

# **Room Control Module (2000i-RCM)**

Installation Guide  
for the

***Rear Projection SMART Board™ 2000i-DV/DVX/DVS***  
**Interactive Whiteboard**

**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 manufacturer's instructions, 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**

SMART Board, X-Port and all SMART product logo types are trademarks of SMART Technologies Inc. All other third-party product and company names are mentioned for identification purposes only and may be trademarks of their respective owners.

**Copyright Notice**

© 2004 SMART Technologies Inc. All rights reserved. No part of this publication may be reproduced, transmitted, transcribed, stored in a retrieval system or translated into any language in any form by any means without the prior written consent of SMART. Information in this manual is subject to change without notice and does not represent a commitment on the part of SMART.

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

Printed in Canada 02/2004

# Contents

---

**Installing the Room Control Module ..... 1**

    About the Custom Straight-Through I<sup>2</sup>C MOD6 Cables ..... 1

        To install the Room Control Module ..... 2

    Connecting to a Third-Party Room-Control System ..... 7

**Customer Support ..... 8**

    General Inquiries ..... 8

    Returning Defective Merchandise ..... 8



# Installing a Room Control Module in a 2000i-DV/DVX/DVS

This kit contains:

- an antistatic wrist strap
- the Room Control Module (2000i-RCM)
- four 6-32 x 1/4" pan-head screws
- four star tooth washers
- a 6" (15.2 cm) custom straight-through I<sup>2</sup>C MOD6 cable with RJ11-6 (RJ12) connectors at both ends
- a label for the DB9 port
- the warranty document
- two Room Control Module Integrator's Guides

Tools required (but not supplied):

- a Phillips® No. 2 screwdriver
- a 5/32" hex key (not supplied with this kit, but available in the accessory kit for the 2000i)

Use these instructions to install a SMART Room Control Module (part No. 2000i-RCM) in the *Rear Projection SMART Board™ 2000i-DV/DVX/DVS* interactive whiteboard (referred to as the 2000i in this guide). To program the module to work with a third-party system, refer to the *Room Control Module Integration Guide for the Rear Projection SMART Board 2000i-DV/DVX Interactive Whiteboard* or the *Room Control Module Integration Guide for the Rear Projection SMART Board 2000i-DVS Interactive Whiteboard*.

When used on its own, you can't use a third-party room control system to access the Control Panel features on the 2000i. For that, you need the SMART Room Control Module. You can then use the Control Panel or a third-party room-control system to change the standby state, source, display and volume settings for the 2000i.

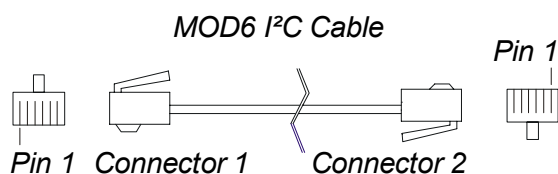
## About the Custom Straight-Through I<sup>2</sup>C MOD6 Cables

The supplied I<sup>2</sup>C MOD6 cable is a custom MOD6 cable that uses RJ11-6 (RJ12) connectors with four colored wires attached and identical pin assignments at both ends. The pin assignments for the connectors, shown below, are vital for the cables to work correctly.

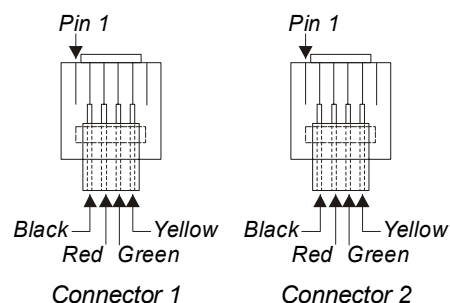
### CAUTION



This is a custom straight-through cable, not a standard crossover telephone cable. You could damage the Room Control Module and the 2000i if you use a telephone cable instead of this custom cable.



