

HD-WP-4K-401-C

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

Supplemental Guide Crestron Electronics, Inc.

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Contents

Introduction	1
Using the Out-of-the-Box Functionality	1
Using the Web Interface	3
Accessing the Web Interface	3
Opening a Web Browser Directly	3
Opening a Web Browser within the Crestron Toolbox Application	
Logging In to the HD-WP-4K-401-C	4
Navigating the Web Interface	5
Viewing Status Information	6
Configuring Windowing Settings	
Contiguring On-Screen Display Settings	9
Configuring Text Overlay Settings	9
	10
Configuring Input Settings	10
Configuring inputs on the input Page	10
Configuring Output Softings	10
Configuring Output Settings	15
Configuring Outputs on Output Age	17
Configuring Network Settings	
Configuring Device Settings	23
Configuring Control System Connection Settings	
Enabling or Disabling the Front Panel	
Changing the Username and Password	
Configuring RS232 Port Settings	
Updating Firmware	
Restoring Factory Default Settings	
Rebooting the HD-WP-4K-401-C	
Using the Front Panel OLED Display Menu	97
Using the Front Faher OLLD Display Menu	21
Accessing and Navigating the OLED Display Menu	
Configuring Windowing Settings	
Contiguring Video Window Layout	
Configuring Window Litles	
Configuring Input Settings	
Configuring Output Settings	
Configuring Network Settings	
Configuring Device Settings	

HD-WP-4K-401-C: 4K Multi-Window Video Processor with HDBaseT[®] and HDMI[®] Outputs

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.

Video windowing enhances the presentation and collaboration capabilities of any meeting space, 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.

Easy setup and configuration of the HD-WP-4K-401-C is enabled using a web browser or the front panel controls. 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) at www.crestron.com/manuals.

Using the Out-of-the-Box Functionality

Out-of-the box functionality automatically allows 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, do the following:

- 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.
- 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	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

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

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

- Open a web browser directly. Refer to "Opening a Web Browser Directly" for additional information.
- Open a web browser within the Crestron Toolbox[™] application. Refer to "Opening a Web Browser within the Crestron Toolbox Application" for additional information.

Opening a Web Browser Directly

To access the web interface by opening a web browser directly, do the following:

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.

The Login page opens. For login information, refer to "Logging In to the HD-WP-4K-401-C" on the following 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, do the following:

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

NOTE: You can also access the Device Discovery Tool by clicking the Device Discovery Tool button (**h**) in the toolbar.

NOTE: 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.

A browser window opens, and then the user name and password dialog box opens, allowing login to the HD-WP-4K-401-C. For login information, refer to "Logging In to the HD-WP-4K-401-C" below.

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

The user name and password dialog box allows login to the HD-WP-4K-401-C.

NOTE: Depending on the web browser being used, the appearance of the user name and password dialog box may vary from the dialog box shown below.

User Name and Password Dialog Box

ittp://172.30.161.59 re 'our connection to this	quires a username and password. site is not private.
our connection to this	site is not private.
User Name:	
Password:	

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

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

NOTE: The user name and password are case sensitive.

NOTE: For enhanced security, it is recommended that the user name and password be changed. To change the user name and password using the web interface, refer to "Changing the Username and Password" on page 24.

NOTE: 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 Log In.

The Status page opens. For an overview of the web interface, refer to "Navigating the Web Interface" on the following page.

Navigating the Web Interface

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

CRESTRON.		
Status		
	(i) General	
Windowing	Model HD-WP-4K-401-C	
On-Screen Display	Serial Number 15612573	
	Firmware Version 1.1.0.2170	
Input		
	(e) Network	
Output	Hostname HDWP401C-62AB4D	
Network	IP Address 172.30.161.59	
	Subnet Mask 255.255.240.0	
Device	Default Gateway 172.30.160.1	
	MAC Address 00:10:7F:62:AB:4D	
	Control System Connection	
	Address 172.30.160.246	
	A0 di 91	
	Port 41794	
	Status Offline	

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

The navigation bar provides access to the web pages as follows:

