

### **Interactive Whiteboard**

# **Projector Replacement Guide**

for Projector Replacement Kits

NEC MT1060R (03-00043) and NEC MT860R (03-00041)

#### **FCC Warning**

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference, in which case the user will be required to correct the interference at his own expense.

#### **Trademark Notice**

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U.S. Patent No. 5,448,263 and 6,141,000. Canadian Patent No. 2,058,219. Other U.S. and foreign patents pending.

# **Contents**

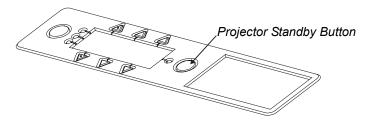
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# Replacing the Projector in a 2000i

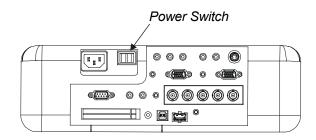
Use these instructions to install a replacement NEC MT860 or NEC MT1060 projector in your *Rear Projection* SMART Board 2000i interactive whiteboard.

#### To remove the original projector

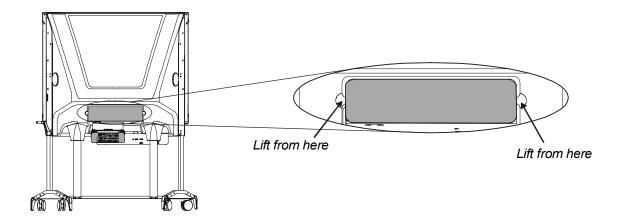
1. Shut down the computer, and then press and hold the **Projector Standby** button on the Control Panel until it blinks rapidly. Wait until you hear the projector's cooling fan stop (6–7 minutes), and then unplug the 2000i from the power outlet.



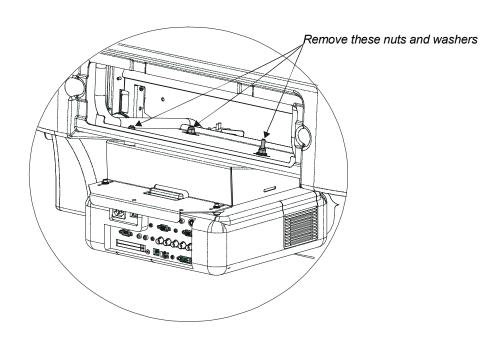
2. Toggle the projector's power switch to the off position.



- 3. Unplug all cables from the projector, including the power cable, and remove the strap that secures the projector to the projector plate.
- 4. Remove the view port cover (which is attached with hook-and-loop fasteners) at the rear of the cabinet: Grasp the view port cover in the middle of each short edge, and pull it away.



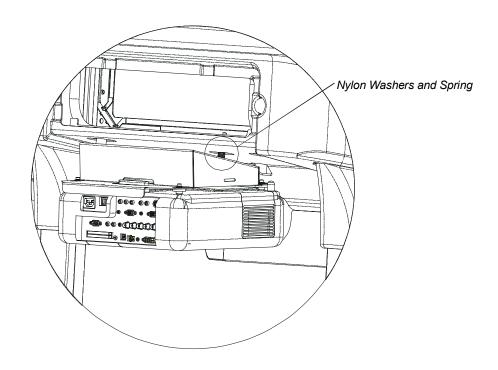
5. With another person supporting the projector, reach through the view port and remove the three nuts (including the steel and nylon washers) that secure the projector in place and then remove the projector. Use the provided 7/16" nut driver to loosen the nuts. Keep the nuts and washers nearby, as you'll need them when you install the new projector in step 8.



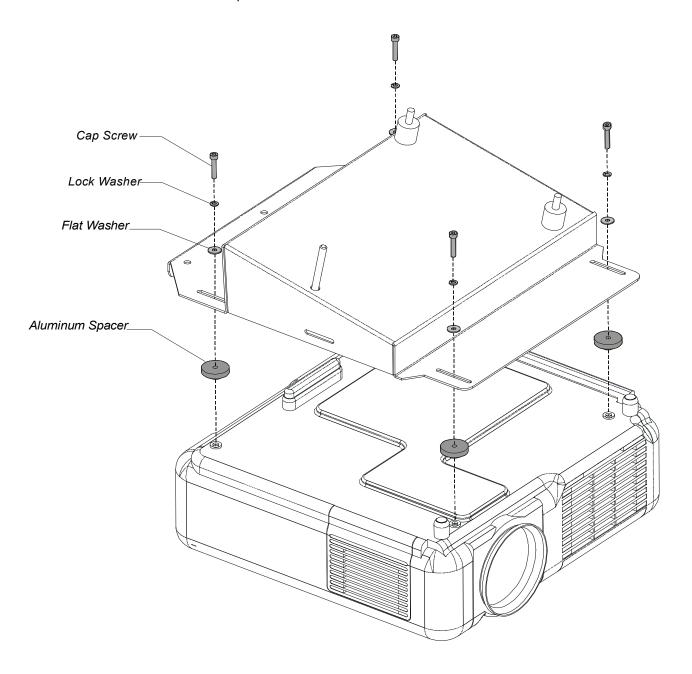
# CAUTION



Be *very* careful not to lose the spring and nylon shoulder washers on the long screw as you remove the projector from the cabinet. See the figure below for the location of this hardware.

