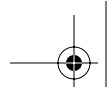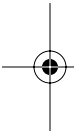**Exhibit K: User Manual**

FCC ID: P6I-BTTX01

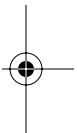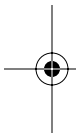# Impulse™ LTX Multimedia Whiteboard System

User Guide
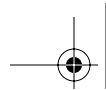
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The Bluetooth trademarks are owned by Bluetooth SIG, Inc., USA.

TABLE OF CONTENTS

POLYVISION
A Steelcase Company
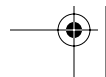
IMPULSE™ LTX Multimedia Whiteboard

WELCOME TO IMPULSE™ LTX MULTIMEDIA WHITEBOARD

Welcome to the PolyVision® Impulse© LTX multimedia whiteboard system that enables you to capture board images in three simple ways, while providing powerful interactivity using a projector and your laptop computer.
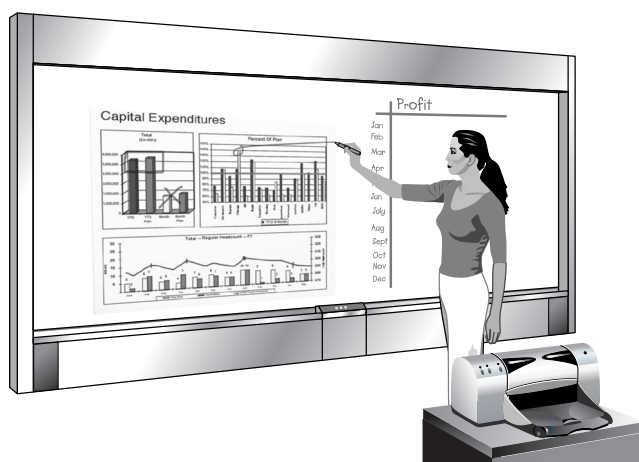
IMPULSE WHITEBOARD QUICK START

Step 1: Write on the board.

Step 2: Press a button on the control panel.

Step 3: You're done!

The Impulse system captures the board and you can continue your presentation without interruption.

WHAT TO EXPECT

You will hear an audible message when the board image is captured. You can then erase the board and continue writing.

When you use the printer or floppy diskette, it may take a few seconds to print or save the file, but you can continue using the board during that time as well.

If the Impulse system encounters a problem, audible messages describe the problem. Refer to "Troubleshooting" on page 52. You can hear an audible description of the control panel buttons at any time by pressing the Help button. Refer to "Getting Help With the Control Panel" on page 9.

THREE WAYS TO CAPTURE: THREE LEVELS OF OPERATION

The Impulse system gives you a choice of three ways to capture images of your whiteboard:

- by printing
- by saving on a floppy diskette
- by saving on the website/archive

Refer to "Capturing Images" on page 10 for details.

In addition, you have three ways to operate the board:

- write on the board and capture your writing
- add a projector to review captured writing

- add a laptop and projector for multimedia interactivity

Refer to "Impulse Whiteboard Operation" on page 10.

WHAT IS INCLUDED WITH YOUR IMPULSE WHITEBOARD

1 96 stylus markers (six boxes) that also work for pointing
2 one rectangular eraser
3 one box of six rectangular eraser pads
4 USB to PS/2 adapter
5 network print server adapter
6 this user guide
7 color printer with one set of ink cartridges and a power cord
8 four door keys
9 15-foot Ethernet cable
10 30-foot cable for connection to a laptop computer
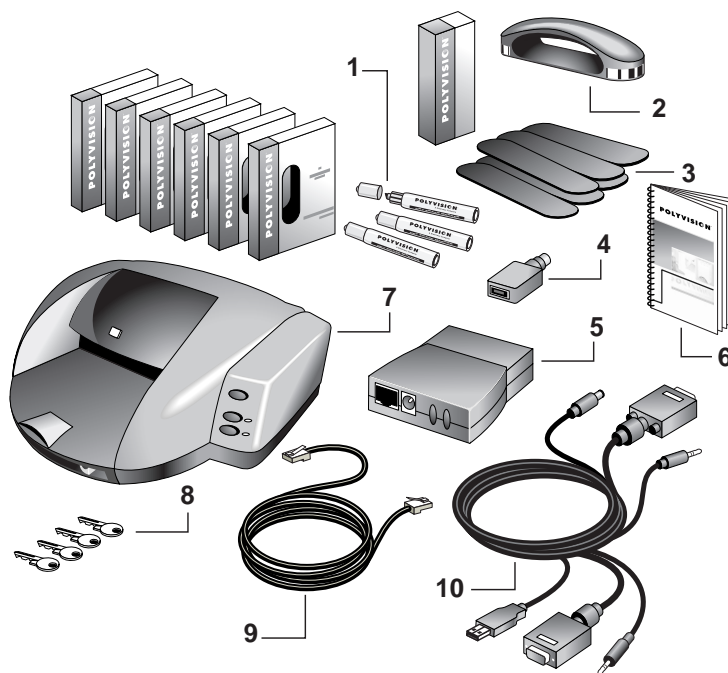
IMPULSE WHITEBOARD SYSTEM OVERVIEW

HOW IT WORKS

Impulse multimedia whiteboard laser technology provides the most accurate writing capture that you can buy.

LASER TECHNOLOGY

The Impulse system can "see" your marker by reflecting two invisible laser beams off of the marker's barrel. The Impulse system can distinguish between the strokes of a marker, stylus, or eraser and determine the marker color by reading bar codes located around the marker's barrel. Refer to "Laser Safety" on page 53.

Whenever you use the board, make sure there is only one tool in contact with the board at a time, and use only the recommended markers and erasers.

Refer to "About the Markers and Erasers" on page 8.

BUILT-IN ARCHIVE AND WEB SERVER

The Impulse system can either print or save your writing and projected images as an electronic file. Captured images are saved in an archive on the board and on a web page through a built-in web server.

You can limit access to saved images by adding password protection. Refer to "Password Protecting Images" on page 30.

BUILT-IN SOFTWARE

With the Impulse system, you never need to install software.

Images that you save are available to be reviewed simply by projecting them back onto the whiteboard using a projector connected to the board. On-screen tools appear on the board along with your saved images, enabling you to scroll, zoom in and out, and print.

IMPULSE™ LTX Multimedia Whiteboard

For instance, you can capture images of the board while you give a presentation, then scroll through them afterward. You can even mark up those images and recapture new images including all the new mark ups.

While your laptop computer and a projector are connected to the Impulse system, you can project anything from your computer onto the board. In addition, you can control your computer directly from the board. Nothing is stored or changed on your laptop and there is no software to install.

The cable connections between the board and your laptop enable the Impulse system to display and control your computer. Using markers, you can also write notes over or beside the projected computer screen and capture images at any time.

For instance, you can control a presentation on your computer (using software such as PowerPoint) while standing at the whiteboard, simply by using a marker (leaving the stylus cap on) as your mouse.

Refer to "Using the Impulse System With Your Laptop" on page 22.
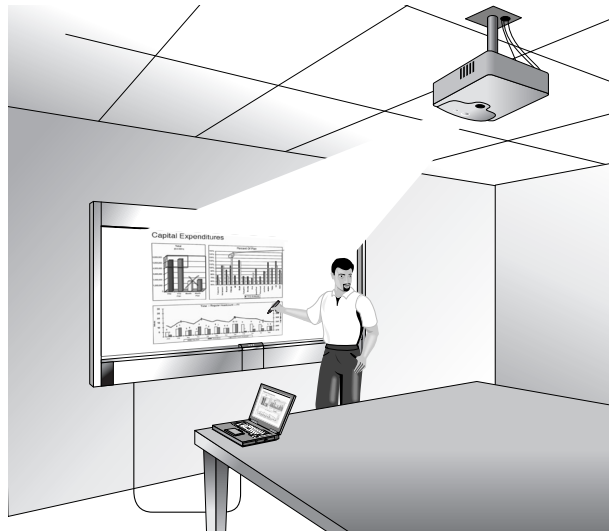
ABOUT THE MARKERS AND ERASERS

The whiteboard sends data to its internal computer by detecting a reflected laser beam from the marker, stylus, or eraser.

stylus cap

reflective band
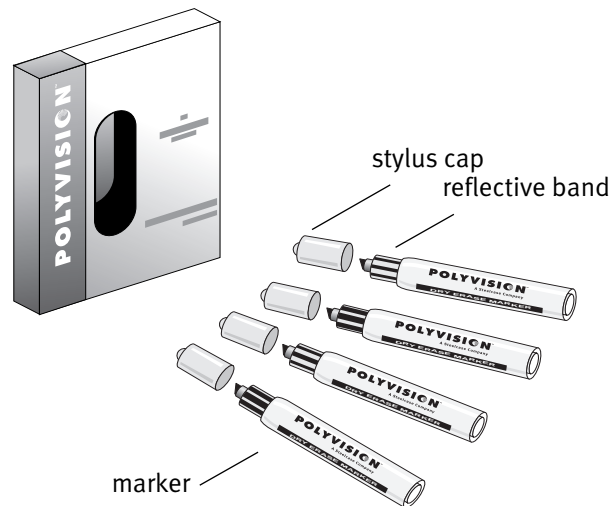
marker

The Impulse system can distinguish marker color by reading the reflective band on the marker. When the marker's cap is in place, the marker becomes a stylus.

