HD-WP-4K-401-C

4K Multi-Window Video Processor with HDBaseT® and HDMI® Outputs

Product Manual

Crestron Electronics, Inc.

Original Instructions
The U.S. English version of this document is the original instructions.
All other languages are a translation of the original instructions.

Regulatory Model: HD-WP-4K-401-C

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Introduction

The Crestron HD-WP-4K-401-C enables the simultaneous display of up to four video sources on a single HD, Ultra HD, or 4K display. Parallel HDMI® and HDBaseT® outputs provide flexible connectivity for the HDMI display and other equipment. Input sources up to 4K are supported via four HDMI inputs. Fully automatic operation and out-of-the-box functionality enable use without a control system, while enhanced operation and custom functionality can be attained through integration with a control system. Easy setup and configuration of the HD-WP-4K-401-C is enabled using a web browser or the front panel controls.

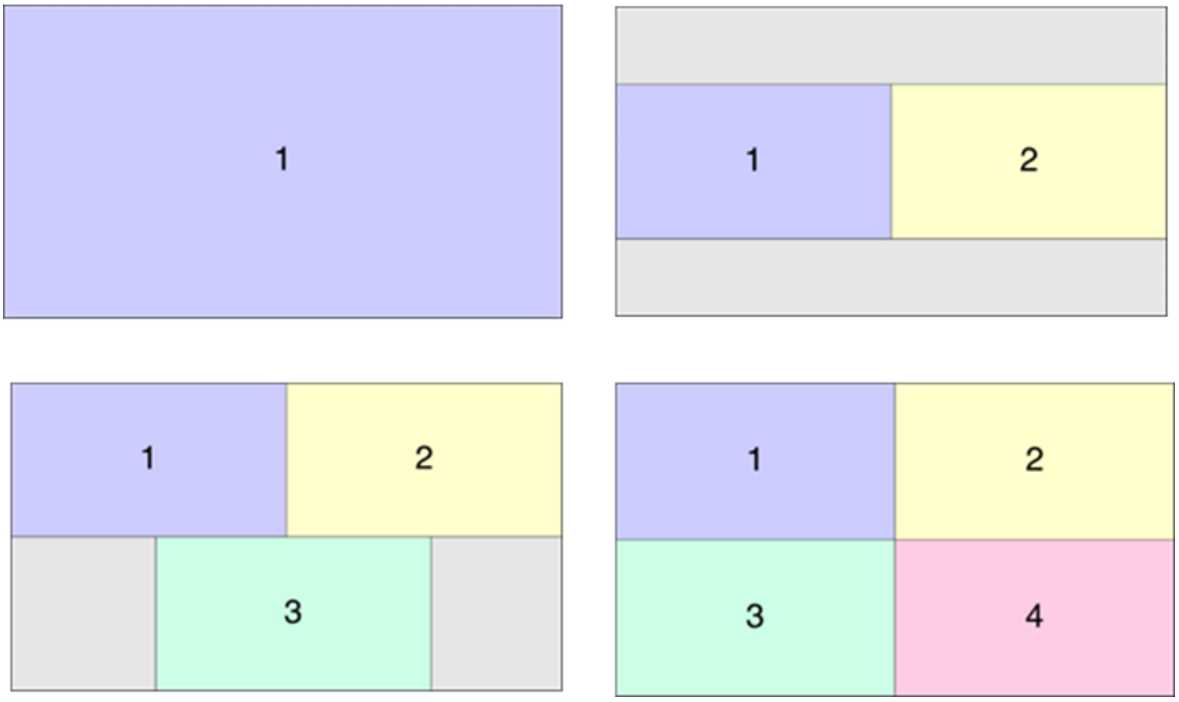
Video windowing enhances the presentation and collaboration capabilities of meeting spaces, allowing multiple presentation sources to be connected and displayed together on screen. The ability to connect up to four Crestron Connect It™ cable caddies (TT-100 Series) directly to the HD-WP-4K-401-C affords a perfect multi-window collaboration solution for huddle rooms and classrooms.

This guide provides information about the out-of-the box functionality of the HD-WP-4K-401-C as well as configuration of the HD-WP-4K-401-C using the web interface and the front panel OLED display. For installation information, refer to the HD-WP-4K-401-C DO Guide (Doc. 7900).

Using the Out-of-the-Box Functionality

Out-of-the box functionality automatically enables the simultaneous display of all connected audio/video sources on an HDMI display without the need for additional programming or configuration. If one source is connected, one full-screen window appears on the display. If two sources are connected, two side-by-side windows of equal size appear on the display and are vertically centered. If three sources are connected, three windows of equal size appear on the display (two side-by-side windows above one centered window). If four sources are connected, four windows of equal size appear on the display. The following illustration shows the one-, two-, three-, and four-window configurations.

Window Configurations Using Out-of-the-Box Functionality



NOTE: Audio is transmitted only when a single full-screen image is displayed in a single window. If multiple windows are displayed, the audio from all sources is muted.

To display sources using out-of-the-box functionality:

1. Connect up to two HDMI displays to the HD-WP-4K-401-C as required for the application. One HDMI display connects to the HDMI output of the HD-WP-4K-401-C. The other HDMI display connects to the HDBT (HDBaseT) output of the HD-WP-4K-401-C via a DM 8G+® receiver, DigitalMedia™ switcher, or DM-DGE-200-C Digital Graphics Engine. The HDBT output can also connect directly to any display device equipped with an HDBaseT input.
2. Connect up to four HDMI sources to the HDMI inputs of the HD-WP-4K-401-C. All connected sources appear on the display in the corresponding window configuration.

   NOTE: If both the HDMI and HDBT outputs are connected, the HDBT output display mirrors the HDMI output display.

3. (Optional) Connect up to four Crestron Connect It cable caddies to the USB input ports of the HD-WP-4K-401-C. Press a button on a cable caddy while the LED is blue to display the associated source as a full-screen window on the display. Press the button again while the LED is green to allow the display to return to the previous configuration (two, three, or four windows).

Using the Web Interface

Built-in web pages of the HD-WP-4K-401-C allow video windowing, on-screen display, input, output, network, and device settings to be configured. In addition, status information about the HD-WP-4K-401-C can be viewed.

Accessing the Web Interface

The following table lists various operating systems and the corresponding web browsers that are supported by the HD-WP-4K-401-C web interface.

Operating System and Supported Web Browsers for the HD-WP-4K-401-C

Operating System	Supported Web Browsers
Windows® operating system	Internet Explorer® web browser, version 9 and later
	Chrome™ web browser, version 31 and later
	Firefox® web browser, version 31 and later
macOS® operating system	Safari® web browser, version 6 and later
	Chrome web browser, version 31 and later
	Firefox web browser, version 31 and later
iOS® operating system	Safari web browser, version 6 and later
	Chrome web browser, version 31 and later
Android™ operating system	Chrome web browser, version 31 and later

To access the web interface, do either of the following:

- Open a web browser directly. Refer to Opening a Web Browser Directly (on the facing page) for additional information.
- Open a web browser within the Crestron Toolbox™ application. Refer to Opening a Web Browser within the Crestron Toolbox Application (on the facing page) for additional information.

Opening a Web Browser Directly

To access the web interface by opening a web browser directly:

1. Note the IP address that appears on the front panel OLED display.

   NOTE: After power is applied to the HD-WP-4K-401-C, the IP address appears on the front panel OLED display.

2. Open a web browser.
3. Go to the IP address of the HD-WP-4K-401-C.

   Either of the following occurs:

   - If the web interface is being accessed for the first time, a privacy error may occur. Depending on the web browser that is being used, the privacy message varies. Perform the steps necessary to proceed to the HD-WP-4K-401-C web interface. The Login page of the HD-WP-4K-401-C then opens.
   - The Login page of the HD-WP-4K-401-C opens.

   For information about the Login page, refer to Logging In to the HD WP 4K-401-C (on the next page).

Opening a Web Browser within the Crestron Toolbox Application

To access the user interface by opening a web browser within the Crestron Toolbox application:

1. Open the Crestron Toolbox application.
2. From the Tools menu, select **Device Discovery Tool**.

   NOTES:

   - You can also access the Device Discovery Tool by clicking the Device Discovery Tool button ( ) in the toolbar.
   - The security software running on the computer may send a program alert regarding the attempt of the Crestron Toolbox application to connect to the network. Allow the connection so that the Device Discovery Tool can be used.

3. From the device list on the left-hand side of the screen, double-click **HD-WP-4K-401-C**.

   Either of the following occurs:

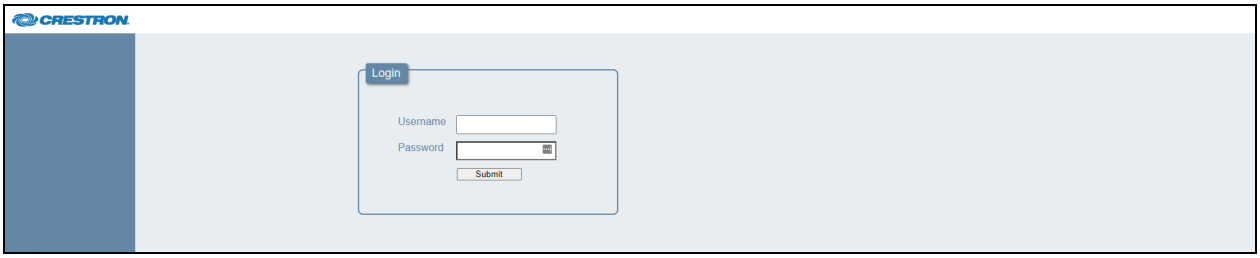
   - If the web interface is being accessed for the first time, a browser window opens that may display a privacy error. Depending on the web browser that is being used, the privacy message varies. Perform the steps necessary to proceed to the HD-WP-4K-401-C web interface. The Login page of the HD-WP-4K-401-C then opens.
   - The Login page of the HD-WP-4K-401-C opens.

   For information about the Login page, refer to Logging In to the HD WP 4K-401-C (on the next page).

Logging In to the HD WP 4K-401-C

The Login page enables login to the HD-WP-4K-401-C.

Login Page



To log in to the HD-WP-4K-401-C:

1. Enter the user name and password. The default user name is *admin*, and the default password is *admin*.

   NOTES:

   - The user name and password are case sensitive.
   - For enhanced security, it is recommended that the user name and password be changed. For additional information, refer to Changing the Username and Password (on page 32).
   - If the user name and password are changed and the factory default settings are later restored, the user name and password will revert to the default setting, which is *admin*.

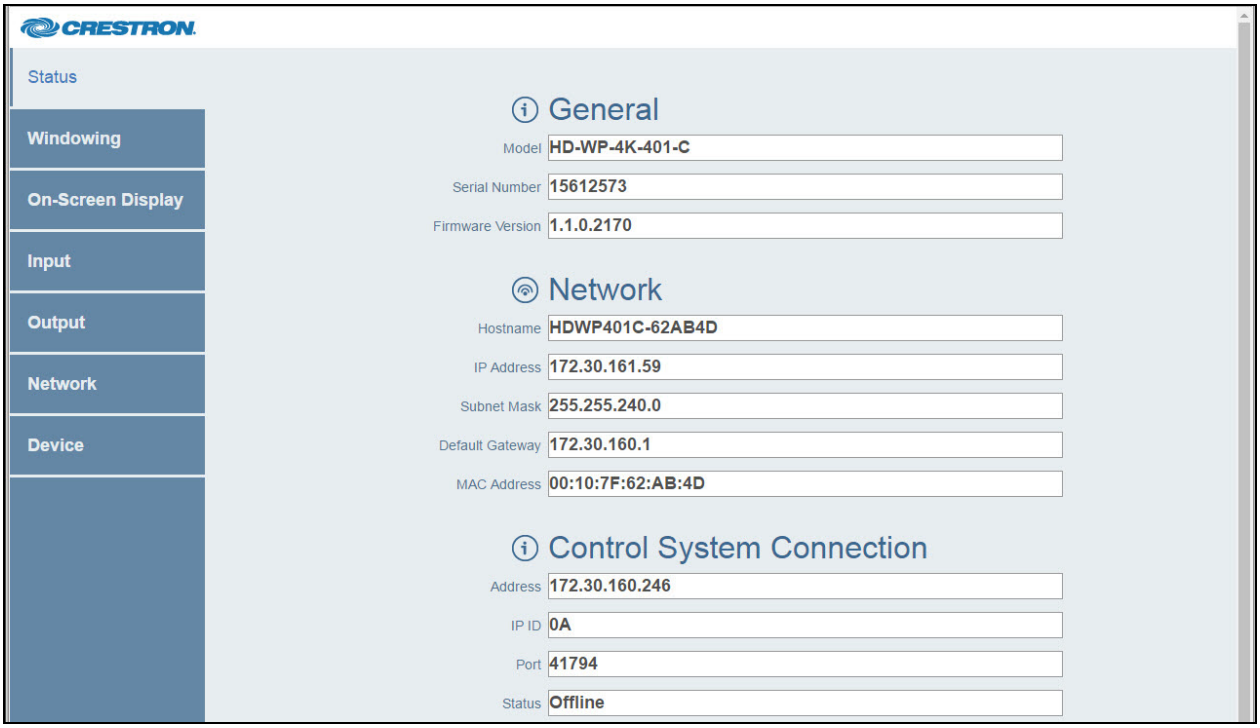
2. Click **Submit**.

