Broadcast Pix



750 Control Panel Manual

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Warranty Information

Warranty on all Broadcast Pix Switchers & Products.

The Products will be of a professional quality, meet the specifications set forth in the Product descriptions and are warranted to be free from defects in materials and workmanship for a period of thirteen (13) months from shipment from Manufacturer. Broadcast Pix will repair or, at its sole option, replace any component found to be faulty on any system returned to the service center of Broadcast Pix in the USA for repair. The costs of any visit to the customer's site are not included in the warranty. The cost of returning Product to Broadcast Pix is the responsibility of the end user or the Dealer. Dealer is authorized to deliver the Broadcast Pix warranty, as described above, to purchasers of the Products and the Future Products. No software is to be added to the product from any other source than Broadcast Pix, unless approved by Broadcast Pix, or it will invalidate this warranty.

BROADCAST PIX MAKES NO OTHER WARRANTY, EXPRESSED OR IMPLIED, AND PARTICULARLYEXCLUDES ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

Control Panel Installation

750 Control Panel Dimensions:

The control panel is intended to be installed on a tabletop or shelf, as there are no edges for a cut out or in-table installation.



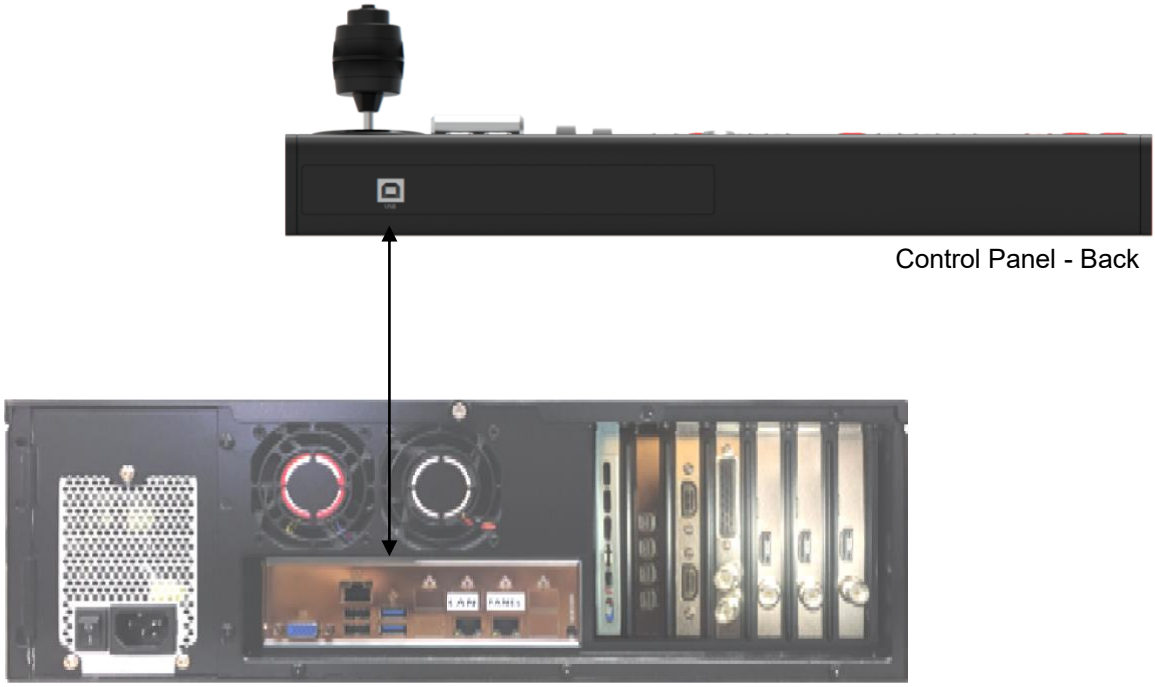


Connectivity:

The back panel of the control panel has several connection types (depending on when the unit was shipped), the only connector used for Broadcast Pix is the USB, style B. All other connectors are unavailable for use. Use the provided 4.91 foot / 1.5 meter USB A – USB B cable to attached the panel to the Broadcast Pix Sever.

The USB connector provides power and control of the application.
Maximum length for USB is 16.4 feet, 5 meters. For longer installations a powered USB extender, hub or KVM device will be needed.

The 750 Control Panel is compatible with Broadcast Pix Systems running software Version 10 and above, and requires the 750 option code to be enable in Installed Options. Please contact technical support for compatibility issues.



Control Panel - Back

Broadcast Pix Server - Back

Boot-up Process:

Turn on the Broadcast Pix Server first, using the front rocker switch or power button.

Once the desktop is visible on your computer monitor, press in on the power button located at the rear right of the panel behind the joystick, it will illuminate red. Other control buttons will flash pink and light green, as shown below.