Connector 1	Connector 2
(Not used) Pin 1	Pin 1 (Not Used)
Black Pin 2	Pin 2 Black
Red Pin 3	Pin 3 Red
Green Pin 4	Pin 4 Green
Yellow Pin 5	Pin 5 Yellow
(Not used) Pin 6	Pin 6 (Not Used)



## To install the Room Control Module

### CAUTION

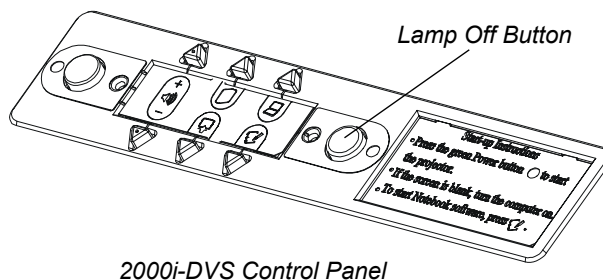
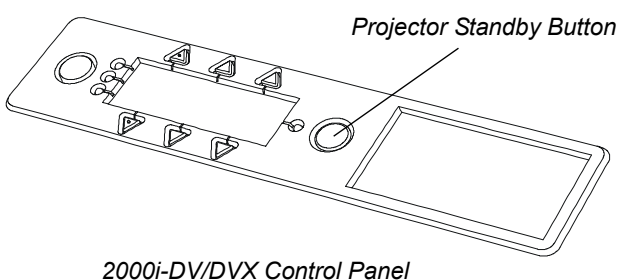


You should wear the supplied antistatic wrist strap throughout the installation process. This wrist strap protects electronic components from damage due to electrostatic discharge. Secure the adhesive end of the strap to your wrist and wrap the copper tape at the other end around any grounded object.

1. Shut down the computer.
2. If you have a 2000i-DV/DVX, press and hold the **Projector Standby** button for approximately three seconds until a "Please Wait a Moment" message appears on the bottom of the screen. Release the button and the lamp powers down. The projector reaches full standby mode in 90 seconds. Wait until you hear the projector cooling fan stop, and then unplug the 2000i-DVS from the power outlet.

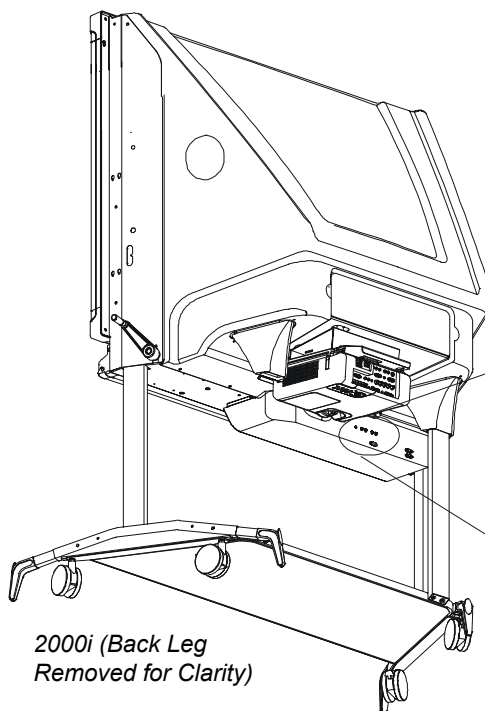
OR

If you have a 2000i-DVS, press and hold the **Lamp Off** button on the Control Panel for approximately three seconds. Release the button and the lamp powers down. The projector reaches full standby mode in 60 seconds. Wait until you hear the projector cooling fan stop, and then unplug the 2000i-DVS from the power outlet.