   The Status page opens. For an overview of the web interface, refer to Navigating the Web Interface (on the facing page).

Navigating the Web Interface

The web interface provides a navigation bar and built-in web pages of the HD-WP-4K-401-C.

Web Interface (Sample Status Page of HD-WP-4K-401-C Shown)



The navigation bar provides the following tabs on the left side of the web interface:

- **Status**—Refer to Viewing Device Status Information (on the next page) for additional information.
- **Windowing**—Refer to Configuring Windowing Settings (on page 10) for additional information.
- **On-Screen Display**—Refer to Configuring On-Screen Display Settings (on page 12) for additional information.
- **Input**—Refer to Configuring Input Settings (on page 15) for additional information.
- **Output**—Refer to Configuring Output Settings (on page 20) for additional information.
- **Network**—Refer to Configuring Network Settings (on page 28) for additional information.
- **Device**—Refer to Configuring Device Settings (on page 29) for additional information.

Viewing Device Status Information

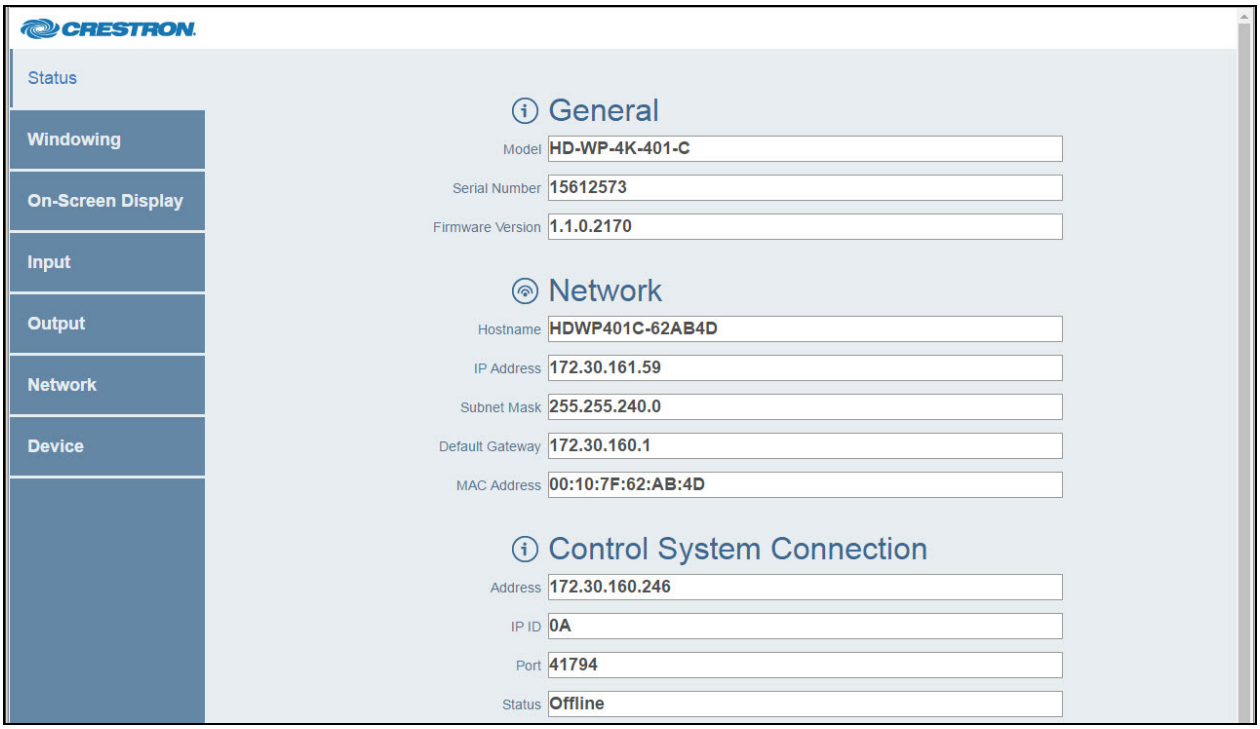
General information, such as model name, serial number, and firmware version of the HD-WP-4K-401-C, can be viewed. The current network settings as well as control system connection settings can also be viewed.

To view device status information:

In the navigation bar, click **Status**. The Status page opens.

NOTE: The Status page automatically opens after logging in to the HD-WP-4K-401-C.

Sample Status Page



The Status page displays the following information about the HD-WP-4K-401-C:

- General information:
  - Model (HD-WP-4K-401-C)
  - Serial Number
  - Firmware Version
- Network-related information:
  - Hostname

    NOTE: The default hostname is HDWP401C-*xxxxxx*, where *xxxxxx* consists of the last six characters (excluding punctuation) of the MAC address of the device.
  - IP Address

    - Subnet Mask
    - Default Gateway
    - MAC Address
- Control system connection information:
    - Address of the control system
    - IP ID of the HD-WP-4K-401-C
    - Port number of the HD-WP-4K-401-C

      NOTE: The default port number is 41794.

    - Status (**Online** or **Offline**)

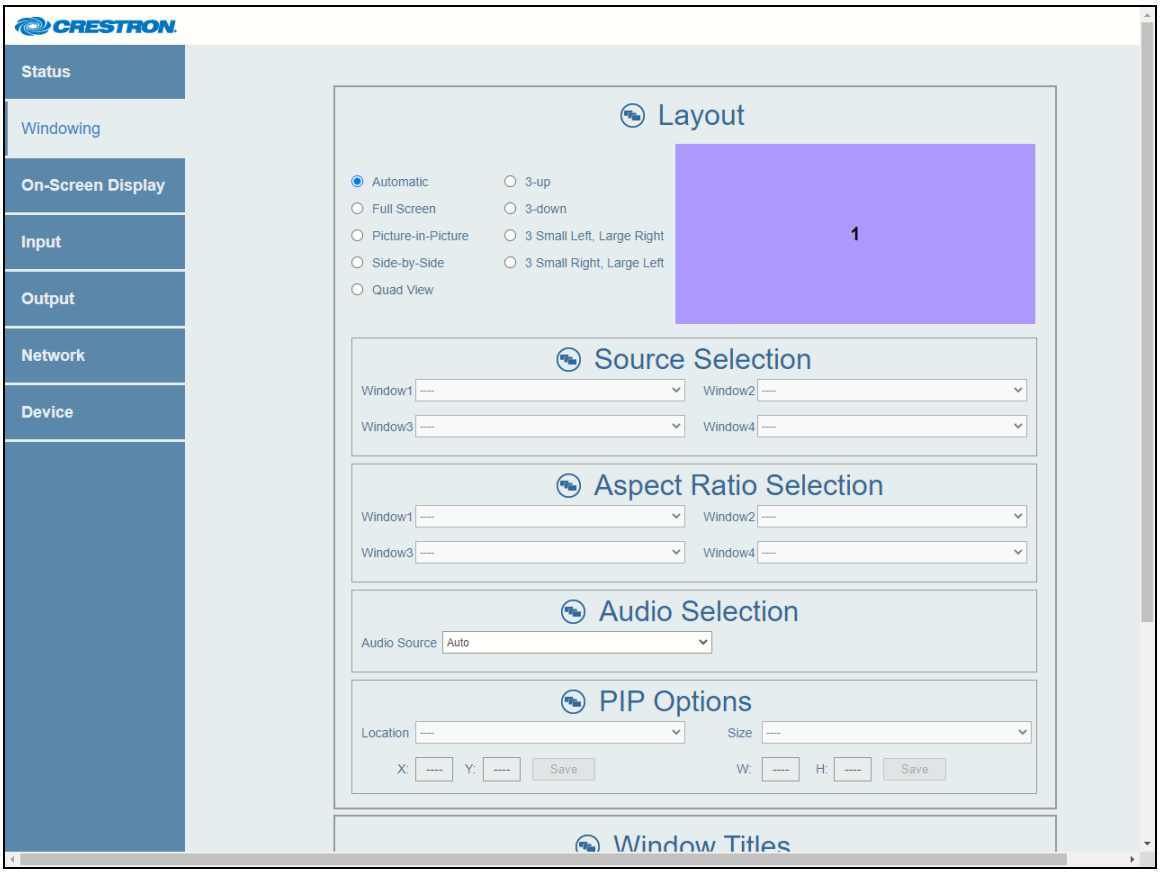
Configuring Windowing Settings

Video windowing enables up to four video sources to be displayed simultaneously on a single display.

To configure video windowing:

1. In the navigation bar, click **Windowing**. The Windowing page opens.

   Windowing Page



2. In the **Layout** section of the screen, select one of the following windowing modes:
   - **Automatic:** (Default setting) Displays the detected inputs as follows:
     - Displays four detected inputs as a quad view consisting of four equal-sized windows positioned as two side-by-side windows above two side-by-side windows
     - Displays three detected inputs as three equal-sized windows positioned as two side-by-side windows above one centered window
     - Displays two detected inputs as two equal-sized and vertically centered windows
     - Displays one detected input as a full-screen image

- **Full Screen:** Displays any single input as a full-screen image

  NOTE: Inputs 1 and 2 allow sources with resolutions up to DCI 4K to be displayed at the full resolution when in full-screen mode as long as the resolution is supported by the display device. Inputs 3 and 4 accept sources with a resolution up to DCI 4K; however, the full-screen output resolution for inputs 3 and 4 is automatically downscaled to 1080p.

- **Picture-in-Picture (PIP):** Displays any single input as a full-screen image with any other input as a scalable inset window that can be positioned as desired (refer to step 6 below for information about PIP options)
- **Side-by-Side:** Displays any two inputs as two equal-sized and vertically centered windows
- **Quad View:** Displays four inputs as four equal-sized windows positioned as two side-by-side windows above two side-by-side windows
- **3-up:** Displays three inputs as three equal-sized windows positioned as two side-by-side windows above one horizontally centered window
- **3-down:** Displays three inputs as three equal-sized windows positioned as two side-by-side windows below one horizontally centered window
- **3 Small Left, Large Right:** Displays four inputs as three equal-sized windows on the left and one larger vertically centered window on the right
- **3 Small Right, Large Left:** Displays four inputs as three equal-sized windows on the right and one larger vertically centered window on the left.

3. (Applicable to all **Layout** modes except **Automatic** mode) In the **Source Selection** section of the page, select the desired source to be displayed in a window as applicable to the windowing layout or select **Mute**.

   If **Mute** is selected, no video will be sent to the selected window.

4. In the **Aspect Ratio Selection** section of the page, select the aspect ratio for each of the displayed windows: **Auto**, **Full**, **4:3**, **16:9**, or **16:10**.

   If **Auto** is selected, the aspect ratio of the source is maintained.

5. In the **Audio Selection** section of the page, select the source whose audio is to be unmuted or select **Auto** (default setting).

   If **Auto** is selected, audio is transmitted only when a single full-screen image is displayed in a single window or when the layout is in PIP mode. If multiple windows are displayed, the audio from all sources is muted.

6. (Applicable only to PIP layout) In the **PIP Options** section of the page:
    a. In the **Location** drop-down list, select one of the following options to position the smaller window within the larger window: **Upper Left**, **Center Left**, **Lower Left**, **Upper Right**, **Center Right**, **Lower Right**, or **Custom**. The default setting is **Upper Left**.

       If **Custom** is selected, enter the **X** (horizontal) and **Y** (vertical) coordinates in pixels to position the smaller window, and then click the **Save** button.

    b. In the **Size** drop-down list, select one of the following options to set the size of the smaller window within the larger window: **Small (10%)**, **Medium (20%)**, **Large (30%)**, or **Custom**. The default setting is **Medium (20%)**.

       If **Custom** is selected, enter the **X** (horizontal) and **Y** (vertical) coordinates in pixels to set the size of the smaller window, and then click the **Save** button.

7. In the **Window Titles** section:
    a. Enable or disable window titles by clicking the **Enabled** or **Disabled** radio button, respectively. By default, the **Enabled** radio button is selected.
    b. (Applicable only when **Window Titles** is set to **Enabled**) Do the following:
        i. Select one of the following options to specify the window title: **Show Input name and Resolution**, **Show only Input name**, or **Show only Resolution**. The default setting is **Show Input name and Resolution**.
        ii. In the **Location** drop-down list, select one of the following options to position window titles: **Upper Left**, **Center Left**, **Lower Left**, **Upper Right**, **Center Right**, or **Lower Right**. The default setting is **Upper Left**.
        iii. In the **Font Size** drop-down list, select one of the following options to set the size of the window titles: **Small (10%)**, **Medium (20%)**, **Large (30%)**. The default setting is **Medium (20%)**.

