

Evidence Presentation System

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Introduction

This document discusses the operation of the evidence presentation system installed in court rooms 250 and 260 at the U. S. Courthouse in Madison, Wisconsin. Evidence presentation in these court rooms is facilitated by systems that are comprised of many different devices.

The system is a work in progress. We will endeavor to make enhancements and improvements to the system over time. As a result of these changes some equipment referred to in this manual may be replaced by other equipment.

I will address the operation of each device with specific instructions. Instructions referred to in this document refer to the devices installed at the time the document was written. In order to make it clear which specific device I am speaking about, I will refer to each device by a generic term (VCR or Document Camera) and also by its specific manufacturer and model (Sony SVO-1450, ELMO EV-500AF). If the section title in this document does not match the piece of equipment in cabinet, then the specific steps (i.e. which button to push and where that button is located) will not be true. However, the concepts discussed here may still apply and a careful examination of the equipment may reveal the method used to make the adjustment.

I will endeavor to keep this manual up to date.

Definitions

To help us talk about the issues raised in this document let us define a few terms.

Input Devices

These are the devices that are the portals for images and information. Input devices are what a person interacts with when displaying evidence on the system. They include:

- Document Camera
- VCR
- Computer
- Audio Tape Deck
- Light Pen

Some of the input devices are provided by the court and others are provided by the user. The court provides the Document Camera, the VCR, and the light pen. If a person wishes to use a computer or audio tape deck then they must provide those devices.

Output Devices

These are the devices through which we observe images and information provided by users. They include:

- Monitors
- Speakers
- Video Printer

The monitors and speakers let participants in the court room watch and hear video and audio tapes. The video printer lets an operator capture an image and preserve it in the form of a photograph.

Switches and Conversion Devices

Switches and converters are the glue that bring this system together.

Different devices use different formats for encoding and decoding video images and these formats are not compatible with each other. For instance, we cannot connect a computer monitor directly to a VCR. Nor can we connect a laptop computer directly to a television. There are strengths and weaknesses in all formats. Because of these different formats we must use devices that convert video images from one format to another. By doing this we can display a video tape on the same set of monitors as we display a computer image.

Switches let us switch from displaying one input device to another. A switch consists of a number of inputs, an output and a number of buttons for controlling which input goes to which output. Switches are the devices that allow us to change from showing a video tape on the VCR to showing an object on the document camera.

Some devices perform the duties of both a switch and a converter. For instance, the document camera and the VCR use the same video format. Since neither device is compatible with the monitors we use in the court room we must use a converter for both devices. The converter we selected is also a switch. With this device we can connect three devices with VCR type video formats to inputs on this device, and by using buttons (or some other device) we can switch between the three devices.

Selecting an Input Device

When I refer to selecting an input devices I am referring to operating the switches and converters in the system so that one device or another is displayed on the output devices. The process of selecting an input was very complicated until we added the Crestron

control system. The control system gives the operator a simple touch screen that manipulates all these devices.

Operator

An operator is any one operating the system. We use this term because of the variety of people who might be using the system. A lead attorney may be running it themselves. The lead attorney may have a second attorney operate the system or a paralegal. The operator may be a pro se litigant. Or the operator may be a member of the court staff who was called upon to help out with a situation.

The bottom line here is that if you are reading this document and trying to use this system, then you are the operator referred to in this document.

Start Up

There are several steps to take when powering up the evidence presentation system. Most of the system is turned on by flipping a switch on the cabinet.

1. Flip the switch on the cabinet. This turns on everything needed except the monitors. In court room 250 it also turns on the two monitors attached to the cabinet.
2. Turn on the monitors
 - Turn on the jury's monitors. The jury's monitors can be turned on by flipping the wall switch found low on the wall beside the jury box.
 - The following monitors have their own power switches. If the monitor is needed flip the switch on the monitor:
 - witness's monitor
 - judge's monitor
 - gallery's monitor
 - court reporter's monitor
3. Touch the opening screen on the Crestron touch screen. It is important not to do this too soon. The way I approach it is to do things exactly in the order they are presented on this page. I turn on the cabinet, turn on all the monitors, then I touch the opening screen on the Crestron touch screen.

Restarting the System

When restarting the system it is not necessary to turn all the monitors off and then back on. Simply turn flip the switch on the side of the cart off, then back on, and wait a minute before touching the Crestron screen.

Document Camera (ELMO EV-500AF)

The document camera has controls for focus, zoom in and zoom out, the lights above the display surface, the base lights, and negative and positive images. Figure one shows the buttons and controls on the front panel of the document camera. Please refer to this picture when reading the discussion that follows.

Selecting

If an image from the document camera is not displayed on the monitors then select the document camera by using the Crestron touch panel. Go to the main menu then push the

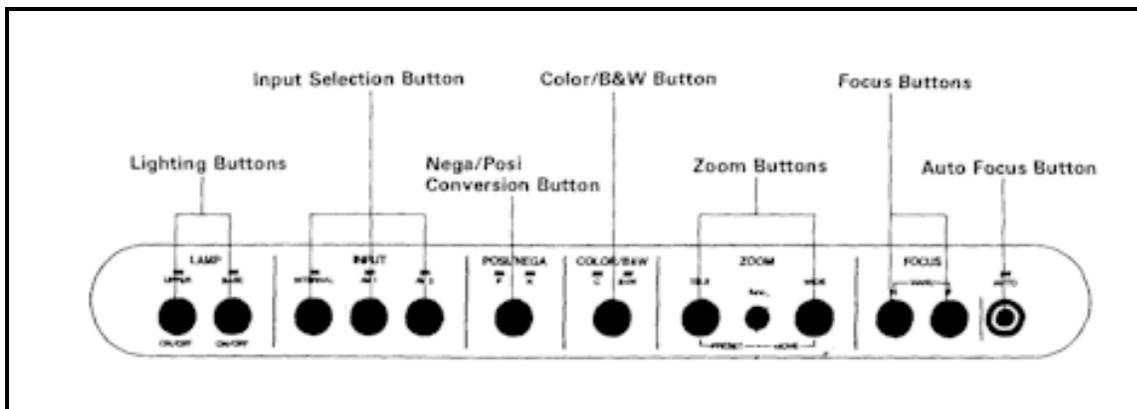


Figure 1 - The Front Panel of the ELMO EV-500AF

Camera button. The document camera is selected by default when the system is powered up. If you do not see the main menu on the Crestron touch panel, push the main menu or back button until you see the main menu.

