



# Avigilon Camera Installation Tool User Guide

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# What is the Avigilon Camera Installation Tool?

The Avigilon Camera Installation Tool allows you to connect and configure Avigilon cameras for your surveillance system. The Installation Tool allows you to preview the camera video, adjust the video image, and define how the camera connects to the network.

A copy of the Installation Tool is available online from the Avigilon website. You do not need a license to use the Installation Tool.


For a video overview of the Installation Tool, see [Module 4 - Avigilon Camera Installation Tool](#) in the Avigilon University - Field Technician Stream.

# Using the Installation Tool

Once a camera has been connected to the local network or directly to the computer running the installation, you can use the Avigilon Camera Installation Tool to configure the cameras for use in your surveillance system.

1. Open the Installation Tool.





- Double-click the  **Avigilon Camera Installation Tool** shortcut on your desktop.
- From the Windows Start menu, select **Programs > Avigilon > Avigilon Camera Installation Tool**.


When the Installation Tool opens, the application automatically discovers all the cameras that are connected to the local network.


2. In the Connect Camera dialog box, select the camera you want to configure and click **Connect**.


The camera's video is displayed in the View pane.



3. Adjust the video display in the Installation Tool.

- Use the  **Zoom** and  **Pan** tools to help you see the camera video from different angles and depths of view. See [Zooming and Panning](#) for more information.

- Click  **Full Screen** to maximize the View pane to use the entire monitor. See [Making a View Full Screen](#) for more information.

4. Click  **Network** to set the camera's IP address or configure the camera to be part of an IP multicast. See [Network](#) for more information.

5. Click  **Image and Display** to adjust the camera's display settings for watching live and recorded video. This is where the camera's zoom and focus settings can be defined. See [Image and Display](#) for more information.



6. Click  **Compression and Image Rate** to configure the camera's video compression level and image rate for transmitting video through the network. See [Compression and Image Rate](#) for more information.
7. Click  **Connect Camera** to configure another camera. In the Camera Connection dialog box, select a camera from the left pane and click **Connect**.

## Zooming and Panning a Video

The zoom and pan tools allow you to focus on specific regions in a camera video.


### Using the Zoom Tools

The most common way to zoom in and out of the video image is to rotate the scroll wheel on your mouse. You can also press the Up and Down arrows on your keyboard to perform the same action. The software also includes a set of Zoom tools that can be used with your mouse:

1. Select a Zoom tool:
  - On the toolbar, click  **Zoom In Tool** or  **Zoom Out Tool**.
2. Click the image panel until you reach the desired zoom depth.


### Using the Pan Tools

You can right-click and drag inside an image panel to pan the video image. Or, you can use the Pan tool:


1. Select the Pan tool:
  - On the toolbar, click  **Pan Tool**.
2. Drag the video image in any direction inside the image panel.

## Making a View Full Screen

You can maximize a View to make full use of a monitor.

- On the toolbar, click  **Full Screen**.

## Ending Full Screen


- On the toolbar at the top left of the screen, click  **End Full Screen**.

**Tip:** The toolbar is hidden when the application is idle. Move your mouse to display the toolbar.

## Network

Use the camera Network dialog box to change how the camera connects to the server network.

## Changing Camera Network Settings

1. Click  **Network**.
2. In the Network dialog box, select how the camera obtains an IP address:

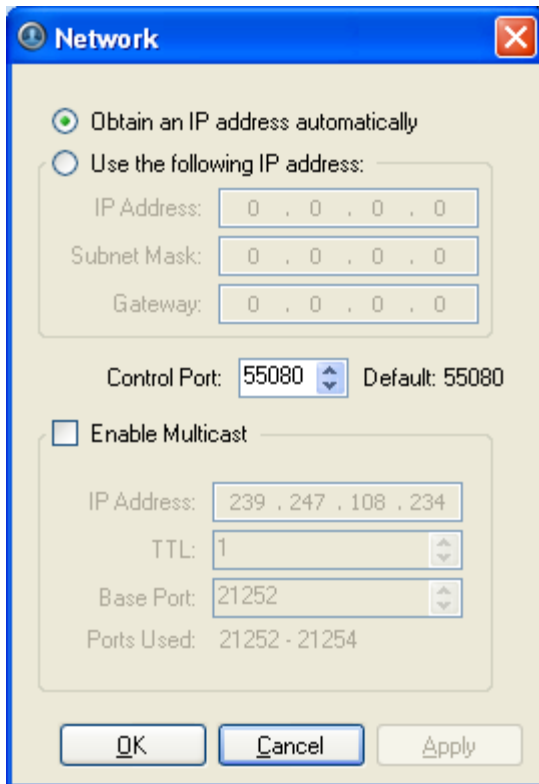


Figure A. Network dialog box

- **Obtain an IP address automatically:** select this option for the camera to connect to the network through an automatically assigned IP address.