While projecting captured images or your laptop computer, use the markers to write anywhere on the board. Use the stylus as a mouse to operate the on-screen functions. Two mouse modes are available. Refer to "Choosing a Projection Mode" on page 26.

The Impulse system includes a large rectangular eraser. A reflective band on the eraser identifies it as an eraser to the Impulse system.

Whenever you use the board, make sure there is only one point of contact at a time, and use only the recommended markers and erasers. A bin below the board stores a large supply of markers. Ninety-six markers are included with the board and more can be ordered from your dealer or from PolyVision. (Refer to "How to Obtain Replacement Parts" on page 51.)

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GETTING HELP WITH THE CONTROL PANEL

The Impulse system control panel includes a Help button to provide audible information about the use of any of the other buttons.

To get help:

1   Press Help on the control panel.

2   Then, press any other button on the control panel to hear an audible message providing information about the function of that button.

3   To control the message volume, press the control panel Volume buttons. Refer to "The Impulse System Audio and Volume Control" on page 31.

4   To return the control panel to normal operation, press Help again. If no button is pressed within five seconds of pressing Help, the control panel returns to normal operation automatically.

IMPULSE WHITEBOARD OPERATION

THREE WAYS TO OPERATE THE BOARD

The Impulse system provides three ways to operate the board:

- simply walk up, write on the board, and capture images on the printer, floppy diskette, or website/archive as described below

- connect a projector and scroll through captured images that are saved to the archive as described on page 16

- connect your laptop computer and projector to the Impulse system for multimedia interactivity as described on page 22

NOTE:

When you walk up to use an Impulse board, it is a good idea to press the Start button before you begin to write. This clears the internal memory of any writing from a previous user.

CAPTURING IMAGES

Whether the board contains writing, projected images from the board's archive, or your projected computer screen, the Impulse system gives you a choice of three ways to capture images of the whiteboard:

- on the printer

- on a floppy diskette

- on the website/archive

You can capture images in any combination. Refer to "Capturing Images in any Combination" on page 15.

CAPTURING IMAGES ON THE PRINTER

The Impulse system comes with its own printer, which can be networked over an Ethernet network or connected through wireless transmission, depending on how your system was purchased. The Ethernet network printer receives data via the Ethernet print server

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adapter connected to the same local area network (LAN) as the Impulse system.

The wireless color printer receives its data using Bluetooth™ wireless technology. The Impulse system emits radio signals to the printer's antenna, so no physical connection is required between them. The printer should be within 30 feet (10m) of the Impulse board, but it does not need to be in the same room. If a wall is between Impulse board and the printer, the antenna range may be reduced.

To print an image of the board:

1   Be sure the printer is turned on, and has paper and ink.

2   When you are ready to capture, press Printer once for each copy you want to print. You will hear an audible message state "one copy," "two copies," and so on for each copy.
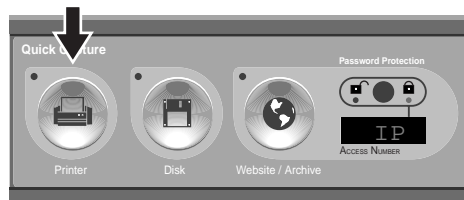
3   Continue your presentation. The Printer LED flashes green until printing is complete.

CAPTURING IMAGES ON A FLOPPY DISKETTE

You can capture an image of the board on a floppy diskette as an Adobe® Acrobat© PDF file (.pdf). One floppy diskette holds 10 to 15 images (or as few as one, if a projected image is also captured), depending on the complexity of the images. Files are named with the date and time of capture.

The Impulse system uses only formatted MS-DOS high-density 3.5" floppy diskettes. Formatted floppy diskettes are available from most office supply stores.

NOTE:

The Impulse system will not erase files on a diskette, so be sure that the diskette you use has sufficient space for your files.

To capture images on a floppy diskette:

1   Open the right storage bin, exposing the floppy drive on the right side of the control panel.

2   Insert a formatted diskette in the floppy drive.

3   When you are ready to capture, press Disk.

Quick Capture

Printer   Disk   Website / Archive

Password Protection

1426
ACCESS NUMBER
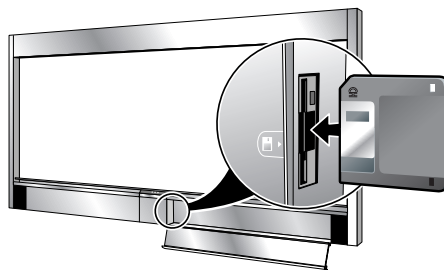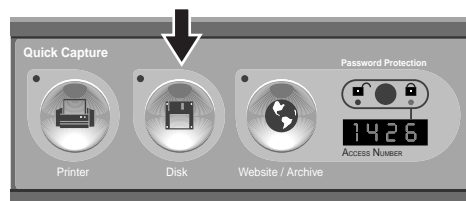
4   Continue your presentation after you hear the "camera shutter." The Disk LED flashes green until the save is complete. The disk drive begins to write almost immediately. Writing to disk can take up to 30 seconds, depending upon the complexity of the image.

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NOTE:

If the LED blinks yellow, no diskette is inserted in the diskette drive. If the LED blinks red, one of the following may have occurred:

- *A bad or unformatted diskette is inserted in the control panel.*
- *The diskette is full.*

The voice prompt provides additional information.

To remove the floppy diskette:

1 Wait until the LED stops blinking.

2 Press the eject button on the diskette drive.

eject button
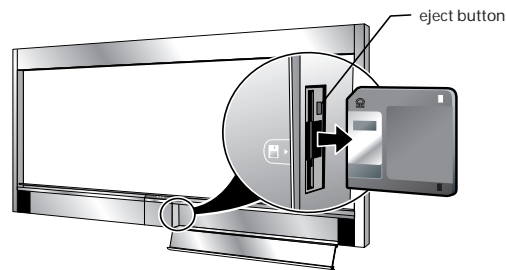
NOTE:

Most computers can read the Adobe Acrobat PDF file (.pdf) format images on the floppy diskette. (If you do not have Adobe Acrobat Reader, you can download it from the Adobe website at www.acrobat.com.) Simply insert the diskette in your computer, browse to the floppy diskette drive and double-click the image file to view it. Images can be mailed to others, printed, or saved on your computer for reference.

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CAPTURING IMAGES ON THE WEBSITE/ARCHIVE

You can also capture an image of the board and store it as a file on the built-in Impulse archive and web server.

To capture an image of the board and save it on the board's archive and web server:

1   When you are ready to capture, press Website/Archive.
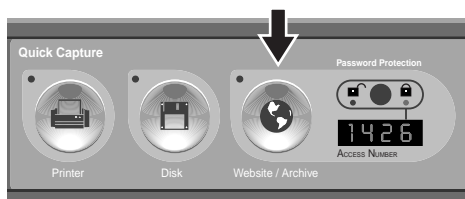
2   Continue your presentation. The Website/Archive LED flashes green until the image file is saved.

The captured image is added to the board's built-in archive and added to the web page for this Impulse board. You can access these saved images in either of two ways:

•   Connect a projector to the Impulse system and use the on-screen display to scroll through archived images. Refer to "Projecting Archived Images on the Impulse Board" on page 16.

