

OpenEye[®]
The Cloud Video Platform

**MV – SERIES
CLOUD MANAGED
APPLIANCE**

USER MANUAL



OpenEye MV-Series Cloud-Managed Appliance
User Manual

Manual Edition 37664AF – July 2023

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The following words and symbols mark special messages throughout this guide:



Note Text set off in this manner indicates information that is necessary for proper operation of the product.

IMPORTANT SAFEGUARDS

1. **Read the User Manual** – After unpacking this product, read the owner's manual carefully, and follow all the operating and other instructions.
2. **Power Sources** – This product should be operated only from the type of power source indicated on the label. If not sure of the type of power supply to your home or business, consult product dealer or local power company.
3. **Ventilation** – Slots and openings in the chassis are provided for ventilation and to ensure reliable operation of the product and to protect it from overheating, and these openings must not be blocked or covered. The product should not be placed in a built-in installation such as a bookcase or rack unless proper ventilation is provided or OpenEye's instructions have been adhered to.
4. **Heat** – The product should be situated away from heat sources such as radiators, heat registers, stoves, or other products that produce heat.
5. **Water and Moisture** – Do not use this product near water.
6. **Power Cord Protection** – Power-supply cords should not be routed so that they are likely to be walked on or pinched by items placed against them, paying particular attention to cords at plugs, receptacles, and the point where they exit the product.
7. **Overloading** – Do not overload wall outlets; extension cords, or integral convenience receptacles as this can result in a risk of fire or electrical shock.
8. **Object and Liquid Entry Points** – Never insert foreign objects into the recorder, other than the media types approved by OpenEye, as they may touch dangerous voltage points or short-out parts that could result in a fire or electrical shock. Never spill liquid of any kind on the product.
9. **Installation Surface** – Do not place this product on an unstable cart, stand, tripod, bracket, or table. The product may fall, causing serious personal injury and serious damage to the product.
10. **Burden** – Do not place a heavy object on or step on the product. The object may fall, causing serious personal injury and serious damage to the product.
11. **Replaceable Batteries** – CAUTION: Risk of Explosion if Battery is replaced by an Incorrect Type. Dispose of Used Batteries According to the Instructions.
12. **Grounded Outlet** – This equipment shall be connected to a properly grounded outlet.
13. **Outlet Location** – This equipment must be installed within six feet of an easily accessible outlet.
14. **Damage Requiring Service** – Unplug the unit from the outlet and refer servicing to qualified service personnel under the following conditions:
 - When the power-supply cord or plug is damaged.
 - If liquid has been spilled, or objects have fallen into the unit.

- If the unit has been exposed to rain or water.
 - If the unit does not operate normally by following the operating instructions. Adjust only those controls that are covered by the operating instructions as an improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the unit to its normal operation
 - If the unit has been dropped or the enclosure has been damaged.
 - When the unit exhibits a distinct change in performance - this indicates a need for service.
15. **Servicing** – Do not attempt to service this product. Opening or removing covers may expose the user to dangerous voltage or other hazards. Refer all servicing to qualified personnel.
16. **Replacement Parts** – When replacement parts are required, be sure the service technician has used replacement parts specified by OpenEye or have the same characteristics as the original part. Unauthorized substitutions may result in fire, electric shock or other hazards.
17. **Safety Check** – Upon completion of any service or repairs to this unit, ask the service technician to perform safety checks to determine that the unit is in proper operating condition.

NOTES ON HANDLING

Please retain the original shipping carton and/or packing materials supplied with this product. To ensure the integrity of this product when shipping or moving, repackage the unit as it was originally received from OpenEye.

Do not use volatile liquids, such as aerosol spray, near this product. Do not leave rubber or plastic objects in contact with this product for long periods of time. They will leave marks on the finish.

The top and rear panels of the unit may become warm after long periods of use. This is not a malfunction.

FCC STATEMENT

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

EN 55022 Class A Notice

WARNING

This is a class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

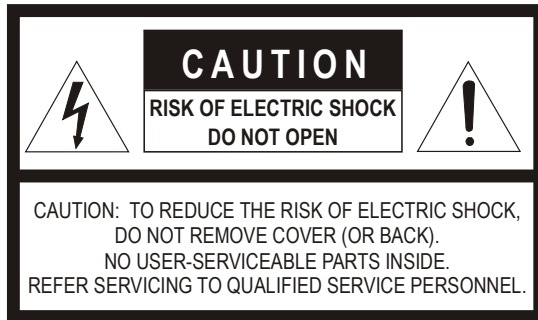
WARNING

TO REDUCE THE RISK OF ELECTRICAL SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

DANGEROUS HIGH VOLTAGES ARE PRESENT INSIDE THE ENCLOSURE.

