NoPileups Install Guide

VERSION 3.2, REVISED 12/2020

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Contacting NoPileups Support

For assistance installing and using NoPileups, contact NoPileups support by phone at (833) 667-4538 or (208) 789-0405; or by email at support@NoPileups.com.

Installation support is available Monday - Friday, 9 AM to 7 PM Eastern Standard Time (EST).

General software support is available Monday - Friday 7 AM to 9 PM Eastern Standard Time (EST). and Saturday and Sunday 9 AM to 6 PM EST.

Getting Started

Work with NoPileups support to install NoPileups by completing the steps below:

1. **Verify prerequisite hardware is installed.**
   NoPileups needs cameras installed in the tunnel and a monitor at the load-on to function. If not using TunnelWatch version 4 or newer, the provided ADAM 6060 module must also be installed.
2. **Connect the NoPileups Server**
   Connect the NoPileups Server to power and the internet. Then work with NoPileups support to connect the server to the cameras, tunnel controller and display interface.
3. **Configure TunnelWatch Permissions**
   If using TunnelWatch 4 or newer, NoPileups needs an account to function properly.
4. **Measure camera locations and send measurements to NoPileups support.**
   Use the laser measurer to determine where the cameras are installed.
5. **Using NoPileups**
   NoPileups support will configure the software and provide training on proper use. After function tests are performed, NoPileups will be enabled.

In most cases, NoPileups is enabled within 14 days of the beginning of the install process.

Installation Kit Contents

The following items are included in a NoPileups installation kit:

- NoPileups Server and power cable
- NoPileups Display Interface and power cable
- Network switch and power cable
- NoPileups Remote
- USB to ethernet adapter
- Ethernet cables
- HDMI cable
- Laser measuring device

If the tunnel controller is not TunnelWatch 4 or newer, an ADAM 6060 module, power supply and assorted relays will also be shipped to the location.

For assistance with missing parts, contact NoPileups support.

Prerequisite Hardware Requirements

NoPileups requires additional hardware be installed to function. These items should be installed before connecting the NoPileups Server. For more information about hardware requirements, contact your project coordinator or NoPileups support.

- **Tunnel Cameras**
  NoPileups requires that cameras be installed in the tunnel for its use. The cameras should be connected to a Power-over-Ethernet (PoE) network switch that has at least one open gigabit network port for the NoPileups Server to use.
- **Load-on Monitor**
  NoPileups uses a monitor installed in the load-on area where the load-on operator can easily see and interact with it. After the monitor is installed and powered, there must be one additional power outlet near the monitor.
- **ADAM 6060 (Non-TunnelWatch Controllers or TunnelWatch 3 or older ONLY)**
  When a tunnel controller other than TunnelWatch 4 or newer is being used, an ADAM 6060 unit must be installed. This will allow NoPileups to read and send electrical signals to the tunnel controller. An ethernet cable with terminated ends must be run from the ADAM 6060 to where the NoPileups Server will be installed. For questions about wiring the ADAM 6060, consult the NoPileups Wiring Guide included with the ADAM, or contact NoPileups support.
- **Cable Runs**
  The following cable runs with terminated ends are required to install NoPileups. The NoPileups server should be installed near the modem, IT cabinet, or in the manager's office. In most cases, these cannot be done with the provided network cables.
  1. From the Load-on Monitor to the NoPileups Server.
  2. From the PoE network switch to the NoPileups Server. If possible, the PoE network switch should be installed near the NoPileups Server to avoid needing this cable run.
  3. **(Non-TunnelWatch Controllers or TunnelWatch 3 or older ONLY)** From the ADAM 6060 to the NoPileups Server. The ADAM 6060 is installed in the cabinet with the electrical wiring that controls the wash equipment.

Tunnel Camera Networking Requirements

NoPileups requires a direct gigabit network connection to the tunnel cameras. Tunnel cameras must be plugged into a Power over Ethernet (PoE) network switch with at least one open gigabit network port for the NoPileups server to use. A Network Video Recorder (NVR, also known as Digital Video Recorder/DVR) is not required for NoPileups to operate. NVRs allow the operator to view long periods of continuously recorded footage, while NoPileups only records video footage when it stops the conveyor. If the tunnel cameras will be connected to an NVR, a second open gigabit network port on the PoE network switch is recommended. For customers without dedicated information technology staff, an unmanaged PoE network switch is recommended.