Focus

It is important to focus the document camera after a document or object is placed on the display surface. An operator can do that using a variety of methods.

Auto Focus

The auto focus button is the fastest easiest way to focus the document camera. The auto focus button is located on the base of the document camera at the far right. It is labeled "Auto." When the operator pushes this button the document camera (ELMO EV-500AF) will make the best focus possible. If the focus is not acceptable after you use the auto focus feature then use the manual focus buttons.

Manual Focus

There are two buttons that will allow an operator to manually focus the document camera. You can find them on the Crestron touch panel and on the front panel of the document camera.

- On the Crestron touch panel go to the Camera menu and use the focus plus and focus minus buttons until the image is clear.
- On the document camera use the focus N and F buttons found immediately to the left of the Auto button.

Zoom

You can use the document camera to Zoom Tele and Zoom Wide on an object. When you Zoom Tele the image appears larger on the screen. When you Zoom Wide the image appears smaller on the screen. When you zoom in more detail becomes visible. When you zoom out more of the object can be seen at one time.

Zoom Tele

When you zoom tele the image appears larger on the screen and more detail becomes apparent. Zoom tele is synonymous with zoom in. You can zoom tele by pushing the zoom + button on the Crestron touch panel or the zoom tele button found on the front panel of the document camera to the left of the focus buttons.

Zoom Wide

When you zoom wide the image appears smaller on the screen and you will see more of the general shape of the object. Zoom wide is synonymous with zoom out. You can zoom wide by pushing the zoom - button on the Crestron touch panel or zoom wide button found on the front panel of the document camera to the left of the focus buttons.

Lights

The document camera has two sets of lights. There are two lights above the display surface for illuminating objects from above and lights in the base for lighting objects from below. You cannot use both sets of lights at the same time.

Upper Lights

Under most circumstances it is not necessary to use the upper lights. However, they can make dark objects that have little contrast easier to see. The button for turning the upper light on is found on the front control panel at the far left end. The button is labeled "UPPER ON/OFF." When you push this button once you will turn the lights on. When you push the button a second time it will turn the lights off. If the base light is on when

you push the upper light button, then the base light will turn off. You cannot use both sets of lights at the same time.

Base Lights

The base light is useful for viewing transparencies such as overhead transparencies, photographic negatives, photographic slides, and X-rays. The button for turning the base light on is found on the front control panel at the far left end. The button is labeled "BASE ON/OFF." When you push this button once you will turn the base light on. When you push the button a second time it will turn the base light off. If the upper lights are on when you push the base light button, then the upper lights will turn off. You cannot use both sets of lights at the same time.

Input Selection

The ELMO document camera can also operate as a switch. You can attach a VCR or other like device to the back of the document camera (up to two devices). The Input switches let you choose between the two attached devices or the document camera its self. As of the writing of this manual there are no devices attached as inputs. The purpose of this section is mostly for the purpose of trouble shooting. The input selection buttons are found on the front panel of the document camera to the right of the Lamp buttons and to the left of the Posi/Nega buttons.

Internal

Pushing the Internal button directs the document camera' to it's own output. Essentially it turns off AV1 or AV2. Pushing this button displays an image of whatever object is located on the document camera's display area. By default the Internal button is selected and it should always remain that way.

AV 1

Pushing the AV 1 button directs the first video input to the document camera's output. Normally there are no devices connected to this input and this control should not be pushed.

AV 2

Pushing the AV 2 button directs the second video input to the document camera's output. Normally there are no devices connected to this input and this control should not be pushed.

POSI/NEGA

To View A Color Negative on ELMO!

- 1) Place the negative on the display surface
- 2) Turn the base light on.
- 3) Zoom tele until the desired image fills the screen
- 4) Push the POSI/NEGA button once.

POSI/NEGA is short hand for Positive/Negative. When you push the POSI/NEGA button the display switches from positive to negative and visa versa. For instance, when you look at this document you see a white background with black writing. If I put this document on the ELMO and push the POSI/NEGA button then the background appears black and the letters appear white on the monitors. The same is true for color photo negatives. The POSI/NEGA button is found on the front panel of the document camera and is located between the INPUT and COLOR/B&W areas.

Color/B&W Button

The Color/B&W button turns the color on and off. If you place a colored object on the display surface and push the Color/B&W button then the object will display on the monitors in black and white. I am not sure why someone would want to do this. This section is included here mostly for trouble shooting. The Color/B&W button is found on the front panel of the between the Posi/Nega button and the zoom buttons.

VCR (Sony VSO-1450)

The VCR let's you play video cassette recordings. It has functions for play, pause, stop, fast forward, and rewind. You can control all these functions from the Crestron touch panel, the VCR remote control, or the front panel of the VCR. The functions you use on the VCR are the same as the functions on a VCR in someone's home.

Selecting

You can select the VCR by pushing the VCR button on main menu on the Crestron touch panel. When you push the VCR button then the touch panel will display a menu with following functions. Also Crestron will set all the appropriate switches so that the images on the video tape will display on the monitors in the court room.

