SMART Technologies Inc.

TECHNICAL BULLETIN

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Using the SMART X-Port™ 40 Multimedia Switch

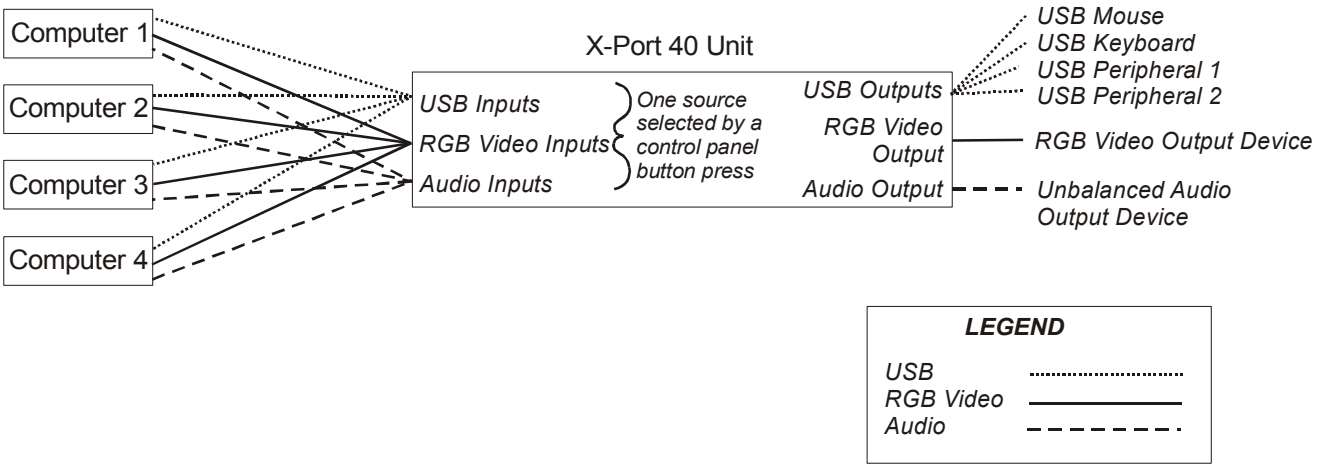
What is the X-Port 40 Unit?

The SMART X-Port 40 multimedia switch is a four-by-one switch that allows four input devices to share common peripherals. The input devices for the X-Port 40 unit can be any combination of computers or RGB video devices, such as a document camera. Examples of USB peripheral devices include a USB hub, a USB printer, a USB memory device, and a SMART USB adapter for connecting to a SMART Board™ interactive whiteboard. You can also connect an unbalanced audio output device, a USB mouse, a USB keyboard and an external video output device, such as a projector. The X-Port 40 unit includes a control panel, volume dial and audio circuit board.

After you've set up the devices, you can press one of the four buttons on the unit's control panel to select the device that supplies signals (audio, video and USB data) to all output devices. The LEDs on the control panel indicate the active source for the input signals. You can use the volume dial to control the outgoing audio signal.

You can buy the X-Port 40 unit separately, or receive it as part of a Sympodium™ L250 or MP250 interactive lectern. In these Sympodium products, the X-Port 40 unit's control panel is mounted on the countertop, and the Sympodium ID250 interactive pen display is already connected as the RGB video output device and one of the USB output devices. The lectern can accept connections from one more USB output device and another video display device, such as a SMART Board interactive whiteboard and a projector or a SMART Board *for Flat-Panel Displays* interactive overlay and a flat-panel display. Furthermore, the L250 has an unbalanced-to-balanced audio converter connected to the X-Port 40 unit, so you can connect a balanced audio system to the lectern. For the MP250, the integrated speakers connect to the unit's audio ports.

The video signal path for the X-Port 40 unit is unidirectional. The active input device sends the video signal to the X-Port 40 unit for display by the connected video output device. However, both the audio and the USB data signal paths are bi-directional, which means that the signal can flow in both directions through the switch. Although the X-Port 40 unit provides hub services for four USB devices, two of these USB ports are reserved for a USB mouse and a USB keyboard. In a Sympodium interactive lectern, the Sympodium ID250 interactive pen display occupies another USB port.