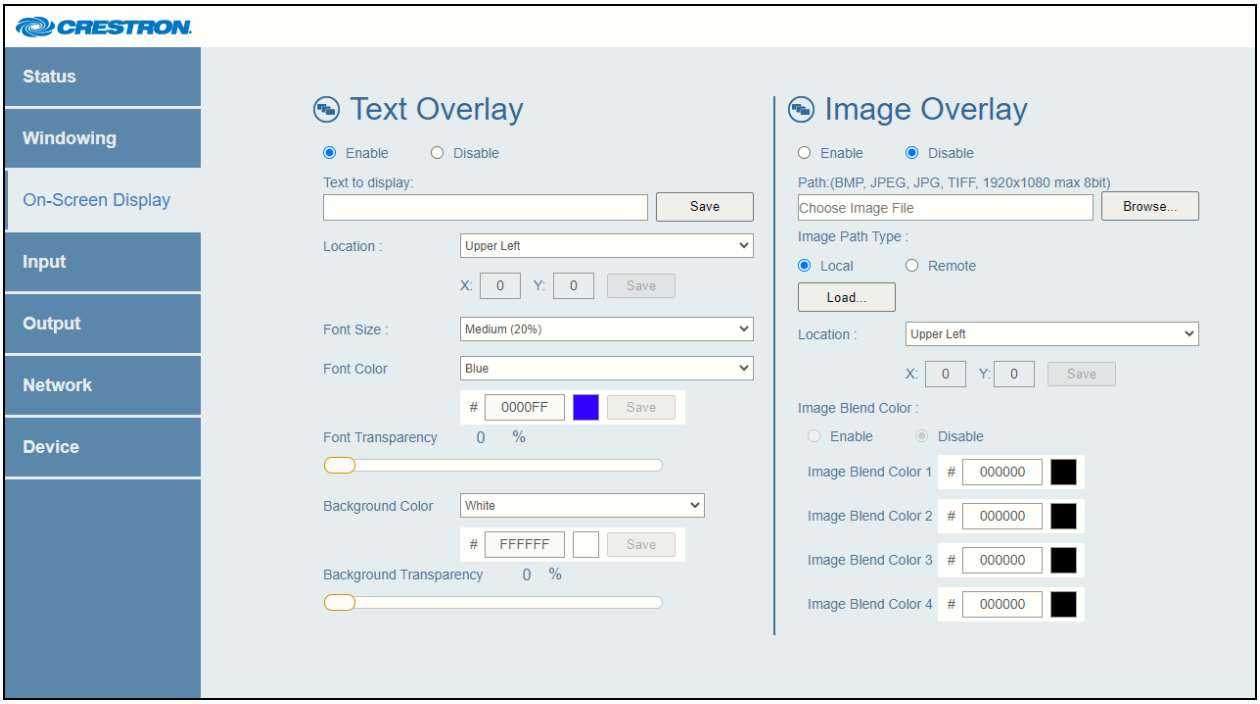
Configuring On-Screen Display Settings

A custom text label can be set for the HDMI video output. The text can be positioned at a designated location on screen to display a static label or a dynamic pop-up message sent from the control system. A custom photo or logo image can also be uploaded to appear at a designated location on the screen.

To configure on-screen display settings:

In the navigation bar, click **On-Screen Display**. The On-Screen Display page opens.

On-Screen Display Page



Refer to the following sections for information about text overlay and image overlay configuration.

Configuring Text Overlay Settings

In the **Text Overlay** section of the On-Screen Display page, configure text overlay settings:

1. Enable text overlay by clicking the **Enable** radio button. By default, the **Disable** radio button is selected, preventing text from being overlaid on the display device.
2. In the **Text to display** text box, enter the desired text, and then click the **Save** button.
3. In the **Location** drop-down list, select one of the following options to position the text on the display device: **Upper Left**, **Center Left**, **Lower Left**, **Upper Right**, **Center Right**, **Lower Right**, or **Custom**. The default setting is **Upper Left**.

   If **Custom** is selected, enter the **X** (horizontal) and **Y** (vertical) coordinates in pixels to position the text on the display, and then click the **Save** button.
4. In the **Font Size** drop-down list, select one of the following: **Small (10%)**, **Medium (20%)**, and **Large (30%)**. The default setting is **Medium (20%)**.
5. In the **Font Color** drop-down list, select one of the following options to set the color of the text overlay font: **White**, **Yellow**, **Cyan**, **Green**, **Magenta**, **Red**, **Blue**, **Black**, or **Custom**. The default setting is **White**.

   If **Custom** is selected, enter the HEX color value into the text box and then press the **Save** button.

6. Adjust the **Font Transparency** slider to raise or lower the transparency of the text overlay font. Font transparency ranges from 0% to 100%.

   NOTE: Font transparency is not supported when a custom font color is used. Transparency is enabled only when a preset font color is selected.

7. In the **Background Color** drop-down list, select one of the following options to set the color that appears behind the text overlay: **White**, **Yellow**, **Cyan**, **Green**, **Magenta**, **Red**, **Blue**, **Black**, or **Custom**. The default setting is **White**.

   If **Custom** is selected, enter the HEX color value into the text box and then press the **Save** button.

8. Adjust the **Background Transparency** slider to raise or lower the transparency of the text overlay background. Background transparency ranges from 0% to 100%.

   NOTE: Background transparency is not supported when a custom background color is used. Transparency is enabled only when a preset font color is selected.

Configuring Image Overlay Settings

NOTE: The image file to be uploaded for on-screen display must be a BMP, JPEG, JPG, or TIFF file. In addition, the image file must have a maximum resolution of 1920 x 1080 pixels and be an 8-bit color image.

In the **Image Overlay** section of the On-Screen Display page, configure image overlay settings:

1. Enable image overlay by clicking the **Enable** radio button. By default, the **Disable** radio button is selected, preventing an image from being overlaid for on-screen display.
2. Specify the image path type by selecting the **Local** or **Remote** radio button:
   - If the image is located on the hard drive of the device from which the HD-WP-4K-401-C web interface is accessed, select **Local** (default setting).
   - If the image is located on a device other than the local hard drive, select **Remote**.
3. Specify the path to the image by doing either of the following:
   - If the image path type is set to **Local**, click the **Browse** button, navigate to the desired image file, and then click **Open**. The path and filename appear in the **Path** field. Click the **Load** button to upload the image file from the local device to the HD-WP-4K-401-C.
   - If the image path type is set to **Remote**, enter the URL (HTTP or HTTPS) to access the image file from a remote location. Click the **Load** button to upload the image file from the remote location to the HD-WP-4K-401-C.
4. In the **Location** drop-down list, select one of the following options to position the image on the display device: **Upper Left**, **Center Left**, **Lower Left**, **Upper Right**, **Center Right**, **Lower Right**, or **Custom**. The default setting is **Upper Left**.

If **Custom** is selected, enter the **X** (horizontal) and **Y** (vertical) coordinates in pixels to position the image on the display device.

5. Enable **Image Blend Color** by clicking the **Enable** radio button. A color picker containing up to 256 colors sampled from the image is activated. Select up to four image blend colors that will result in 100% transparency wherever the image blend colors are used in the image, enabling the background video source to be visible in those areas of the image.

   By default, the **Disable** radio button is selected.

Configuring Input Settings

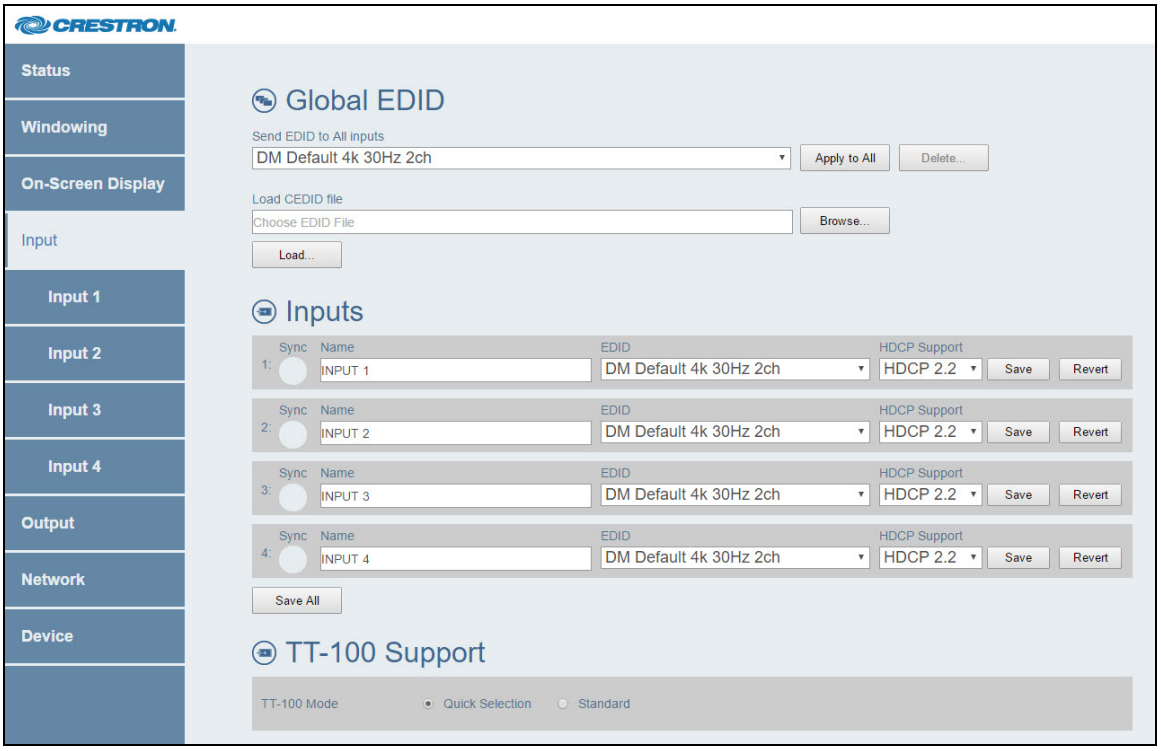
Configure all inputs on the Input page or individually on the input-specific pages (Input 1, Input 2, Input 3, and Input 4). The desired EDID can be selected and sent to the inputs. Built-in EDID files are available for selection, and custom EDID files can also be selected. In addition, inputs can be renamed and HDCP (High-bandwidth Digital Content Protection) support can be configured.

Configuring Inputs on the Input Page

To configure inputs on the Input page:

1. In the navigation bar, click **Input**. The Input page opens.

   Input Page



2. Determine whether a built-in EDID file or a custom EDID file is to be sent to one or more inputs. If a custom EDID file is desired, continue with step 3; otherwise, skip step 3 and proceed to step 4.
3. (For loading of custom EDID files only) In the **Global EDID** section of the page, load the desired custom EDID file:
    a. Click the **Browse** button located to the right of the **Load CEDID file** field. Windows Explorer opens.
    b. Navigate to the desired EDID file (*.cedid), select the file, and then click the **Open** button.

