

Replacing the Power Supply in Your *Rear Projection* SMART Board™ 3000i and 4000i Interactive Whiteboards with DVIT™ (Digital Vision Touch) Technology



Applies to: *Rear Projection* SMART Board™ 3000i and 4000i interactive whiteboards with DVIT™ (Digital Vision Touch) technology

Overview

This document describes how to replace the power supply in your *Rear Projection* SMART Board 3000i and 4000i interactive whiteboards.

Details

The 3000i and 4000i systems uses two 12V power supplies, mounted on the patch panel inside the cabinet. The power supplies are 100V–220V 50 Hz–60 Hz AC inputs, 12V DC 5A grounded outputs.

- The power supply on the left (as you face the front of the cabinet) provides power to the audio amplifier/mixer, X-Port™ 20, fan and control panel.
- The power supply on the right provides power to the communications hub, digital cameras, infrared (IR) receiver in the frame, and SC8 controller.

Equipment required:

- 12V replacement power supply (not included)
- 5/32" hex key (included with your SMART Board interactive whiteboard)
- two tie wraps to tie the power supply to the patch panel (not included)
- tie wraps to tie the cables to the cable bundles (not included)

To replace a power supply, complete the following procedures:

1. Prepare the cabinet.
2. Remove the cabinet side panel on the side you need to access.
3. Disconnect the power supply.
4. Replace the left-side power supply.
OR
Replace the right-side power supply.
5. Reinstall the cabinet side panel.
6. Prepare the cabinet for operation.

See below for instructions on performing these procedures.

Preparing the Cabinet

To prepare the cabinet

CAUTION



- Do not touch the back of the screen or brush against it with your head, hands or anything else while you're examining internal cabinet components. If you smudge this surface, lightly spray alcohol-free glass cleaner on a soft cloth and dab the affected area to remove the marks. Do not apply isopropyl alcohol, water or acetone, because these fluids can damage the diffusion coating and permanently reduce display quality.
- Do not remove both side panels at the same time. If you do, the back panel can slide off.

1. Shut down the 3000i/4000i, including the projector and computer. Disconnect the main power cable from the wall outlet.

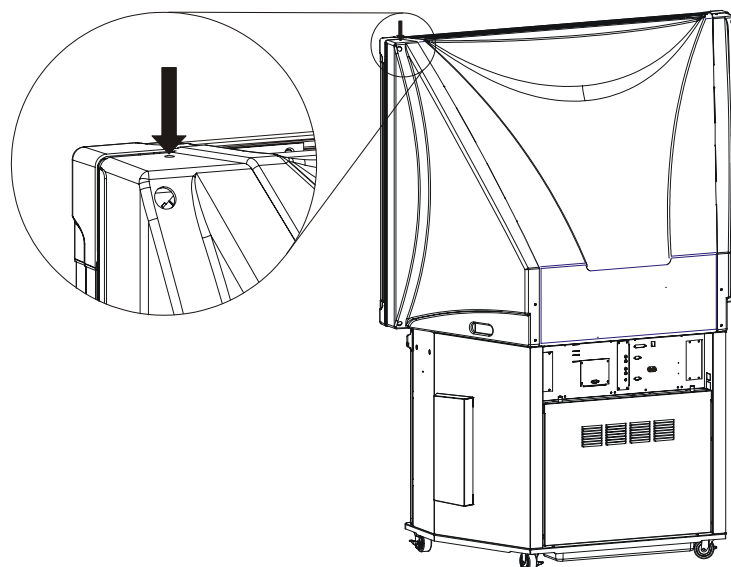
NOTE: Turn off the projector and allow the bulb to cool down before you disconnect the main power cable.

2. If you need better access to the cabinet, unlock the wheels by pressing the caster tab lock on each wheel. Roll the unit to a location where you can access it better. Press the caster tab locks in the opposite direction to lock the wheels again.
3. Remove the guest laptop shelf on the side of the cabinet you need to access by loosening the thumbscrew under the shelf, lifting the shelf up and pulling it away from the cabinet.
4. Remove the mounting arm and videoconferencing shelf on the side of the cabinet you need to access by loosening the thumbscrew under the shelf, lifting the shelf up and pulling it away from the cabinet.
5. Lift the J-hook and cables on the side of the cabinet you need to access and move them to a safe location.
6. Detach the IR receiver on the side of the cabinet you need to access and leave it dangling temporarily.