- Clicking **Status** accesses the Status page, which provides general information about the HD-WP-4K-401-C as well as network-related and control system information. For additional information, refer to "Viewing Status Information" on the following page.
- Clicking **Windowing** accesses the Windowing page, which allows the layout of up to four video windows to be configured. For additional information, refer to "Configuring Windowing Settings" on page 7.
- Clicking On-Screen Display accesses the On-Screen Display page, which allows text or an image—or both—to be overlaid on the connected display. For additional information, refer to "Configuring On-Screen Display Settings" on page 9.
- Clicking **Input** accesses the Input page, which allows the desired EDID to be sent to the inputs. For additional information, refer to "Configuring Input Settings" on page 10.
- Clicking Output accesses the Output page, which allows the output resolution to be set as well as analog audio settings. For additional information, refer to "Configuring Output Settings" on page 15.
- Clicking **Network** accesses the Network page, which allows network settings such as hostname and DHCP (Dynamic Host Configuration Protocol) mode to be set. For additional information, refer to "Configuring Network Settings" on page 21.
- Clicking **Device** accesses the Device page, which allows changes to username and password settings and also controls various device functions. For additional information, refer to "Configuring Device Settings" on page 23.

Viewing 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 status information, do the following: In the navigation bar, click **Status**. The Status page opens.

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

Sample Status Page

CRESTRON.			1
Status			
	(j)	General	
windowing	Model	HD-WP-4K-401-C	
On-Screen Display	Serial Number	15612573	
	Firmware Version	1.1.0.2170	
Input	0	N. C. J.	
	(?)	Network	
Output	Hostname	HDWP401C-62AB4D	
Network	IP Address	172.30.161.59	
	Subnet Mask	255.255.240.0	
Device	Default Gateway	172.30.160.1	
	MAC Address	00:10:7F:62:AB:4D	
	j	Control System Connection	
	Address	172.30.160.246	
	IP ID	A	
	Port	41794	
	Status	Offline	

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

- General information, which consists of the following:
 - o Model (HD-WP-4K-401-C)
 - o Serial Number
 - o Firmware Version
- Network-related information, which consists of the following:
 - o Hostname

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

- o IP Address
- o Subnet Mask
- o Default Gateway
- o MAC Address

- Control system connection information, which consists of the following:
 - o Address of the control system
 - o IP ID of the HD-WP-4K-401-C
 - o Port number of the HD-WP-4K-401-C

NOTE: The default port number is **41794**.

o Status (Online or Offline)

Configuring Windowing Settings

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

To configure video windowing, do the following:

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

Windowing Page

indowing	🖷 Layout	
-Screen Display	Automatic	
	Full Screen	
out	Picture-in-Picture	
	 Side-by-Side 	
tput	Quad View	
twork	Source Selection	
	Window1 V Window2	•
vice	Window3 Window4	¥
	Audio Selection	
	Audio Source Auto	
	PIP Options	
	Location	٠
	X Y Save W: H:	Save
	⊛ Window Titles	
	Enabled O Disabled	
	Location Upper Left T Font Size Medium (20%)	*

- 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 (two side-by-side windows above two side-by-side windows)
 - Displays three detected inputs as three equal-sized windows (two side-by-side windows above one centered window)

- Displays two detected inputs as two equal-sized and vertically centered windows
- o 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 5 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 (two sideby-side windows above two side-by-side windows)
- (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.
- 4. In the Audio Selection drop-down list, 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.
- 5. (Applicable only to **Picture-in-Picture** layout) In the **PIP Options** section of the page, do the following:
 - 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.

- 6. In the **Window Titles** section, do the following:
 - a. Enable or disable window titles by clicking the Enabled or Disabled radio button, respectively. If enabled, the input name is displayed over the window. By default, the Enabled radio button is selected.
 - b. (Applicable only when **Window Titles** is set to **Enabled**) Do the following:
 - 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.
 - ii. 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, do the following: In the navigation bar, click **On-Screen Display**. The On-Screen Display page opens.

On-Screen Display

CRESTRON.		
Status	C Taxt Overlay	
Windowing	Enable Enable	Enable Image Overlay Enable Disable
On-Screen Display	Text to display: This text will be displayed. Save	Path:(BMP, 1920x1080 max) Choose Image File Browse
Input	Location : Upper Left • V	Image Path Type : Local Remote Load
Output	Font Size : Medium (20%)	Location : UpperLeft • X: 0 Y: 0 Save
Network		

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

Configuring Text Overlay Settings

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

- 1. Enable text overlay by clicking the **Enable** radio button if it is not already selected. 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%).