•   With any computer sharing the same Local Area Network (LAN), browse to the built-in Impulse web server. The computer can be a Windows-based computer, a Macintosh, or any other computer with web access. All you need is a web browser such as Internet Explorer or Netscape Navigator. Refer to "The Impulse Web Server" on page 32 for information about how to access the web server.

The archive and web server can hold approximately 100 images at a time, depending on their complexity. When the web server becomes full, the oldest images disappear as new ones are added. Images remain on the web server and archive until they are replaced by newer ones or until you delete them, even if there is a power outage.

Unless password protected, images saved to the board archive and web server can be seen (and deleted from the web) by anyone in your organization who has access to the LAN or who scrolls through the archive. Refer to "Password Protecting Images" on page 30.

CAPTURING IMAGES IN ANY COMBINATION

You can use the Impulse whiteboard buttons in any order to print and save images of the board. For example, if you want to print ten copies of the board during your presentation for the purpose of distributing them to your class, and you also want to capture the image on a floppy diskette to use later in a word processing document, press the Printer button five times, then press the Disk button once. The same image appears on the ten printed copies and the diskette.

Clearing the Board's Temporary Memory

As you write and erase on the board, the Impulse system saves these actions in memory. In some circumstances, you might want to clear the board's memory. For instance, if you walk up to use a board and suspect that the memory might contain something from a previous user, you can clear the board's memory. Alternatively, if you need to be certain you are leaving no confidential information in the board's memory, you can clear it. Images saved in the archive are not affected.

When the Impulse system believes the board memory is clear, the green Ready LED is on. When the system memory contains data, the red In Use LED is on.

To clear the Impulse memory:

• Press Start on the control panel.
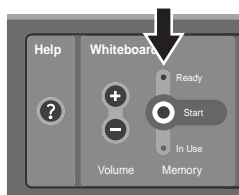
PROJECTING ARCHIVED IMAGES ON THE IMPULSE BOARD

When you press the control panel Website/Archive button, the Impulse system saves an image of the board in the board's built-in archive. (At the same time, the Impulse system captures the image as a file on its built-in web server. Refer to "The Impulse Web Server" on page 32 for information about working with files on the Impulse web server.) You can review images saved in the archive by projecting them back onto the Impulse board.

SETTING UP THE PROJECTOR

To review images from the board's archive, connect a projector to the Impulse board using a projector cable. A projector may already be connected to the Impulse system. If this is the case, proceed to "Reviewing Archived Images" on page 17.

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To set up the projector:

1   Locate a projector video cable and connect it to the Impulse control panel projector connector inside the lower left door.
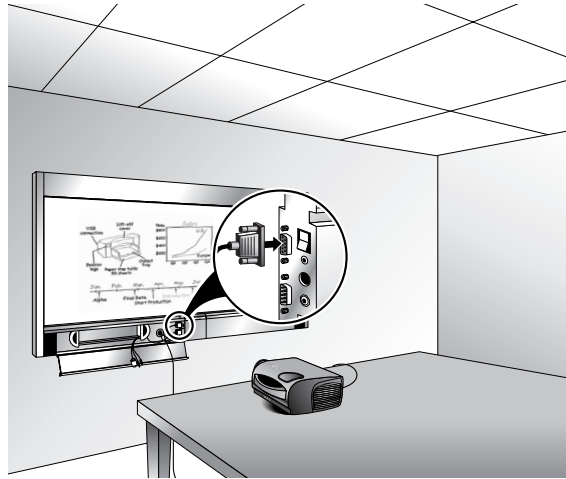
2   Connect the projector video cable to the projector.

3   Connect the projector's power cord to an outlet.

4   Turn on the projector and move (or adjust) the projector so the image projects squarely onto your whiteboard. The projected image need not fill the white area completely.

REVIEWING ARCHIVED IMAGES

With a projector connected to the Impulse system, the board acts as though it were a large interactive screen. The built-in software provides on-screen tools that enable you to scroll, select, and zoom in and out on captured images using the stylus as a mouse.

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To review captured images from the board's archive:

1   Press Archive on the control panel.

The on-screen display appears.

File Name

Full-size
Display

Tools

Thumbnails
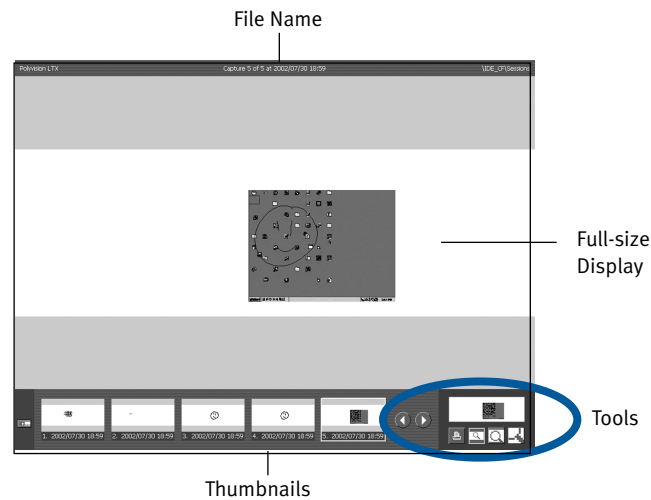
2   While projecting images on the board, you can choose between
     Merged and Separate Projection Mode. This determines
     whether:

- the stylus can point directly at the projected computer screen,
  to control the computer as if using a touch screen monitor
  (absolute pointing), or,

- the stylus always controls the computer's cursor from a
  distance, as if using a mouse (relative pointing).

3   Refer to "Choosing a Projection Mode" on page 26 for more information. To change projection mode, press the Writing and Projection button on the control panel until the Merged or Separate LED lights.

4   The on-screen display includes a miniature or "thumbnail" of each saved image. (If a saved image is password protected, a lock icon appears instead of a thumbnail image and the image may be viewed only from the website. Refer to "Viewing Password Protected Images on the Website" on page 35.) To scroll through the saved images, use the stylus to tap the left and right scroll arrows. Tap a thumbnail to select it. The selected thumbnail is highlighted and it appears in the full-size display.
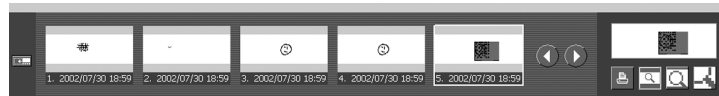
Highlighted   Scroll Arrows
Thumbnail

5   You can view an image at three levels of magnification. To zoom
     in and out, use the stylus to tap one of the three zoom buttons in
     the on-screen display tools. In the middle and highest level of
     magnification, portions of the image might not fit in the display.

Navigation Window

Zoom Buttons
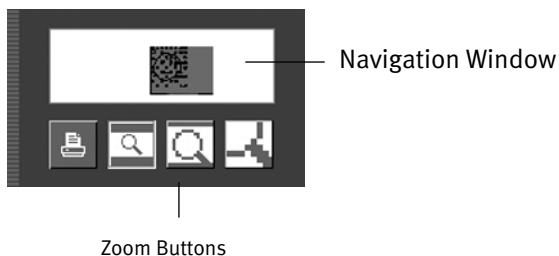
6   In the on-screen display tools, a red box in the navigation
     window indicates which portion of the selected thumbnail
     appears in the full-size display. If the entire image does not fit in
     the full-size display, use the stylus to drag the navigation box
     and alter which part of the image is shown on the full-size
     display.

Navigation Box

IMPULSE™ LTX Multimedia Whiteboard
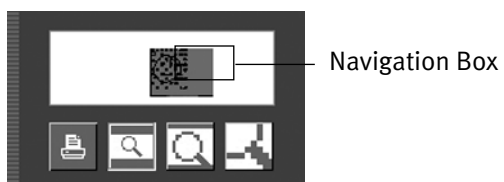
7   To print the image (excluding writing you might have added to the board while projecting the image) use the stylus to tap the Print button in the on-screen display tools.

Print Button

8   If you prefer to stand on the left side of the projected image, you can toggle the tools between the lower left or lower right edge of the display. To switch the tool position, tap the tools switch in the on-screen display.
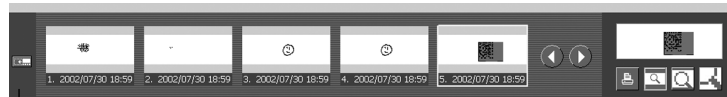
Tools Switch

9   You can use a marker to write over or beside the projection on the board. You can then capture a new image that includes the writing and the projection by pressing the Print, Disk, or Website/Archive button on the control panel. The new image includes the writing and projection either merged or separate, depending on the projection mode. Refer to "Choosing a Projection Mode" on page 26.