The camera will attempt to obtain an address from a DHCP server. If it cannot, the camera will default to addresses in the 169.254.x.x range.

- **Use the following IP address:** select this option to manually assign a static IP address for the camera.

Enter the **IP Address**, **Subnet Mask** and **Gateway** you want the camera to use.

3. Select the **Control Port** for connecting to the camera. This port is also used for manually discovering the camera on the network.
4. Select the **Enable Multicast** check box to enable multicast streaming from the camera. You must enable multicast to set up redundant connections to multiple servers.

Use the default generated **IP Address**, **TTL** and **Base Port**, or enter your own values.

5. Click **OK**.

## Image and Display

Use the Image and Display dialog box to adjust the camera's display settings for live and recorded video.

**Note:** Some of the following options may not appear if the camera feature cannot be adjusted through the application.

1. Click  **Image and Display**. The Image and Display dialog box is displayed.

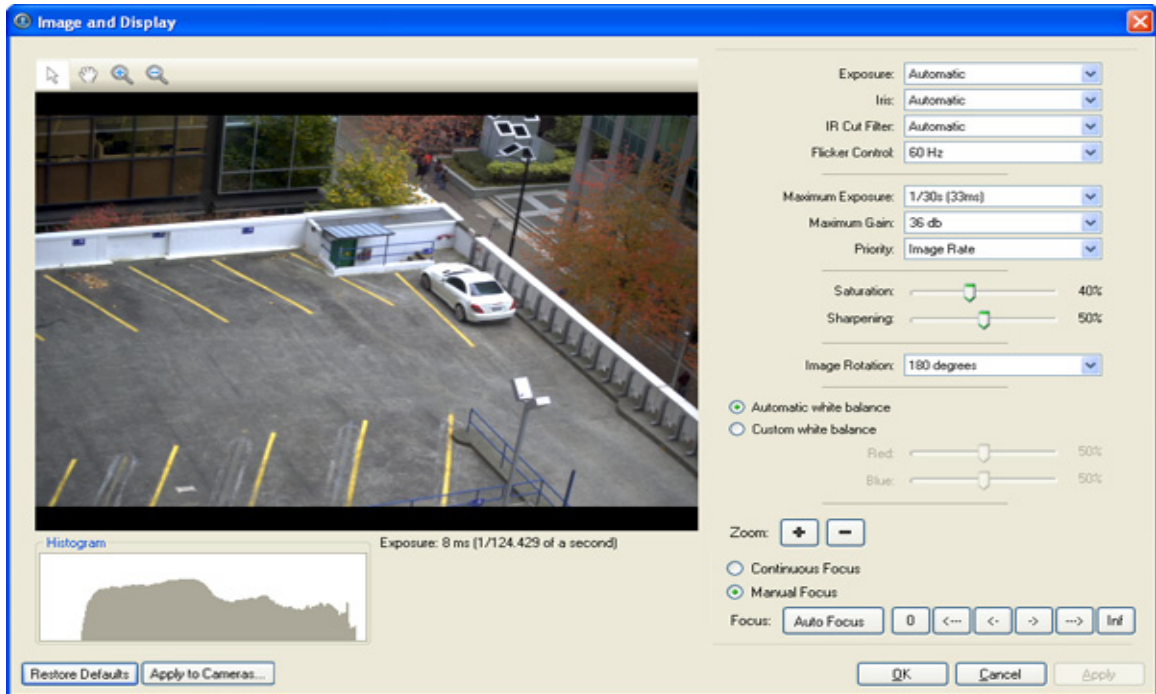


Figure A. Image and Display dialog box

2. In the Image and Display dialog box, use the Zoom controls to adjust the camera's zoom position.
3. If the camera has a built-in auto focus feature, you can select the **Continuous Focus** option to enable the camera to focus itself whenever the scene changes.
4. To manually focus the camera, select **Open** in the **Iris** drop down list then use the **Focus** buttons to focus the camera.