Play

After you insert a video cassette into the VCR you can push the play button on either the Crestron touch panel, on the VCR remote (see Figure 2) , or on the VCR itself (see Figure 3).

Fast Forward, Search Forward, Rewind, and Search Rewind

The Sony VSO-1450 VCR has two speeds for fast forward and rewind. When the VCR is playing a video tape the fast forward and rewind speeds are slower than if the VCR is not playing a tape. In essence there are two functions for fast forward and two functions for rewind. When

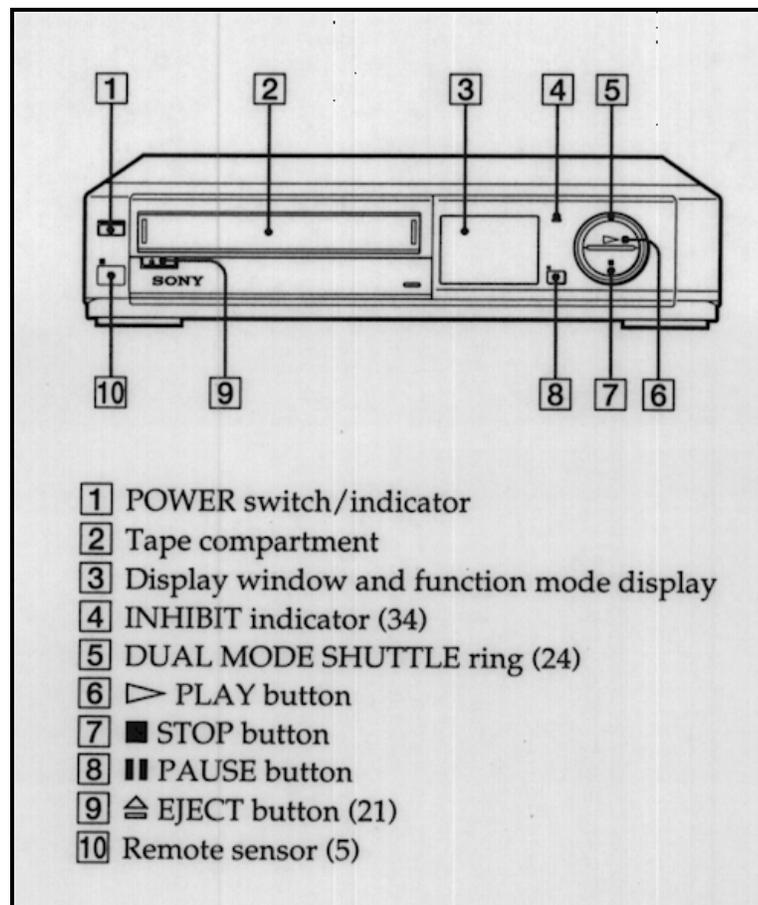


Figure 3 - SVO-1450 Front Panel

you use the remote control you use the same controls for play fast forward and rewind as you do for not play fast forward and rewind. However, on the Crestron touch panel you will find separate controls for the two fast forward functions and the two rewind functions. This is an unfortunate short coming the will be different in future revisions of this project. Until that time we will live with them.

From the stand point of using the system, the difference between the two fast forward buttons is that the button labeled search will only function when a tape is playing. The other fast forward button will only work when the tape is not playing. The same is true for the two rewind buttons.

Stop

The stop button stops the tape while it is playing, fast forwarding, or rewinding. You can find the control on the Crestron touch panel, the VCR remote control, or the front panel of the VCR.

Pause

The pause button causes the video to freeze on the screen. You can use the pause button to stop action in a video tape to allow discussion about a particular scene or image on the video tape. You can find the control for pausing a video on the Crestron touch panel, the VCR remote control or the front panel of the VCR.

Volume Control & Audio Monitoring

Included in the system is a pair of headphones and a volume control knob. You can use the headphones to monitor the tape and the volume control knob to mute the system. These features were designed with the following scenario in mind.

- A witness's deposition was taking using video tape.
- There are unresolved objections to questions asked at the deposition.
- The court will need to rule on the objections before the answers can be played for a jury. If the court sustains the objection then the answer should not be played to the jury.

The operator should listen to the tape over the headphones. When a section of tape should not be played for the jury the operator can mute the system by turning the volume all the way down while listening over the headphones. At the end of the portion that should be muted the operator can turn the volume back up.

Headphones

The headphones are located at the cart and are in plain view near the VCR.

Volume Control

The volume controls is a small off-white knob found on the same shelf as the VCR.

Computers (Provided by Operator)

If a party wishes to use a computer to present evidence in the court room, it is the responsibility of the party to provide a computer. The court will provide the cables and adapters necessary to make all the connections.

Connecting

There are a number of places where we can connect a computer to the evidence presentation system. Some of the places are more obvious than others. The evidence presentation systems are laid out differently in court rooms 260 and 250. The location of the connections are in very different places with respect to each of the two court rooms. I will discuss the most obvious places to make connections in each of the two court rooms.

We can use computers to display audio and video information. Which means that there may be two connections we must worry about. We will always make the video connection, but we do not have to make the audio connection unless the party wants to use their computer to play audio.

Video Connections

Video connections for the evidence system are made using the monitor jack on a computer. We connect the evidence system to the computer in the same way that we would attach a monitor to the computer. IBM clones use a 15-pin mini D-sub jack for connecting external monitors. The 15-pin mini D-sub jack has 15 pins arranged in 3 rows. Macintosh computers have a connector with 15 pins arranged in two rows. However, many later model Macintosh laptops have monitor jacks using the 15 pin-D configuration. The majority of computers we see in the court rooms are not Macintosh. If a person brings a Macintosh computer to the court room we can accommodate their computer by using an adapter. The adapter is located in the supply cabinet in the robing room on second floor.