10 To delete an image from the board's archive, access the board's website and delete the image from there. (Refer to "Accessing Your Impulse Web Server" on page 32.) You cannot delete images using the Archive display.

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USING THE IMPULSE SYSTEM WITH YOUR LAPTOP

With a laptop computer and projector connected to your Impulse board, a variety of powerful options become available without changing or adding anything to your computer. The Impulse system's built-in intelligence enables you to:

- use the Impulse system to control your computer
- use the Impulse system speakers for computer audio
- run slide presentations entirely from the front of the room
- mark up and capture any image from your computer

SYSTEM REQUIREMENTS

Your laptop must have:

- Windows 98, ME, 2000, or XP, or Macintosh OS 8 or X
- VGA HD-15 video port, or DB-15 video port and DB-15 to HD-15 video adapter
- PS/2 or USB port
- video display resolution of 640 x 480 to 1280 x 1024
- up to 75 Hz screen refresh rate (60 Hz @ 1280 x 1024)
- line out or headphone jack (optional) for computer audio on the Impulse system speakers

SETTING UP THE LAPTOP COMPUTER AND PROJECTOR

The Impulse system includes a cable to connect the board to your laptop. The cable connections between the board, the projector, and your laptop enable the Impulse system to display and control your computer, and capture images from it.

To connect your laptop computer to the Impulse board:

1. Locate the 30 foot long laptop cable provided in the Impulse cable bin beneath the board on the left side. This cable is permanently connected to the board and has three connectors to plug into to your laptop: video, USB, and audio.
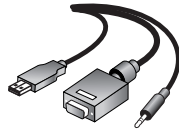
2. Connect the video connector to the video jack or adapter on your laptop.

3. Connect the USB connector into the USB jack on your laptop. (If you do not have a USB jack on your laptop, connect the USB to PS/2 adapter (provided) to the end of the USB connector. Then connect the adapter's PS/2 connector to the PS/2 jack on your computer. Although you can control the laptop from the board, you will be unable to use the mouse in absolute pointing mode.)

4. To play audio from your computer over the Impulse speakers, connect the 1/8" mini jack to the laptop line out or headphone jack.

5. If it is not already on, start your computer.

A projector may already be connected to the Impulse system. If this is the case, proceed to "Operating Your Laptop from the Impulse Board" on page 24.

To connect and set up a projector:

1   Locate a projector video cable and connect it to the Impulse control panel projector connector inside the lower left door.
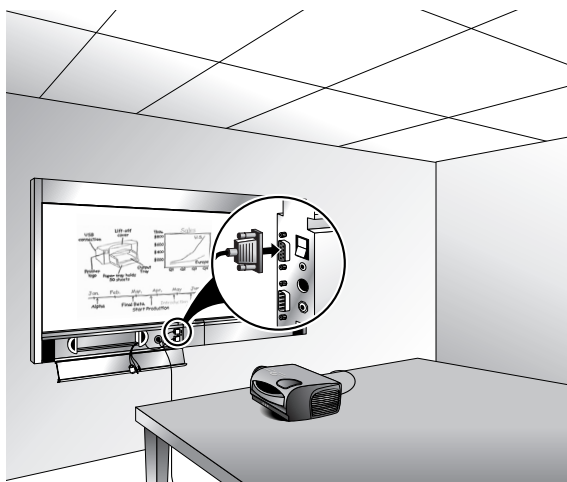
2   Connect the video cable to the projector.

3   Connect the projector's power cord to an outlet.

4   Turn on the projector and move the projector so that the image projects squarely onto your whiteboard. The projected image need not fill the white area completely.

OPERATING YOUR LAPTOP FROM THE IMPULSE BOARD

To project the computer screen onto the board:

1   Assure that your laptop is generating video signal. (You may need to press Fn - F5 or Fn - F8 on your laptop to enable video output.)

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2   Press Laptop on the control panel.
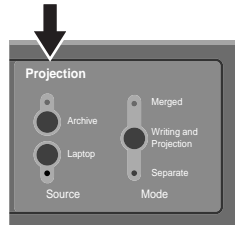
3   While projecting images on the board, you can choose between Merged and Separate Projection Mode to operate the computer from the board. This determines whether:

- the stylus can point directly at the projected computer screen, to control the computer as if using a touch screen monitor (absolute pointing), or,

- the stylus always controls the computer's cursor from a distance, as if using a mouse (relative pointing).

Refer to "Choosing a Projection Mode" on page 26 for more information about relative and absolute pointing. To change projection mode, press Writing and Projection on the control panel until the Merged or Separate LED is on.

While your laptop screen is projected onto the board, you can operate the computer and its software from the board using the stylus. This frees you to focus entirely on activity at the whiteboard.

To use the stylus to operate your computer:

- leave the stylus cap on a marker

- tap the whiteboard once to click
- tap the whiteboard twice rapidly to double-click
- pull the stylus across the surface to simulate a click-and-drag operation (e.g., to move a dialog box)
- in Windows, for a right click, hold the stylus to the board for one second

From the whiteboard, you can control interactive presentations using software such as PowerPoint. The Impulse system enables you to write over or beside the projected computer screen and capture the writing and projection by pressing Print, Disk, or Website/Archive on the control panel. The saved or printed image includes the writing and the projected screen either merged or separate, depending on the projection mode. Refer to "Choosing a Projection Mode".

CHOOSING A PROJECTION MODE

While projecting archived images or your computer screen onto the board, you can choose between two modes of stylus function and image saving: Separate Mode and Merged Mode.

SEPARATE MODE

In Separate Mode, the action of the stylus is relative; the stylus always controls cursor movement in the same way that your computer mouse controls the cursor from your mouse pad. For example, to click a button on the computer, stand to one side of the projected image, drag the stylus across the board to move the cursor until it is over the button, and tap the stylus while the cursor is over the button. Using Separate Mode, you can stand away from the projected image rather than standing directly in front of it.

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When you capture an image in Separate Mode, the projection and writing on the board are saved together, but they are shown (or printed) separately.
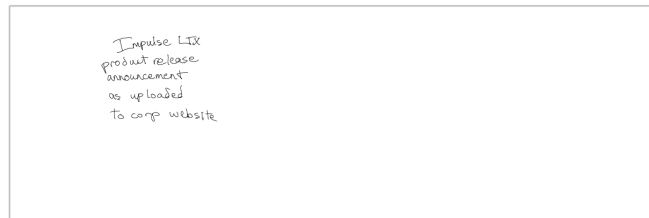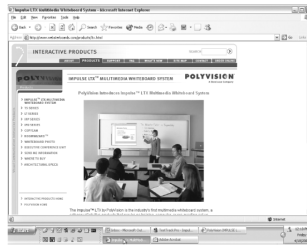
To use projection in Separate mode:

- Press Writing and Projection on the control panel until the Separate LED is on.

MERGED MODE

In Merged Mode, the action of the stylus on the projected image is absolute; the stylus and the cursor point at the same location. For example, to click a button on the computer, touch the stylus to the board where the projected image of the button appears. In addition,

use the stylus outside the projected image to control the computer's cursor from a distance, as if using a mouse (relative pointing).

When you capture an image in Merged Mode, the projection and any writing on the board are merged into one captured image.
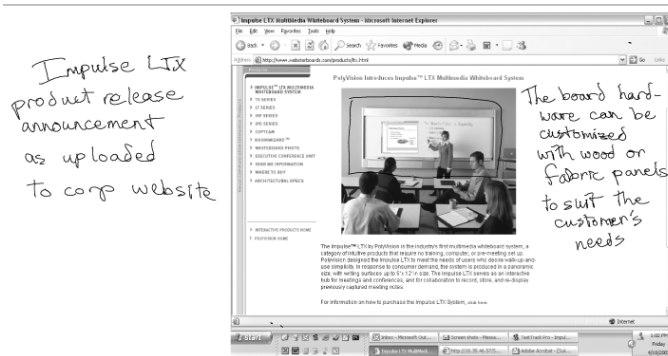
NOTE:

If the mouse connection from your laptop to the Impulse system is PS/2, the action of the stylus is relative, not absolute. Refer to "Merged and Separate Mode Function Summary" on page 29.