Removing the Cabinet Side Panel

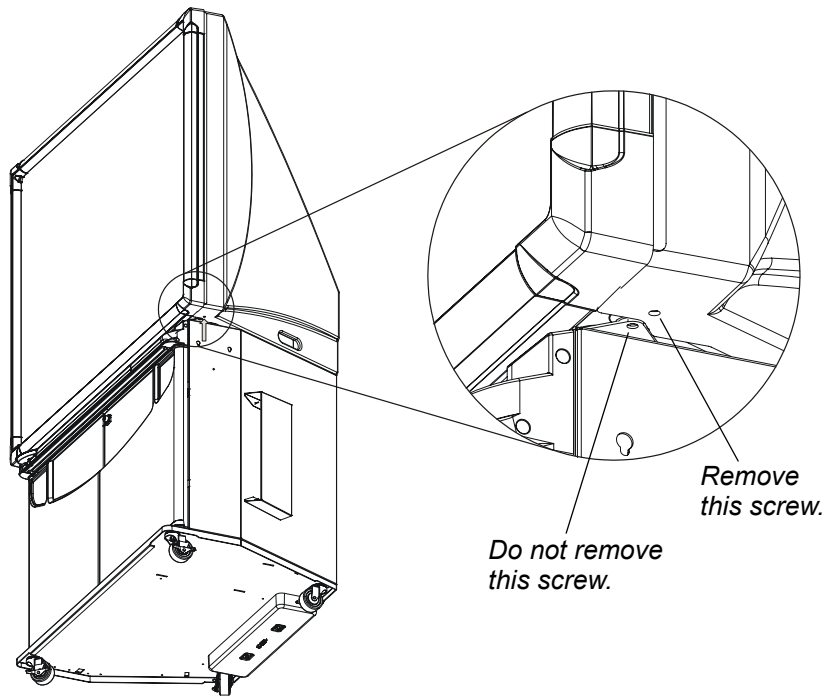
To remove the cabinet side panel

1. To replace the left-side power supply, remove the left-side panel of the 3000i/4000i. To replace the right-side power supply, remove the right-side panel.
2. Using the 5/32" hex key included with your SMART Board interactive whiteboard, remove the hex screw on the top corner of the interactive whiteboard.

