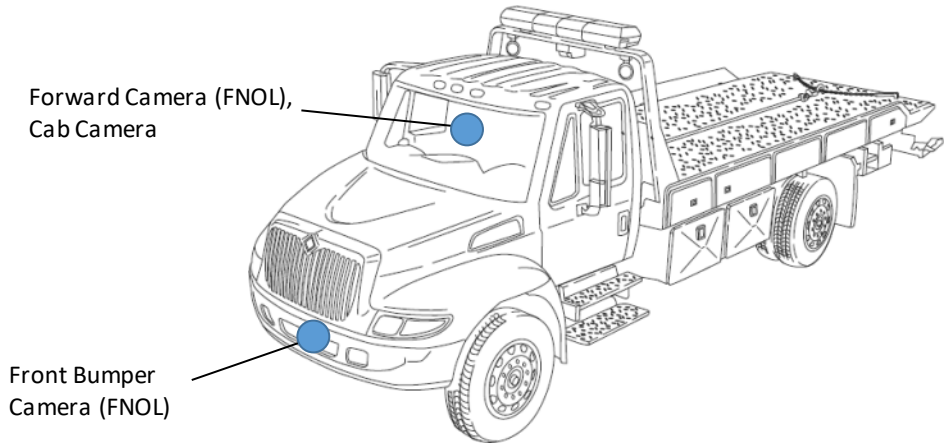
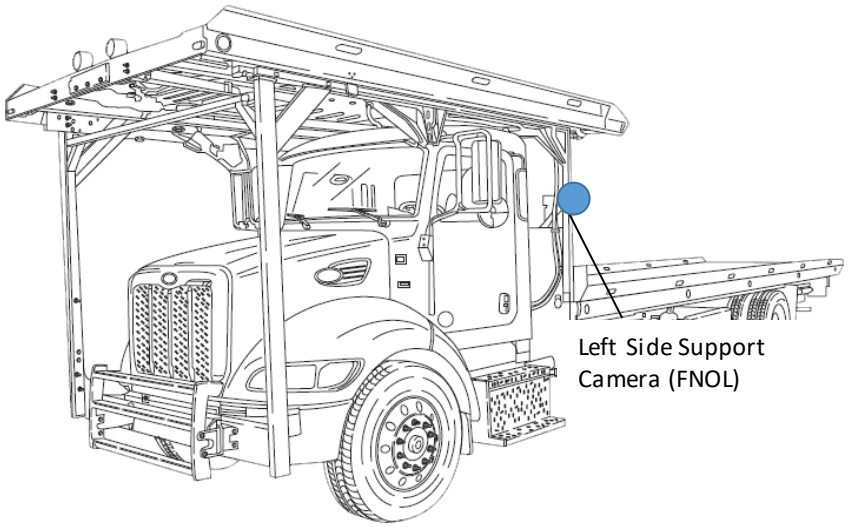
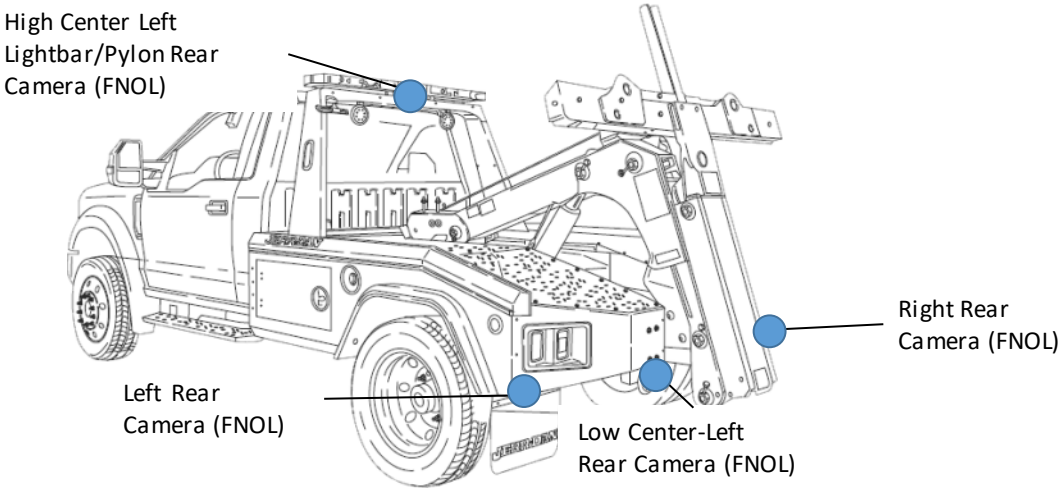

