

UX60-RFK-685

# Installing Brackets to Minimize Distortion in Your SMART Board™ 685ix Interactive Whiteboard System's Projected Image

Follow these instructions to install brackets on your SMART Board™ 685ix interactive whiteboard system to minimize distortion in the projected image. This distortion results from a slight curve in your interactive whiteboard's screen.



## IMPORTANT

- These instructions apply to SMART Board 685 interactive whiteboards installed on wall-mount brackets only.
- This kit includes instructions and parts for installation on wood and metal stud walls and certain masonry wall types only. If you need to install your interactive whiteboard system on reinforced concrete walls, walls with plaster lath finishing, walls of unusual construction or other types of walls, refer to your local building authority for instructions, recommendations and safe work practices.

This Kit Contains	Tools Required (but not included)
<ul style="list-style-type: none"><li>• two corner brackets</li><li>• one adjustable spacer (two parts)</li><li>• two snap toggle anchors</li><li>• two masonry anchors</li><li>• two 2 1/2" machine screws</li><li>• two 1 1/2" masonry screws</li><li>• two 5/16" washers</li><li>• eight 1/2" screws</li></ul>	<ul style="list-style-type: none"><li>• Phillips® No. 2 screwdriver</li><li>• tape measure or ruler</li><li>• a carpenter's level</li><li>• pencil or other marking device</li><li>• power drill with a Phillips No. 2 bit</li><li>• 1/2" or 13 mm wrench</li></ul>

99-01051-20 A0

Extraordinary made simple™

SMART™

To install brackets on your SMART Board 685ix interactive whiteboard system to minimize distortion in the projected image you must:

- remove the pen tray and bracket screws (this page)
- disconnect the projector system cables (page 4)
- prepare the wall and your interactive whiteboard (page 7)
- install the included adjustable spacer and brackets (page 10)
- connect the projector system cables (page 14)
- align the projected image (page 17)
- minimize distortion in the projected image (page 20)
- complete your installation (page 21)

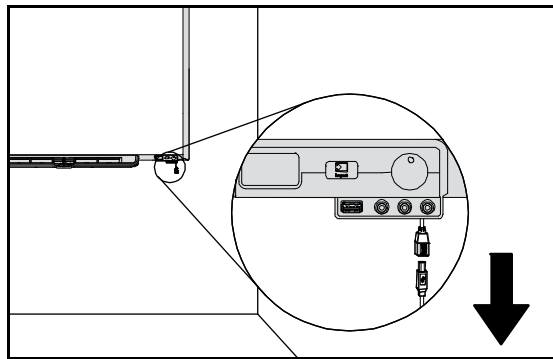
## Removing the Pen Tray and Bracket Screws

Before you disconnect the projector system cables, remove the pen tray and bracket screws.

### To remove the pen tray and bracket screws

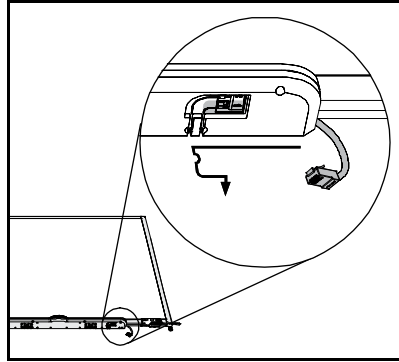
1. Turn off your computer, and then disconnect the USB cable to your computer from the captive USB receptacle suspended from the bottom right of your interactive whiteboard.

Your computer's display is no longer visible on your interactive whiteboard's screen.

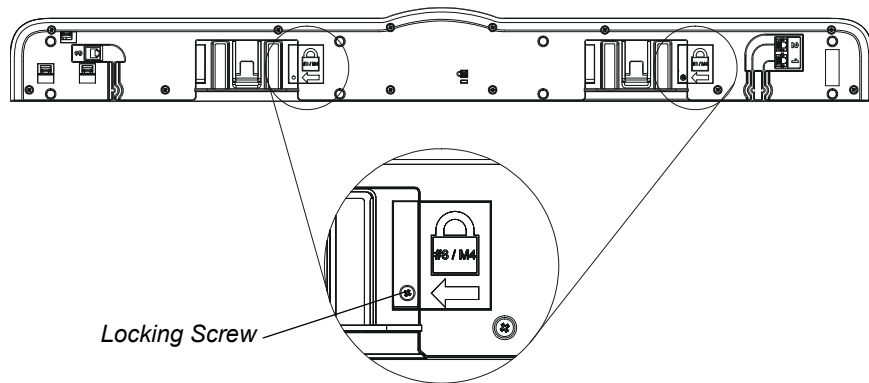


2. Remove the pens and the eraser from the pen tray.

3. Reach under the pen tray and disconnect the modular cable's plug from its receptacle on the bottom right of the pen tray, and then free the cable from the cable management channel.



4. If the two locking screws securing the pen tray to its brackets are attached, remove them. Set the screws aside to use when you replace your pen tray.



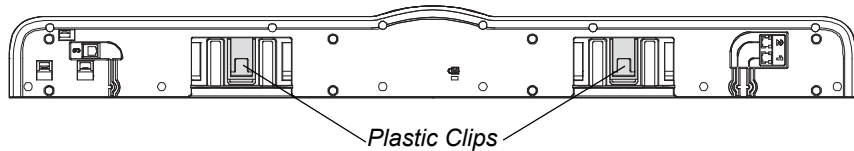
*Pen Tray from the Bottom*



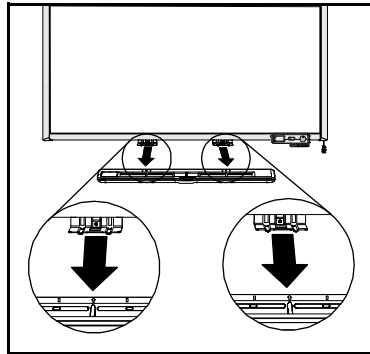
**NOTE**

Your model might not have this feature.

