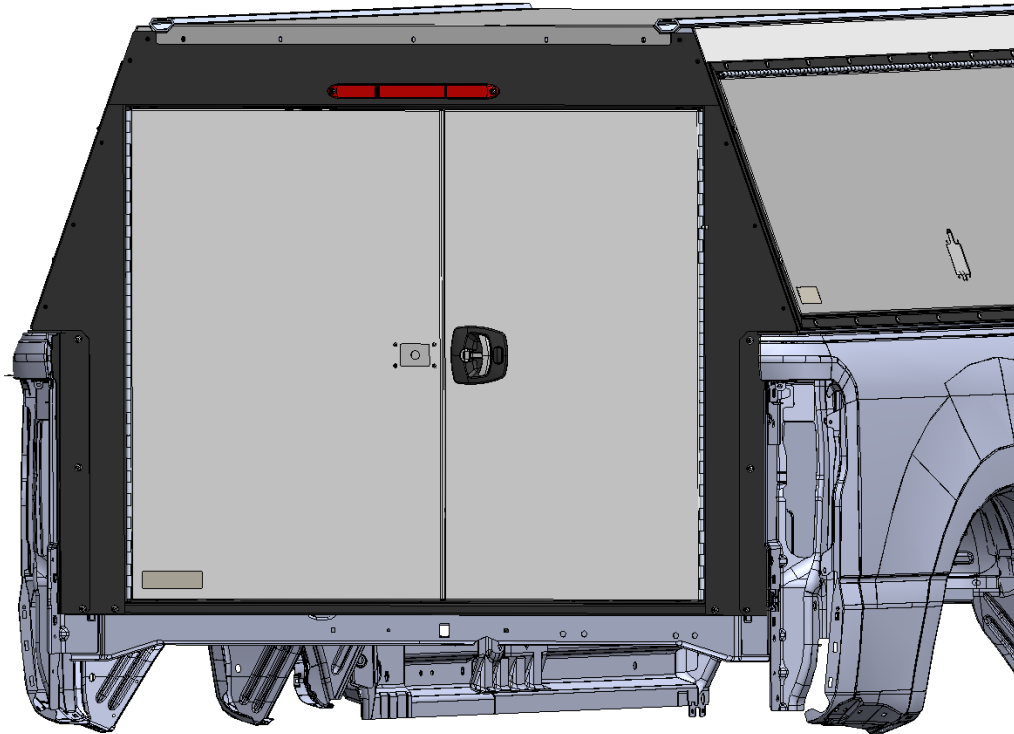


Introduction / Comments:

Install Instructions For Walk-in Topper Analog Backup Camera For Ford Super Duty

Note:

Read all instructions prior to installation. Review the Adrian Steel **GENERAL PRECAUTIONS PAGES (56638)** before attempting installation. Only personnel familiar with using electrical best practices should perform this install. Reference **ELECTRICAL BEST PRACTICES MANUAL (54479)** before attempting installation.



Install Instructions For Walk-in Topper Analog Backup Camera For Ford Super Duty

Section 1: Table of Contents

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Safety Precautions Information

These symbols are used in the document to warn installer to make sure there is understanding beyond general precautions used when working on electrical installations.

	ANSI Z535.6-2006 refers to the use of blue when “addresses practices not related to personal injury”.
	Yellow labelling level of personal injury = could result in minor injury.
	Red labelling level of personal injury = could / will result in death.

Section 2: Part Identification

ASCW-ALOG KIT (77865) Contents (Item Reference Diagram Below):



PCAM-FMBR180-N - Replacement Analog Camera



GXE-6 - Extension Harness from Camera to OEM Plug



77865-HWK - Hardware Kit and Gasket for Bracket and Routing



TDH-FD23-HAR - Adapter Harness for Ford Super Duty Analog Camera

Section 2: Part Identification

Make	Model	Year	Notes	Insert
Ford	Super Duty	2023-2025	Without OEM 360	N/A

NOTE: These are for future platforms that will be validated.