DO NOT OPEN THE CABINET.

REFER SERVICING TO QUALIFIED PERSONNEL ONLY.



AVERTISSEMENT

POUR RÉDUIRE LE RISQUE DE CHOC ÉLECTRIQUE, N'EXPOSEZ PAS CET APPAREIL À LA PLUIE OU À L'HUMIDITÉ.

DES TENSIONS ÉLEVÉES DANGEREUSES SONT PRÉSENTES À L'INTÉRIEUR DE L'ENCEINTE. N'OUVREZ PAS L'ARMOIRE.

RÉFÉRER L'ENTRETIEN AU PERSONNEL QUALIFIÉ SEULEMENT.



EXPLANATION OF GRAPHICAL SYMBOLS



The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of un-insulated "dangerous voltage" within the product enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

EXPLICATION DES SYMBOLES GRAPHIQUES



L'éclair avec le symbole de la pointe de flèche, à l'intérieur d'un triangle équilatéral, est destiné à alerter l'utilisateur de la présence d'une « tension dangereuse » non isolée dans l'enceinte du produit qui peut être d'une ampleur suffisante pour constituer un risque de choc électrique pour les personnes.

Standard Warranty

OpenEye warrants all new products, purchased through authorized OpenEye resellers & Distributors, to be free from defects in workmanship and material under normal use for a **period of two years** after the date of purchase. Any defective product that falls under this warranty will, at OpenEye's discretion, be repaired or replaced at no additional charge. OpenEye may elect to replace defective products with new or factory reconditioned products of equal or greater value. Repairs made necessary by reason of misuse, alteration, normal wear, or accident are not covered under this warranty.

Exceptions to this are listed below:

- Three Years on all Digital Recorders
- Three years on all analog and IP fixed cameras

All products shall be covered by a one-year advance replacement warranty*.

OpenEye will warrant all otherwise out of warranty replacement parts and repairs for 90 days from the date of OpenEye shipment.

The above warranty is the sole warranty made by OpenEye and is in lieu of all other warranties by OpenEye express and implied, including without limitation the warranties of merchantability and fitness for a particular purpose. Under no circumstances will OpenEye be liable for any consequential, incidental, special or exemplary damages arising out of or connected with the sale, delivery, use or performance of the product, even if OpenEye is apprised of the likelihood of such damages occurring. In no event shall OpenEye liability exceed the purchase price of the product.

This warranty gives you specific legal rights and you may also have other rights which vary from state to state or country to country.

This warranty does not apply to products purchased through unauthorized sales channels.

**Requires corresponding security deposit. Advanced Replacement limited to components only outside of the USA and Canada.*

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For the most up to date information visit openeye.net.

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INTRODUCTION

PRODUCT DESCRIPTION



The OpenEye MV-Series is a compact and cost-effective cloud-managed video recording appliance with an optional integrated PoE switch for single cable IP camera installation. MV-Series appliances support up to a maximum of 24 recording channels per appliance, and a maximum 100Mbps of recording throughput. Models are available with 8 or 16 integrated PoE ports, or customers can choose their own switch hardware and select the non-PoE model with dedicated camera NIC. The MV-Series is ideal for installations where users want an added layer of security, or want to limit the impact of IP video bandwidth on their primary network by isolating cameras to the integrated PoE switch or dedicated camera NIC on non-PoE models. MV-Series appliances with integrated PoE ports allow users to view per port diagnostics and power consumption, as well as power cycle ports for remote troubleshooting before a site visit. NDAA compliant with up to 20TB of internal storage, the MV-Series features a sleek, low profile 1U chassis with optional rack mounts, and is capable of supporting up to 24 channels of recorded video per system.

To learn more about the MV-Series appliance or the rest of OpenEye's M-Series appliance lineup visit openeye.net.