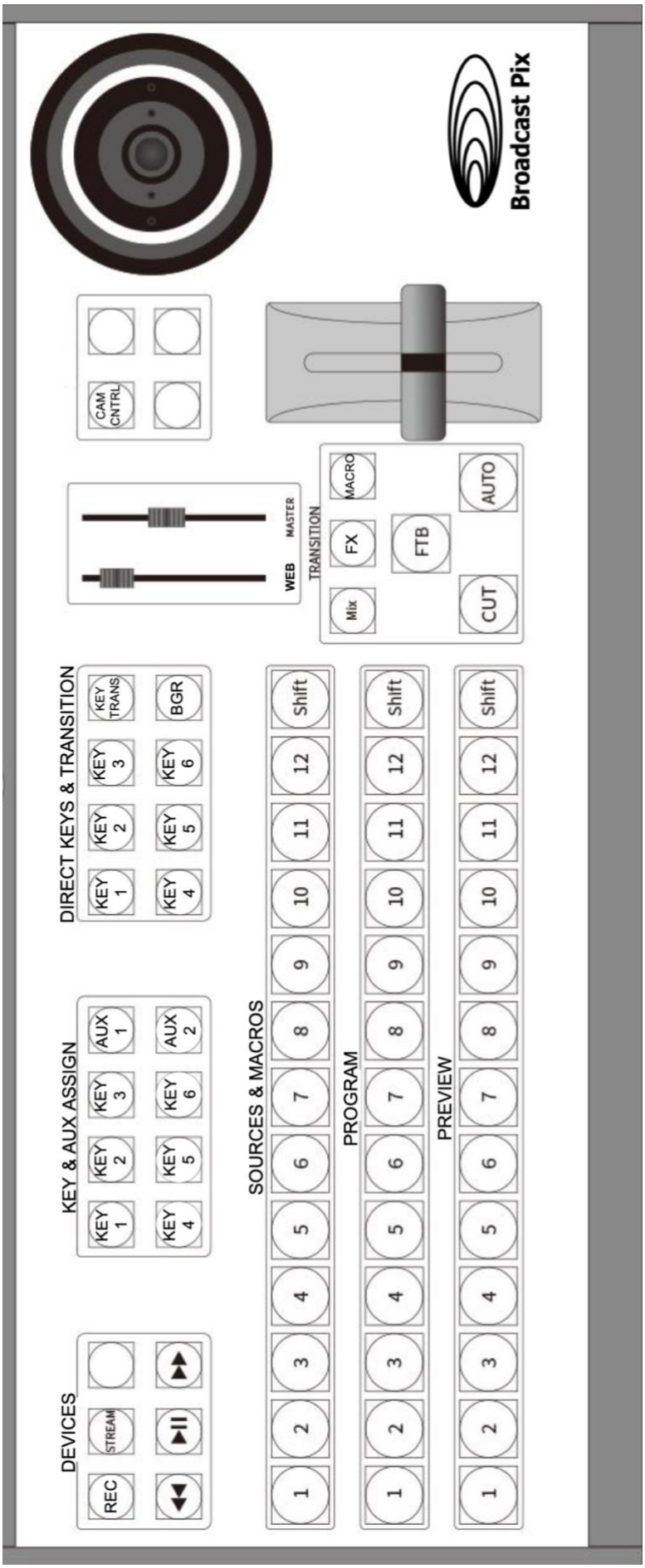




After 3-4 seconds, the control buttons will change to white, as shown below.

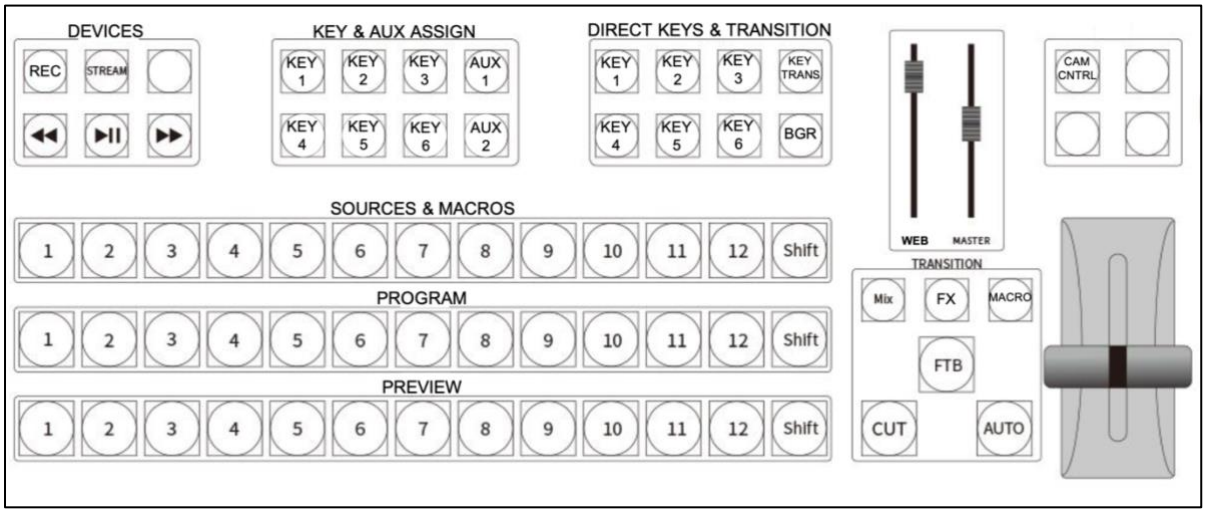


Button Layout



Switcher Controls

When you launch Broadcast Pix Switcher and a show is loaded the switcher controls fill in on the panel.