       The selected EDID file appears in the **Load CEDID file** field.
    c. Click the **Load** button. A prompt appears asking for confirmation that the EDID file be uploaded to the input device.
    d. Click the **OK** button. The following occurs:
        - In the **Global EDID** section of the page, the custom EDID filename is added to the **Send EDID to All** inputs drop-down list.
        - In the **Inputs** section of the page, the custom EDID filename is added to the EDID drop-down lists.
4. Configure the inputs as follows:
    a. (Optional) In the Global EDID section of the page, globally apply the same EDID to all inputs simultaneously:
        i. In the **Send EDID to All inputs** drop-down list, select the desired built-in EDID file or a custom EDID file. The built-in EDID files are as follows:

           DM Default 4k 30Hz 2ch (Default setting)
           DM Default 1080p60 2ch
           Laptop 16x10 1280x800 2ch
           Laptop 16x10 1920x1200 2ch
           Laptop 16x9 1080p50 2ch
           Laptop 16x9 1080p60 2ch
           Laptop Widescreen 2ch
           Consumer 4k 25Hz 3D HBR
           Consumer 4k 30Hz 3D HBR
           Consumer 1080p50 3D HBR
           Consumer 1080p50 HBR
           Consumer 1080p60 3D HBR
           Consumer 1080p60 HBR
           Consumer 720p50 HBR
           Consumer 720p60 HBR
           Copy HDMI Output
           Copy HDBT Output

           NOTE: Selecting **Copy HDMI Output** or **Copy HDBT Output** copies the EDID from the output to all of the inputs.

ii. Click the **Apply to All** button. The selected EDID is automatically sent to all inputs and appears in the EDID drop-down list for all inputs in the **Inputs** section of the page.

b. In the **Inputs** section of the page, configure each input as follows:

NOTE: For each input, the Sync icon denotes whether a source is detected at the input. If a source is detected, the icon is green. If no source is detected, the icon is gray.

i. In the **Name** text box, rename the input if desired.

ii. If an EDID other than the Global EDID is to be assigned, select the desired EDID in the EDID drop-down list.

iii. In the **HDCP Support** drop-down list, select **HDCP 2.2**, **HDCP 1.4**, or **Disabled**. The default setting is **HDCP 2.2**.

iv. Do one of the following:

- For each input, click **Save** to save the current **Name**, **EDID**, and **HDCP Support** entries for the corresponding input. (Clicking **Revert** goes back to the previous settings without saving the current entries.)
- Click **Save All** to save all unsaved entries.

c. In the **TT-100 Support** section of the page, select the TT-100 mode to determine how the HD-WP-4K-401-C is to interpret button presses on the connected Crestron Connect It cable caddies (TT-100 Series):

- **Quick Selection:** (Default setting) Pressing a button on a cable caddy while the LED is blue causes the input to be displayed in **Full Screen** windowing layout mode and changes the color of the LED to green. Pressing the button again while the LED is green causes the display to return to the previously selected windowing layout mode. For example, if the windowing layout mode is set to **Quad View**, pressing a button on a cable caddy while the LED is blue causes the input to be displayed in **Full Screen** windowing layout mode and changes the color of the LED to green. Pressing the button again while the LED is green causes the windowing layout mode to return the display to **Quad View** mode. (Refer to Configuring Windowing Settings (on page 10) for information about windowing layout modes.)
- **Standard:** Operates according to the SIMPL program (refer to the SIMPL Windows help file for information)

To delete a custom EDID file, do the following in the **Global EDID** section of the page:

NOTE: Only custom EDID files can be deleted. Built-in EDID files cannot be deleted.

1. In the **Send EDID to All** inputs drop-down list, select the custom EDID file to be deleted.
2. Click the **Delete** button.

   The **Delete EDID** message box appears, asking for confirmation that the EDID file be removed.

3. Click the **Yes** button to delete the EDID.

   The **Delete EDID** message box appears indicating success.

4. Close the message box by clicking the **X** in the upper right-hand corner of the box.

The custom EDID file is deleted from the **Send EDID to All inputs** drop-down list and also from each individual EDID drop-down list in the **Inputs** section of the page.

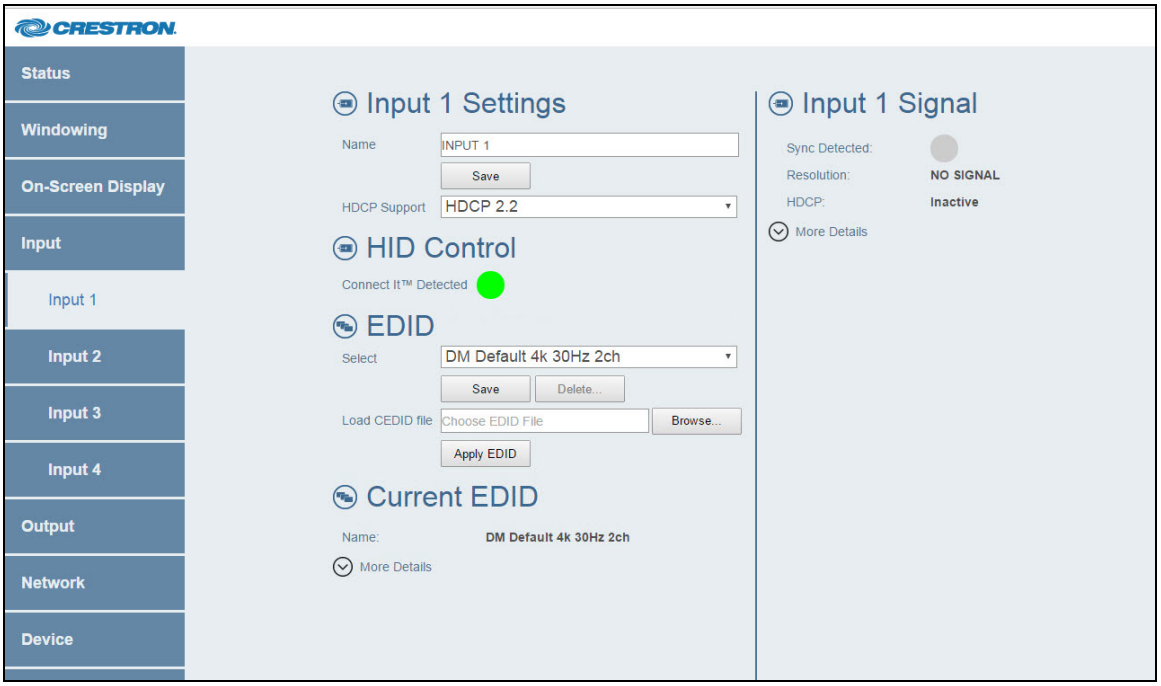
Configuring Inputs on Input-Specific Pages

To configure a specific input and to view detailed information about the selected EDID and about the input signal:

1. In the navigation bar, click **Input** and then click the desired input: **Input 1**, **Input 2**, **Input 3**, or **Input 4**.

   The Input page opens for the corresponding input.

   Input-Specific Page (Sample Input 1 Page Shown)



2. In the **Input Settings** section of the page:
   a. In the **Name** text box, rename the input if desired, and then click the **Save** button.
   b. In the **HDCP Support** drop-down list, select **HDCP 2.2**, **HDCP 1.4**, or **Disabled**. The default setting is **HDCP 2.2**.
3. In the **HID Control** section of the page, observe the status of the connection of the Crestron Connect It cable caddy to the USB port on the HD-WP-4K-401-C:
   - A green icon indicates that a Crestron Connect It cable caddy is detected.
   - A gray icon indicates that a Crestron Connect It cable caddy is not detected.

4. In the **EDID** section of the page:
    a. (Optional) Upload a custom EDID:
        i. Click the **Browse** button located to the right of the **Load CEDID file** field. Windows Explorer opens.
        ii. Navigate to the desired EDID file (*.cedid), select the file, and then click the **Open** button.

            The selected EDID file appears in the **Load CEDID file** field.
        iii. Click the **Apply EDID** button.

            A prompt appears asking for confirmation that the EDID file be uploaded to the device.
        iv. Click **OK**. The message "Loading" appears. If the upload is successful, the message "CEDID Successfully Loaded" appears.

            In addition, the custom EDID file is added to the **Select** drop-down list.
        v. Continue with step 4b.
    b. In the **Select** drop-down list, select the desired built-in or custom EDID. Click **Save** to save the EDID selection.

To delete a custom EDID file, do the following in the EDID section of the page:

NOTE: Only custom EDID files can be deleted. Built-in EDID files cannot be deleted.

1. In the **Select** drop-down list, select the custom EDID file to be deleted.
2. Click the **Delete** button.

The **Input 1**, **Input 2**, **Input 3**, and **Input 4** pages also display information about the selected EDID and about the input signal:

- The **Current EDID** section of the page displays the name of the current EDID. To view more details, click **More Details**. To view fewer details, click **Fewer Details**.
- The **Input Signal** section of the page displays the following information:
    - **Sync Detected:** Specifies whether a source is detected at the input:
        - A green icon indicates that a source is detected.
        - A gray icon indicates that a source is not detected.
    - **Resolution:** Specifies the current resolution of the input signal
    - **HDCP:** Specifies whether HDCP is active or inactive

To view additional details about the input signal, click **More Details**. To view fewer details about the input signal, click **Fewer Details**.

Configuring Output Settings

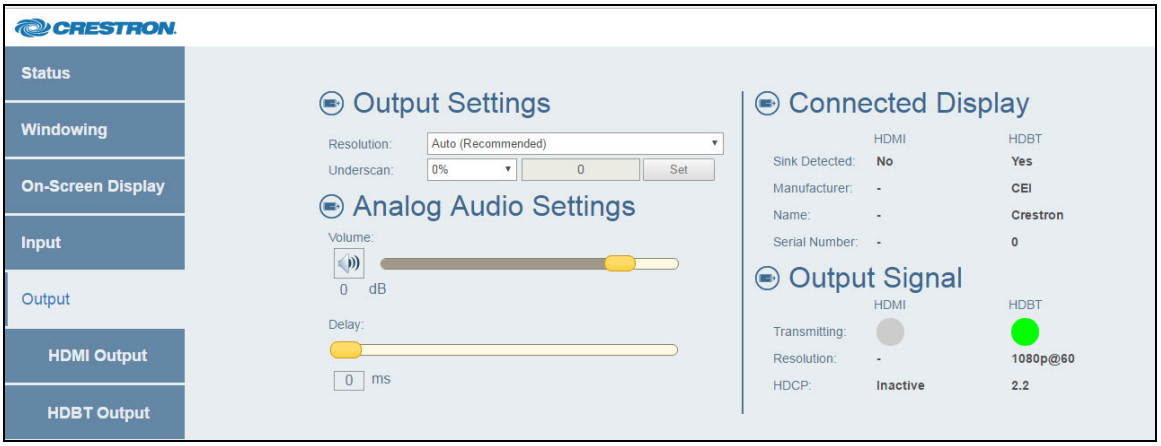
The Output page allows resolution, underscan, and analog audio settings to be set for the HDMI and HDBT (HDBaseT) outputs. In addition, output settings and automatic power settings can be configured on an output-specific basis for the HDMI and HDBT outputs. Information about the connected display and output signal can also be viewed.

Configuring Outputs on the Output Page

To configure outputs on the Output page:

1. In the navigation bar, click **Output**. The Output page opens.

   Output Page



2. In the **Output Settings** section of the page:
   a. In the **Resolution** drop-down list, select the desired output resolution. The available selections are listed below.

   NOTE: In the following list, *RB* denotes *Reduced Blanking*.

Auto (Recommended)	1080p50
640x480@60	1080p60
480i	1920x1200@60 RB
480p	2048x1080@24
576i	2048x1152@60 RB
576p	2048x1080@60
800x600@60	1792x1344@60
848x480@60	1856x1392@60
1024x768@60	1920x1440@60
720p@50	2048x1536@60
720p@60	2560x1080@60
1280x768@60	2560x1440@60

1280x768@60 RB
1280x800@60
1280x800@60
1280x960@60
1280x1024@60
1360x768@60
1366x768@60
1366x768@60 RB
1400x1050@60
1400x1050@60 RB
1440x900@60
1440x900@60 RB
1600x900@60 RB
1600x1200@60
1680x1050@60
1680x1050@60 RB
1080i50
1080i60
1080p24
2560x1600@60 RB
3840x2160@24
RB 3840x2160@25
3840x2160@30
4096x2160@24
4096x2160@25
4096x2160@30
1680x720@24
1680x720@25
1680x720@30
1680x720@50
1680x720@60
2560x1080p24
2560x1080p25
2560x1080p30
2560x1080p50
2560x1080p60

The default setting is **Auto (Recommended)**, which specifies the preferred resolution of the connected display. If both the HDMI output and the HDBT output are connected, the resolution of the HDMI output takes precedence.

b. In the **Underscan** drop-down list, select one of the following options to set the underscan mode, which reduces the image size by the specified percentage so that the entire video frame is displayed:

- **0%** (default setting)
- **2.5%**
- **5%**
- **7.5%**
- **Custom**

If **Custom** is selected, enter a valid value in the **Underscan** text box. Valid values range from **0–10%** in increments of 0.1%. To save the custom underscan setting, click the **Set** button.

3. In the **Analog Audio Settings** section of the page:
    a. Mute or unmute the audio output by clicking the **Volume** button. By default, audio is unmuted and is set to **0 dB**.
    b. If audio is unmuted, adjust the volume level as desired by dragging the **Volume** slider to the left or to the right. The volume decreases when the slider is dragged to the left and increases when the slider is dragged to the right. Available values range from **-80 dB** to **20 dB** in increments of 0.5%.
    c. To set the audio delay so that the audio is in sync with the video, do either of the following:
        - Drag the **Delay** slider to the left or to the right. The **Delay** text box displays the value set by the **Delay** slider.
        - Enter the desired value in the **Delay** text box. Valid values range from **0 ms** to 150 ms. The default setting is **0 ms**. The **Delay** slider adjusts to the value entered in the **Delay** text box.

