Quick Guide to the Audiovisual System

Fine Arts Seminar Room 3013
Howard University

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Centralized system controls
You control most system elements from the lectern with the Touch Screen panel, which displays arrays of virtual control buttons. The Touch Screen is mounted flush in the top surface of the lectern.

You can do the following with the Touch Screen:

• Present images and sound from any one of six video and data sources.
• Switch at will between sources.
• Control the operation of several source devices.
• Adjust audio levels for program material, the lectern microphone, and a lavaliere microphone.
• Set the room lighting and the window curtains.

Centralized system components
Most of the system elements to which you will need access during a presentation are consolidated in the lectern.

Video sources
The document camera provides images of transparencies, papers, books, and small three-dimensional objects. It is in a drawer in the right side of the lectern.

The DVD player mounted in the lectern plays DVD video, DVD sound, and CD sound discs.

The S-VHS deck mounted in the lectern plays both high-quality S-VHS tapes and regular VHS tapes.

The 35mm-slide-to-video converter is mounted in the equipment rack in the closet next to the lectern. The converter uses standard 80-slide Carousel trays. This device is the only device to which you will need access that is not in the lectern.

Data sources
The fast, high-capacity PC is connected to the University LAN and to the Internet. The processor is mounted in the lectern; the monitor is mounted flush in the top of the lectern; and the keyboard and mouse are in a tray below the monitor.

A laptop computer, if provided by the lecturer, can be connected to the system through an adapter box mounted flush in the top of the lectern.

Audio sources
A gooseneck microphone is mounted on the lectern. You can substitute a wireless lavaliere microphone for the lectern microphone.

High-fidelity stereo speakers for program sound—audio associated with computer, VHS, and DVD sources—are mounted on the wall on each side of the Smartboard.

Nine ceiling speakers are distributed around the room as outputs for the microphone audio system.
The display environment

The LCD video projector is permanently attached to the ceiling.

The Smartboard is a 72-in diagonal interactive projection screen. You can use the Smartboard in several ways:

- As a projection screen
- As a passive whiteboard
- As an interactive whiteboard
- As a computer controller in place of both mouse and keyboard

You can use the Smartboard to annotate any computer-generated images that are projected on the Smartboard.

The Smartboard software is installed on the lectern computer.

Preset room lighting combinations are selectable with the Touch Screen controller.

Opaque curtains completely block window light. Control them with the Touch Screen; use them whenever you use the projector.
The Touch Screen Controller

The Touch Screen controller displays virtual buttons that emulate the action of electromechanical switches. Some buttons open control menus; other buttons directly control system devices. To activate a function, press its button firmly.

Generally, red button labels indicate active functions, and blue button labels indicate inactive functions.

The Touch Screen controls are available as long as the system is powered, but the screen goes blank if it has not been used for a while. If the screen is blank, touch it anywhere to activate it. If the Welcome page is displayed, touch it anywhere to display the Main page.

Note: Don’t worry about occasionally pressing the wrong button. You may confuse your class, but you cannot confuse or damage the AV system. However, if you turn the projector power off and on during a presentation, you will shorten the lamp life.

The Touch Screen Main Page

The four menus on the Touch Screen Main page control the AV system. The Source, Lighting and Projector, and Audio Level menus are always displayed; the Control menu in the center changes in response to selections made in the fixed menus.

The menus do the following:

- **Source** buttons, across the top of the page, cause the system to project one of six program sources: Main Computer, Laptop Computer, Document Camera, VCR, DVD, and (35mm) Slide.

- **Lighting and Projector** buttons, at the left of the page, open menus that control the projector, room lights, and window curtains.

- **Audio Level** buttons, at the right of the page, adjust the sound levels of the separate program and microphone systems.

- **Control** menus are displayed in the central area of the Main page when you select certain buttons in the fixed menus. For example, when you press the LCD Projector button in the Lighting and Projector menu, the system displays the Projector control menu.

