



# User Guide

Multi-display Controller



Engineering the **world's best** visual solutions



# Fx4-HDR User Guide

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# Fx4-HDR User Guide

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*Fx4-HDR*



# Fx4-HDR User Guide

## QUICK START GUIDE

A version of the Quick Start Guide is included for your convenience.

## CONTENTS

- The Fx4-HDR multi-display controller
- 1 x mains power cable
- USB 2.0 cable Type A to Type B
- 8 x HDMI Cable Locks
- 2 x rack mount attachments
- 6 x rack mount screws

If any of the items are missing, please contact Datapath for further instructions.

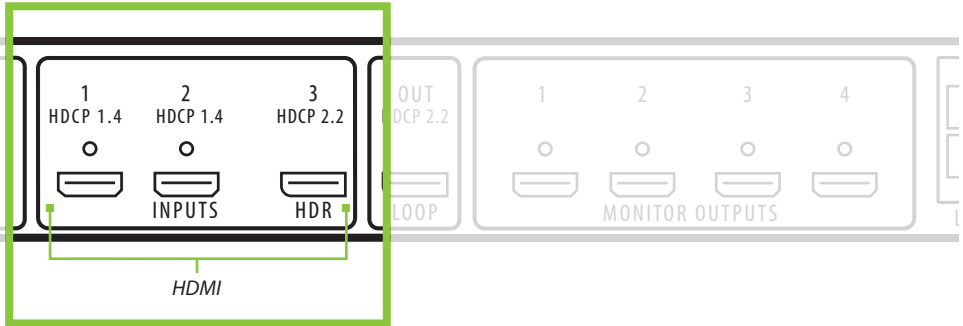
The Fx4-HDR is not supplied with input and output cables therefore please ensure you have the relevant cables to hand to complete your project. HDMI 2.0 Premium Certified 4K cables should be used for the input to ensure 4K compatibility.



# Fx4-HDR User Guide

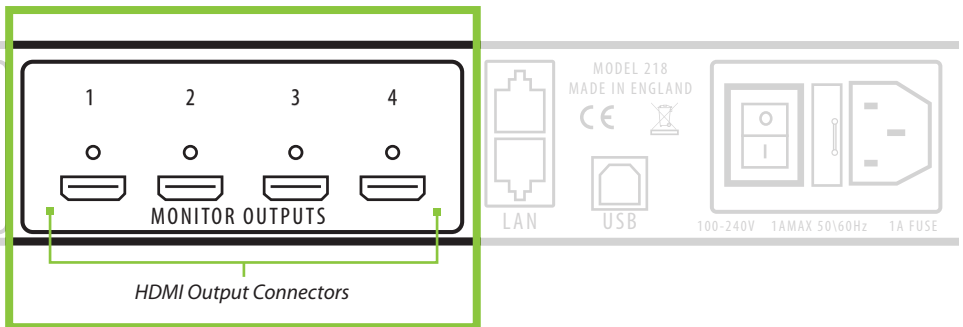
## STEP 1 CONNECTING THE INPUT

Connect your input source to the input connector on the rear of the Fx4-HDR. Ensure cables are inserted correctly, it is recommended that the supplied HDMI Cable Lock connectors are used.



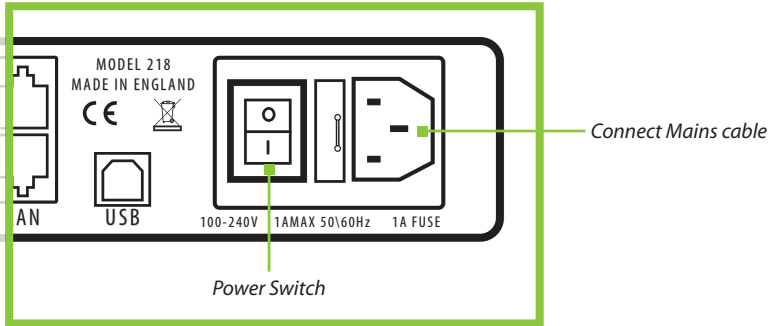
## STEP 2 CONNECTING THE OUTPUTS

Connect the HDMI monitor cables to the monitor output connectors on the rear of the Fx4-HDR. You can connect up to four displays to a single Fx4-HDR unit. Ensure the cables are inserted correctly, it is recommended that the supplied HDMI Cable Lock connectors are used.



## STEP 3 CONNECT A MAINS CABLE

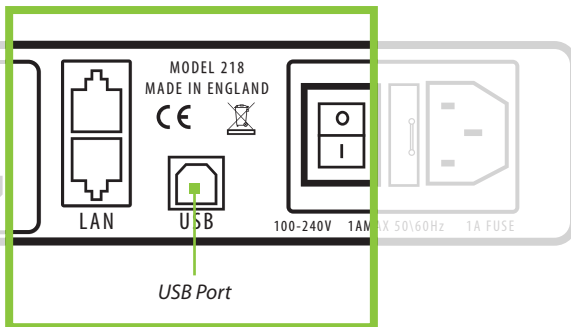
When the power is switched on, the Fx4-HDR will boot and the LEDs on the front panel will flash for up to 15 seconds. Should the LED's continue to flash, see the troubleshooting section.



## STEP 4 CONNECTING TO A PC

To successfully configure the Fx4-HDR, install the Wall Designer application on your PC by downloading the latest version from the Datapath website: [www.datapath.co.uk](http://www.datapath.co.uk).

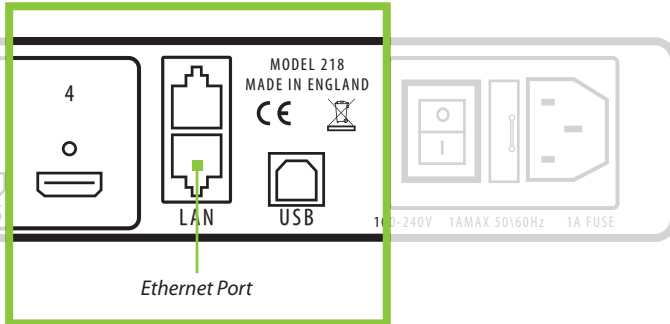
When the Fx4-HDR has booted, connect to your PC using the USB cable provided. The Fx4-HDR unit is a plug and play device. Wall Designer will detect it when layouts are configured.



The Fx4-HDR can also be configured via a Network. See Step 5.

## STEP 5 CONFIGURE VIA A NETWORK

The Fx4-HDR has dual Ethernet ports to allow users to add the device to their network.



Connect the Fx4-HDR to a network using the LAN connector then open Wall Designer and create your display layout. At the point where you associate the virtual device with a physical device the list will display all Fx4-HDR's currently connected to the network.

Click on the virtual device to display its properties, the **Device Properties** can be changed in the same way as if connecting via USB. Once any changes have been made click on **Apply Settings** to save.

