



EX Range

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DISGUISE

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EX Range Overview



The EX range was developed to become the gateway to the Disguise platform and has been designed as a video playback solution to deliver pixel-perfect experiences.

With performance and scalability, the EX range has been developed for location-based experiences (LBX), theatre shows, and keynote presentations.

What's Different?

The EX range has been designed specifically for video playback, and as a result, we offer EX range servers both with and without physical video inputs. For the EX range servers that do not have physical inputs, we do support NDI® video input, but we do not support USB video capture devices.

There are no audio inputs and outputs on the EX range. Audio Interfaces can also be used if needed.

The EX range does not support VFC cards with video output via DisplayPort only.

There is no support for RenderStream or mixed reality set extension within the EX range.

There is an optional Real-time Connector licence if a user wishes to run generative content on their EX range media server, such as a Notch block or a Touch Designer scene. The Real-time Connector license can be purchased at a one-time cost.

Note

It is important to note that the Notch layer is used to playback Notch blocks on an EX range media server, with a Notch playback license required to remove the watermark, whilst the RenderStreamLocal layer is used to playback a TouchDesigner scene as outlined here.

There is also an optional colour management license if a user wishes to use ACES or OCIO mode on their EX range media server. The colour management license can also be purchased as a one-time cost.

The EX range can be used as a network of machines with redundancy and failover options. This means that it can be used as a Director (Dedicated/Non-Dedicated), Actor, Understudy, and Editor within a d3Net session with other EX range only. It will also be able to run as a Director and Editor with other VX/GX range media servers. See the [Director Capabilities](#) page for more information.

Compare the capabilities of the EX 2, EX 2C, and EX 3+ by referring to the table below:

	EX 2	EX 2C	EX 3+
4K Inputs*	N/A	1x HDMI 2.0 and 2x 12G inputs for a maximum of 2x 4K inputs, or 4x 3G inputs (HD-BNC)	1x HDMI 2.0 and 2x 12G inputs for a maximum of 3x 4K input, or 4x 3G inputs (HD-BNC)
4K Outputs	2x 4K outputs (DisplayPort 1.4)	2x 4K outputs (DisplayPort 1.4)	3x 4K outputs (DisplayPort 1.4)
Network Ports	General Network: 2x 10GbE Media Network: Dual-port 100GbE	General Network: 2x 10GbE Media Network: Dual-port 100GbE	General Network: 2x 10GbE Media Network: Dual-port 100GbE
GPU	Nvidia RTX 4000 Ada	Nvidia RTX 4000 Ada	Nvidia RTX 4000 Ada
CPU	AMD EPYC 8C/16T 2.4GHz	AMD EPYC 8C/16T 2.4GHz	AMD EPYC 16C/32T 2.45GHz
Motherboard	PCIe Express 5.0	PCIe Express 5.0	PCIe Express 5.0
Storage	1x 1.92TB SSD	1x 1.92TB SSD	1x 3.84TB SSD
Physical Audio	No	No	No
Notchmarks	37,803	37,803	37,622

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Hardware / Ex Range / EX Range Overview

	EX 2	EX 2C	EX 3+
Video playback 4K DCI at 30fps	Notch LC - 15 layers HAPQ - 21 layers ProRes 422 - 5 layers ProRes 4444 - 3 layers	Notch LC - 15 layers HAPQ - 21 layers ProRes 422 - 5 layers ProRes 4444 - 3 layer	Notch LC - 18 layers HAPQ - 23 layers ProRes 422 - 5 layers ProRes 4444 - 3 layer

*HDMI 2.0 input support, along with the option of an additional 12G-SDI input via Ports A and/or C on the EX-2C and EX-3+, was introduced in Designer software version r32.2.4 onwards. This functionality requires OS version **25Q3** or later.

Optional EX Range Licenses

Along with the standard EX range license, which comes with the server, the following optional functional unlock add-on licenses are available:

- Real-Time Connector license
- Colour Management license

These perpetual feature unlock add-on licenses are valid for the EX range media servers only, i.e. the EX 2, EX 2C, EX 3 and EX 3+.

Real-Time Connector license

The Real-Time Connector (RTC) license unlocks the usage of Notch and TouchDesigner on the EX range. The Real-Time Connector license is a one-time purchase which is valid perpetually for the server. It cannot be moved between servers.

The usage of Notch and TouchDesigner is enabled as follows:

- Notch can be run as a Notch block in the Notch layer
- Notch can be run via the RenderStream Local layer
- TouchDesigner can be run via the RenderStream Local layer

Important

RenderStream plugins other than Notch and TouchDesigner are not supported on the EX range via RenderStream Local. RenderStream remote mode is not supported at all on the EX range.

Any performance degradation resulting from running a resource-intensive content, such as a heavy Notch or TouchDesigner scene, is the responsibility of the customer. Optimisation of the project will be up to the customer.

If the Real-Time Connector license is not present on the EX range server, then the RenderStream Local layer is not enabled.

Colour Management License

The Colour Management license unlocks the usage of ACES and OCIO colour management on the EX range. The Colour Management license is a one-time purchase which is valid perpetually for the server. It cannot be moved between servers.

D3net sessions with EX range servers

In a session of all EX range servers, all servers must have Colour Management licenses applied in order to use ACES or OCIO mode.

Where an EX range server is used as a Director with machines that have Colour Management enabled by default (VX and GX range machines), if the Colour Management license is not present on the EX director, then the EX cannot join the session if the project is in ACES or OCIO mode.

View licenses

You can review your available licenses by opening d3Manager and navigating to **Help > Disguise Licenses**.

License activation

Learn more about activating a license on the [License Activation](#) page.

Director Capabilities

Disguise media servers can be run as a network of media servers and assigned specific roles via d3Net.

EX range media servers are restricted to run in one of the following configurations running in session:

- As any media server role in a session with only other EX range media servers.
- As a Dedicated Director in a session with other VX or GX range media servers.

To read about what it means to be a Director see the following page on [d3Net Setup](#). To read about limitations on EX range machines as Dedicated Directors see the following [section](#).

It is important to note that running a media server as a non-dedicated director comes at the cost of performance.

If you are planning to use an EX range media server as a Director we recommend reviewing the capabilities and limitations against the the GX/VX ranges of media servers. This is summarised in the table below.

	GX/VX Ranges	EX Range
Video playback (i.e. HAP, Notch LC)	Can be used as Director	Can be used as Dedicated Director only
Notch	Can be used as Director*	Can be used as Dedicated Director only*
RenderStream	Can be used as Director	Cannot be used as Director
ACES/OCIO	Can be used as Director	Cannot be used as Director
MR Sets	Can be used as Director	Cannot be used as Director

* Notch

There are important differences in how Notch can be used.

VX range

- A Notch playback license is required to remove the watermark in GUI.
- Users must consider [Notchmarks](#) on a Director when running Notch block.
- The [Proxy Block](#) workflow can be used but must be built into the Notch block during pre-production.

GX range

- The GX range includes 2 year Notch playback license as standard.

- Users must consider [Notchmarks](#) on a Director when running Notch block.
- The [Proxy Block](#) workflow can be used but must be built into the Notch block during pre-production.

EX range

- A Realtime connector license must be added to the Dedicated Director. This is a one-time cost.
- User must then buy Notch playback license on Dedicated Director to run Notch block without watermark as seen in GUI.
- Users must consider [Notchmarks](#) on a Dedicated Director when running Notch block.
- The [Proxy Block](#) workflow can be used but must be built into the Notch block during pre-production.

General limitations of the EX range

An EX range media server cannot be used for:

1. RenderStream - No proxy streams will be received on Director when added to session.
2. ACES/OCIO - ACES OCIO modes are not available as options in the Project Settings.
3. MR Sets - Cannot output, edit, or display a camera preview in the Director and Actor roles.

EX range media servers running as Dedicated Directors

The EX range of media servers running as Dedicated Directors cannot:

- Receive RenderStream proxy or uncompressed streams.
- Receive full-resolution streams.
- Allow users to set ACES or OCIO transforms via the Director's GUI.
- Allow users to perform XR calibrations.

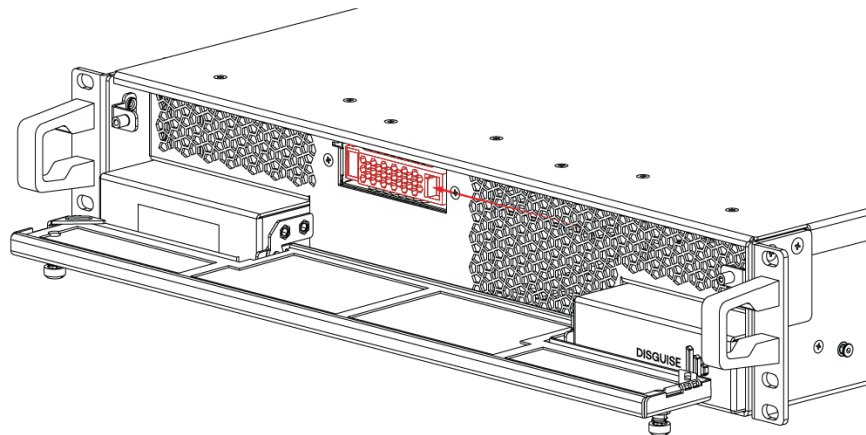
Replacing your NVMe SSD - EX

To remove and replace the NVMe SSD media drive on **EX 2**, **EX 2C**, and **EX 3+** Disguise media servers (excluding the EX 3), follow the steps outlined in the guide below.

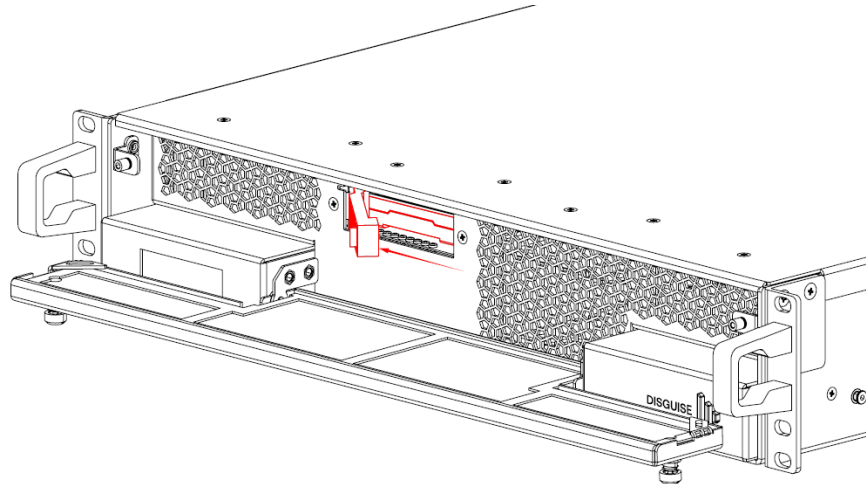
EX range media servers ship with either a 1.92TB or a 3.84TB Removable NVMe SSDs, allowing you to easily upgrade or replace your storage as your needs grow.

The following steps are a guide to help users change over the Solid State Drives. Please, read carefully to ensure best practice. If the system does not work after following these instructions, please call our Support team as per the contact details on the last page of this document.

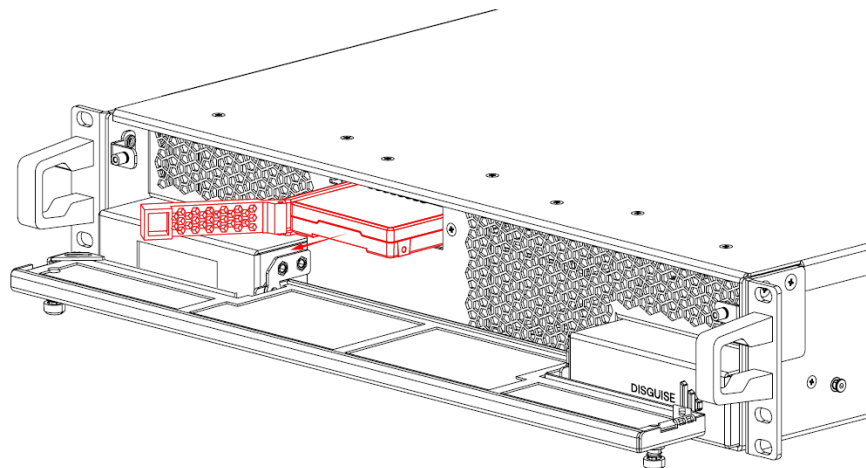
1. Undo the two thumb screws on the front door of the unit and bring the filter housing down to locate the drive bay door.
2. Push the clip to the left and you should feel a slight release. The door will gently swing open.



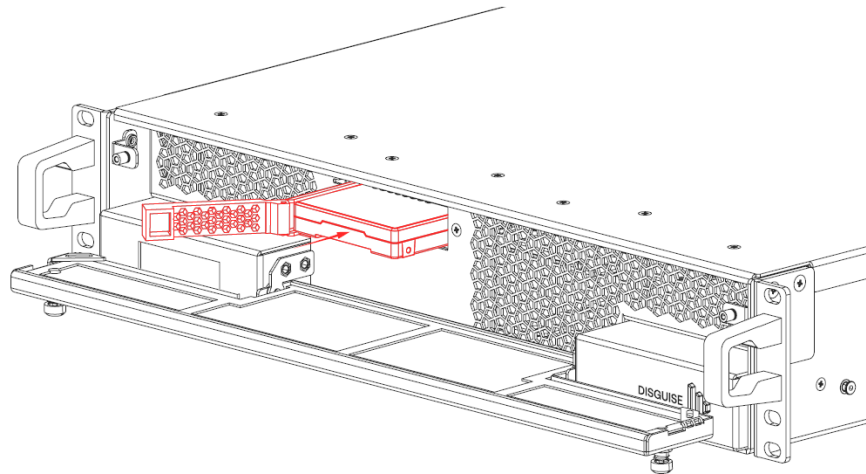
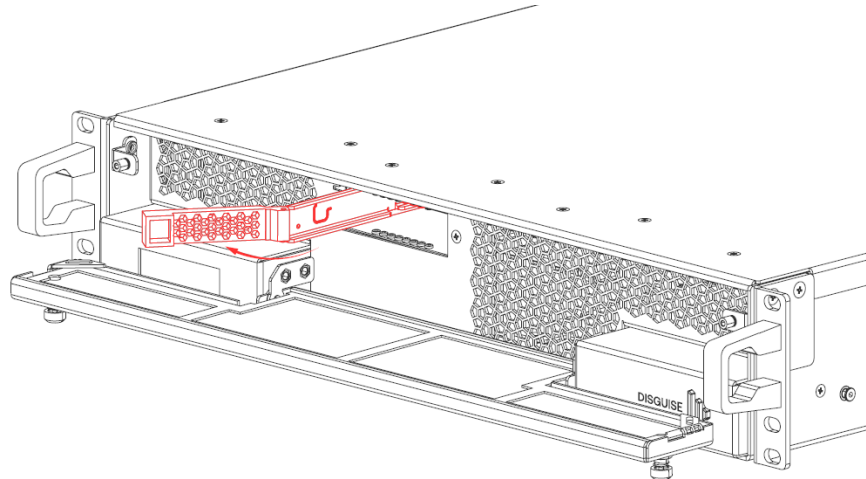
3. With the door open, slide it to the left. This motion will disconnect the current drive from the connector, making it ready for removal.



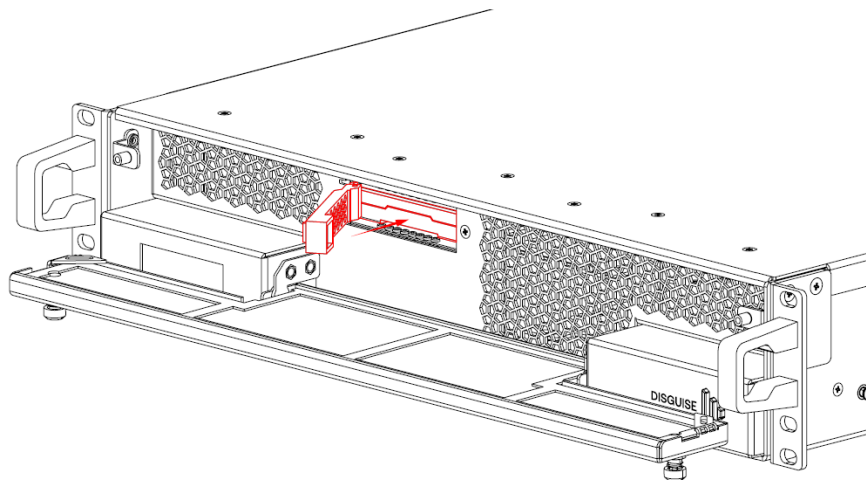
- 4.** Pull out the drive caddy carefully. Remove the current drive from the caddy by gently lifting it out. To make removal easier, slightly tilt or bend the caddy while using your other hand to help guide the drive out.



- 5.** Take your new SSD and ensure the connector is facing upwards.
- 6.** Place the new SSD into the caddy, aligning it properly with the slot. Insert the drive until it is fully seated in the caddy. Ensure the caddy is fully engaged and extends outward for proper alignment and installation.



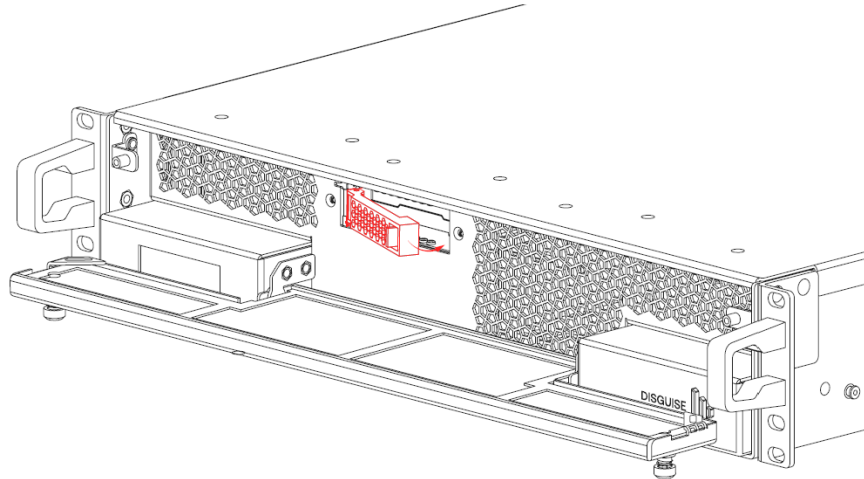
7. Gently hold the SSD by its bottom-left side and slide the caddy back into the bay*. Ensure the new SSD connects properly with the server's connector.