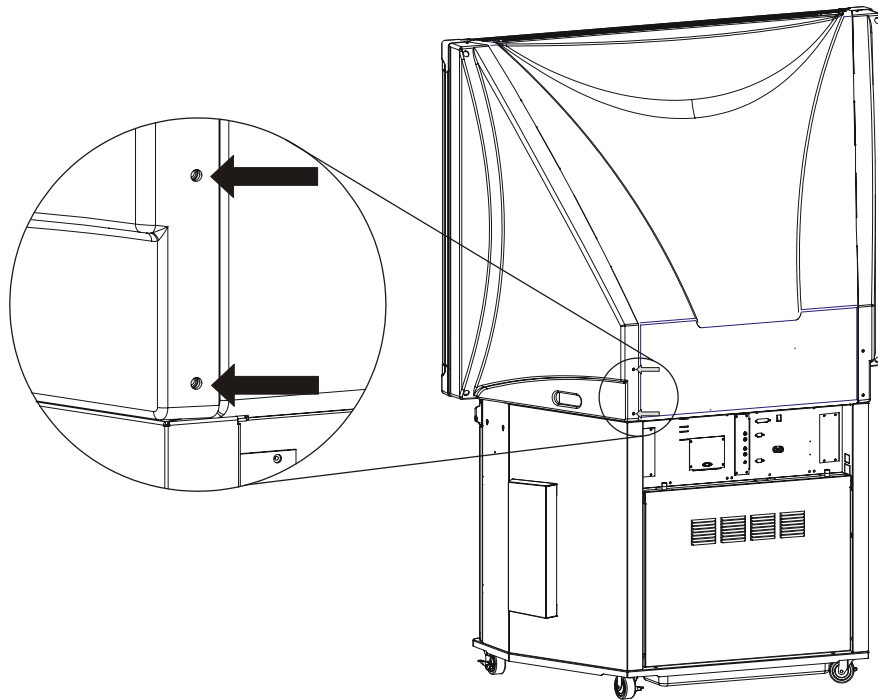


3. Using the hex key, remove the hex screw under the bottom front corner of the interactive whiteboard.

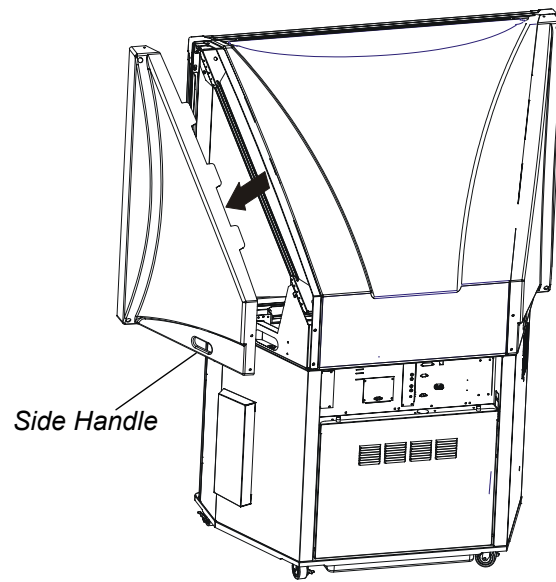
NOTE: Remove the hex screw shown in the following figure. Do not remove the safety hex screw closer to the inside corner.



4. Using the hex key, remove the two hex screws on the rear of the cabinet.



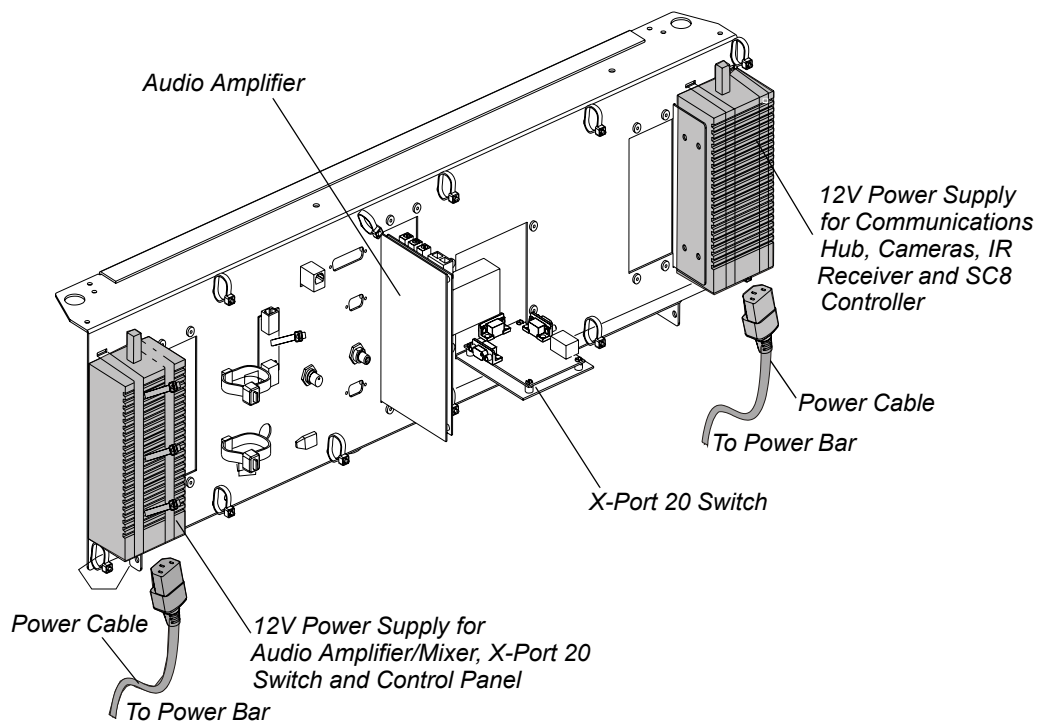
5. With one hand in the side handle and the other on top of the cabinet, pull off the side panel.