Key & Aux Controls	To select sources for bringing on-air, as backgrounds or key overlays. And for filling keys and auxiliary outputs. Destination & Macros row can also trigger assigned Macros when Macro is selected in the Transition section.
Transition Controls	To change what is on program, with a cut, mix or effect.
Direct Key Controls	To manually turn keys On/Off. They also show key tally status.
Device Controls	To control specific devices, i.e. recording or camera control
Audio Controls	Adjusts the main volume for each mixer output, Web & Master

Tally:

Broadcast Pix uses tally to identify at a glance what has been selected. Tally is displayed simultaneously on the panel and Multi-View. If the optional tally box is installed, the program tally is also sent out.

Panel Tally

State	Color	Buttons
Selected and on Program	Red	
Selected and on Preview	Green	
Off/not selected	White	

Multi-View Tally

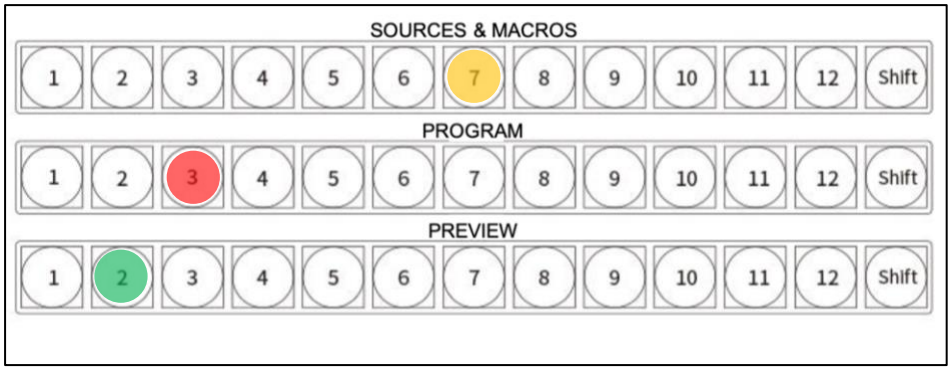
Selected and on Program	Red	
Selected and on Preview	Orange (or green if option is enabled in system settings)	
Off/not selected	Grey/None	

Video Sources:

Video sources include external video sources (which vary my model), plus internal video sources for Clips, Stills, CGs, Logo and Black.

The first 12 video sources are selected with the three rows of 12 buttons in the lower left portion of the control panel, as illustrated below. These 12 sources are arrayed in columns of 3 buttons each. The same source is assigned to all three buttons in each column.

Within any one row, only one source may be selected at once. Therefore, only one button in the source or preview rows may be illuminated, and only one in the program row may be illuminated red.



Program Row

The Program Row indicates which source is on the air, which will always be illuminated red. Other available sources will be illuminated white, and buttons with no video source assigned will not be illuminated.

Preview Row

The Preview Row is used to select which source is selected on preview/preset, which will be illuminated green, during a transition the preview row illuminates red and returns to orange at the end of the transition.

Sources & Macros Row

The Sources Row is used to select which source is used to fill a key, or an auxiliary output, sources will be illuminated orange to signify that they are selected and on preview and turn to red once that source is on program. This row is also used to trigger preassign Macros, when the Macro button is selected in the Transition section.

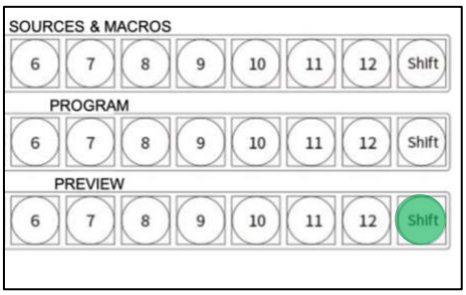
Using the Shift Button:

For shows which consist of more than 12 inputs, the [Shift] button is used to access sources 13-24. This enables the panel to control twice as many sources as there are buttons for. These “shifted sources” are typically used for sources that are used less frequently than the first 12 sources, such as black or a rarely used extra tape deck.

To access sources 13-24

1. Press the [Shift] button at the end of the desired row and it will illuminate.

   There is no need to hold down shift, since the panel will stay in the shifted state until it is deselected.



2. Select a button from the Program, Preview or Source rows, as desired. The selected button will illuminate. To indicate that this button is in a shifted state the button will blink.

3. Press the [Shift] button again, which will turn off the illumination of the shift button, and return all source buttons to their unshifted state. The control panel will continue to have the selected source blinking so you know a shifted source has been selected. Once a direct or unshifted source is selected the blinking will stop.

Transitions:

A transition is a change from one picture to another picture. There are four types of transitions:

Cut	A cut is an instantaneous switch from one video picture to another, and is by far the most common type of transition.
Mix	A mix, also known as a cross fade or a dissolve, is a transition in which one picture dissolves into the next.
Effect (FX)	An effect is a transition that uses a pattern or special effect to transition from one picture to the next. Effects include wipes, pushes, squeezes and other moves.
FTB	Fades the entire Program video to Black.