8. Swing the door back to its original position. Push it until you hear a click, indicating the door is securely closed.

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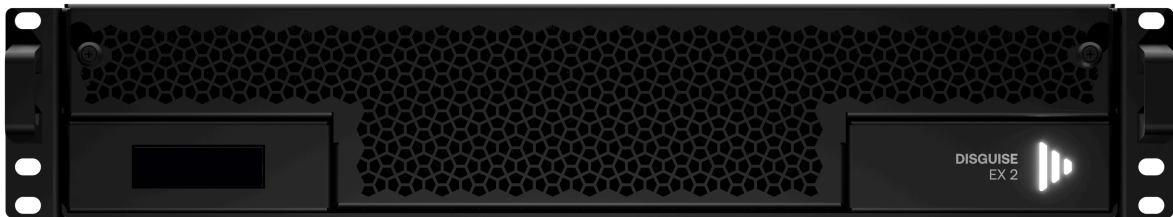
Hardware / Ex Range / Replacing your NVMe SSD - EX



* If the drive can be seen to catch on the metalwork. If so, gently lift the left side if inserting to help alleviate.

EX 2 Overview

The EX 2 is a powerful video playback solution specifically designed for fixed installations and location-based experiences.



The new generation of EX media servers is the latest release in the Disguise modular scalable hardware architecture, providing the perfect entry point to the Disguise ecosystem for mid to small scale live events and experiences looking for a powerful pre-rendered video playback solution.

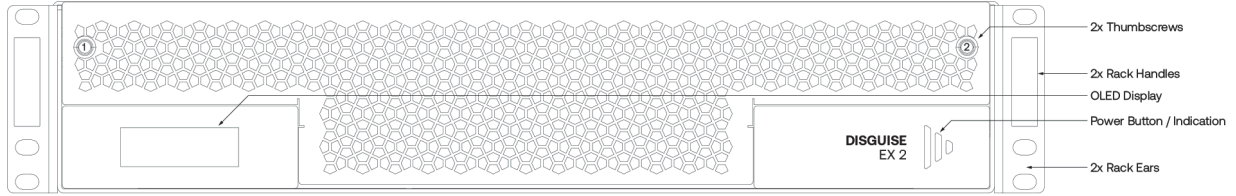
Featuring state-of-the-art components, including a PCIe Gen 5 motherboard, and increased networking capabilities, the EX 2 features two 4K video outputs with no video capture. It is also fully scalable and can run in a network with other EX machines for redundancy and failover, as well as a dedicated Director or Editor with other VX and GX machines.

Learn more about:

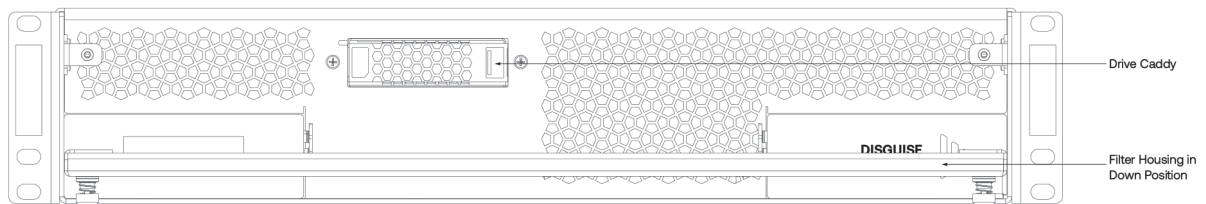
- [Diagrams](#)
- [Redisguise](#)
- [Specifications](#)
- [Playback Performance](#)
- [SMC Overview](#)

View the full Product information in the [Technical Specifications](#) PDF.

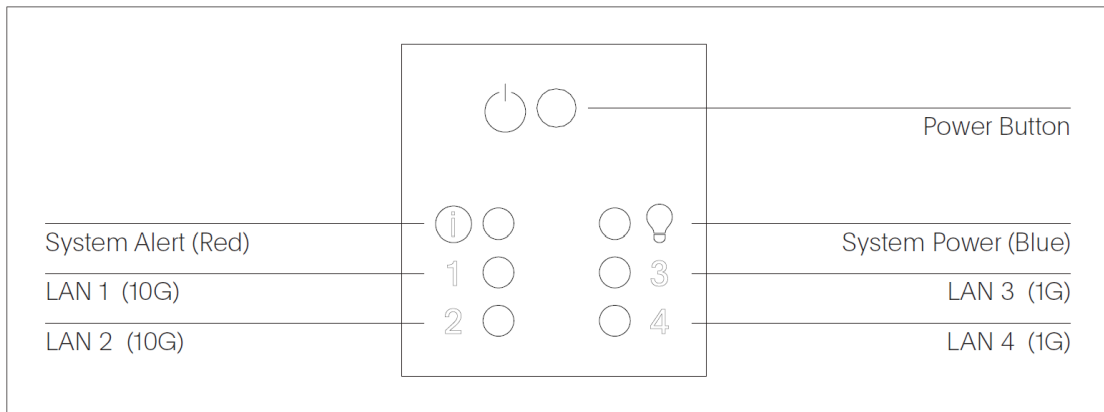
EX 2 Diagrams



EX 2 Front Panel



EX 2 Front Panel grill down

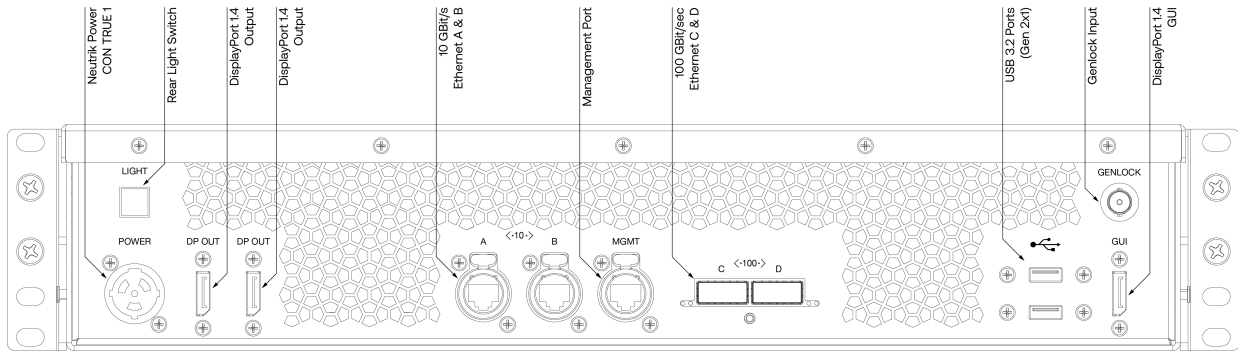


**Front Panel LED Indicators

EX 2 Front Panel LED

► **Disguise User Guide**

Hardware / Ex Range / Ex2 / EX 2 Diagrams



EX 2 Rear Panel

EX 2 Redisguise

⚠ **Performing a system restore from the new disk image will erase any valuable data on your system drive. Please ensure you make a backup of any essential files from your system (C:) drive before initialising this process. The process does NOT destroy any media or projects on your media drive.**

USB Redisguise

If you encounter any issues with the Redisguise process, please review the Notes/ Help section at the bottom of this page.

Redisguise is the process of updating and restoring on the system using a bootable USB drive.

This process can be used to update to a newer OS image, or revert to a previous OS image.

To identify which OS image your system currently runs, please go to **d3Manager > Help** and select **About Manager**.

You will need

- A 16GB USB memory stick
- A version of [Rufus](#) to turn it into a bootable disk. Ensure the volume name of the USB is: **REDISGUISE**
- An internet connection to the machine you are re-imaging
- An OS image from the [Hardware OS Imaging](#).

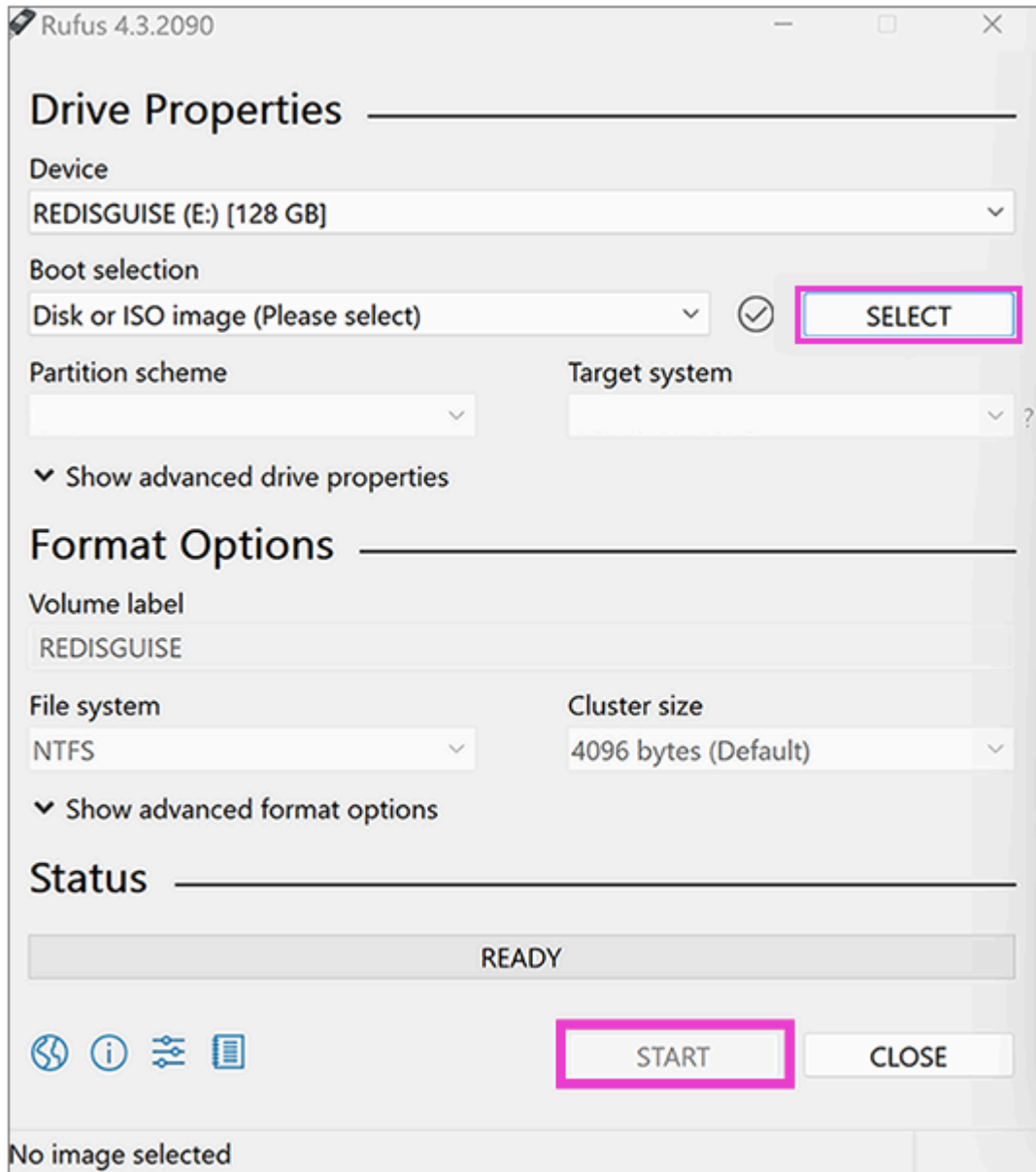
Create a Bootable USB

1. Download the ISO from the [Hardware OS Imaging](#).
2. To create a Bootable USB stick open Rufus, click **Select** and browse to the downloaded ISO. Then click **Start**.

The Partition scheme, Target system, and File System fields should appear automatically.

► Disguise User Guide

Hardware / Ex Range / Ex2 / EX 2 Redisguise



The settings should be:

- Partition scheme - GPT
- Target system - UEFI - non CSM
- Volume label - Automatically pulled from ISO file
- File system - NTFS

Booting into the USB



► Click [here](#) to view the Booting into the USB Redisguise video.

The system needs to be connected to the internet during this procedure.

1. Plug the USB Drive into your Disguise server and switch it on.
2. To enter the BIOS, wait for the Disguise logo to appear and then continue pressing the **Delete** key until the BIOS screen appears. You can navigate the BIOS using the arrow keys.
3. On the **Exit** tab, select the following option and press ENTER:

```
UEFI: [diskname], Partition 2
```

The disk name may vary depending on the manufacturer of the USB stick in use.

The Redisguise process will run automatically until the re-imaging has completed.

A **log file** will be automatically generated and stored on the USB memory stick

If you encounter any issues with the Redisguise process, please review the advice [here](#).

■ *If the issue persists while updating or restoring the system, or any of these instructions are unclear, please contact the [Disguise support team](#) and provide the log file located on the USB drive.*

EX 2 Specification

Hardware Specifications

	EX 2
Voltage	100-240V, 50-60Hz*
Power Connection	Neutrik powerCON True1
Power Consumption Peak	312W
Heat Dissipation Peak	1,065 BTU/hr
Max. Decibel Rating (if available)	52.4db
Operating System	Windows 11 Enterprise GAC
Environmental Tolerances	Temperature: 5-35°C (40°-95°F) / Humidity: 20%-80% (noncondensing) Altitude: 0-2700m (0-8850 ft)
Mounting System	2U 19" rack mount
OS	1x Internal Storage Drive
Storage	1.92TB Removable NVMe SSD (default)
Memory	64GB RAM (4x 16GB)

System Connectivity I/O

	EX 2
Video output	1x DisplayPort 1.4 (GUI) 2x DisplayPort 1.4 (Outputs)
Video input	Video input via NDI only
Audio/Optical Audio/MIDI	N/A
General Network	2x 10Gb/s (Ethernet)
High Speed Network	2x 100Gb/sec (QSFP28)
System Management Controller	1x Management Port (Ethernet)

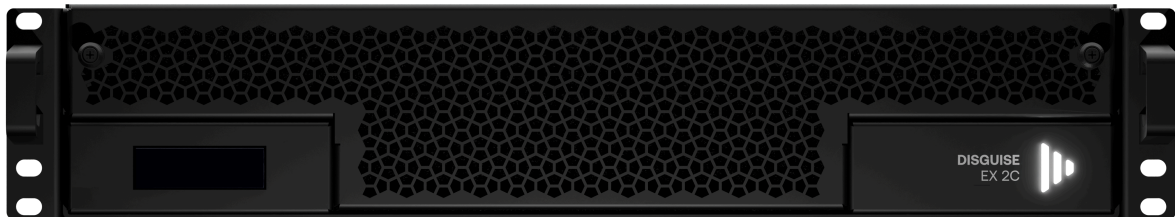
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Hardware / Ex Range / Ex2 / EX 2 Specification

	EX 2
Data/Peripherals	2x USB 3.2 (Gen 2x1)
Video Sync	1x BNC Genlock

EX 2C Overview

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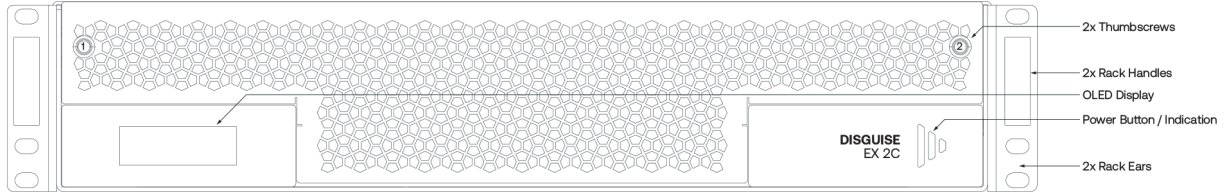
Featuring state-of-the-art components, including a PCIe Gen 5 motherboard, and increased networking capabilities, the EX 2C features two 4K video outputs and up to 1x 4K DCI or 4x Full-HD video capture inputs. It is also fully scalable and can run in a network with other EX machines for redundancy and failover, as well as a dedicated Director or Editor with other VX and GX machines.

Learn more about:

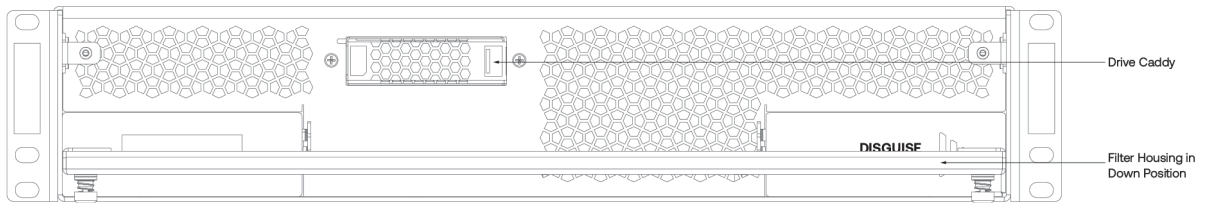
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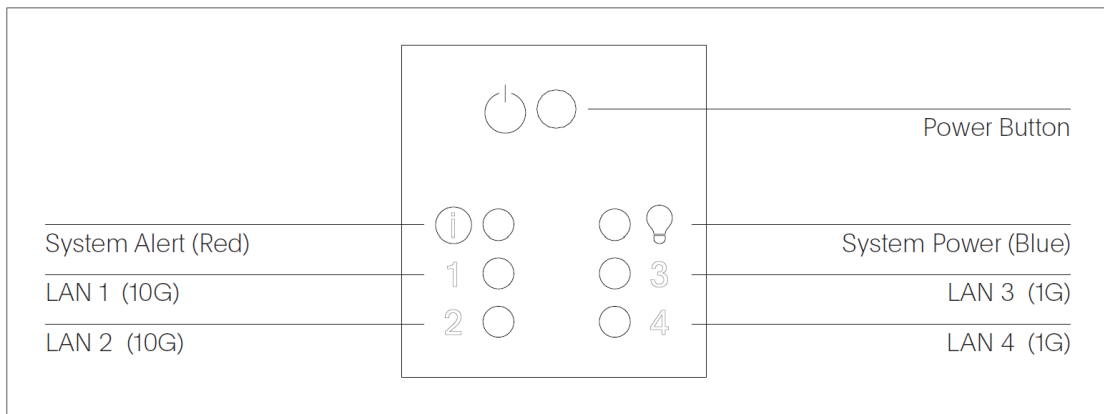
EX 2C Diagrams