The **Output** page also displays information about the connected display and output signal for both the HDMI and HDBT outputs:

- The **Connected Display** section of the page displays the following:
    - **Sink Detected:** Specifies whether the HDMI and HDBT signal is detected by the connected display (**Yes** or **No**)
    - **Manufacturer:** Specifies the name of the manufacturer of the connected display
    - **Name:** Specifies the model name of the connected display
    - **Serial Number:** Specifies the serial number of the connected display
- The **Output Signal** section of the page displays the following:
    - **Transmitting:** Specifies whether the HDMI and HDBT outputs are transmitting a signal to the connected display:
        - A green icon indicates that the output is transmitting a signal.
        - A gray icon indicates that the output is not transmitting a signal.
    - **Resolution:** Specifies the current resolution of the output
    - **HDCP:** Specifies the HDCP version (1.4 or 2.2) or inactive

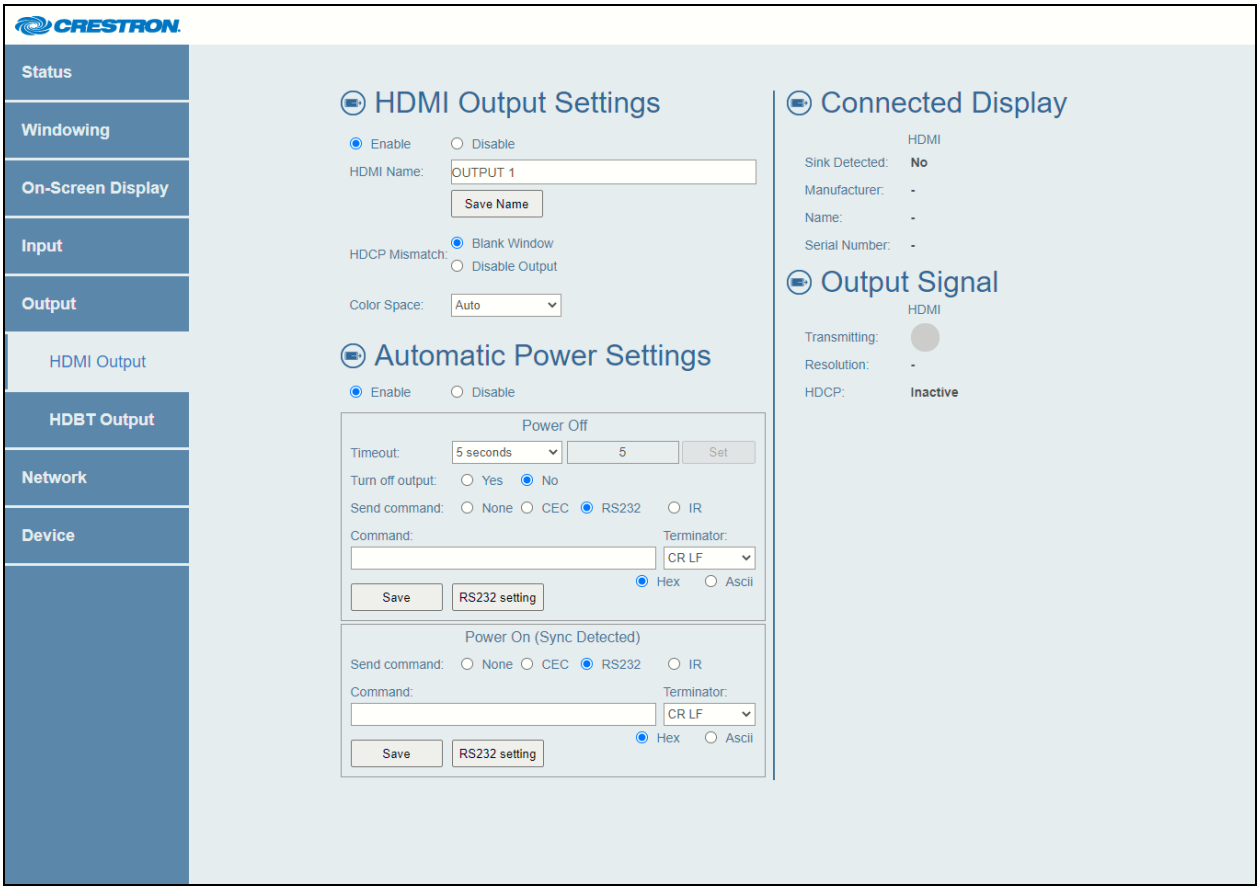
Configuring Outputs on Output-Specific Pages

The output-specific pages allow configuration of the HDMI output and the HDBT output on an individual basis. Output settings and automatic power settings can be configured for each output. In addition, information about the connected display and the output signal can be viewed.

To configure HDMI output settings and to view information about the connected display and HDMI output signal:

In the navigation bar, click **Output** and then click **HDMI Output**. The HDMI Output page opens.

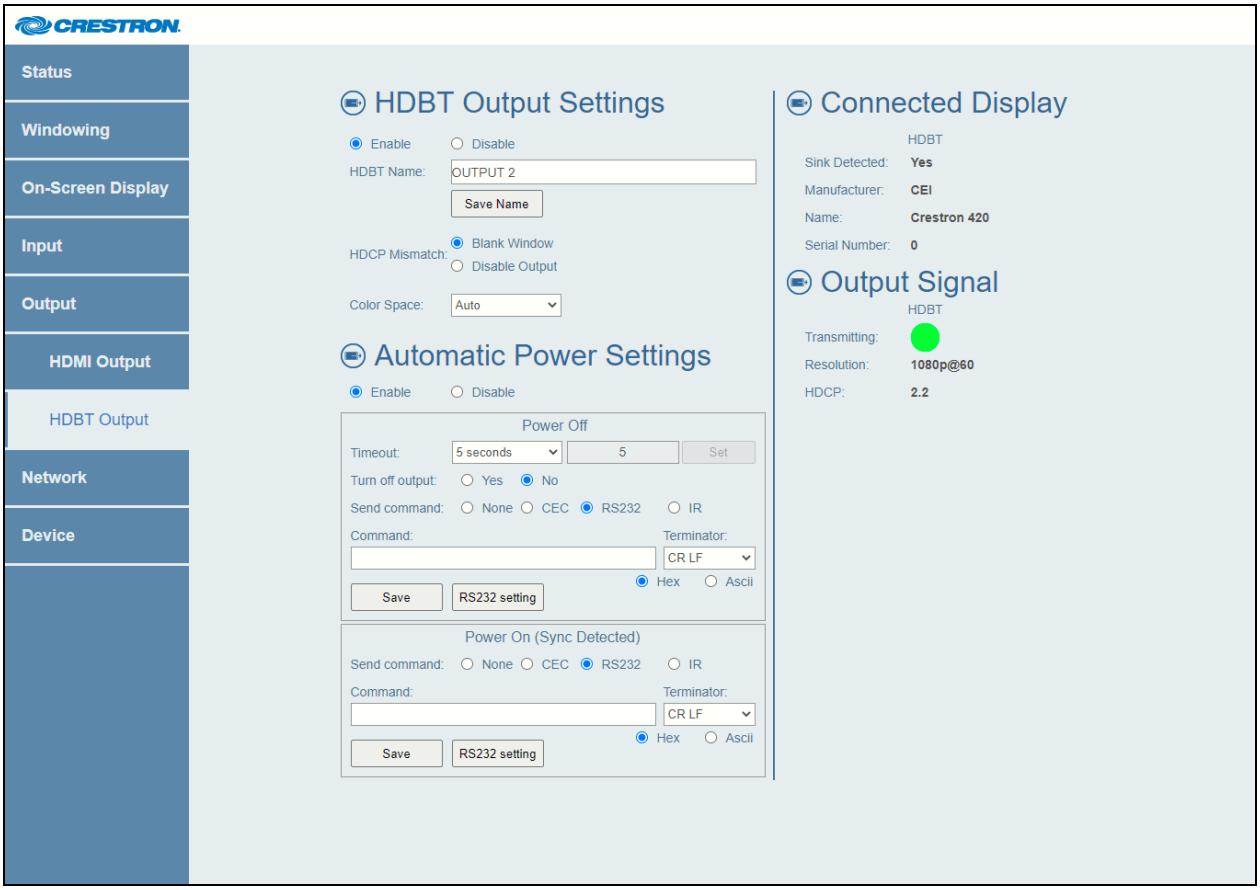
HDMI Output Page



To configure HDBT output settings and to view information about the connected display and HDBT output signal:

In the navigation bar, click **Output** and then click **HDBT Output**. The HDBT Output page opens.

HDBT Output Page



Refer to the following sections for HDMI and HDBT output configuration information.

Configuring HDMI or HDBT Output Settings

In the **HDMI Output Settings** section of the HDMI Output page or the **HDBT Output** Settings section of the HDBT Output page, configure the output settings:

1. Enable or disable the output by selecting the **Enable** or **Disable** radio button, respectively. By default, the **Enable** radio button is selected, allowing the output display to turn on. If the **Disable** radio button is selected, the output display turns off.
2. In the **HDMI Name** or **HDBT Name** text box, rename the output if desired. For the HDMI output, the default name is **OUTPUT 1**. For the HDBT output, the default name is **OUTPUT 2**. To save the new name, click the **Save Name** button.
3. Select one of the following **HDCP Mismatch** radio buttons if the HDCP settings of one or more DigitalMedia devices in the signal path do not support the HDCP version of the source:
    - **Blank Window:** (Default setting) Displays a blank window on the output if an HDCP mismatch exists
    - **Disable Output:** Turns off the output if an HDCP mismatch exists

4. In the **Color Space** drop-down list, select one of the following:
    - **Auto:** (Default setting) Output color space will follow sink EDID in the following order of priority: YUV444, YUV422, RGB.
    - **Force RGB:** Forces the output color space to RGB
    - **Force Y444:** Forces the output color space to YUV444
    - **Force Y422:** Forces the output color space to YUV422

Configuring Automatic Power Settings

In the **Automatic Power Settings** section of the HDMI Output page or HDBT Output page, enable or disable automatic power-off and power-on settings by selecting the **Enable** or **Disable** radio button, respectively. By default, the **Enable** radio button is selected. If Automatic Power Settings is set to **Enable**, continue with the following steps:

1. In the **Power Off** section:
    a. In the **Timeout** drop-down list, select the number of seconds that must pass after all HDMI inputs are disconnected before allowing the output to be turned off automatically. Available values are the following: **5 seconds**, **10 seconds**, **15 seconds**, **30 seconds**, **60 seconds**, **90 seconds**, and **Custom**. The default setting is **5 seconds**.

    If **Custom** is selected, enter the desired number of seconds in the **Timeout** text box. Values range from **0** to **65535** seconds. To save the setting, click the **Set** button.

    b. Specify whether the output is to be turned off according to the timeout value specified in the previous step. Select the **Yes** radio button to turn off the output or the **No** radio button to prevent the output from turning off.

    c. Select one of the **Send** command radio buttons to choose the interface to send a power-off command:
        - **None**: (Default setting) Does not send any command
        - **CEC**: Sends the command via CEC (Consumer Electronics Control)
        - **RS232**: Sends the command via RS-232
        - **IR:** Sends the command via IR

        NOTE: An IR file must be loaded under **IR Settings** on the Device page before commands will be available for use in the **Automatic Power Settings** section of the HDMI Output and HDBT Output pages.

    If **RS232** is selected, click the **RS232 setting** button. In the RS232 **Port Setting** dialog box, select the desired value in the **Baud**, **Data Bits**, **Parity**, **Stop Bits**, **Hardware Flow Control**, and **Software Flow Control** drop-down lists, and then click **Exit**.

d. (Applicable to CEC, RS232, or IR) Do either of the following:

- If the **Send command** is set to **CEC** or **RS232**), enter the desired power-on command as follows:
  - In the **Command** text box, enter the command in hexadecimal or ASCII format.
  - In the **Terminator** drop-down list, select one of the following terminators to append to the command: **None** (specifies no terminator), **CR** (carriage return), **LF** (line feed), or **CR LF** (carriage return followed by a line feed). The default setting is **CR LF**.
  - Select the **Hex** or **Ascii** radio button to specify the format of the command. The default setting is **Hex**.
- If the **Send command** is set to **IR**, select the desired IR Key from the drop-down list.

e. Click the **Save** button to save the power-offn settings.

2. In the **Power On (Sync Detected)** section:

a. Select one of the **Send Command** radio buttons to choose the interface to send a power-on command when an HDMI input is detected:

- **None:** Does not send any command (default setting)
- **CEC:** Sends the command via CEC
- **RS232:** Sends the command via RS-232
- **IR:** Sends the command via IR

> NOTE: An IR file must be loaded under **IR Settings** on the Device page before commands will be available for use in the **Automatic Power Settings** section of the HDMI Output and HDBT Output pages.

If **RS232** is selected, click the **RS232 setting** button. In the RS232 Port Setting dialog box, select the desired value in the **Baud**, **Data Bits**, **Parity**, **Stop Bits**, **Hardware Flow Control**, and **Software Flow Control** drop-down lists, and then click **Exit**.

b. (Applicable to CEC, RS232, or IR) Do either of the following:

- If the **Send command** is set to **CEC** or **RS232**), enter the desired power-on command as follows:
  - In the **Command** text box, enter the command in hexadecimal or ASCII format.
  - In the **Terminator** drop-down list, select one of the following terminators to append to the command: **None** (specifies no terminator), **CR** (carriage return), **LF** (line feed), or **CR LF** (carriage return followed by a line feed). The default setting is **CR LF**.
  - Select the **Hex** or **Ascii** radio button to specify the format of the command. The default setting is **Hex**.