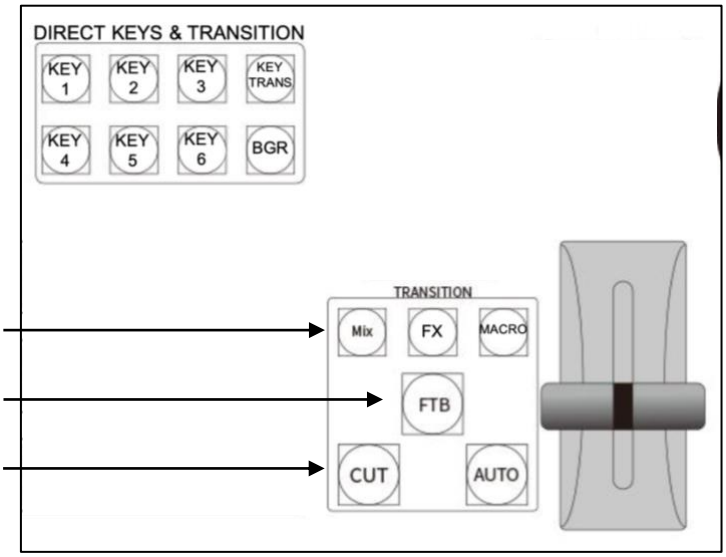
The transition section of the control panel manages all transitions. It is illustrated below, along with the function of each area of its controls.

To select which layers are to be transitioned, when Key Trans is illuminated

To set the Auto Trans Style

Fade Program to Black

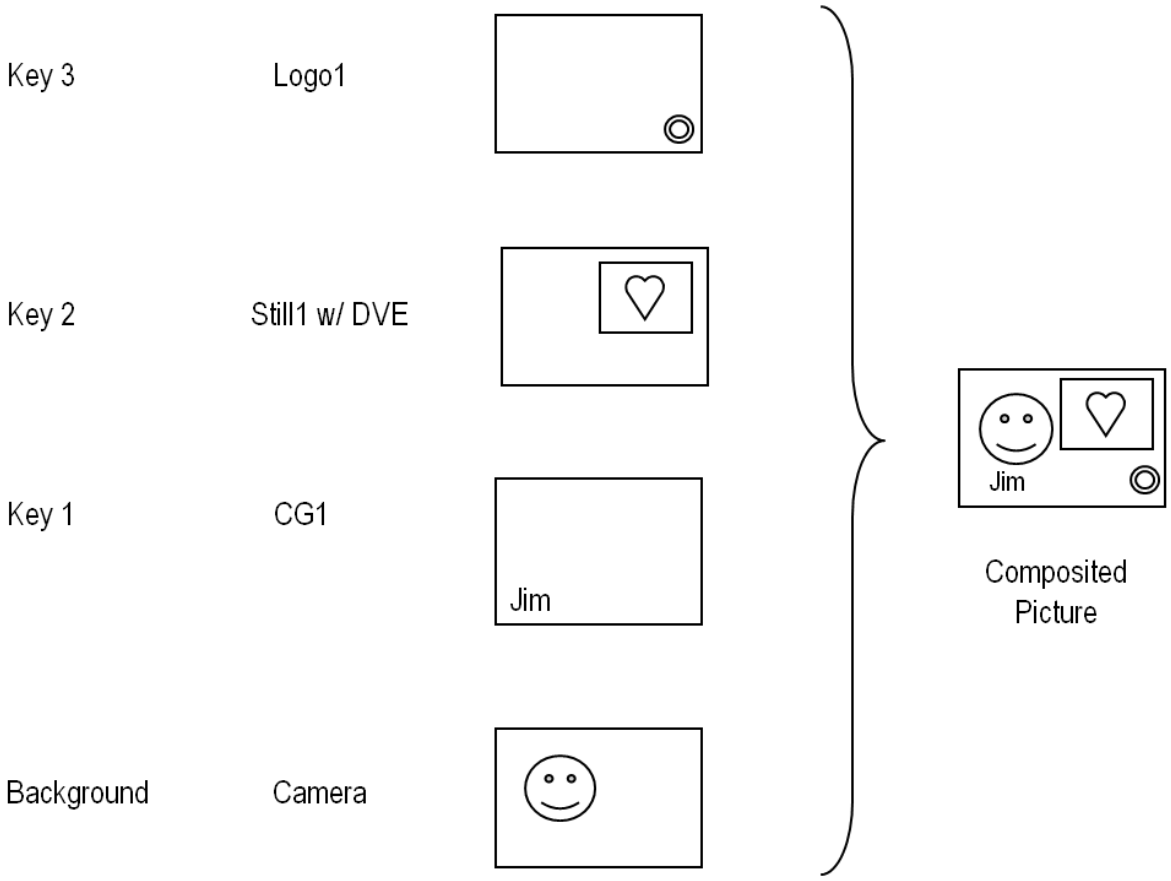
Execute a transition from Preview to Program with Cut, Auto or Fader Arm



Keyers:

The Broadcast Pix system combines multiple layers that can include a background video image and up to 6 overlays (depending on the model), each of which is known as a key. All 6 keys can hold a graphic, such as a CG, Still or Logo, or a DVE box (Picture-in-Picture) which can hold a camera, still, clip or any other source. Any key may hold a Chroma/Luma Key.

