

Assistant Coach a Studio 5B how to guide

This document includes a series of questions that address the technical how-to information about being an Assistant Coach. Although this information is specific to TPL's home studio, Studio 5B, you may find the information and principles of interest.

What is the video/technical knowledge an Assistant Coach needs to know?

Only one video image can be sent to the far site at a time. Unlike audio signals, that can be mixed together to form one signal and sent, video signals cannot be mixed or combined. As a result, the Assistant Coach's role is to preview the 3 different video signals from each of the camera angles in Studio 5B and select one image to send.

When sitting at the control workstation, you will notice that some monitors are showing an **Input** signal and some are showing an **Output** signal. (*see Assistant Coach Station document in the Tech Guide section*) An **Input** signal is one that is being received by the control workstation, and **Output** is a signal being sent by the control workstation. Below is a brief description of the four **Inputs** and **Outputs**

Input 1	-video signal being received by the far site
Input 2	-video signal being received from the front camera/codec
Input 3	-video signal being received from the rear camera
Input 4	-video signal being received from the mobile camera
Output 1	-video signal being sent to 2 of the studio monitors (far site)
Output 2	-video signal being sent to 2 of the studio monitors (near site)
Output 3	-video signal being sent to the far site when external source is selected by the codec. When not selected it is a preview of the external image (either Input 3 or 4) in Monitor 5 and the codec (front) camera image is being sent to the far site.
Output 4	-video signal being sent to the VCR, a duplicate of the signal being sent to the far site.

Inputs can only be sent to **Outputs** (not the reverse). Therefore always press the **Input** number first then the **Output** number when using the video router unit to make a switch.

How is the Control Workstation Set-up?

The diagram, *Assistant Coach Station*, has been created for easy reference as you learn more about the equipment and its functions. Please refer to this document while learning about the Control Workstation.

There are two different kinds of equipment located on the control workstation - video and audio. The video equipment includes five monitors, a codec remote control, a rear camera remote control, and a routing switcher unit. The audio equipment includes a wireless microphone receiver and an audio mixer unit.

As seen in *Assistant Coach Station* document, one **Input** or **Output** signal is seen in each of the five monitors. These **Input** and **Output** numbers correspond with the buttons and lights on routing switcher unit. Because video signals cannot be mixed, only one **Input** can be sent to one **Output** at a time. **Input 1** is always sent to **Output 1**. Likewise, **Input 2** is always sent to **Output 2**. Both of these allow the images of the near and far sites to be seen on the studio monitors.

How do I preview and Image?

This is where the control workstation can become confusing because you cannot preview all camera angles at all times in Monitors 2-5.

Monitor 2 shows the image of the actual video signal being sent to the far site. If the codec (front) camera is selected then you will see its image in Monitor 2. If the external source is selected (instead of the codec camera) then you will see either the rear or mobile camera in Monitor 2. This image will match the one seen in Monitor 5. When this happens, you cannot preview the codec (front) camera at all, in any of the monitors.

Monitor 3 only shows the rear camera. By looking at this monitor you will be able to see if this camera is looking at a wide or close-up shot of the studio. The rear camera can be programmed to remember up to 6 different camera angles. Usually, only two are used, wide and close-up. Use the rear camera remote control to change between the programmed shots or change the shot by using the right, left, up, down arrows or zooming in or out.

Monitor 4 only shows the mobile camera. This image is fully controlled by the cameraperson.

Monitor 5 shows which image is ready to be sent to the far site if the external source is selected. This monitor will only select from the images seen in either Monitor 3 (rear camera) or Monitor 4 (mobile camera). Use the buttons on the routing switcher unit (on the control workstation) to change the image in Monitor 5. (*more on this in a moment*)

Monitor 1 only shows the image being received from the far site. In some situations it is possible to move and adjust the far site camera, but this is currently not an option being used by the Assistant Coach. It is likely that a TPL Assistant Coach will never need to exercise this option because we seek to have a full technical crew at both locations during all interactive events. Please see the codec manual for information about this option.

How do I select/change the Image being sent to the Far Site?

The document *Assistant Coach Station* has been created to articulate the switching process and the relationship between the codec camera and external source options. Depending on what video image you are sending to the far site and the new image that you want to select and send you will have to take 1-4 steps to get there. Regardless, it is crucial that the last step always be to send the image.

It is usually recommended that whenever you switch from the codec (front) camera to the external source that you make sure the front camera is showing the wide shot before changing to an external source image. This way you always know what the codec camera is seeing when you switch back to it. (Remember that a preview of the codec camera cannot be seen when an external source image is being sent.) If for example, the codec (front) camera is showing a close-up of an actor's face, and you switch to the external source. When you switch back to the codec camera if the actor is not standing in the same place there may be no one in the image for the far site to see.

When changing from the codec camera to the external source, or back, use the codec remote control to make the switch. When you press the gray *Near* button 3 icons will appear on the far site monitor –video camera, document camera, and VCR. The video camera icon on the far left is connected to the codec camera. When this icon is selected a curved double arrow icon will cover up the camera icon indicating that it has been selected. (this is true for all 3 icons) The middle icon is a white document camera icon. It looks like a microscope of sorts. This icon is not connected to anything and when selected it will send a blank gray screen to the far site. The far right icon is a VCR icon and is connected to the switcher station. Technically speaking, both the document camera and the VCR icons are considered external sources in relation to the codec camera. Because the document camera icon is not connected to anything, for the purposes of this documentation, external source will always refer to the VCR icon. Regardless of whether the codec camera or the external source is selected to be sent to the far site, the video image will be seen in Monitor 2.

When the external source (VCR icon) is selected to be sent to the far site, the image in Monitor 2 will match the image in Monitor 5. (as noted above) It is important that before switching to the external source you check Monitor 5 and make sure it is showing the image you are intending to send next. If you do this in reverse (switch to external source then switch to the desired image) the far site will not only see all of these changes but the multiple changes (similar to flipping channels on the TV) will disrupt the flow of the class and interfere with communication between the sites. If a Coach requests for a new image to be sent, it is better for you to have them wait a moment while you set up the correct preview before sending the requested image, than to have everyone “watch” your switching process. Ideally, the participants at both sites are under the impression that it only takes one press of a button for you to switch from one image to another. All other changes should be unseen and invisible to anyone but you. This is what makes the role of the Assistant Coach complicated and difficult at times.

The external source is comprised of two possible camera angles –rear camera and mobile camera. As noted earlier, these images can be seen in Monitors 3 and 4 respectively. Monitor 5 displays the image that is ready to be sent to the far site when the external source is selected. To switch between these two images in Monitor 5 use the buttons on the routing switcher unit. Inputs can only be sent to Outputs (not the reverse). Therefore always press the Input number first then the Output number. You will make one of two choices when changing the image in Monitor 5.

Input 3 to Output 3 = rear camera image in Monitor 5

or

Input 4 to Output 3 = mobile camera image to Monitor 5

Remember that Inputs 1 and 2 and Outputs 1 and 2 allow the far and near site images to be seen on the studio monitors. Output 4 is connected to the VCR and is recording the images being sent to the far site. (assuming that someone has put a tape in the VCR and hit record at the beginning of the interactive event!)