EX 2C Front Panel



EX 2C Front Panel grill down

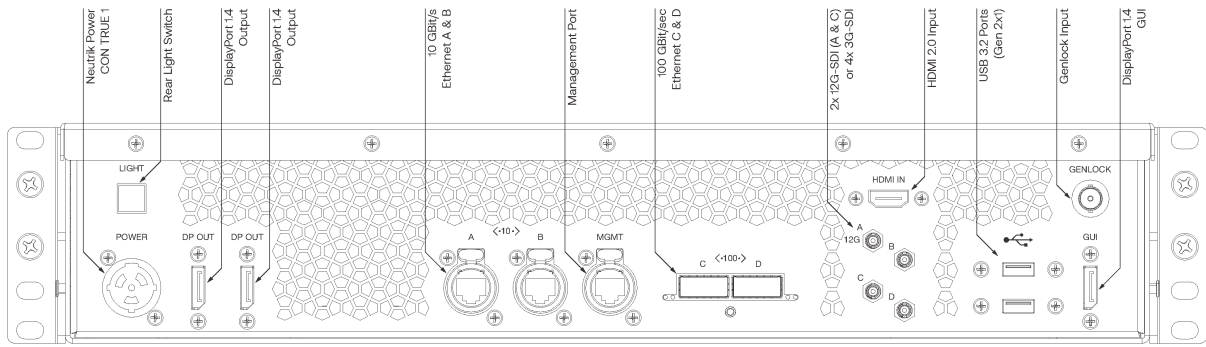


**Front Panel LED Indicators

EX 2C Front Panel LED

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Hardware / Ex Range / Ex2c / EX 2C Diagrams



EX 2 Rear Panel Annotated

EX 2C Redisguise

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USB Redisguise

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You will need

- A 16GB USB memory stick
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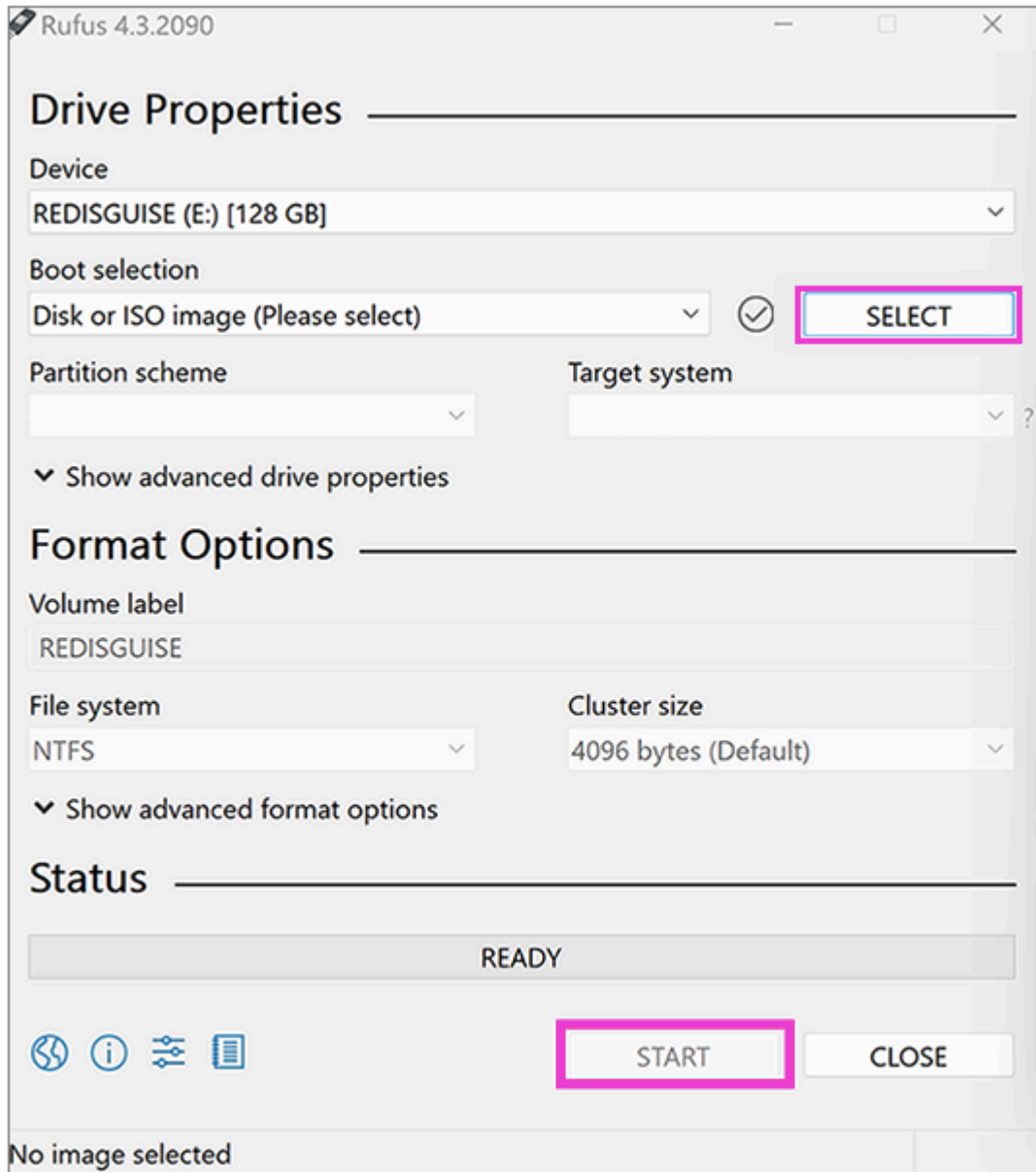
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► Disguise User Guide

Hardware / Ex Range / Ex2c / EX 2C Redisguise



The settings should be:

- Partition scheme - GPT
- Target system - UEFI - non CSM
- Volume label - Automatically pulled from ISO file
- File system - NTFS

Booting into the USB



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1. Plug the USB Drive into your Disguise server and switch it on.
2. To enter the BIOS, wait for the Disguise logo to appear and then continue pressing the **Delete** key until the BIOS screen appears. You can navigate the BIOS using the arrow keys.
3. On the **Exit** tab, select the following option and press ENTER:

```
UEFI: [diskname], Partition 2
```

The disk name may vary depending on the manufacturer of the USB stick in use.

The Redisguise process will run automatically until the re-imaging has completed.

A **log file** will be automatically generated and stored on the USB memory stick

If you encounter any issues with the Redisguise process, please review the advice [here](#).

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EX 2C Video Input

Max Number of Unique Inputs

HDMI 2.0 video input is supported from Designer software version r32.2.4 onwards in conjunction with OS version 25Q3 onwards. With this configuration, the system supports up to 2x 4K DCI inputs or 1x 4K DCI + 4x Full-HD inputs at any one time via the following physical connections:

- 1x HDMI 2.0 capture (HDMI connector)
- 2x 12G inputs via Ports A and C (HD-BNC connector), or 4x 3G SDI inputs (HD-BNC connector)

The following table shows all possible maximum input configurations:

Supported Configurations	3G-SDI	12G-SDI	HDMI 2.0
12G + HDMI	0	1	1
Full-HD + HDMI	4	0	1
2x 12G-SDI (Ports A & C)	0	2	0

Supported Formats

SDI

All video standards outlined here have been tested up to the following:

- Bit depth - 10-bit (all modes).
- Chroma subsampling - YCbCr 4:2:2 (all modes).
- Each SDI input supports 3G Level A and Level B when applicable.
- All quadlink formats support either square division or two-sample interleave (2SI) methods.

4K DCI (4096 x 2160)

4K DCI 23.98p, 4K DCI 24p, 4K DCI 25p, 4K DCI 29.97p, 4K DCI 30p, 4K DCI 47.952p, 4K DCI 48p, 4K DCI 50p, 4K DCI 59.94p, 4K DCI 60p

Quadlink 4K DCI (4096 x 2160 using 4x 2048 x 1080 inputs)

4K DCI 47.952p, 4K DCI 48p, 4K DCI 50p, 4K DCI 59.94p, 4K DCI 60p

UHD (3840 x 2160)

2160p23.98, 2160p24, 2160p25, 2160p29.97, 2160p30, 2160p50, 2160p59.94, 2160p60

Quadlink UHD (3840 x 2160 using 4x 1920 x 1080 inputs)

2160p50, 2160p59.94, 2160p60

2K DCI (2048 x 1080)

2K DCI 23.98p, 2K DCI 24p, 2K DCI 24psf, 2K DCI 25p, 2K DCI 25psf, 2K DCI 29.97p, 2K DCI 29.97psf, 2K DCI 30p, 2K DCI 30psf, 2K DCI 47.952p, 2K DCI 48p, 2K DCI 50p, 2K DCI 59.94p, 2K DCI 60p

Full HD (1920 x 1080)

1080p23.98, 1080psf23.98, 1080p24, 1080psf24, 1080p25, 1080psf25, 1080p29.97, 1080psf29.97, 1080p30, 1080psf30, 1080p50, 1080i50, 1080p59.94, 1080i59.94, 1080p60, 1080i60

HD (1280 x 720)

720p23.98, 720p24, 720p25, 720p29.97, 720p30, 720p50, 720p59.94, 720p60

HDMI 2.0

All video standards outlined here have been tested up to the following:

- Bit depth - 8/10/12/16-bit, but anything above 10-bit will be treated as 10-bit
- Colour Formats - YCbCr 4:2:2, YCbCr 4:4:4, RGB Limited, RGB Full (all modes).
- Note that HDMI 2.0 has a bandwidth limit of around 18Gbps. This means at higher resolutions and refresh rates (eg. 4k@60) , the colour format might need to be dropped to YCbCr 4:2:2 for it to be accepted.

4K DCI (4096 x 2160)

4K DCI 23.98p, 4K DCI 24p, 4K DCI 25p, 4K DCI 29.97p, 4K DCI 30p, 4K DCI 50p, 4K DCI 59.94p, 4K DCI 60p

UHD (3840 x 2160)

2160p23.98, 2160p24, 2160p25, 2160p29.97, 2160p30, 2160p50, 2160p59.94, 2160p60

2K DCI (2048 x 1080)

2K DCI 23.98p, 2K DCI 24p, 2K DCI 24psf, 2K DCI 25p, 2K DCI 25psf, 2K DCI 29.97p, 2K DCI 29.97psf, 2K DCI 30p, 2K DCI 30psf, 2K DCI 47.952p, 2K DCI 48p, 2K DCI 50p, 2K DCI 59.94p, 2K DCI 60p

Full HD (1920 x 1080)

1080p23.98, 1080psf23.98, 1080p24, 1080psf24, 1080p25, 1080psf25, 1080p29.97, 1080psf29.97, 1080p30, 1080psf30, 1080p50, 1080p59.94, 1080p60, 1080i60

HD (1280 x 720)

720p25, 720p29.97, 720p30, 720p50, 720p59.94, 720p60

Back-Plate Layout

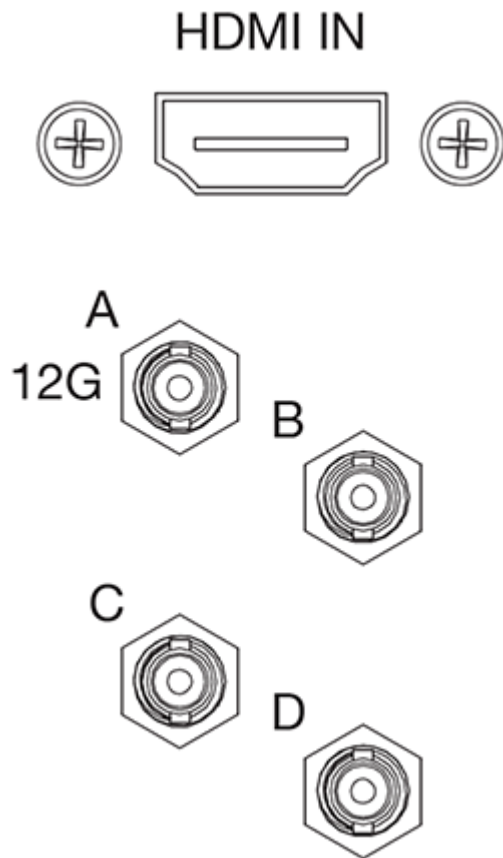


Diagram of Video Capture HDMI and BNC connections

on rear of a EX 2C

(i) Note

Live Video input inherently introduces frame latency during playback.

EX 2C Specifications

Hardware Specifications

	EX 2C
Voltage	100-240V, 50-60Hz*
Power Connection	Neutrik powerCON True1
Power Consumption Peak	332W
Heat Dissipation Peak	1,132 BTU/hr
Max. Decibel Rating (if available)	52.4db
Operating System	Windows 11 Enterprise GAC
Environmental Tolerances	Temperature: 5-35°C (40°-95°F) Humidity: 20%-80% (noncondensing) Altitude: 0-2700m (0-8850 ft)
Mounting System	2U 19" rack mount
OS	1x Internal Storage Drive
Storage	1.92TB Removable NVMe SSD (default)
Memory	64GB RAM (4x 16GB)

System Connectivity I/O

	EX 2C
Video output	1x DisplayPort 1.4 (GUI) 2x DisplayPort 1.4 (Outputs)
Video input	Up to 1x 4K DCI input or 4x Full-HD inputs via:- 1x 12G-SDI (A & C) or 4x 3G SDI (HD-BNC connectors) 1x HDMI 2.0 capture (HDMI connector)
Audio/Optical Audio/MIDI	N/A
General Network	2x 10Gb/s (Ethernet)
High Speed Network	2x 100Gb/sec (QSFP28)

► **Disguise User Guide**

Hardware / Ex Range / Ex2c / EX 2C Specifications

	EX 2C
System Management Controller	1x Management Port (Ethernet)
Data/Peripherals	2x USB 3.2 (Gen 2x1)
Video Sync	1x BNC Genlock

EX 3 Overview

The EX 3 is a powerful video playback solution specifically designed for fixed installations and location-based experiences.



The EX 3 is a powerful video playback solution specifically designed for fixed installations and location-based experiences (LBX). These immersive spectacles can be located in theme parks, museum and visitor attractions, and architectural spaces with the intention of offering a shared experience for their audiences. Global audiences who want to attend unique experiences in the physical world, and then be able to share that experience in the digital world.

The EX 3 features 3x DisplayPort 1.4 outputs for 4K video within a 2U chassis.

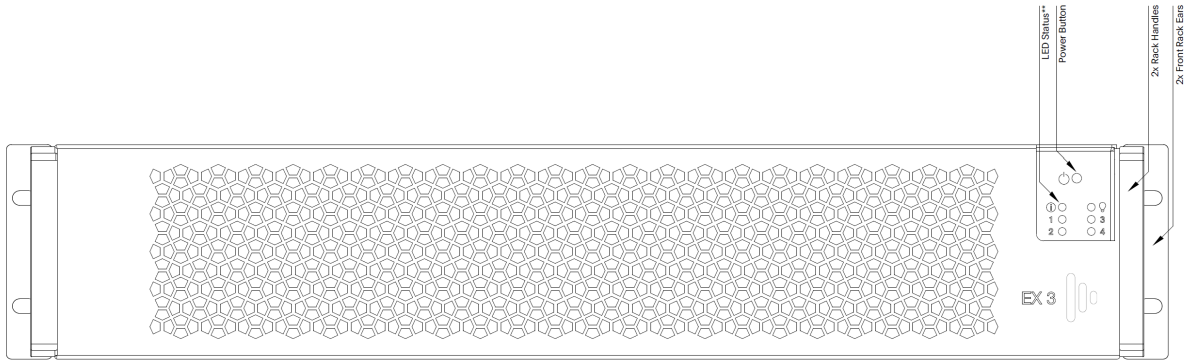
It also includes sufficient networking capabilities for fixed installations with the inclusion of dual 1GbE, 10GbE and 25GbE ports.

Learn more about:

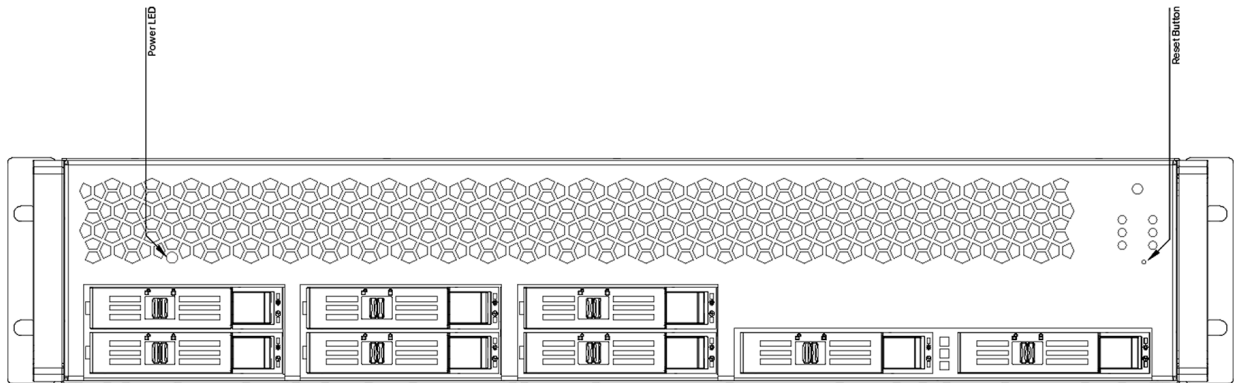
[Diagrams](#) [Redisguise](#) [Playback Performance](#)

View the full Product information in the [Technical Specifications](#) PDF.

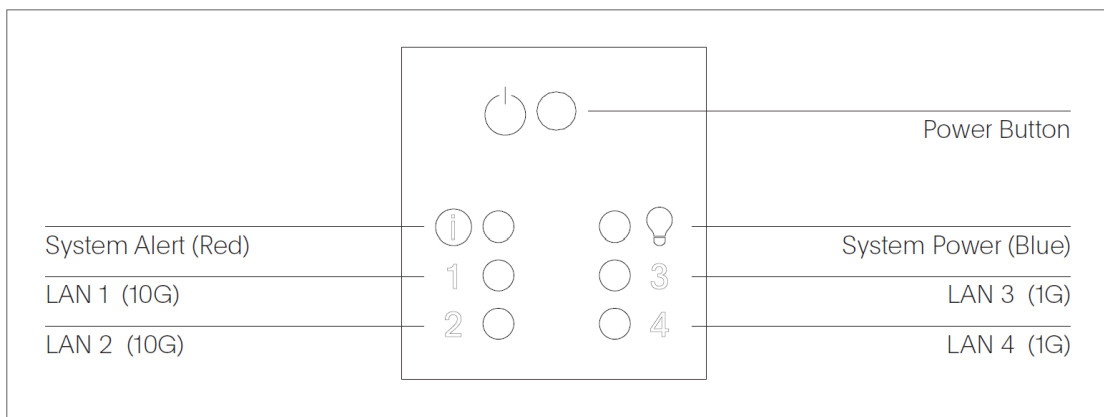
EX 3 Diagrams



EX 3 Front Panel



EX 3 Front Panel grill down

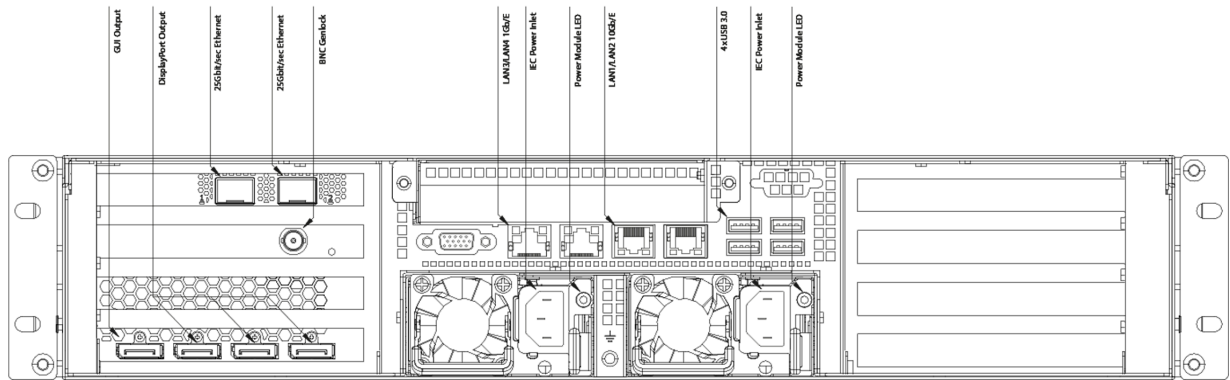


**Front Panel LED Indicators

EX 3 Front Panel LED

► **Disguise User Guide**

Hardware / Ex Range / Ex3 / EX 3 Diagrams



EX 3 Rear Panel

EX 3 Redisguise

⚠ **Performing a system restore from the new disk image will erase any valuable data on your system drive. Please ensure you make a backup of any essential files from your system (C:) drive before initialising this process. The process does NOT destroy any media or projects on your media drive.**

USB Redisguise

If you encounter any issues with the Redisguise process, please review the Notes/ Help section at the bottom of this page.