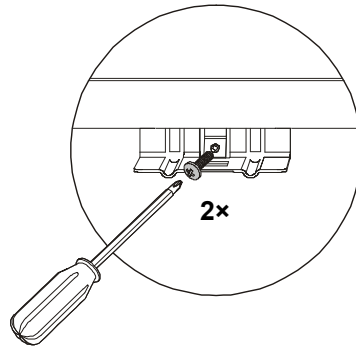
5. If you secured the pen tray using a Kensington® lock or similar device, unlock and remove it.
6. Reach under the pen tray and pull down on the two large plastic clips. Because the ends of these clips project slightly downwards, they're easy to locate.



7. Release the pen tray from its support brackets by gently pulling down on the tab locks, and then slide the pen tray off its support brackets.



8. Use your screwdriver to remove the screws that secure the two pen tray brackets to the wall.



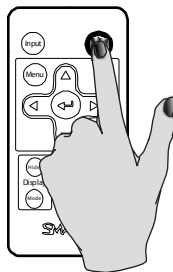
---

## Disconnecting the Projector System Cables

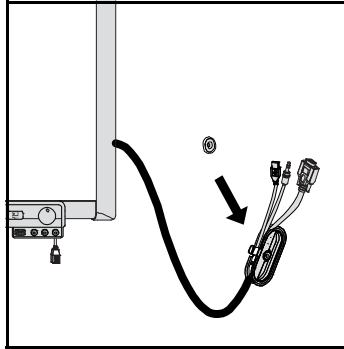
Before you remove your interactive whiteboard from the wall, disconnect the projector system cables.

### To disconnect the projector system cables

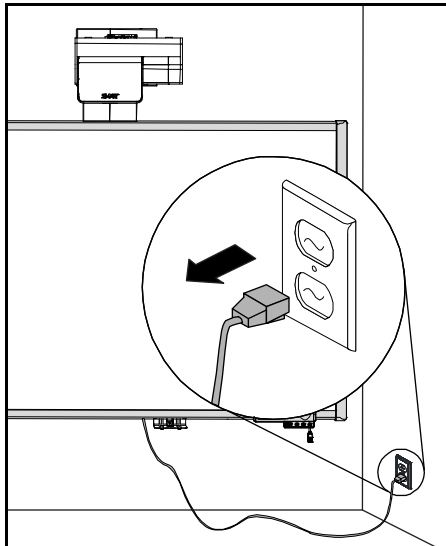
1. Press the power button on your remote, and then wait for your projector system to shut down.



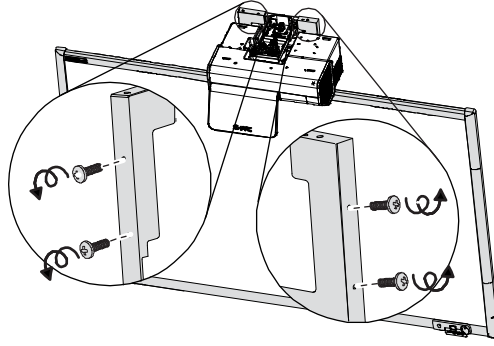
2. Remove the wire management bundle from the wall magnet beside your interactive whiteboard or laptop computer.



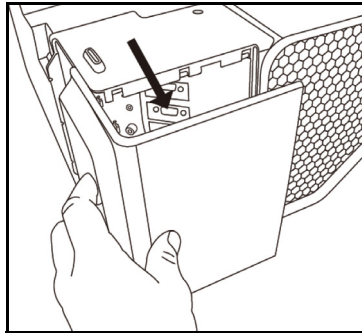
3. If speakers are attached, turn them off, disconnect their cables, remove the screw securing the speakers to their brackets, and then remove the speakers. Set the screws aside to use when you replace your speakers.
4. Remove any peripheral devices connected to your interactive whiteboard system's Extended Control Panel (ECP).
5. Disconnect your projector's power cable from its power outlet.



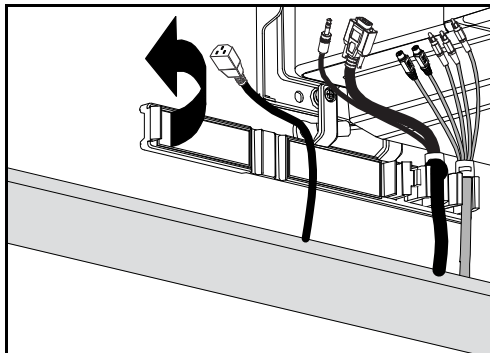
6. Using your screwdriver, remove the two screws on both the left and the right cable covers of your projector wall plate, and then gently pull these covers away from the wall plate. Set the screws aside to use when you replace the cable covers.



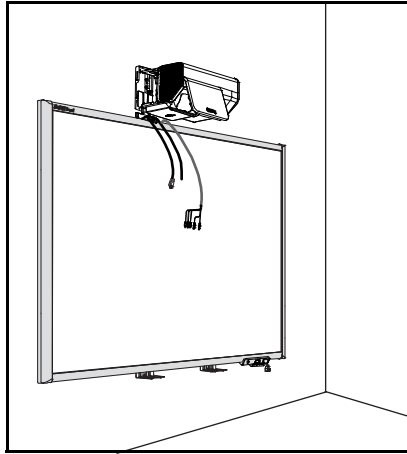
7. Remove the projector's input/output cover by sliding it away from the projector.