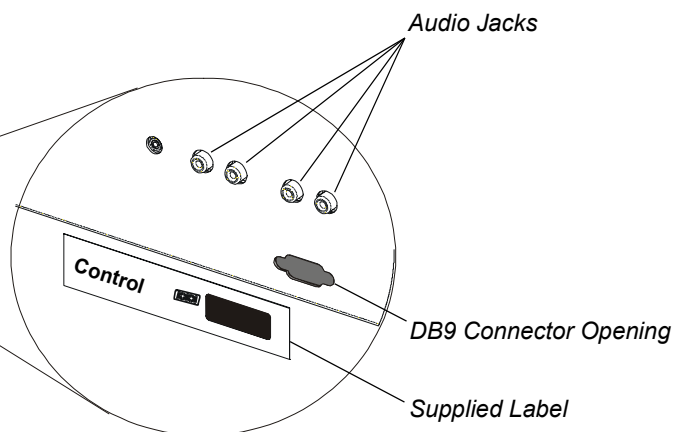


**Different Control Panels for the 2000i-DV/DVX and 2000i-DVS**

3. Make sure the casters are locked and all four anti tip feet are extended.
4. Remove the sticker covering the DB9 opening (just below the audio jacks), and place the supplied label over this opening.

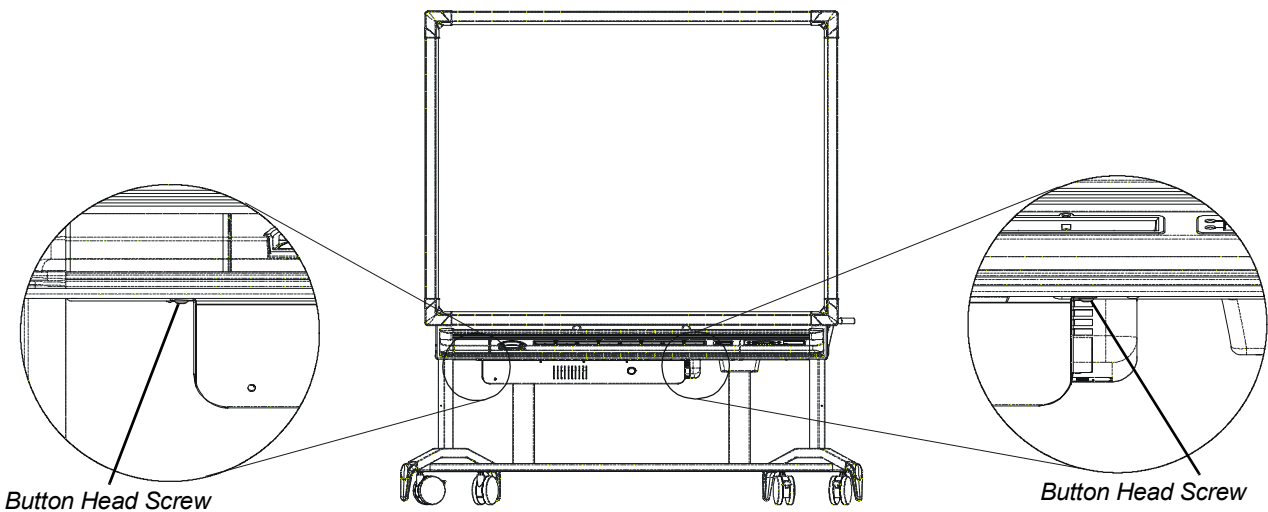


**NOTE:** Your model may be different than the one depicted throughout this guide.



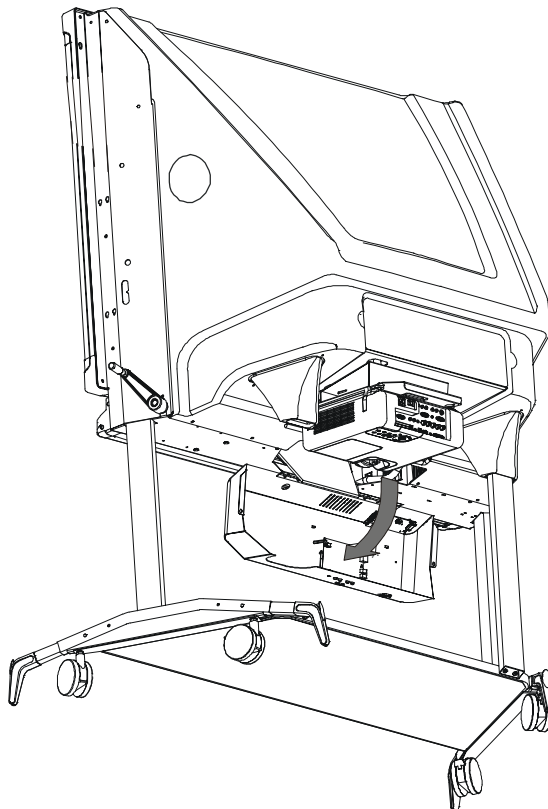