        - If the **Send command** is set to **IR**, select the desired IR Key from the drop-down list.
    c. Click the **Save** button to save the power-on settings.

The **HDMI Output** and **HDBT Output** pages also display information about the connected display and output signal:

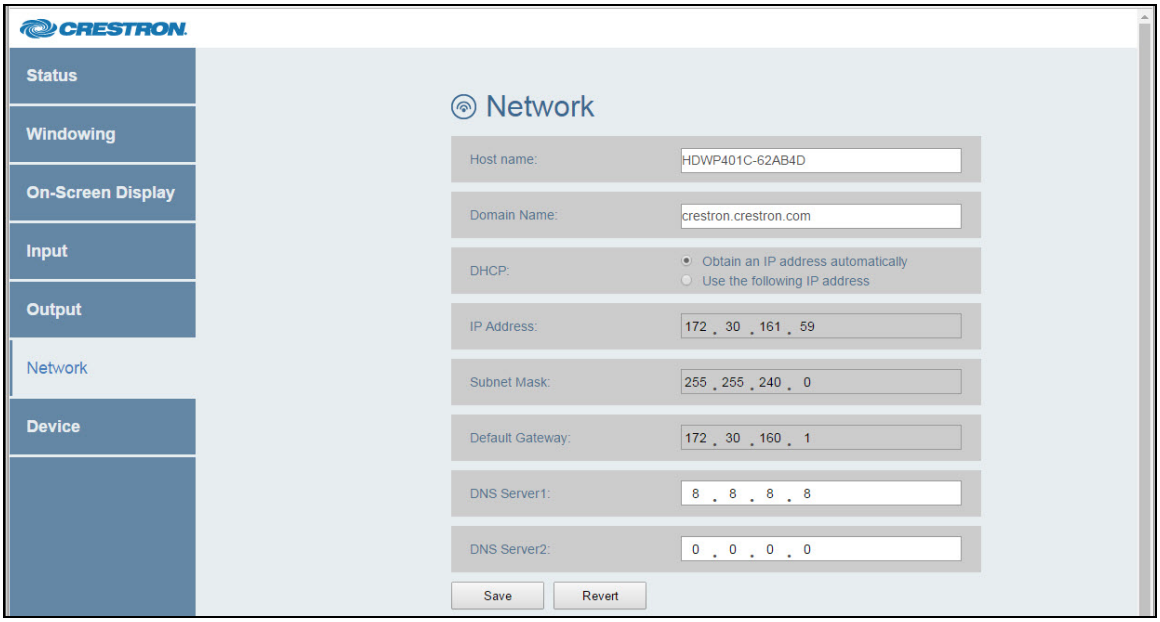
- The **Connected Display** section of the page displays the following:
    - **Sink Detected:** Specifies whether the output signal is detected by the connected display (Yes or No)
    - **Manufacturer:** Specifies the name of the manufacturer of the connected display
    - **Name:** Specifies the model name of the connected display
    - **Serial Number:** Specifies the serial number of the connected display
- The **Output Signal** section of the page displays the following:
    - **Transmitting:** Specifies whether the output is transmitting a signal to the connected display:
        - A green icon indicates that the output is transmitting a signal.
        - A gray icon indicates that the output is not transmitting a signal.
    - **Resolution:** Specifies the current resolution of the output
    - **HDCP:** Specifies the HDCP version (1.4 or 2.2) or inactive

Configuring Network Settings

To configure network settings:

1. In the navigation bar, click **Network**. The Network page opens.

   Network Page



2. Configure network settings as required:
   - In the **Host name** text box, overwrite the existing hostname with a name that identifies the HD-WP-4K-401-C on the network. The hostname is restricted to the letters *a* to *z* (not case sensitive), the digits *0* to *9*, and the hyphen.

     The default hostname is **HDWP401C-***xxxxxx*, where *xxxxxx* consists of the last six characters (excluding punctuation) of the MAC address of the device.
   - In the **Domain Name** text box, enter up to two domain names separated by a comma and a space.
   - Specify whether the IP address of the HD-WP-4K-401-C is to be assigned by a DHCP (Dynamic Host Configuration Protocol) server. To set the IP address, click either of the following radio buttons:
     - **Obtain an IP address automatically:** (Default setting) Allows the IP address of the HD-WP-4K 401-C to be automatically assigned by a DHCP server on the local area network (LAN) for a predetermined period of time.

       NOTE: If a DHCP server does not exist on the network and 5 seconds have elapsed since the HD-WP-4K-401-C was powered on, the IP address defaults to a link local address. Refer to RFC 3927 for information about link local addressing.

- **Use the following IP address:** Allows a static IP address and associated network settings to be configured:
  - **IP Address:** Enter a unique IP address for the HD-WP-4K-401-C.
  - **Subnet Mask:** Enter the subnet mask that is set on the network.
  - **Default Gateway:** Enter the IP address that is to be used as the network's gateway.
  - **DNS Server1:** Enter the IP address of the primary DNS server.
  - **DNS Server2:** Enter the IP address of the secondary DNS server.

3. Do either of the following:
   - To save the current entries, click the **Save** button. The HD-WP-4K-401-C automatically reboots.
   - To go back to the previous settings without saving the current entries, click the **Revert** button.

Configuring Device Settings

Configuration and management of device settings consist of the following:

- Connecting to a Control System (on the next page)
- Enabling or Disabling the Front Panel (on page 31)
- Changing the Username and Password (on page 32)
- Configuring RS232 Port Settings (on page 33)
- Configuring IR Settings (on page 34)
- Updating Firmware (on page 35)
- Updating SSL Files (on page 36)
- Restoring Factory Default Settings (on page 37)
- Rebooting the HD-WP-4K-401-C (on page 37)

To configure device settings:

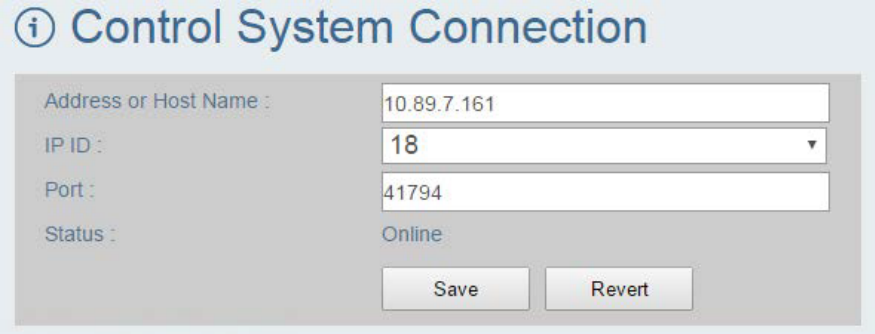
In the navigation bar, click **Device**. The Device page opens.

Refer to the following sections for information about configuration and management of the various device settings.

Connecting to a Control System

Configure the connection between the HD-WP-4K-401-C and a control system in the Control System Connection section of the **Device** page.

Device Page—Sample Control System Connection



To configure control system connection settings:

1. In the **Address or Host Name** text box, enter the IP address or host name of the control system.
2. In the **IP ID** text box, enter the IP ID of the HD-WP-4K-401-C. Valid values range from **03** to **FE** in hexadecimal notation.
3. In the **Port** text box, enter the port number of the HD-WP-4K-401-C.

   NOTE: The default port number is 41794.

4. Do either of the following:
   - To save the current entries, click the **Save** button. A message appears, indicating that the HD-WP-4K-401-C will reboot. Click **OK** to reboot the device.
   - To revert to the previous settings without saving the current entries, click the **Revert** button.

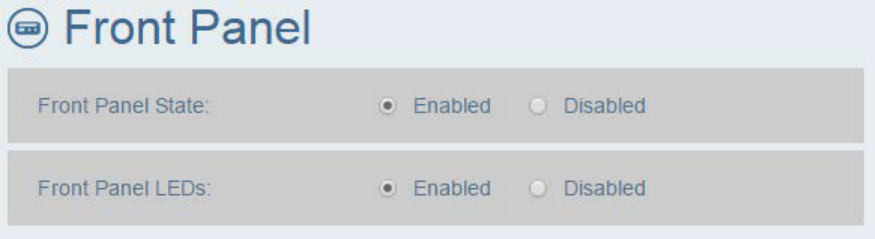
The Status field (read only) displays the connection status of the HD-WP-4K-401-C to the control system as **Offline** or **Online**.

Enabling or Disabling the Front Panel

By default, the front panel state of the HD-WP-4K-401-C is enabled, allowing the OLED display and front panel push buttons (navigation pad, **MENU**, **BACK**, and **EXIT**) to function. In addition, the front panel LEDs are enabled by default. The OLED display, front panel push buttons, and LEDs can be disabled.

Enable or disable the front panel state and LEDs in the **Front Panel** section of the Device page.

Device Page—Front Panel



Using the **Front Panel State** radio buttons, do either of the following:

- To enable the OLED display and front panel push buttons, click the **Enabled** radio button if it is not already selected.
- To disable the OLED display and front panel push buttons, click the **Disabled** radio button.

Using the **Front Panel LEDs** radio buttons, do either of the following:

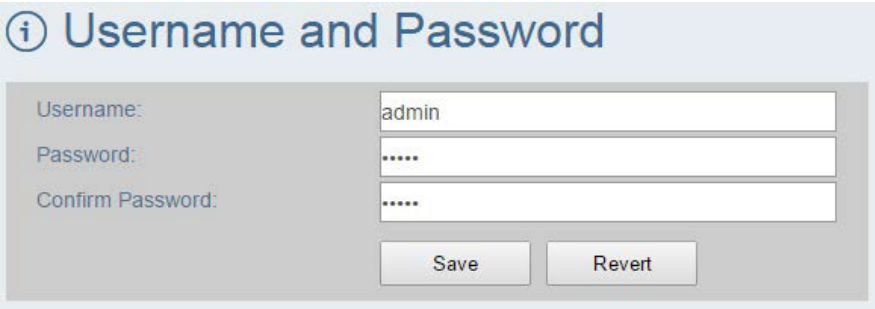
- To enable the front panel LEDs, click the **Enabled** radio button if it is not already selected.
- To disable the front panel LEDs, click the **Disabled** radio button.

> **NOTE:** When the front panel LEDs are disabled, the PWR and ONLINE LEDs turn off. The HD-WP-4K-401-C appears as though it is not powered on; however, the device remains powered on and continues to function.

Changing the Username and Password

Change the username and password in the **Username and Password** section of the Device page.

Device Page—Username and Password



To change the username and password:

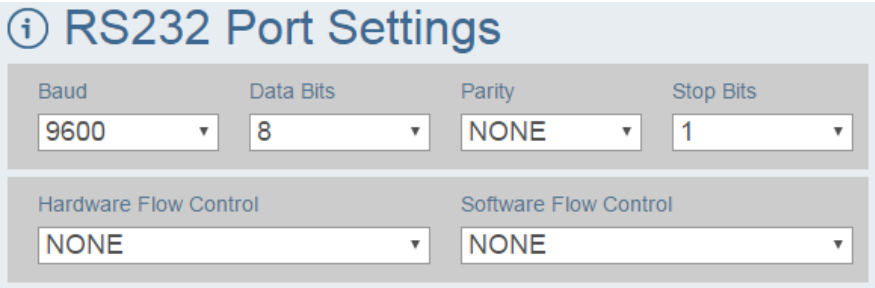
NOTE: The username and password are case sensitive.

1. In the **Username** text box, enter the desired username.
2. In the **Password** text box, enter the desired password.
3. In the **Confirm Password** text box, reenter the desired password to confirm the password.
4. Do either of the following:
   - To save the current entries, click the **Save** button.
   - To go back to the previous settings without saving the current entries, click the **Revert** button.

Configuring RS232 Port Settings

Configure RS232 port settings in the **RS232 Port Settings** section of the Device page.