To use projection in Merged Mode:

1   Press Writing and Projection on the control panel until the Merged LED is on.

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2   To use Merged Mode, projection alignment may be necessary. The following display is projected on the board.
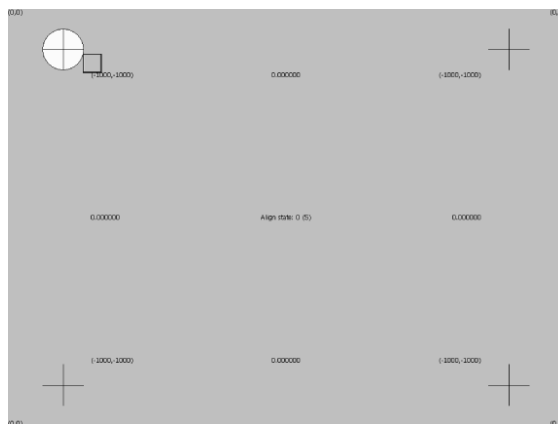
3   Using the stylus, touch the targets in order as prompted by instructions on the board. The targets disappear when alignment is complete. You are ready to project in Merged Mode.

MERGED AND SEPARATE MODE FUNCTION SUMMARY

The table below summarizes the relationship of Merged and Separate Mode with your laptop mouse connection and the resulting captured images.

	MERGED MODE	SEPARATE MODE
USB MOUSE	Absolute and Relative pointing	Relative pointing
PS/2 MOUSE	Relative pointing	Relative pointing
CAPTURED IMAGE	Projection merged with writing	Projection separate from writing

PASSWORD PROTECTING IMAGES

The Impulse system enables you to add password protection to images that you capture using the Website/Archive button so that only people with the password can access them.

To protect (lock) images:

1   Press Password Protection on the control panel until the lock LED is on. An Access Number appears.

When the open-lock LED is on, images you capture using the Website/Archive button are unlocked and accessible to anyone.

When the closed-lock LED is on and a four-digit number appears in the Access Number display, images you capture using the Website/Archive button are locked with a password. To view locked images on the web page, you must first enter the access number.

2   To review your locked images from the board's archive, connect a projector and scroll through images using the on-screen display.

3   When you are finished capturing locked images, write down the four-digit access number. You must enter this number to access your locked images on the Impulse web server.

4   Press the Password Protection button until the open-lock LED is on. This keeps others from viewing your locked images in the board's archive and hides your access number.

To view locked images, you can:

- review images from the board's archive while the same four-digit access number appears in the LED display, that is, before you press the Password Protection button to hide the access number
- access the Impulse website from a computer connected to the same LAN, identify your images based on the date and time they were captured, click the lock icon for your captured images, and enter the four-digit access number

NOTE:

If you capture images that you don't want others to view but have forgotten to add password protection, you can delete them from the board's archive by deleting them from the website. Refer to "Deleting Images from the Web Server" on page 37.

The Impulse System Audio and Volume Control

To relay audio from your computer through the Impulse speakers:

- Connect the Impulse laptop cable's 1/8" audio connector to your laptop's "line-out" or headphone jack.

To control volume:

- Press the plus or minus Volume button on the control panel.
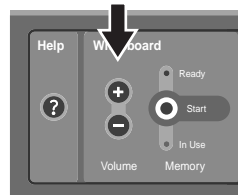
The volume buttons also control the volume of help and error messages.

THE IMPULSE WEB SERVER

ACCESSING YOUR IMPULSE WEB SERVER

Each Impulse board has a unique web address that appears inside the left door on an instruction label. (If the web address is not written there, contact your IT administrator.)

To view captured images on the web server:

1   Write down the Impulse web address found inside the left door.

2   Turn on a computer that shares the same LAN as the Impulse system.

3   Run a web browser application such as Internet Explorer or Netscape Navigator.

4   Enter the web address in the "Address" field and press Enter.
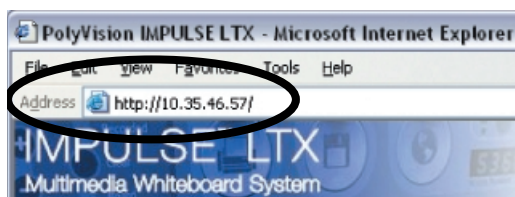
The Impulse website opens.

NOTE:

If your Impulse has a host name, you can add the Impulse website to your Favorites or create a shortcut. (In most browsers, you can drag the address to a "Links" area, and it will create a shortcut for you.)

USING THE IMAGES SECTION

On the Impulse website, the "Images" section enables you to view and work with images that you captured from the board by pressing the Website/Archive button.
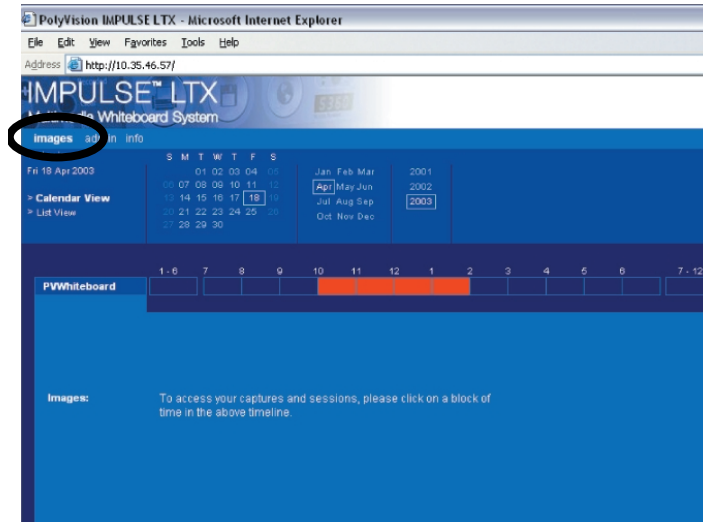
To view captured images:

1   Locate your images based on the date and time they were captured. You can choose from either "Calendar View" or "List View" (on the left) to identify your images.

NOTE:

If you need to correct the board's date and time, refer to "The Admin Date/Time Subsection" on page 42.

2   In calendar view, click a calendar date and block of time to identify your images.
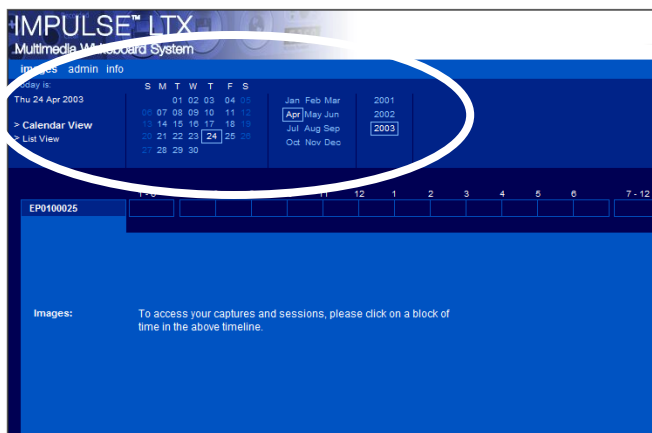
Miniature, "thumbnail" copies of your images appear labeled with the date and time they were captured.

3   To view the corresponding full-size image, click a thumbnail, or click a check in the box by one or more images and click "download selected." The full-size images are Adobe Acrobat PDF files and Adobe Acrobat Reader (or equivalent) is required to view them.

If an image is password protected, the thumbnail image is replaced by a folder with a lock icon. Refer to "Viewing Password Protected Images on the Website" on page 35.

WORKING WITH IMAGES ON THE WEBSITE

The images on the website are stored as Adobe Acrobat PDF files which can easily be printed or sent in e-mail. If an image on the web will be valuable in the future, preserve it by:

• saving it to your computer's hard disk, or

• printing it from Adobe Acrobat Reader

NOTE:

When the web server becomes full, the oldest images disappear as new ones are added. Images will be replaced unless they are saved to the computer's hard disk.

