TO TURN ON THE SYSTEM:
**PRESS ANY SOURCE BUTTON ON THE TOUCH SCREEN CONTROL PANEL.**

When a source button is blinking, the system is warming up.*
When a button stops blinking, that source is ready to use.

*It may take up to three minutes for the system to warm up. Please be patient.

Touch Screen

Laptop Connection Pocket

DVD/VHS Player

VOLUME: Use these buttons to adjust the volume up or down.

IMAGE & AUDIO MUTES: Press “Image Mute” to black-out the image. Press “Audio Mute” to mute the sound. To un-mute the image or sound, simply press the respective button again.

CONTROL PANEL TIPS

PLEASE REMEMBER TO TURN OFF THE SYSTEM WHEN YOU ARE DONE USING IT.

- Once the system is turned off, it will take approximately 3 minutes for the cool-down cycle to complete.
- Since it is not possible to restart the system until this cycle is complete, use IMAGE MUTE if you plan to use the system again during your class period.
- To ensure that the auto-shutdown feature does not interrupt your class, press any source button at the start of your class. The auto-shutdown feature shuts the system off after 4 hours without a system selection.

TO SWITCH BETWEEN SOURCES: Press the Source button of the item you wish to display.

When the button stops blinking, the source is ready to use.

For additional assistance or to set up an equipment training session, please call the Classroom Support Hotline at 612-625-1086.

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**LAPTOP TIPS**

**IF YOU NEED TO ADJUST THE LAPTOP VOLUME:**
Increase the system volume by using the volume up/down buttons on the touch screen.

- ✓ If you cannot hear any audio, verify that the "Audio Mute" button on the system control panel is not on. When this button is selected, the audio will not play.
- ✓ You can also increase the volume by adjusting the volume on the laptop itself (using the laptop’s control panel). If that does not work, verify that the laptop’s mute button is not selected.

**IF THE IMAGE IS DISTORTED, OR YOU SEE AN ERROR MESSAGE THAT INDICATES “FREQUENCY OUT OF RANGE”:** You may need to adjust the monitor resolution.

- ✓ For PC Laptops: From the Start Menu, open the Control Panel and double-click on the “Display” icon. Select the “Settings” tab, and adjust the screen resolution to **1024 by 768 pixels**.
- ✓ For Mac Laptops: Open “System Preferences” on your laptop. Click on “Displays,” and in the “VGA Display” window select “**1024 x 768, 60.0 Hz**” from the list.

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**CONNECTING A LAPTOP**

1. The standard cables are located in the pocket of the instructor station. You may need to flip up the metal cover to access the cables.

   **Please note:** The projection system allows for the connection of up to two laptop computers at the same time. The sets of cables, labeled “1” and “2,” correspond to the “LAPTOP 1” and “LAPTOP 2” buttons on the touch screen. Either laptop connection can be displayed on either or both projectors.

2. Connect one of the VGA cables to the laptop *before* you turn on the laptop. Be sure to align the cable with the port and **push it in straight**, taking care to not bend the pins.

   **Please note:** Some Apple laptops have a DVI (or mini-DVI) port, rather than the standard VGA port. To use the projection system, you will need to use a VGA adapter to connect your computer to the laptop cable. If you do not have an adapter, you can purchase one at the U of M Bookstore. OCM does not supply adapters to classrooms.

3. Connect the thin audio cord into the **headphone** jack of your laptop (not the microphone jack).

4. Press the “LAPTOP 1” or “LAPTOP 2” source button (depending on which laptop cable you used in step 2) on the touch panel of the desired video projector. When the button stops blinking, start the laptop.

   **If the laptop image does not appear, activate the external display:**

   **For PC (Windows-based) Laptops:** To activate the external display, you must press and hold the Function key (labeled “Fn”); while holding down the “Fn” key, press the appropriate secondary key (as noted in the chart at right). The image should appear on the screen.