8. Open the latch of the wire management clip below your projector wall plate, and then disconnect all cables to the projector.



9. Unclip the cables from their respective channels in the wire management clip, and then drape them over the front of your interactive whiteboard.



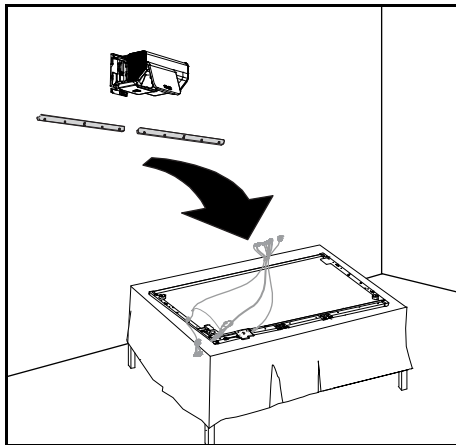
---

## Preparing the Wall and Your Interactive Whiteboard

Before you secure the included adjustable spacer and brackets, prepare the wall and your interactive whiteboard.

**To prepare  
the wall and your  
interactive whiteboard**

1. With the help of another person, lift your interactive whiteboard off its wall-mount brackets, and then carefully place it face down on a clean, flat surface.



### **WARNING**

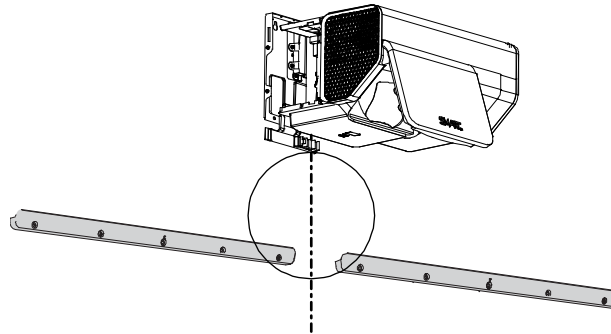
Two people are required to lift your SMART Board interactive whiteboard off its wall-mount brackets because it may be too heavy for one person to safely maneuver. When you lift your interactive whiteboard, you and your assistant should stand on either side of the screen, supporting its weight at the bottom corners while balancing the top with your other hands.

2. Check your wall to ensure that you can see a vertical line, starting from the second screw hole from the left in the bottom of the projector wall plate, below the projector. (You drew this line when you originally installed your interactive whiteboard system.)



**NOTE**

This line represents the center of the projector's light path.

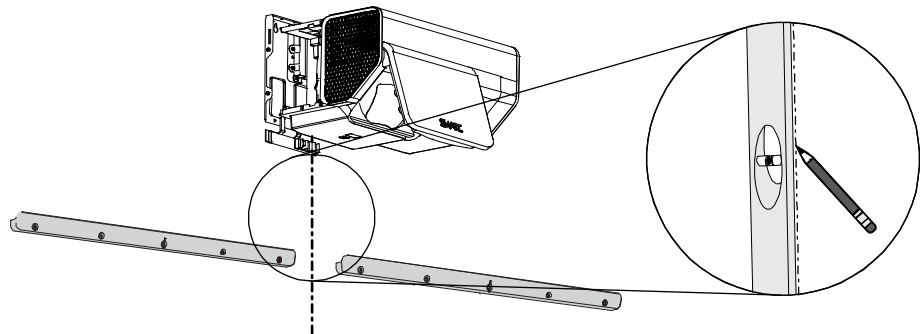


3. If this line isn't visible, use a pencil and ruler to draw a vertical line on the wall, starting from the second screw hole from the left in the bottom of the projector wall plate, below the projector.



**IMPORTANT**

- Use a carpenter's level to ensure that you draw this line perpendicular to the bottom of the projector wall plate.
- Ensure that this line extends at least to your interactive whiteboard's wall-mount brackets.

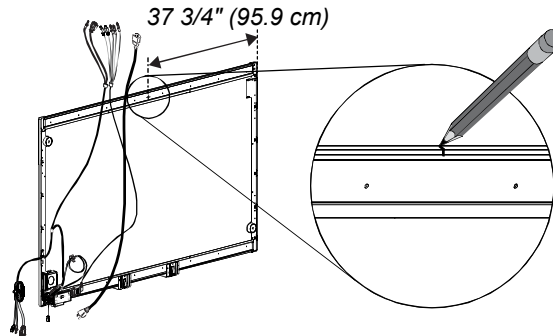


4. On your interactive whiteboard's top frame, measure 37 3/4" (95.9 cm) from the outside edge to the center, and then mark this center location on the top edge of the frame so that it will be visible when you hang your interactive whiteboard back on the wall.



**TIP**

Measure this distance from both directions to double-check the accuracy of your measurement.

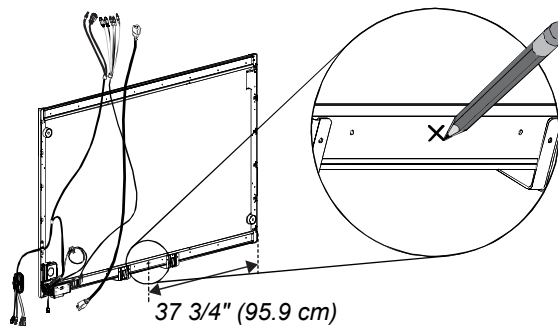


5. On your interactive whiteboard's bottom frame, measure 37 3/4" (95.9 cm) from the outside edge to the center, and then mark this center location on the back.