Section 3: Tools Needed

①



②



③



④



⑤

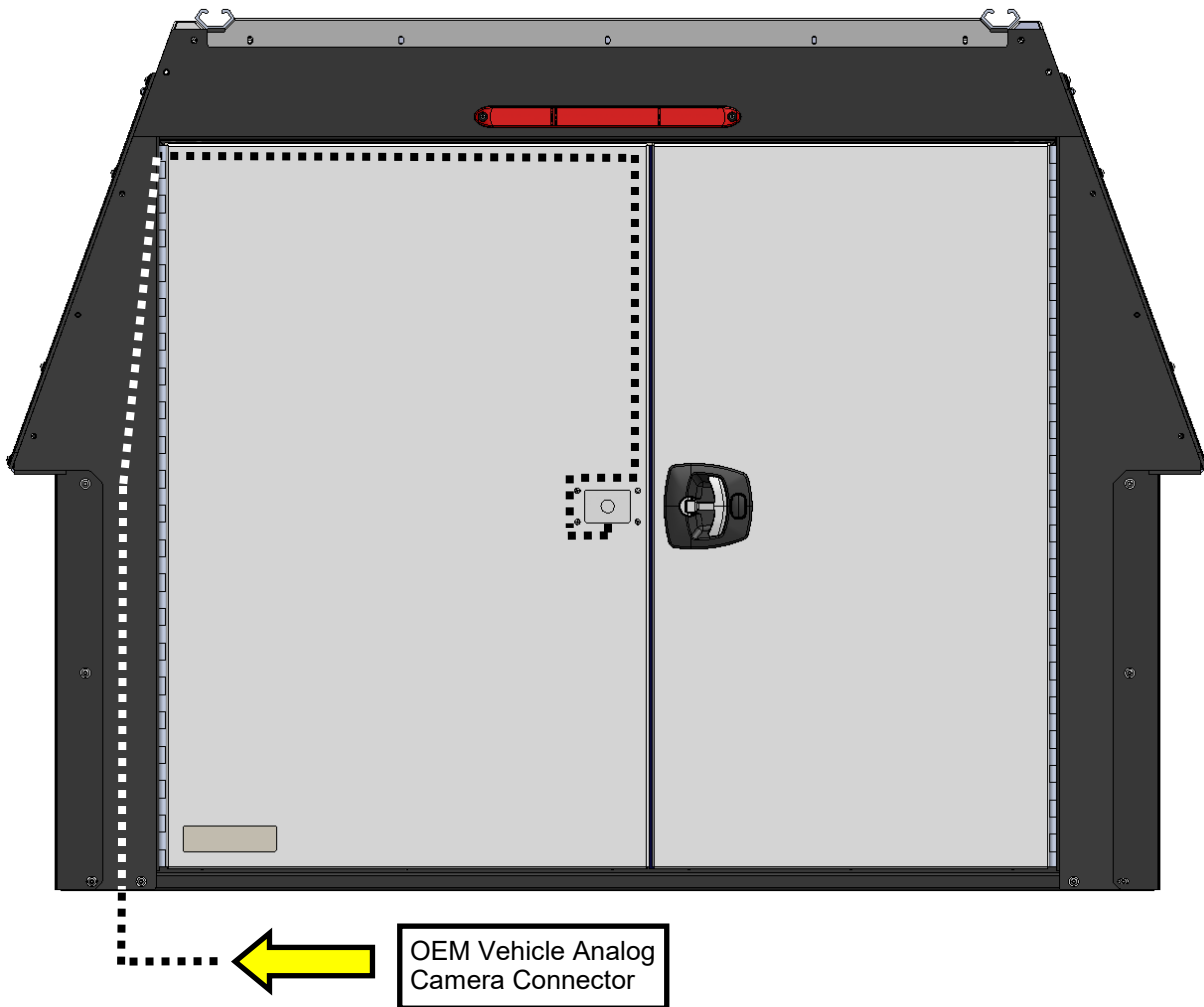


⑥



1. Diagonal Cutters
2. Drill driver
3. 3/4" Hole or Step Drill (Unibit)
4. #2 Phillips head Screwdriver
5. 10mm Nut driver
6. Dremel

Section 4: General Vehicle Layout



Section 5: Application Specifics: Ford Super Duty

Step 5-1.



Caution: Make sure camera orientation for up is noted from white dot on camera.



- If the camera DOES not look like this (a 4 pin screw lock connector with snap-on connection) –**STOP**– you will need a digital back up camera kit. Please contact your Adrian representative.

Step 5-2.



- Remove white Bracket and Backplate for camera from the 77865-HWK bag.
- Remove 18.5mm Hole Saw and Gasket from the 77865-HWK bag.
- Find middle point in bracket and drill hole using 18.5mm Hole Saw.
- You may need to use a Dremel to finish the hole if the camera doesn't quite fit.
- Peel white backing off Gasket, leaving the red side, to stick to the bracket. Make sure the holes are lined up.



- You will need to cut a slit in the grommet to feed connector through hole you just created. **DO NOT THROW AWAY GROMMET IT WILL STILL BE USED**



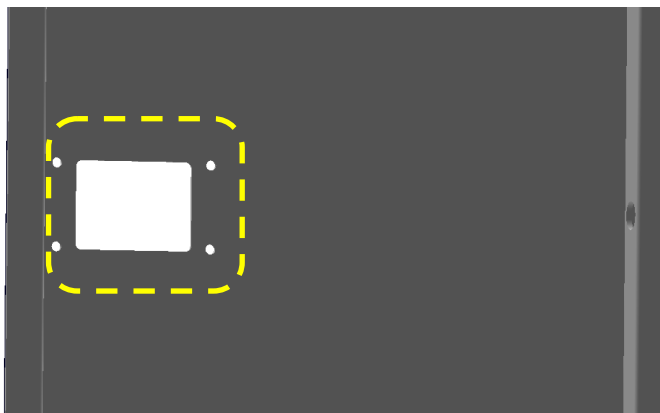
Section 6: General installation

Step 6-1. Camera installed in Enclosure



- This assembly will be mounted into the walk-in door opening

Step 6-2.



