



User Guide

Avigilon Remote Monitoring Workstation

HD-RMWS4-4MN and HD-RMWS3-2MN

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Introduction

The Avigilon Remote Monitoring Workstation is preloaded with Avigilon Control Center (ACC) Client software and is configured for exceptional performance and reliability. The Remote Monitoring Workstation can be easily integrated into any existing NVR products or Avigilon surveillance systems to add an additional monitoring station.

Overview

Front View

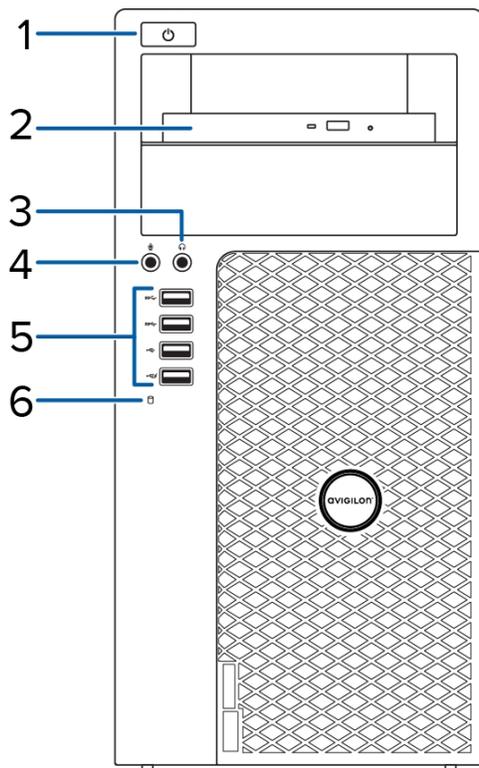


Figure 1: Front view of 4 monitor and 2 monitor remote monitoring workstation; (right) 2 monitor remote monitoring workstation.

1. **Power button**

Controls the power supply to the workstation. For more information, see *Power Status Indicator* on page 17.

2. **Optical drive**

Accepts a CD or DVD.

3. **Headphone connector**

Accepts a line-out audio connector.

4. **Microphone connector**

Accepts a line-in audio connector.

5. **USB connectors**

Accepts USB connections to external devices.

6. **Hard drive activity indicator**

Provides information about hard-drive activity. For more information, see *Hard Drive Activity Indicator* on page 17.