Device Page—RS232 Port Settings



To configure RS232 port settings:

1. In the **Baud** drop-down list, select the number of bits to be transmitted per second. Available values are as follows:

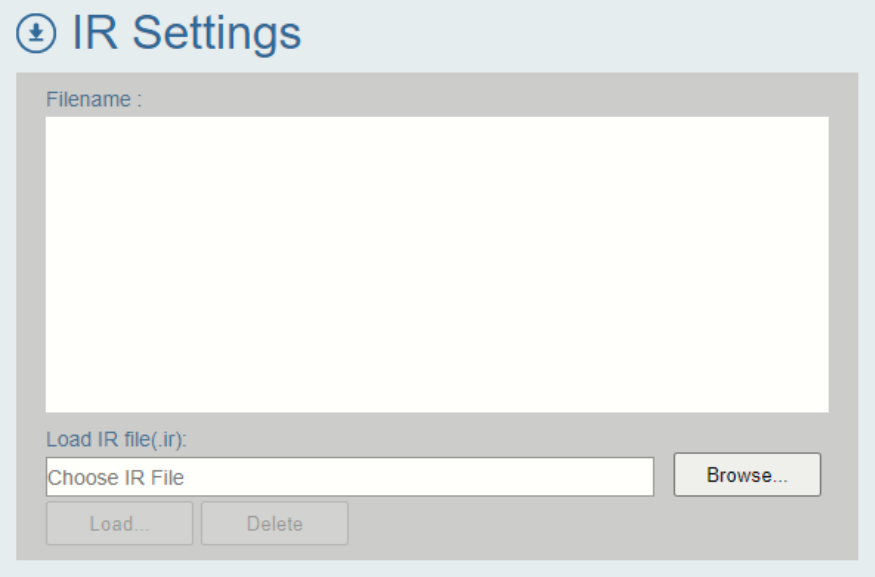
300	9600
600	14400
1200	19200
1800	28800
2400	38400
3600	57600
4800	115200
7200	

   The default setting is **9600** bits per second (bps).
2. In the **Data Bits** drop-down list, select the number of data bits that are to be transmitted as a series. Available values are **7** and **8**. The default setting is **8**.
3. In the **Parity** drop-down list, select **NONE**, **Odd**, **Even**, or **Mark**. The default setting is **NONE**.
4. In the **Stop Bits** drop-down list, select **1** or **2**. The default setting is **1**.
5. In the **Hardware Flow Control** drop-down list, select **RTS/CTS** or **NONE**. The default setting is **NONE**.
6. In the Software Flow Control drop-down list, select **NONE** or **XON/XOFF**. The default setting is NONE.

Configuring IR Settings

Load or delete an IR file (*.ir) in the **IR Settings** section of the Device page.

Device Page—IR Settings



NOTE: Only one IR file can be loaded at a time. An existing IR file must be deleted prior to loading another IR file. To delete a previously loaded IR file, click the **Delete** button at the bottom of the **IR Settings** section of the Device page.

To load an IR file:

1. Click the **Browse** button. Windows Explorer opens.
2. Locate and select the desired IR file (*.ir), and then click the **Open** button.
3. Click the **Load** button. A prompt appears asking for confirmation.
4. Click the **OK** button to load the IR file.

   Commands listed in the **IR Settings** section will be available for use under the **Automatic Power Settings** section of the HDMI Output and HDBT Output pages.

Updating Firmware

Update firmware in the **Firmware** section of the Device page.

Device Page—Firmware

The **Firmware** section displays the following information about the HD-WP-4K-401-C:

- Model, which is HD-WP-4K-401-C
- Serial Number
- Firmware Version

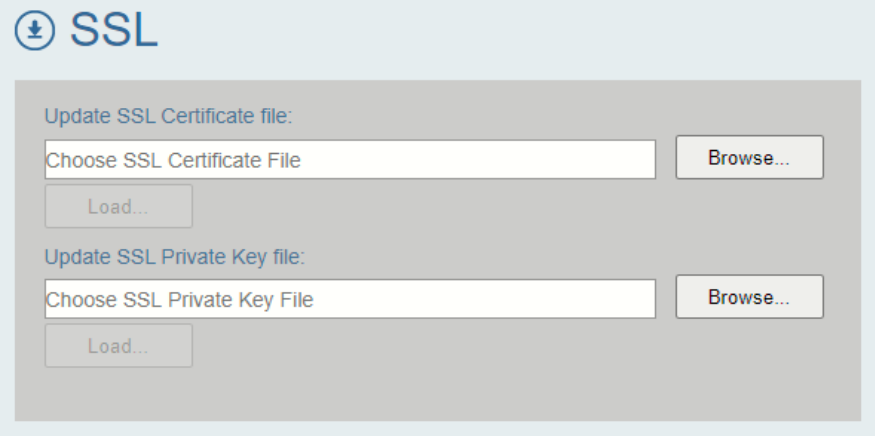
To update the firmware, click the **Upload firmware file** radio button or the **Use service port** radio button:

- If the **Upload firmware file** radio button is selected:
    1. Click the **Browse** button. Windows Explorer opens.
    2. Locate and select the desired firmware file (*.bin), and then click the **Open** button. The **Browse** field displays the selected path and firmware filename.
    3. Click the **Load** button. A prompt appears asking for confirmation that the firmware be updated.
    4. Click the **OK** button to update the firmware.
- If the **Use service port** radio button is selected:
    1. Using a USB mass storage device that contains only the firmware file, insert the USB device into the **SERVICE** port of the HD-WP-4K-401-C.
    2. Click the **Load** button. A prompt appears asking that a USB drive be inserted.
    3. Click the **OK** button to update the firmware.

Updating SSL Files

Update an SSL Certificate file and SSL Private Key file in the **SSL** section of the Device page.

Device Page—SSL



To update an SSL Certificate file:

1. Click the **Browse** button. Windows Explorer opens.
2. Locate and select the desired SSL Certificate file (*.crt), and then click the **Open** button.
3. Click the **Load** button. A prompt appears asking for confirmation.
4. Click the **OK** button to load the SSL Certificate file.

To update an SSL Private Key file:

1. Click the **Browse** button. Windows Explorer opens.
2. Locate and select the desired SSL Private Key file (*.key), and then click the **Open** button.
3. Click the **Load** button. A prompt appears asking for confirmation.
4. Click the **OK** button to load the SSL Private Key file.

Restoring Factory Default Settings

Restore factory default settings in the **Device Management** section of the Device page.

Device Page—Device Management, Restore

To restore factory default settings:

1. Click the **Restore** button. A prompt appears asking for confirmation that the default settings be restored.

   NOTE: Clicking the **Restore** button restores all settings—including the user name and password login settings and the network settings—to the factory default settings. If the user name and password have been changed, clicking the **Restore** button reverts the user name and password to the default setting, which is *admin* (refer to Logging In to the HD WP 4K-401-C (on page 6) for additional information). If a static IP address has been set, clicking the **Restore** button reverts the IP address to DHCP mode, which is the default setting (refer to Configuring Network Settings (on page 28) for additional information).

2. Click **OK** to restore factory default settings and to reboot the device.

Rebooting the HD-WP-4K-401-C

Reboot the HD-WP-4K-401-C in the **Device Management** section of the Device page.

Device Page—Device Management, Reboot

To reboot the HD-WP-4K-401-C:

1. Click the **Reboot** button. A message appears, indicating that the device will reboot.
2. Click **OK** to reboot the device.

Using the Front Panel OLED Display Menu

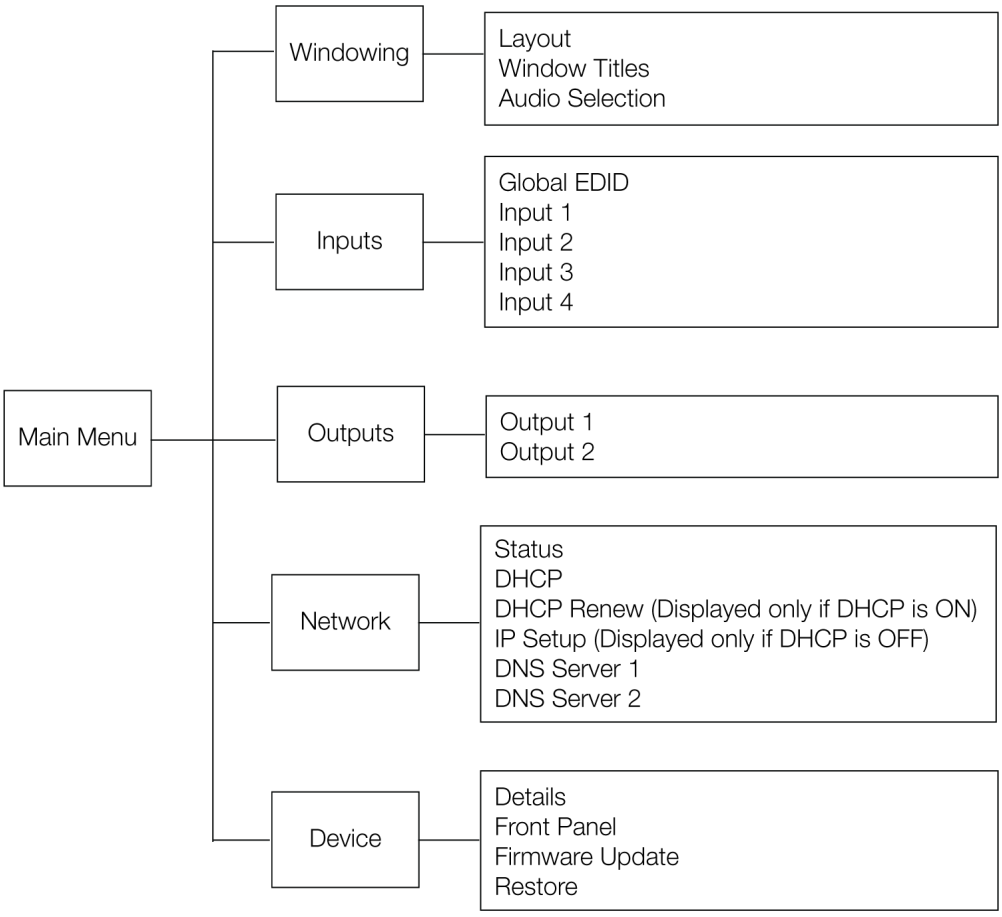
When the HD-WP-4K-401-C is powered on and whenever the front panel OLED display is in an idle state, the OLED display cycles through the following items on a scrolling basis, displaying two lines at a time:

HD-WP-4K-401-C
IP address (for example, 172.30.161.59)
1. Input 1 resolution (for example, 3840x2160@30)
2. Input 2 resolution (for example, 1080p@60)
3. Input 3 resolution (for example, 1080p@60)
4. Input 4 resolution (for example, 720p@60))

NOTE: If a source is not connected to an input, the OLED displays **None** for the input.

The OLED display provides a menu that enables configuration of the HD-WP-4K-401-C. The following illustration provides a menu tree of the OLED display.

OLED Display Menu Tree

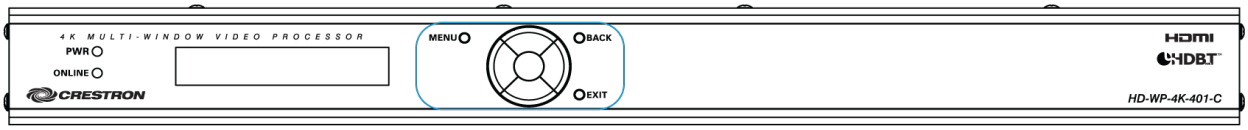


The following sections provide information about the OLED display menu.

Accessing and Navigating the OLED Display Menu

To access and navigate the OLED display menu, use the OLED push buttons and the navigation pad on the front panel of the HD-WP-4K-401-C.

OLED Push Buttons and Navigation Pad



To access the main menu of the OLED display, press the **MENU** button. The OLED main menu, which displays two lines at a time, appears as follows.

OLED Main Menu

```
<< Main Menu >>
Windowing
```

To navigate the main menu and submenus on the OLED display, do the following:

- To navigate upward in a menu, press the up button (▲) on the navigation pad.
- To navigate downward in a menu, press the down button (▼) on the navigation pad.
- To move the cursor to the left when entering data, press the left button (◀) on the navigation pad.
- To move the cursor to the right when entering data, press the right button (▶) on the navigation pad.
- To select an item in a menu, press the **Enter** button on the navigation pad.
- To save a new setting, press the **Enter** button on the navigation pad.
- To go back to the previous level in a menu, press the **BACK** button on the front panel.
- To exit the menu of the OLED display, press the **EXIT** button on the front panel.

Configuring Windowing Settings

To configure video windowing settings:

On the main menu, select **Windowing**. The Windowing submenu opens.

Windowing Submenu

```
< Windowing >
Layout
```

Available selections are as follows:

Layout
Window Titles
Audio Selection

Refer to the following sections for information about configuring video window layout, window titles, and audio selection.

Configuring Video Window Layout

To configure the video window layout:

1. In the Windowing submenu, select **Layout**.

   Windowing Submenu

   ```
   < Windowing >
   Layout
   ```

   The Layout submenu opens.

   Layout Submenu

   ```
   < Layout >
   Layout Select
   ```

2. Select **Layout Select**. The Layout Select list of available options opens.

   Layout Select Submenu

   ```
   < Layout Select>
   *Auto
   ```

   Available Layout Select options are listed in the following table. Refer to the table for information about each option.