**TIP**

Measure this distance from both directions to double-check the accuracy of your measurement.

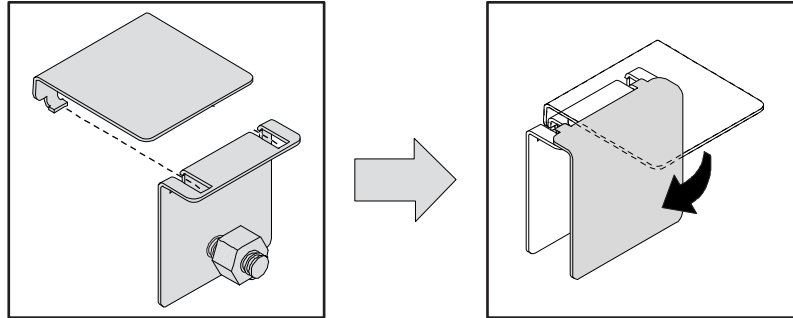


## Installing the Included Adjustable Spacer and Brackets

To minimize distortion in the projected image, you must install the included adjustable spacer and brackets.

### To install the included adjustable spacer and brackets

1. If they were separated during shipping, assemble the two adjustable spacer parts so that the spacer opens with the hinge at the top and the hex nut accessible from the bottom.

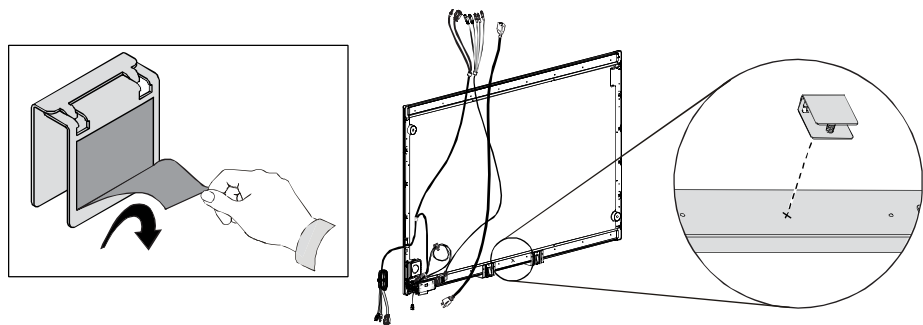


2. Remove the liner from the adhesive on the back on the adjustable spacer, and then affix it to the center location that you previously marked on your interactive whiteboard's bottom frame.



#### IMPORTANT

- Ensure that the adjustable spacer is correctly assembled before you affix it to your interactive whiteboard because you're unable to assemble it after the front part is already affixed to your interactive whiteboard.
- Ensure that the hex nut is accessible from the bottom of your interactive whiteboard.



3. Fit each corner bracket over the outermost screw in both the left and right corners of your interactive whiteboard's bottom frame, and then use a power drill with a Phillips No. 2 bit to secure a 1/2" screw in the four corner holes of each bracket.



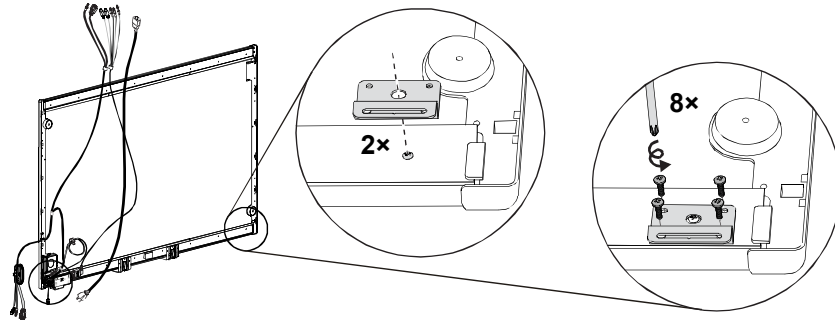
**CAUTION**

Do not drill holes for the screws.



**IMPORTANT**

Ensure that each bracket's horizontal slot is on the bottom.

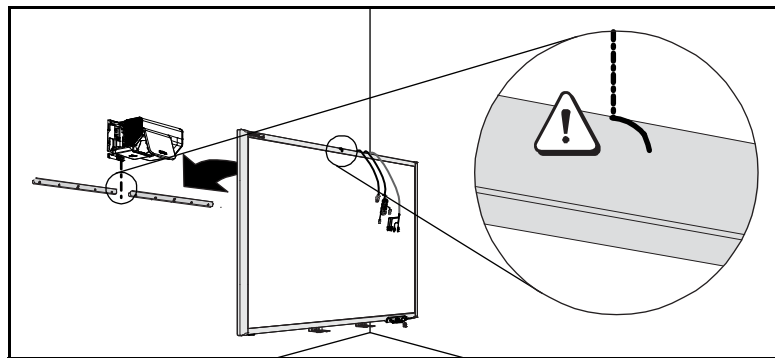


4. With the help of another person, lift your interactive whiteboard onto its wall-mount brackets, aligning the mark that you previously made on the top edge of the frame with the vertical line that you drew below the projector wall plate.