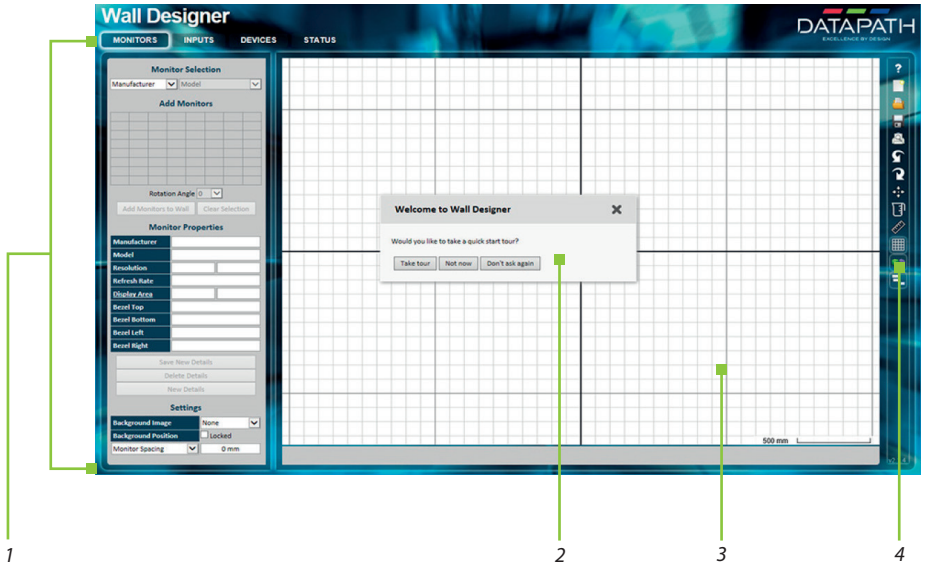
See the section 7.4 for information regarding network settings.



## STEP 6 WALL DESIGNER

Start | All Programs | Wall Designer |

When **Wall Designer** is opened, the following dialogue is displayed:



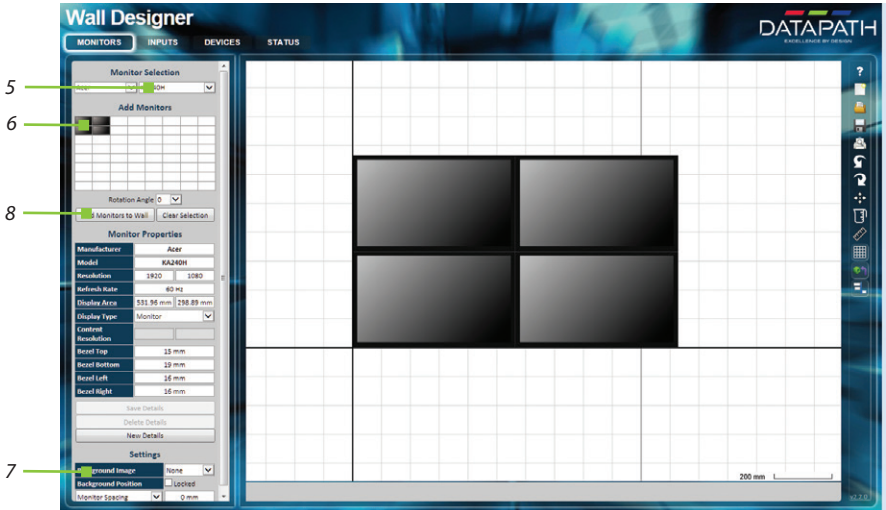
1	Operation Modes: Select outputs, inputs, configure devices and check the status of your multi-display controller.
2	Quick Tour Dialogue.
3	Virtual Canvas.
4	Toolbar.

It is highly recommended that when using **Wall Designer** for the first time, all users take the **Quick Start Tour**.

# Fx4-HDR User Guide

## Selecting Monitors

Click on the **Monitors** panel.



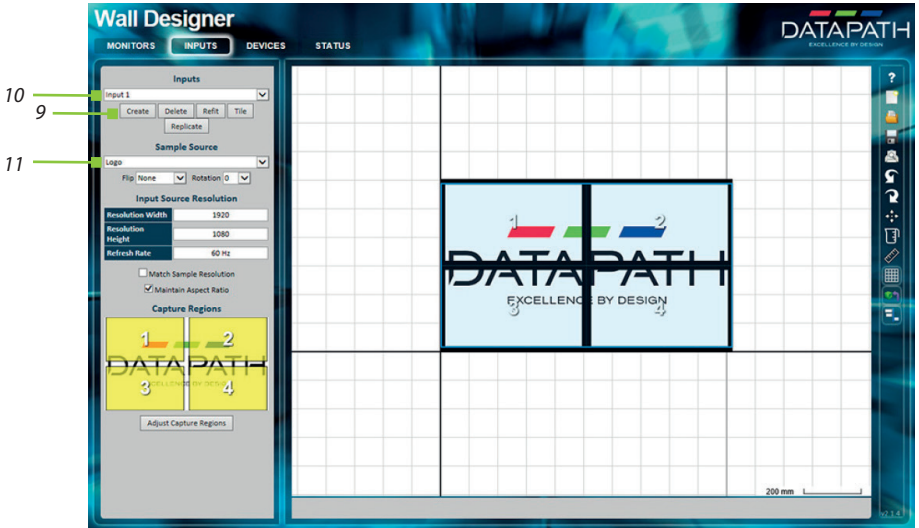
- 5 Select your monitor manufacturer from the drop down list on the left. Then select the model.
- 6 Choose the number of monitors by clicking and dragging in the **Add Monitors** grid.
- 7 Select a background image to enhance the **Virtual Canvas**.
- 8 Click **Add Monitors** and the selected monitors will populate the **Virtual Canvas**.

# Fx4-HDR User Guide

## Defining Inputs

Click on the **Inputs** panel.

### INPUTS



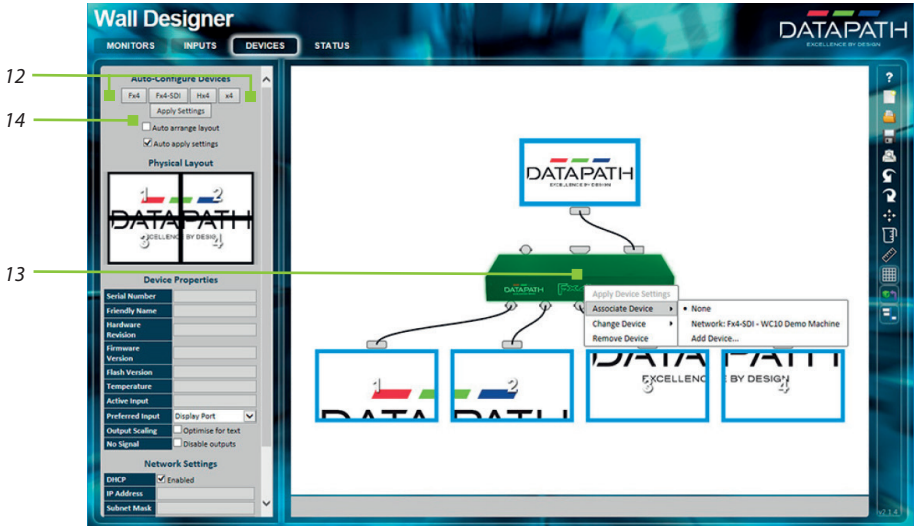
- 9 Click on the **Create** button.
- 10 Use the dropdown list to set up the input sources that are to be displayed on your monitors.
- 11 Use the dropdown list to select a sample source. This will offer a preview of what the display wall will look like on the **Virtual Canvas**.

# Fx4-HDR User Guide

## Configuring Hardware Devices

Click on the **Devices** panel.

### DEVICES



12 Click on your model of multi-display controller to **Auto-configure** the device. This will indicate how the displays are connected to the controller.

13 Right click of the virtual device and associate it with the physical device connected to your PC or on the network. This will populate the **Device Properties**. The **Device Properties** can be edited.

14 Click on **Apply Settings** to complete the configuration.

# Fx4-HDR User Guide

## View Device Status

The **Status** panel gives a summary of each associated device.