The left arrow buttons focus the camera towards Zero, and the right arrow buttons focus the camera towards Infinity. Click the **Auto Focus** button to enable the camera to automatically focus once.

**Note:** Once the focus is manually set, it will not change.

5. Make the required changes to adjust the camera's image settings.

**Tip:** Use the **Maximum Exposure**, **Maximum Gain** and **Priority** options to control low light behavior.

Option	Description
<b>Exposure</b>	<p>You can allow the camera to control the exposure by selecting <b>Automatic</b>, or you can set a specific exposure rate.</p> <p style="background-color: #e6f2ff; padding: 5px;"><b>Note:</b> Increasing the manual exposure time may affect the image rate.</p>

<b>Iris</b>	You can allow the camera to control the iris by selecting <b>Automatic</b> , or you can manually set it to <b>Open</b> or <b>Closed</b> .
<b>IR Cut Filter</b>	You can allow the camera to control the infrared cut filter by select <b>Automatic</b> , or set the camera to <b>Color</b> or <b>Monochrome</b> mode.
<b>Flicker Control</b>	If your video image flickers because of the fluorescent lights around the camera, you can reduce the effects of the flicker by setting the Flicker Control to the same frequency as your lights. Generally, Europe is <b>50Hz</b> and North America is <b>60Hz</b> .
<b>Backlight Compensation</b>	If your scene has areas of intense light that cause the overall image to be too dark, move the <b>Backlight Compensation</b> slider until you achieve a well exposed image.
<b>Maximum Exposure</b>	You can limit the automatic exposure setting by selecting a maximum exposure level. By setting a maximum exposure level for low light situations, you can control the camera's exposure time to let in the maximum amount of light without creating blurry images.
<b>Maximum Gain</b>	You can limit the automatic gain setting by selecting a maximum gain level. By setting a maximum gain level for low light situations, you can maximize the detail of an image without creating excessive noise in the images.
<b>Priority</b>	You can set <b>Image Rate</b> or <b>Exposure</b> as the priority. When set to <b>Image Rate</b> , the camera will maintain the set image rate as the priority, and will not adjust the exposure beyond what can be recorded for the set image rate. When set to <b>Exposure</b> , the camera will maintain the exposure setting as the priority, and will override the set image rate to achieve the best image possible.
<b>Saturation</b>	You can adjust the video's color intensity by moving the <b>Color Saturation</b> slider until the video image meets your requirements.
<b>Sharpening</b>	You can adjust the video sharpness to make the edges of objects more visible. Move the <b>Sharpening</b> slider until the video image meets your requirements.
<b>Image Rotation</b>	You can change the rotation of captured video. You can rotate the video 90, 180 or 270 degrees clockwise.
<b>White Balance</b>	You can control white balance settings to adjust for differences in light. You can allow the camera to control the white balance by selecting

**Automatic**, or select **Custom** and manually set the **Red** and **Blue** settings.

6. Click **Apply to Cameras...** to apply the same settings to other cameras of the same model.
7. Click **OK**.

## Compression and Image Rate

Use the camera Compression and Image Rate dialog box to change the camera's compression and image quality settings for sending image data over the network.

**Note:** The dialog box may appear different depending on the camera. Some cameras do not offer the full set of options.