This bulletin explains how to connect the X-Port 40 unit to a SMART Board interactive whiteboard and a projector, and a SMART Board *for Flat-Panel Displays* interactive overlay and a flat-panel display. You can use either the SMART USB adapter that came with these products or the WC2-NA Wireless Serial Adapter. This bulletin *does not* explain the details of connecting the WC2-NA to the SMART Board interactive whiteboard or the SMART Board *for Flat-Panel Displays* interactive overlay. You'll find those details in the instructions that come with the WC2-NA. Technical Bulletin Issue 15 (RevA), *The SMART WC2 Wireless Serial Adapter*, also describes connection issues.

Connecting the X-Port 40 Unit to the SMART Board Interactive Whiteboard or to the SMART Board *for Flat-Panel Displays* Interactive Overlay

You can connect the X-Port 40 unit to either a SMART Board interactive whiteboard and a projector or to a SMART Board *for Flat-Panel Displays* interactive overlay and a flat-panel display. To make this connection, you can use:

- the SMART USB adapter (USB-FRU or PUSB cable) that comes with the interactive whiteboard or the interactive overlay
- the shorter SMART USB-ADP adapter (USB-ADP) (available from SMART Technologies, via your dealer)
- the WC2-NA Wireless Serial Adapter (available from SMART Technologies, via your dealer)

If you're integrating the wireless adapter, you'll need to include a 5V DC power supply with a positive 2.1 mm tip and a negative 5.5 mm barrel. In addition, if you use the USB-FRU to integrate the WC2-NA, you'll also need to supply and connect a male-to-male DB9 gender adapter. Remember that even if you use the wireless data connection, you should still use a direct video cable connection.

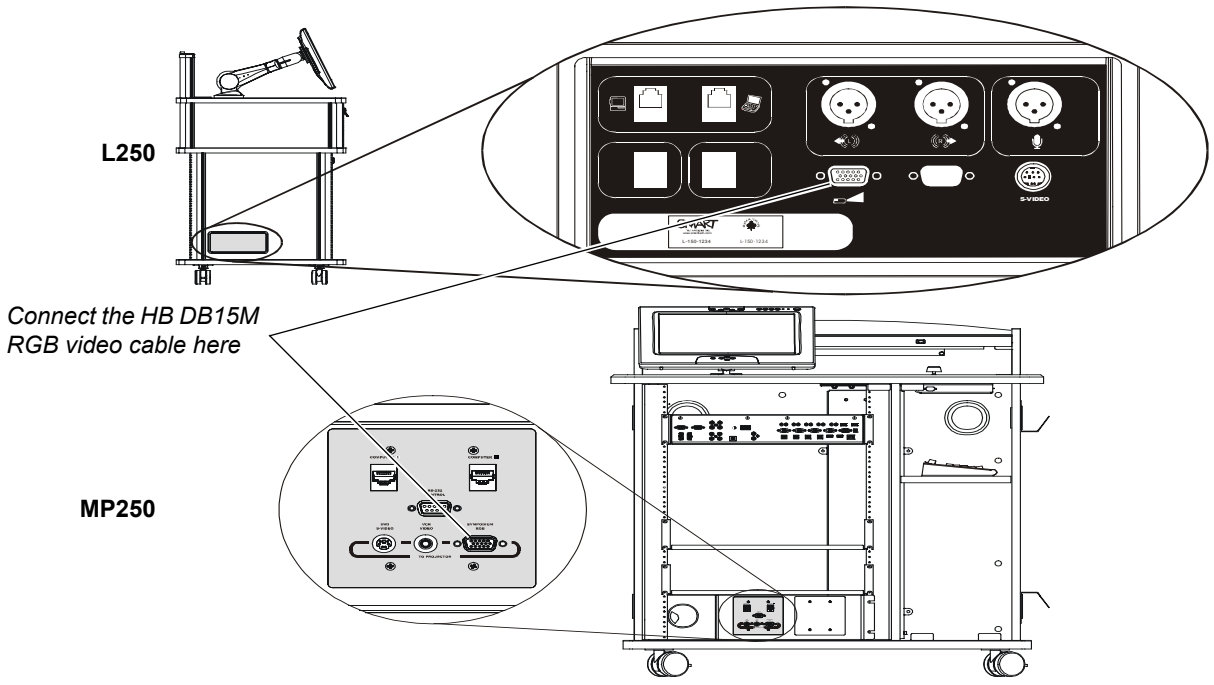
CAUTION Don't use any of the power ports on the back of the X-Port 40 unit to power the WC2-NA. The 12V DC power from these ports will destroy the radio. Also, if you house this power supply inside the cabinet, for safety reasons, use a class 2 power supply.