### STATUS

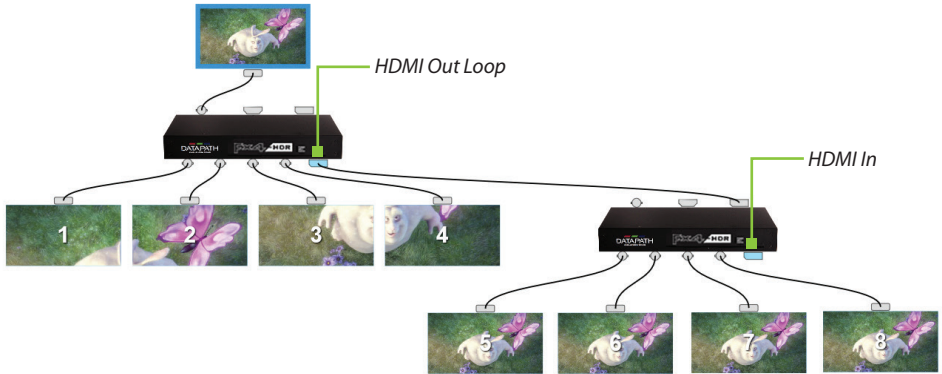


15 List of x-Series multi-display devices connected to your computer or LAN. Click on a device to display its status information.

16 The status information panel displays a summary of the selected device. This includes details of the Flash and Firmware versions, IP Address, serial number and the average running temperature of the controller. Scroll down to view the status of each output.

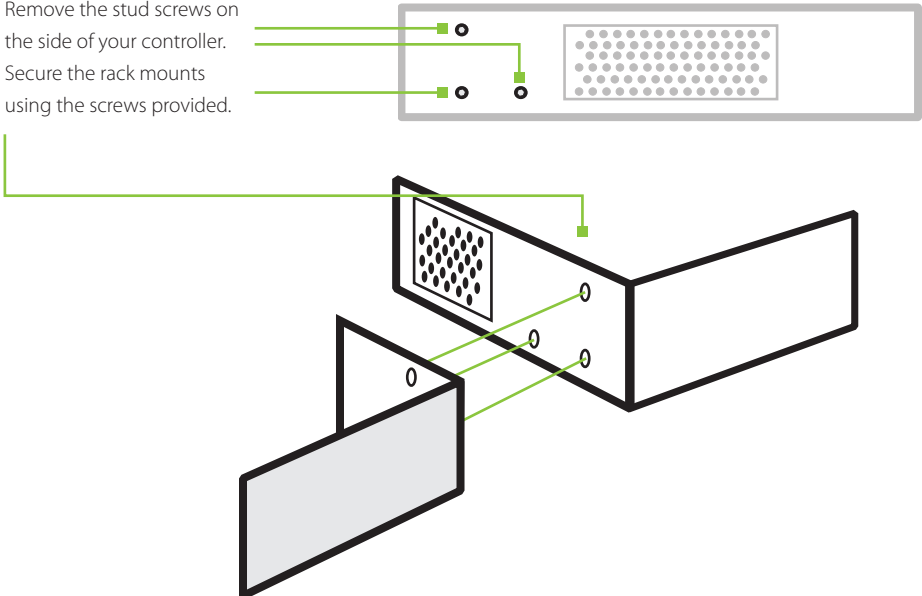
## STEP 7 MULTIPLE DEVICES

Where more than four outputs are required, (the example below shows eight) the **Auto-Configure** function will determine the most logical way to connect all devices.



## STEP 8 RACK MOUNTING (OPTIONAL)

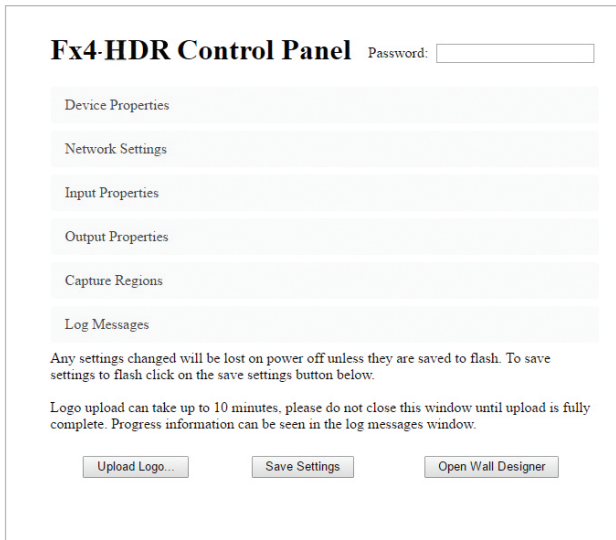
Remove the stud screws on the side of your controller.  
Secure the rack mounts using the screws provided.



# Fx4-HDR User Guide

## STEP 9 IP CONTROL PANEL

The Fx4-HDR has a control panel that can be accessed via an IP connection. Simply type in the IP address of the Fx4-HDR into an Internet browser and a control panel for that particular Fx4-HDR is displayed. The control panel allows you to change properties and settings, manually define cropping regions or open the Wall Designer application.



The screenshot shows the 'Fx4-HDR Control Panel' interface. At the top left, the title 'Fx4-HDR Control Panel' is displayed in bold black text. To its right is a 'Password:' label followed by an empty text input field. Below the title, there is a vertical list of seven menu items, each on a light gray background: 'Device Properties', 'Network Settings', 'Input Properties', 'Output Properties', 'Capture Regions', and 'Log Messages'. Below these menu items, there are two lines of instructional text. The first line states: 'Any settings changed will be lost on power off unless they are saved to flash. To save settings to flash click on the save settings button below.' The second line states: 'Logo upload can take up to 10 minutes, please do not close this window until upload is fully complete. Progress information can be seen in the log messages window.' At the bottom of the panel, there are three buttons: 'Upload Logo...', 'Save Settings', and 'Open Wall Designer'.

## STEP 10 TROUBLESHOOTING

### Display Screens Turns Red

If all the display screens turn Red, this indicates that there is an issue with HDCP compliance. Check both the input source and the monitors are HDCP compliant.

### Front Panel LED Lights

On start-up all three lights will flash. After a few seconds the flashing should stop, and the power light stays on permanently. If the light continues to flash this indicates that the Fx4-HDR requires upgrading. See section 8.1 for details on how to upgrade your Fx4-HDR.

## CHAPTER 1 INTRODUCTION

### 1.1 Introduction

Congratulations on your purchase of the Datapath Fx4-HDR multi-display controller. The Fx4-HDR has been manufactured and tested to the highest standards offering unparalleled quality and reliability. The aim of this user guide is to assist you through the installation of the Fx4-HDR safely and effectively and act as a reference guide for future use. Do not switch the controller on until all the relevant cables have been connected.

### 1.2 How the User Guide is Organised

The user guide is broken down into chapters and each chapter into sections. Chapters, sections and pages are numbered individually. Pages are numbered in Arabic numerals with the exception of the cover page (no numbering).

### 1.3 Fonts and Symbols

#### 1.3.1 Fonts

The following font styles have individual meanings:

<b>Bold</b>	Used to describe menu titles, buttons in software or elements that you must type.
<u>Blue Underlined</u>	Indicates a hyper-link. Some hyper-links may be linked to live websites.

#### 1.3.2 Symbols

Symbols are used throughout this user guide to assist the user in quickly identifying important safety information and notes.



**Yellow triangle indicates that failure to observe the instructions could result in injury and/or damage to the system.**



**White arrow in a blue box indicates a useful tip.**



**White exclamation mark in a blue box indicates important information.**



## CHAPTER 2 UNPACKING AND INITIAL INSPECTION

### 2.1 Unpacking

All packaging materials should be retained for future transit.

### 2.2 Initial Inspection

All Datapath products are carefully prepared for shipment and every effort is made to ensure you receive the product in pristine condition. On receipt, you should carefully inspect the outer packaging for any transit damage i.e. any signs that the item may have been dropped or damaged.

Establish that all the items are present. Should any items be missing, contact Datapath Ltd for further instructions.