Back View

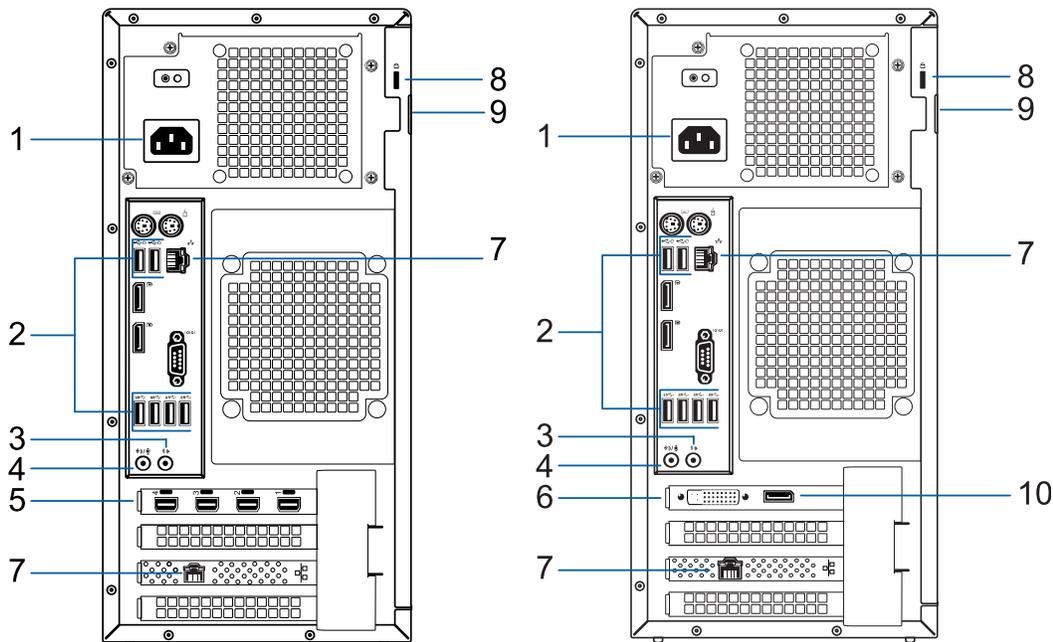


Figure 2: Rear view: (Left) 4 monitor remote monitoring workstation; (right) 2 monitor remote monitoring workstation.

1. **Power supply connector**

Accepts power supply connection.

2. **USB connectors**

Accepts USB connections to external devices.

3. **Headphone connector**

Accepts a line-out audio connector.

4. **Microphone connector**

Accepts a line-in audio connector.

5. **mDP connectors**

Accepts a miniDisplayPort connection to a display monitor.

6. **DVI connector**

Accepts a DVI-D connection to a display monitor.

7. **1 Gigabit Ethernet ports**

Accepts an Ethernet connection to the network.

8. **Security cable connector**

Accepts a security cable to prevent theft.

9. **Padlock ring**

Allows a padlock to secure the computer cover to the chassis.

10. **DisplayPort connector**

Accepts a DisplayPort (DP) connection to a display monitor.

Installation

Package Contents

Ensure the package contains the following:

- Avigilon 4 Monitor Remote Monitoring Workstation
 - Power cable
 - Keyboard and mouse
 - 4 mDP to HDMI adapters
- Avigilon 2 Monitor Remote Monitoring Workstation
 - Power cable
 - Keyboard and mouse
 - 1 DP to DVI adapter
 - 2 DVI to HDMI adapters

Connecting Cables

Refer to the diagrams in the Overview section for the location of the different connectors. Make any of the following connections as required:

1. Connect the keyboard and mouse to the USB connectors on the workstation.
2. Connect the monitors to the dedicated graphics processor on the workstation using one of the following configurations:

Monitor ports	Connections for 2 Monitor Workstation	Connections for 4 Monitor Workstation
DP	<ul style="list-style-type: none">• Connect monitor 1 directly to DP• Connect monitor 2 to monitor 1 in a daisy-chain configuration	n/a
DVI	<ul style="list-style-type: none">• Connect monitor 1 directly to DVI port• Connect monitor 2 to DP using DP to DVI adapter	n/a
HDMI	<ul style="list-style-type: none">• Connect monitor 1 to DVI port using DVI to HDMI adapter• Connect monitor 2 to DP using both DP to DVI and DVI to HDMI adapters	<ul style="list-style-type: none">• Connect HDMI monitors to mDP using mDP to HDMI adapters.
mDP	n/a	<ul style="list-style-type: none">• Connect 4K monitors directly to mDP

3. Connect the workstation to your network using an Ethernet network cable.

4. Connect the power cable to the power supply at the back of the workstation.
5. It is recommended to connect a security cable and use a padlock to prevent theft of the workstation.
6. Press the power button on the front of the workstation.

The workstation turns on and loads the Windows operating system.

Configuring Windows 10

After the workstation starts, you will need to configure the Windows operating system for the first time.

1. On the first screen, the MICROSOFT SOFTWARE LICENSE TERMS is displayed. Review the terms and click **Accept**.
2. Select **Join Local Active Directory**.
Note: This prompt will only appear if an Active Directory is present on the network, see the *Windows Help and Support* files for more information.
3. Enter a user name for accessing the Windows software.
4. Set a password for the user name you entered on the previous screen. When you are ready, click **Next**.
5. The Avigilon End User License Agreement is displayed, Review the terms and click **Accept**.

Proceed to activate the license for the Avigilon Control Center software on your Remote Monitoring Workstation.