In the example below the composition includes four layers:



Keyer Controls

The panel provides three groups of buttons for controlling the 6 keys: Key Select Buttons, Key Transition Buttons and Direct Key Buttons. The Source Row is also used with the Key Select Buttons.

Each of the 3 Keyers is treated as a device, so pressing any one of the three Key Select buttons assigns all of the device controls to that Key, including the Joystick

In addition, all keys are also shown graphically and in full motion on the Multi-View for feedback.

To assign a source to a Keyer

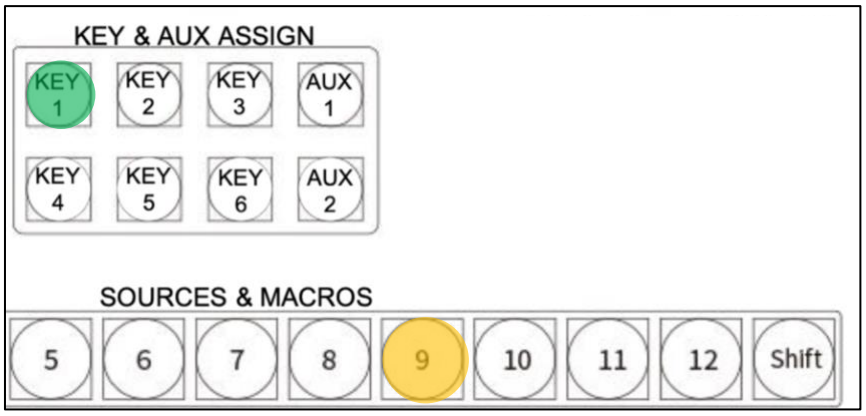
1. Press the desired Key Assign Button, either [Key 1] - [Key 6]

   The button pressed will illuminate green and one button in the source row will also illuminate orange. This lit button in the source row will indicate which source is currently assigned to the selected key.

   If a shifted source (13-24) is currently in the key, it will blink on the panel.

2. Press the desired [Source Row] button, for the source you wish to feed into the keyer. The button pressed will illuminate orange and the source row button that had been illuminated before will go out. Only one button in the source row may be illuminated at once.

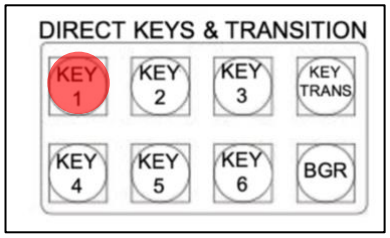
   The example to the right shows Key 1 assigned to input source number 9.



Direct Keys:

The Direct Key buttons are to quickly turn on or off a keyer directly onto Program, useful when adding someone's lower third ID or logo.

To Manually Bring a Key On Program



1. Any key that is off, can be brought on program by pressing its [Direct Key Button] in the top middle of the panel.

   This will cause this key to fade on at the rate for that keyer, and the button will change color to red.

   The example shows Key 1 turning on.

To Manually Take a Key Off Program

1. Any key that is on-air (red), can be taken off program by pressing its [Direct Key Button] in the top middle of the panel.

   This will cause this key to fade off at the rate for that keyer, and the button will change color, from red to off.

Transitioning Keys with Background:

The six keys can be used within the transition controls as well. This enables key transitions to be combined with background transitions. For example a lower third with the person who is about to speak. It also enables any effects, such as a wipe or push-off, to be used for transitioning keys, either with a background change or without a background change.

To Transition Keys Simultaneously with the Background

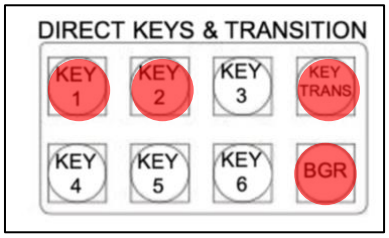
1. Press the [BGR] button (if it is not already illuminated).

2. Select the [Key Trans] button, it will illuminate red.

   Select the keys to transition with the background by pressing one or more of the adjacent [Key Transition] buttons.

3. Each button pressed will illuminate red. As each Key Transition button is pressed, the video will appear in the Preview monitor.

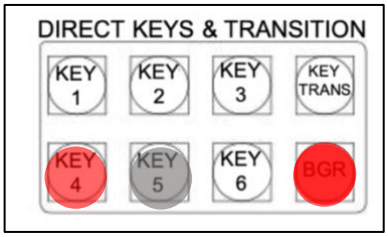
   For example, to transition on program Key 1 and Key 2 along with the background, press:



4. Press [Cut] (or Auto, or use the fader arm) and the background video will change, the illuminated keys will come on program.