To save a copy to your computer's hard disk:

1   Click a thumbnail to view the full-size image in Adobe Acrobat Reader.

2   Click the Save icon (which looks like a diskette) on the Adobe Acrobat Reader toolbar.

3   Browse to the location on your hard disk where you want to save the file.

4   Click "Save."

You can print a copy from the website. To print a copy with your default printer:

1   Click a thumbnail to view the full-size image in Adobe Acrobat Reader.

2   Click the print icon in the Adobe Acrobat toolbar or choose "Print" from the File menu and click "OK." The copy will print on the default printer for that computer.

VIEWING PASSWORD PROTECTED IMAGES ON THE WEBSITE

When you use the Website/Archive button, the Impulse system enables you to add password protection to captured images. In the Impulse website "Images" section, password protected images appear as folders with lock icons. Images inside each folder have the same access number.

NOTE:

If you capture images that you don't want others to view but have forgotten to add password protection, you can remove them from the board's website and archive by deleting them from the website. Refer to "Deleting Images from the Web Server" on page 37.

To view locked images:

1   Click the lock icon. The password prompt appears.
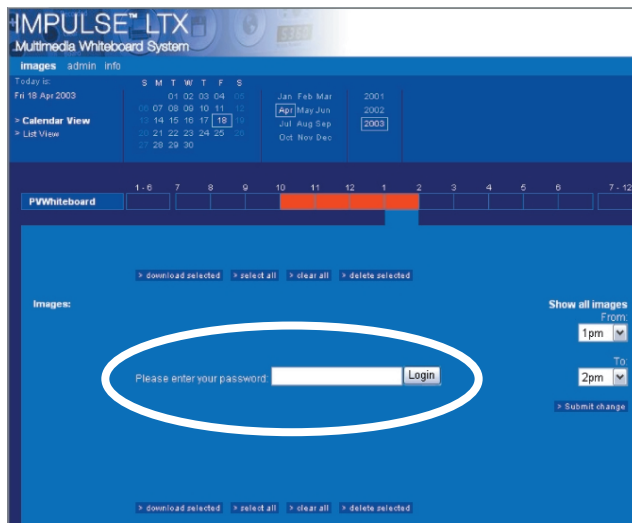
2   Enter the four-digit access number that appeared in the control panel display while you captured the images.

3   Click "Login."

4   The website displays thumbnails of your locked images.

5   Click a thumbnail to view the full-size image in Adobe Acrobat Reader.

6   While the locked images are displayed in Adobe Acrobat, you can print, save to disk, or delete them.

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DELETING IMAGES FROM THE WEB SERVER

To delete an image from the website and archive:

1   Check the box below the thumbnail of the image or images you
     want to delete.
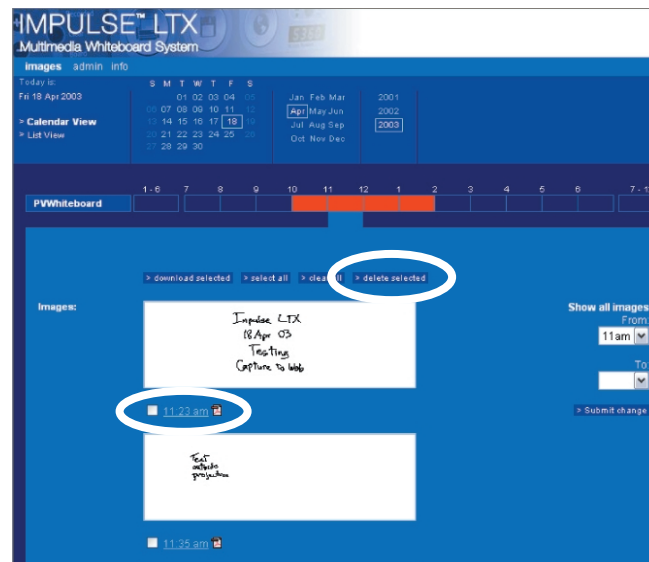
2   Click "delete selected."

USING THE ADMIN SECTION

The web server "Admin" section enables you to view and change important Impulse web settings.

The "Admin" section is password protected. To enter the "Admin" section:

1   Click the "Admin" tab. A password dialog appears.

2   Enter a user name and password. The factory default user name and password are both "admin." To change the password, refer to "The Admin Password Subsection" on page 43.

The "Admin" subsections are presented below.

THE ADMIN NETWORK SUBSECTION

Host Name: Enter a name for the website associated with this Impulse board. This name can be entered as an alternate to the numerical IP address in the browser's "Address" line when you want to go to this Impulse board's website. (Host Name requires a local DNS Server. If you do not have one on your network, you may need to use the numerical IP address to access the web site instead of using a host name.) The host name cannot contain any spaces or special punctuation such as periods, commas, or slashes.

Use DHCP to get these: Check this box if your LAN uses DHCP protocol. Remove the check mark if your LAN uses fixed IP addressing. Consult your system administrator if you are unsure. Fixed IP addressing is often preferred, since the IP address of the board may occasionally change if DHCP is used.

IP Address: During configuration, the Impulse web server IP address is determined automatically by DHCP, or you may assign it here manually if the "Use DHCP" check box is not checked.

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Subnet Mask: This network reference is determined automatically by DHCP, or you may assign it manually here if the "Use DHCP" check box is not checked.

Default Gateway: The Impulse system uses this gateway address only when you update firmware over the Internet. It is determined automatically through DHCP, or you may assign it manually here if the "Use DHCP" check box is not checked.

DNS: Enter the address of the local DNS server. It is determined automatically through DHCP, or you may assign it manually here if the "Use DHCP" check box is not checked.

Domain name: Enter the domain name of the network which includes the Impulse system. It is determined automatically through DHCP, or you may assign it manually here if the "Use DHCP" check box is not checked.

Hostname registration [X] Use DNS server. (Reboot to take effect): To register the host name with the DNS server and reboot the Impulse system, check this box and click "Save Changes."

Print through: The Impulse system comes with its own color printer. The factory default printer includes a network print server adapter with an Ethernet connector for plugging into the same LAN as the Impulse system, although Bluetooth wireless color printing is also supported. You can also print to any PCL-4 compatible printer connected directly to your network.

Bluetooth printer channel: This field displays the Bluetooth device address of the optional wireless color printer for this board. If you need to change the wireless color printer:

1   Find your printer's Bluetooth device address. Consult the documentation for your printer or adapter for instructions on obtaining this information.

2   Enter the Bluetooth device address in the "Bluetooth Printer Channel" field.

3   Click "Save changes."

Network printer address: To print to a networked printer, enter the networked printer IP address in this field. If you need to change printers:

1. Find your network printer's IP address. Some printer network adapters (including the one provided with the Impulse board) require you to load the adapter configuration software on a Windows PC and obtain the address from there.

2. Enter the network printer's IP address in the "Network Printer Address" field.

3. Click "Save changes" to save the change.

RoomWizard address: If you enter the host name or IP address of a RoomWizard, then whenever you capture password protected images, the Impulse system names the protected files with the meeting name from the RoomWizard, rather than with the date and time as usual.

Projector Style: Choose the projector configuration used for this board. The Impulse system can be installed with a projector permanently wired to the board. Alternatively, you can connect a portable projector using cables provided in the bins beneath the board. Click "None" to disable projection for this board. If the projector is permanently mounted, the Impulse system does not prompt for projector alignment each time you enter Merged Projection Mode. If the projector is portable, the Impulse system prompts each time you enter Merged Projection Mode, in case the projector has been moved.

Click "Save changes" to implement any changes.

THE ADMIN DATE/TIME SUBSECTION

Set the correct date, time and time zone. When you capture an image of the board to the website/archive, the file name is based on the date and time it was captured.

Click "Save Settings" to implement any changes.

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THE ADMIN PASSWORD SUBSECTION
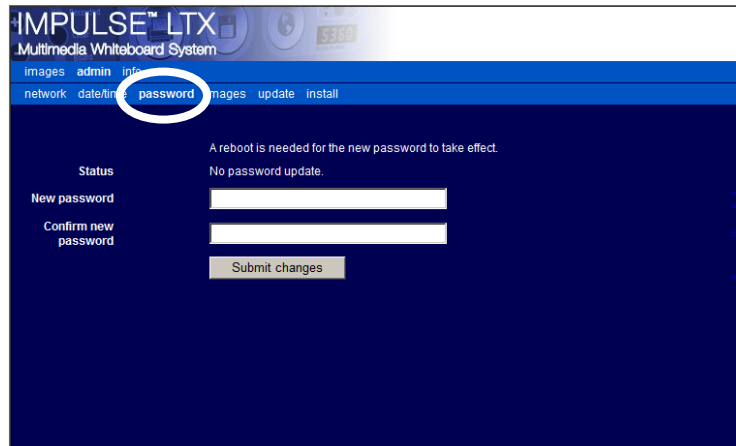
The admin section is password protected. The factory default password is "admin."