**DB9 Connector Opening and Label**

5. While propping up the electronics tray with one hand (so it doesn't fall suddenly), remove the two button head screws on either side of the tray using the 5/32" hex key (included in the accessory kit for the 2000i). Put the screws in a safe place, as you'll use them to secure the electronics tray at the end of the installation procedure.



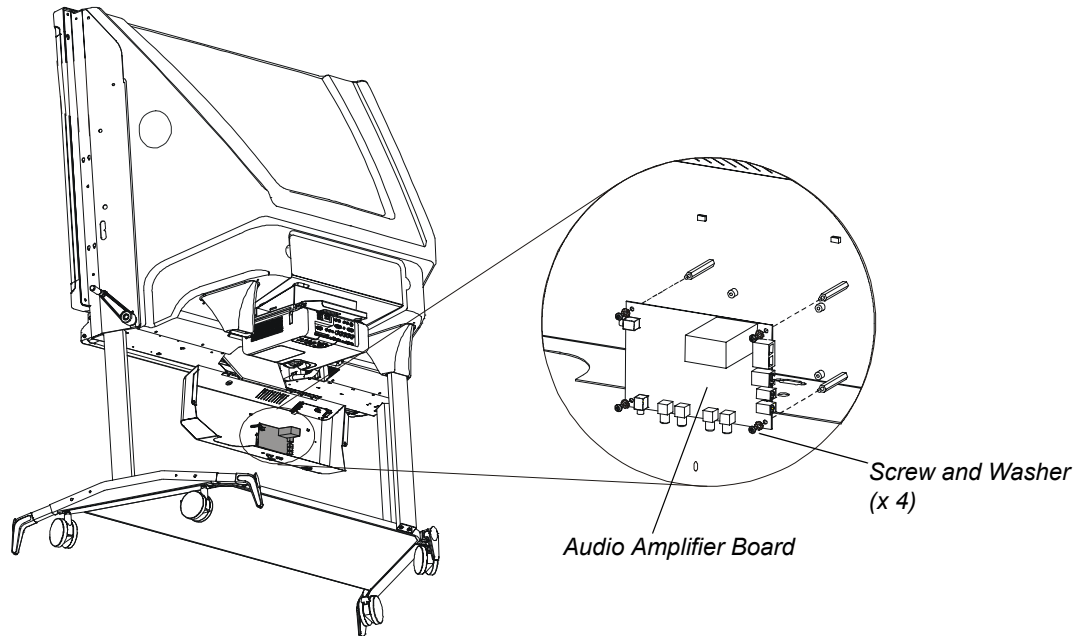
***Location of Button Head Screws on either Side of the Electronics Tray***