The **Exit button** at the top right corner of the page, when pressed, displays the Welcome page. It does not turn any device on or off, nor does it select or deselect any source.
Quick Guide to the AV System in FA Room 3013—**Controlling the System**

**Procedures**

*Turn on (off) the system power*

The computer and most of the AV components are mounted in a rack within the lectern. The 35mm-slide-to-video converter is in the closet next to the lectern.

**Turn on the AV system** by pressing the rocker switch under the AVWashington label on the right front of the Surge X box, which is mounted at the top left of the lectern rack. Power for all the AV components passes through the Surge X box. The power indicator lamps on the Surge X box and other system components should glow.

**Turn on the slide-to-video converter** by pressing the rocker switch on the back of the unit. You can shut the door to the closet while the system is on; the closet is properly ventilated.

**Turn on the computer power** in the usual way by pressing the button on the front of the CPU box.

*Caution: Leave the lectern doors open while the computer and AV components are turned on.* If you close the lectern doors while the system is running, heat will build up inside the lectern and destroy some of the hardware.

*Turn on (off) the projector*

To turn on (off) the projector,

1. Press the LCD Projector button in the Lighting and Projector menu on the Main page. The system will display the Projector Control menu.
2. Press the Projector On/Off button in the Projector Control menu. The screen will appear blank for a minute or so until the projector warms up. The button label turns from blue to red to indicate that the projector power is on. When you turn the power off, the projector enters a cool-down period during which you cannot turn the power on.

*Note: Leave the projector power on until the presentation is over.* It is better to let the projector run without use for short periods than it is to turn it on and off frequently, which shortens lamp life.

To turn off the projection display temporarily without turning off the projector power, press the Picture On/Off button on the Main page or the Projector Control menu.

When the Picture On/Off button label is red, the picture mute is engaged and the projector will not display an image even though the power is on and a source is connected to the projector.

*Remember: The screen display by itself does not show whether projector power is on or off.* The screen will be blank when the Picture Mute button is engaged, and when the projector is warming up just after it has been turned on.

**Prepare and display source material**

Set up the Main Computer or Laptop Computer

Load your computer files into the main (lectern) computer from a disc or the LAN. Make sure that the computer has the applications that it needs to display your files.

Connect a laptop to the lectern’s computer interface. (See the Quick Guide, Connecting a Laptop.)
To display output from the main computer (or the laptop),

1. Open the application and display the first screen on the lectern monitor.
2. Press Main Computer (or Laptop Computer) in the Source menu on the Main page.
3. Control the presentation using the application's normal command menus and keys.

The Smartboard software runs on the dedicated computer. When it is running, you can make notes over top of other presentations and can save those notes for later distribution. Also, you can use the Smartboard as a large touch screen to control the computer.

The output of any PC application—text, pictures, sound, and digital video—can be displayed to the class on the Smartboard.

Note: The operation of computers and software is beyond the scope of the AV System Quick Guides.

Set up the Document Camera

To set up and display an image from the document camera,

1. Pull the document camera drawer out from the right side of the lectern.
2. Depress the unlock buttons and raise the camera head; unfold the two light arms.
3. Turn on the document camera's power by pressing the rocker switch on the left side of the base.
4. Place a suitable subject—a paper document, a small three-dimensional item, or a transparency—on the camera platform.
5. Turn on the appropriate lights. Use the upper lights for paper documents and three-dimensional items, or use the base light for transparencies.
6. To display an image of the subject on the Smartboard, press the Document Camera button in the Source menu at the top of the Main page.
7. For most subjects, engage the autofocus button on the document camera control panel—the real button on the base of the document camera. There are no virtual buttons for controlling the document camera.
8. Use the two zoom buttons on the base of the document camera to adjust the field of view of the camera.

Set up the VCR

To display video from the VCR,

1. Insert a VHS or S-VHS cassette in the VCR deck.
2. Press the VCR button in the Source menu at the top of the Main page.
   The system will display the VCR's output on the Smartboard and will display the Media Transport menu on the Main page.
3. Use the buttons on the Media Transport menu to control the operation of the VCR deck.
4. When you select Play, the projector will display the VCR's output on the Smartboard.
Set up the DVD Player

To display video or audio from the DVD player, follow the similar VCR procedure, given above.