Connect the NoPileups Server

The NoPileups Server communicates with the tunnel controller, cameras, load on display and sends data to NoPileups support over the internet.
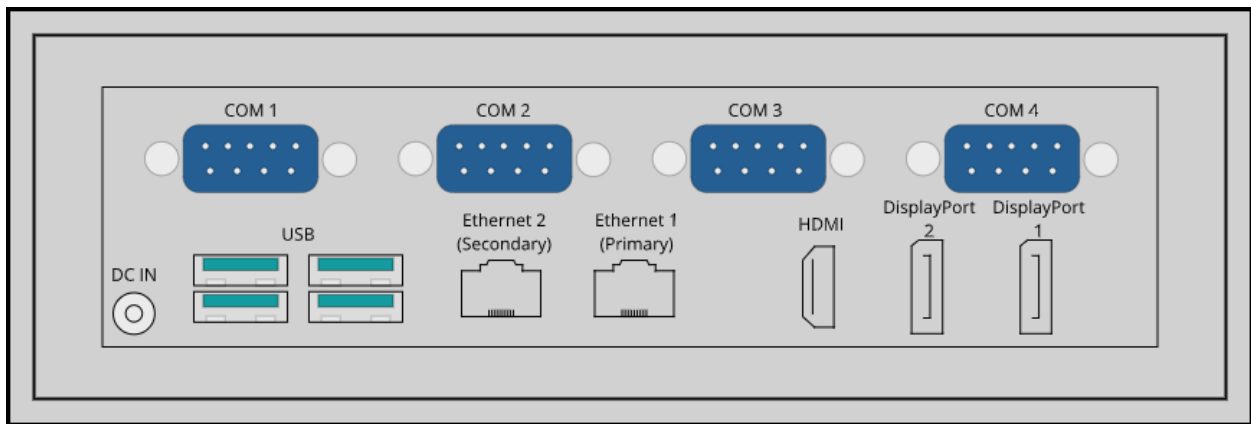
Power

Items Needed

- NoPileups Server and power cable

Process

Connect the NoPileups Server to power using the provided power cable. If possible, plug the power cable into a surge protector.

Internet

Items Needed

- x1 Ethernet cable

Process

1. Connect an ethernet cable to the Ethernet 1 network port on the rear of the NoPileups Server. Plug the other end of the cable into a network device (network switch or modem) that has access to the internet and is not on the point-of-sale network.
2. If neither of the lights on the front of the NoPileups Server is lit, press the chrome power button to turn the server on.
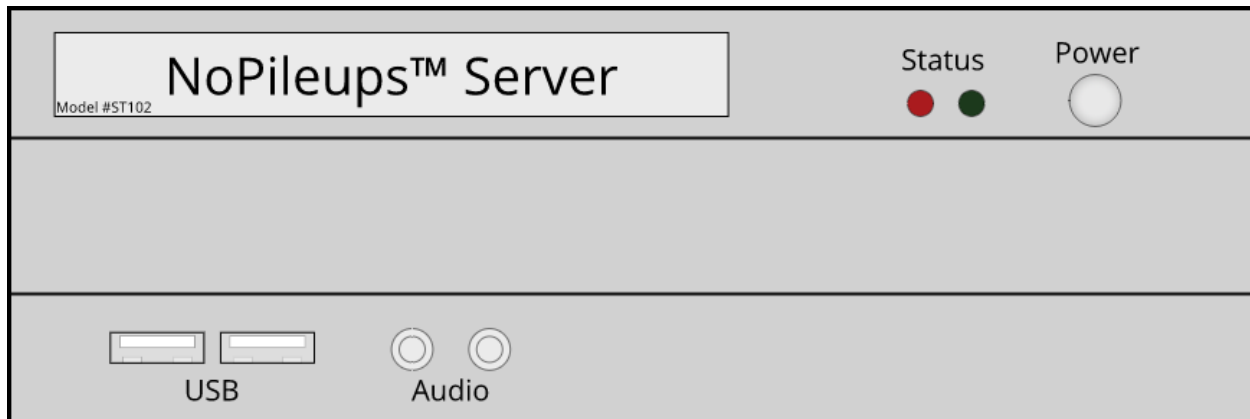
⌐ Contact NoPileups support to complete the installation process.

It is not recommended to continue the installation without contacting NoPileups support.

The remaining steps to complete the installation are listed here for reference. Find the section that describes the location's tunnel controller (either TunnelWatch 4 or newer or Non-TunnelWatch/TunnelWatch 3 or older) and follow the steps in that section.