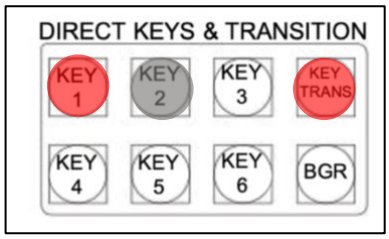
In the above example, two keys were brought on program at the same time with the background. If instead the keys are already on before the transition, and you wish to bring them off program as part of a transition, then the button illumination would be as follows. When their [Key Transition] button is pressed it will illuminate red, to indicate on-air keys. Now when cut (or auto or the fader) is pressed, the Key 1 and 2 will come off program as the background video changes, and the Key Transitions button will be white.

You may combine bringing keys on and off program in the same transition. For example, if Key 1 is already on, and you wish to bring it off with a background transition, while bringing on Key 2, the illumination of the [Key Transition] buttons would be:



To Transition Keys without the Background

To add or remove key layers without changing the background video, repeat all of the above steps, except in step one, turn off the [BGR] button, as shown below. When [BGR] is turned off the end state of the transition will be shown on the preview monitor, which will include the same background as currently on program.



Assigning Auxes:

Auxiliary outputs, or Auxes, are additional outputs other than Program, which can be selected on the fly. Depending on the model there may be up to 4 Aux outputs.

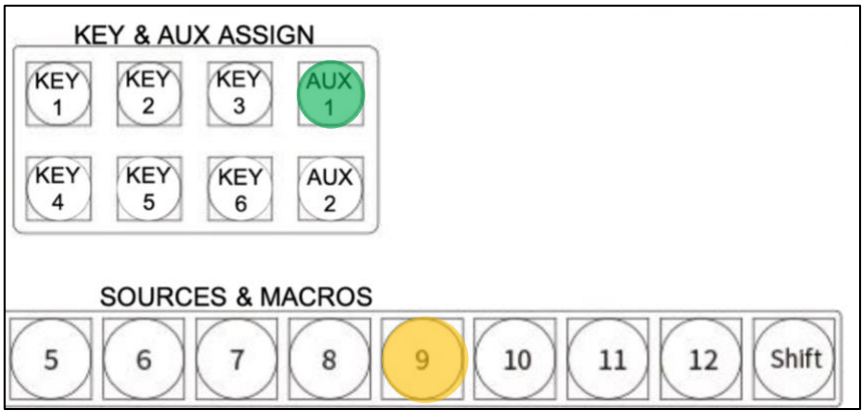
To assign an Aux

1. Press the desired Aux Assign Button, either [Key 1] or [Key 2]

   The button pressed will illuminate orange, and one button in the source row will also illuminate. This lit button in the source row will indicate which source is currently assigned to the selected Aux.

2. Press the desired [Source Row] button, for the source you wish to route to the Aux. The button pressed will illuminate orange and the source row button that had been illuminated before will go out. Only one button in the source row may be illuminated at once.

   The example to the right shows Aux 1 assigned to input source number 9.



Device Controls

Adjusting Audio Levels:

There are two audio mixers on the Broadcast Pix systems, one which feeds the stream or web output and one which feeds the main program or master output. The Master output can be used for recording and what is embedded in the SDI and HDMI outputs (depending on the model). Refer the Switcher manual for more information about the Audio Mixer.

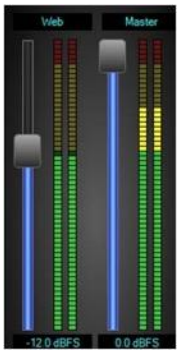
To Adjust Levels

1. It is recommended that at application startup to ‘reset’ the audio sliders on the panel by turn both the Web and Master sliders all the way up and back down, this will ensure the software is in sync with the sliders.



2. For normal operation the sliders should be up at 100%, meaning there is no audio attenuation on the outputs. If audio is too loud or needs to be muted, then the sliders and be brought down to 0%.

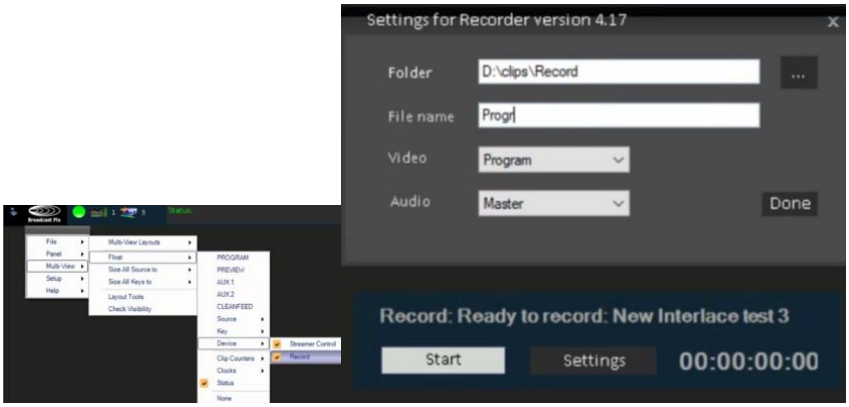
   VU meters are visible on the Multi-View.