*Note: If you bypass the Touch Screen controls* by operating the VCR deck or the DVD player directly with their own front panel controls, the Touch Screen may not display the actual status of the VCR deck or DVD player.

For example, the Pause button in the Media Transport menu may show that the VCR pause function is engaged even though the deck was manually set to Play and the tape is moving. To synchronize the Touch Screen and the VCR or DVD player, press any unengaged button in the Media Transport panel.

Set up the 35mm-Slide-to-Video Converter

Load your slides, oriented for front projection, in Carousel 80-slide trays. Do not use 140-slide trays—they will damage the mechanism.

The 35mm-slide-to-video converter is in the closet next to the lectern. Turn on the power if it is not already on. The power switch is on the rear panel of the converter.

To display 35mm slides,

1. Attach a slide tray to the converter.
2. Press the Slide button in the Source menu on the Main page. The system will connect the output of the slide converter to the LCD projector and display the first slide in the tray on the Smartboard; the Touch Screen will display the Slide Control menu on the Main page.
3. Use the Fwd and Rev buttons in the Slide Control menu to step one slide at a time forward and backward through the slides in the tray.
4. Use the Zoom, Focus, and Iris buttons to adjust the size, sharpness, and brightness of the image.

Set the program audio level

Program audio includes all audio associated with any computer, DVD, or VCR source. That is, program audio includes all audio sources except the microphone system.

Use the Stereo and Volume buttons in the Audio Level menu on the Main page to set the program audio level.

To set the audio level, press and hold the up (Stereo) or down (Volume) arrow button until the audio reaches the level you want.

To block the program audio without changing the level setting, press and release the Mute button below the Stereo Volume buttons. When you press the Mute button again, the sound level will return to the level you set before you engaged the mute.

Note that you may need to adjust the level slightly when you switch program sources.
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**Set the microphone audio level**

Use the Mic and Volume buttons in the Audio Level menu on the Main page to set the microphone audio level.

Speak normally into the lectern microphone—it should point directly toward your mouth—and adjust the audio level so that a person sitting at the back of the room can hear you easily.

If you plan to use the lavaliere microphone, be sure to check it after you have attached it to your clothing, not while you are holding it in your hand. Attach it as close as you can get it to your throat. Do not try to conceal the microphone; obstruction will degrade the sound.

The lavaliere microphone is battery powered; the On-Off switch is on the transmitter box. (The receiver is powered whenever the AV system power is on.)

**To set the audio level**, press and hold the up (Mic) or down (Volume) arrow button until the audio reaches the level you want.

**To block the microphone audio without changing the level setting**, press and release the Mute button below the Mic Volume buttons. When you press the Mute button again, the sound level will return to the level you set before you engaged the mute.

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**Set the room illumination**

Use the buttons in the Lighting + Drapes control menu to control the room's illumination.

The four lighting buttons on the left replicate the functions of the switches in the wall-mounted light-control panel. Generally, choose a combination that does not wash the Smartboard with light. Note that it may take a few seconds for the lighting units to shift from one setting to another.

**To raise (lower) the window drapes**, press and release the Drapes Open (Close) button. Limit switches stop the drapes at the top and bottom of their range.
Control Button Functions