TunnelWatch 4 or Newer

These steps will connect NoPileups to the TunnelWatch server, cameras, and Display Interface. A visual diagram of network connections listed here is shown on page 7.

Cameras

Items Needed

- x1 USB-to-Ethernet adapter
- x1 Ethernet cable

Process

1. Connect the USB-to-Ethernet adapter to a USB port on the rear of the server.
2. Plug an ethernet cable into the USB-to-Ethernet adapter. Plug the other end of the ethernet cable into a gigabit port on the PoE network switch.

Tunnel Controller

Items Needed

- NoPileups provided network switch
- x2 Ethernet cable

Process

1. Find the TunnelWatch Server and follow the ethernet cable connected to it to SonicWall port X3. **If there is a network switch installed between the TunnelWatch Server and the SonicWall(usually done if CarPics is installed), skip to step 6.**
2. Install the provided network switch near the TunnelWatch Server, ensuring it is connected to power.

⚠️ Once step 3 is begun, TunnelWatch will be disconnected from the equipment in the wash and the tunnel will be unable to run cars until step 5 is completed.

3. Unplug the ethernet cable from X3 port on the SonicWall. Plug it into any open port on the network switch installed in step 2.
4. Plug a new ethernet cable into any open port on the network switch installed in step 2. Plug the other end into the X3 port on the SonicWall.
5. Verify that the tunnel operates normally. If there are any problems, contact NoPileups support or undo the changes that were made.
6. Plug a new ethernet cable into any open port on the network switch installed in step 2. Plug the other end into the Ethernet 2 port on the NoPileups Server.

Display Interface

Items Needed

- NoPileups Display Interface and power cable
- NoPileups Remote
- x1 HDMI cable

Process

1. Connect one end of the ethernet cable that runs from the load-on area to the network switch installed in step 7.
2. In the load-on area, plug the other end of the ethernet cable into the Display Interface.
3. Use an HDMI cable to connect the Display interface with the Monitor installed in the load-on area.
4. Connect the NoPileups remote to a USB port on the Display Interface. The load-on operator should be able to reach the remote within 5 seconds of leaving their normal operating position.
5. Ensure the TV is powered on.
6. Connect the Display Interface to power using the provided power cable.
7. The NoPileups Live View should load-on the monitor with a button that reads "Autostop Disabled" in the lower left corner.

Configure TunnelWatch Permissions

NoPileups will need a user account with permissions to certain tunnel data to read and change the status of the tunnel.
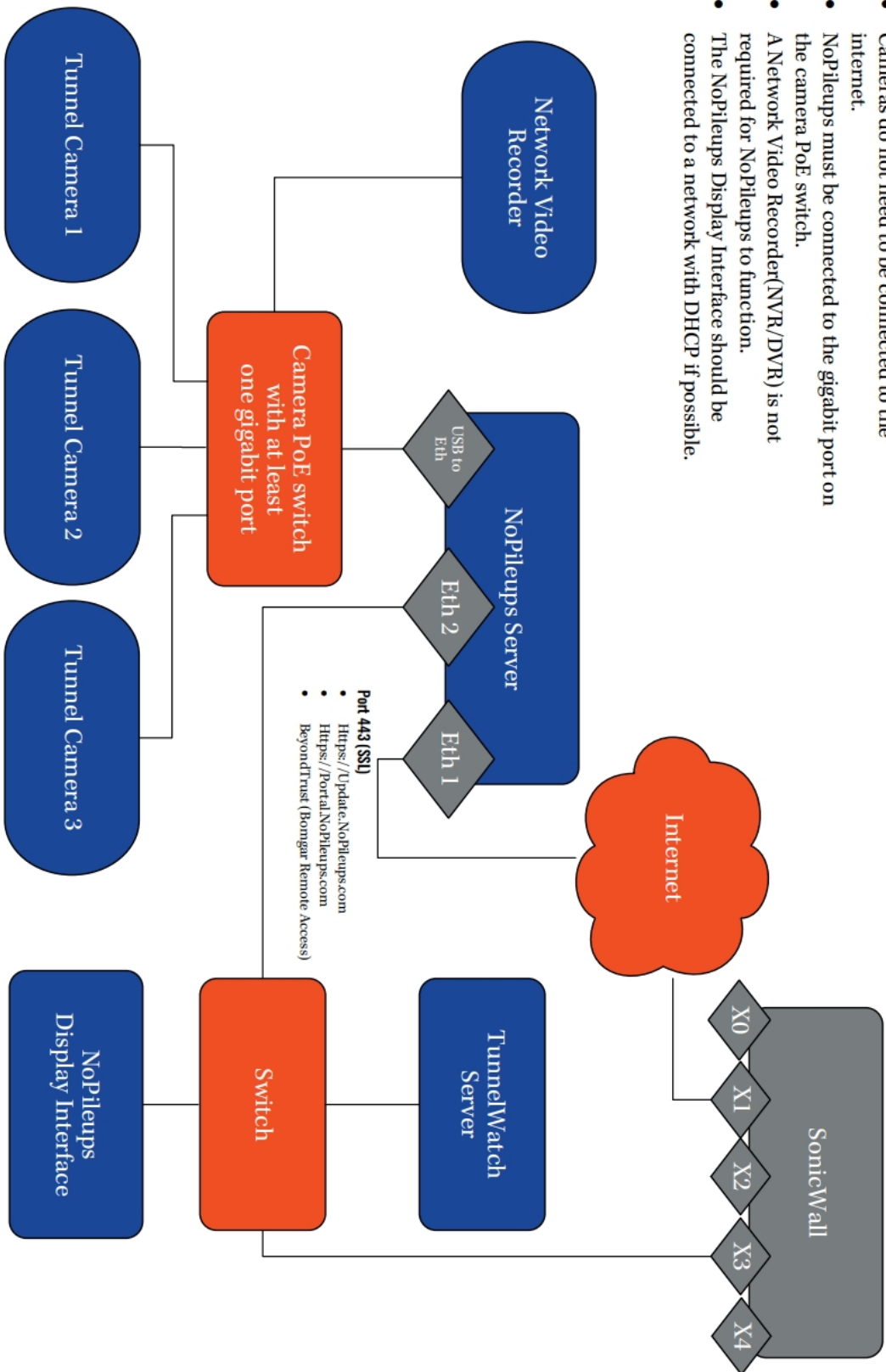
1. Contact NoPileups support and notify them that a TunnelWatch user account is being configured for NoPileups. Ask what the password should be set to and note this.