Activating the Avigilon Control Center™ License

Downgrading to the ACC 5 Software:

The ACC 6 software is pre-installed on the Remote Monitoring Workstation .

You can use the ACC 6 software or the ACC 5 software.

Do not activate the ACC 6 software if you plan to use the ACC 5 software. See *Downgrading to the ACC 5 Software* on page 7.

Before you can configure cameras and monitor live or recorded video, you will need to activate the ACC 6 software license provided with your device. If you don't have a license, you will need to purchase one.

Other parts of the ACC system may start while you perform this procedure, but you will not be able to use any of the features until after license activation is complete.

Licensing the ACC™ 6 Software

The first time you connect to the new appliance with the ACC Client, you must activate a license for the new ACC software. After the license is activated, you can immediately use the licensed features.

1. Double-click the new name to log in. There is no user name or password set on the .
2. In the top-left corner, click  to open the New Task menu, then click .
3. In the site Setup tab, click .
4. In the License Management dialog box, click **Add License...**
5. In the following dialog box, select one of the following tabs:
 - If you have internet access, select the **Automatic** tab. Go to *Automatic License Activation* below.
 - If you do not have internet access, or you plan to keep the system on a private intranet, select the **Manual** tab. Go to *Manual License Activation* below.

Automatic License Activation

In the **Automatic** tab:

1. In the Enter Product Keys section, enter the license key.
2. In the Activate and License Site section, click **Activate now**.

Manual License Activation

In the **Manual** tab:

1. In the **Enter Product Keys** section, enter the license key.
2. In Generate Activation File section, click **Save File...**
3. In the Save As window, select where you want to save the .key file that is generated by the system. You can rename the file as required.
4. Click **Save**.
5. Copy the .key file to a computer with internet access.

Open a web browser and go to <http://activate.avigilon.com>.

1. Click **Choose File** and select the .key file, click **Upload**. The generated license file (.lic) will download automatically. If it does not, allow the download to occur when you are prompted.
2. Copy the downloaded .lic file to a location that would be accessible to the ACC Client software.
3. Complete the product registration page to receive product updates from Avigilon, then click **Register**.

Return to the ACC Client:

1. In the Apply License File section, click **Apply...**
2. Locate the downloaded .lic file and click **Open**.
3. In the Confirm Licenses dialog box, click **OK**.

Modifying Licenses

You can use the the License Management dialog box to add, remove, deactivate, and reactivate licenses for the ACC 6 software. For more information, see the *Avigilon Control Center Client User Guide*.

Downgrading to the ACC 5 Software

1. Open Windows **Settings > Apps > Features** and uninstall the ACC 6 software.
2. In Windows explorer, open the **D:** drive and delete the following directories:
 - D:\AvigilonConfig
 - D:\AvigilonData
3. In Windows Explorer, go to **C:\Avigilon\Control Center Installation Files\5.10**.
4. Install each application by double-clicking the installers in the following order:
 - ACC 5 Server
 - ACC 5 Client
 - ACC 5 Player
 - ACC 5 Gateway
5. To activate your license, see the *Avigilon Control Center Server User Guide* for the ACC 5 software, available on <http://avigilon.com>.

Troubleshooting Installation—Networking

By default, the Remote Monitoring Workstation acquires an IP address on the network through DHCP. If you need to set up the workstation to use a static IP address or any specific network configuration, see the *Windows Help and Support* files for more information.

Configuring the Avigilon Control Center Software

Complete the following procedures to configure the ACC software to work with your newly installed device.

For more information about any of the following procedures, see the Help files provided with the ACC Client software.

Starting Up and Shutting Down the ACC Client Software

After you install the ACC Client software, start the application and log in to the Remote Monitoring Workstation.

The ACC Client software should start automatically when your Windows workstation starts. Refer to the following steps if it doesn't.

Starting Up the Client Software

Perform one of the following:

- In the Start menu, select **All Programs** or **All Apps** > **Avigilon** > **Avigilon Control Center Client**.
- Double-click  or  desktop shortcut icon.
- From the Avigilon Control Center Admin Tool, click **Launch Control Center Client**. For more information, see the *Avigilon Control Center Server User Guide*.