Redisguise is the process of updating and restoring on the system using a bootable USB drive.

This process can be used to update to a newer OS image, or revert to a previous OS image.

To identify which OS image your system currently runs, please go to **d3Manager > Help** and select **About Manager**.

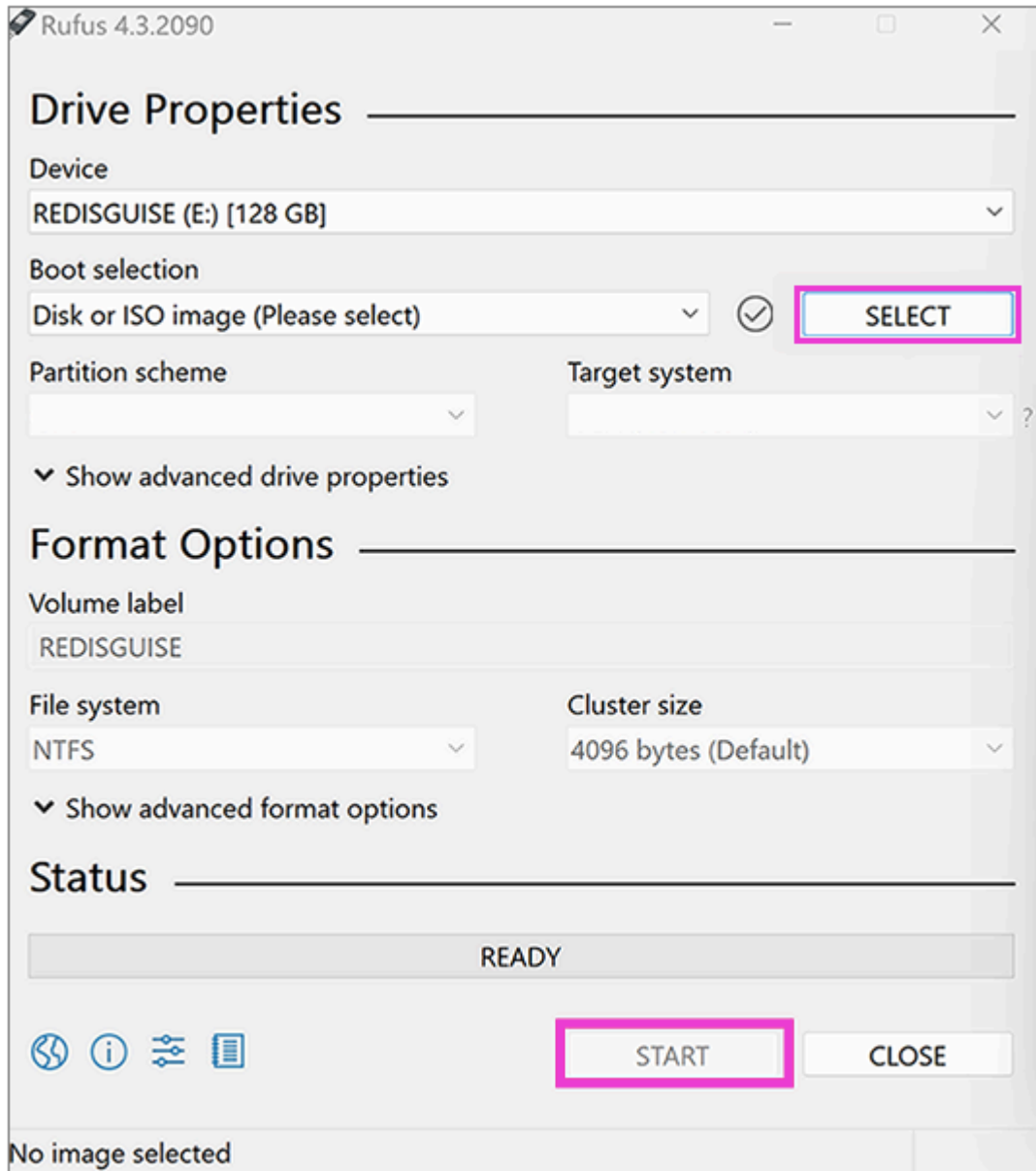
You will need

- A 16GB USB memory stick
- A version of [Rufus](#) to turn it into a bootable disk. Ensure the volume name of the USB is: **REDISGUISE**
- An internet connection to the machine you are re-imaging
- An OS image from the [Hardware OS Imaging](#).

Create a Bootable USB

1. Download the ISO from the [Hardware OS Imaging](#).
2. To create a Bootable USB stick open Rufus, click **Select** and browse to the downloaded ISO. Then click **Start**.

The Partition scheme, Target system, and File System fields should appear automatically.



The settings should be:

- Partition scheme - GPT
- Target system - UEFI - non CSM
- Volume label - Automatically pulled from ISO file
- File system - NTFS

Booting into the USB

The system needs to be connected to the internet during this procedure.

1. Plug the USB Drive into your Disguise server and switch it on.
2. To enter the BIOS, wait for the Disguise logo to appear and then continue pressing the **Delete** key until the BIOS screen appears. You can navigate the BIOS using the arrow keys.

► Disguise User Guide

Hardware / Ex Range / Ex3 / EX 3 Redisguise

3. Change the Boot option #1 to the USB stick.
4. Navigate to the **Advanced tab** and press **Enter** to view the CSM Configuration and ensure that Boot option filter is set to [UEFI and Legacy]. If not, then press **F4** and change it. Confirm and re-enter BIOS.
5. Once this setting is confirmed, navigate to the **Save & Exit** tab to the right of your current tab.
6. In the Boot Override section, select the following option:

```
UEFI: [diskname], Partition 2
```

The disk name may vary depending on the manufacturer of the USB stick in use.

The Redisguise process will run automatically until the re-imaging has completed.

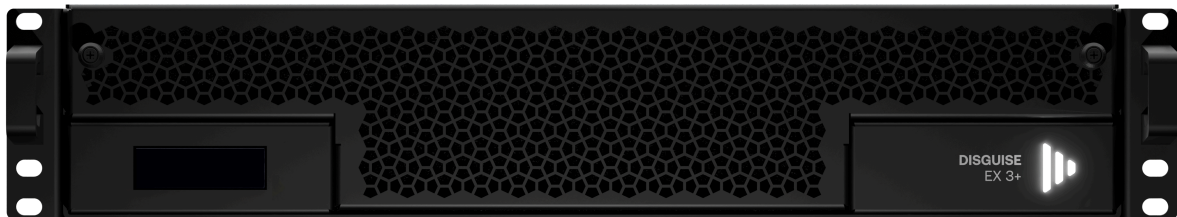
A **log file** will be automatically generated and stored on the USB memory stick.

If you encounter any issues with the Redisguise process, please review the advice [here](#).

■ *If the issue persists while updating or restoring the system, or any of these instructions are unclear, please contact the [Disguise support team](#) and provide the log file located on the USB drive.*

EX 3+ Overview

The EX 3 is a powerful video playback solution specifically designed for fixed installations and location-based experiences.



The new generation of EX media servers is the latest release in the Disguise modular scalable hardware architecture, providing the perfect entry point to the Disguise ecosystem for mid to small scale live events and experiences looking for a powerful pre-rendered video playback solution.

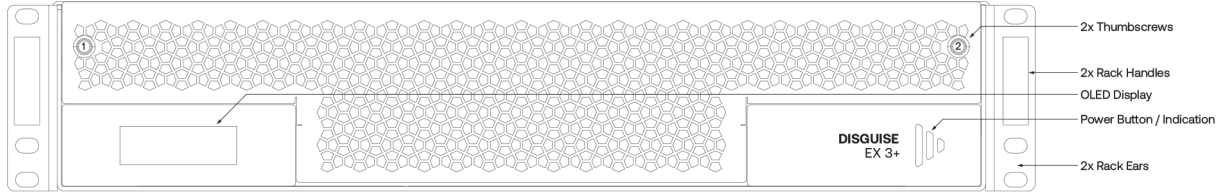
Featuring state-of-the-art components, including a PCIe Gen 5 motherboard, and increased networking capabilities, the EX 3+ features three 4K video outputs and up to 2x 4K DCI or 8x Full-HD video capture inputs (with splitting). It is also fully scalable and can run in a network with other EX machines for redundancy and failover, as well as a dedicated director or editor with other VX and GX machines.

Learn more about:

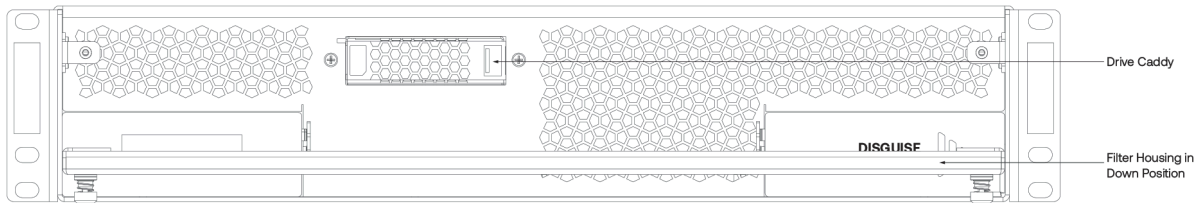
- [Diagrams](#)
- [Redisguise](#)
- [Video Input](#)
- [Specifications](#)
- [Playback Performance](#)
- [SMC Overview](#)

View the full Product information in the [Technical Specifications](#) PDF.

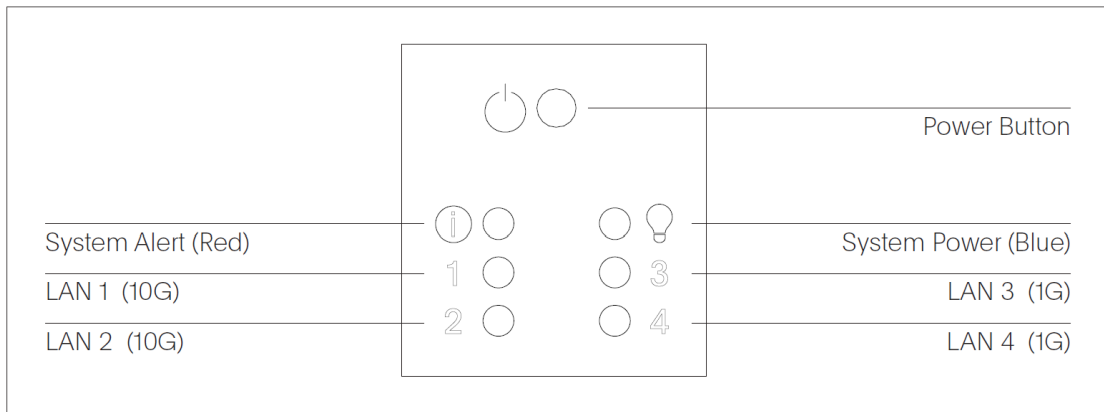
EX 3+ Diagrams



EX 3+ Front Panel



EX 3+ Front Panel grill down

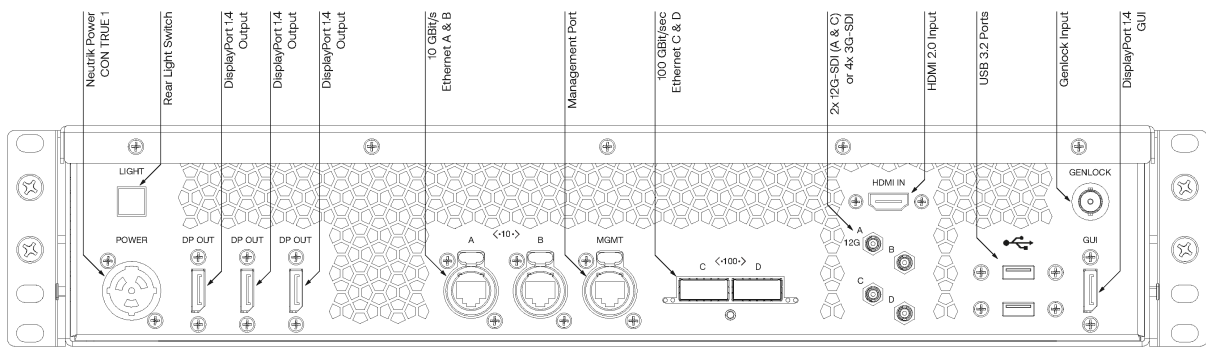


***Front Panel LED Indicators*

EX 3+ Front Panel LED

► **Disguise User Guide**

Hardware / Ex Range / Ex3plus / EX 3+ Diagrams



EX 3+ Rear Panel Annotated

EX 3+ Redisguise

⚠ **Performing a system restore from the new disk image will erase any valuable data on your system drive. Please ensure you make a backup of any essential files from your system (C:) drive before initialising this process. The process does NOT destroy any media or projects on your media drive.**

USB Redisguise

Redisguise is the process of updating and restoring on the system using a bootable USB drive.

This process can be used to update to a newer OS image, or revert to a previous OS image.

To identify which OS image your system currently runs, please go to **d3Manager > Help** and select **About Manager**.

You will need

- A 16GB USB memory stick
- A version of [Rufus](#) to turn it into a bootable disk. Ensure the volume name of the USB is: **REDISGUISE**
- An internet connection to the machine you are re-imaging
- An OS image from the [Hardware OS Imaging](#).

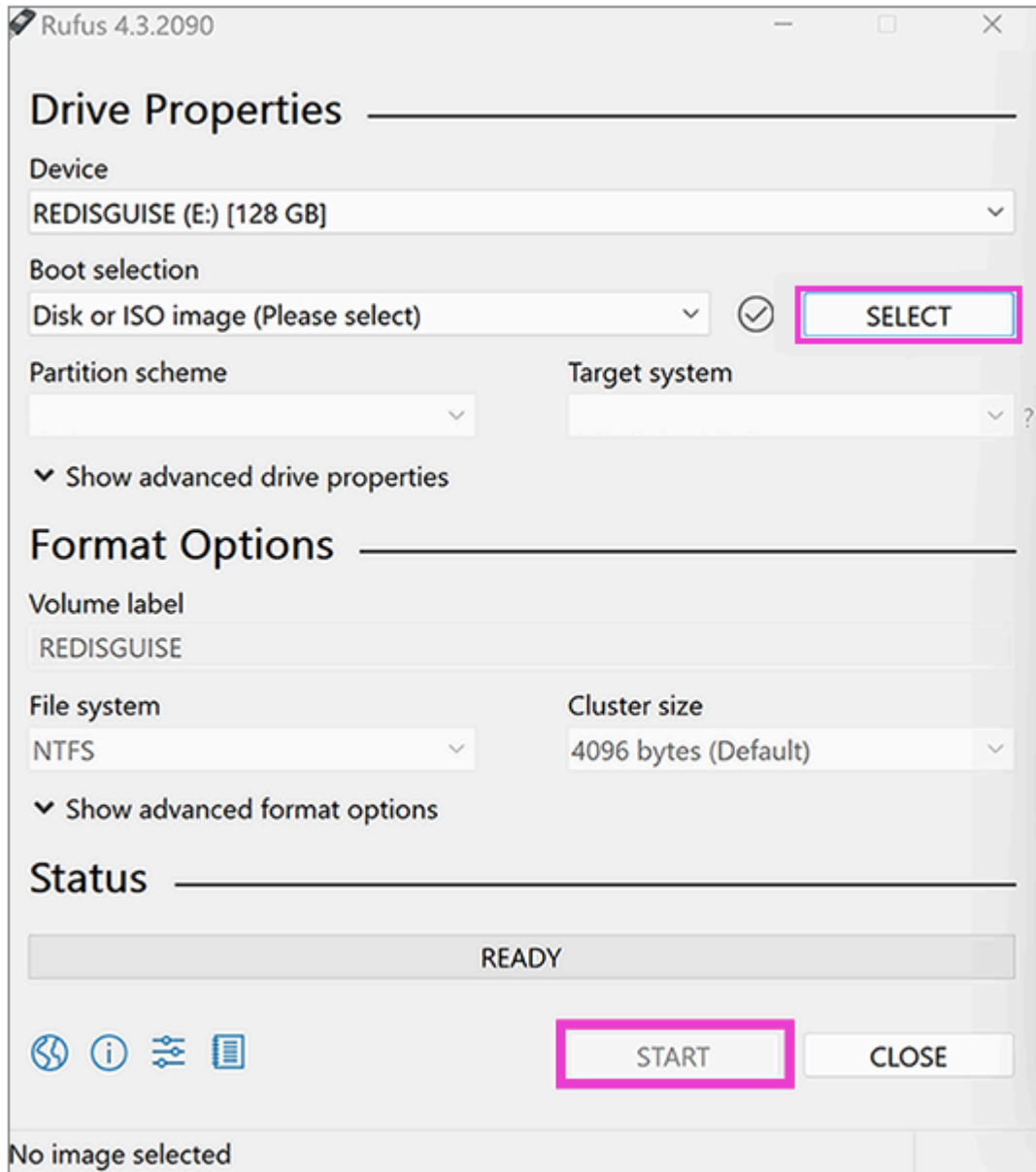
Create a Bootable USB

1. Download the ISO from the [Hardware OS Imaging](#).
2. To create a Bootable USB stick open Rufus, click **Select** and browse to the downloaded ISO. Then click **Start**.