- **t u p q** Adjusts the position of the LCD projector image on the screen.
- **Blank Touch Screen.** Displayed whenever the Touch Screen has not been used for several minutes. Touch the blank screen anywhere to open the Welcome page.
- **Document Camera.** Projector displays the output of the document camera.
- **Down (Focus, Zoom, Magnify).** See Focus, Zoom, or Magnify.
- **Drapes and Lighting.** Touch Screen displays the Lighting + Drapes control panel.
- **DVD.** Projector displays the video output of the DVD player; associated program audio is sent to the overhead speakers; Touch Screen displays the Media Transport control menu.
- **Exit.** Touch Screen displays the Welcome page.
- **Ffwd.** Rapidly moves the videocassette tape or the DVD disc to a later place in the current program.
- **Focus Up (Down).** Changes the sharpness of the image from the LCD projector.
- **Focus+ (–).** Changes the sharpness of the 35mm slide image.
- **Freeze.** Stops playback of the program from the VCR or DVD players without turning off the playback mechanism or the program signal. Displays a still image during the pause.
- **Fwd.** Displays the next 35mm slide.
- **Iris+ (–).** Brightens (darkens) the 35mm-slide image.
- **Laptop Computer.** Projector displays the laptop computer's video output; program audio is sent to the overhead speakers.
- **LCD Projector.** Touch Screen displays the Projector control panel.
- **Magnify Up (Down).** Digitally magnifies any projected image.
- **Main Computer.** Projector displays the lectern computer's video output; program audio is sent to the overhead speakers.
- **MIC.** Raises the microphone volume level.
- **Mute.** Blocks the audio without turning off power to the program or microphone audio systems.
- **Pause.** Stops playback of the program from the VCR or DVD players without turning off the playback mechanism or the program signal. Displays a still image during the pause.
- **Picture On/Off.** Mutes the LCD projector image, that is, blocks display of the current image without turning off the power to the projector.
- **Play.** Commences program playback from the VCR or DVD players.
- **Projector On (Off).** Turns on (off) power to the LCD projector.
- **Rev.** Displays the preceding 35mm slide.
- **Rew.** Moves the videocassette tape or the DVD disc to an earlier place in the current program.
- **Slide.** Projector displays the output of the 35mm-slide-to-video converter; Touch Screen displays the 35mm-slide converter control menu.
Stereo. Raises the program audio level.

Stop. Stops VCR or DVD program playback and turns off the playback mechanism.

Up (Focus, Zoom, Magnify). See Focus, Zoom, or Magnify.

VCR. Projector displays the videocassette deck’s video output; program audio is sent to the overhead speakers; Touch Screen displays the Media Transport control menu.

Volume. Lowers the program audio or microphone audio level.

Welcome. A cover page that is displayed when the Touch Screen is first activated. Touch the Welcome page anywhere to open the Main page.

Zoom Up (Down). Increases (decreases) the size of the image from the LCD Projector.

Zoom+ (–). Increases (decreases) the size of the 35mm slide image.
Connecting a Laptop

You can connect a laptop computer to the system through the Extron RGB 406G Universal Interface computer adapter that is built in to the lectern. PCs and Macintosh laptops use different cables, but the setup procedure is the same in both cases.

To connect a laptop computer to the Extron adapter,

1. If the LCD projector is not already on, turn it on and give it time to warm up.
2. Turn off the laptop’s power.
3. If a cable is not already attached to the Extron 406, obtain the appropriate cable (PC or Macintosh). Press the nine-pin plug into the Input socket and tighten the screws.
4. Plug the cable into the laptop computer’s external monitor port.
5. Connect the audio cable to the laptop’s audio output socket and to the Audio socket on the adapter plate.
6. Press the Laptop Computer button on the Source menu. The system will send the laptop’s output to the LCD projector.
7. Set the High Z-75 Ohm toggle switch (next to the Input socket) to 75 Ohm.
8. Turn on the laptop’s power.
9. Key in the command to activate the laptop’s external monitor port.

The exact command depends on the particular laptop that you are using. Some laptops do not require a special command. The computer’s graphical output should appear on the Smartboard.

10. If the image is off center, adjust its horizontal position by turning the slotted H. Shift button.

Note: Cables and jacks are fragile. Cable connectors should fit together smoothly with little pressure. If they do not, do not try to force them together. They may be misaligned, mismatched, or damaged; extra force will not correct these conditions. Do not step on or pinch the cables, or try to pull a jack out of its socket by tugging its cable.

Note: You can also connect a desktop computer to the system. Follow the laptop procedure except for Step 7. In Step 7, set the High Z-75 Ohm toggle switch (next to the input socket) to High Z.
## Instructors' lectern

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## Lecture Room

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