Controlling the Recorder:

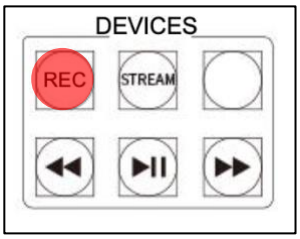
Once a file name and path has been entered in the Recorder Setting window, the REC button on the panel can be used to activate the start and stop of the record.

If not already open, navigate to **Multi-View - Float - Device - Recorder.**
In the Recorder window, click on the **Settings** button.
In the Recorder Settings window, enter the **Folder Path** and **File name.** And specify the Video and Audio sources, if necessary.



Click on the **Done** button two times to confirm.

On the 750 Panel in the Devices section, click on the **REC** button, it will illuminate red and the Recorder window on the Multi-View will display the record time.



To stop recording click on the **REC** button 2 times.

Controlling the Streamer:

To control the Streamer, follow the steps above ensure the Streamer Control Settings have been confirmed, and click on the **STREAM** button on the panel to start streaming.

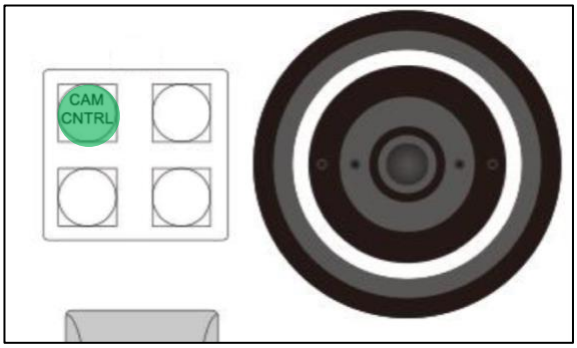
Controlling the Camera Control:

Once a PTZ camera type has been assigned to a Wildcard Device button, and the proper IP settings have been entered, the 3-Axis joystick maybe used to move cameras.

To adjust camera settings, on the Multi-View navigate to the **Setup - System Settings - Devices - Sony or Panasonic Camera Control - Settings.**

On the Control Panel select the **CAM CNTRL** button, it will illuminate green. Using the Multi-View PixPad or a SoftPanel or a Stream Deck, select the desire camera.

Once selected the joystick can be used to move the camera. The top button on the joystick can be used a 1-shot Auto Focus.



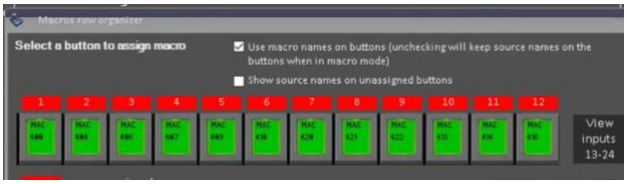
In a multi-camera installation, to select a different camera, use the Preview row to select the desired camera to control. For this to function the **Follow Current Camera** check box must be selected in the Camera Control Settings menu.

Triggering Macros:

The 750 panel can be used to trigger premade effects, compositions and sequences using Macros. Once a macro has been saved using the Macro editor with a leading number, i.e. 100 Open.tln, it can then be assigned to the panel.

Navigate to **File - Edit Show - Edit Show Settings - Macro Row**, to assign Macros.

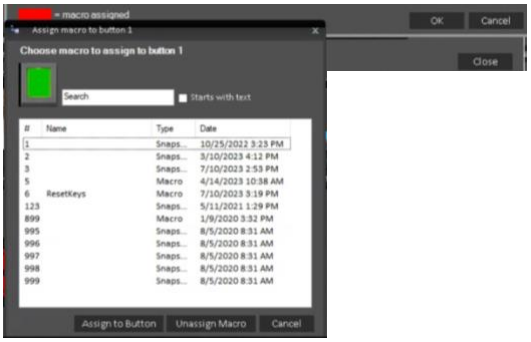




In the Macro Row Organizer select the desired **button 1-12**, for buttons 13-24 click the View inputs 13-24 button.

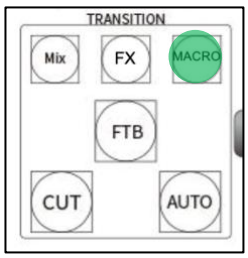
In the Assign Macro window select the desired **Macro**, ensuring that your saved Macro has a leading number in front. Click on the **Assign to Button** button.

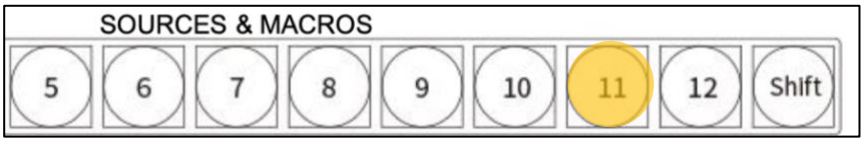
Assign other Macros repeating these steps, then click on the **OK** button, followed by the **Close** and **Save Show** buttons to save all the settings to the show.



To play a Macro, on the 750 Control Panel, select the **Macro** button in the Transition section, it will illuminate green.

In the Sources & Macros row, select the corresponding button that was assigned in PixMaster, it will illuminate orange and the Macro will run. To play a Macro on button 13-24, click on the Shift button.