The Partition scheme, Target system, and File System fields should appear automatically.

► Disguise User Guide

Hardware / Ex Range / Ex3plus / EX 3+ Redisguise



The settings should be:

- Partition scheme - GPT
- Target system - UEFI - non CSM
- Volume label - Automatically pulled from ISO file
- File system - NTFS

Booting into the USB



► Click [here](#) to view the Booting into the USB Redisguise video.

The system needs to be connected to the internet during this procedure.

1. Plug the USB Drive into your Disguise server and switch it on.
2. To enter the BIOS, wait for the Disguise logo to appear and then continue pressing the **Delete** key until the BIOS screen appears. You can navigate the BIOS using the arrow keys.
3. On the **Exit** tab, select the following option and press ENTER:

```
UEFI: [diskname], Partition 2
```

The disk name may vary depending on the manufacturer of the USB stick in use.

The Redisguise process will run automatically until the re-imaging has completed.

A **log file** will be automatically generated and stored on the USB memory stick

If you encounter any issues with the Redisguise process, please review the advice [here](#).

■ *If the issue persists while updating or restoring the system, or any of these instructions are unclear, please contact the [Disguise support team](#) and provide the log file located on the USB drive.*

EX 3+ Video Input

Max Number of Unique Inputs

HDMI 2.0 video input is supported starting from Designer software version r32.2.4, in conjunction with OS version 25Q3 or later. With this configuration, the system supports up to 3x 4K DCI inputs or 2x 4K DCI + 4x Full-HD inputs at any one time via the following physical connections:

- 1x HDMI 2.0 capture (HDMI connector)
- 2x 12G SDI inputs via Ports A and C (HD-BNC connector), or 4x 3G SDI inputs (HD-BNC connector)

The following table shows all possible maximum input configurations:

Supported Configurations	3G-SDI	12G-SDI	HDMI 2.0
2x 12G-SDI via Ports A and C (HD-BNC connector) + HDMI	0	2	1
Full-HD + HDMI	4	0	1

Supported Formats

SDI

All video standards outlined here have been tested up to the following:

- Bit depth - 10-bit (all modes).
- Chroma subsampling - YCbCr 4:2:2 (all modes).
- Each SDI input supports 3G Level A and Level B when applicable.
- All quadlink formats support either square division or two-sample interleave (2SI) methods.

4K DCI (4096 x 2160)

4K DCI 23.98p, 4K DCI 24p, 4K DCI 25p, 4K DCI 29.97p, 4K DCI 30p, 4K DCI 47.952p, 4K DCI 48p, 4K DCI 50p, 4K DCI 59.94p, 4K DCI 60p

Quadlink 4K DCI (4096 x 2160 using 4x 2048 x 1080 inputs)

4K DCI 47.952p, 4K DCI 48p, 4K DCI 50p, 4K DCI 59.94p, 4K DCI 60p

UHD (3840 x 2160)

2160p23.98, 2160p24, 2160p25, 2160p29.97, 2160p30, 2160p50, 2160p59.94, 2160p60

Quadlink UHD (3840 x 2160 using 4x 1920 x 1080 inputs)

2160p50, 2160p59.94, 2160p60

2K DCI (2048 x 1080)

2K DCI 23.98p, 2K DCI 24p, 2K DCI 24psf, 2K DCI 25p, 2K DCI 25psf, 2K DCI 29.97p, 2K DCI 29.97psf, 2K DCI 30p, 2K DCI 30psf, 2K DCI 47.952p, 2K DCI 48p, 2K DCI 50p, 2K DCI 59.94p, 2K DCI 60p

Full HD (1920 x 1080)

1080p23.98, 1080psf23.98, 1080p24, 1080psf24, 1080p25, 1080psf25, 1080p29.97, 1080psf29.97, 1080p30, 1080psf30, 1080p50, 1080i50, 1080p59.94, 1080i59.94, 1080p60, 1080i60

HD (1280 x 720)

720p23.98, 720p24, 720p25, 720p29.97, 720p30, 720p50, 720p59.94, 720p60

HDMI 2.0

All video standards outlined here have been tested up to the following:

- Bit depth - 8/10/12/16-bit, but anything above 10-bit will be processed as 10-bit
- Colour Formats - YCbCr 4:2:2, YCbCr 4:4:4, RGB Limited, RGB Full (all modes).
- Note that HDMI 2.0 has a bandwidth limit of around 18Gbps. This means at higher resolutions and refresh rates (eg. 4k@60) , the colour format might need to be dropped to YCbCr 4:2:2 for it to be accepted.

4K DCI (4096 x 2160)

4K DCI 23.98p, 4K DCI 24p, 4K DCI 25p, 4K DCI 29.97p, 4K DCI 30p, 4K DCI 47.952p, 4K DCI 48p, 4K DCI 50p, 4K DCI 59.94p, 4K DCI 60p

Quadlink 4K DCI (4096 x 2160 using 4x 2048 x 1080 inputs)

4K DCI 47.952p, 4K DCI 48p, 4K DCI 50p, 4K DCI 59.94p, 4K DCI 60p

UHD (3840 x 2160)

2160p23.98, 2160p24, 2160p25, 2160p29.97, 2160p30, 2160p50, 2160p59.94, 2160p60

Quadlink UHD (3840 x 2160 using 4x 1920 x 1080 inputs)

2160p50, 2160p59.94, 2160p60

2K DCI (2048 x 1080)

2K DCI 23.98p, 2K DCI 24p, 2K DCI 24psf, 2K DCI 25p, 2K DCI 25psf, 2K DCI 29.97p, 2K DCI 29.97psf, 2K DCI 30p, 2K DCI 30psf, 2K DCI 47.952p, 2K DCI 48p, 2K DCI 50p, 2K DCI 59.94p, 2K DCI 60p

Full HD (1920 x 1080)

1080p23.98, 1080psf23.98, 1080p24, 1080psf24, 1080p25, 1080psf25, 1080p29.97, 1080psf29.97, 1080p30, 1080psf30, 1080p50, 1080i50, 1080p59.94, 1080i59.94, 1080p60, 1080i60

HD (1280 x 720)

720p23.98, 720p24, 720p25, 720p29.97, 720p30, 720p50, 720p59.94, 720p60

Back-Plate Layout

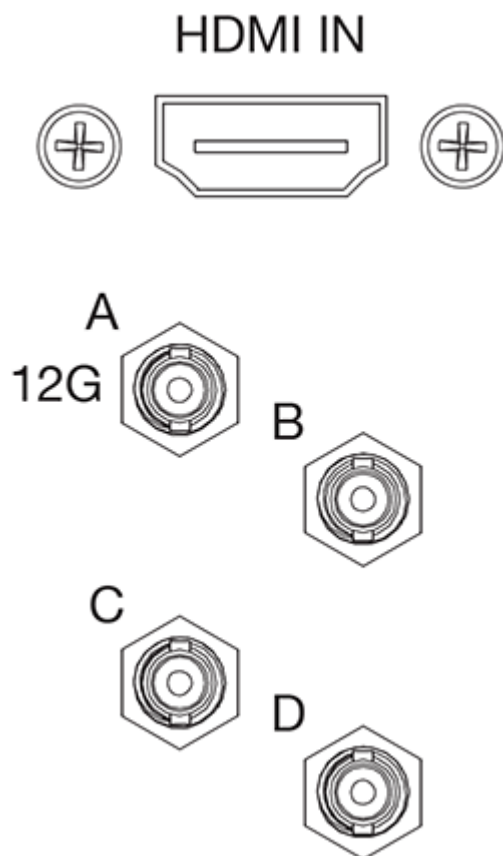


Diagram of Video Capture HDMI and BNC connections

on rear of a EX 3+

ⓘ Note

Live Video input inherently introduces frame latency during playback.

EX 3+ Specifications

Hardware Specifications

	EX 3+
Voltage	100-240V, 50-60Hz*
Power Connection	Neutrik powerCON True1
Power Consumption Peak	332W
Heat Dissipation Peak	1,132 BTU/hr
Max. Decibel Rating (if available)	52.4db
Operating System	Windows 11 Enterprise GAC
Environmental Tolerances	Temperature: 5-35°C (40°-95°F) Humidity: 20%-80% (noncondensing) Altitude: 0-2700m (0-8850 ft)
Mounting System	2U 19" rack mount
OS	1x Internal Storage Drive
Storage	3.84TB Removable NVMe SSD (default)
Memory	96GB RAM (6x 16GB)

System Connectivity I/O

	EX 3+
Video output	1x DisplayPort 1.4 (GUI) 3x DisplayPort 1.4 (Outputs)
Video input	Up to 2x 4K DCI inputs or 8x Full-HD inputs via: 1x 12G-SDI via Ports A and C (HD-BNC connector) 1x HDMI 2.0 capture
Audio/Optical Audio/MIDI	N/A
General Network	2x 10Gb/s (Ethernet)
High Speed Network	2x 100Gb/sec (QSFP28)

► **Disguise User Guide**

Hardware / Ex Range / Ex3plus / EX 3+ Specifications

	EX 3+
System Management Controller	1x Management Port (Ethernet)
Data/Peripherals	2x USB 3.2 (Gen 2x1)
Video Sync	1x BNC Genlock

EX 2 Performance

Playback Performance

Performance specifications listed here outline the maximum amount of video layers that are achievable on a single EX 2. These can fluctuate in future releases.

Video Playback Performance - Video Layers (Full HD)

Codec	Content Frame Rate	Data Rate (MB/s)	Max. Layers
HAP	30fps	31	55
	60fps	62	45
HAPQ	30fps	61.25	50
	60fps	122.5	38
Animation	30fps	187.25	40
	60fps	374.5	25
TIFF	30fps	237	39
	60fps	474	19
NotchLC	30fps	78.375	38
	60fps	156.75	23

*testing completed on r28 194541

Codec	Content Frame Rate	Data Rate (MB/s)	Max. Layers
ProRes 422	30fps	151	17
	60fps	302	8
ProRes HQ	30fps	232	14
	60fps	464	7
ProRes 4444	30fps	348	9
	60fps	696	5

Video Playback Performance - Video Layers (4K DCI)

Codec	Content Frame Rate	Data Rate (MB/s)	Max. Layers
HAP	30fps	132	21
	60fps	264	16

► **Disguise User Guide**

Hardware / Performance / EX 2 Performance

Codec	Content Frame Rate	Data Rate (MB/s)	Max. Layers
HAPQ	30fps	261.25	20
	60fps	522.5	16
Animation	30fps	798.25	12
	60fps	1596.5	5
NotchLC	30fps	331.5	15
	60fps	663	7
DPX (8-bit RGB)	30fps	759	8
	60fps	1518	5
DPX (10-bit RGB)	30fps	1011	6
	60fps	2022	3
TGA (8-bit RGB)	30fps	759	12
	60fps	1518	6
TGA (8-bit RGBA)	30fps	1011	9
	60fps	2022	5
TIFF (8-bit RGB)	30fps	759	12
	60fps	1518	6
TIFF (8-bit RGBA)	30fps	1011	9
	60fps	2022	5

Codec	Content Frame Rate	Data Rate (MB/s)	Max. Layers
ProRes 422	30fps	654	5
	60fps	1308	2
ProRes HQ	30fps	991	4
	60fps	1982	2
ProRes 4444	30fps	1490	2
	60fps	2980	1

NOTES

- Content is played back at 30 fps and 60 fps as outlined in the video codec above.
- All Full HD codecs listed above have an output resolution relevant to 1920 x 1080 pixels.
- All 4K DCI codecs listed above have an output resolution relevant to 4096 x 2160 pixels.
- The test media server is run as an actor with its GUI disabled. The Director media server running in the session should be a Dedicated Director with no outputs assigned
- Full overview on the video playback performance methodology used to capture the above data can be seen [here](#).

EX 2C Performance

Playback Performance

Performance specifications listed here outline the maximum amount of video layers that are achievable on a single EX 2C. These can fluctuate in future releases.

Video Playback Performance - Video Layers (Full HD)

Codec	Content Frame Rate	Data Rate (MB/s)	Max. Layers
HAP	30fps	31	55
	60fps	62	45
HAPQ	30fps	61.25	50
	60fps	122.5	38
Animation	30fps	187.25	40
	60fps	374.5	25
TIFF	30fps	237	39
	60fps	474	19
NotchLC	30fps	78.375	38
	60fps	156.75	23

*testing completed on r28 194541

Codec	Content Frame Rate	Data Rate (MB/s)	Max. Layers
ProRes 422	30fps	151	17
	60fps	302	8
ProRes HQ	30fps	232	14
	60fps	464	7
ProRes 4444	30fps	348	9
	60fps	696	5

Video Playback Performance - Video Layers (4K DCI)

Codec	Content Frame Rate	Data Rate (MB/s)	Max. Layers
HAP	30fps	132	21
	60fps	264	16

► **Disguise User Guide**

Hardware / Performance / EX 2C Performance

Codec	Content Frame Rate	Data Rate (MB/s)	Max. Layers
HAPQ	30fps	261.25	20
	60fps	522.5	16
Animation	30fps	798.25	12
	60fps	1596.5	5
NotchLC	30fps	331.5	15
	60fps	663	7
DPX (8-bit RGB)	30fps	759	8
	60fps	1518	5
DPX (10-bit RGB)	30fps	1011	6
	60fps	2022	3
TGA (8-bit RGB)	30fps	759	12
	60fps	1518	6
TGA (8-bit RGBA)	30fps	1011	9
	60fps	2022	5
TIFF (8-bit RGB)	30fps	759	12
	60fps	1518	6
TIFF (8-bit RGBA)	30fps	1011	9
	60fps	2022	5

Codec	Content Frame Rate	Data Rate (MB/s)	Max. Layers
ProRes 422	30fps	654	5
	60fps	1308	2
ProRes HQ	30fps	991	4
	60fps	1982	2
ProRes 4444	30fps	1490	2
	60fps	2980	1

NOTES

- Content is played back at 30 fps and 60 fps as outlined in the video codec above.
- All Full HD codecs listed above have an output resolution relevant to 1920 x 1080 pixels.
- All 4K DCI codecs listed above have an output resolution relevant to 4096 x 2160 pixels.
- The test media server is run as an actor with its GUI disabled. The Director media server running in the session should be a Dedicated Director with no outputs assigned
- Full overview on the video playback performance methodology used to capture the above data can be seen [here](#).

Capture Latency

The following table provides data on how many frames of latency the EX 2C requires from capture to output:

EX 2C SDI

Refresh Rate	Normal mode (frames)	Low Latency mode (frames)	Ultra-Low Latency mode (frames)
60Hz	5	4	3
50Hz	5	4	3
30Hz	5	4	3

EX 3 Performance

Playback Performance

Performance specifications listed here outline the maximum amount of video layers that are achievable on a single EX 3. These can fluctuate in future releases.

Video Playback Performance - Video Layers (Full HD)

Codec	Content Frame Rate	Data Rate (MB/s)	Max. Layers
HAP	30fps	31	34
	60fps	62	30
HAPQ	30fps	61.25	29
	60fps	122.5	17
Animation	30fps	187.25	12
	60fps	374.5	6
TIFF	30fps	237	9
	60fps	474	4
NotchLC	30fps	78.375	24
	60fps	156.75	13

*testing completed on r27.2 181738

Codec	Content Frame Rate	Data Rate (MB/s)	Max. Layers
ProRes 422	30fps	151	9
	60fps	302	4
ProRes HQ	30fps	232	2
	60fps	464	1
ProRes 4444	30fps	348	2
	60fps	696	1

Video Playback Performance - Video Layers (4K DCI)

Codec	Content Frame Rate	Data Rate (MB/s)	Max. Layers
HAP	30fps	132	15
	60fps	264	8

► **Disguise User Guide**

Codec	Content Frame Rate	Data Rate (MB/s)	Max. Layers
HAPQ	30fps	261.25	8
	60fps	522.5	4
Animation	30fps	798.25	3
	60fps	1596.5	1
TIFF	30fps	949	3
	60fps	1898	2
NotchLC	30fps	331.5	6
	60fps	663	3
DPX (8-bit RGB)	30fps	759	2
	60fps	1518	1
DPX (10-bit RGB)	30fps	1011	2
	60fps	2022	0
TGA (8-bit RGB)	30fps	759	2
	60fps	1518	1
TGA (8-bit RGBA)	30fps	1011	2
	60fps	2022	0
TIFF (8-bit RGB)	30fps	759	3
	60fps	1518	2
TIFF (8-bit RGBA)	30fps	1011	2
	60fps	2022	0

Codec	Content Frame Rate	Data Rate (MB/s)	Max. Layers
ProRes 422	30fps	654	7
	60fps	1308	3
ProRes HQ	30fps	991	2
	60fps	1982	1
ProRes 4444	30fps	1490	1
	60fps	2980	0

NOTES

- Content is played back at 30 fps and 60 fps as outlined in the video codec above.
- All Full HD codecs listed above have an output resolution relevant to 1920 x 1080 pixels.
- All 4K DCI codecs listed above have an output resolution relevant to 4096 x 2160 pixels.
- The test media server is run as an actor with its GUI disabled. The Director media server running in the session should be a Dedicated Director with no outputs assigned
- Full overview on the video playback performance methodology used to capture the above data can be seen [here](#).

▶ **Disguise User Guide**

Hardware / Performance / EX 3 Performance

EX 3+ Performance

Playback Performance

Performance specifications listed here outline the maximum amount of video layers that are achievable on a single EX 3+. These can fluctuate in future releases.

Video Playback Performance - Video Layers (Full HD)

Codec	Content Frame Rate	Data Rate (MB/s)	Max. Layers
HAP	30fps	31	56
	60fps	62	48
HAPQ	30fps	61.25	50
	60fps	122.5	38
Animation	30fps	187.25	29
	60fps	374.5	20
TIFF Sequence	30fps	237	32
	60fps	474	19
NotchLC	30fps	78.375	38
	60fps	156.75	23

*testing completed on r28 194541

Codec	Content Frame Rate	Data Rate (MB/s)	Max. Layers
ProRes 422	30fps	151	26
	60fps	302	13
ProRes HQ	30fps	232	21
	60fps	464	11
ProRes 4444	30fps	348	14
	60fps	696	10

Video Playback Performance - Video Layers (4K DCI)

Codec	Content Frame Rate	Data Rate (MB/s)	Max. Layers
HAP	30fps	132	23
	60fps	264	19

► **Disguise User Guide**

Hardware / Performance / EX 3+ Performance

Codec	Content Frame Rate	Data Rate (MB/s)	Max. Layers
HAPQ	30fps	261.25	22
	60fps	522.5	16
Animation	30fps	798.25	9
	60fps	1596.5	5
NotchLC	30fps	331.5	18
	60fps	663	9
DPX (8-bit RGB)	30fps	759	8
	60fps	1518	5
DPX (10-bit RGB)	30fps	1011	4
	60fps	2022	2
TGA (8-bit RGB)	30fps	759	10
	60fps	1518	6
TGA (8-bit RGBA)	30fps	1011	8
	60fps	2022	4
TIFF (8-bit RGB)	30fps	759	10
	60fps	1518	5
TIFF (8-bit RGBA)	30fps	1011	8
	60fps	2022	5

Codec	Content Frame Rate	Data Rate (MB/s)	Max. Layers
ProRes 422	30fps	654	5
	60fps	1308	3
ProRes HQ	30fps	991	5
	60fps	1982	3
ProRes 4444	30fps	1490	3
	60fps	2980	2

NOTES

- Content is played back at 30 fps and 60 fps as outlined in the video codec above.
- All Full HD codecs listed above have an output resolution relevant to 1920 x 1080 pixels.
- All 4K DCI codecs listed above have an output resolution relevant to 4096 x 2160 pixels.
- The test media server is run as an actor with its GUI disabled. The Director media server running in the session should be a Dedicated Director with no outputs assigned
- Full overview on the video playback performance methodology used to capture the above data can be seen [here](#).