Figure 4 VGA vs Mac

- 250 - In this court room there are two obvious connectors for computer video. They are located on either side of the cabinet and they resemble the connection labeled VGA in Figure 4.
- 260 - The connections for adding a computer to the evidence presentation system are not as obvious as those in 250. On one side of the court room the jack is located to the left of the door to the holding cell. The other connection is on the opposite wall from the first. You will find it to the

right of the door to the jury room. Both connectors resemble the connector labeled VGA in figure 4.

The connections between a computer and the system are made using cables provided by the court. Two cables are always on hand inside the cabinet in court room 250. To find the cables, open the doors on the cabinet that are closest to the judge. The cables are black and about twelve feet long and the ends resemble the cable ends shown in Figure 5.



Figure 5 Cable End

Ask the court about cables in 260.

The cable connects to the plug on the identified above and to the external monitor jack on the computer.

Display Settings

Our system is somewhat limited in its ability to display computer video. In particular the system has problems with some laptop computers running Windows 98. If after making connections to the system and you do not get a usable image on all the monitors in the court room then do the following

Gender Changers - No, it's not what you are thinking.

If you find yourself faced with the situation where both the cable and the jack have the same type of end (both have pins or both have holes) then you can use a gender changer to bring the connectors together. Gender changers are located in the supply cabinet in the robing room on second floor.

- 1) Go to the computers display properties tab (right click on the desktop, then click properties on the context menu).

2) Go to the settings tab and then click on the Advanced button. This will display a property sheet for your computers display adapter. Different computers use different display adapter. Different display adapters have different property sheets. The property sheet shown in figure 6 is for a laptop computer using a Trident Cyber 9397 PCI display adapter. On another computer, using a different display adapter, his sheet will look different.

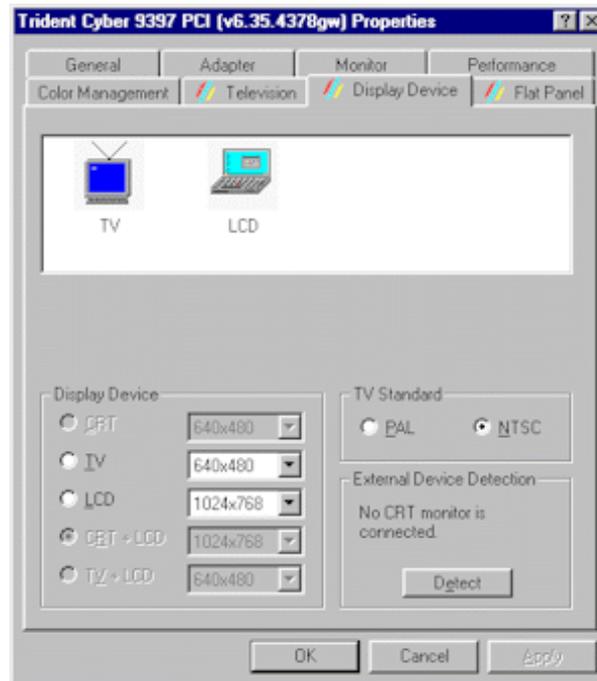


Figure 6 - Advanced Properties Sheet

3) The tab shown in From the advanced properties the solution gets complicated by the issue that different display adapters have different user interfaces. If you can locate an area that lets you turn off the LCD panel and view only the CRT then you should have the problem licked.

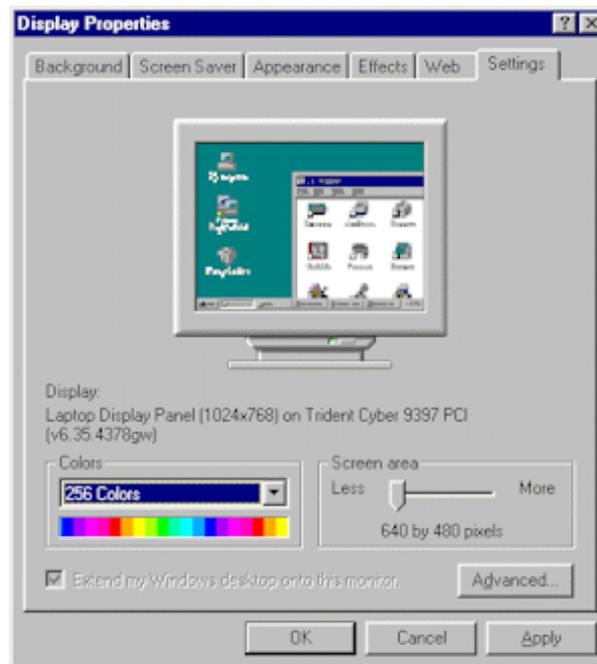
4) When you return to the settings tab reduce the computers resolution to 640 x 480.

5) Reduce the Colors setting to 256 colors.

Audio Connections

Audio connections are only necessary if an attorney or party wishes to present audio evidence from their computer. Examples of audio evidence from a computer include video tape depositions stored in a digital format and synchronized digital audio and transcripts.

Computer audio connections for the evidence presentation system are made



using the headphone jack on the computer. It is difficult to be specific as to where you will find the headphone jack on a computer because different computer manufacturers place headphone jacks in different places on the computer. Connections to the evidence presentation system vary from court room to court room because of the size and layout of the court rooms. Let's start by examining the computer then moving down the wire to the evidence presentation system.

At the Computer

Find the headphone jack on the computer. The place where you connect the headphones to a computer varies from computer to computer. The first plan of action is to ask the owner of the computer, "Where is the headphone connection." The desired response is "It is right here." If this is not the response you get then, dig out your glasses. Look for a jack just like you would find on a personal radio, tape player, or cd player (walkman, diskman, etc.). The jack will probably have a tiny picture of headphones next to it. Look carefully. They typically mold these images into the plastic so they are the same color as computers case and they can be hard to see.