When you are prompted, log in to your site. You can only access cameras and video after you log in.

The “Select one or more sites to log in.” message appears. If you are connected only to the new device, one site is listed in the left navigation panel. Otherwise, all the sites that are connected to the same network are listed. The site name of your new device is the hostname that you assigned in the Web Interface. You can use Find Site... to specify the IP address or hostname of the device if the list is long.

Shutting Down the Client Software

1. In the top-right corner of the Client software, select  > **Exit**.
2. When the confirmation dialog box appears, click **Yes**.

Logging In to and Out of a Site

After you start the ACC Client software, you are immediately asked to log in to a site.

The default username is *administrator* with no password.

Logging In

1. Open the Site Login tab. The Site Login tab is automatically displayed if you are launching the Client software for the first time.

To manually access the Site Login tab, do one of the following:

- From the top-right corner of the window, select  > **Log In...**
- From the top-left corner of the application window, click  to open the New Task menu, then click .

2. On the left side of the Site Login tab, select one or more sites.

If the site you want to log into is not shown, click **Find Site...** to discover the site.

3. Enter your username and password for the selected sites.
4. Click **Log In**.
5. If Two-Factor Authentication is required, a dialog box is displayed.
 - a. The first time you log in, a QR code is displayed. On your mobile device, scan the QR code with a TOTP authenticator app like the Google Authenticator™ mobile app or the FreeOTP Authenticator™ mobile app. If you cannot scan the QR code, enter the 20-character key into the authenticator app.

The authenticator app will display a 6-character verification code.

- b. The next time you log in, use the authenticator app to get your verification code.
- c. Enter the code in the **Verification Code:** box.

Tip: Select the **Trust this device for 30 days** check box to avoid entering a verification code each time you log in.

- d. Click **OK**.

You are logged in to the selected sites.

If you want to be notified when new or disconnected sites come online, select the **Notify me when additional sites become available** check box.

If you want to see the login page each time you launch the Client software, select the **Show this tab on startup** check box. If you prefer not to login each time, you can disable this option and configure automatic login from the Client Settings dialog box.

Logging Out

You can log out of one or all sites at any time.

To...	Do this...
Log out of one or select sites	<ul style="list-style-type: none">• In the System Explorer, select one or more sites then right-click and select Log Out.
Log out of all sites	<ol style="list-style-type: none">1. In the top-right corner of the Client, select  > Log Out.2. In the confirmation dialog box, click Yes.

Navigating the Client

Once you log in, the ACC Client application window is populated with all the features that are available to you.

NOTE: Some features are not available if the server does not have the required license, or if you do not have the required user permissions.