- Clean and let dry the surface around the square hole in the door on the inside of the door.
- Use alcohol to remove any dirt or oils.
- The red gasket liner on the enclosure assembly will be removed before placement.



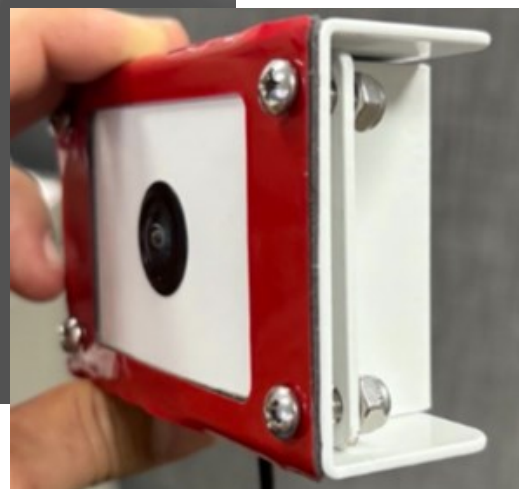
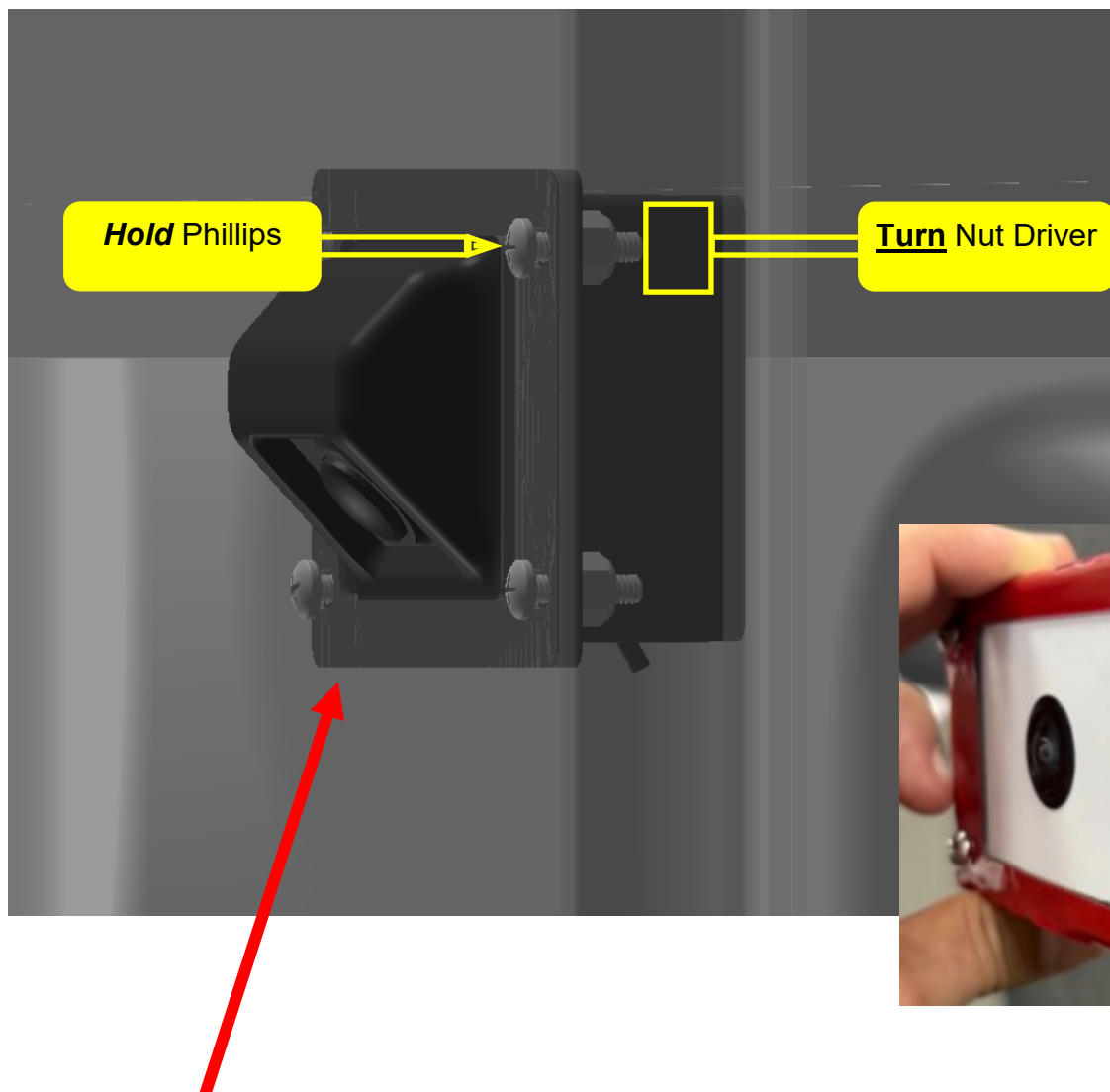
Step 6-3.