The Cables

Find the cable that plugs into the computer. The cable you are looking for has different connections on each end. It has one connector at one end and two connectors at the other. The single plug looks just like a headphone plug.

In 250 you will find the cable stored inside the cabinet at the end closest to the judge.

Plug headphone plug into the headphone jack on the computer. The other end connects to the cables on the cabinet

The Cabinet

Find the audio cables next to the video connector on the cabinet and connect the two cables. The audio connector is next to the connector that the computers video cable is connected to. It is very important that you use the audio and video connections on the same side of the cabinet. Do not use the audio connector from one side and the video connector from the other.

Power Connections

Today's laptop computers are getting longer battery life then ever before. However, given the sometimes unpredictable nature of hearings, I would recommend connecting any laptop to an external power source. The person who provides the computer must provide the appropriate power cords. You can make power connections to any electrical outlet

that is convenient. Check the covers under the counsel tables, and the walls near the place where you want to use the computer.

Selecting

You can select the computer by pushing the Right PC or Left PC buttons on main menu on the Crestron touch panel. The terms right and left are orientated so that they correspond with the sides of the cabinet to which the computer is connected with the perspective of someone standing at the end of the cabinet farthest from the judge and while facing the judge. When you push these button the touch panel display will not change. The Crestron will set all the appropriate switches so that the images on the computer will display on the monitors in the court room.

Running Applications

When the appropriate computer is selected then the image that displays on the computers monitor shows to all other monitors in the court room. Responsibility for operation of the computer is left to the owner of the computer. There are many different applications that a person can use to present evidence on our system. It is impossible for me to predict what applications a person would choose to use and discussion of those applications is beyond the scope of this document.

Light Pen (Boeckeler Pointmaker PVI-70 Series)

Boeckeler's Pointmaker lets you annotate any image displayed on the evidence system by writing and drawing on a tablet or directly on a monitor. There are two locations in the court room where you can operate the light pen. The first location is at the cabinet using the tablet and the second is using the light pen at the witness stand.

There are a number of settings and features available on the Pointmaker PVI-70. Many of these features can be accessed only from the tablet. Some of the features and functions are available from the light and the tablet both, but are much easier to use from the tablet.

Drawing is the one feature that is much easier to operate from the light pen.

The tablet has a pen sized stylus attached to it. You use that stylus for all operations involving the tablet.

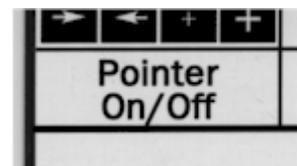
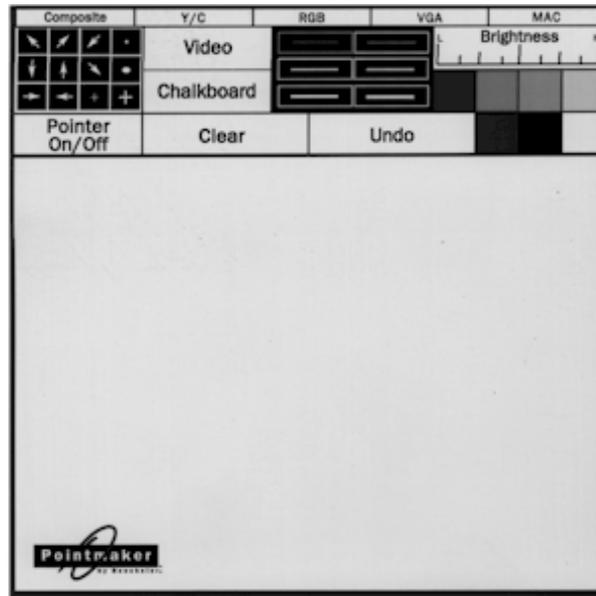
The Crestron Touch panel has no controls for the Boeckeler Pointmaker PVI-70.

Pointer

The pointer is a small colored object that you can move around on the screen using either the light pen or the stylus on the tablet. You can turn the pointer on and off and you can select from a number of different pointer shapes. You will want to turn the pointer on to draw using the tablet.

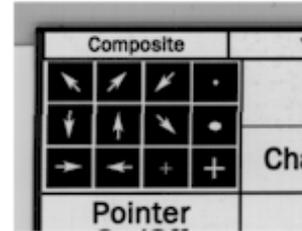
Pointer On/Off

The best place to turn the pointer on and off is at the tablet. Use the stylus to push the "Pointer On/Off" button on the tablet. I would like to point out that there is one button for both turning the pointer on and turning the pointer off. From looking at the control you might think that one side of the button turns the pointer on and the other side turns the pointer off, but that is not the case.



Pointer Shape

The best place to select the shape of the pointer is at the tablet. Use the stylus to push the button that shows the way you want the cursor to look.



Drawing

Tablet (cabinet)

You will want to turn the pointer on before drawing on the tablet. Please see the instructions for turning on the pointer. If you move the stylus over the drawing area of the tablet without touching the tablet you will notice that the pointer moves over the screen. If you lower the stylus so that it touches the drawing area of the tablet it will start drawing. If you are touching the stylus to the drawing area of the tablet and no marks are left behind, then apply a slight pressure to the tablet using the stylus.

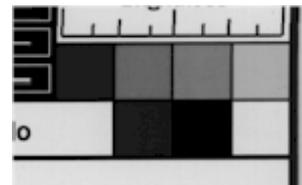
Light Pen (witness stand)

Let us take a look at the light pen before we start using it. The first thing you may notice is a black button on the side of the pen. This is an undo button. Pushing the undo button will erase the last mark you made on the screen. Do not hold the undo down while drawing.

Notice also that the tip of the pen compresses like a button. When you point the tip at the monitor you can move the pointer on the screen if the pointer is turned on. You can draw by placing the tip of the pen directly on the surface of the screen and applying slight pressure so that the tip of the pen compresses. Move the pen over the surface of the screen to draw.