Forward Camera (FNOL),
Cab Camera
Front Bumper
Camera (FNOL)


Left Side Support
Camera (FNOL)


High Center Left
Lightbar/Pylon Rear
Camera (FNOL)
Right Rear
Camera (FNOL)
Left Rear
Camera (FNOL)
Low Center-Left
Rear Camera (FNOL)

9.1. Forward (FNOL) and Cab View Interior Camera Mounting

This section describes the installation procedures for the interior mount cameras. Interior cameras are not suitable for outdoor operating environments. Before mounting cameras, remove all interior trim components needed to drop the headliner for camera cable routing. Once cable routing path from cameras is MDVR are prepared, begin the camera installation.

Mounting Examples

Side-by-side

Above/below

Sample Camera Views

Forward View

Cab View

Installation Steps

1) Choose a stable mounting location high up and centered on the windshield. Interior front facing cameras should be mounted as high as possible. Ensure that camera has unobstructed view which isn't blocked by rearview mirrors or sun visors in the down position.
2) Remove adhesive cover and place adhesive pad on camera bracket firmly.
3) Clean area of windshield and back of camera bracket with isopropyl pad and allow to dry.
4) Depending on the orientation of the camera and its mounting position the mounting bracket may need to be rotated 180 degrees. Use a #2 Phillips screwdriver to loosen the two bracket screws. Rotate 180 degrees and tighten screws slightly. Do not tighten screws until camera has been aimed properly.
5) Remove adhesive cover and carefully place camera bracket on windshield while ensuring cable exits upwards and camera is level horizontally to the top of the windshield.
6) Route camera cable up toward headliner and place connector just behind headliner for ease of access for later camera servicing or replacement.

9.2. Coiled Ethernet Cable Kit – Flatbed only

This section describes the installation of a flexible and extendable coiled Ethernet cable for providing Power-over-Ethernet (PoE) connections to one or more IP cameras on moving flatbeds. It is designed for installation on the outboard right or left side of the moving bed and vehicle chassis to allow for full movement of the bed. **It is critical that all mounting recommendations be followed to prevent damage to the cable from snagging or being over-extended.**

Coiled Ethernet Cable Kit

Installation Steps

1) Start by moving the bed back about 6’ and tilting the front of the bed up about 3’ from the chassis.
2) Choose a suitable mounting location under the flatbed using the pictures below as a general guide. You will need to select suitable mounting points for your specific vehicle by examining the movement of components when the flatbed moves forward and rearward and tilts.
3) The coiled cable has a maximum extension length of 6’. Measure rearward on the chassis 6’-6.5’ from where the front of the bed stops at full bed retraction. This is the general location for the chassis end of the coiled cable kit to be bolted. Select a suitable location under the front corner of the bed for the other end of the coiled cable to be bolted. Ideally, use existing drilled holes for the 1/4” bolts to secure the coiled cable clamps (both coiled cable and stretch cord). **Caution: Ensure you move the bed fully forward**

and rearward and measure that the distance between these two points never exceeds 6' at any time.