6. Carefully swing the electronics tray so it hangs vertically.



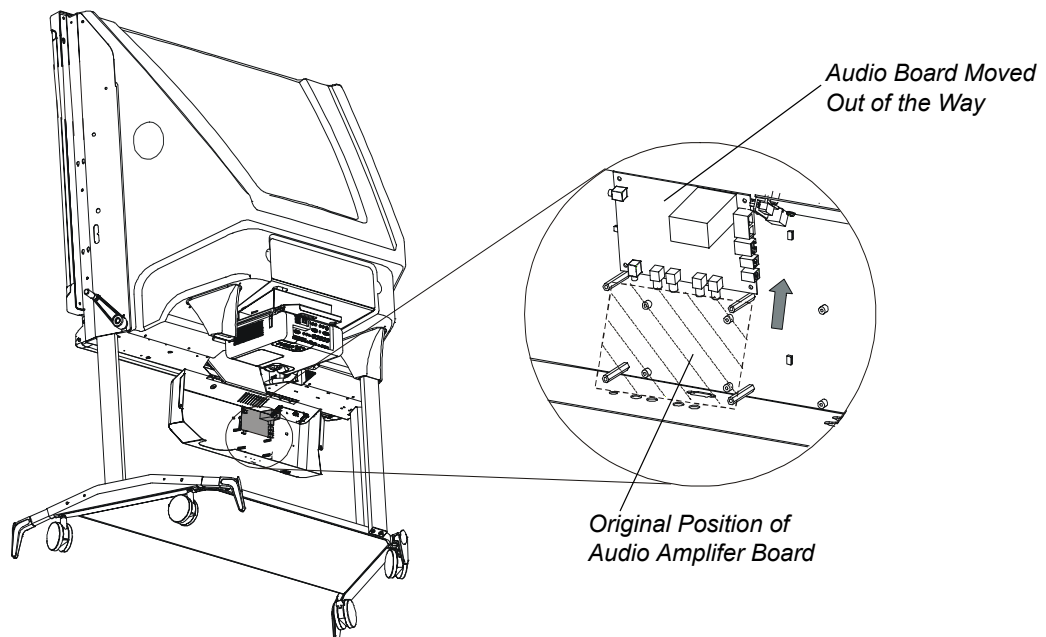
***Open Electronics Tray***

7. Detach the Audio Amplifier board from the electronics tray without disconnecting any attached cables: Using a Phillips No. 2 screwdriver, remove the four screws and washers that secure the board to the tray. Keep these screws and washers handy, as you'll reattach the board later.



#### ***Removing the Audio Amplifier Board***

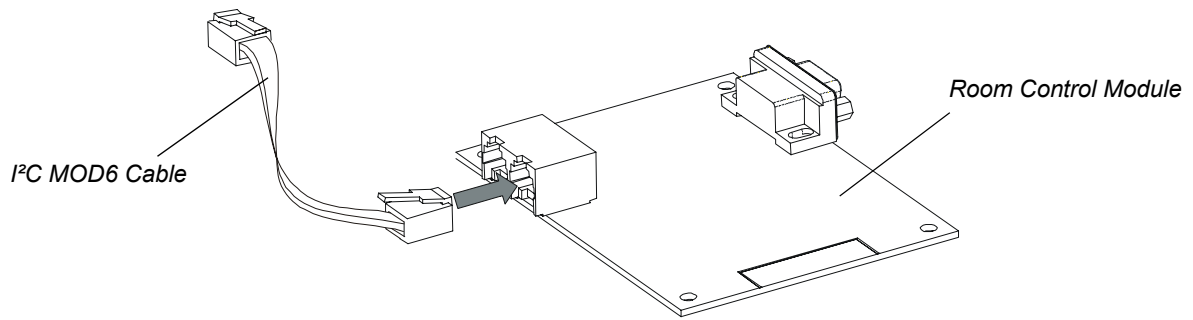
8. Move the Audio Amplifier board just above its original position on the electronics tray so you can install the Room Control Module below it, being careful not to disturb any cable connections.