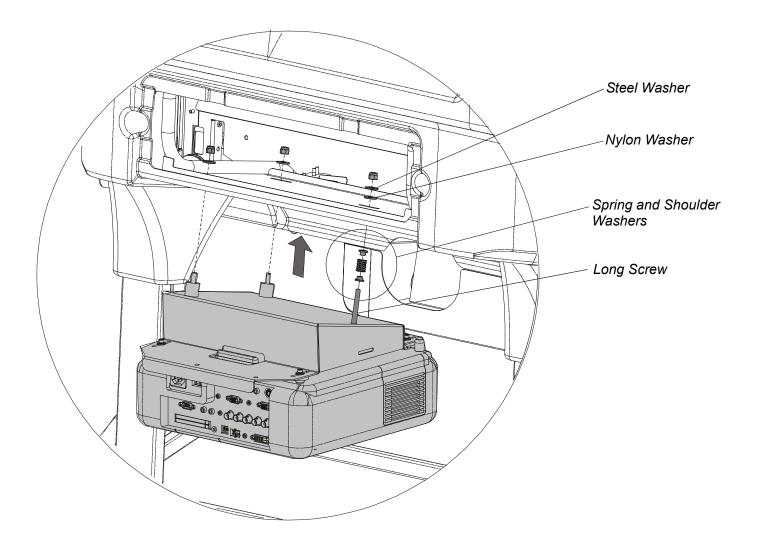


6. Set the projector down on a flat surface and remove the projector plate from the projector: Using the provided hex key, loosen and remove the four sets of screws, spacers and washers at the corners of the plate.

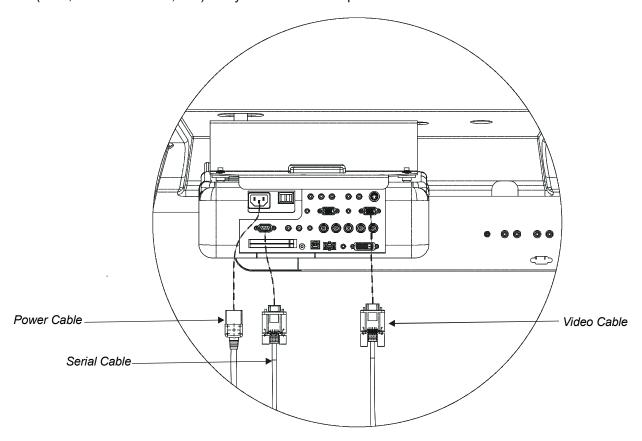


7. Transfer the plate to the new projector and attach it using the same screws, spacers and washers that were removed in the previous step.

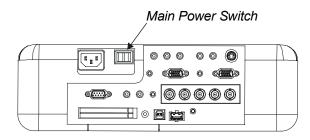
8. Slide the projector plate back into place by maneuvering the screws through the cabinet slots. With a partner supporting the bottom of the projector, use the provided 7/16" nut driver to secure the projector plate in place using the nuts and washers that you removed in step 5. Place the single nylon washer between the steel washer and the cabinet (see illustration). Also make sure that the spring and shoulder washers remain in place on the long screw.



9. Connect the video, power and serial cables to the projector, along with any other cables (VCR, external monitor, etc.) that you removed in step 2.



- 10. Replace the strap that secures the projector to the projector plate.
- 11. Plug the power cord back into the power outlet.
- 12. Toggle the projector power switch to the on position.



- 13. Align the projected image as described in the next section.
- 14. Replace the rear viewport cover.

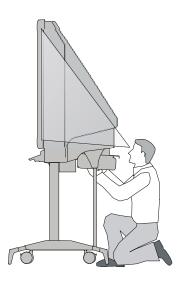
# **Aligning the Projected Image**

If the projected image is blurry or does not fit the screen, complete the four adjustment procedures that follow. For the first three, (roll, side-to-side and image size adjustment), you must watch the image on the back of the screen while making the adjustments. You must also remove the view port cover (attached with hook-and-loop fastener strips) at the rear of the unit to access the adjustment hardware.

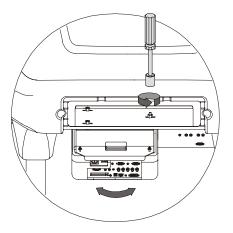


### To adjust image roll

1. Crouch behind the projector and look at the projected image through the view port.

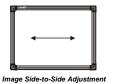


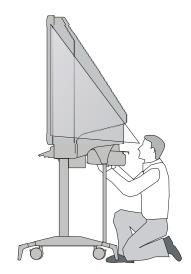
2. While carefully observing the bottom edge of the image at the right side, use the 7/16" nut driver to loosen or tighten the nut that's located on the right side of the projector plate.



