

### Introduction — Start Here

#### 1 About Camera Paint Control

The system enables you to adjust lens iris, focus mode, camera paint (shading), and all camera menu settings on supported Canon cameras.

The Camera Control Panel is an easy-to-use software interface that operates within Ross Video's DashBoard application. Multiple cameras can be adjusted from a single workstation.

Your system may also include an optional Camera Paint Box, featuring knobs for adjusting iris and paint controls (gains and pedestals).

The system can be set up as part of a Ross Robotics system, or as a standalone camera control station.

### Starting the Camera Paint Control

#### 2 Connect and Turn On All Components

Ensure that the following components are connected and turned on:

- Control Computer. Depending on your system, this may be a dedicated computer, or a SmartShell Computer that also controls a Ross Robotics system.
- Ethernet connection.
- Canon EOS C500 Mark II and accessories.
- Camera Paint Box (if equipped).
- Ross Robotics System components (if equipped)
- Ethernet connection.

For information about how to set up the Camera Paint Control System, see the [Canon Camera Paint Control Setup Guide \(8351DR-020-xx\)](#).

#### 3 Start the Camera Control Panel

The Camera Control Panel is accessible through a node in the DashBoard component tree.

- In DashBoard, navigate to the node that contains the cameras you want to control. Expand any camera node.
- Double-click **Remote Control**.

The **Camera Control Panel** appears.

**Tip:** The panel is designed for full-screen mode on a 1920x1080 display. To turn full-screen mode on or off, press **Shift+F11**:



### Camera Control Features

#### 4 Camera Selection Area

When you select a camera for control, its button turns purple. When the camera connects, the panel displays camera connection and configuration values.

If your Ross Robotics system includes the SmartShell control application, selecting a camera in any interface may select it in all others, depending on how your system is configured.

For example, if you select a camera on the joystick panel, it would also become selected in SmartShell and in the Camera Control Panel.

For more information about linking camera selection between interfaces, see the [Canon Camera Paint Control Setup Guide \(8351DR-020-xx\)](#).

#### 5 General Camera Controls

The **Connection Status Bar** appears along the top of this area with camera-specific information such as the brand, model, name, and IP address.

Turn the **On-screen Display** either **Off** or **On** with the buttons provided. The **Menu Control** window appears when selecting **Open On-Screen Menu**. The **Menu Control** window allows you to access the **On-Screen Menu** within DashBoard. You can access and modify On-Screen Menu settings by using the arrow buttons shown.

The **Camera Configuration** menu appears when selecting **Configure Connection**. This window enables modification of login credentials and connection settings. Note that some settings can only be changed from the Canon camera. Refer to the [Canon Camera Paint Control Setup Guide \(8351DR-020-xx\)](#).

To change **Connection status**, select either **Reconnect** or **Disconnect**.



### Camera Control Features

#### 6 Camera Control Areas (upper & lower)

Each **Camera Control Area** displays one group of controls. On the left side of each area, select one of the following buttons to select the control group to display: **Exposure**, **Color**, or **Config**.

When selecting between **Auto** or **Manual** controls for group settings, some features become unavailable. For example, when **Iris Mode** is set to **Auto**, the **Iris** controls become inaccessible.

**Tip:** Purple buttons indicate selected control groups.

**Note:** All controls can be locked by selecting the lock icon. To modify all group control restrictions, use the **Lock All** or **Unlock All** buttons. Refer to [page 2](#) for images of each control group.

**Note:** If **Iris Mode** is set to **Manual** and the camera's power is disconnected and reconnected, **Iris Mode** reverts to **Auto** mode but **Manual** displays. To regain **Manual** control, select the **Iris** button to change it to **Auto**, and then select it again to change it to **Manual**.

**IMPORTANT:** The **Iris** switch on the lens must be set to **Automatic (A)** and the **Focus** switch must be set to **Auto Focus (AF)**.

#### 7 Camera Paint Box (optional accessory)

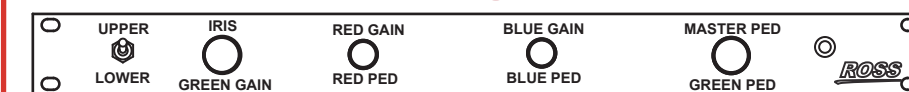
Knobs on the Camera Paint Box adjust two settings, one at a time. Setting names appear above and below the knobs. Flip the **UPPER / LOWER** switch to alternate between upper and lower settings.