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2. Open TunnelWatch and login with a user that has rights to manage user accounts.
3. From the menu, select **Setup.**
4. Under "Initial Setup" click **User Management.**
5. Click **Add New User.**
6. Enter the username **NoPileups.**
7. Enter the password given by NoPileups support.
8. Check the checkboxes next to **Operations**, **Overrides** and **Setup.**
9. Click **Save Changes.**

NoPileups Network Topology
TunnelWatch

Version 2.3, Revised 7/31

- Cameras do not need to be connected to the internet.
- NoPileups must be connected to the gigabit port on the camera PoE switch.
- A Network Video Recorder(NVR/DVR) is not required for NoPileups to function.
- The NoPileups Display Interface should be connected to a network with DHCP if possible.

Tunnel Camera 1

Tunnel Camera 2

Tunnel Camera 3

Network Video Recorder

Camera PoE switch with at least one gigabit port

USB to Eth

Eth 2

Eth 1

NoPileups Server

Port 443 (SSL)
- Https://Update.NoPileups.com
- Https://Portal.NoPileups.com
- BeyondTrust (Bomgar Remote Access)

Internet

NoPileups Display Interface

Switch

TunnelWatch Server

SonicWall

X0

X1

X2

X3

X4

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Non-TunnelWatch or TunnelWatch 3 or Older

These steps will connect NoPileups to the tunnel controller that is not TunnelWatch 4 or newer, cameras, and Display Interface. A visual diagram of network connections listed here is shown on the next page.

Cameras

Items Needed

- x1 Ethernet cable

Process

1. Connect one end of an ethernet cable to the Ethernet 2 port on the rear of the server.
2. Connect the other end of the ethernet cable to a gigabit port on the PoE network switch.

Tunnel Controller

Items Needed

- x1 USB-to-Ethernet adapter
- x1 Ethernet cable

Process

1. Connect the USB-to-Ethernet adapter to a USB port on the rear of the server.
2. Connect an ethernet cable to the ADAM 6060. Ensure the ADAM 6060 is powered on.
3. Plug the other end of the ethernet cable to the USB-to-Ethernet adapter.