NOTE: You can't use the WC2-NA to integrate the Sympodium ID250 interactive pen display with an X-Port 40 unit.

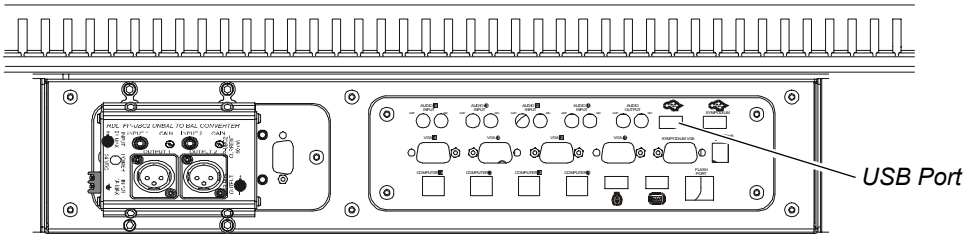
To connect an X-Port 40 unit to a SMART Board interactive whiteboard or to a SMART Board for Flat-Panel Displays interactive overlay

1. Set up the SMART Board interactive whiteboard or the SMART Board *for Flat-Panel Displays* interactive overlay as instructed by the documentation that came with that product. In this step, connect the DB9F connector of the SMART USB adapter to the SMART product, but don't connect the USB end to your computer.
2. Install SMART Board software.
3. With a SMART Board interactive whiteboard, set up the projector as instructed by the projector documentation. Then connect the projector's RGB video cable to the interactive lectern's connection panel at the port shown below.

   With a SMART Board *for Flat-Panel Displays* interactive overlay, connect the flat-panel display's RGB video cable to the lectern's port shown below.



4. Connect the USB-A end of the SMART USB adapter that came with your interactive whiteboard or overlay to the **USB** port shown below.



5. Power on the computer and the lectern as described in the documentation that came with the Sympodium interactive lectern.

NOTE: *While this illustration shows a SMART Board interactive whiteboard, you could instead integrate a SMART Board for Flat-Panel Displays interactive overlay. Also, the L250 is shown, but you could also integrate the MP250.*

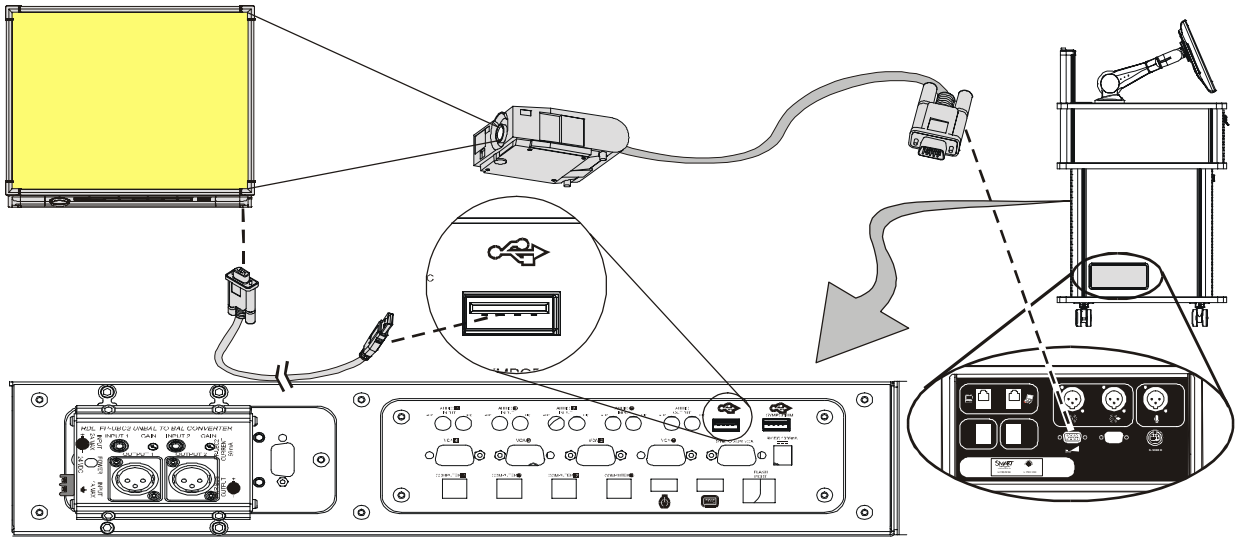
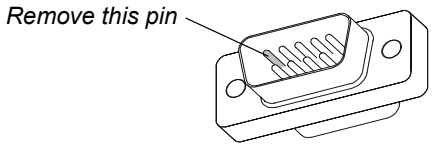