Camera Paint Box settings include the following:

- **Iris Control**
- **Red Gain** and **Red Pedestal**
- **Blue Gain** and **Blue Pedestal**
- **Green Gain** and **Green Pedestal**
- **Master Pedestal** — Also known as **Master Black**

**Tip:** When you turn a knob on the Camera Paint Box, you can view the resulting value in the **Camera Control Panel**.

#### Camera Paint Box (front view)



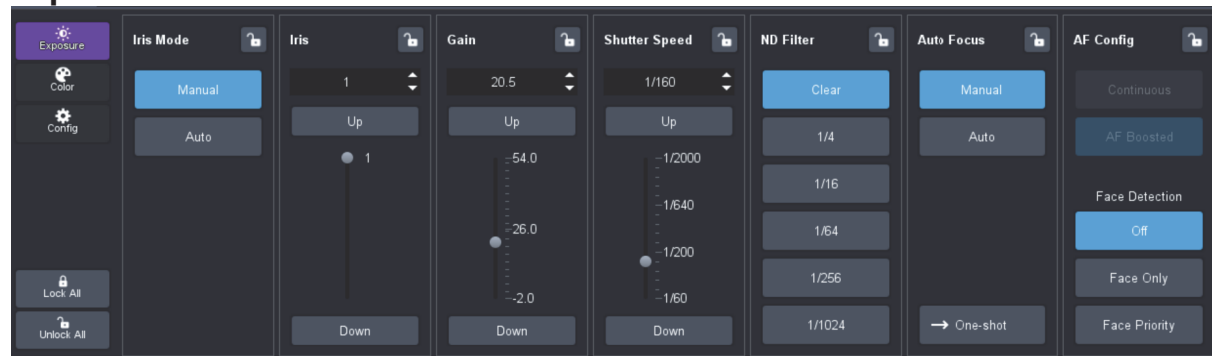
### Camera Control Panel — Groups of Controls

#### 8 Groups of Controls Available in the Camera Control Areas

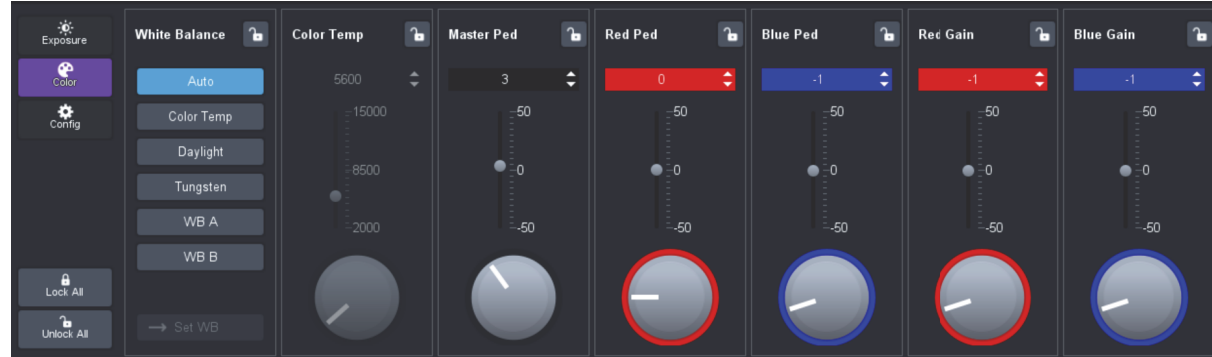
The upper and lower camera control areas can display any two of three groups of controls: **Exposure**, **Color**, and **Config** (camera configuration). Exposure and Color controls are intended for use during normal camera operation, whereas Config controls enable alteration to exposure control behaviors (like range and mode).

This page shows the three groups of controls, describes typical control interfaces (value selectors and button options), and explains how to configure camera settings using on-screen camera menus. All control groups can be **Locked** or **Unlocked**.