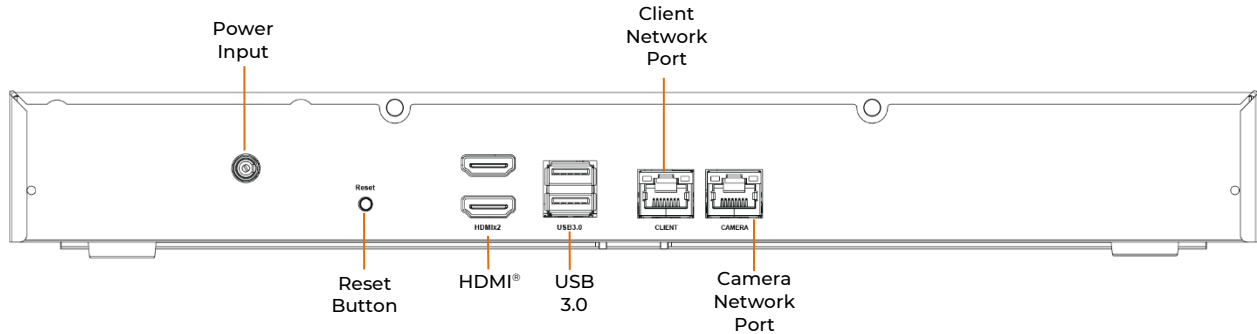
FEATURES

OpenEye MV-Series appliances include the following features:

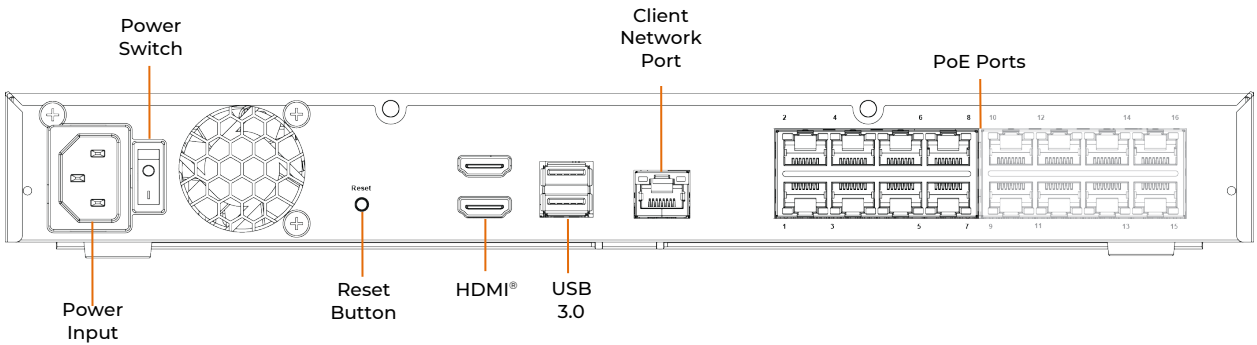
- Optional Built-in PoE switch
- Compact Chassis
- Dedicated OS Drive
- 2-Drive Capacity up to 20TB
- Recording rate up to 100Mbps
- Quiet Operation Suitable for Office Installations
- Rack Mountable
- NDAA Compliant

CONTROLS AND CONNECTIONS

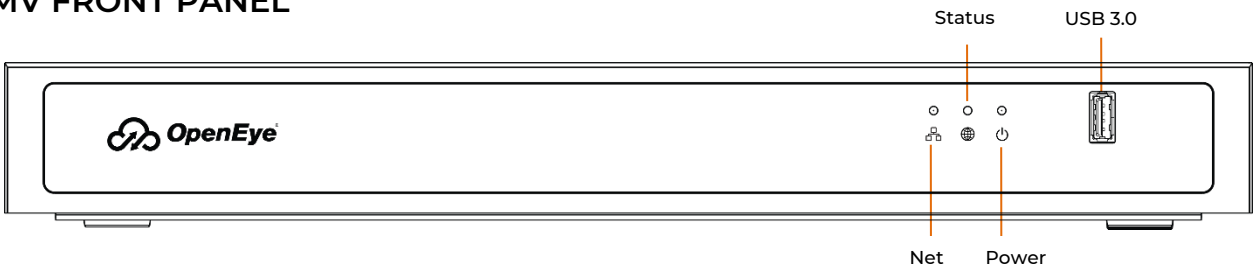
MVX-SERIES REAR PANEL



MVX08/16-SERIES REAR PANEL






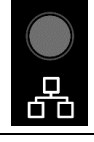



MV FRONT PANEL



POWER, STATUS AND NETWORK LIGHTS

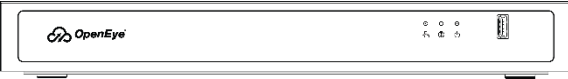

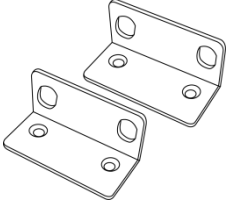

When properly connected to a power source, the LED lights indicate the state of the appliance:

	<p>Power LED Status: Off System Status: Booting or Powered OFF</p>
	<p>Power LED Status: Solid Green System Status: Powered On</p>
	<p>Status LED Status: Off System Status: Local Network Connection not detected</p>
	<p>Status LED Status: Blinking Red System Status: Local Network Connection detected but unable to reach OWS</p>
	<p>Status LED Status: Solid Green System Status: Successfully connected to OWS</p>
	<p>Network LED Status: Off System Status: Client Uplink Inactive</p>
	<p>Network LED Status: Blinking Green System Status: Client Uplink Active</p>

GETTING STARTED

BOX CONTENTS

OpenEye MV-Series appliances come with a power cord, and a mouse. Identify the following components to make sure everything has been properly included with your new appliance. If any of the following items are missing, contact the dealer to arrange a replacement.