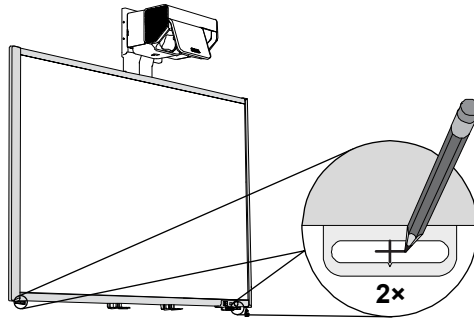


**WARNING**

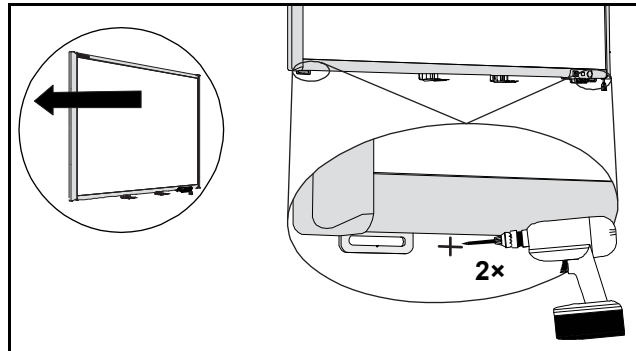
Two people are required to mount your SMART Board interactive whiteboard because it may be too heavy for one person to safely maneuver. When you lift your interactive whiteboard, you and your assistant should stand on either side of the screen, supporting its weight at the bottom corners while balancing the top with your other hands.



5. Using the v-notch in the center of each new corner bracket as a template, use your pencil to mark the center of each bracket.



6. Slide your interactive whiteboard to the left along its wall mount bracket so that you can access each mark that you made in the previous step, and then drill holes at each mark.
- For a wood stud wall, drill a 1/2" (13 mm) hole.
  - For a metal stud wall, drill a 1/4" (6 mm) pilot hole, and then drill a 1/2" (13 mm) hole in the same location.
  - For a masonry wall, drill a 1/4" (6 mm) hole.

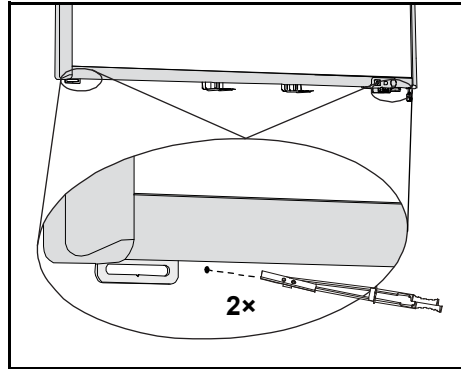


7. Insert the appropriate included anchor for your wall type in each hole.



**NOTE**

The following illustration shows a snap toggle anchor. However, if you have a masonry wall, use a masonry anchor instead.

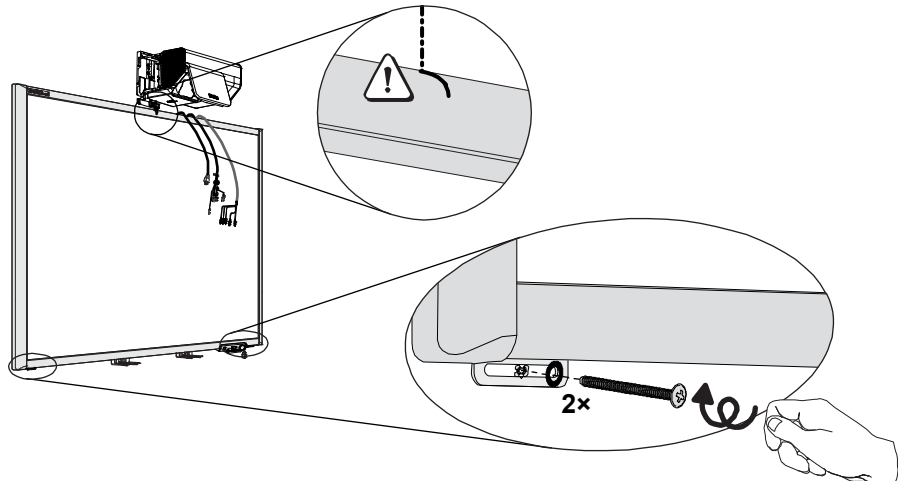


8. Align your interactive whiteboard with the vertical center line on the wall, insert each appropriate included screw for your wall type through a 5/16" washer and into an anchor, and then hand-tighten the screw. Ensure that there's minimal front-to-back movement in your interactive whiteboard but that you can still move it from side-to-side.



**NOTE**

The following illustration shows a machine screw. However, if you have a masonry wall, use a masonry screw instead.