Display Interface

Items Needed

- NoPileups Display Interface and power cable
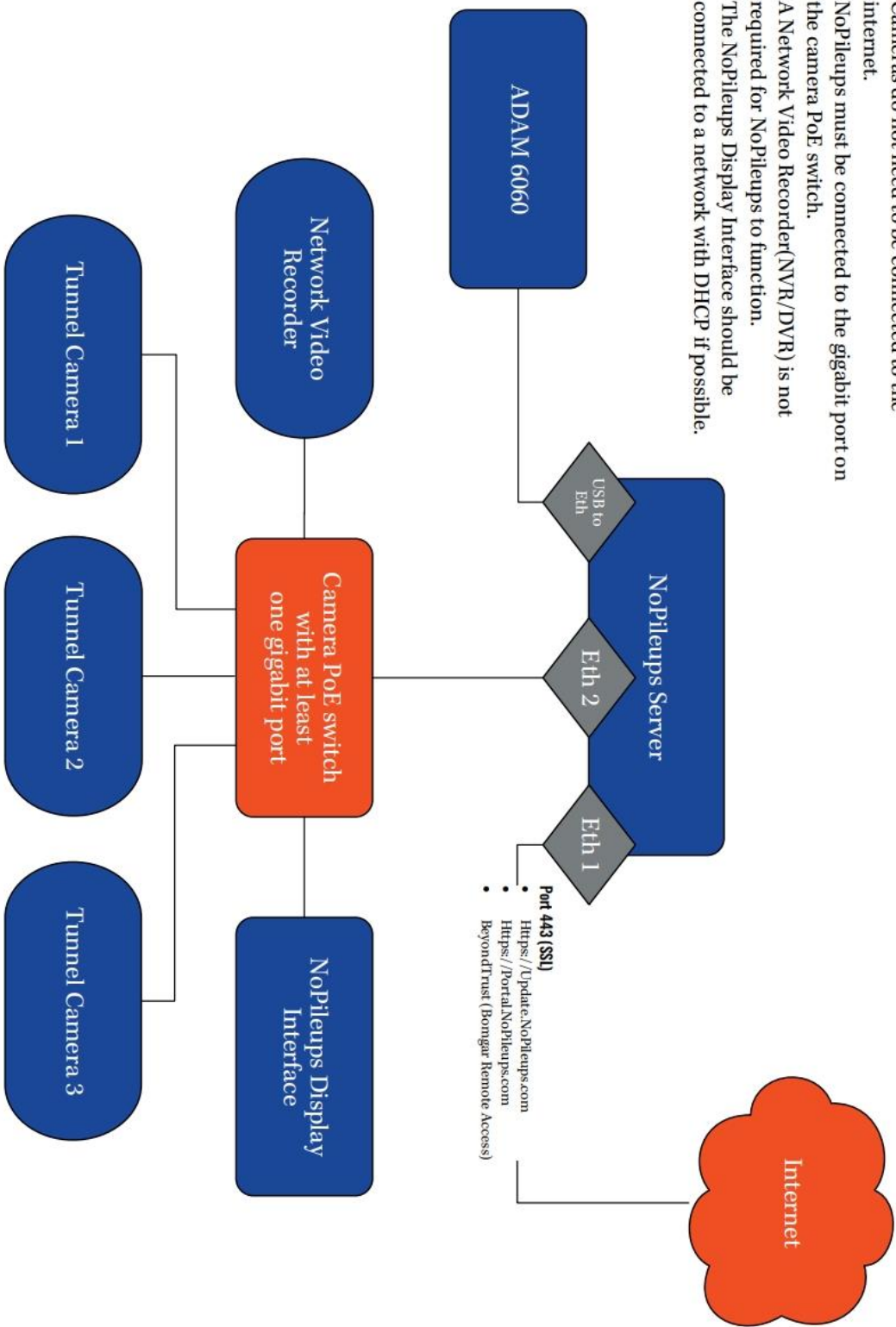- NoPileups Remote
- X1 HDMI cable

Process

1. Connect one end of the ethernet cable that runs from the load-on area to the PoE network switch the NoPileups Server uses to get internet access. If additional network ports are required, install the provided network switch near the POE network switch. Connect the network switch to the gigabit port on the PoE network switch and then connect the NoPileups Server and Display Interface to the network switch.
2. In the load-on area, plug the other end of the ethernet cable into the Display Interface.
3. Use an HDMI cable to connect the Display interface with the Monitor installed in the load-on area.
4. Connect the NoPileups remote to a USB port on the Display Interface. The load-on operator should be able to reach the remote within 5 seconds of leaving their normal operating position.
5. Ensure the TV is powered on.
6. Connect the Display Interface to power using the provided power cable.
7. The NoPileups Live View should load-on the monitor with a button that reads "Autostop Disabled" in the lower left corner. If it does not, contact NoPileups support.