Layout Select Options

Option	Description
Auto	Displays the detected inputs as follows: • Displays four detected inputs as a quad view consisting of four equal-sized windows positioned as two side-by-side windows above two side-by-side windows • Displays three detected inputs as three equal-sized windows positioned as two side-by-side windows above one centered window • Displays two detected inputs as two equal-sized and vertically centered windows • Displays one detected input as a full-screen image
Full Screen	Displays one detected input as a full-screen image
PIP	Displays any single input as a full-screen image with any other input as a scalable inset window that can be positioned as desired. Refer to Configuring Window Titles (on page 43) for information about PIP options.
Side by Side	Displays two inputs as two equal-sized and vertically centered windows
3-Up	Displays three inputs as three equal-sized windows positioned as two side-by-side windows above one horizontally centered window.
Quad View	Displays four inputs as four equal-sized windows positioned as two side-by-side windows above two side-by-side windows
3-Down	Displays three inputs as three equal-sized windows positioned as two side-by-side windows below one horizontally centered window.
3-Left, 1-Right	Displays four inputs as three equal-sized windows on the left and one larger vertically centered window on the right.
3-Right, 1-Left	Displays four inputs as three equal-sized windows on the right and one larger vertically centered window on the left.

An asterisk precedes the current setting. If a layout other than **Auto** is selected, the corresponding number of windows is added to the Layout submenu below **Layout Select**:

- If **Full Screen** is selected, **Window 1** is added.
- If **PIP** or **Side by Side** is selected, **Window 1** and **Window 2** are added.
- If **3-Up** or **3-Down** is selected, **Window 1**, **Window 2**, and **Window 3** are added.
- If **Quad View**, **3-Left 1-Right**, or **3-Right 1-Left** is selected, **Window 1**, **Window 2**, **Window 3**, and **Window 4** are added.

3. For all layout selections with the exception of **Auto**, assign each corresponding window to the desired video input:

a. In the Layout submenu, select the window, for example, **Window 1**.

Layout Submenu

```
< Layout >
Window 1
```

The Window submenu opens for the selected window.

Window Submenu (Window 1 Shown)

```
< Window 1 >
INPUT 1
```

b. Select the desired video input for the window. By default, the inputs are listed as **INPUT 1**, **INPUT 2**, **INPUT 3**, and **INPUT 4**.

c. Repeat steps 3a and 3b for each window listed in the Layout submenu.

Configuring Window Titles

To configure window titles:

In the Windowing submenu, select **Window Titles**.

Windowing Submenu

```
< Windowing >
Window Titles
```

The Window Titles submenu opens.

Window Titles Submenu

```
< Window Titles >
Window Titles
```

Items on the Window Titles submenu are listed in the following table. Refer to the table for configuration guidelines.

Window Titles Submenu Guidelines

Submenu Item	Guidelines
Window Titles	Controls whether the input name is to be displayed over the corresponding window: • **Enable:** (Default setting) Allows window titles, which display the input name over the corresponding window • **Disable:** Prevents the input name from being displayed over the corresponding window An asterisk precedes the current setting.
Titles Position	(Applicable only when **Window Titles** is enabled) Select one of the following options to position window titles: **Upper Left** (default setting), **Center Left**, **Lower Left**, **Upper Right**, **Center Right**, **Lower Right**. An asterisk precedes the current setting.

Configuring Audio Selection

To select the input whose audio is to be unmuted:

In the Windowing submenu, select **Audio Selection**.

Windowing Submenu

```
< Windowing >
 Audio Selection
```

The Audio Selection submenu opens.

Audio Selection Submenu

```
< Audio Selection >
 *Auto
```

Available selections are as follows:

Auto	(Default setting) Audio is transmitted only when a single full-screen image is displayed in a single window or when the layout is in PIP mode. If multiple windows are displayed, audio from all sources is muted.
Input 1	Unmutes audio from input 1
Input 2	Unmutes audio from input 2
Input 3	Unmutes audio from input 3
Input 4	Unmutes audio from input 4

An asterisk precedes the current selection.

Configuring Input Settings

To configure input settings:

1. On the main menu, select **Inputs**. The Inputs submenu opens.

   Inputs Submenu

   ```
   < Inputs >
   Global EDID
   ```

   Available selections are as follows:

   Global EDID
   Input 1
   Input 2
   Input 3
   Input 4

2. Configure inputs by doing either of the following:
   a. Select **Global EDID** to apply the selected EDID to all inputs.

      The following message flashes across the OLED: **Apply EDID to All Inputs**

      i. Confirm the **Global EDID** selection by pressing the **Enter** button. A list of EDID files is presented.

         DM Default 4k 30Hz 2ch (Default setting)
         DM Default 1080p60 2ch
         Laptop 16x10 1280x800 2ch
         Laptop 16x10 1920x1200 2ch>
         Laptop 16x9 1080P50 2ch
         Laptop 16x9 1080P60 2ch
         Laptop widescreen 2ch
         Consumer 4k 25Hz HBR 3D
         Consumer 4k 30Hz HBR 3D
         Consumer 1080P50 3D HBR
         Consumer 1080P50 HBR
         Consumer 1080P60 3D HBR
         Consumer 1080P60 HBR
         Consumer 720P50 HBR
         Consumer 720P60 HBR
         External EDID 1
         External EDID 2
         External EDID 3
         External EDID 4
         External EDID 5
         External EDID 6
         External EDID 7
         External EDID 8
         Copy Output 1
         Copy Output 2

NOTES:

- In the preceding list, **External EDID 1** through **External EDID 8** represent placeholders for custom-loaded EDID files.
- Selecting **Copy Output 1** or **Copy Output 2** copies the EDID from the output to all of the inputs.

ii. Select the desired EDID.

A prompt appears asking for confirmation that the selected EDID be applied to all inputs.

iii. Select **Yes** or **No**:

- If **Yes** is selected, the **Setting** message appears, and then the OLED display returns to the Inputs submenu.
- If **No** is selected, the OLED display returns to the list of available EDIDs.

b. Configure each input on an individual basis by selecting the input number in the Inputs submenu.

The Input Status and Configuration submenu opens for the selected input.

Input Status and Configuration Submenu (Input 1 Shown)

```
< Input 1 >
Status
```

Items on the Input Status and Configuration submenu are listed in the following table. Refer to the table for configuration guidelines.

Input Status and Configuration Submenu Guidelines

Submenu Item	Guidelines
Status	(Read Only) Indicates whether a source is detected at the input: **Sync On** or **Sync Off**
Name	Enables renaming of an input. To rename an input, use the up (▲) and down (▼) buttons to enter capital letters, lowercase letters, numbers, a plus sign (+), a minus sign (-), a left bracket ([), and a right bracket (]). To move the cursor to the left or right when renaming an input, press the left (◀) or right (▶) button, respectively. To save the name, press the **Enter** button. The message **Saving... Complete** is displayed.

Submenu Item	Guidelines
EDID	Displays the current EDID. If an EDID other than the Global EDID is to be assigned, select the desired EDID. Available selections are as follows: DM Default 4k 30Hz 2ch (Default setting) DM Default 1080p60 2ch Laptop 16x10 1280x800 2ch Laptop 16x10 1920x1200 2ch Laptop 16x9 1080P50 2ch Laptop 16x9 1080P60 2ch Laptop widescreen 2ch Consumer 4k 25Hz HBR 3D Consumer 4k 30Hz HBR 3D Consumer 1080P50 3D HBR Consumer 1080P50 HBR Consumer 1080P60 3D HBR Consumer 1080P60 HBR Consumer 720P50 HBR Consumer 720P60 HBR External EDID 1 External EDID 2 External EDID 3 External EDID 4 External EDID 5 External EDID 6 External EDID 7 External EDID 8 Copy Output 1 Copy Output 2 When an EDID is selected, the **Setting** message is displayed. **NOTES:** • In the list above, **External EDID 1** through **External EDID 8** represent placeholders for custom-loaded EDID files. • Selecting **Copy Output 1** or **Copy Output 2** copies the EDID from the output to all of the inputs.
HDCP	Assigns the HDCP version or disables HDCP. Select **HDCP 2.2**, **HDCP 1.4**, or **Disable**. The default setting is **HDCP 2.2**. An asterisk precedes the current setting.

Configuring Output Settings

To configure output settings:

1. On the main menu, select **Outputs**. The Outputs submenu opens.

   Outputs Submenu

   ```
   < Outputs >
   Output 1
   ```

   Available selections are **Output 1** and **Output 2**.

2. Configure an output by selecting the output in the Outputs submenu. The Output Configuration submenu opens for the selected output.

   Output Configuration Submenu (Output 1 Shown)

   ```
   < Output 1 >
   Status
   ```

   Items on the Output Configuration submenu are listed in the following table. Refer to the table for configuration guidelines.

   Output Configuration Submenu Guidelines

Submenu Item	Guidelines
Status	(Read Only) Displays the manufacturer, model, and serial number of the connected display. If no display is connected, the status is displayed as **Inactive**.
Name	Enables renaming of an output. To rename an output, use the up (▲) and down (▼) buttons to enter capital letters, lowercase letters, numbers, a plus sign (+), a minus sign (-), a left bracket ([), and a right bracket (]). To move the cursor to the left or right when renaming an output, press the left (◀) or right (▶) button, respectively. To save the name, press the **Enter** button. The message **Saving...Complete** is displayed.

Configuring Network Settings

To configure network settings:

On the main menu, select **Network**. The Network Status and Configuration submenu opens.

Network Status and Configuration Submenu

```
< Network >
Status
```

Available selections are as follows:

Status
DHCP
DHCP Renew (Displayed only if DHCP is set to ON)
IP Setup (Displayed only if DHCP is set to OFF)
DNS Server 1
DNS Server 2

Items on the Network Status and Configuration submenu are listed in the following table. Refer to the table for configuration guidelines.

Network Status and Configuration Submenu Guidelines

Submenu Item	Guidelines
Status	(Read Only) Provides the following network-related information: • **DHCP:** Indicates whether DHCP is on or off • **IP Address:** Displays the IP address of the HD-WP-4K-401-C • **Subnet Mask:** Displays the subnet mask that is set on the network • **Gateway:** Displays the IP address that is used as the network's gateway • **DNS Server 1:** Displays the address of the primary DNS server • **DNS Server 2:** Displays the address of the secondary DNS server • **MAC Address:** Displays the MAC address of the HD-WP-4K-401-C
DHCP	Set **DHCP** to **ON** or **OFF**. The default setting is **ON**. An asterisk precedes the current setting.
DHCP Renew	(Displayed only if **DHCP** is set to **ON**) Select **DHCP Renew** to obtain a new IP address lease.
IP Setup	(Displayed only if **DHCP** is set to **OFF**) Enter the following network-related information: • **IP Address:** Enter a unique IP address for the HD-WP-4K-401-C.* • **Subnet Mask:** Enter the subnet mask that is set on the network.* • **Gateway:** Enter the IP address that is used as the network's gateway*
DNS Server 1	Enter the address of the primary DNS server.*

Submenu Item	Guidelines
DNS Server 2	Enter the address of the secondary DNS server.*

*To enter an address, use the navigation pad. Press the up (▲) and down (▼) buttons as appropriate to enter each octet in an address. To move to the previous octet in an address, press the left (◀) button. To move to the next octet in an address, press the right (▶) button. To save an address, press the **Enter** button.

Configuring Device Settings

To configure device settings:

On the main menu, select **Device**. The Device Status and Configuration submenu opens.

Device Status and Configuration Submenu

```
< Device >
Details
```

Available selections are as follows:

Details
Front Panel
Firmware Update
Restore

Items on the Device Status and Configuration submenu are listed in the following table. Refer to the table for configuration guidelines.

Device Status and Configuration Submenu Guidelines

Submenu Item	Guidelines
Details	(Read Only) Displays the following information about the HD-WP-4K-401-C: • **S/N:** Specifies the serial number of the HD-WP-4K-401-C • **FW Ver.:** Specifies the firmware version of the HD-WP-4K-401-C
Front Panel	Selecting **Disable** disables the OLED display and front panel push buttons (navigation pad, BACK, and EXIT buttons). NOTE: To enable the OLED display and front panel push buttons, press and hold the **MENU** push button for 3 seconds.

Submenu Item	Guidelines
Firmware Update	When **Firmware Update** is selected, a prompt appears asking for confirmation that the firmware be updated. Select **Yes** or **No**. If **Yes** is selected, insert a USB mass storage device containing the updated firmware file into the SERVICE port. The update process begins and the following message appears on the OLED display: **Upgrade in process** **Do not remove power** When the update process is complete, the OLED displays the model name (HD-WP-4K-401-C) and the IP address of the HD-WP-4K-401-C.
Restore	When **Restore** is selected, a prompt appears asking for confirmation that the default settings be restored. NOTE: Restoring the HD-WP-4K-401-C to factory default settings restores all settings—including user name and password settings and network settings—to factory default settings. Select **Yes** or **No**. If **Yes** is selected, the **Restoring** message appears followed by the **Restoring...Complete** message.

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change without notice.