Capture Latency

The following table provides data on how many frames of latency the EX 3+ requires from capture to output:

EX 3+ Deltacast

Refresh Rate	Normal mode (frames)	Low Latency mode (frames)	Ultra-Low Latency mode (frames)
60Hz	5	4	3
50Hz	5	4	3
30Hz	5	4	3

System Management Controller

System Management Controller (SMC) is an out-of-band management system.

This section includes information on [SMC](#) and [SMC Mk II](#). SMC Mk II is a platform change, and maintains all the features of SMC Mk I. Any Mk I or Mk II specific information and troubleshooting is on their respective subpages. Please see the [Troubleshooting](#) page for general advice.

SMC Mk I

The system is currently present in the following Disguise machines:

- VX 1
- VX 2
- VX 2+
- VX 4
- VX 4+
- GX 3

SMC Mk II

The system is currently present in the following Disguise machines:

- EX 2
- EX 2C
- EX 3+
- RX III
- GX 3+

SMC Features

The system management controller allows:

1. Constant and up-to-date access to information about the status of the main Disguise server it is contained within such as:

- Power state
- VFC cards currently inserted
- Network adapter details and configuration
- Server session details

2. Communication with the BMC on the motherboard allows for:

► Disguise User Guide

Hardware / Smc / System Management Controller

- Turning on and off machines remotely
- Monitoring physical metrics such as power draw and temperature

To make life easier, all this information is generally available in three different ways:

- OLED screen on the front of the servers
- Webpage, accessible on the host server, and via connection to the server MGMT port
- Accessible via the same IP as the webpage, with the `/api/` extension

Accessing SMC

From an SMC host machine

If operating on the Disguise server - the 'host' machine for an SMC - simply access the static `172.31.250.9` IP address into your browser. This applies to all SMC versions and host machine models.

Across a management link/network

The base method for accessing the SMC webpage is:

1. Connect the MGMT port via ethernet to your network or host
2. Open your browser, and navigate to the IP address displayed on the front OLED screen. This will open a webpage. If it does not load please refer to the [Troubleshooting](#) page.

Alternatively, can connect to an SMC on your network using the `smc.local` address in place of the IP address. This requires mDNS to be configured on your network. This will load the webpage of the first available SMC, from which (on the SMC page) you can access all the SMCs on your management network by selecting their IPs.

User Account Control

To use the website and some of the API endpoints in v3 and above, a user account must be created. This is to protect against unauthorised access to critical machine functions (like turning off a server mid-show)

1. Once navigated to the IP address and the login page is visible, click 'Sign Up'
2. A four-digit number will appear on the front screen which will need to be put in the 'Screen Number' field whilst filling out the form. This number will only appear for 30s, click 'Resend Verification' to generate a new number.

Designing into a network infrastructure

Each of the aforementioned Disguise servers have a MGMT ethernet port on the back which is solely for access to the system. This can be built into an existing network infrastructure but care should be taken to isolate this network from all others by using VLANs or maintaining a separate physical network. The reasons for this are two-fold:

- Security - Since the system has access to lower-level functionality that bypasses the Windows OS on the servers, this **shouldn't be connected to the internet on a permanent basis**
- Reliability - One of the main features of the system is to provide out-of-band management and help configure or change the Disguise server - this cannot happen if the network is down or not configured correctly!

Discovering MGMT network IPs when OLED display is not visible

When the IP address is not visible on the front OLED screen (due to display issues or physical access limitations), you can use the following workflow:

1. On the host machine (the server containing the SMC), open a web browser and navigate to the static IP address `172.31.250.9`.
2. Log in to the SMC web interface (or create an account if this is your first time).
3. On the Network Servers section of the dashboard, you'll see:
 - The MGMT network IP of your current SMC host machine.
 - A list of all other SMCs detected on the same MGMT network with their IPs.
4. You can click on any of the listed SMCs to navigate directly to their management interface.
5. Record the discovered MGMT network IP addresses for future reference or automation purposes.

This method allows you to:

- Discover your SMC's MGMT network IP when the OLED display is not readable.
- Navigate between all SMCs on your management network without knowing their specific IPs in advance.
- Create a complete map of all SMCs on your MGMT network for documentation purposes.

Functionality

Front OLED Screen

The front OLED screen displays data that is organised into pages that are in a table-based format. In v2 and v3, the only available pages are default information and VFC card information. From v4 onwards there will be a selection of different pages that can be displayed which the user can configure at any time from the webpage and REST API.

Default Page

Field Name-Description (Example)

- **Machine**-The model of the Disguise server (vx 4).
- **Name** - The name of the Disguise server (vx-44150).
- **Role** - The role of the machine set by d3 net manager (understudy).
- **MGMT IP** - The status of the MGMT IP (assigned)

VFC Page

This page displays information about the currently installed VFCs. If the Disguise server is powered off then this information may be out of date. (This can only be a 'left' page).

- **Slot** - Which slot the VFC card is installed in left-most looking at the rear is slot 1 (1).
- **Card** - The type of VFC card installed in the slot (HDMI).

Network Config Page

This page displays information about the network adapters in the Disguise server.

- **Name** - The name of the interface set in Windows (A - d3net 1Gbit).
- **IP** - The IPv4 address of the interface (10.0.0.34).

System Temps

This page displays the readings of temperature sensors in the system

- **Name** - The IPMI component name (CPU0_TMP)
- **Temp** - Temperature sensor reading in degrees Celsius (42 C)

System Status

This page displays the readings of temperature sensors in the system

- **Name** - The name of the status (System Power)
- **Status** - The value of the status (On)

Web Interface

The web interface is the most user-friendly way of using SMC functionality (to manage your server, view the IPs of other servers on your management network, and see system stats). It is the only place to create an SMC account (see User Account Control), and can be accessed on an SMC host machine or across the management network.

All stats update every 10-15 seconds to ensure that the page is up to date. Information accessible on the webpage also has corresponding API endpoints from which it can be queried.

Status Page

Main (index) page - account creation required to access.

Network Servers

This section displays all the other servers that can be found on the same subnet. Clicking on a row will navigate to that machine's management page.

Stats Page

Gathers all sensor and important status messages from the IPMI system. This page self-updates every 10-15 seconds. System statistics such as temperature, voltage, and fan speeds are recorded.

Remora Page

Contains details about the Remora system present in the Disguise server such as firmware and hardware version as well the current MGMT IP. This page will tell whether you have an SMC Mk I or Mk II hardware platform. It also provides an ease of access link to the update page, and to fetch the system startup logs.

API

Features and new status information tend to appear here first - Navigate to `ip.address/api` to access the example page and view what features are available - Can use any http client to send requests to the API (curl, python etc)

Generally any request that involves getting information will not require authentication, anything that modifies the state will require basic authentication tokens (log in on the example API page).

For detailed API documentation, visit the [SMC API documentation](#) on the Disguise developer portal.

Updating

All SMC systems are updated during the reimaging process, and when updating the OS if the new OS version contains a later SMC OS version. Updating SMC systems manually is **NOT** recommended unless recommended by a member of support or development staff.

1. Navigate to `ip.address:9998` in a browser and a SWUpdate landing page should appear.
2. Contact your support representative for a copy of the latest firmware.
 1. It is **NOT** recommended to install an older version than currently installed.
 2. Currently installed version can be found by entering `ip.address/api/remora` into the browser, the current version will be listed as 'Firmware Version'
3. Drag and drop the .swu file to the window and the update will start - a progress bar will also appear on the front screen
4. Once updated the system will restart - this will not affect the operation of the main Disguise server in any way.

SMC Troubleshooting

The following troubleshooting advice applies to both SMC Mk I and SMC Mk II. Any platform specific troubleshooting steps are contained in their respective pages!

How to restart

Without removing power from Disguise server:

- Navigate to Install an update page - `ip.address:9998`
- Click 'Restart System' on top navigation bar of the page.
- If the reboot method above does not work then perform a cold boot.

OLED

Front screen is blank/jumbled data/frozen

- Follow 'How to restart' to restart the system and see if the screen starts working again.
- If the screen is not fixed try to install an update (either the same or newer version if available).
- If the screen is still frozen or not working after trying BOTH of the restart methods then contact [support](#).

Caution

There is a known issue presently found on VX1, VX2, and VX4 hosts, where upon a re-image/OS update, the OLED becomes jumbled. This is related to a manufacturing fault and is automatically accounted for in later OS versions. It can also be fixed by downgrading SMC Mk I firmware to 5.0.5 or earlier manually.

MGMT

MGMT IP stuck on Link Down

This means that there is a problem with the physical network connection

- Check all cables are plugged in correctly and functional
- Check that any network infrastructure such as switches are powered on and connected
- Check that connected network cards are enabled

MGMT IP stuck on Assigning IP

Generally means that the physical layer is operating correctly but there are problems in the network stack configuration

- Check that the network is on the correct subnet: If the IP is of type 169.254 then link-local so subnet is 255.255.0.0.
- If connected to DHCP server then check this can 'see' the system.
- If connected directly to a windows computer, install Bonjour and/or give the NIC an IP in the correct subnet. (Link-local addressing on the side should sort out any address conflicts).

MGMT IP assigned but still can't connect

- If connected straight to a windows computer, install Bonjour and/or give the NIC an IP in the correct subnet. (Link-local addressing on the side should sort out any address conflicts).
- If connected to DHCP server then check this can 'see' the system.
- Try accessing the webpage via the Disguise server itself (see Connecting Internally).
- If all else fails try restarting both ways.

SMC Mk I

The system is currently present in the following Disguise machines:

- VX 1
- VX 2
- VX 2+
- VX 3
- VX 4
- VX 4+
- GX 3

Troubleshooting

Fixing Backdated Version Issue

This issue occurs when a new version of Remora is replaced with v0.12 during a server re-image or similar process. This will cause the screen to freeze or be blank and the system will possibly be uncontactable through the normal channels. See *Fixing Backdated Version Issue* on the [SMC Mk I](#) page for details.

1. Connect the MGMT port to any of the other ports on the server.
2. Open Chrome and try the following IP addresses to open the update page, if they do not work proceed with further steps `172.31.250.9:9998` `10.0.0.102:9998`
3. Set the connected port to DHCP (Obtain address automatically).
4. Install **Wireshark**.
5. Point **Wireshark** at the port connected to the **MGMT** port.
6. In Windows, disable the connected port.
7. Accept the Wireshark notifications telling you that it's not connected.
8. Re-enable the port.
9. Look for ARP packets from a device named **RASPBERR** (The internal raspberry pi) in Wireshark.
10. These packets should contain the IP that the remora system is self-assigning.
11. Open chrome and type in the IP found PLUS port 9998. (For example, `169.254.123.145:9998`).
12. This will open the **Remora** update page.
13. Drag the latest Remora update into the browser (can be found at top of page).
14. Allow update to happen.
15. Remove the cable between MGMT and other port.

16. Restart d3service.

SMC Mk II

SMC Mk II is based on a new hardware platform that is more robust, and will be supported long term. The system is currently present in the following Disguise machines:

- EX 2
- EX 2C
- EX 3+
- RX III
- GX 3+

Hardware OS Images

Getting OS Images

Tip

If your Disguise media server or node(s) does not have access to the internet, you can download these images to a laptop or USB in advance and burn them to your USB Drive.

Note

USB Redisguise Instructions

For instructions on how to perform a USB Reimage on your Disguise media server, download the relevant file from the list below (this will be an **.ISO file**). Then, find the instructions for your model of server in the Navigation Menu as follows:

- Select Hardware
- Select your Product Range
- Select your Server Model
- Select 'Redisguise'

GX 3+ OS

Instructions for [How to Redisguise a GX 3+](#)

26Q1 | [Download your USB Redisguise file](#)

OS Image name in d3Manager: `26Q1.c39055a1`

Compatible d3 Versions: r32.0 and above

Applicable Models: GX 3+

Windows Version: Win 11 GAC 23H2

Revision History

- **Original Release:** `26Q1.c39055a1` on **10/Feb/2026**

Release Notes

Disguise OS image version GX3P_26Q1 is specific to the GX 3+ and is to be used with Designer version r32.0 and above.

- Deltacast has been updated to version 6.33.2 which resolves an issue that can intermittently cause the Deltacast card to disappear.
- The Intel Network Adapter Driver version has been updated to 30.6 to improve connection speed and stability on ports A, B, C and D.

Package	Version
GPU: NVIDIA	[573.42]
Network: Mellanox	[2.90.25506]
Capture: Deltacast	[6.33.2]
Audio: RME	[4.38]
VIMBA SDK	[2.1.3]
Vimba X SDK	[2023.4.0.2776]
Deltacast dCare	[1.16]
Deltacast dScope	[1.9.0]
NVIDIA Video Effects SDK (Blackwell)	[0.7.6]
NVIDIA AR SDK (Blackwell)	[0.8.7]

25Q3 | [Download your USB Redisguise file](#)

OS Image name in d3Manager: `25Q3.f0885a6e`

Compatible d3 Versions: r32.0 and above

Applicable Models: GX 3+

Windows Version: Win 11 GAC 23H2

Revision History

- **Original Release:** `25Q3.6ac03459` on **06/Oct/2025**
- **Re-Released as:** `25Q3.f0885a6e` on **27/Jan/2026** to resolve an issue with Rivermax not being detected in d3.

Release Notes

Disguise OS image version GX3P_25Q3 is the launch OS and specific to the GX 3+. Initial Designer support was introduced for the GX 3+ in r32.0 and above.

Package	Version
GPU: NVIDIA	[573.42.0]
Network: Mellanox	[2.90.25506]
Capture: Deltacast	[6.31.1]
Audio: RME	[4.38]
VIMBA SDK	[2.1.3]
Vimba X SDK	[2023.4.0.2776]
Deltacast dCare	[1.16]
Deltacast dScope	[1.9.0]
NVIDIA Video Effects SDK (Blackwell)	[0.7.6]
NVIDIA AR SDK (Blackwell)	[0.8.7]

EX 2 / EX 2C / EX 3+ OS

Instructions for [How to Redisguise](#) an EX 2 / EX 2C / EX 3+

25Q3 | [Download your USB Redisguise file](#)

OS Image name in d3Manager: 25Q3.c1edd10c

Compatible d3 Versions: r32.2 and above

Applicable Models: EX 2 / EX 2C / EX 3+

Windows Version: Win 11 GAC 23H2

Revision History

- **Original Release:** 25Q3.30647cf3 on **15/Oct/2025**
- **Re-Released as:** 25Q3.c1edd10c on **12/Nov/2025** to upgrade the sync card firmware from 2.02 to 2.22.

Release Notes

Disguise OS image version EX2C_EX2_EX3P_25Q3 is specific to the EX 2, EX 2C and EX 3+.

This OS upgrades the Deltacast Driver and Firmware versions to 6.31.1 to support video capture via the HDMI 2.0 input on EX 2C and EX 3+.

To support video capture functionality via the HDMI 2.0 input on the **EX 2C** and **EX 3+**, 25Q3 must be used with r32.2+. For more information about compatibility, please see [product compatibility](#) pages.

Package	Version
GPU: NVIDIA	[551.52.0]
Network: Mellanox	[2.90.25506]
Capture: Deltacast	[6.31.1]
VIMBA SDK	[2.1.3]
Vimba X SDK	[2023.4.0.2776]
Deltacast dCare	[1.16]
Deltacast dScope	[1.9.0]
NVIDIA Video Effects SDK (ADA)	[0.7.2]
NVIDIA AR SDK (ADA)	[0.8.2]

24Q2 | [Download your USB Redisguise file](#)

Compatible Designer Versions: r28.0+

Release Date: 10/Jun/2024

Latest Re-Release: 16/Jun/2025 - **Please delete any copies of this OS that were downloaded before this date**

Applicable Models: EX 2 / EX 2C / EX 3+

Windows Version: Win 11 GAC 23H2

Release Notes

- Disguise OS image version EX2C_EX2_EX3P_24Q2 is the launch OS and specific to the EX 2, EX 2C and EX 3+.
- This is the Initial Release OS for the EX2, EX2C & EX3P Models.

- Hardware support for this machine has been enabled from Designer software version r27.5.1 and above.

Package	Version
GPU: NVIDIA	[551.52.0]
Network: Mellanox	[2.90.25506]
Capture: Deltacast	[6.22.06]
VIMBA SDK	[2.1.3]
Vimba X SDK	[2023.4.0.2776]
Deltacast dCare	[1.12.4]
Deltacast dScope	[1.9.0]
NVIDIA Video Effects SDK (ADA)	[0.7.2]
NVIDIA AR SDK (ADA)	[0.8.2]

RX III OS

Instructions for [How to Redisguise](#) an RX III

24Q2 | [Download your USB Redisguise file](#)

Compatible Designer Versions: r28.0+

Release Date: 10/Jun/2024

Latest Re-Release: 16/Jun/2025 - **Please delete any copies of this OS that were downloaded before this date**

Applicable Models: RX III

Windows Version: Win 11 GAC 23H2

Release Notes

- Disguise OS image version RXIII_24Q2 is the launch OS and is specific to the RX III.
- Hardware support for this machine has been enabled from Designer software version r27.5.1 and above.

Package	Version
GPU: NVIDIA	[551.52.0]
Network: Mellanox	[2.90.25506]
NVIDIA Video Effects SDK (ADA)	[0.7.2]
NVIDIA AR SDK (ADA)	[0.8.2]

GX 3 OS

Instructions for [How to Redisguise](#) a GX 3

25Q2 | [Download your USB Redisguise file](#)

OS Image name in d3Manager: 25Q2.19f7e35d

Compatible d3 Versions: r28.0 and above

Applicable Models: GX 3

Windows Version: Win 11 GAC 23H2

Revision History

- **Original Release:** 25Q2.b2c88157 on **22/Jul/2025**
- **Re-Released as:** 25Q2.19f7e35d on **11/Dec/2025** to add better error handling in the case of a failed reimage..