Configuring Image Overlay Settings

NOTE: The image file to be uploaded for on-screen display must be an *.bmp file, 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 by doing the following:

- 1. Enable image overlay by clicking the **Enable** radio button if it is not already selected. 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 as follows:
 - If the image path type is set to Local, click the Browse button, navigate to the desired image file (*.bmp), 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, HTTPS, or FTP) to access the image file (*.bmp) 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.

Configuring Input Settings

Configure 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

Input Page

To configure inputs on the Input page, do the following:

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

Status				
	Global EDID			
Vindowing	O CIODAI EDID			
	DM Default 4k 30Hz 2ch		Apply to All Delete	
Dn-Screen Display	Divident 4K 001/2 2011		Apply to All	
in coroon propray	Load CEDID file			
oput	Choose EDID File		Browse	
nput	Load			
Input 1	Inputs			
In	Sync Name	EDID	HDCP Support	
input 2	1: INPUT 1	DM Default 4k 30Hz 2ch	• HDCP 2.2 •	Save Revert
input 3	2: INDUT 2	DM Default 4k 30Hz 2ch	HDCP Support	Save Revert
	INFOT 2	Din Boldak ik ooniz zon	THE OF LLE	
Input 4	Sync Name	EDID	HDCP Support	
	3. INPUT 3	DM Default 4k 30Hz 2ch	• HDCP 2.2 •	Save Revert
Output	Sync Name	EDID	HDCP Support	
	4: INPUT 4	DM Default 4k 30Hz 2ch	• HDCP 2.2 •	Save Revent
letwork				
	Save All			
evice	OTT 100 Current			

- 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 by doing the following:
 - 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 by doing the following:
 - 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, HDCP1.4, 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 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. (For information about windowing layout modes, refer to "Configuring Windowing Settings" on page 7.)
 - **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, do the following:

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.

CRESTRON.		
Status		
Windowing	Input 1 Settings Name INPUT 1	Input 1 Signal sync Detected:
On-Screen Display	HDCP Support HDCP 2.2	Resolution: NO SIGNAL HDCP: Inactive
Input	HID Control	O More Details
Input 1		
Input 2	Select DM Default 4k 30Hz 2ch •	
Input 3	Save Delete Load CEDID file Browse	
Input 4		
Output	Name: DM Default 4k 30Hz 2ch	
Network	O More Details	
Device		

Input-Specific Page (Sample Input 1 Page Shown)

- 2. In the **Input Settings** section of the page, do the following:
 - 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, do the following:
 - a. (Optional) Upload a custom EDID by doing the following:
 - 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:
 - o 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.
 - o **Resolution:** Specifies the current resolution of the input signal
 - o 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, do the following:

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

Output Page

CRESTRON.			
Status			
Windowing	Cutput Settings Resolution: Auto (Recommended)		новт
On-Screen Display	Underscan: 0% O Set	Sink Detected: No Manufacturer: -	Yes CEI
Input	Volume:	Serial Number:	0
Output	0 dB		HDBT
HDMI Output		Transmitting: Resolution:	1080p@60
HDBT Output		HDCP: Inactive	2.2

- 2. In the **Output Settings** section of the page, do the following:
 - 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.
	1000 50
Auto (Recommended)	1080p50
640X480@60	1080p60
4801	1920X1200@60 RB
480p	2048X1080@24
5761	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	2560x1600@60 RB
1280x800@60	3840x2160@24
1280x800@60 RB	3840x2160@25
1280x960@60	3840x2160@30
1280x1024@60	4096x2160@24
1360x768@60	4096x2160@25
1366x768@60	4096x2160@30
1366x/68@60 RB	1680x720@24
1400x1050@60	1680x720@25
1400x1050@60 RB	1680x720@30
1440x900@60	1680x720@50
1440x900@60 RB	1680x/20@60
1600x900@60 RB	2560x1080p24
1600x1200@60	2560x1080p25
1680x1050@60	2560x1080p30
1680x1050@60 RB	2560x1080p50
1080/50	2560x1080p60
1080i60	
1080p24	

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, do the following:
 - 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
 - o 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
 - o 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, do the following: In the navigation bar, click **Output** and then click **HDMI Output**. The HDMI Output page opens.