Elgato Stream Deck Control



If purchased, an auxiliary control surface from Elgato, i.e. Stream Deck XL or MK.2, may be used in conjunction with the 750 Control Panel to provide feedback and more tactile control.

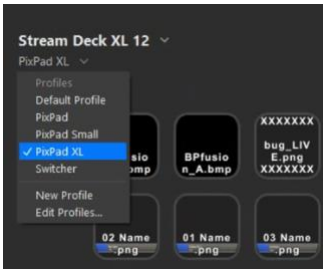
Stream Decks are freely assignable control panels for any PC functionality using Broadcast Pix software or other Windows applications. Through the use of Profiles, a custom control surface can be made designed to fit any production need. Two default profiles ‘PixPad XL’ & ‘Switcher’ are installed as a starting point.

To assign Broadcast Pix commands to a Stream Deck, ensure the Elgato software is installed and up to date, and the Broadcast Pix specific plugin in installed. (support.broadcastpix.com/downloads/BP_Streamdeck.zip)
For systems shipped after August 1, 2023 the Elgato software comes preinstalled on the Broadcast Pix system.

To launch the Elgato software, in Windows navigate to **Start Menu - Elgato - Stream Deck.**
In the right navigation, among other applications, will be listed Broadcast Pix. It this is not listed, then the plugin was not installed properly.

Selecting Profiles:

To select different Profiles, in the Stream Deck Software click on the Profiles drop down menu, underneath the device name.



The two Broadcast Pix Profiles will be listed, as well as any other saved ones. Modifying a Profile will automatically save it. To create a new one, select **New Profile**.

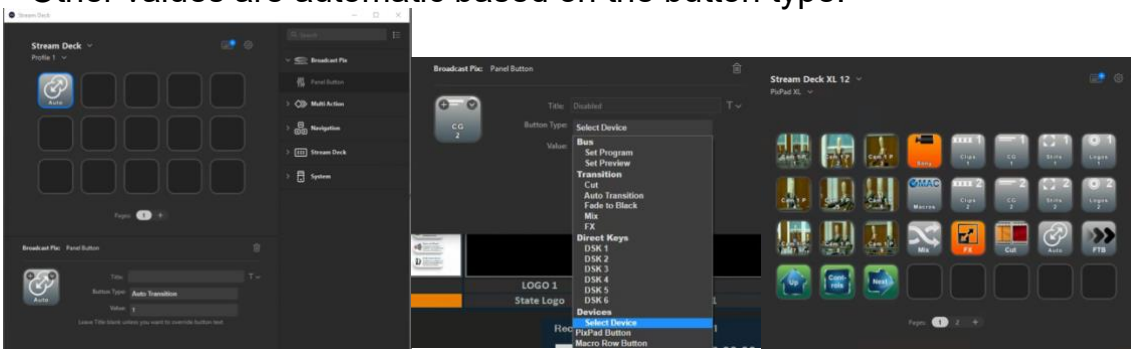
Once connected to a show, the Stream Deck will need a couple moments to refresh all the icons.

Assigning buttons with the Stream Deck software:

Open the tree view and drag the plugin called **Panel Button** to any virtual button on the Stream Deck. Under the **Button Type** drop down menu in Plugin Properties, select the desired button or effect to be used.

The **Value** field can be set for manual button pushes:

- Set Program and Set Preview is the source number in the show **1-24**.
- Select Device is the internal content stores **1-15** (1 Wildcard, 2 - Wildcard 2, 3 - Wildcard 3, 4 - Memories, 5 – CG, 16 - Clips 1, 7 - Stills 1, 8 - Logos 1, 9 - CG 2, 10 - Clips 2, 11 - Stills 2, 12 - Logos 2, 13 - Wildcard 4, 14 - Wildcard 5, 15 - Wildcard 6) These buttons will work well with the PixPad, as a selector.
- PixPad Button is used to create a PixPad of 12 buttons, ideally assign all 12 in order **1-12.**
- Macro Row Button is used for Macros assigned to the Macro Row in the show, **1-24.**
- Other values are automatic based on the button type.



The Title field can be left blank, as it will be automatically populated by the show. Button icons are also automatically generated, if icons are manually changed it is recommended to Reset to Default, as thumbnails from the PixPad will not be populated.

Once the profile has been mapped to the desired layout, the Stream Deck software does not need to be running when using the Broadcast Pix Switcher application, it will be hidden in the system tray of Windows.

Basic Operation:

Operation will mimic switcher commands and PixPad controls, with automatic page creation for multiple PixPads with content. Full use of the PixPad is available, if all 12 buttons are mapped to the Stream Deck. Selected content will appear with ====== at the top and button of each button.

Broadcast Pix Contact Information

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Website:	www.broadcastpix.com Register on-line at www.broadcastpix.com/support.html for access to the latest software downloads and support information.
Support E-mail:	support@broadcastpix.com
Mailing Address:	Broadcast Pix 141 Middlesex Road, Units 1 & 2 Tyngsboro, MA 01879 United States

Broadcast Pix welcomes suggestions to this manual, please send to manual@broadcastpix.com