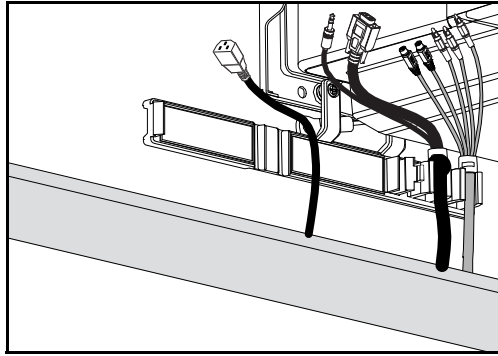


## Connecting the Projector System Cables

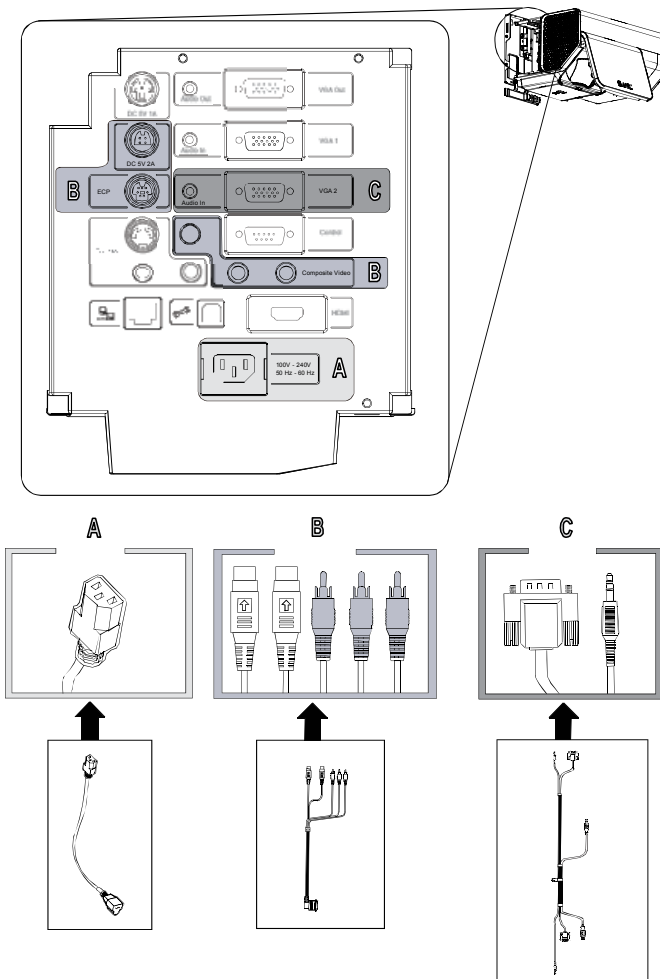
Before you align your projector, connect the projector system cables.

### To connect the projector system cables

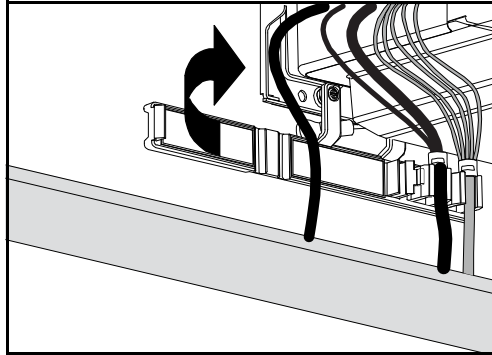
1. Clip the projector cables into their respective channels in the wire management clip below your projector wall plate.



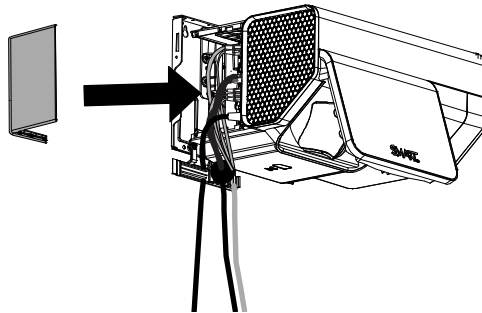
2. Connect all cables to the projector, as shown in the following illustration.



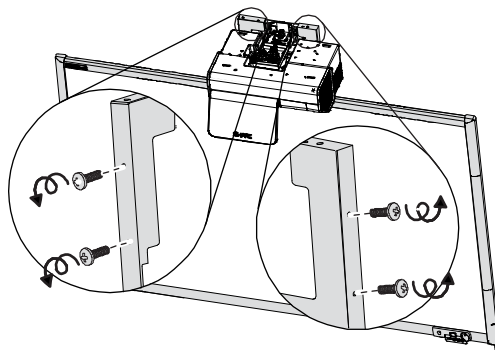
3. Close the wire management clip's latch.



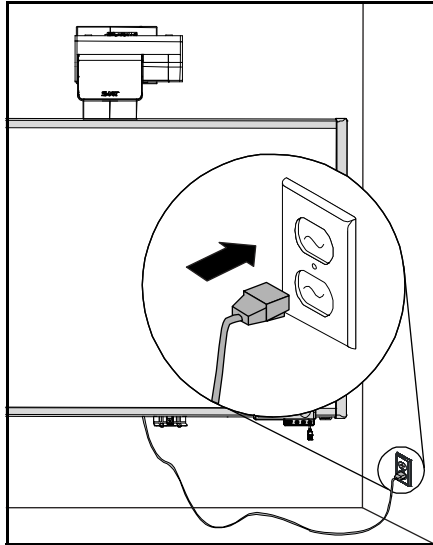
4. Replace the projector's cover.



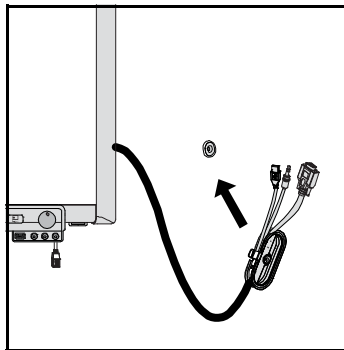
5. Replace both the left and the right cable covers of your projector wall plate, and then use your screwdriver to secure them with the two screws that you removed previously.



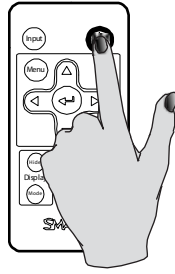
6. Connect your projector's power cable to a power outlet.



7. If applicable, install the speakers on their brackets, secure the screw that you removed previously, connect the cables, and then turn on the speakers. For more information on installing speakers, see *SBA-L Projection Audio System Textless Installation Instructions* ([document 142552](#) at [www.smarttech.com/support](http://www.smarttech.com/support)).
8. If applicable, connect other peripheral devices to your interactive whiteboard system's ECP.
9. Secure the wire management bundle to the wall magnet beside your interactive whiteboard or laptop computer.