Release Notes

This OS Image is specifically designed for the GX 3 media server. The following changes have been implemented in this release:

- **Mitigation for TA-34:** Resolved an issue that could cause sporadic system hangs during boot-up.
- **Improved Boot Speed:** Optimised the boot process to reduce the time taken to load into Windows.

Note: In order to see the faster reboot times the server must undergo a full power cycle so will need to be shut down completely and disconnected from power. This step is crucial to see the improved boot speed to take effect.

Package	Version
GPU: NVIDIA	[551.52.0]
Capture: Matrox	[10.4.101.1269]
Network: Mellanox	[2.90.25506]
Audio: RME	[4.38]
VIMBA SDK	[2.1.3]
Vimba X SDK	[2023.4.0.2776]
NVIDIA Video Effects SDK (Ampere)	[0.7.2]
NVIDIA AR SDK (Ampere)	[0.8.2]

25Q1 | [Download your USB Redisguise file](#)

Compatible Designer Versions: r28.0+

Release Date: 18/Feb/2025

Latest Re-Release: 14/Jul/2025 - **Please delete any copies of this OS that were downloaded before this date**

Applicable Models: gx 3

Windows Version: Win 11 GAC 23H2

Release Notes

Disguise OS image version GX3_25Q1 is a quality of life OS update which provides mitigations for TA-60. Additionally, this release incorporates user-requested quality-of-life improvements such as new software and additional Windows features, ensuring a more seamless and efficient user experience.

Package	Version
GPU: NVIDIA	[551.52.0]
Capture: Matrox	[10.4.101.1269]
Network: Mellanox	[2.90.25506]
Audio: RME	[4.38]
VIMBA SDK	[2.1.3]
Vimba X SDK	[2023.4.0.2776]

Package	Version
NVIDIA Video Effects SDK (Ampere)	[0.7.2]
NVIDIA AR SDK (Ampere)	[0.8.2]

24Q2 | [Download your USB Redisguise file](#)

Compatible Designer Versions: r28.0+

Release Date: 05/Sep/2024

Latest Re-Release: 15/May/2025 - **Please delete any copies of this OS that were downloaded before this date**

Applicable Models: gx 3

Windows Version: Win 11 GAC 23H2

Release Notes

This OS includes an update to the Windows Version (Windows 11 23H2); with the following additions:

- Nvidia graphics driver (551.52)
- Nvidia AR SDK (0.8.2)
- Nvidia Video Effects SDK (0.7.2)
- Which collectively provide mitigations to these 2 technical Advisories (TA-49 and TA-57):

<https://support.disguise.one/s/article/Use-of-Nvidia-Virtual-Background-in-a-Notch-block-can-cause-a-crash-to-desktop-CTD-on-specific-Disguise-media-servers>

<https://support.disguise.one/s/article/TA-57-Face-Tracker-node-in-a-Notch-block-can-cause-spontaneous-CTD>

This OS is designed for d3 Designer Software Version r28.0 onwards

Package	Version
GPU: NVIDIA	[551.52.0]
Capture: Matrox	[10.4.101.1269]
Network: Mellanox	[2.90.25506]
Audio: RME	[4.38]

Package	Version
VIMBA SDK	[2.1.3]
Vimba X SDK	[2023.4.0.2776]
NVIDIA Video Effects SDK (Ampere)	[0.7.2]
NVIDIA AR SDK (Ampere)	[0.8.2]

201F | [Download your USB Redisguise file](#)

Compatible Designer Versions: Up to r26.5.2

Release Date: 31/Jan/2024

Applicable Models: gx 3

Windows Version: Win 10 SAC 1809

Release Notes

Disguise OS image version gx3_24Q1 is specific to the GX 3 media server. This OS includes an update to the Matrox SDK (10.4.101) and provides the following improvements to Disguise media servers with a Matrox SDI capture card installed.

- Mixed frame rate support - users can now work with any combination of video resolution formats and refresh rates across each video input.
- Ultra low latency mode - we have reduced the video latency when running in ultra low-latency mode from 4 frames per second to 3 frames per second at 30Hz, 50Hz and 60Hz.
- General performance improvements.

Package	Version
VIMBA SDK	[2.1.3]
GPU: NVIDIA	[513.12]
Capture: Matrox	[10.4.101.1269]
Network: Mellanox	[2.90.25506]
Capture: Deltacast	[6.15.10]
Audio: RME	[4.38]
RAID: Broadcom	[7.20]

Package	Version
Deltacast dCare	[1.12]
Deltacast dScope	[1.9.0]
NVIDIA Video Effects SDK (Turing)	[0.6.5]
NVIDIA AR SDK (Turing)	[0.7.6]
Raid: LSA Utils	[007.018.004.000]

VX 2+ OS

Instructions for [How to Redisguise](#) a VX 2+

25Q3 | [Download your USB Redisguise file](#)

Compatible d3 Versions: r32.0 and above

Release Date: 19/Nov/2025

Applicable Models: VX 2+

Windows Version: Win 11 GAC 23H2

Release Notes

Disguise OS image version VX2+_25Q3 primary update is to upgrade the Deltacast SDK version to 6.31.0

- This update brings the VX 2+ in line with other media servers that it interoperates with, by standardizing the Deltacast SDK to a common driver and SDK version, this release enables smoother mixed sessions between VX, GX and EX servers, improving overall collaboration and compatibility across systems.

Package	Version
GPU: NVIDIA	[551.52.0]
Network: Mellanox	[2.90.25506]
Capture: Deltacast	[6.31.0]
Audio: RME	[4.38]
VIMBA SDK	[21.3]

Package	Version
Vimba X SDK	[2023.4.0.2776]
Deltacast dCare	[1.16]
Deltacast dScope	[1.9.0]
NVIDIA Video Effects SDK (Ampere)	[0.7.2]
NVIDIA AR SDK (Ampere)	[0.8.2]

25Q2 | [Download your USB Redisguise file](#)

Compatible d3 Versions: r28.0 and above

Release Date: 22/Jul/2025

Applicable Models: vx 2+

Windows Version: Win 11 GAC 23H2

Release Notes

This OS Image is specifically designed for the VX 2+ media server. The following changes have been implemented in this release:

- Mitigation for TA-34: Resolved an issue that could cause sporadic system hangs during boot-up.
- Improved Boot Speed: Optimised the boot process to reduce the time taken to load into Windows.

Note: In order to see the faster reboot times the server must undergo a full power cycle so will need to be shut down completely and disconnected from power. This step is crucial to see the improved boot speed to take effect.

Package	Version
GPU: NVIDIA	[551.52.0]
Network: Mellanox	[2.90.25506]
Capture: Deltacast	[6.22.06]
Audio: RME	[4.38]
VIMBA SDK	[2.1.3]
Vimba X SDK	[2023.4.0.2776]

Package	Version
Deltacast dCare	[1.12.4]
Deltacast dScope	[1.9.0]
NVIDIA Video Effects SDK (Ampere)	[0.7.2]
NVIDIA AR SDK (Ampere)	[0.8.2]

25Q1 | [Download your USB Redisguise file](#)

Compatible Designer Versions: r27.2+

Release Date: 18/Feb/2025

Latest Re-Release: 16/Jun/2025 - **Please delete any copies of this OS that were downloaded before this date**

Applicable Models: vx 2+

Windows Version: Win 11 GAC 23H2

Release Notes

Disguise OS image version VX2P_25Q1 is a quality of life OS release which provides mitigations for TA-60. In addition to this the inclusion of NVIDIA Video Effects SDK [0.7.2] and NVIDIA AR SDK [0.8.2], which will collectively provide mitigation for TA-57. Additionally, this release incorporates user-requested quality-of-life improvements such as new software, and additional Windows features, ensuring a more seamless and efficient user experience.

Package	Version
GPU: NVIDIA	[551.52.0]
Network: Mellanox	[2.90.25506]
Capture: Deltacast	[6.22.06]
Audio: RME	[4.38]
VIMBA SDK	[2.1.3]
Vimba X SDK	[2023.4.0.2776]
Deltacast dCare	[1.12.4]
Deltacast dScope	[1.9.0]
NVIDIA Video Effects SDK (Ampere)	[0.7.2]

Package	Version
NVIDIA AR SDK (Ampere)	[0.8.2]

24Q1 | [Download your USB Redisguise file](#)

Compatible Designer Versions: r27.2+

Release Date: 13/Mar/2024

Applicable Models: vx 2+

Windows Version: Win 11 GAC 23H2

Release Notes

Disguise OS image version vx2p_24Q1 is specific to the VX 2+ media server. This OS includes an update to the Deltacast SDK (6.22.01) to enable support for the Disguise VX 2+ media server, which makes use of a new capture card variant.

In order to make use of this new Deltacast SDK, please note that users will need to run this OS with Designer software version r27.2 and above.

The previous OS will work with Designer software versions r26.4 to r27.1.3

Package	Version
GPU: NVIDIA	[516.94]
Network: Mellanox	[2.90.25506]
Capture: Deltacast	[6.22.06]
Audio: RME	[4.38]
VIMBA SDK	[2.1.3]
Deltacast dCare	[1.12.4]
Deltacast dScope	[1.9.0]
NVIDIA AR SDK (Ampere)	[0.7.6]

VX 3 OS

Instructions for [How to Redisguise a VX 3](#)

25Q3 | [Download your USB Redisguise file](#)

Compatible d3 Versions: r32.0 and above

Release Date: 19/Nov/2025

Applicable Models: VX 3

Windows Version: Win 11 GAC 23H2

Release Notes

Disguise OS image version VX3_25Q3 primary update is to upgrade the Deltacast SDK version to 6.31.0

- This update brings the VX 3 in line with other media servers that it interoperates with, by standardizing the Deltacast SDK to a common driver and SDK version, this release enables smoother mixed sessions between VX, GX and EX servers, improving overall collaboration and compatibility across systems.

Package	Version
GPU: NVIDIA	[551.52.0]
Network: Mellanox	[2.90.25506]
Capture: Deltacast	[6.31.0]
Audio: RME	[4.38]
VIMBA SDK	[2.1.3]
Vimba X SDK	[2023.4.0.2776]
Deltacast dCare	[1.16]
Deltacast dScope	[1.9.0]
NVIDIA Video Effects SDK (Ampere)	[0.7.2]
NVIDIA AR SDK (Ampere)	[0.8.2]

25Q2 | [Download your USB Redisguise file](#)

Compatible d3 Versions: r27.2 and above

Release Date: 22/Jul/2025

Applicable Models: vx 3

Windows Version: Win 11 GAC 23H2

Release Notes

This OS Image is specifically designed for the VX 3 media server. The following changes have been implemented in this release:

- Mitigation for TA-34: Resolved an issue that could cause sporadic system hangs during boot-up.
- Improved Boot Speed: Optimised the boot process to reduce the time taken to load into Windows.

Note: In order to see the faster reboot times the server must undergo a full power cycle so will need to be shut down completely and disconnected from power. This step is crucial to see the improved boot speed to take effect.

Package	Version
GPU: NVIDIA	[551.52.0]
Network: Mellanox	[2.90.25506]
Capture: Deltacast	[6.22.06]
Audio: RME	[4.38]
VIMBA SDK	[2.1.3]
Vimba X SDK	[2023.4.0.2776]
Deltacast dCare	[1.12.4]
Deltacast dScope	[1.9.0]
NVIDIA Video Effects SDK (Ampere)	[0.7.2]
NVIDIA AR SDK (Ampere)	[0.8.2]

25Q1 | [Download your USB Redisguise file](#)

Compatible Designer Versions: r27.2

Release Date: 18/Feb/2025

Latest Re-Release: 14/Jul/2025 - **Please delete any copies of this OS that were downloaded before this date**

Applicable Models: vx 3

Windows Version: Win 11 GAC 23H2

Release Notes

Disguise OS image version VX3_25Q1 is a quality of life OS update which will change our Nvidia Q-Sync Firmware to version 2.02 for the mitigation of TA-59. The inclusion of NVIDIA Video Effects SDK [0.7.2] and NVIDIA AR SDK [0.8.2], which will collectively provide mitigation for TA-57. Additionally, this release incorporates user-requested quality-of-life improvements such as new software, and additional Windows features, ensuring a more seamless and efficient user experience.

Package	Version
GPU: NVIDIA	[551.52.0]
Network: Mellanox	[2.90.25506]
Capture: Deltacast	[6.22.06]
Audio: RME	[4.38]
VIMBA SDK	[2.1.3]
Vimba X SDK	[2023.4.0.2776]
Deltacast dCare	[1.12.4]
Deltacast dScope	[1.9.0]
NVIDIA Video Effects SDK (Ampere)	[0.7.2]
NVIDIA AR SDK (Ampere)	[0.8.2]

24Q1 | [Download your USB Redisguise file](#)

Compatible Designer Versions: r27.2

Release Date: 13/Mar/2024

Applicable Models: vx 3

Windows Version: Win 11 GAC 23H2

Release Notes

Disguise OS image version vx3_24Q1 is the launch OS and specific to the VX 3 media server.

Hardware support for the VX 3 has been enabled from Designer software version r27.2 and above.

Package	Version
GPU: NVIDIA	[551.52.0]
Network: Mellanox	[2.90.25506]
Capture: Deltacast	[6.22.06]
Audio: RME	[4.38]
VIMBA SDK	[2.1.3]
Deltacast dCare	[1.12.4]
Deltacast dScope	[1.9.0]
NVIDIA AR SDK (Ampere)	[0.7.6]

VX 4+ OS

Instructions for [How to Redisguise a VX 4+](#)

25Q3 | [Download your USB Redisguise file](#)

OS Image name in d3Manager: `25Q3.f0885a6e`

Compatible d3 Versions: r32.0 and above

Applicable Models: VX 4+

Windows Version: Win 10 SAC 1809

Revision History

- **Original Release:** `25Q3.ce7efeb9` on **19/Nov/2025**
- **Re-Released as:** `25Q3.72b1e09f` on **11/Dec/2025** to fix a corrupted Matrox driver in the original release (for Matrox VX 4+ variants).
- **Re-Released as:** `25Q3.f0885a6e` on **27/Jan/2026** to resolve an issue with Rivermax not being detected in d3.

Release Notes

Disguise OS image version VX4+_25Q3 primary update is to upgrade the Deltacast version to 6.31

- This update brings the VX 4+ in line with other media servers that it interoperates with, by standardizing the Deltacast SDK to a common driver and SDK version, this release enables smoother mixed sessions between VX, GX and EX servers, improving overall collaboration and compatibility across systems.

Package	Version
GPU: AMD	[22Q2]
Capture: Matrox	[10.4.101.1269]
Network: Mellanox	[2.90.25506]
Capture: Deltacast	[6.31.0]
Audio: RME	[4.38]
RAID: Broadcom	[7.20]
VIMBA SDK	[2.1.3]
Vimba X SDK	[2023.4.0.2776]
Deltacast dCare	[1.16]
Deltacast dScope	[1.9.0]
Raid: LSA Utils	[007.018.004.000]

25Q2 | Has been removed. For additional details, please refer to the Technical Advisory: [TA-65](#)

24Q2_1 | [Download your USB Redisguise file](#)

Compatible d3 Versions: r27.2 and above

Release Date: 28/Aug/2025

Latest Re-Release: 28/Aug/2025 - **Please delete any copies of this OS that were downloaded before this date**

Applicable Models: VX 4+

Windows Version: Win 10 SAC 1809

Release Notes

Disguise OS image version vx4p_24Q2_1 is specific to the VX 4+ media server. This OS includes an update to the Deltacast SDK (6.22.01) to enable support for the Disguise VX 3 media server, which makes use of a new capture card variant.

PLEASE NOTE: This OS Was Re-Released on 28th August 2025 to resolve the following known issues - please re-make any old vx4p_24Q2_1 USB Flash Drives made before this date:

- This release of 24Q2_1 will recognise and remove a known problematic BIOS version that went live in OS 25Q2 (now removed). If it identifies this problem BIOS it will revert your BIOS back to the last known functional BIOS. NOTE: Any customers running 25Q2 should re-download this copy of 24Q2_1 and perform a Redisguise to avoid the risk of Blue Screens For more information about this see [TA-65](#).
- The previous release had an issue where the RME TotalMix Application would not automatically start on boot

Package	Version
GPU: AMD	[22Q2]
Capture: Matrox	[10.4.101.1269]
Network: Mellanox	[2.90.25506]
Capture: Deltacast	[6.22.06]
Audio: RME	[4.38]
RAID: Broadcom	[7.20]
VIMBA SDK	[2.1.3]
Deltacast dCare	[1.12.4]
Deltacast dScope	[1.9.0]
Raid: LSA Utils	[007.018.004.000]

24Q2 | [Download your USB Redisguise file](#)

Compatible Designer Versions: r27.0 to r27.1.3

Release Date: 21/Apr/2024

Applicable Models: vx 4+

Windows Version: Win 10 SAC 1809

Release Notes

Disguise OS image version vx4+_24Q2 is specific to the VX 4+ media server. This OS includes an update to the Matrox SDK (10.4.101) and provides the following improvements to Disguise media servers with a Matrox SDI capture card installed:

- Mixed frame rate support - users can now work with any combination of video resolution formats and refresh rates across each video input
- Ultra-low latency mode - we have reduced the video latency when running in ultra-low-latency mode from 4 frames per second to 3 frames per second at 30Hz, 50Hz and 60Hz
- General performance improvements

To benefit from these improvements, please keep in mind that users will need to run this OS version with Designer software versions r27.0 through r27i.3

NOTE: We have removed 24Q1 from the website as it contained an incorrect driver version. We have resolved this by updating the r27.2+ to 24Q2

Package	Version
GPU: AMD	[22Q2]
Capture: Matrox	[10.4.101.1269]
Network: Mellanox	[2.90.25506]
Capture: Deltacast	[6.15.10]
Audio: RME	[4.38]
RAID: Broadcom	[7.20]
VIMBA SDK	[2.1.3]
Deltacast dCare	[1.12]
Deltacast dScope	[1.9.0]
Raid: LSA Utils	[007.018.004.000]

VX 1 / VX 2 OS

Instructions for [How to Redisguise a VX 1 / VX 2](#)

25Q1 | [Download your USB Redisguise file](#)

Compatible Designer Versions: r27.2

Release Date: 14/Mar/2025

Applicable Models: vx 1 / vx 2

Windows Version: Win 10 SAC 1809

Release Notes

Disguise OS image vx12_25Q1 is a quality of life update that implements the addition of TotalFixRME being enabled upon start-up. Additionally, this release incorporates user-requested quality-of-life improvements such as new software, and additional Windows features, ensuring a more seamless and efficient user experience.