Disconnecting the Power Supply

To disconnect the power supply

1. Locate the power supply you want to replace inside the cabinet on the left or right side of the patch panel. The two power supplies are mounted on the patch panel at the rear of the cabinet.



2. At the power supply, locate the power cable connected to the power bar, and then disconnect it. Let the power cable hang down.

3. Locate the DC power cable that is connected to the power supply:
 - For the left-side power supply, follow the cable to the audio amplifier/mixer. Disconnect the cable at the audio amplifier/mixer and let the cable hang down.
 - For the right-side power supply, follow the cable along the bottom of the side panel to the power jack on the communications hub. The communications hub is attached to the bottom frame on the back of the screen. Disconnect the cable at the communications hub and let the cable hang down.

Replacing the Left-Side Power Supply

To test the left-side replacement power supply

1. Hold the replacement power supply, connect the power cable to the replacement power supply, and then connect the DC power cable that is connected to the replacement power supply to the audio amplifier/mixer.
2. Connect the 3000i/4000i's main power cable to a wall outlet, and then turn on the projector and computer.

The replacement power supply is working if you hear sound from the speakers.

3. Shut down the 3000i/4000i, including the projector and computer. Disconnect the main power cable from the wall outlet.
4. Disconnect the power cable at the replacement power supply and the DC power cable at the audio amplifier/mixer.

To remove the left-side power supply

WARNING



Shut down the 3000i/4000i projector and computer, and then disconnect the main power cable from the wall outlet before you remove the power supply.

1. Shut down the 3000i/4000i, and then follow the DC power cable of the defective power supply to the audio amplifier/mixer. Using a pair of diagonal cutting pliers or sturdy scissors, carefully cut the tie wraps around the cable. Let the other cables hang and note the position of the cables for when you later tie them together.

OR

Use a pair of scissors to cut off the end of the DC power cable of the defective power supply, and then pull the cable through the tie wrapped cable bundles without cutting the tie wraps.

2. Carefully cut the two tie wraps that tie the power supply to the patch panel. Gather the cable and remove the power supply.

To install the left-side replacement power supply

1. Locate the tie wrap slots in the back of the cabinet. Using two new tie wraps, hold the replacement power supply in place, and then wrap one tie wrap around it. Feed the end of the tie wrap through the other tie wrap slot. Slip the tie wrap's end into its head. Hold the tie wrap's end and pull to tighten.
2. Repeat step 1 with the second tie wrap. Cut off excess tie wrap length.
3. Connect the power cable to the replacement power supply, and then connect the DC power cable that connects the replacement power supply to the audio amplifier/mixer.
4. Use tie wraps to tie the DC power cable to the original cables.