4) Attach the chassis end of the coiled cable (with the 5M straight Ethernet cable) to a ¼" bolt. Do not tighten yet.
5) Attach the bed end of the coiled cable to a ¼" bolt. Do not tighten yet.
6) Have someone else move the bed slowly while you closely watch the coiled cable behavior throughout full motion of stowed through extended and back to stowed position. Watch for any snagging or rubbing on any vehicle components. If you see anything other than brief contact which won't snag, one or both ends of the coiled cable need to be moved. **Ensure that the coiled cable is never extended beyond 6' in length.**
7) Position each coiled cable clamp and connector to orient the coiled cable in the most ideal direction to minimize overflexing the coiled cable throughout movement and tighten the bolt and nut securely. Repeat the procedure of extending and stowing the bed to ensure the cable is not snagging on anything.
8) Route 5M Ethernet cable inside chassis rails to the MDVR location inside cab and ziptie every 1-2'.

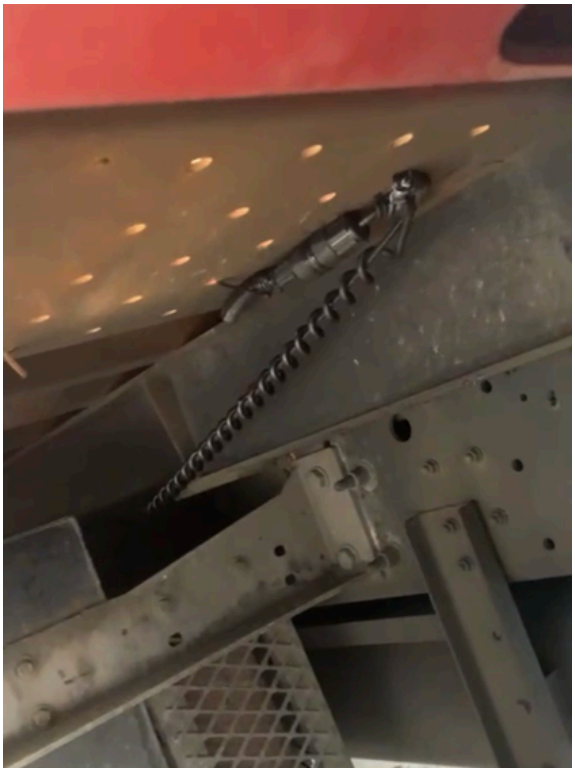
Preferred Coiled Cable Mounting Locations

Coiled Cable Installed

Coiled Cable Attached to Chassis

Coiled Cable Attached to Bed

Bed Fully Extended



Bed Fully Stowed

9.3. Ethernet Switch Module – Flatbed with multiple cameras only

This section describes the installation procedures for the Ethernet Switch Module which is required for flatbeds with more than one IP camera on the moving bed. It connects to the Coiled Ethernet Cable Kit to receive the PoE power and signals from the MDVR. It has output cables for each IP camera on the bed which should be connected using Ethernet Exterior Connectors. Installed Coiled Ethernet Cable Kit before installing the Ethernet Switch Module.

Ethernet Switch Module

Installation Steps

1) Start by moving the bed back about 6’ and tilting the front of the bed up about 3’ from the chassis. Locate the output connector of the Coiled Ethernet Cable Kit.
2) Find a suitable location within 1M of the connector under the bed to mount the module and cables. The location should be free of any interference from any moving parts or when the bed is moved from stowed to the extended positions. The side with the single wire is generally the input from the Coiled Ethernet Cable. The side with multiple cables are to connect to the cameras. There is no restriction on which cable to use for which camera, just select the appropriate length cable to reach the intended camera.
3) Mount the box to the underside of the bed with two bolts, lockwashers and nuts.
4) Connect the 1M Ethernet cable to the Coiled Ethernet Cable using the existing watertight Ethernet connector.

5) Route appropriate camera cables to their respective cameras and connect with an Ethernet Exterior connector.
6) Coil, ziptie and stow any excess cable to prevent snagging when the bed is moving.

Ethernet Switch Module Installed

This section intentionally blank