Package	Version
GPU: NVIDIA	[472.98]
Capture: Matrox	[10.4.101.1269]
Network: Mellanox	[2.90.25506]
Capture: Deltacast	[6.22.06]
Audio: RME	[4.38]
VIMBA SDK	[2.1.3]
Deltacast dCare	[1.12.4]
Deltacast dScope	[1.9.0]
NVIDIA Video Effects SDK (Turing)	[0.6.5]
NVIDIA AR SDK (Turing)	[0.7.6]

24Q2 | [Download your USB Redisguise file](#)

Compatible Designer Versions: r27.2

Release Date: 22/Apr/2024

Applicable Models: vx 1 / vx 2

Windows Version: Win 10 SAC 1809

Release Notes

Package	Version
GPU: NVIDIA	[472.98]
Capture: Matrox	[10.4.101.1269]

Package	Version
Network: Mellanox	[2.90.25506]
Capture: Deltacast	[6.22.06]
Audio: RME	[4.38]
VIMBA SDK	[2.1.3]
Deltacast dCare	[1.12.4]
Deltacast dScope	[1.9.0]
NVIDIA Video Effects SDK (Turing)	[0.6.5]
NVIDIA AR SDK (Turing)	[0.7.6]

EX 3 OS

Instructions for [How to Redisguise](#) an EX 3

25Q1 | [Download your USB Redisguise file](#)

Compatible Designer Versions: r27.2

Release Date: 18/Feb/2025

Applicable Models: EX3

Windows Version: Win 11 GAC 23H2

Release Notes

Disguise OS image version ex3_25Q1 includes an update to the Windows base operating system, migrating the EX 3 to Windows 11 23H2; in addition to this updating our Nvidia graphics driver to version 551.52. Additionally, this release incorporates user-requested quality-of-life improvements such as new software, and additional Windows features, ensuring a more seamless and efficient user experience.

Package	Version
GPU: NVIDIA	[551.52.0]
Network: Mellanox	[2.90.25506]
VIMBA SDK	[2.1.3]

Package	Version
Vimba X SDK	[2023.4.0.2776]
NVIDIA Video Effects SDK (Ampere)	[0.7.2]
NVIDIA AR SDK (Ampere)	[0.8.2]

205 | [Download your USB Redisguise file](#)

Compatible Designer Versions: r24.2 to r26.5.2

Release Date: 13/Sep/2023

Applicable Models: EX3

Windows Version: Win 10 SAC 1809

Release Notes

Support for Nanite is still built into this version, thanks to the move on RX to 21H2 of Windows 10. Security updates are included up to August 2022.

We have updated the NVIDIA driver to 516.94 but users are able to update to newer version of the NVIDIA driver without waiting for a new OS release. This major release features an update to the Mellanox NIC driver and includes the latest Rivermax licensing and SDK. OS 205 is part of the Disguise OS 200+ range and requires versions of d3 r22 and newer to license and run Mellanox NIC with improved performance.

- Windows 10 updates to 21h2, this includes the latest security updates up to August 2022. It includes a UAC bug fix to allow d3 to remote install.
- NVIDIA driver 516.94 provides driver updates up to August 2022 and is a DCH branch driver.
- Direct X 12 is now the main graphics engine in the version of Windows and provides significant performance improvements.
- The latest version of Designer will be installed on new servers, and upgrading a media server will preserve the existing version of Designer installed. Disguise recommends upgrading to r21 in order to work in local languages and find solutions for the most complex projects with peers around the world. Take advantage of improved workflows and integrations with most of the leading technology.
- Intel Network Proset 26.8 is included and comes with a new advanced teaming utility for teaming compatible intel adapters. Please note that teaming may not be possible with vLANs and the Mellanox adapters.

- Mellanox transitions to 2.90.50010 with Rivermax 1.10.20 support. The driver and renderstream license is now fully integrated and will require no reinstallation of the driver after redisguise.

Package	Version
GPU: NVIDIA	[516.94]
Network: Mellanox	[2.90.25506]

PX / PXC / PX+ OS

23Q3 | Unable to offer PX / PXC / PX+ OS

Compatible Designer Versions: N/A

Release Date: 19/Oct/2023

Applicable Models: px / px + / px c

Windows Version: Win 10 SAC 22H2

Release Notes

Disguise OS Image Version 23Q3 is specific to the PX media server.

Package	Version
GPU: NVIDIA	[517.40]
Capture: Blackmagic	[12.6]
Capture: AJA	[16.2.5.3]

If you wish to perform a redisguise on a PX / PXC / PX+ machine please contact support [Here](#)

VX 4 OS

Instructions for [How to Redisguise a VX 4](#)

24Q1_1 | [Download your USB Redisguise file](#)

Compatible Designer Versions: r27.2+

Release Date: 04/Mar/2024

Applicable Models: vx 4

Windows Version: Win 10 SAC 1809

Release Notes

Disguise OS image version vx4_24Q1_1 is specific to the VX 4 media server. This OS includes an update to the Deltacast SDK (6.22.01) to enable support for the Disguise VX 3 media server, which makes use of a new capture card variant.

In order to make use of this new Deltacast SDK, please note that users will need to run this OS with Designer software version r27.2 and above.

The previous OS will work with Designer software versions r27.0 to r27.1.3

Package	Version
GPU: AMD	[19Q3]
Capture: Matrox	[10.4.101.1269]
Network: Mellanox	[2.90.25506]
Capture: Deltacast	[6.22.06]
Audio: RME	[4.38]
RAID: Broadcom	[7.20]
VIMBA SDK	[2.1.3]
Deltacast dCare	[1.12.4]
Deltacast dScope	[1.9.0]
Raid: LSA Utils	[007.018.004.000]

24Q1 | [Download your USB Redisguise file](#)

Compatible Designer Versions: r27.2+

Release Date: 04/Mar/2024

Applicable Models: vx 4

Windows Version: Win 10 SAC 1809

Release Notes

Disguise OS image version vx4_24Q1 is specific to the VX 4 media server. This OS includes an update to the Matrox SDK (10.4.101) and provides the following improvements to Disguise media servers with a Matrox SDI capture card installed:

- Mixed frame rate support - users can now work with any combination of video resolution formats and refresh rates across each video input
- Ultra-low latency mode - we have reduced the video latency when running in ultra-low-latency mode from 4 frames per second to 3 frames per second at 30Hz, 50Hz and 60Hz
- General performance improvements

Please keep in mind that users will need to run this OS version with Designer software versions r27.0 through r27.1.3

Package	Version
VIMBA SDK	[2.1.3]
Capture: Matrox	[10.4.101.1269]
Network: Mellanox	[2.90.25506]
Deltacast dCare	[1.12]
Capture: Deltacast	[6.15.10]
Deltacast dScope	[1.9.0]
Audio: RME	[4.38]
RAID: Broadcom	[7.20]
GPU: AMD	[19Q3]
Raid: LSA Utils	[007.018.004.000]

23Q2 | [Download your USB Redisguise file](#)

Compatible Designer Versions: r27.2

Release Date: 31/Jan/2024

Applicable Models: vx 4

Windows Version: Win 10 SAC 1809

Release Notes

Version: 23Q2 (215.1147)

Disguise OS Image Version vx4_23Q2 is specific to the VX 4 media server.

We have updated our naming convention for Disguise OS' and we will be phasing this in with updates to the Current OS range. It will be based off the year and quarter in which it was introduced.

We have created a combined ISO to support a number of vx 4 users with 100Gb NIC upgrades that require an alternative AMD driver. The ISO is built so that only the users that require the alternative AMD driver will receive the modified image.

Please note that in d3manager the image version will be shown as 215.1147. We will update this to show the new naming convention in future OS updates.

Package	Version
VIMBA SDK	[2.1.3]
GPU: AMD	[19Q3]
Capture: Matrox	[10.3.101.740]
Deltacast dCare	[1.12]
Network: Mellanox	[2.90.25506]
Deltacast dScope	[1.9.0]
Capture: Deltacast	[6.15.10]
Audio: RME	[4.38]
RAID: Broadcom	[7.20]
Raid: LSA Utils	[007.018.004.000]

GX 2C OS

Instructions for [How to Redisguise a GX 2C](#)

24Q1 | [Download your USB Redisguise file](#)

Compatible Designer Versions: r27.2

Release Date: 04/Mar/2024

Applicable Models: gx 2c

Windows Version: Win 10 SAC 1809

Release Notes

Disguise OS image version gx2c_24Q1 is specific to the gx 2c media server. This OS includes an update to the Deltacast SDK (6.22.01) to enable support for the Disguise VX 3 media server, which makes use of a new capture card variant.

In order to make use of this new Deltacast SDK, please note that users will need to run this OS with Designer software version r27.2 and above.

The previous OS will work with Designer software versions up to r27.1.3.

Package	Version
GPU: NVIDIA	[472.98]
Capture: Deltacast	[6.22.06]
Audio: RME	[4.38]
VIMBA SDK	[2.1.3]
Deltacast dCare	[1.12.4]
Deltacast dScope	[1.9.0]
NVIDIA Video Effects SDK (Turing)	[0.6.5]
NVIDIA AR SDK (Turing)	[0.7.6]

199B | [Download your USB Redisguise file](#)

Compatible d3 Versions: From r15.3 to r27.2

Release Date: 04/May/2022

Applicable Models: gx 2c

Windows Version: Win 10 SAC 1809

Release Notes

Disguise OS Image Version 199B.947 is specific to the GX 2C media server and is a cumulative system update. This update includes the latest system drivers recommended and tested by the Disguise team built with the latest windows security updates.

- Windows 10 remains at 1809 but Microsoft’s cumulative and security updates have been included up to April 2022.
- NVIDIA driver updated to 472.98 to improve performance with notch blocks. Full details of the driver can be found in the release notes here.
- .Net has been updated to 4.8+.
- Designer r21.0.2 will be installed at the factory or your existing version of Designer will be reinstalled on postboot.
- Deltacast 6.15.10 is the driver we recommend at this time, and we’re currently working with Deltacast towards updating the driver in the next base version release.
- RME Audio Driver has been updated to 4.3.8 and tested to ensure audio performs as expected from previous versions of the driver.

Package	Version
VIMBA SDK	[2.1.3]
GPU: NVIDIA	[472.98]
Capture: Matrox	[10.2.101.26081]
Capture: Deltacast	[6.15.10]
Audio: RME	[4.38]
Deltacast dCare	[1.12]
Deltacast dScope	[1.9.0]

RX I / RX II OS

Instructions for [How to Redisguise](#) an RX I / RX II

25Q1 | [Download your USB Redisguise file](#)

Compatible Designer Versions: r27.2

Release Date: 18/Feb/2025

Applicable Models: MX MOVE / rx / rx-II

Windows Version: Win 11 GAC 23H2

Release Notes

Disguise OS image version rx_25Q1 includes an update to the Windows base operating system, migrating the RX and RX II to Windows 11 23H2; in addition to this updating our Nvidia graphics driver to version 551.52. Additionally, this release incorporates user-requested quality-of-life improvements such as new software, and additional Windows features, ensuring a more seamless and efficient user experience.

Package	Version
GPU: NVIDIA	[551.52.0]
Network: Mellanox	[2.90.25506]
NVIDIA Video Effects SDK (Ampere)	[0.7.2]
NVIDIA AR SDK (Ampere)	[0.8.2]

23Q3 | [Download your USB Redisguise file](#)

Compatible Designer Versions: r27.2+

Release Date: 11/Oct/2023

Applicable Models: MX MOVE / rx / rx-II

Windows Version: Win 10 SAC 22H2

Release Notes

Disguise OS Image Version rx_23Q3 is specific to the RX and RX II render nodes.

The following updates have been made:

- NVIDIA - upgraded driver to v536.25
- Windows - upgraded to Windows 10 version 22H2

NOTE: We have updated our naming convention for Disguise OS and we will be phasing this in with updates to the Current OS range. It will be based off the year and quarter in which it was introduced.

Package	Version
GPU: NVIDIA	[536.25]
Network: Mellanox	[2.940.22655.23]

Package	Version
Mellanox Rivermax Full SDK Install	[1.1.22655]

GX 1 / GX 2 / 2x4pro OS

Instructions for [How to Redisguise](#) a GX 1 / GX 2 / 2x4pro

180 | [Download your USB Redisguise file](#)

Compatible Designer Versions: r14.3+

Release Date: 01/Oct/2021

Applicable Models: 2x4pro / gx 1 / gx 2

Windows Version: Win 10 LTSB 1607

Release Notes

Disguise OS Image Version 180.841 is specific to the 2x4pro, GX 1 and GX 2. This image includes no driver change, however, it patches a critical bug released in 175.819; as such, we recommend any users currently on version 175 or older to update with priority.

Essential to security and overall system stability. A fix to the Windows product ID process on deployment prevents Windows from failing to activate post-deployment, as in previous versions of the OS image.

- Nvidia driver updated to 461.92; fixing the issue where UCRS is blocked by no OpenCL support in driver. Lower versions of the Nvidia driver also showed instability in Genlock. This version has been rigorously tested by the Disguise team.
- Bluefish drivers remain 5.11.0.47

Package	Version
Audio: RME	[4.2.9]
GPU: NVIDIA	[461.92]
Capture: Bluefish	[5.11.0.47]
VIMBA SDK	[2.1.3]

Solo OS

Instructions for [How to Redisguise a Solo](#)

197 | [Download your USB Redisguise file](#)

Compatible Designer Versions: r14.4.7 to r29.2.2

Release Date: 06/May/2022

Applicable Models: solo

Windows Version: Win 10 LTSC 1607

Release Notes

Disguise OS Image Version 197.948 is specific to the Solo media server is a cumulative update to the Windows 1607 OS.

The Solo OS is built within the long term servicing channel (LTSC) of Windows 10 and runs Windows 10 2016 LTSC (1607) until 2026. It includes security and cumulative system update up to mid April 2022. Updates to the NVIDIA Graphics drivers, and .net 4.8 improved Designer performance and compatibility with the new gold version. Newer capture card drivers are included for both optional Bluefish and Vision cards.

- Windows 10 remains at 1607, with cumulative security updates up until mid April 2022.
- NVIDIA driver 472.98 released on 31st Jan 2022 is installed within this OS. It includes updates to CUDA and some improved notch block performance.
- dotNet has been updated to 4.8+ with all the latest security updates.
- Designer r21.0.2 will be installed at the factory or your existing version of Designer will be reinstalled on postboot.
- Intel Network Proset 26.8 is included; Intel Teaming is not fully supported on the Solo under Windows 1607
- Bluefish (optional SDI card) has been updated to driver 6.5.0.51 with new firmware v32 to improve performance in Designer. The update to the firmware will cause the media server to shut down and initiate a cold boot.
- The BlueInfo tool has been replaced by BlueToolbox, a new tool combining the features of the previous tools (e.g. BlueInfo, BlueProps, DMABenchmarking, etc.) whilst adding new features like video/audio capture preview, changing default card behaviour and user card licence query. A new firmware updater allows the Disguise re-imaging tool to update to the latest bluefish firmware.
- Vision LC (optional HDMI card) has been updated to the latest version 1.2.4

- RMEAudio has been updated to version 4.3, please note you will need to set the WDM device configuration in hammerfall to enable all of the audio devices. This cannot be set in Window 1607 the way that we usually set this in our other products.

Package	Version
GPU: NVIDIA	[472.98]
Audio: RME	[4.38]
Capture: Bluefish	[6.5.0.51]
Capture: Datapath	[1.2.4]
Chipset: ASMB-785	[10.1.1.38]
VIMBA SDK	[2.1.3]

2x2plus OS

Instructions for [How to Redisguise](#) a 2x2

Launch OS | [Download your USB Redisguise file](#)

4x4 / 4x2 OS

Instructions for [How to Redisguise](#) a 4x4 / 4x2

193 | [Download your USB Redisguise file](#)

Compatible Designer Versions: r18.1.10

Release Date: 07/April/2022

Applicable Models: 4x4 pro / 4x2 pro

Windows Version: Win 8.1

Release Notes

Disguise OS Image Version 193.934 is specific to the 4x4pro and 4x2pro. This is a cumulative OS update fixing key deployment bugs in OS 181 and providing cumulative security updates to Windows 8.1 Embedded installed up to 16/02/2022. A bug fix included in

193.934 fixes a known bug seen with versioning when utilising a Redisguise. It also includes a missing USB 3.0 driver found in later variants of the pro range.

- KB890830 has been excluded from update cycle
- Intel Network Proset 26.8 has been included to provide access to Intel ANS features via the command or adapter properties.

In addition to the above cumulative updates, the following Windows and Deployment bugs are directly patched by OS 193:

- The NIC adapters were incorrectly named and provisioned.
- The USB adapters would not function as expected.
- Non hardware specific devices present in configuration.

d3 will maintain the previous version on your media server. Please note the latest software version for the 4x4pro is r18.1.10 revision 84524 which can be accessed from the previous versions section of the website here. The fixes as detailed below resolve bugs found within the OS 181 and d3 r18.1.9 and below.

- d3 was reporting on the 4x2 media server that there was no VFC backplane.
- d3 was reporting on all media servers that there was a Bluefish driver versus sdk mismatch.
- If you have either of these errors in 193 please update to the above mentioned newer version of d3 before contacting support.

When upgrading from an OS Version lower than 181 please note the following key changes to the OS apply in addition to the above:

- Command prompt has been removed from the Win X menu and is replaced by PowerShell version 5.1 framework to aid Disguise remote support teams in troubleshooting complex issues both onsite and remotely.
- New Bluefish drivers and firmware are included in this build to resolve issues related to the failure of the Bluefish cards in d3. This OS Image automatically updates the bluefish firmware and will require the user to manually turn on the device after the first boot cycle. The new drivers & firmware together solve the known failure of the bluefish card in d3. d3 r18.1.9 revision - 81046.
- Bluefish provide BlueToolbox, a new tool combining the features of the previous tools (e.g. BlueInfo, BlueProps, DMABenchmarking, etc.) whilst adding new features like video/audio capture preview, changing default card behaviour and user card licence query, effectively replacing the blue info application previously deployed on Disguise 4x4pros and 4x2pros. A new firmware updater allows the Disguise re-imaging tool to update to the latest bluefish firmware upon deployment, after which the machine will shut down.
- LSA RAID Tools have been updated and will require the username to login.
- Hibernation mode has been disabled.

► **Disguise User Guide**

Hardware / Hardware OS Images

Package	Version
GPU: AMD FirePro w9100	[170111.310593]
Audio: RME	[4.29]
Capture: Bluefish	[6.5.0.51]
Network: Intel	[3.14.214.0]
Chipset: ASMB-785	[10.1.2.19]
VIMBA SDK	[2.1.3]
MegaRAID2	[v6.714.18.00]
FTDI	[2.12.28]
Open	[3.0.0]