Status: If the password is changed, the status is shown here.

To change the administration password:

1 Enter the new password.

2 Enter it again to confirm.

3 Click "Submit changes."

4 Reboot the Impulse system by cycling the power switch located beneath the center control panel.
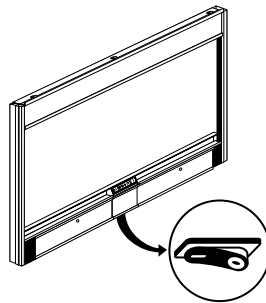
THE ADMIN IMAGES SUBSECTION
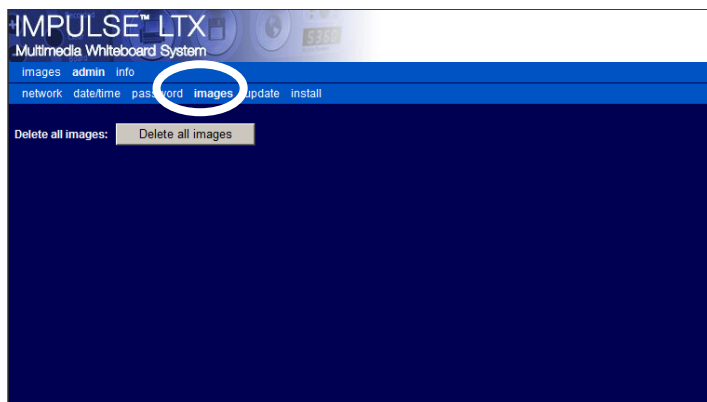
To delete all images, whether password protected or not, from the web page and whiteboard archive, click "Delete all images."

THE ADMIN UPDATE SUBSECTION
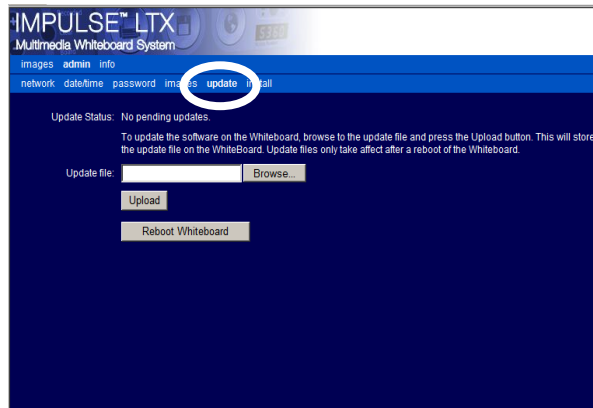
Update Status: Registered users receive information about free firmware updates from PolyVision. This message indicates the status of the update currently under way.

Update file: To update Impulse firmware:

1   On a computer with Internet access sharing the same LAN as your Impulse board, enter the path to the PolyVision firmware update file, or click "Browse" to locate a firmware update file.

2   Click "Upload." Files are automatically unzipped and loaded into the Impulse system internal memory. After the update files are loaded onto the Impulse system, a message appears indicating that you are ready for the next step.

WARNING

Do not disconnect the power while the Impulse firmware is updating. Permanent damage may result.

3   Click "Reboot Whiteboard."

4   After the update is complete, click the browser's "Back" button to return to the Impulse web page. (Do NOT click the browser's "Refresh" button, as this will initiate the upgrade again.

5   Repeat for any additional update files sent by PolyVision.

THE ADMIN INSTALL SUBSECTION
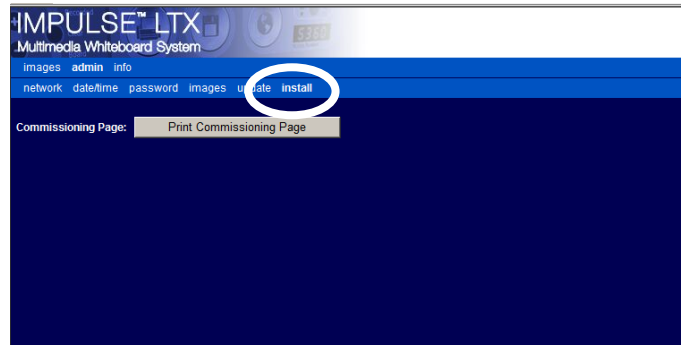
For use only by those who install the Impulse system.

USING THE INFO SECTION

The web server "Info" section provides a summary of information about the Impulse system. Print this page for a record of the board's settings.
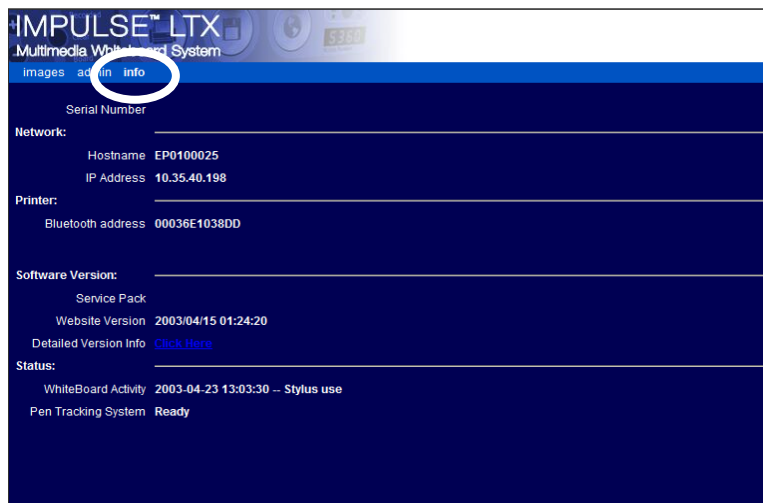
Serial Number: The serial number that uniquely identifies your Impulse board.

Network Host Name: The host name, entered from the "Admin Network" subsection, associated with this Impulse system.

Network IP Address: The IP address, entered from the "Admin Network" subsection, associated with this Impulse system.

Printer Bluetooth Address: Address of the associated Bluetooth printer.

Software Service Pack: The version number of the master firmware is listed here.

Software Website Version: The version number of the web application is listed here.

Software Detailed Version Info: The Impulse system operates with a series of firmware modules. The version number of each module is listed when you click here.

Status WhiteBoard Activity: Indicates the date and time of the last whiteboard activity.

Status Pen Tracking Systems: Indicates if the pen status.

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The Impulse System Maintenance

Cleaning the Board

Wipe the control panel with a soft damp cloth.

To clean the ceramicsteel marker board surface, see instructions below or refer to www.cleanmyboard.com.

DAILY CARE AND MAINTENANCE

1   For the initial cleaning, wipe your board with a clean cloth moistened by a liquid cleanser.

2   Rinse with clear water. This step is simple but very important.

NOTE:

Do not let water seep into the sensitive Impulse electronics. Your warranty does not cover damage caused by water.

3   Wipe dry with a clean cloth.

4   If your board is used daily, the cleaning should be performed at least 2 to 3 times a week. More thorough cleaning may be required if writing is left on the board for more than 2 days.

REMOVING CRAYON AND TAPE

The same procedure is used to remove both crayon and tape.

1   Dampen a clean, dry cloth with water.

2   Sprinkle a small amount of non-abrasive cleaner, such as Scrub Soft, onto the cloth.

3   Begin cleaning a small, manageable area using a back and forth horizontal motion. Use normal pressure as if you were cleaning a window.

4   Wipe off all residue with a dry cloth.

5   Rinse well with clear water. Please note that the rinsing and drying steps are very important.

6   Wipe dry with a clean cloth.

7   Follow the same procedure for the remainder of the board.

WARNING

- *Although most harsh cleansers won't damage the whiteboard surface, they can scratch the Impulse enclosure. Be sure to keep cleansers on the whiteboard surface.*

- *Do not let water seep into the sensitive Impulse electronics. Your warranty does not cover damage caused by water.*

REMOVING PERMANENT MARKER

Permanent marker should not be used on your Impulse board, but if it is by accident, use the following steps to clean it from the board.

