitor 2 | 16:9 | 16:9 |
| Video Format | DVI | Component |
| Resolution | 1280 x 720 60 Hz | 1280 x 720 60 Hz |
| Output upon Screen Saver Activation | No signal | No signal |
| PIP | Off | Off |
| Display Near Video | Check | Do not check |
| Display Far Video | Do not check | Check |
| Display Content | Check | Do not check |
| Dual Monitor Emulation | Do not check | Not applicable |

- b Verify that the HDX software version is 2.5.0.6_1 or later. If the software version is earlier than 2.5.0.6_1, download the new version as follows:
 - » Go to <http://www.polycom.com/support> and navigate to your product page.
 - » Download the Polycom software update package for your system.

For more information about downloading and installing software update packages, refer to the product documentation available at www.polycom.com/videodocumentation.
- 5 Take note of the IP address that appears on the Home screen.
If the IP address does not appear on the Home screen, you can find it by going to **System > Admin Settings > LAN Properties**.
- 6 Select Input 2 on the Extron switcher.
This will enable you to use the Polycom flat-panel display as the PC's monitor.

- 7 Power on the PC.
- 8 Ensure that the PC display resolution is configured to **1024 x 768 60 Hz**.
- 9 Ensure that the PC COM port is configured properly to work with the Extron switcher.

Installing the Software

To install the software:

- 1 Install the SMART Board software tools on the PC by following the instructions provided with the SMART Board tools.
- 2 Make sure to update the SMART Board software to the latest version following the instructions provided with the SMART Board tools.



When setting up the SMART Board software, do not change the Display Control Settings in the SMART Board Settings dialog box that you access from the SMART control panel.

- 3 Calibrate the Content display's touch control to the SMART Board's touch control by following the instructions provided with the SMART Board tools.
- 4 To ensure the camera control grid works properly, disable the SMART tool mouse Touch and Hold feature.
To disable the mouse Touch and Hold:
 - a Right click on the SMART Board icon on the task bar and select **Control Panel**.
 - b Select the SMART Hardware Settings in the left pane of the dialog box.
 - c Select **Mouse Settings** from the drop-down list.
 - d Uncheck the **Enable Touch and Hold** and press **OK**.
- 5 Install the Polycom Instructor Tools software on the PC.
The Polycom Instructor Tools software is on the Polycom CD. Insert the CD into the PC and then follow the setup wizard.

- 6 Start the Polycom Instructor Tools. You will see the following screen when starting it for the first time.





Figure 3-1 Polycom Instructor Tools Startup Screen

- 7 Enter the HDX IP address you noted in step 5 on page 3-2. If you enabled the password while running the setup wizard, enter the password; otherwise, leave the space blank.
- 8 Click **Connect** to connect to the HDX codec indicated in the Polycom Instructor Tools toolbar.
- 9 Configure the Polycom Instructor Tools:
 - a Check that the status on the Instructor Tools toolbar says “Connected to Polycom HDX”. Skip to Step b if connected, otherwise follow Step a.



Figure 3-2 Instructor Tools Toolbar

- b Press  on the Polycom Instructor Tools toolbar, select **Connect to HDX**, and do the following:
 - » Enter the IP address and the password (if needed) for the HDX 9002.
 - » Select the **Connect** button.
- c Press  on the Polycom Instructor Tools toolbar again, select **Display Configuration**, and do the following:
 - » In the Display Model field, select the default, **Display with External Control**.
 - » In the COM Port field, select the default, **COM1** (the port used by your PC to connect to the display). This may vary depending on the PC.
 - » Check the default, **Use Dual Monitors** box.

- » In the Toolbar Dock field, select whether you want the Instructor Tools toolbar to appear at the top or bottom of the screen.

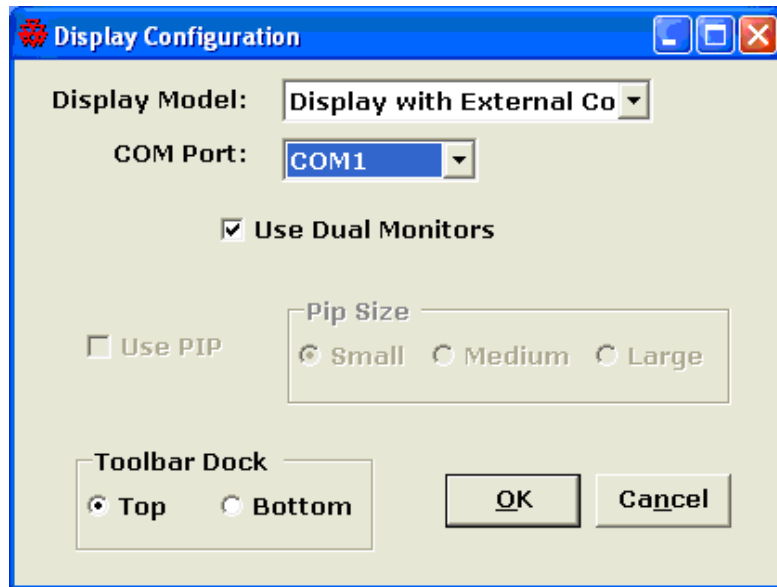


Figure 3-3 Display Configuration Screen

For more information about the Polycom Instructor Tools, refer to the Instructor Tools online help.

- 10 Power on the People display by pressing the button underneath the bottom right corner of the display or by pointing the display remote control towards the bottom right corner of the People display and pressing the **Power On** button on the remote control.




You must keep the People display remote control close to the People display and point it at the bottom right corner of the display so that it does not affect the Content display.