Check the Fx4-HDR for damage that could have an adverse effect on the operation of the system or could cause injury to the operator. Should there be any physical damage to the power sockets or exposed wiring do not connect to a power source. Contact Datapath Ltd for further instructions.

### 2.3 Content

Your packing box should contain the following items:

- The Fx4-HDR multi-display controller
- 1 x mains power cable
- USB 2.0 cable Type A to Type B
- 8 x HDMI Cable Locks
- 2 x rack mount attachments
- 6 x rack mount screws

If any of the items are missing, please contact Datapath for further instructions.

## CHAPTER 3 GENERAL

### 3.1 Overview

Advancements in digital signage requirements mean that customers demand greater freedom in creating and deploying small, medium and large scale signage projects. The Datapath Fx4-HDR is a stand-alone, multi-display wall controller with the capacity to run a single 4K HDR source across four HD outputs in high definition. When used with the powerful Wall Designer application software, the Fx4-HDR can represent any arrangement or configuration of the source image desired.

A popular choice for advertising boards, corporate signage and live event visuals, this cost effective control system is both easy to use and simple to set up. When paired with a HDMI distribution amplifier, large cost effective display walls can be achieved.

Fx4-HDR has dual Ethernet connections, which can be used for status monitoring and complete control of the hardware. A flexible REST API is also supported to allow third party software integration.

### 3.2 Features

Each output display can take its input from any region of the input image as all of the required cropping, scaling, rotation and frame-rate conversion is handled by the Datapath Fx4-HDR hardware. These regions can overlap to allow any output to replicate another or can be configured to support any creative splice of the source material. This allows the support of many non-rectangular screen arrangements with correction for uneven gaps, and any mix of monitor orientations.

#### Features include:

- Infinite creative configurations
- Multiple inputs for flexible connectivity:
  - 1 x HDMI 2.0 with HDCP2.2 support
  - 2 x HDMI 1.4 with HDCP1.4 support
- Full 10-bit data pipeline with HDR10 (ST2084) and HLG (Hybrid Log Gamma) support
- Four independent outputs up to 1920 x 1200 at 60Hz
- High bandwidth loop-through for daisy-chaining multiple units
- Audio passthrough, configurable to any single or multiple outputs
- Rotate, scale, crop, mirror and bezel correction processing
- Content region selection for each output with upscaling and downscaling support
- True stand-alone operation: Fx4-HDR can adapt to changes in inputs by adjusting all scale factors
- Network or USB interfaces allow platform independent control (MAC OSX 10.6 & later)
- Pre-load an image for use when signal is not detected

## CHAPTER 4 HARDWARE

### 4.1 Front Panel



#### 4.1.1 Operation Indicators

The front panel has three LEDs to indicate the operational status of the Fx4-HDR:

- Power
- Input
- Status

##### Power

When illuminated, the Power LED indicates the Fx4-HDR is connected to a mains supply.



The LED's can flash for up to 15 seconds when the Fx4-HDR is switched on.

##### Input

When illuminated, the Input LED indicates a valid source is connected.

##### Status

Continuous illumination – Indicates the Fx4-HDR is operating normally.

Flashing – Unit is operating over the normal operating temperature. Ensure the input fan vent is not blocked.

Off - If the Status LED goes off and remains off this indicates that the settings configured in Wall Designer no longer match the input. This is normally the result of a change of input. The Fx4-HDR will compensate for the settings and reconfigure itself to display as near to the settings as possible. The output will still be displayed but not necessarily as expected.

When the Fx4-HDR device is connected to a PC by a USB cable and Wall Designer application is active, then all three lights flash in turn to help to identify which unit is being controlled.

# Fx4-HDR User Guide

## 4.1.1 Firmware Upgrade

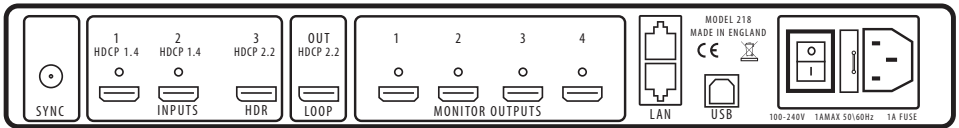
After upgrading the Fx4-HDR with a new Flash version, the next boot may take approximately 1 min 30 secs longer than usual if the firmware of the receivers and transmitters requires upgrading.

The Fx4-HDR will boot as normal, with all LEDs flashing for up to 15 seconds, followed by just the Status LED being illuminated for approximately 5 second while the unit initialises.

If a firmware upgrade is required, the Power and Input LEDs will then flash for approximately 1 min 30 secs while the upgrade is carried out.

Should the firmware upgrade fail, the Status LED will flash following the upgrade, and it is recommended the Fx4-HDR is rebooted to attempt the upgrade again.

## 4.2 Rear Panel



### Input

The Fx4-HDR has three HDMI connectors:

---

2 x HDCP 1.4

---

1 HDCP 2.2 HDR

---

### Monitor Outputs

Four HDMI output connectors. The Monitor Output connectors are used to connect the Fx4-HDR to the display monitors.

### LAN

The LAN connector is used to connect the Fx4-HDR to a network for configuration and control. The LAN connector can also be used to connect the Fx4-HDR directly to a PC for configuration.

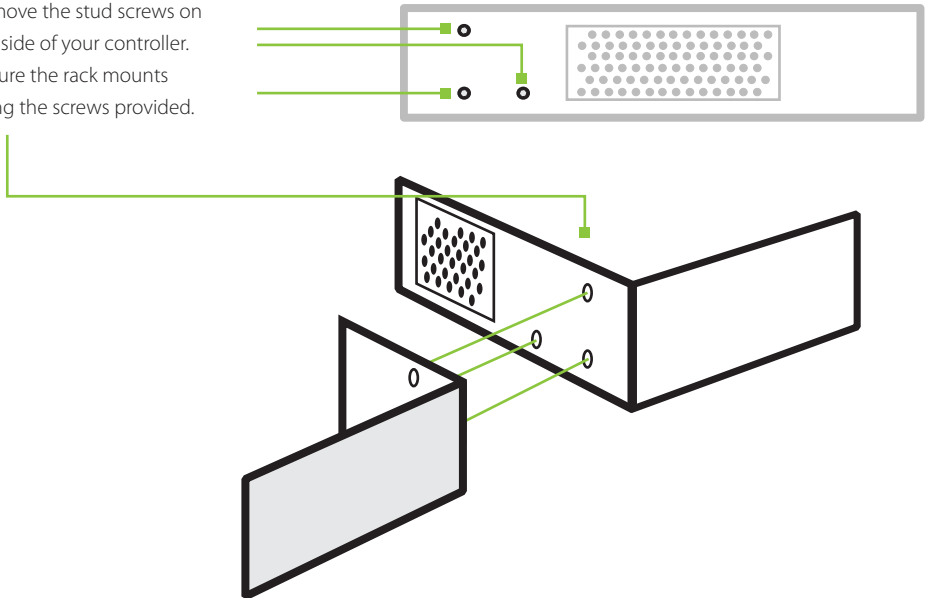
### USB

The USB socket is used to connect the Fx4-HDR to a PC via a USB connection using the supplied USB Type A to Type B cable.

## 4.3 Rack Mounting the Fx4-HDR

The Fx4-HDR is supplied with attachments to enable you to mount the Fx4-HDR in a rack. Remove the three mounting screws on each side of the Fx4-HDR using a cross head screwdriver and attach the rack mounts as shown in the illustration below.

Remove the stud screws on the side of your controller. Secure the rack mounts using the screws provided.