#### ***Moving the Audio Amplifier Board Out of the Way***

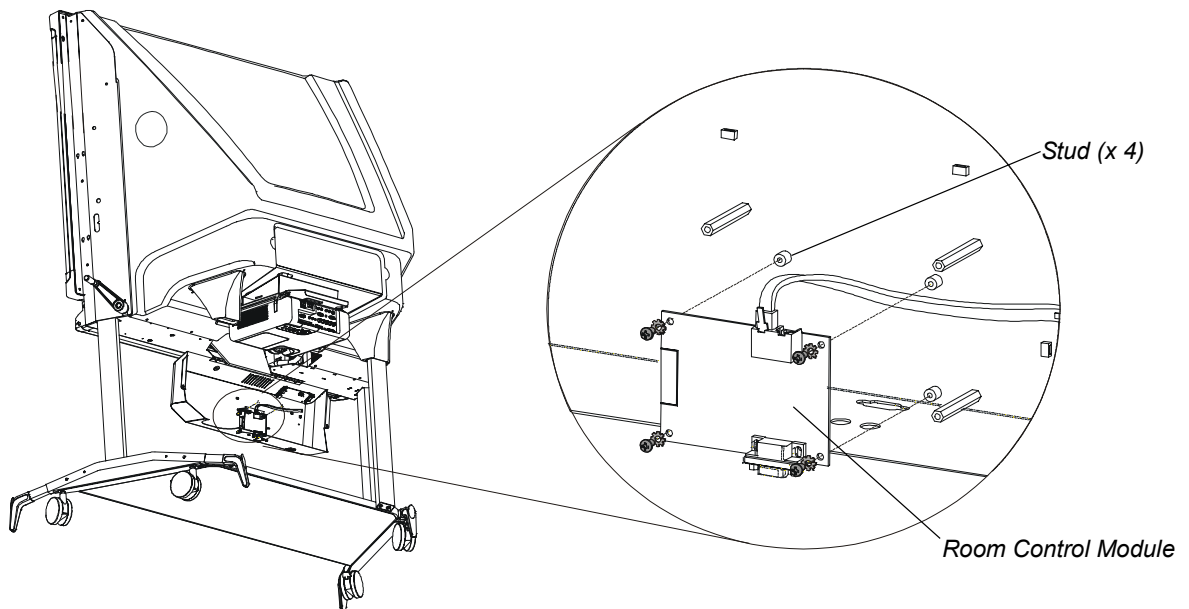


9. Connect the supplied 6" (15.2 cm) I<sup>2</sup>C MOD6 cable to either jack on the Room Control Module.



***Connecting the Supplied MOD6 Cable***

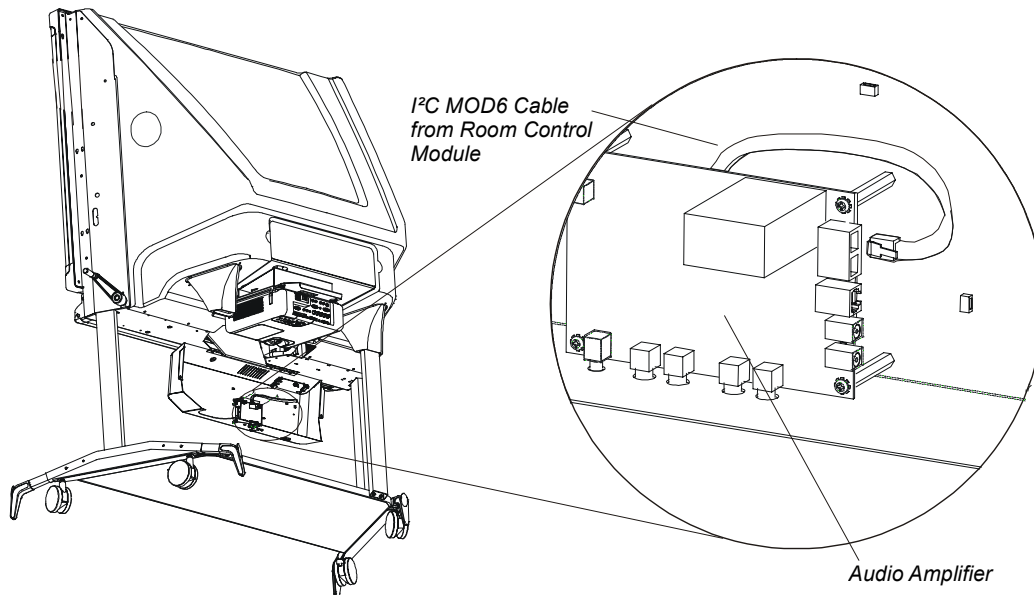
10. Install the Room Control Module on the studs in the bottom of the electronics tray. Using the Phillips No. 2 screwdriver, secure the Room Control Module in place with the screws and washers supplied in the kit.