Changing Colors

You can change the color of the lines you draw by using the stylus and the tablet. Using the point of the stylus push the color buttons found on the tablet.



Line Thickness

You can change the thickness of the lines you draw by using the stylus and the tablet. Using the point of the stylus push the line thickness button that works best for your application.

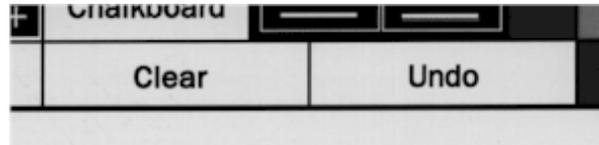


Adjusting Brightness

You can control the brightness of the lines drawn with the light pen by using the brightness control on the tablet. The control is located just above the color selection area. Drag the tablet styles from the L (low) end of the control to the H (high) end of the control.

Clear

The clear button on the tablet will erase all marks on the screen made using the light pen. Use the tip of the stylus to push the clear button.

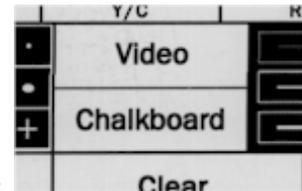


Undo

The undo button on the tablet will erase the last mark made using the light pen. Use the tip of the stylus to push the undo button.

Chalkboard

When you use the stylus to push the chalkboard button the screen on the system monitors will go all blue. You can then use the light pen or the tablet to create free hand drawings. The Chalkboard button and the Video button work in conjunction with one another. When you are done using the chalkboard, push the video button. The chalkboard feature is a feature that frequently gets activated unintentionally. If you find that you are looking at a blue screen and cannot see the selected input device (VCR, computer, document camera) then you should use the stylus to push the Video button on the tablet.



Video

The video button works in conjunction with the chalkboard button. If you have been using the chalkboard feature or if the chalkboard feature was accidentally activated then you need to push the video button to see selected input devices (VCR, computer, document camera).

Video Printer (Sony Mavigraph UP1800)

We included a video printer in the design of our presentation system so that an operator can print the images displayed on the monitors in the court room. For instance, if an operator displays a document on the document camera and a witness annotates the document using the light pen then the operator may want to make a copy of the images on the screen. An operator can print by pushing the Print button on the touch panel. After you push the print button you can start viewing other evidence (i.e. you do not have to wait for the printer to finish it's work before moving on). However, the printer takes approximately one minute to print the image.

Video Conference (Picturetel Venue 2000)

Setup

1. Locate an available network jack in the room where the video conference will take place. If no network jack is available then make one available by turning off and disconnecting a device such as a PC, or printer server. See the appendix for a list of available jacks in court rooms. After finding a network jack take note of the jack's number. The number is written somewhere on the face plate of the jack or on the jack itself. You will need that number in step 2.b.
2. From the server room on the 5th floor or the wiring closets located on 4th and 3rd floor make sure that the ISDN network (blue cables) is properly routed to an available network jack in the room where the video conference will take place. (All the network jacks on the second floor go to the patch panel in the wiring closet on 3rd floor. If the jack is on the 2nd or 3rd floor then the proper patch panel is located on 3rd floor.)
 - a. On the fifth floor the blue jumpers must go from the ISDN jack to either the patch panel on third floor or the patch panel on fourth floor. This is done by attaching a blue jumper to the ISDN jack and then to either the 3rd floor vertical run or the 4th floor vertical run. The vertical runs are marked with a blue dot indicating either 3rd or 4th floor.
 - b. From the 3rd or 4th floor wiring closet connect a blue jumper between the 3rd or 4th floor vertical run and the available network jack in the room where the video conference will take place. Use the number that you found in step 1. The number on the face plate of the network jack corresponds to a number on the patch panel in either the 3rd or 4th floor wiring closets or the 5th floor server room. If you turned off and disconnected a device from the network to make a network jack available in step 1, then you will have to disconnect a jumper from the corresponding jack on the patch panel in the 3rd or 4th floor wiring closet or the 5th floor server room.
3. Move the video conference cart to the room where the conference will occur. The cart is stored in room 465.
4. Connect the power for the video conference system by opening the doors on the back of the video conferencing cart, locating the power strip inside and plugging it into an electrical outlet.

5. Connect the network for the video conference system by opening the doors on the back of the video conferencing cart, locating the yellow network cable, and plugging it into an available network jack.

For Court room 250

If you are using the video conference system in court room 250 for the purpose of a trial then we use the evidence presentation system as an auxiliary display device. This allows the jurors, judge counsel and spectators to watch the remote participant on the evidence presentation monitors.

- 1) Place the video conference cart at the end of the evidence presentation console (the cart) closest to the judge. Position it so that the television faces away from the evidence presentation console.
- 2) Open the doors on the back of the video conference cart and on the evidence presentation console.
- 3) Locate the auxiliary video output for the video conference system. It is a short cable black cable baring a yellow tag that reads Aux. Video Output. You can find the cable inside the video conference cart.
- 4) Locate the video conference input for the evidence presentation system. It is a black cable baring a yellow tag that reads Video Conference Input. You can find the cable inside the evidence presentation console.
- 5) Connect the two cables together.

Operation

1. Turn the system on by using the power switch on the power strip found inside the cart. The video conference system is essentially a personal computer with a number of special peripherals. Just like the personal computer you use at your desk, the video conferencing system has to boot up. This process takes 5 to 10 minutes.