## CHAPTER 5 SOFTWARE

This chapter will cover:

- Introduction to Wall Designer
- Installing the Wall Designer application
- Running the Wall Designer application
- A summary of Wall Designer features

### 5.1 Wall Designer

Multi-monitor display wall installations can be challenging to design, build, configure and implement. Highly creative display projects often require multiple monitors arranged in unconventional formations with a myriad of bezel sizes, gaps and monitor positions. Project designers, installers and integrators require simple yet effect video wall creation tools in order to manage the project from start to finish.

The software includes a community driven database of monitors from popular manufacturers which continues to grow as users add their own monitor specifications and submit them back to Datapath for inclusion in the next database update.

### 5.2 Wall Designer Features

Wall Designer is the perfect solution to creating and managing your display wall project from start to finish, giving you total creative control reliably and efficiently.

- Datapath's monitor database is regularly updated with new manufacturers and models. Users can add and submit their own monitor information and once validated, will be added to the master database.
- Monitors can be arranged landscape and portrait with gaps.
- Add content into your project and place it across the virtual canvas filling the monitors with content.
- Automatically configure the Fx4-HDR assigning each output to a monitor.
- Print out design schematics to aid physical monitor installation.
- Wall Designer software is available in English, simplified Chinese (from Version 1.2.0) French, German, Italian, Japanese, Korean, Polish, Portuguese, Russian and Spanish.
- Comprehensive help files to guide you through the application.

## 5.3 Installing Wall Designer

### 5.3.1 Downloading The Application

The Wall Designer application should be downloaded from the Support section of the Datapath website under the Software Downloads section. Wall Designer can be found under the Display Controller Downloads.

### 5.3.2 View Readme

Click on View Readme to open an HTML document containing the latest information and bug fixes for the application. The Wall Designer application can be installed from the Readme.

### 5.3.3 Install the Wall Designer Software

Double click on the downloaded Wall Designer.exe file to initiate the installation wizard. Wall Designer is a multi-lingual application and you are offered a selection of languages when the install process begins. Select the required language and the install wizard will continue installing the software.

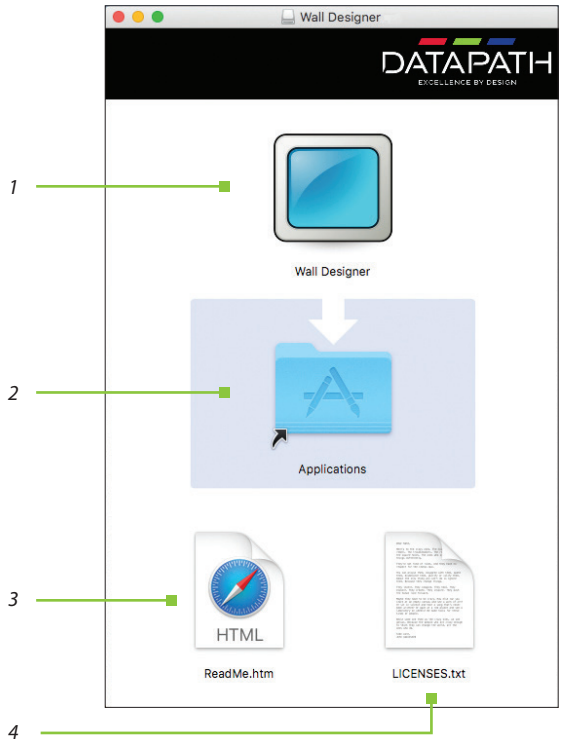
## 5.4 Installing the Wall Designer - Mac OS

### 5.4.1 Web Download

The Wall Designer application for Mac is available to download from the Datapath website (see 5.3.1). Once the application has been downloaded, locate and click on the walldesigner.dmg in your downloads folder and the following dialogue is displayed:

Drag the Wall Designer application (1) into the Application folder (2) and the Wall Designer application becomes available to open from Launchpad.

The Readme (3) and the Software License Agreement (4) can be opened by clicking on them. You are strongly advised to read both prior to using the Wall Designer application.



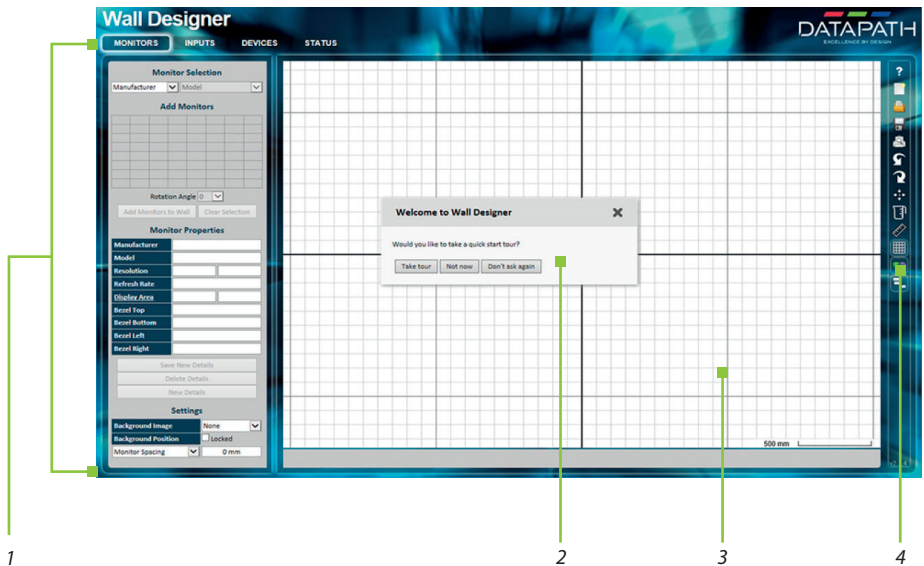
## 5.5 Running the Wall Designer Application

Once the software has been installed you can open the application:

Start | All Programs | Wall Designer (Windows) or Launchpad | Wall Designer (Mac)

### 5.5.1 Wall Designer Interface

When Wall Designer is opened, the following dialogue is displayed:



1	Operation Modes: Select outputs, inputs, configure devices and check the status of your multi-display controller.
2	Quick Tour Dialogue.
3	Virtual Canvas.
4	Toolbar.



# Fx4-HDR User Guide

## 5.5.2 Operation Modes

The application has four operation modes: Monitor, Inputs, Devices and Status:

### Monitors

Wall Designer includes a database containing a selection of the more commonly used monitor manufacturers and models. Use the manufacturer and models dropdown list to select a specific monitor. When selected the monitor properties are automatically populated with the specification of the monitor.

To add monitors simply click or click and drag the cells inside the 8x8 grid. Once the monitors have been arranged on the virtual canvas and you are happy with the wall design, click on Add Monitors to Wall.

Add a background image to enhance the Virtual Canvas.

### Inputs

The inputs section of the application toolbar enables you to select a given input and allocate regions of the input to each monitor on the display wall.

A collection of sample sources are available via a dropdown menu, this contains a list of images and videos contained within the application's and user's media folder.

### Devices

The devices section of the application toolbar brings together the input, hardware devices and the monitors thereby completing the design of your display wall. This is done by allocating the input to available devices and the outputs from the devices to specific monitors on the display wall.

For ease of use Wall Designer has an automatic configuration feature (Auto-config) which when clicked, automatically adds the required number of devices and configures all the links from the input to the monitors via your Fx4-HDR's in the most logical configuration.

The virtual device can be associated with an actual device by right clicking on it and selecting **Associate Device**. Click in the device to display the device properties, these properties can be changed if required, for example the **Friendly Name** (recommended).

### Status

Click on a device and the Status Panel is populated with a detailed summary of the device including details of Flash and Firmware versions, IP Address (if connected via a network), serial number and average temperature of the device etc.

The Status Panel also displays the input and output properties, a detailed view of each property can be viewed by clicking on each drop-down menu.