   **For Mac (Apple) Laptops:** To activate the external display, open “System Preferences” on your laptop. Click on “Displays,” then “Detect Displays.” The image should appear on the projection screen.

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<table>
<thead>
<tr>
<th>Type of PC Laptop</th>
<th>Keys to Press</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acer or Aspire</td>
<td>Fn+F5</td>
</tr>
<tr>
<td>Asus eee mini</td>
<td>Fn+F8</td>
</tr>
<tr>
<td>Dell</td>
<td>Fn+F8</td>
</tr>
<tr>
<td>Gateway</td>
<td>Fn+F3</td>
</tr>
<tr>
<td>HP or Compaq</td>
<td>Fn+F4</td>
</tr>
<tr>
<td>HP Mini</td>
<td>Fn+F2</td>
</tr>
<tr>
<td>Lenovo (IBM)</td>
<td>Fn+F7</td>
</tr>
<tr>
<td>Sony Vaio</td>
<td>Fn+F7</td>
</tr>
<tr>
<td>Toshiba</td>
<td>Fn+F5</td>
</tr>
</tbody>
</table>

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The computer at the instructor’s station is provided and supported by the Carlson School IT Department.

Access to the computer desktop requires authentication using an X.500 U of M internet ID and password. For information about obtaining a guest internet account and password, see [http://www.oit.umn.edu/accounts/guest-accounts/index.htm](http://www.oit.umn.edu/accounts/guest-accounts/index.htm)

For questions about access to specific software, contact the CSOM IT Help Desk at 612-625-5550 or email csomhelp@umn.edu.

This classroom can also project material from a user-provided laptop (see below).
**Using the DVD/VHS Player**

1. Press the button marked “DVD/VHS Player” on the main touch screen control panel (located at the instructor station). When the “DVD/VHS Player” button stops blinking, the source is ready for use.

2. Insert your DVD, CD, or VHS tape.

3. Press the “DVD/VHS Controls” button (on the main touch screen) to access the standard controls (play, stop, fast forward, scan, etc.).

4. From the “DVD/VHS Controls” screen, press the appropriate source button (“Select VHS” or “Select DVD”), based on the type of media you are presenting.

5. Use the Transport Controls on the touch screen to control the player.

6. To return to the main menu, press “Escape.”

**Using the Auxiliary Video (for External Devices)**

To connect an external video playback device, you will need to provide the appropriate AV cable (with yellow, white, and red connectors). Connect the AV cables to the output jacks on the device and to either the input jacks on the front of the VHS/DVD combo player or the jacks on the equipment rack.

- If using the jacks on the VCR/DVD combo: Use the channel up/down buttons on the front to set it to “Line Input.” The VHS player display should read "F-1" or "L-1.” Select the “DVD/VHS Player” source.
- If using the jacks on the equipment rack: Select the “Auxiliary Video” source.

**Using Projector Aspect Ratio Controls**

The aspect ratio controls offer several different options to display content on the classroom’s widescreen projector. If you do not select any aspect ratio options:

- When displaying a computer screen, the projector will attempt to match the computer display settings.
- When displaying a video, VCR: the projector will display standard 4:3; DVD: projector will attempt to match settings encoded on the DVD.

**If the Display Is Distorted, Employing Aspect Ratio Controls May Help Correct the Distortion:**

- Press the button marked “Image Aspect” on the main touch screen (located on the instructor station).
- Follow the guidelines describing the type of signal to be displayed and choose a setting at the side of the auto set up at the bottom.
- Press the Escape button to return to the main screen.
- More information is available in the Widescreen Aspect Ratio guide at: http://www.classroom.umn.edu/support/AspectRatio.html
Using the Hearing Assistance Equipment

1. Remove a headset from the charging cradle located in the instructor station drawer.
2. Put on the headset. **Please note:** For best reception, put the headset in front of your face with the earphones on top and the company logo on the bottom, facing outward.
3. Adjust the volume to desired level using the volume knob.
4. Return the headset to the charging cradle when you are finished using it.