1   Moisten a clean, dry cloth with isopropyl alcohol.

2   Wipe the board in a circular motion to loosen marker residue.

3   Rinse with clear water.

NOTE:

Do not let water seep into the sensitive Impulse electronics. Your warranty does not cover damage caused by water.

4   Dry the board with a clean cloth.

5   Repeat these steps as often as necessary to remove all residue.

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WEBSITE MAINTENANCE

Regularly save and delete image files as needed to prevent them from being overwritten.

PRINTER MAINTENANCE

Refer to the printer manual for maintenance information. (Printer manuals are also available on-line at the manufacturer's website.)

HOW TO OBTAIN REPLACEMENT PARTS

Replacement parts are available directly from PolyVision. Call 1-800-620-POLY (7659) in the USA, 770-447-5043 from elsewhere in North America, or +32 (0)89 32 31 30 in Europe. Or, send e-mail to info@polyvision.com.

TROUBLESHOOTING

ISSUE	RESOLUTION
When the Printer button is pressed, the Impulse voice prompt says "printer problem."	• Confirm that the printer is powered on and loaded with ink and paper. • The Impulse system may be unable to find your printer. For Ethernet network printers, make sure the Ethernet network print server adapter is plugged in to the printer and has power. For Bluetooth wireless printers, move the printer closer to the Impulse board. • Verify that the proper IP address (for network printerso or Bluetooth address (for Bluetooth printers) is entered on the board's admin section. Refer to "The Admin Network Subsection" on page 39. • For Ethernet network printers, make sure the network print server adapter has not overheated. Unplug the adapter and then plug it in again. Remove any paper or other material that may be restricting ventilation. Lower the temperature in the surrounding environment. • For Bluetooth wireless printers, check for interfering devices, such as microwave ovens, wireless telephones, and other network devices operating at 2.4 GHz.
The optional Bluetooth wireless printer sometimes stops in the middle of a printout.	• The printer may be too far away. Move the printer closer to the Impulse board. • Check for interfering devices, such as microwave ovens, wireless telephones, and other network devices operating at 2.4 GHz.
An image access number has been lost or forgotten.	If an image access number is lost or forgotten, protected (locked) images remain on the website until they are replaced by newer images.

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LASER SAFETY

WARNING

Do not attempt to open the laser unit housings that are located under the header cover, as laser energy up to 5mW at 780 nm and up to 7 mW at 650 nm may be accessible inside.

The Class II warning shown below appears on the inside header cover and applies to the red beam used during alignment of the lasers. Do not attempt to stare directly into that beam.

```
            CAUTION!
   LASER RADIATION WHEN OPEN
     DO NOT LOOK INTO BEAM
```

The Class IIIB warning shown below appears on each laser unit cover and applies only to the laser energy present inside the laser unit. The Class IIIB energy is not accessible unless the cover of the laser unit housing is opened, which is unnecessary for any procedure and should not be attempted.

```
            CAUTION!
  CLASS 3B VISIBLE AND INVISIBLE
    LASER RADIATION WHEN OPEN
   AVOID EXPOSURE TO THE BEAM
```

WARNING

Caution: use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

LED and Status Messages

The Impulse system gives you both LED and audible feedback to indicate the status of your capture.

LED STATUS INDICATORS

The table below explains the LED status indicator for the Printer button.

LED INDICATOR	SYSTEM STATUS
Blinking green	Copy is being printed. You may continue writing on the board.
Blinking yellow	No printer has been configured. (The voice prompt provides additional information.) Refer to "The Admin Network Subsection" on page 39.
Blinking red	There is a printing error. The printer may be out of paper, not powered on, or other attention is required. (The voice prompt provides additional information.)

The table below explains the LED status indicator for the Disk button.

LED INDICATOR	SYSTEM STATUS
Blinking green	Copy is being saved. You may continue writing on the board.
Blinking yellow	No diskette in the floppy drive. (The voice prompt provides additional information.)
Blinking red	There is a problem with the diskette, or the diskette is full. (The voice prompt provides additional information.)

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TROUBLESHOOTING

The table below explains the LED status indicator for the Website/ Archive button.

LED INDICATOR	SYSTEM STATUS
Blinking green	Copy is being saved. You may continue writing on the board.
Blinking red	There is an internal error saving to the website/ archive. Contact PolyVision technical support.

TECHNICAL SUPPORT

If reviewing the above sections fails to resolve your hardware or software problem, contact PolyVision USA Technical Support:

- Phone: 800-620-POLY (7659)
  Technical support representatives are available Monday through Friday from 8 AM Eastern time to 5 PM Pacific time.

- E-mail: support@polyvision.com

- Internet: www.polyvision.com

Or, outside the USA, contact PolyVision Europe/Asia Technical Support:

- Phone: +32 (0)89 32 31 30

- Fax: +32 (0)89 32 31 31

- E-mail: business.center@polyvision.com

- Internet: www.polyvision.com

FCC COMPLIANCE

The Bluetooth Radio used in this product has been authorized as a mobile device. While powered on, users and nearby persons are cautioned to maintain at least a 20 cm (8 inch) distance from the antenna.

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. Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

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WARRANTY

WHAT IS COVERED

PolyVision Corporation warrants to the original consumer or other end-user purchaser that this product is free from defects in material and workmanship for a period of two years (one year for the printer) from the date of purchase. PolyVision Corporation further warrants for the lifetime of the original installation under normal conditions of use, that the porcelain enamel finish writing surface, shall not exhibit excessive fading of color, crazing, cracking or flaking.

During the warranty period, and upon proof of purchase, the product will be repaired or replaced (with the same or similar model) at our option, without charge for either parts or factory labor. Shipping costs will apply. Please keep your original sales receipt or invoice for proof of purchase. Without proof of the purchase date, your warranty will be defined as beginning on the date of manufacture, which is recorded by serial number at the factory. This warranty applies only to the first end-user purchaser and only when the product is used in a country for which it is labeled for sale. Some factory-reconditioned parts may be used in the assembly of this product.

This warranty includes all minor software upgrades (software bug fixes) that are released during the warranty period for this product. In order to receive software upgrades, the product must have an Ethernet connection to the Internet and appropriate network gateways to allow outbound FTP access. Software upgrades must be initiated from a web browser connected to the product's web site by the end-user. Software upgrades cannot be performed remotely.

WHAT IS NOT COVERED

1   Any product that is sold or used outside of North America unless the product was specifically labeled for sale in that country.

2   Any product on which the serial number has been defaced, modified, or removed.

3   Damage, deterioration, or malfunction resulting from, but not limited to:

- Accident, misuse, abuse, neglect, fire, water, lightning or other acts of nature, unauthorized product modification, or failure to follow instructions supplied with the product.

- Use of unintended writing implements such as (but not limited to) ballpoint pens, pencils, fountain pens, or non-dry-erase markers.

- Use of non-approved cleaning materials or solvents.

- Repair or attempted repair by anyone not authorized by PolyVision.

- Any damage incurred in shipping.

- Removal or installation of the product.

- Any other cause that does not relate to a product defect.

4   Cartons, carrying cases, pens, external cabinets, or any accessories used in connection with the product.

5   On-site labor, including removal and/or installation

6   Shipping charges to and from our factory, dealer, or authorized repair depot.

7   Major software upgrades that include new product features.

How to Get Warranty Service

If you experience a problem with this product, contact PolyVision Technical Support (1-800-620-POLY (or 770-447-5043) in North America, or +32 (0)89 32 31 30 in Europe) to resolve the problem. Support is available during normal business hours. A response is guaranteed within 24 hours of contact. If the product is diagnosed as being defective, you may be asked to ship defective parts directly to PolyVision in exchange for new parts. If you are directed to return parts directly to PolyVision, you must obtain a Return Materials Authorization (RMA) number from PolyVision. All parts returned to PolyVision must have an RMA number assigned, regardless of reason for return. The RMA number must be clearly marked on the outside of the shipping carton; any unit without an RMA number will be returned to the sender. In North America, please call 1-800-620-POLY (or 770-447-5043).

Outside North America, please call +32 (0)89 32 31 30 0 obtain an RMA number.

Limitation of Damages and Implied Warranties

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