## Changing Compression and Image Rate Settings

1. Click  **Compression and Image Rate**. The Compression and Image Rate dialog box appears.

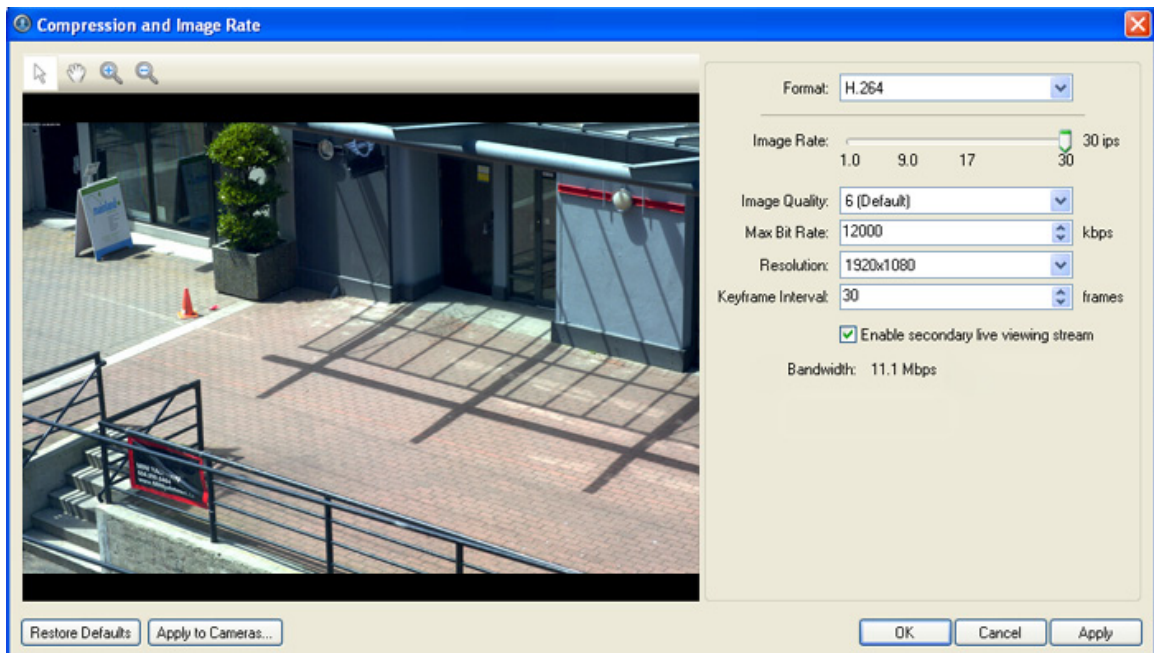


Figure A. Compression and Image Rate dialog box.

The Bandwidth area gives an estimate of the bandwidth used by the camera with the current settings. Adjust the settings as required.

**Note:** For cameras capable of maintaining multiple streams, the settings in this dialog box only affect the primary stream.

2. In the **Format** drop down list, select the preferred streaming format.
3. In the **Image Rate** bar, move the slider to select the how many images per second (ips) you want the camera to stream over the network.
4. In the **Image Quality** drop down list, select the desired image quality number.

Image quality setting of **1** will produce the highest quality video and require the most bandwidth.

5. In the **Max Bit Rate** drop down list, select the maximum bandwidth the camera can use in kilobits per second (kbps).
6. In the **Resolution** drop down list, select the preferred image resolution.
7. In the **Keyframe Interval** drop down list, enter the preferred number of frames between each keyframe.
8. If your camera supports multiple video streams, you can select the **Enable secondary live viewing stream** check box.

When enabled, the secondary live viewing stream is a lower resolution video stream that is automatically displayed when you monitor live video on a network that does not have enough bandwidth to display the primary live viewing stream.

9. Click **Apply to Cameras...** to apply the same settings to other cameras of the same model.
10. Click **OK**.

# Upgrading Camera Firmware

Once an Avigilon camera is connected to the Camera Installation Tool, new firmware can be automatically downloaded and installed. If there is new firmware available for the camera, the following message appears as the camera connects to the Camera Installation Tool:

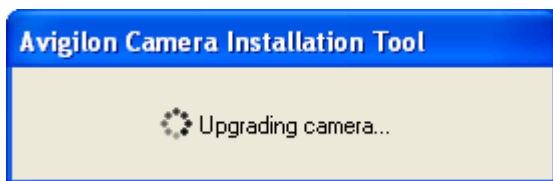


Figure A. Upgrading camera in the Camera Installation Tool

Once the camera upgrade is complete, the message box disappears and the camera video will display after a couple seconds.

# For More Information

Visit Avigilon at <http://www.avigilon.com/> for additional product documentation.

## Avigilon University

The Avigilon University provides free online training videos that demonstrate how to set up and use the Avigilon Surveillance System. Register online at the Avigilon Partner site to begin:

<http://avigilon.com/partners/>

## Support

For additional support information, visit <http://www.avigilon.com/support/>.

Regular Avigilon Customer Support Center hours of operation are from 6:00 a.m. to 6:00 p.m. Pacific Standard Time (PST) and can be reached by calling the toll-free number: +1.888.281.5182.

E-mails can be sent to: [support@avigilon.com](mailto:support@avigilon.com).

For emergency technical support 24 hours a day, 7 days a week, please call the Avigilon Emergency Technical Support Hotline at +1.604.506.3117.

## Upgrades

Software and firmware upgrades will be made available for download as they become available. Check <http://www.avigilon.com/support/software> for available upgrades.

## Feedback

We value your feedback. Visit our feedback page to comment on our products and services:

<http://avigilon.com/feedback/>