# Fx4-HDR User Guide

## **5.5.3 Quick Tour**

When opening the application for the first time a quick tour dialogue is presented. It is highly recommended that you take a few minutes to complete the tour. The quick tour dialogue can be turned off so it will not be displayed in the future.

## **5.5.4 Virtual Canvas**

The Virtual Canvas displays a representation of the monitors selected and their orientation, thereby offering a view of the completed wall design. In Device mode, the Virtual Canvas illustrates how the input source, Fx4-HDR(s) and monitors are configured.

## **5.5.5 Toolbar**

The toolbar offers a group of tools which assist in creating, opening and saving layouts, you can also display actual video wall measurements in metric or imperial.

## **5.5.6 Help Files**

The Wall Designer application has an inbuilt help file system which can be accessed by clicking on the ? at the top of the toolbar.

## CHAPTER 6 CABLING

This chapter will cover:

- Attaching HDMI Cable Lock
- Connecting input sources
- Connecting a loop-through output cable
- Connecting the outputs to monitors
- Cable lengths

### 6.1 Attaching a HDMI Cable Lock

The Fx4-HDR is supplied with HDMI Cable Locks which should be used on non-lockable HDMI cables to ensure they remain firmly attached to the Fx4-HDR.



Thread the cable tie through the holes in the side of the cable lock.



Sit the cable lock on the top of the HDMI cable connector ensuring the cable lock is flush with the front of the shroud on the HDMI connector.



Pull the cable tie tightly and ensure it fits firmly on the HDMI connector shroud.

### 6.2 Connecting Your Input Source

The Datapath Fx4-HDR has one dedicated HDMI input connector. It is strongly recommended that locking cables are used to prevent the input source cable from becoming detached from the Fx4-HDR. HDMI Cable Locks are provided and should be attached to your cables as shown above:



Connecting an HDMI Input Cable.

# Fx4-HDR User Guide

## 6.3 Connecting Outputs to Monitors

Each Fx4-HDR display controller can support up to 4 monitors on a display wall. The output connectors are HDMI. Once again it is highly recommended that locking cables are used.

Each output can display any region of the input image, all the required cropping, scaling and rotations are calculated within the Fx4-HDR hardware.



Connecting HDMI Output Cable

### 6.3.1 Cable Lengths

Workable cable lengths depend on the quality of the cables used to set up your Fx4-HDR, Datapath recommends using certified cables when installing your Fx4-HDR.

Cable Type	Maximum Length (m)
HDMI (output)	10
Ethernet Cable (Network/Setup)	100
USB (Setup)	3

## CHAPTER 7 OPERATION

This chapter will cover:

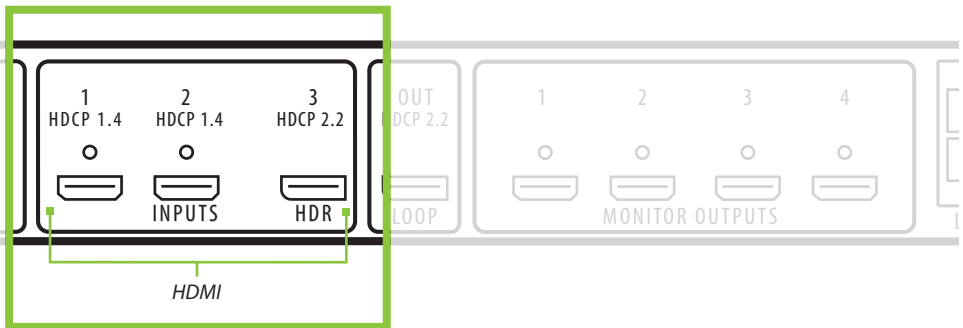
- Setting up the Fx4-HDR
- Switching on the Fx4-HDR
- Configuring the Fx4-HDR using a USB connection
- Configuring the Fx4-HDR over a Network

### 7.1 Setting up the Fx4-HDR

#### 7.1.1 Connecting an Input

Firstly, ensure you have all the relevant input and output cables you need for your project:

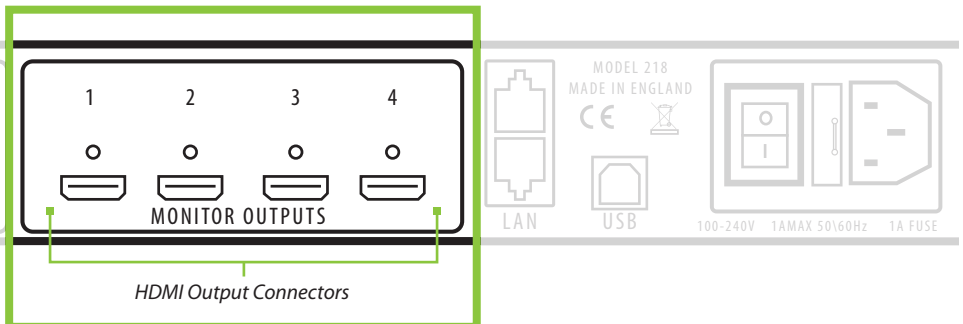
- Begin by connecting your input source to the input connector on the rear of the Fx4-HDR. Ensure the input cable is inserted correctly. It is recommended that cable locking connectors are used.



#### 7.1.2 Connecting Outputs

The Fx4-HDR has four output connectors.

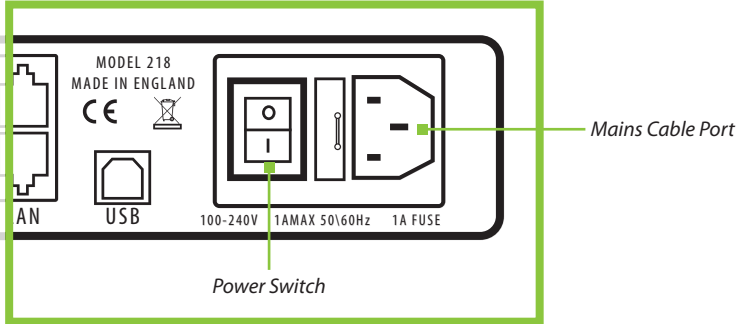
- Connect the monitor cables to the monitor output connectors on the rear of the Fx4-HDR. You can connect up to four monitors to a single Fx4-HDR unit. Ensure the cables are inserted correctly. It is recommended that cable locking connectors are used.



# Fx4-HDR User Guide

## 7.2 Switching On the Fx4-HDR

The Fx4-HDR has a built in power unit which is controlled using the power switch on the rear panel. Connect in the power cable supplied with your Fx4-HDR and plug in to a mains supply. Switch on the power on the rear of the Fx4-HDR as shown in the following illustration:



When the power is switched on the Fx4-HDR will boot and the LEDs on the front panel will flash as described in Chapter 4.

Please note, it could take up to 15 seconds for the Fx4-HDR to fully boot.

## 7.3 Configuring the Fx4-HDR via USB

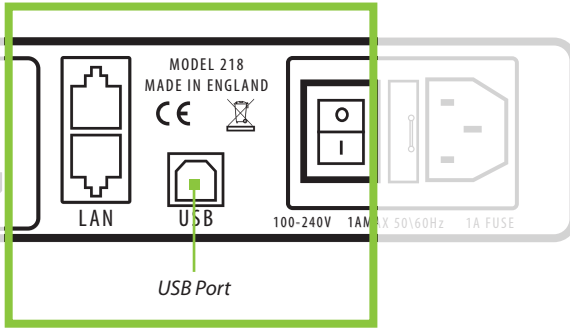
When the Fx4-HDR has booted, connect it to the computer which has the Wall Designer application installed using the USB cable provided.



The Fx4-HDR is a plug and play device and relies on the device drivers in the Windows operating system. To enable the operating system to “attach” to the Fx4-HDR you must ensure the **Device Installation Settings** are set to automatic:

**Control Panel \ Devices and Printers** then right click on your computer icon and select **Device Installation Settings** from the menu. In the **Device Installation Settings**, select **Yes, do this automatically (recommended)** and click on **Save Changes**.