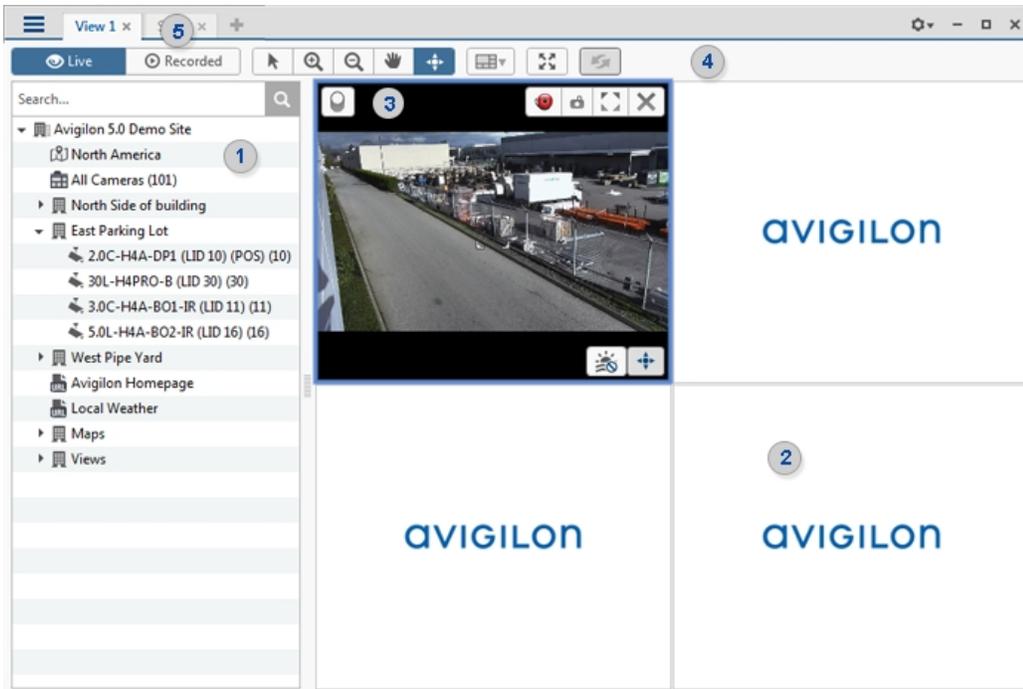


Figure 3: The Avigilon Control Center Client application window

Application Window Features

	Area	Description
1	System Explorer	<p>Displays all the elements in your surveillance system.</p> <p>Use the Search... bar to quickly locate anything that is available in the System Explorer. You can search for items by name, and devices can also be searched for by location, logical ID, serial number and IP address.</p> <p>Tip: The content of the System Explorer changes depending on the tab you have open. For example, servers are not listed in the View tab.</p>
2	View tab	<p>Allows you to monitor video and organize image panels. You can have multiple Views open at once.</p> <p>Click + to open a new View tab.</p>
3	Image panel	<p>Displays live or recorded video from a camera. The video control buttons are displayed when you move your mouse into the image panel.</p>

	Area	Description	
	4	Toolbar	Provides quick access to commonly used tools.
	5	Task tabs	Displays all the tabs that are currently open.
	New Task menu	Opens the New Task menu so you can select and open new task tabs. You can access advanced tools like Search and Export, or system administrative features like Site Setup.	
	The Application Menu menu	This menu gives you access to local application settings like Client Settings. You can also open a new window from this menu.	
	System message list	<p>The highlighted number shows the number of system messages that need your attention. Click the number to display the list of messages.</p> <p>The highlight color indicates the severity of the most recent message.</p> <ul style="list-style-type: none"> • Red = Error • Yellow = Warning • Green = Information 	

System Explorer Icons

Icon	Description
	A site. Listed under a site are all the connected devices and linked features in the system.
	A virtual folder. Used to group and organize items in the View tab.
	A server. Only visible from system administration tabs and dialogs.
	A fixed camera.
	A PTZ camera.
	An Avigilon Presence Detector™ sensor.
	An encoder.
	An Access Control Manager (ACM) appliance. Only visible when an ACM™ appliance is connected to a site.
	An ACM panel.
	An ACM subpanel.
	An ACM input.
	A saved View.
	A map.

Icon	Description
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A web page.

Monitoring Video

Inside a View tab, you can monitor and control video from multiple cameras. Once you open a camera in a View tab, you can control the camera's live and recorded video stream.

NOTE: Some features are not available if the server does not have the required license, or if you do not have the required user permissions.

Adding and Removing Cameras in a View

To monitor video, add a camera to a View tab. Camera video can be removed from a View tab at any time.

Adding a Camera to a View

Do one of the following:

- Drag the camera from the System Explorer to an empty image panel in the View tab.
- Double-click a camera in the System Explorer.
- In the System Explorer, right-click the camera and select **Add To View**.
- If your cameras are assigned a Logical ID:, press / and enter a logical id.

The camera is added to the next empty image panel in the View layout.

Tip: You can drag the same camera to multiple image panels to watch the video at different zoom levels.