2. Operation of the video conferencing system is much like placing or receiving a telephone call. It is simply a matter of knowing which buttons on the remote hang up the call and place the call.

a. Answering an incoming call - When someone is calling our video conference system, the system will ring like your telephone does. The system will automatically answer the call. It takes 1 - 2 minutes for the two video conference systems to get synchronized. You can begin the meeting after the two systems synchronize.

b. Placing a call - For the purpose of trials the district court prefers to have the remote party place the call. We do this so that the remote party will incur all expenses. However, it is sometimes necessary to have the court place the call. Under those circumstances do the following:

- i. Acquire the following information from someone at the other location.
 1. What kind of network interface do they use. Is it Triple-BRI or ISDN.
 2. What one telephone number do you use if they are using Triple-BRI or what two numbers do you use if they are using ISDN.
 3. What is the maximum rate at which they can transmit and receive. Is it 64, 128, 192, 256, 320, or 384 kilobytes per second.
- ii. Push the green CALL/ADD button on the remote.

Wireless Remote Control

The video conference system is operated using a wireless remote control. It is a very large remote which is stored in the top drawer of the video conference cart. You will see the word PictureTel centered along the edge of the remote closest to you.

Just like the remote for your television and video cassette recorder at home, the remote control for the video conference system uses infrared light to communicate with the video conference system. Because of the use of infrared light there must be an unobstructed view between the remote and the infrared sensor on the video conference system. The infrared sensor on the video conference system is located at the base of the camera.

To operate the system the remote and operator must be placed in front of the camera.

- iii. Select the appropriate location, by using the up and down arrow keys, from the preprogrammed locations on the speed dial or dial a new telephone number by following these instructions.
1. Select "Place a Manually Dialed Call."
 2. Enter the telephone number you are calling. If the remote location uses Triple-BRI enter the telephone number that they provide in the first blank and leave the second blank empty. If they are using ISDN then provide both the first and the second telephone numbers in the spaces provided. Then hit enter.
 3. Select Triple-BRI or ISDN as appropriate and hit enter.
 4. Set the communication rate as appropriate and hit enter.

Long Distance Video Conference Telephone Numbers

All long distance video conference telephone numbers must be preceded by the FTS access code of 1010333 followed by a 1. So when calling a system with a telephone number of 612-555-1212 you will enter
101033316125551212.

Our video conference system will then call the remote system. After the remote system answers the call it will take 1 to 2 minutes for the two systems to synchronize. After the two systems synchronize then you can begin your meeting.

Picture In Picture (PIP)

When you push the PIP button (lower left hand corner of the remote) a small area in the lower right hand corner of the television screen will come on. That area will show you the image that our system is sending to the remote location. You can turn the image off by pushing the PIP button a second time.

Camera Control

The controls for the camera are located on the remote control. The

Far End Camera Controls

Not all video conference systems are the same. Some systems will allow you to operate the camera from either the near or far and remote and some systems will not. For those systems that do allow you to control their cameras you will follow the same procedures as described here except you should use the far end controls located in the upper right hand corner of the remote control.

remote can control the camera on this system and under the right circumstances it can control the camera at the far end of the conference call.

Point

You will find the controls for the near end and far end cameras on the right end of the remote. The controls for the near end camera (the camera on our system) are found on the lower half of the remote. You can aim the camera at different things in the room by using the diamond shaped point button. You can position the corner by pushing the corners of that button.

Zoom

You can zoom in and out on people and things in the room by using the Zoom button.

Pre-Sets

To the left of the Point and Zoom buttons are 4 camera pre-set buttons. You can use those buttons to quickly point the camera at a person or object in the room that you will revisit frequently during the conference.

1. Point the camera at and zoom in or out on a person or object that you will view frequently during the call.
2. Set the pre-set button by pushing the Set button followed by the preset button you want to use for that person or object.

The preset button is now ready to use.

Ending a call

To end the call push the hang-up button on the remote control. The system will ask you to confirm that you want to hang up the call and you respond by hitting the hang-up button a second time.

Takedown

1. Replace the remote control in the drawer of the cart.
2. Switch off the system by turning the power strip off.
3. Disconnect the power cord from the electrical outlet.
4. Disconnect the yellow network cable from the network jack.

5. If you connected the video conference system to the evidence presentation equipment, then disconnect the two systems.
6. Return the cart to room 465.
7. If any network devices were disconnected in order to facilitate the video conference then reconnect them (don't forget to go back to the wiring closet and return all jumpers to their original positions).

My Computer / ELMO Switch

Due to the variety of laptops and video adapters, it is occasionally necessary that a user turn off the LCD panel on their laptop in order to have images display correctly on the presentation system monitors. The my computer/ ELMO switch is how we work around this problem. This switch lets you use the left or right counsel monitors as a monitor for your computer.

You can find the switch next attached to the side of the monitors. Look for a black box with one switch. When the switch is in the My Computer position then the monitor is showing what is on your computer. When the switch is in the ELMO position then the monitor will show what the system is displaying. This can be a little confusing on occasions because your computer may be the selected input on the system. If that is the case then you will see no difference in the image on the monitor between the My Computer position and the ELMO position.

If there is no computer attached to the cart then the position of the My Computer / ELMO switch will make no difference.

Crestron Touch Screen

The Evidence Presentation System is comprised of many different switches, converters, and amplifiers. To simplify your interaction with the system we installed a Crestron Control System. The control system is controlled by means of a touch screen.

The control system is programmable. The instructions listed here reflect the systems programming as of the writing of this document. Operation of the control system will change when the programming changes.

Opening Screen

When you first turn the system on the opening screen displays. This screen is an introduction and is displayed while the system initializes. After the system initializes you can move on to the Main Menu by touching anywhere on the touch screen. Please wait approximately 1 minute after turning on the system before going to the main menu.

Main Menu Screen

The main menu is the jumping off place to all other functions of the control system. On the main menu you will find buttons that let you switch between and control the various input devices. You can also control which monitors (or sets of monitors) are on or off, print a copy of the image displayed on the system, and make certain adjustments to the touch screen display panel.