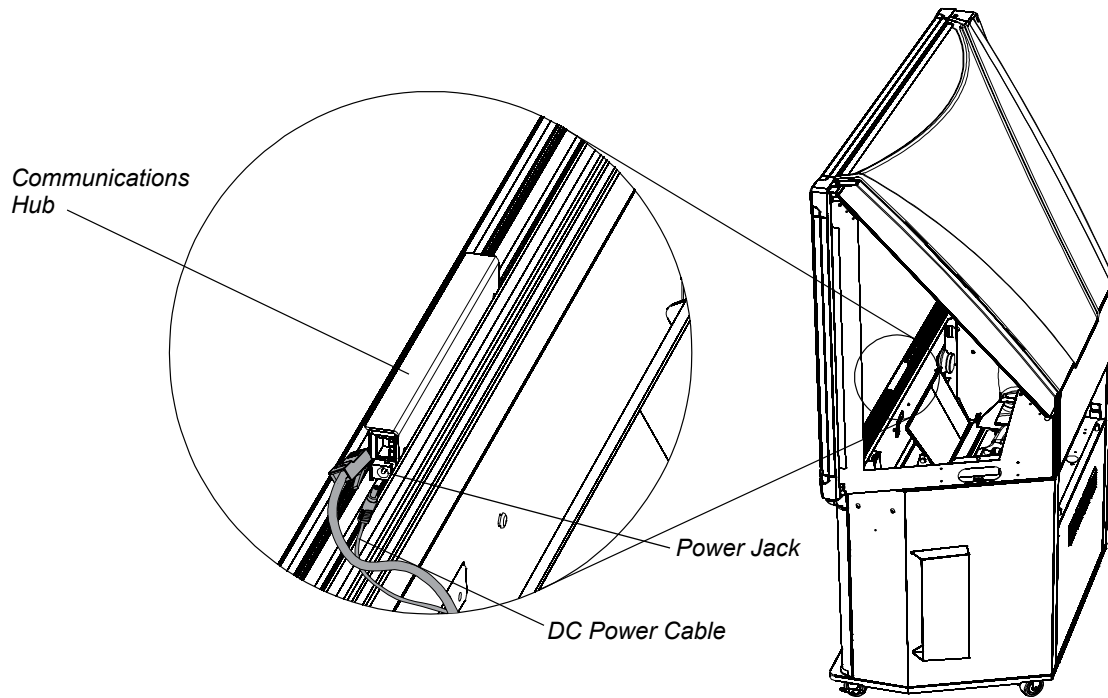
Replacing the Right-Side Power Supply

To test the right-side replacement power supply

1. Hold the replacement power supply, connect the power cable to the replacement power supply, and then connect the DC power cable that is connected to the replacement power supply to the power jack on the communications hub.
2. Connect the 3000i/4000i's main power cable to a wall outlet. You don't need to turn on your projector and computer.

The replacement power supply works if the power jack on the communications hub is lit.

3. Shut down the 3000i/4000i, including the projector and computer. Disconnect the main power cable from the wall outlet.
4. Disconnect the power cable at the replacement power supply and the DC power cable at the communications hub.



To remove the right-side power supply

WARNING



Shut down the 3000i/4000i projector and computer, and then disconnect the main power cable from the wall outlet before you remove the power supply.

1. Shut down the 3000i/4000i, and then follow the DC power cable of the defective power supply along the inside of the side panel to the communications hub. Using a pair of diagonal cutting pliers or sturdy scissors, carefully cut the tie wraps around the cable. Let the other cables hang and note the position of the cables for when you later tie them together.

OR

Use a pair of scissors to cut off the end of the DC power cable of the defective power supply, and then pull the cable through the tie wrapped cable bundles without cutting the tie wraps.

2. Carefully cut the two tie wraps that tie the power supply to the patch panel. Gather the cable and remove the power supply.

To install the right-side replacement power supply

1. Locate the tie wrap slots in the back of the cabinet. Using two new tie wraps, hold the replacement power supply in place, and then wrap one tie wrap around it. Feed the end of the tie wrap through the other tie wrap slot. Slip the tie wrap's end into its head. Hold the tie wrap's end and pull to tighten.

Repeat step 1 with the second tie wrap. Cut off excess tie wrap length.

2. Connect the power cable to the replacement power supply, and then connect the DC power cable that connects the replacement power supply to the power jack at the communications hub.
3. Use tie wraps to tie the DC power cable to the original cables.

Reinstalling the Cabinet Side Panel

To reinstall the cabinet side panel

1. Grip the side handle and the top of the side panel and fit the side panel in place.
2. Use the 5/32" hex key to replace the two hex screws on the rear of the cabinet, the hex screw under the bottom corner of the side panel, and the hex screw on the top corner of the side panel.

Preparing the Cabinet for Operation

To prepare the cabinet for operation

1. To move the cabinet to a different location, unlock the wheels by pressing the caster tab lock on each wheel. Roll the unit to a new location. Press the caster tab locks in the opposite direction to lock the wheels.
2. Reinstall the guest laptop shelf and tighten the thumbscrew under the shelf.
3. Reinstall the mounting arm and videoconferencing shelf and tighten the thumbscrew under the shelf.
4. Reinstall the J-hook.
5. Reinstall the IR receiver on the side of the cabinet.
6. Connect the 3000i/4000i's main power cable to a wall outlet.

Your 3000i/4000i is ready for use.

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