NoPileups Network Topology
ADAM 6060

Version 2.2, Revised 7/31

- Cameras do not need to be connected to the internet.
- NoPileups must be connected to the gigabit port on the camera PoE switch.
- A Network Video Recorder(NVR/DVR) is not required for NoPileups to function.
- The NoPileups Display Interface should be connected to a network with DHCP if possible.

ADAM 6060

Network Video Recorder

Tunnel Camera 1

Tunnel Camera 2

Tunnel Camera 3

Camera PoE switch with at least one gigabit port

NoPileups Display Interface

USB to Eth

Eth 2

Eth 1

NoPileups Server

Port 443 (SSL)
- Https://Update.NoPileups.com
- Https://Portal.NoPileups.com
- BeyondTrust (Bomgar Remote Access)

Internet

Measure Camera Placement

Three unique measurements must be recorded for each camera. Complete the Camera Measurement Worksheet on the next page and send it to support@NoPileups.com with the name of the car wash in the subject line. You may be asked by NoPileups support to record additional measurements.

There are three measurement types required:

X

The distance between the camera and the enter eye used to detect vehicles at the entrance. For ease of use, place a large object next to the enter eye and aim the laser at the object from the camera. X measurements should not account for height differences between the camera and the enter eye. To measure the X location of blower room or tunnel exit cameras, it may be useful to record some of the listed "helpful measurements" and add them together.
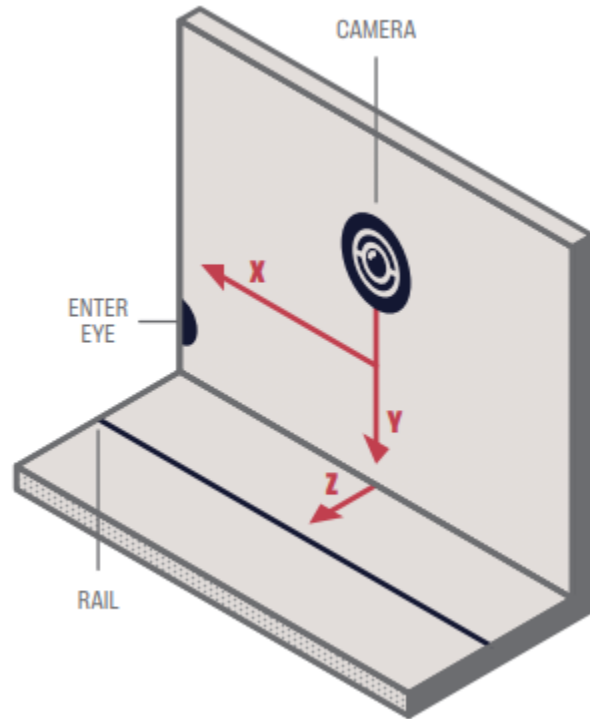
Y

The distance between the camera and the floor, vertically.

Z

The distance from the conveyor to the camera (or the wall the camera is mounted on).

- For chain and roller conveyors, measure from the inside of the guard rail that keeps vehicle tires in line.
- For belt conveyors, measure from the left edge of the flights on the driver side belt.

NoPileups Camera Measurement Worksheet

Send completed form to support@NoPileups.com.

Car Wash Name: _____

Location Code: _____-_____

Tunnel Length: _____ (feet or inches)

	Side of Tunnel (Driver or Passenger)	X (feet and/or inches, distance from enter eye)	Y (Feet and/or inches, height above floor)	Z (Feet and/or inches, distance to chain or left edge of driver flights)
Camera 1				
Camera 2				
Camera 3				
Camera 4				
Camera 5				
Camera 6				
Camera 7				
Camera 8				
Camera 9				
Camera 10				
Camera 11				
Camera 12				
Camera 13				
Camera 14				
Camera 15				

Helpful Measurements

Reference Points	Distance (Feet or inches)
Entrance Wall to Enter Eye	
Entrance Wall to Blower Entrance Wall	
Blower Entrance Wall Thickness	
Blocker Entrance Wall to Exit Wall	
Exit Wall Thickness	
Driver Side Wall to Conveyor	
Passenger Side Wall to Conveyor	

When walls or equipment prevent direct measurement of X values from a camera to the enter eye, measure in segments using the helpful measurements section and add them together for the final X value.

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