Removing a Camera from a View

Do one of the following:

- Right-click the image panel and select **Close**.
- Inside the image panel, click .

Viewing Live and Recorded Video

NOTE: Some features are not available if the server does not have the required license, or if you do not have the required user permissions.

Tip: If you cannot see either  **Live** or  **Recorded** on the toolbar, you may need Dual Authorization.

When you monitor video, you can choose to watch live and recorded video in the same View tab, or only one type of video per View tab.

Once you've added cameras to the View tab, you can do the following:

- To switch all of the image panels in the View between live and recorded video, click either  **Live** or  **Recorded** on the toolbar.
- To switch individual image panels between live and recorded video, right-click the image panel and select either **Live** or **Recorded**.

Image panels displaying recorded video have a **green** border.

Zooming and Panning in a Video

Use the zoom and pan tools to focus on specific areas in the video stream.

Using the Zoom Tools

There are two ways to digitally zoom in and zoom out of a video image:

- Move your mouse over the video image, then rotate your mouse wheel forward and backward.
- On the toolbar, select  or , then click the image panel until you reach the desired zoom depth.

Using the Pan Tools

There are two ways to pan through the video image:

- Right-click and drag inside an image panel.
- On the toolbar, select , then click and drag the video image in any direction inside the image panel.

Maximizing and Restoring an Image Panel

You can maximize an image panel to enlarge the video display.

Maximizing an Image Panel

Do one of the following:

- Right-click an image panel and select **Maximize**.
- Inside the image panel, click .
- Double-click the image panel.

Restoring an Image Panel

In a maximized image panel, do one of the following:

- Right-click the maximized image panel and select **Restore Down**.
- Inside the image panel, click .
- Double-click the image panel.

Playing Back Recorded Video

The Timeline displays when video was recorded and lets you control video playback. Recorded video may be stored on the ACC Server or the archive storage location.

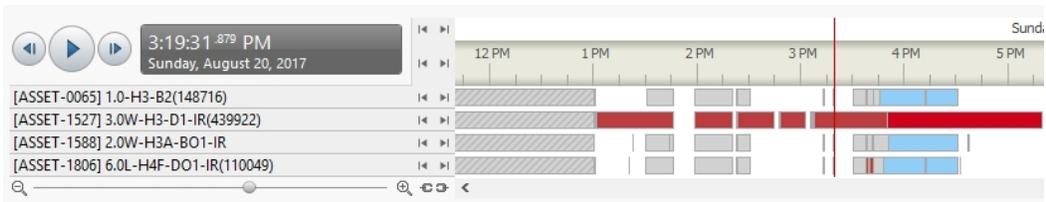


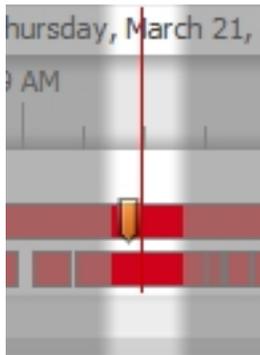
Figure 4: Playback controls on the Timeline.

The colored bars on the Timeline show the camera's recording history:

-  — shows the camera has recorded a motion event.
-  — shows the camera has recorded video.
-  — is a bookmark of a recorded event.
- White areas show that there is no recorded video.

To...	Do this...
Select a playback time	<ul style="list-style-type: none"> • Click the dark gray date display and select a specific date and time. • Click a point on the Timeline.
Start playback	Click  . <ul style="list-style-type: none"> • Click  to fast forward. Tap the arrow again to increase the playback speed. • Click  to rewind. Tap the arrow again to increase the playback speed. You can play the video up to eight times the original speed.
Stop playback	Click  . <ul style="list-style-type: none"> • Click  to step forward one frame. • Click  to step backward one frame.
Jump forward or backward on the Timeline	 <p>On the Timeline, click  or  to move to set points on the Timeline.</p>
Zoom in or out of the Timeline	 <ul style="list-style-type: none"> • Move the slider on the bottom left to zoom in or out on the Timeline. • Place your mouse over the Timeline and use the scroll wheel to zoom in or out on the Timeline. <p>You can zoom in to a quarter of a second, and zoom out</p>

To...	Do this...
Center the Timeline on the time marker	to see years if recorded video exists.
Pan the Timeline	Right-click the Timeline, and select Center on Marker .