10. Press the power button on your remote to start your projector system.



## Aligning the Projected Image

Follow these steps to obtain a focused rectangular image that's slightly smaller than your interactive whiteboard's screen.

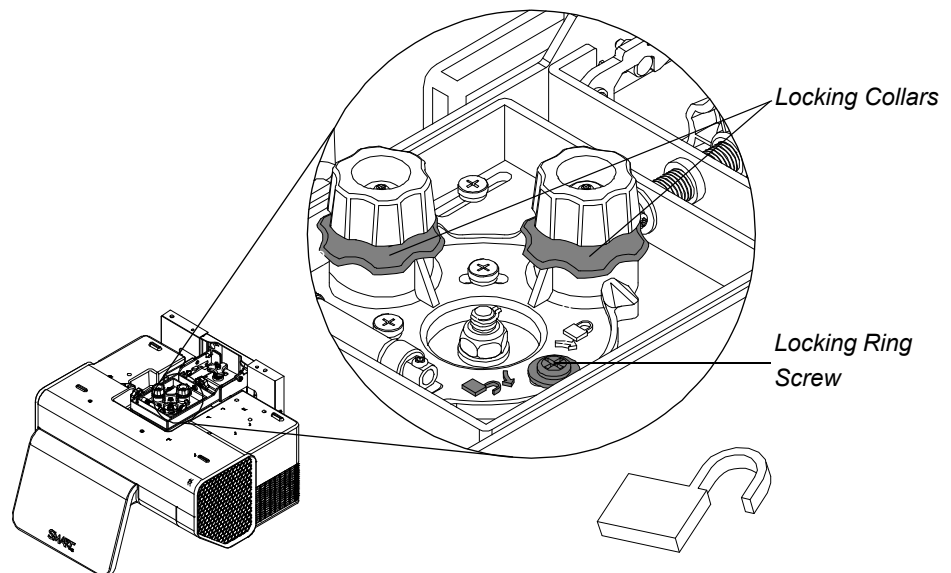


### IMPORTANT

- Do not use the projector's on-screen menu options to make image adjustments.
- Do not touch the projector lens or mirror. This can disturb the focus or quality of the projected image.

### To align the projected image

1. Using your screwdriver, loosen (but don't remove) the locking ring screw next to the lock and unlock symbols on the top of the projector's adjustment module. This unlocks the controls to adjust the mirror.

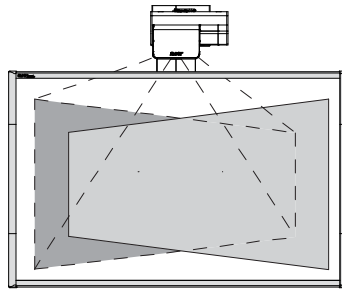




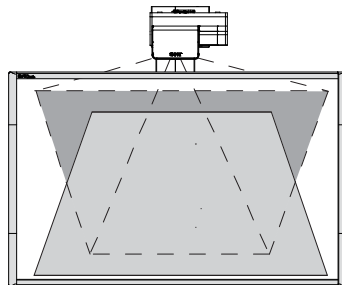
**WARNING**

Never loosen other locking screws or loosen the center nut attached to the projector bolt, because your projector might fall.

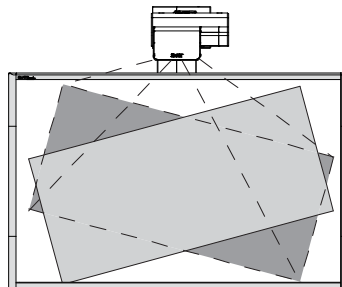
2. Turn the locking collars (the ridged chrome screws) under both the blue and the green knobs two complete turns counterclockwise to set them to the unlock position.
3. Turn the purple knob clockwise or counterclockwise until the projected image's left and right sides are the same height.



4. Turn the green knob clockwise or counterclockwise until the projected image's top and bottom sides are the same width.

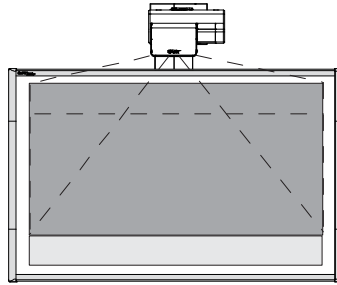


5. Turn the blue knob clockwise or counterclockwise until the projected image's top and bottom sides are horizontal.

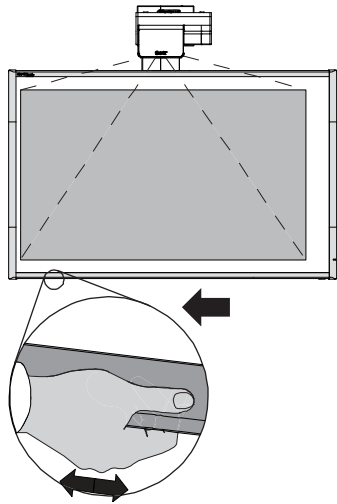


6. Repeat steps 3 to 5, using smaller increments, until the projected image is square and parallel to your interactive whiteboard. When you're satisfied with the shape of the image (but not necessarily its position), proceed to the next step.