 <p>MV-Series Appliance</p>	 <p>Power Cord</p>
 <p>Rack Mount Installation Kit</p>	 <p>Mouse</p>

MOUSE SETUP

To attach the mouse to your appliance, connect the mouse to a USB port.

In this manual:

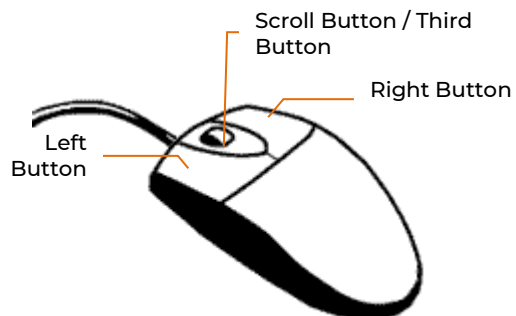
Click means to position the mouse cursor over an item and to single click the left button.

Right click means to position the mouse cursor over an item and to single click the right button.

Double click means to position the mouse cursor over an item and to click the left button twice.

Select means to position the mouse cursor over a radio button, checkbox, or list item and click on it.

The scroll wheel in between the two buttons is used for added navigation functionality. By moving the wheel with index finger (scrolling), quickly move through multiple pages, lines, or windows. The wheel may also function as a third button allowing the user to quickly click or double-click an icon or a selected item.



MONITOR SETUP

These connections are available to connect a monitor:



HDMI® Output

To TV / Digital Display



Note The monitor must be capable of a minimum screen resolution of 1024x768 and support 32 bit color.

CONNECTING CAMERAS THROUGH THE CAMERA NETWORK

Apex automatically detects ONVIF Profile S compliant IP cameras if:

The cameras are set to a discoverable IP address - 192.168.51.2 – 254

This is easily accomplished using Network Camera Manager:

1. Download NCM from OpenEye.net
2. Connect your PC to the switch with your cameras
3. Enable ONVIF detection for 3rd party cameras
4. Input login credentials in Camera Credentials section

Camera(s) and Camera Network Port are connected to a DHCP network:

If the camera is a 3rd party device, it needs to be set to DHCP. If using a DHCP server, the IP address of the Camera Network Port needs to be set to a static IP address within that range.



Note Setting a static IP address on a DHCP network should only be done by a network administrator.

Note If using both networks, Client and Camera, only the Client network should have a gateway.

SETTING UP THE APPLIANCE FOR THE FIRST TIME

1. Connect the network cable intended for remote connections to the **Client Network Port**.



Note The Camera Network Port is intended for use with a dedicated camera network.

2. Connect the supplied **mouse** using the USB ports.
3. Connect a **monitor** using the HDMI® output.
4. Connect the cameras to PoE ports, or the external camera network.
5. Plug the supplied **power cord** into the appliance and connect it to a power source.

DEFAULT USERNAME & PASSWORD

APEX LOGIN:

Log in to the Apex Server using the default credentials:

Username: admin

Password: 1234

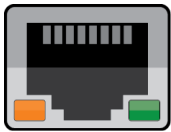
Complete the **First Time Wizard** for basic system setup.

CONNECTING A CAMERA USING A BUILT-IN POE PORT

The MV08-Series and MV16-Series appliances are equipped with on-board Power over Ethernet (PoE) switches for use with PoE IP cameras. OpenEye and other ONVIF Profile S IP cameras can be connected to the appliance using the PoE switch and begin displaying video immediately (some additional configuration may be necessary).

Connect one end of the camera and the other end of the cable to the network switch or appliance.

Check the status of the link indicator and activity indicator LEDs. If the LEDs are unlit, check the LAN connection.



The Orange activity light flashes to indicate network activity.

The Green link light indicates a good network connection.

OPERATING YOUR APPLIANCE

TURNING OFF THE APPLIANCE

1. Click **Setup**, and then click **Power Options**.
2. Click **Power Off**.

SYSTEM RECOVERY

[System Recovery Instructions](#)



Note Call OpenEye Support at 888-542-1103, option #2, for more information regarding the re-imaging process.

openeye.net

888-542-1103

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