HDMI Output Page

CRESTRON.	
Status	HDMI Output Settings Im Connected Display
Windowing	Enable Disable Disable Sink Detected No
On-Screen Display	HDMI Name: OUTPUT 1 Manufacturer: - Save Name Name: -
Input	HDCP Mismatch.® Blank Window Serial Number: -
Output	Automatic Power Settings
HDMI Output	Enable Disable Resolution:
HDBT Output	Power Off HDCP: Inactive
Network	Send organization of the send
Device	00 00 FF FF FF FF CR LF V Hex O Ascil
	Power On (Sync Detected) Send command: None © CEC @ R5232 Command: Terminator: D0 00 FF FF FF FF CR LF • Save Hex © Ascia

To configure HDBT output settings and to view information about the connected display and HDBT output signal, do the following: In the navigation bar, click **Output** and then click **HDBT Output**. The HDBT Output page opens.

CRESTRON		
Status		
Windowing	HDBT Output Settings Enable Disable HDBT	
On-Screen Display	HDBT Name: OUTPUT 2 Sink Detected: Yes Save Name Crestron Name: Crestron	
Input	HDCP Mismatch: Disable Output 0	
Output	Automatic Power Settings	
HDMI Output	Enable Disable Resolution: 1080p@60	
HDBT Output	Power Off HDCP: 2.2	
Network	Send command: None CEC RS232 RS232 setting	
Device	00 00 FF FF FF FF CR LF • • Hex • Ascil	
	Power On (Sync Detected) Send command: None CEC RS232 estimation Command: Terminator: Command: CELF • D0 00 FF FF FF FF CR LF • Save • Hex Ascil	

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 by doing the following:

- 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

Configuring Automatic Power Settings

In the **Automatic Power Settings** section of the HDMI Output page or HDBT Output page, configure automatic power settings by doing the following:

- 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 to configure automatic power settings:
 - a. In the **Power Off** section, do the following:
 - 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.

ii. 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.

- iii. 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

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.

- iv. (Applicable only when **Send command** is set to **CEC** or **RS232**) Enter the desired power-off 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**.
- v. Click the **Save** button to save the power-off settings.
- c. In the Power On (Sync Detected) section, do the following:
 - i. 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

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.

- ii. (Applicable only when **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**.
- iii. 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
 - o 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.
 - o **Resolution:** Specifies the current resolution of the output
 - o HDCP: Specifies the HDCP version (1.4 or 2.2) or inactive

Configuring Network Settings

To configure network settings, do the following:

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

Network Page

CRESTRON.		
Status	~	
Windowing	Network	
	Host name:	HDWP401C-62AB4D
On-Screen Display	Domain Name:	crestron.crestron.com
Input	DHCP:	Obtain an IP address automatically Use the following IP address
Output	IP Address:	172 . 30 . 161 . 59
Network	Subnet Mask:	255 . 255 . 240 . 0
Device	Default Gateway:	172 30 160 1
	DNS Server1:	8.8.8.8
	DNS Server2.	0.0.0.0
	Save Revert	

- 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**-*xxxxx*, where *xxxxx* 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 45 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:

- Control system connection
- Enabling or disabling the front panel
- Changing the user name and password
- Configuring RS232 port settings
- Updating firmware
- Restoring the factory default settings
- Rebooting the HD-WP-4K 401-C

To configure device settings, do the following: 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.

Configuring Control System Connection Settings

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

Control Syst	em Conne	ection
Address or Host Name :	10.89.7.161	
IP ID :	18	,
Port :	41794	
Status :	Online	
	Save	Revert

To configure control system connection settings, do the following:

- 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.

NOTE: For information about the OLED display and front panel push buttons, refer to "Using the Front Panel OLED Display Menu" on page 27.

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.

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

Device Page—Front Panel

Front Panel			
Front Panel State:	• Enabled	O Disabled	
Front Panel LEDs:	• Enabled	 Disabled 	

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 front panel, 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.

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

sername:	admin	
assword:		
onfirm Password:		

To change the username and password, do the following:

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

(i) RS232	Port Se	ttin	gs			
Baud 9600 •	Data Bits 8	Ŧ	Parity NONE	٣	Stop Bits 1	٣
Hardware Flow Co NONE	ntrol	Ŧ	Software Flow	w Contr	ol	٣

To configure RS232 port settings, do the following:

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**.

Updating Firmware

Update firmware in the Firmware section of the Device page.