Camera Button

When you select the Camera button from the main menu the system will switch the monitors in the court room to the Document Camera and the touch screen will display the Camera Menu. The Camera Menu has buttons that control the zoom and focus of the document camera. Also there is a print button, a button that takes you to the Monitors Menu, and a button that switches the touch panel from the Camera Menu back to the Main Menu.

VCR Button

When you select the VCR button from the main menu the system will switch the monitors in the court room to the VCR and the touch screen will display the VCR Menu. The VCR Menu has buttons that control the VCR's play, stop, pause, fast forward, rewind, search forward, and search rewind functions. Also there is a print button, a button that takes you to the Monitors Menu, and a button that switches the touch panel from the VCR Menu

back to the Main Menu.

Video Button

When the Video button is selected the system switches to the Video Conferencing System and the touch panel displays to the Video Menu. The video conference system's interface with the control system (Crestron) is poorly implemented. We do not recommend that you use the touch panels Video Menu for controlling the video conference system. Please use the video conference system's wireless remote control (see the instructions on using the video conference system).

If you enter the Video Menu by mistake, locate the exit button in the upper left hand corner of the touch panel.

Left PC, Right PC and PCs 1 - 3 Buttons

These two buttons perform similar functions. When you push the Left PC button the control system switches to the PC connected to the left side of the cart. When you push the Right PC button the control system switches to the PC connected to the right side of the cart. There are no menus associated with these buttons so the touch panel stays on the main menu.

Pushing the buttons labeled PC 1, PC 2, and PC 3 causes the control system to switch to any PC's attached to the system other than by the jacks located on the left and right sides of the cart.

Monitors Button

You can find a Monitors Button on the Main Menu as well as other menus. This control lets you turn off a monitor or set of monitors when a particular participant in the hearing should not see what is displayed on the system. When you push the monitors button the touch panel will switch to the Monitors Menu. On the Monitors menu you will find buttons for turning on and off each of the attorney's monitors, the witness's monitor, and the juror's monitors. When you turn the system on all monitors are on by default. To turn the monitors off, push the appropriate button. To turn the monitors back on push the appropriate button again.

Print Button

The print button appears on the Main Menu as well as other menus. When you push the print button the control system will activate the video printer. After you push the print

button you can start viewing other evidence. However, it will take the printer approximately one minute to print the image.

Adjust Button

When you push the Adjust Button the control system displays the menu with buttons for adjusting the contrast and brightness of the touch panel.

Troubleshooting

Described in the following pages are some situations that have cropped up from time to time. The trouble shooting section of this document may be updated from time to time as changes are made to the system.

Blue Screens

Occasionally situations arise that cause all the monitors to display a blue screen with no writing or images appear. There is more then one cause for this situation.

Diagnosis	Solution
The chalkboard feature was selected on the Boechkler Pointmaker Light Pen.	Deselect the chalkboard feature by selecting the video feature (page 23).
A personal computer (PC Left, PC Right, PC 1, PC 2, or PC 3) input was selected but no personal computer is attached to the system (page 16) .	Select another input such as the document camera (page 9) or VCR (page 13).

Black Screens

All the screens are displaying a black screen regardless of what input source is selected.

Diagnosis	Solution
The most likely reason for this situation is that the Boeckeler Pointmaker Light Pen was accidentally shut off. (In court room 250 it is really easy to unknowingly kick to power switch on the light pen.)	Turn the Boeckeler Pointmaker Light Pen's power switch on. The power switch for the light pen is located on a large black box in the cart. The black box is labeled with the Boeckeler trade mark. The power switch is the only large square button on the front of the box. You may have to restart for the system to operate correctly (page 8) . If you restart the system, it is not necessary to do anything with the monitors.
Input device on document camera was selected.	Turn off any selected input devices on the document camera (page 11)

Images Are Blueish (Redish, Greenish)

You can see an image on the monitors but the image has an unnatural colored tint.

Diagnosis	Solution
Equipment did not initialize correctly	Restart the system (page 8)
This is most likely the result of a wiring problem.	Trace through the system inserting a monitor at various places to until the problem is isolated.

Crestnet Error

An error message appears on the touch panel that says Crestnet error.

Diagnosis	Solution
Crestnet errors occur when the system is not fully initialized before the opening screen is touched.	Restart the system and wait for a minute before touching the touch panel (page 8).

No Light Pen Cursor

Cannot see the cursor for the light pen.

Diagnosis	Solution
The pointer is turned off.	Turn the pointer on (page 21)

Light Pen Lines Are Dark

The lines may be dark or there may be too little contrast in the colors.

Diagnosis	Solution
The brightness control was turned down.	Turn up the brightness control (page 23).

Some Monitors Do Not Display Images

Diagnosis	Solution
Monitors are turned off.	Turn on the monitor (page 8)
Monitor's brightness is turned down.	Increase the monitor's brightness setting by using the controls on the monitor.
Monitor's contrast is set too low.	Increase the monitor's contrast setting by using the controls on the monitor.
The Altinex PC-Courtview is not programmed correctly.	<p>Reprogram the PC-Courtview.</p> <p>Locate the PC-Courtview in the cabinet. It is a gray device. The front panel of the device is approximately 16 inches long and one and a half inches tall. It has a series of square buttons.</p> <ul style="list-style-type: none"> • Turn all outputs selectors on. The output selectors are the buttons located to the right and are labeled judge, plaintiff, defendant, witness, jury, and media. Push each button so that the LED above the button is light. • Turn on only the plaintiff input selector. The input selectors are located to the left of the output selectors mentioned above. Push input selector labeled plaintiff. • Push and hold the Memory 1 button until the unit beeps. The PC-Courtview is now reprogramed. • Restart the system (page 8)