**NOTE:** **DO NOT** place or store any liquid or metal objects near the hearing assist charging cradle. This will cause possible interference, electrical shorting, or shock.

**Hearing Assistance Equipment Tips**

- Any sound that is coming through the classroom system (such as audio from the DVD/VHS player, laptop, and instructor microphone) should be audible on the headsets.
- If you experience interference or static, try moving to a different location. Also, be sure that you are facing the front of the auditorium.

**If you experience problems with the hearing assistance equipment or have any other questions, please call the Classroom Support Hotline at 612-625-1086.**

Using the Wireless Lavalier Microphone

1. Clip the microphone mouthpiece to your shirt, about 3 inches directly below your chin.
2. Turn on the microphone transmitter. **The ON/OFF switch will be on either the top or the front of the transmitter (depending on the model).**

**Please remember to turn off the wireless microphones after use.**

Using the Wireless Handheld Microphone

1. To turn on the microphone, press and hold (for **five seconds**) the button on the bottom of the microphone handle.
2. To mute the microphone, briefly press the button on the bottom of the microphone (do **not** hold it down, or it will turn off the microphone). To un-mute the microphone, simply press the button again.
3. To turn off the microphone, press and hold (for **five seconds**) the button on the bottom of the microphone handle.

**IF THE MICROPHONE IS NOT WORKING:**

- First try changing the batteries.
- Spare batteries are kept in either the drawer with the microphone.
- If you use the last set of spare batteries, or if changing the batteries does not solve the issue, please call the Classroom Support Hotline at 612-625-1086.

**IF THE VOLUME IS TOO LOW/HIGH:**

- Adjust the distance of the microphone to your mouth.
- The microphone volume is optimized for the classroom and is not user adjustable.
- The “Audio Mute” button on the touch screen will **not** mute audio from the microphone.
Using the Document Camera

1. If the camera head (containing the lens) and lamps are folded, you will first need to unfold these items using the camera’s release catch, located at the base of the arm. **While holding the catch open, unfold the camera head and lamps.**

2. The arm should move freely once the catch has been released. Be sure that the top of the camera head is aimed directly down.

3. Press the “Document Camera” button on the touch screen. When the button stops blinking, the source is ready for use.

4. Press the “Document Camera Controls” button (on the main touch screen) to access the standard document camera controls.

5. Place the object you wish to display on the document camera.

6. To return to the main touch screen menu, press “Escape.”

**Document Camera Control Tips**

- **Zoom:** Use “Wide” to reduce or “Tele” to enlarge the image size.
- **Focus:** Use the “Auto-Focus” button to automatically focus the image.
- **Iris:** Use to adjust the image brightness.

Using the U of M Network

**To connect to the wired network:**
Simply connect the Ethernet cord (in the pocket of the instructor station) to the Ethernet jack on your laptop.*

*Please note: You will need to register and setup your computer for DHCP Service (Dynamic Host Configuration Protocol) prior to using the Ethernet connection.

**Wired Network Tips**

**Understanding DHCP:**
- Once registered and set up, DHCP allows you to automatically connect to the network on any campus classroom Ethernet jack.
- **DHCP registration should be done in advance of the time you need to use the network, as the registration confirmation process may take several minutes.**

DHCP registration can be done online at: http://www.oit.umn.edu/network/setup-guides/

**Wireless Network Tips**

**If the connection is slow or does not work properly:**
Verify that you are connected to the “UofM Wireless” connection.

- There may be other wireless network connections within range of the classroom. Connecting to a non-U of M network may cause the connection to be slow or not work properly.

**If you do not have a U of M Internet ID:**
Guests to campus may use the "UofM Guest" network for free.

For more information about obtaining guest access to the U of M network, please visit the following website:
http://www.oit.umn.edu/wireless/guest-access/index.htm

Data network service and support is provided by the Office of Information Technology. For further assistance with the wireless or wired network connection, please call the 1-HELP Technology Helpline at 612-301-4357.