- 11 Point the Polycom display remote control at the left (People) display and press the **Component 1 input** button on the remote control.

This enables you to see the people at the far site on the People display while the system is in a call. Note that the People display is only active while in a call.

Polycom Instructor *FS* HDX Dual Display Quick Reference

This chapter provides quick reference information for the Polycom Instructor *FS* HDX Dual Display so that you can quickly get started using the system. The same information that is available in this chapter is also available online as a PDF file. To access this file, press  on the Polycom Instructor Tools toolbar.

Controlling the Polycom Instructor *FS* HDX Dual Display

The following page describes these areas of the Polycom Instructor *FS* HDX Dual Display:

- Polycom Instructor Tools toolbar
- On-screen HDX controls
- Electronic pens and eraser
- Keyboard and mouse controls

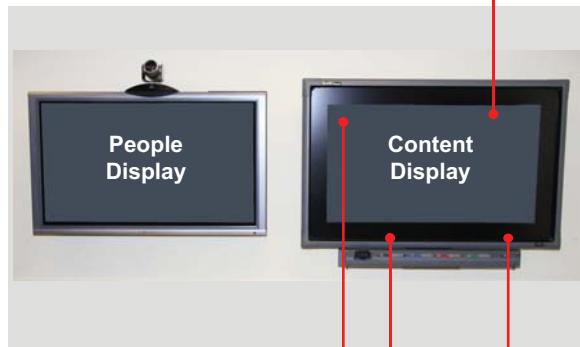
Polycom Instructor Tools Toolbar

Access video conference functions while you are sharing content from your Windows desktop.

Select a camera or another video source Start or stop sharing content from the Windows desktop

Hang up calls Increase or decrease the volume at your site Mute the sound you're sending to the far site(s) Launch the whiteboard application Indicates whether Polycom Instructor Tools is connected to the HDX system

Connected to Polycom HDX In a call Indicates whether the HDX system is in a call Access the online help Connect to the HDX system, configure the display, and access system information



On-screen HDX Controls

Control the HDX video conferencing system. Touch on the top left corner of the screen to:

- Place or end calls
- Select or adjust cameras
- Adjust the volume
- Use camera presets
- Mute the sound you're sending to the far site(s)

Electronic Pens and Eraser

- Annotate on the content from your Windows desktop that you're sharing with the sites in the video conference.
- Pick up a pen and start writing. All the sites see your annotations.
- Erase your annotations with the eraser.
- The system recognizes the last tool you pick up; therefore, leave unused pens and the eraser in the tray.

Keyboard and Mouse Controls

Press to display the on-screen keyboard.

If you are not sharing content from the Windows desktop, press to start sharing it. If you are sharing content, press and then touch the screen to right-click.


Using the On-screen HDX Controls

To display the on-screen HDX controls, touch the top left corner of the Content display at any time that you are not sharing content. The on-screen HDX controls let you perform many of the same functions as the Polycom HDX remote control. See the *Quick Tips for Polycom HDX Systems* document, available at www.polycom.com/videodocumentation, for more information about these functions.

Using Touch Control

Touch control lets you point and touch the Content display to navigate and select.


- When you are participating in a video conference, touch the screen to select buttons or Directory entries.
- When you are sharing content from the Windows desktop, use touch control similar to how you use a computer mouse:

| To do this... | Point and touch... |
|---------------|--|
| Click | Once |
| Double-click | Twice |
| Right-click | Once and hold (or press  on the system tray and then touch once on the screen) |

All pens and the eraser must be in the tray in order to use touch control. Alternatively, you can use the Polycom HDX remote control for all functions.

Getting Help


You can get help in any of these ways:

- For help using the Polycom Instructor Tools, click  on the Polycom Instructor Tools toolbar.
- For help using the SMART Board software, refer to the SMART online help.
- For the latest information about using the HDX Series system, go to www.polycom.com/videodocumentation and refer to the *User's Guide for Polycom HDX Room Systems* and the *Quick Tips for Polycom HDX Systems* documents.

Sharing and Annotating Content

You can share content from your PC with the other sites in the video conference, and you can use the electronic pens to annotate that content. For example, you can jot down notes on a slide presentation, draw a pie chart, or highlight changes in a file.

To share and annotate content:

- 1 Press  on the system tray or pick up a pen from the tray in HDX UI mode. This will activate content. If you are in a call, the content will be sent automatically to the Far End system.
- 2 Open the file, presentation, or other content from your PC that you want to share with the sites in the video conference.
- 3 Pick up a pen and start writing on the screen. The sites now see your annotations exactly as you see them; however, they cannot annotate the content.

To delete annotations and stop sharing content:

- To delete annotations, put the pen back in the tray and use the eraser.
- To stop sharing content, touch  on the Instructor Tools toolbar.

Adjusting a Camera

To adjust the Near End camera:

- 1 Touch the screen to make the Near End camera PTZ grid appear.
- 2 Touch the screen in the areas shown on the grid to zoom or move the camera:

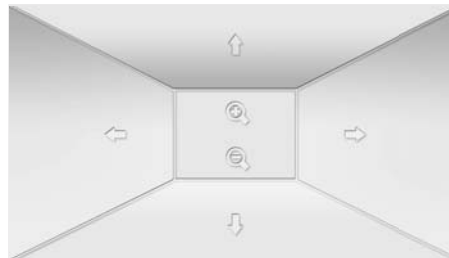


Figure 4-1 Near End Camera PTZ Grid

To adjust the Far End camera:

- >> Use the Polycom HDX remote control.



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