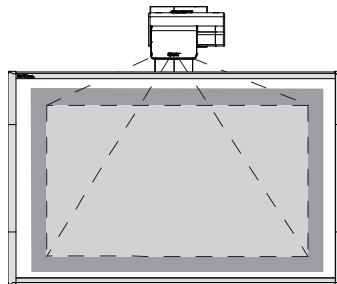
7. Turn the orange knob clockwise or counterclockwise to center the projected image vertically on the screen.



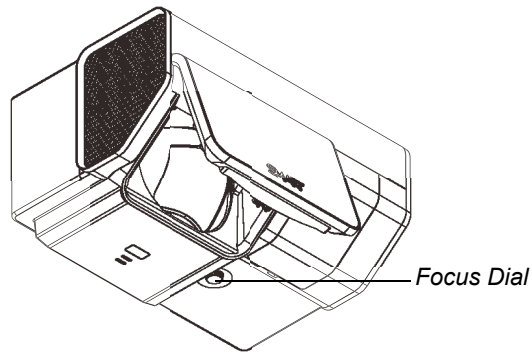
8. If necessary, hold your interactive whiteboard's bottom frame, and then move it from side-to-side to center it horizontally to the projected image.



9. Turn the yellow knob clockwise or counterclockwise until the size of the projected image is slightly smaller than the screen.



10. Turn the focus dial located on the bottom of the projector clockwise or counterclockwise until the projected image is in focus.



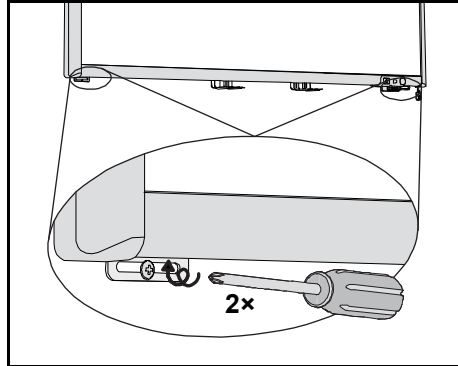
---

## Minimizing Distortion in the Projected Image

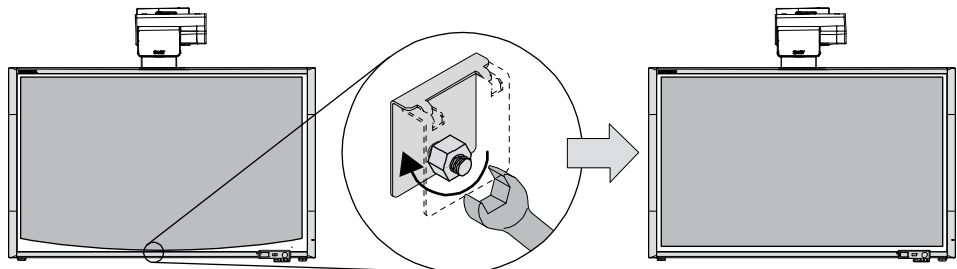
Follow these instructions to minimize distortion in the projected image.

### To minimize distortion in the projected image

1. Use your screwdriver to fully tighten each screw securing the new corner brackets to the wall. You hand-tightened the screws previously.



2. If there is distortion at the bottom of the projected image, use your wrench to rotate the hex nut clockwise until it contacts the back plate of the adjustable spacer pressing against the wall, and your interactive whiteboard begins to flex away from the wall, removing the distortion in the projected image.



3. If necessary, adjust the projected image with the appropriate adjustment knobs so that it again fills your interactive whiteboard's screen, as described in steps 3 to 10 of the previous procedure.
4. Turn the locking collars (the ridged chrome screws) under both the blue and the green knobs two complete turns clockwise to set them to the lock position.
5. Using your screwdriver, tighten the locking ring screw next to the lock and unlock symbols on the top of the projector's adjustment module. You unlocked this screw in the previous procedure.

---

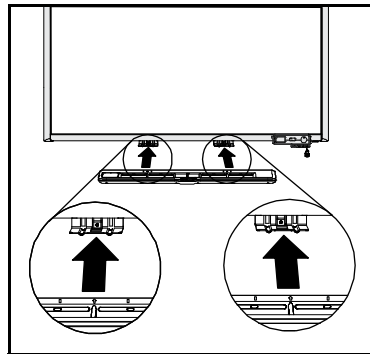
## Completing Your Installation

After you minimize any distortion in the projected image, you must complete your interactive whiteboard system installation.

### To complete your installation

1. Align the pen tray with its support brackets, and then slide it toward the wall until it rests snugly against the bottom frame of your interactive whiteboard.

The pen tray clicks into place.



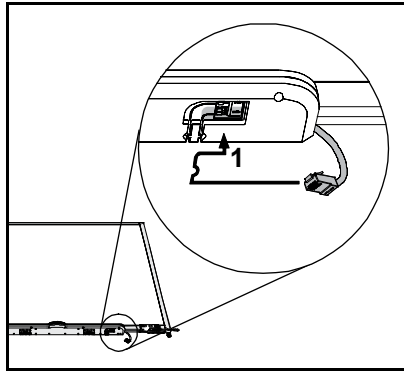
2. Optionally, replace the locking screws that secure the pen tray to the pen tray brackets. You removed the screws previously.



### NOTE

Since you're no longer securing the pen tray brackets to the wall, you're unable to use a Kensington lock or other security measure to protect your pen tray.

3. Route the modular cable through the cable management channel, and then insert its plug into receptacle 1.



4. Place the four pens and the eraser in their respective slots in the pen tray.
5. Connect the USB cable from your computer to the captive USB receptacle suspended from the bottom right of your interactive whiteboard, and then turn on your computer.

Your computer's display is visible on your interactive whiteboard's screen.