***Installing the Room Control Module***

11. With the same screwdriver, install the Audio Amplifier board over the Room Control Module using the screws and washers that you removed previously (see step 7).

12. If you don't have an X-Port™ 20 switch installed in your 2000i, connect the I<sup>2</sup>C MOD6 cable from the Room Control Module to a MOD6 connector on the Audio Amplifier Board.



#### Connecting the Room Control Module to the Audio Amplifier – X-Port Switch Not Installed

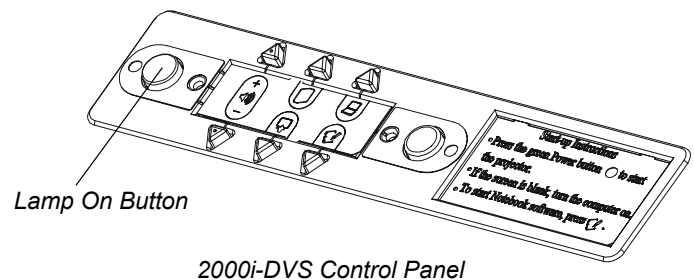
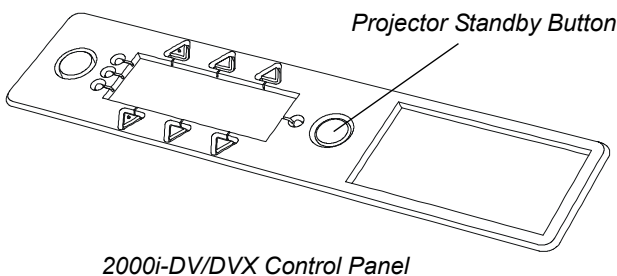
OR

If you have an X-Port 20 switch installed, connect the I<sup>2</sup>C MOD6 cable from the Room Control Module to an I<sup>2</sup>C MOD6 connector on the X-Port 20 switch. Refer to the *X-Port 20 Switch Installation Guide for the Rear Projection SMART Board 2000i-DV/DVX Interactive Whiteboard* or the *X-Port 20 Serial/Video Switch Installation Guide for the Rear Projection SMART Board 2000i-DVS Interactive Whiteboard* for detailed instructions.