Figure 1: A SMART Board Interactive Whiteboard and Sympodium Interactive Lectern Setup

To make a wireless serial connection

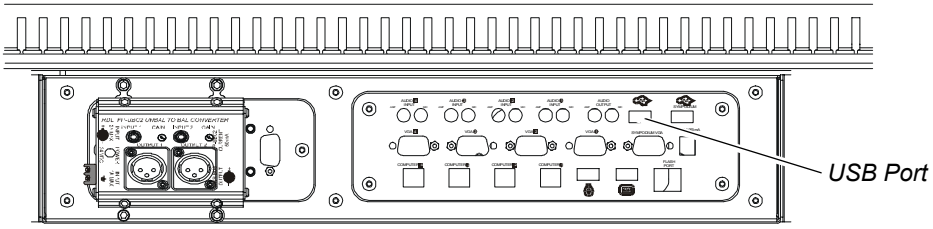
1. Set up the SMART Board interactive whiteboard or the SMART Board *for Flat-Panel Displays* interactive overlay as instructed by the documentation that came with that product. However, don't connect the cable to your computer.
2. Install SMART Board software.
3. Using the instructions that came with the WC2-NA, set up the WC2-NA at the interactive whiteboard or the SMART Board *for Flat-Panel Displays* interactive overlay.
4. If you're using the USB-FRU adapter, remove pin 1 of the male-to-male gender adapter to prevent power from traveling down the cable.



NOTES

- If you're using the USB-ADP adapter, you don't need to use a gender adapter because the serial end of this cable has a DB9M connector. You can proceed to step 6.
- The labels in Figure 2 indicate the connections you'll make in the following steps.

5. Connect DB9F end of the SMART USB adapter to the male-to-male gender adapter.
6. Connect the gender adapter or the USB-ADP to the DB9F connector of the WC2-NA cable labeled **To Computer**.
7. Connect the USB-A end of the SMART USB adapter to the X-Port 40 unit at the port shown below.



8. Connect the radio to the WC2-NA cable labeled **To Computer.**
9. Connect a 5V DC power supply to the radio and to a room outlet.

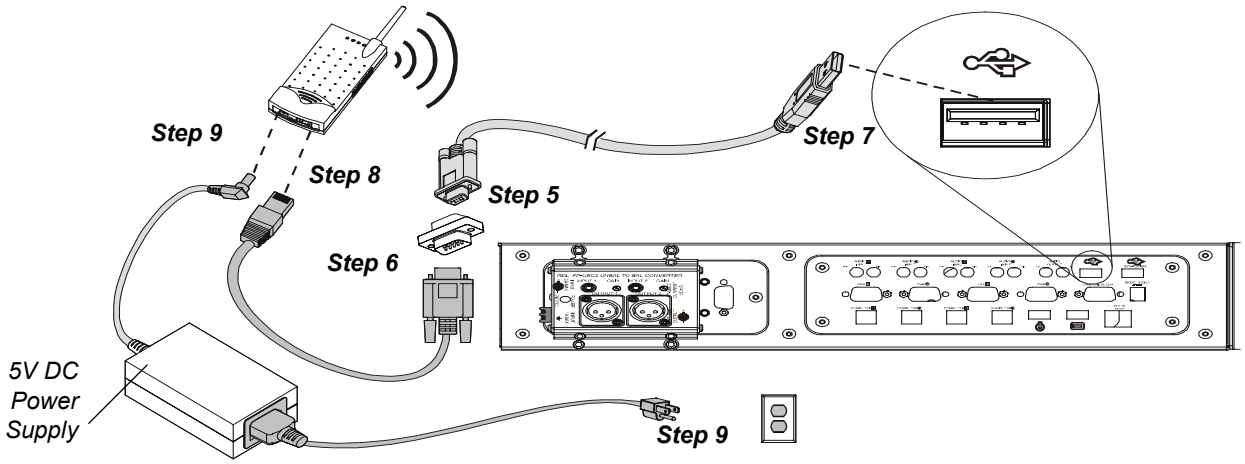


Figure 2: A WC2-NA Wireless Adapter for a SMART Board Interactive Whiteboard with the X-Port 40 Unit in a Sympodium Interactive Lectern