# Fx4-HDR User Guide



Open the Wall Designer application and begin to design your video wall layout using the **Monitors** tab as described in Chapter 5.

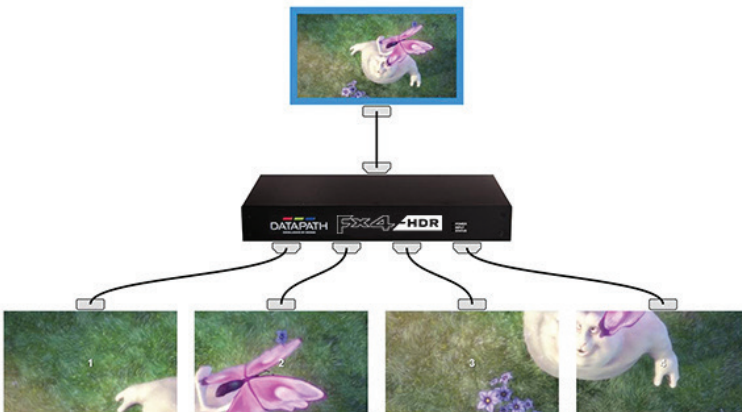
With the monitors selected and the layout completed select the **Input** tab. Allocate the input to the Fx4-HDR by clicking on **Create** then selecting the required input from the drop down menu.

Once the input has been selected, navigate to the **Devices** tab, this is where the Fx4-HDR is configured.

The **Devices** window is where the input, devices and monitors are linked to complete the design of the video wall; this is done by allocating inputs to devices and the outputs from the devices to specific monitors on the video wall.

For ease of use the **Auto-config Fx4-HDR** function will, when clicked, automatically add devices and configure all the links from the inputs to the monitors via the Fx4-HDR in the most logical configuration.

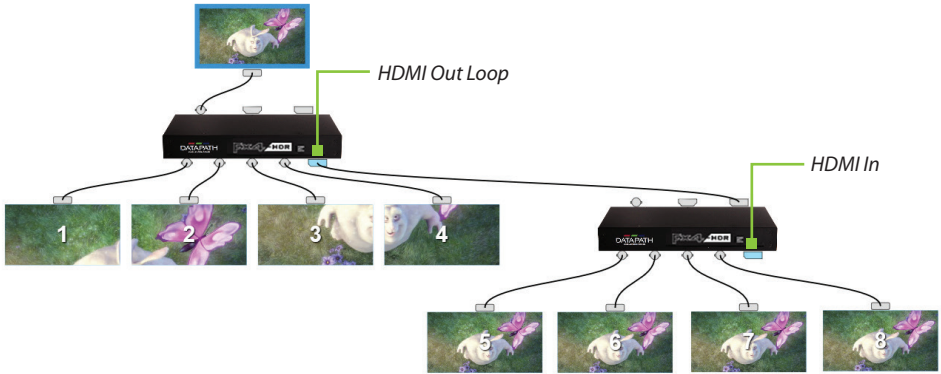
Click on the **Auto-config Fx4-HDR** button and a visual representation of the configured Fx4-HDR will appear in the main window, for example:



# Fx4-HDR User Guide

The previous illustration shows the input source connected to the Fx4-HDR and each monitor connected to the respective output connector.

Where more than four outputs are required, (the example below shows eight) the **Auto Config Fx4-HDR** function will determine the most logical way to connect all devices. To add a second Fx4-HDR, use a HDMI 2.0 cable (not supplied) to connect the Out Loop on the first Fx4-HDR to the HDMI Input on the second Fx4-HDR as shown below.



To associate the virtual Fx4-HDR in the main window with an actual physical device, highlight the device by right clicking then select **Associate Device** from the displayed menu. A list of available Fx4-HDR's is displayed.

Click on the virtual device to display its properties. The **Device Properties** can be changed if required, for example you may wish to allocate a different Friendly Name which can be useful when connecting to multiple devices. Once changes have been made click on **Apply Settings** to save.

If no signal is detected on the input connectors the Fx4-HDR will display a pre-configured Datapath logo.

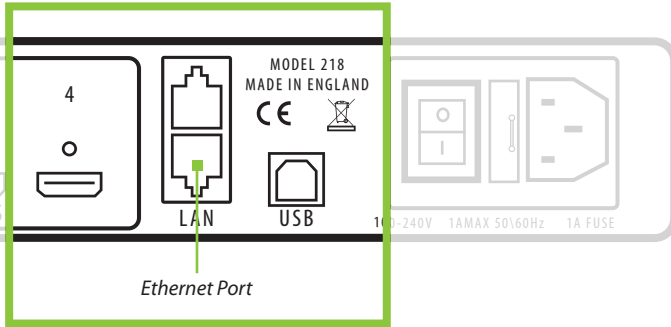
Full instructions on how to configure your Fx4-HDR are available in the Wall Designer application help file.



# Fx4-HDR User Guide

## 7.4 Configuring the Fx4-HDR via a Network

The Fx4-HDR has a single Ethernet port to allow users to add the device to their network.



Connect the Fx4-HDR to a network using the LAN connector then open Wall Designer and create your display layout as described in Paragraph 7.3.

At the point where you associate the virtual device with a physical device the list will display all Fx4-HDR's currently connected to the network either directly or daisy chained.

Click on the virtual device to display its properties, the **Device Properties** can be changed in the same way as if connecting via USB. Once any changes have been made click on **Apply Settings** to save.

### 7.4.1 Network Settings

The Network Settings become active once you have successfully connected to an Fx4-HDR either by USB or Ethernet.

The Fx4-HDR allows you to switch between Dynamic (DHCP) and Static IP's. Out of the box, the Fx4-HDR is configured to accept DHCP.

When DHCP is selected the network will assign the Fx4-HDR with an IP address, this IP address can change depending on how the network allocates IP addresses.

If the Fx4-HDR is assigned a Static IP address it will keep that address until it is changed by the user.

The IP Address, Subnet Mask and Gateway fields are not available to edit if DHCP is selected and the display settings are assigned via a DHCP server.

In Static mode the IP Address, Subnet Mask and Gateway can be manually configured.

## CHAPTER 8 TROUBLESHOOTING

### 8.1 Troubleshooting

#### 8.1.1 Display Screens Turn Red

If all the display screens turn Red, this indicates that there is an issue with HDCP compliance. Check both the input source and the monitors are HDCP compliant. If neither are HDCP compliant it is possible to stop the Fx4-HDR from automatically negotiating an HDCP link by disabling HDCP in the Wall Designer application.

In the Devices tab, select the input to display the Advanced Timing Properties and uncheck the HDCP Enabled box.

#### 8.1.2 Network Timing Out

The network connection fails and the Fx4-HDR can't be seen in devices. Indicates that an IP address needs to be set.

#### 8.1.3 Front Panel LED Lights

On start-up all three lights will flash. After a few seconds the flashing should stop and the power light stays on permanently. If the light continues to flash this indicates that the Fx4-HDR requires a firmware upgrade.

To upgrade, connect the Fx4-HDR via the USB or Network interface to a PC and open the Wall Designer application. Create a monitor layout, allocate an input and auto-configure the Fx4-HDR. When the visual representation of the Fx4-HDR appears in the Device window a blue information icon will be displayed.

Click on the information icon for details of available upgrades. 

#### 8.1.4 Intermittent or Loss of Input Signal

If you lose your input signal or if the signal is intermittent it could mean there is a problem with the link rate between the source and the Fx4-HDR.

Check that all cables are fitted correctly.