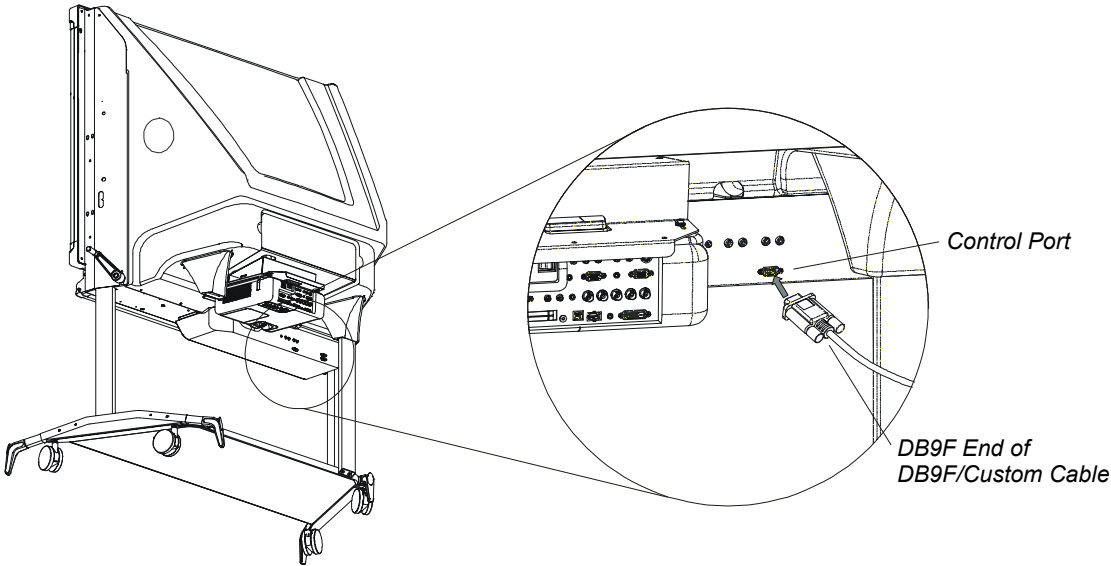
13. Swing the electronics tray back to its original position. Then replace and tighten the two button head screws that you removed earlier. Avoid pinching any cables.

## Connecting to a Third-Party Room-Control System

1. Plug the 2000i into a power outlet and turn on the computer.
  - a. If you have a 2000i-DV/DVX, press the **Projector Standby** button on the Control Panel to activate the projector.
  - b. If you have a 2000i-DVS, press the **Lamp On** button on the Control Panel to activate the projector.



2. Connect the DB9F end of a DB9F/custom cable to the Control port on the back of the 2000i. This cable isn't supplied by SMART Technologies. Usually, your third-party room control vendor would supply this cable.



**Connecting the DB9F/Custom Cable to the Control Port**

**NOTE:** Do not use an off-the-shelf DB9 null modem cable to connect the SMART Room Control Module to a third-party room control system, as the DTR/DSR pin will cause a system malfunction.

Use the following pin assignment for the custom cable:

Third-Party Room Control System		Rear Projection SMART Board 2000i Interactive Whiteboard Room Control Module	
Custom Connector		DB9F	
RxD	_____	3	TxD
TxD	_____	2	RxD
RTS	_____	8	CTS
CTS	_____	7	RTS
Signal GND	_____	5	Signal GND

3. Connect the other end of the cable to your third-party room-control system.

# Customer Support

---

## Contacting SMART Technical Support

SMART's Technical Support team welcomes your call. However, you may first want to contact your local reseller if you experience any difficulties with your SMART product, as they may be able to solve the problem without delay.

All SMART products include free telephone, fax and e-mail 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:** +1.403.806.1256

**E-mail:** support@smarttech.com

**Web Site:** www.smarttech.com/support

When you phone Technical Support, it will be helpful if you have access to your 2000i and the Room Control Module during the call.

The support representative may ask you for the following information:

- the serial number of the unit
- the version of the software that's causing the problem and the version of your computer's operating system (if applicable)

## General Inquiries

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

**Fax:** +1.403.228.2500

**E-mail:** info@smarttech.com

**Address:** SMART Technologies Inc.  
Suite 300, 1207 – 11th Avenue SW  
Calgary, AB CANADA T3C 0M5

## Returning Defective Merchandise

The Room Control Module is covered by a one-year parts and labor warranty. To return defective merchandise, call SMART Technical Support. You will receive the appropriate Return of Merchandise authorization and instructions for transporting the product to an authorized service center.

## Warranty Shipping Charges

You are responsible for transporting the product to the service center, and SMART pays return shipping via ground service on any product that's returned for service within the warranty period. If you request a *rush order*, any associated charges are billed to you. Read the warranty that was included with your Room Control Module for details.

**NOTE:** After the warranty period, you are responsible for transporting the product to and from the service center.