Device Page-Firmware

lodel	HD-WP-4K-401-C	
erial Number	15612573	
irmware Version	1.1.0.2170	
Upload firmware file:		
hoose Firmware File		Browse
Lice convice port:		

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, do the following:
 - 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, do the following:
 - 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.

Restoring Factory Default Settings

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

Device Page-Device Management, Restore

Device	Manageme	ent	
Restore	Reboot		
Restore	Reboot		

To restore factory default settings, do the following:

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 4). 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 21).

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

Device	Manageme	nt	
Restore	Reboot		

To reboot the HD-WP-4K-401-C, do the following:

- 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 allows 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, do the following: On the main menu, select **Windowing.** The Windowing submenu opens.

Windowing Submenu

< Windowing > Layout

Available selections are as follows:

Layout Window Titles

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

Configuring Video Window Layout

To configure the video window layout, do the following:

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	(Default setting) Displays the detected inputs as follows:	
	 Displays four detected inputs as a quad view consisting of four equal-sized windows (two side-by-side windows above two side-by-side windows) 	
	 Displays three detected inputs as three equal-sized windows (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 31 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 (two side-by-side windows above two side-by-side windows)	

An asterisk precedes the current setting. If **Full Screen**, **PIP**, **Side by Side**, or **Quad View** is selected, the corresponding number of windows is added to the **Layout** submenu:

- If Full Screen is selected, Window 1 is added to the Layout submenu below Layout Select.
- If PIP or Side by Side is selected, Window 1 and Window 2 are added to the Layout submenu below Layout Select.
- If Quad View is selected, Window 1, Window 2, Window 3, and Window 4 are added to the Layout submenu below Layout Select.
- 3. For **Full Screen**, **PIP**, **Side by Side**, and **Quad View** layout selections, assign each corresponding window to the desired video input by doing the following:
 - 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, for example, Window 1.

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, do the following: 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 Input Settings

To configure input settings, do the following:

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 as follows:
 - a. (Optional) Select Global EDID.

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

NOTE: In the preceding list, **External EDID 1** through **External EDID 8** represent placeholders for custom-loaded EDID files.

NOTE: 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	Allows 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 (\blacktriangleleft) or right (\blacktriangleright) button, respectively. To save the name, press the **Enter** button. The message **Saving...**

(Continued on following page)

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 16x9 1080P50 2ch Laptop 16x9 1080P50 2ch Laptop widescreen 2ch Consumer 4k 25Hz HBR 3D Consumer 4k 30Hz HBR 3D Consumer 1080P50 3D HBR Consumer 1080P50 3D HBR Consumer 1080P60 3D HBR Consumer 1080P60 3D HBR Consumer 1080P60 HBR Consumer 720P50 HBR Consumer 720P50 HBR Consumer 720P60 HBR External EDID 1 External EDID 1 External EDID 2 External EDID 5 External EDID 5 External EDID 5 External EDID 7 External EDID 7 External EDID 8 Copy Output 1 Copy Output 2 When an EDID is selected, the Setting message is displayed. NOTE: In the list above, External EDID 1 through External EDID 8 represent placeholders for custom-loaded EDID files. NOTE: 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.

Input Status and Configuration Submenu Guidelines (Continued)

Configuring Output Settings

To configure output settings, do the following:

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	Allows 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 SavingComplete is displayed.

Configuring Network Settings

To configure network settings, do the following: 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.

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 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.
DNS Server 1	Enter the address of the primary DNS server. To enter an address, use the navigation pad. Press the up (\blacktriangle) and down (\lor) buttons as appropriate to enter each octet in an address. To move to the previous octet in an address, press the left (\triangleleft) button. To move to the next octet in an address, press the right (\triangleright) button. To save an address, press the Enter button.
DNS Server 2	Enter the address of the secondary DNS server. To enter an address, use the navigation pad. Press the up (\blacktriangle) and down (\lor) buttons as appropriate to enter each octet in an address. To move to the previous octet in an address, press the left (\triangleleft) button. To move to the next octet in an address, press the right (\triangleright) button. To save an address, press the Enter button.

Network Status and Configuration Submenu Guidelines

Configuring Device Settings

To configure device settings, do the following: 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
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SUBMENU ITEM	GUIDELINES
Details	 (Read Only) Display 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.
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 if the device is not already inserted. 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 the user name and password settings and the network settings—to the factory default settings. Select Yes or No. If Yes is selected, the Restoring message appears followed by the RestoringComplete message.

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