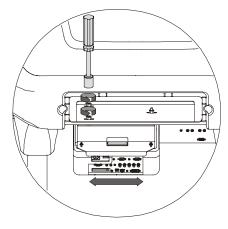
### To adjust the image laterally

1. Crouch behind the projector and look at the projected image through the view port.





2. Using the supplied 7/16" nut driver, loosen the two nuts on the left side of the projector plate.



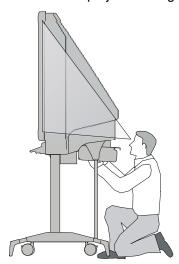
3. Slide the projector plate to the right or left to adjust the image, and then tighten the two nuts.



#### Image Size Adjustment

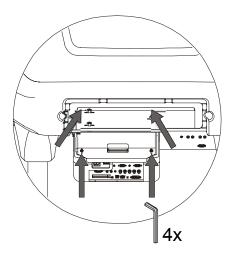
#### To change the image size

1. Crouch behind the projector and look at the projected image through the view port.



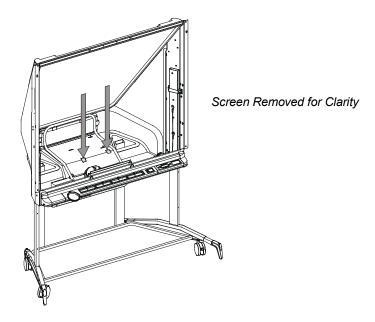
2. Loosen the four hex screws that secure the projector to the projector plate using the provided 3 mm hex key.

**NOTE**: These screws are located on top of the projector plate, two at the front of the projector and two at the back.



3. Loosen the two hex screws at the front of the projector. To access these screws, reach through the view port, extend your arm to the front of the projector, and maneuver the hex key through the two access holes in the projector cover.

The following figure shows the location of these two access holes from the front of the 2000i.



As you maneuver the hex key through the access holes, watch it from the side to see when it engages with the hex screw.



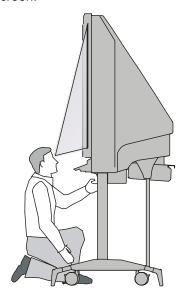
- 4. Slide the projector backward or forward to alter the image size.
- 5. When the image is a good size, tighten all four hex screws that you previously loosened.



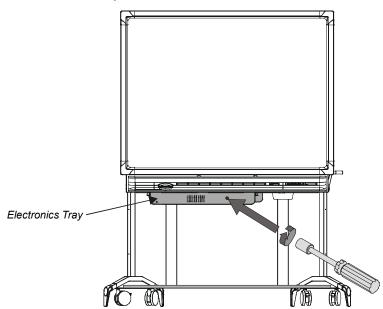
Move Image Up or Down

### To move the image up or down

1. Crouch down in front of the screen.



2. Look underneath the pen tray and locate the Electronics Tray. Locate a plastic cap on the right side of the Electronics Tray.



- 3. Remove the plastic cap to reveal an access hole.
- 4. Use the supplied 7/16" nut driver to loosen and tighten the bolt inside the access hole. This action adjusts the vertical position of the image on the screen. Adjust accordingly.

## **Customer Support**

SMART's Technical Support team welcomes your call. However, you may want to contact your local reseller first if you experience problems with any SMART product. SMART's resellers can readily provide you with quick advice so you can enjoy the benefits of your replacement projector for the *Rear Projection* SMART Board 2000i interactive whiteboard without delay.

### **Contacting SMART Technical Support**

All SMART software includes free telephone, fax and e-mail support. There are a number of ways to contact SMART Technical Support:

**Telephone:** 1.866.518.6791 (toll-free in Canada/U.S.) or +1.403.228.5940 (all other countries)

(Available 7 a.m. – 6 p.m. Mountain Time from Monday to Friday)

**Fax:** +1.403.245.0366

**E-mail:** support@smarttech.com **Web site:** www.smarttech.com

#### Other SMART Contacts

Main switchboard: 1.888.42.SMART (toll-free in Canada/U.S.) or +1.403.245.0333 (all other

countries)

Our address: SMART Technologies Inc.

Suite 600, 1177 – 11th Avenue SW Calgary, AB CANADA T2R 1K9

### **Product Warranty**

The replacement projector is covered by a two-year parts and labor warranty. Customers must return any defective merchandise to an authorized service center as directed by the distributor, dealer or manufacturer.

#### Warranty Shipping Charges

Shipping charges incurred from warranty service are paid as follows: You are responsible for shipping the system to the service center. SMART pays return shipping via ground service on any product returned for service within the warranty period. If you request a rush order, any associated charges are billed to you. Following the warranty period, the customer is responsible for shipping the product to and from the service center. Read the warranty shipped with your projector for details.