## 8.2 Technical Support

Registered users can access our technical support using email and the Support Enquiry Form on our website, usually with a response within 24 hours (excluding weekends).

### 8.2.1 Email

Send an email to [support@datapath.co.uk](mailto:support@datapath.co.uk) with as much information about your system as possible. To enable a swift response our support team will need to know the following details:

- Serial number of your Fx4-HDR. This can be found in the Device Properties in the Wall Designer application.
- Version of Wall Designer. Displayed in the bottom right of the Wall Designer application.
- Firmware version. This can be found in the Device Properties in the Wall Designer application.
- Details of the input source including any distribution amplifiers.
- The exact nature of the problem - please be as specific as possible.

## CHAPTER 9 MAINTENANCE

### 9.1 Maintenance of the Fx4-HDR

Your Fx4-HDR requires little maintenance however care should be taken to keep all ventilation holes clear to allow an unrestricted flow of air through the unit.

**Note:** *Failure to keep ventilation holes clear could result in damage to your Fx4-HDR and invalidate the warranty.*

## CHAPTER 10 ENVIRONMENTAL

### 10.1 Certification and Compliances

#### 10.1.1 CE



EU- Class A Declaration of Conformity

Datapath Ltd declares that this Fx4-HDR Display Controller complies with the essential requirements and other relevant provisions of Directives 2014/30/EU, 2014/35/EU and 2011/65/EU.

A copy of our Declaration of conformity is available on request.

#### **Datapath Limited**

Bemrose House  
Bemrose Park  
Wayzgoose Drive  
Derby, DE21 6XQ  
UK

#### 10.1.2 FCC

These devices comply with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) These devices may not cause harmful interference, and (2) these devices must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at their own expense.



**Caution.** *Changes or modifications to the equipment not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.*

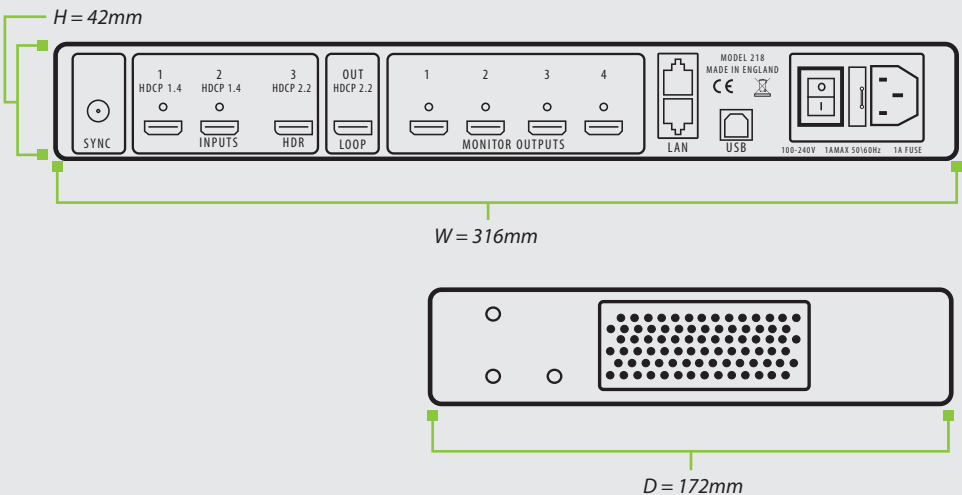
#### 10.1.3 Disposal

At the end of life all Datapath products should be disposed of as per local laws and regulations dictate. In the UK contact Datapath to arrange disposal. Our WEE registration number is WEEE/AA0005ZR.

## CHAPTER 11 SPECIFICATIONS

### Specifications

Dimensions	W 316mm x D 172mm x H 42mm (1.86kg)
Operating Temperature	0 - 35 °C / 32 - 96 °F
Power Requirements	C switched and fused mains connector 100-240V, 50/60Hz / 30W
Video Input Connections	3 x HDMI 1.4 (2160p/30 or equivalent up to 297 MP/s)
Video Output Connections	4 x HDMI 1.3 (1080p/60 or equivalent up to 165 MP/s)
Input Surface	4K x 4K maximum
Genlock	HDMI Input
Control Interfaces	2 x 100BaseT Ethernet port USB 2.0 Type B connector (full speed operation)
Firmware Support	Updates supported via USB and Ethernet connection
Storage Temperature	-20 to 70 °C / -4 to 158 °F
Relative Humidity	5% - 90% non-condensing
Warranty	3 years



## CHAPTER 12 WARRANTY/RMA

### 12.1 Warranty Statement

Datapath provides a return to manufacturer warranty on all its products for a standard 36 month period. It is important that RMA procedures are followed prior to products being returned as often issues can be resolved quickly without the need for products being returned.

### 12.2 RMA Returns Policy

If your Datapath product is not working as you expect, we recommend that you contact Datapath Ltd in the first instance for support, since many issues that may first appear as hardware faults, are actually installation or set-up problems and can normally be resolved without having to ship any hardware back to us. This route is therefore often the quickest, easiest and cheapest way of solving the problems that you are experiencing. Please email [support@datapath.co.uk](mailto:support@datapath.co.uk) including as much detail regarding the failure as possible (for example: system description, signal types, input or output resolutions and any other relevant background information).

It is essential for you to know the serial number of the product(s) when contacting us.

If it appears that the fault is most likely to be hardware related, please email [rma@datapath.co.uk](mailto:rma@datapath.co.uk) stating the serial number and as much additional information regarding the nature of the failure as possible. Detailed explanation of the fault will help us to better identify the problem and will direct additional focused testing if necessary. We will then issue an "RMA Number" to you.

At the time that the "RMA Number" is issued we will inform you of the warranty status of the product and the cost of the repair, if appropriate - see paragraph (b) below. The product should then be returned, at your cost, to Datapath Ltd following the steps below.

There are 4 possible scenarios when a product is returned to us:

- (a) The product is in warranty and is either found to be genuinely faulty or no fault is found. In these cases, the product will be repaired as necessary, or replaced by a new or previously repaired product, and returned to you at our cost.
- (b) The product is out of warranty and is found to be faulty. The product if possible will be repaired or replaced at fixed cost, as stated in the RMA authorisation email. To cover this payment, you will be required to either provide a Purchase Order or Credit Card details, when the product is returned to us. (However, we will not issue an invoice or charge the credit card until the repair has been completed and is about to be returned to you)
- (c) The product is in warranty but is found to be damaged by misuse. This will be treated as (b) above.
- (d) The product is out of warranty and is obsolete. In the unlikely situation that the product can be neither repaired nor replaced, because some of its components are obsolete and we have no swap-out stock left, then the product will either be returned to you, or disposed of at your request, with no charge.

# Fx4-HDR User Guide

**Please Note:** *Datapath will not accept responsibility for the safety, integrity or security of any programmes, data or other content held on hard drives or any other type of rewritable media which is sent to us either separately or as part of any equipment returned to us for repair or for any other purpose. Customers are advised to take back-ups of anything that they deem to be valuable or important before returning the equipment to us and anything which is confidential should be erased from the media before it's returned.*

Once the RMA Number has been issued, you need to raise your Purchase Order, or supply your credit card details, and return the product to: Datapath Ltd, Bemrose House, Bemrose Park, Derby DE21 6XQ, United Kingdom - securely packed and with the RMA Number clearly displayed on the outside of the box. To prevent unnecessary carriage and handling please only send back products or accessory items you believe to be faulty.

In the case of paragraph (c) , the fixed charge will be levied after we have seen the product and identified the misuse. In this case we will request you to issue a purchase order or provide credit card details before any repairs are completed.

Our policy is to return the repair (or swap-out) to you within 10 days of receipt.

## **12.3 Disclaimer/Copyright Statement**

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