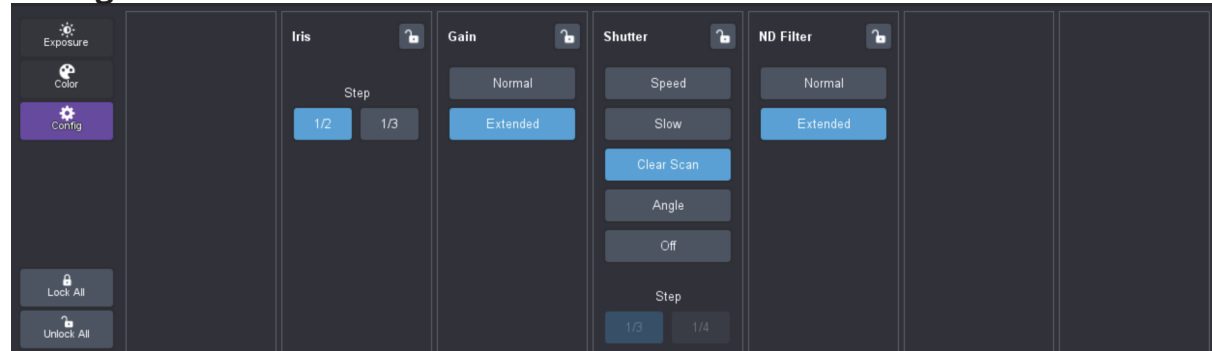
#### Exposure Controls



#### Color Controls



#### Configuration Controls



### Camera Control Panel — Types of Controls

#### 9 Value Selectors

The text box at the top of each value selector displays the name of the setting.

Value selectors enable you to specify values in four ways:

- **Text Value** - Select the text box, type a value, and press **Enter**.
- **Up / Down Arrows** - Select the up arrow or down arrow to increase or decrease the value.
- **Slider** - Drag the slider handle up or down, or select the vertical scale, to increase or decrease the value.
- **Touch Wheel** - Select and hold the touch wheel, and move to the left or right of the wheel to increase or decrease the value, respectively.

#### 10 Button Options

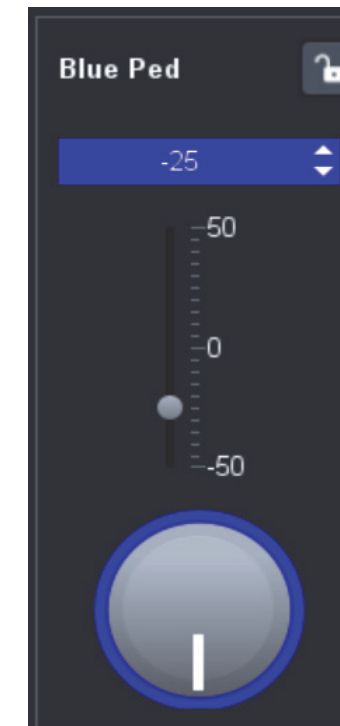
Many settings in the Camera Control Panel are presented as buttons. Selecting a button actions the option it represents.

Blue buttons indicate selected options.

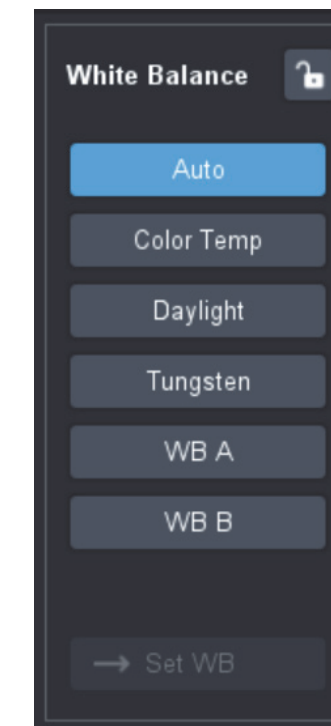
Grey buttons indicate unselected options.

For example, in the **Exposure Controls** group, the **Continuous** and **AF Config** buttons are only available in the **AF Config** settings when **Auto Focus** is set to **Auto**.

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### Configuring Camera Settings Using On-Screen Camera Menus

#### 11 Configure Camera Settings Using On-Screen Camera Menus

**11a** For the camera you want to configure, route the camera's video output to a video monitor you can see. You must be able to see the on-screen menus to use them.

**11b** Set the **On-screen Display** to **On**.

**11c** In the **Camera Control Panel**, select the camera, ensure it is connected, and then tap the **Setup** button.

**11d** Navigate the on-screen menu, and configure settings as desired:

- In the **On-screen Menu**, an arrow points to the current item. Select the up and down arrows in the **Menu Control Panel** to move the on-screen arrow to the desired item.
- To select the current item, select the **Enter** button in the **Menu Control Panel**.
- If the selected item has submenu options, those options appear.
- When a value is flashing, it is editable. Select the up and down arrows to choose a value, then select **Enter** to set the value.
- For text values, a full keyboard displays on the screen. Use the up and down arrows to select the character you want to edit, and then select **Enter** to set it. **Tip:** Alternatively, you may use an attached keyboard to enter text values if you have them.
- To go to a higher level in the menu, navigate to the top item and then select **Enter**.
- To go back to a previous menu setting, select the **Cancel** button in the **Menu Control Panel**.

**11e** When you are finished configuring camera settings using the on-screen menu, select the **Menus: OFF** or **Cancel** button to turn off the menus.