Adding Bookmarks to Recorded Video

Bookmarks can be added to recorded video to help you find and review an event at a later time.

Tip: You can add a bookmark any time the Timeline is displayed.

1. Drag the time marker to where you want to start the bookmark, then right-click the Timeline and select **Add Bookmark**.

The Edit Bookmark dialog box appears, and the bookmark time range is highlighted on the Timeline.

2. Enter a name for the New Bookmark.
3. In the **Cameras:** pane, select all the cameras that need to be attached to this bookmark.

NOTE: You can only bookmark multiple cameras from the same site.

4. In the **Time Range to Bookmark:** area, enter the full duration of the bookmark.

You can also move the black time range markers on the Timeline to adjust the time range.

5. In the **Description:** field, enter any extra information that you want to include with the bookmark.
6. To protect the bookmark video from being deleted, select the **Protect bookmark data** check box.

NOTE: Protected bookmarks are never deleted. Be aware that bookmarked videos take up space and can become the oldest video on the server.

7. To make the bookmark private, select the **Bookmark is private** check box. Private bookmarks are only visible to the user who marked the bookmark as private, and the system administrator. No one else will have access to the bookmark.
8. Click **OK**.

A bookmark has been created.

Advanced Features

The following list provides some advanced features you can use to improve your monitoring experience. See the application Help files for details about how to use each feature.

NOTE: Some features are not available if the server does not have the required license, or if you do not have the required user permissions.

- PTZ controls
 - If you have a PTZ camera, you can use the Pan, Tilt, Zoom (PTZ) controls to focus on specific areas in the video stream.
 - You can set up PTZ tours to allow the PTZ camera to automatically move between a series of preset positions. The PTZ camera can pause at each preset position for a specific amount of time for video monitoring.
- Search
 - You can quickly search your recorded video for specific events that the system is configured to identify.
 - If you have a self-learning video analytics camera in your system, motion search can be used to search recorded video for classified objects such as persons or vehicles.
 - If you do have an analytics camera, motion search can be used to search for tiny pixel changes in the camera's field of view.
 - Thumbnail search can be used to do a visual search of the search results which are a series of thumbnail images.
 - Bookmark search allows you to search through all the listed bookmarks for a specific bookmark.
- Export
 - Recorded video can be exported to multiple video and image formats.
 - Native video export maintains the original video compression and metadata so you can search the exported video. It can be played with the ACC Player software.
 - Recorded video can also be exported as an AVI video or still image.
- Keyboard commands
 - You can use keyboard commands to help you navigate the ACC Client software.

LED Indicators

The following table describes what the LEDs on the workstation indicate. For more information on the location of the indicators, see *Overview* on page 1.

Power Status Indicator

The power button indicator on the front of the workstation provides power and system state information. The following table describes what the power button LED indicates:

LED Indicator	Description
Off	Power supply is not connected or the workstation is off.
Flashing white	Power is being supplied and the workstation is in sleep state.
Flashing green	There is a known problem with the power supply unit.
Steady green	There is an unknown problem with the power supply unit.
Steady white	The power supply unit is working and the workstation is powered on.

Hard Drive Activity Indicator

The hard drive activity indicator on the front of the workstation functions to provide information on the status of the hard drive. The following table describes what the hard drive activity LED indicates:

LED Indicator	Description
Off	Hard drive is not being used.
Flashing white	Data is being read or written.

Limited Warranty and Technical Support

Avigilon warranty terms for this product are provided at [avigilon.com/warranty](https://www.avigilon.com/warranty).

Warranty service and technical support can be obtained by contacting Avigilon Technical Support: [avigilon.com/contact-us/](https://www.avigilon.com/contact-us/).