- This is VHB tape, so do not push to stick it unless the 4 screw holes are aligned.
- It is recommended that at least two corner screws BOM ITEM #17: 8-32 5/8" PHP SCREWS are present while installing the enclosure,
- Carefully aligning the enclosure protrusion through the hole in the door, make sure enclosure flange is flush before pushing for the adhesive to stick.

Section 7: General installation

Step 7-1.

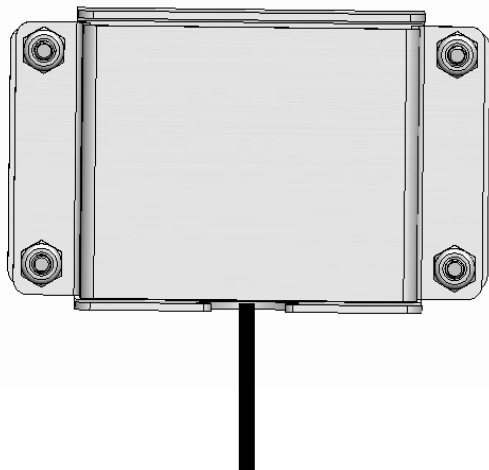


NOTE: THIS IS THE DIGITAL ENCLOSURE. REFERENCE FOR FASTENING SCREWS AND NUTS ONLY. SEE IMAGE TO THE RIGHT FOR ANALOG ENCLOSURE

- Add the other two screws and make sure enclosure assembly is completely aligned before applying light pressure to the enclosure and gasket to the door.
- The enclosure should not be warping, binding, or pinching the plastic material into the side of the square hole. It should be interfacing flatly between the enclosure back flange, the gasket, and the door material for water tightness.
- **Hold** a phillips head screwdriver to the screws on the outside of the door, while tightening the nylock nuts with very light torque on the back side (this prevents the turning screw heads from marking the outside paint or wrap of the walk-in door).
- Finish the nuts torquing lightly by hand until snug (to avoid over compressing the plastic).

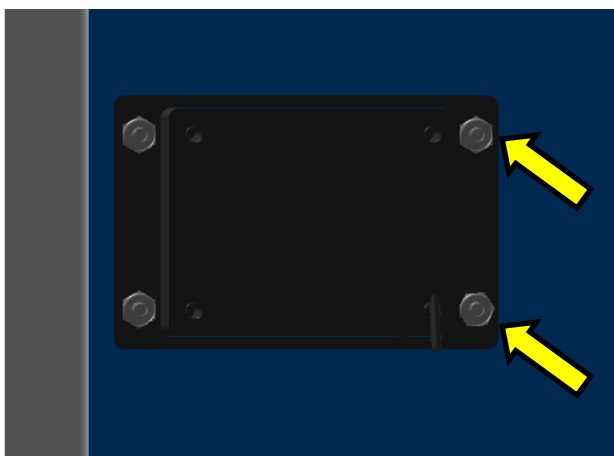
Section 8: Routing harness

Step 8-1.



- With the door open, and looking from the inside. The bracket and camera harness should look like the image to the left.

Step 8-2.

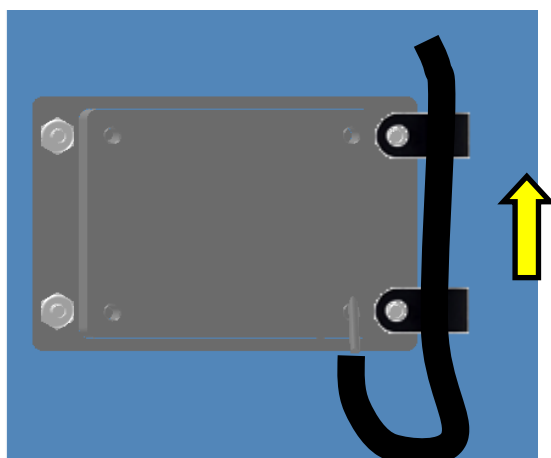


- Remove the bottom and top driver's side nuts from the enclosure mounting screws and obtain a black plastic P-clips BOM ITEM #16: BLACK P-CLIPS from the kit package.



- The tape will be assisting in keeping the enclosure in place now.

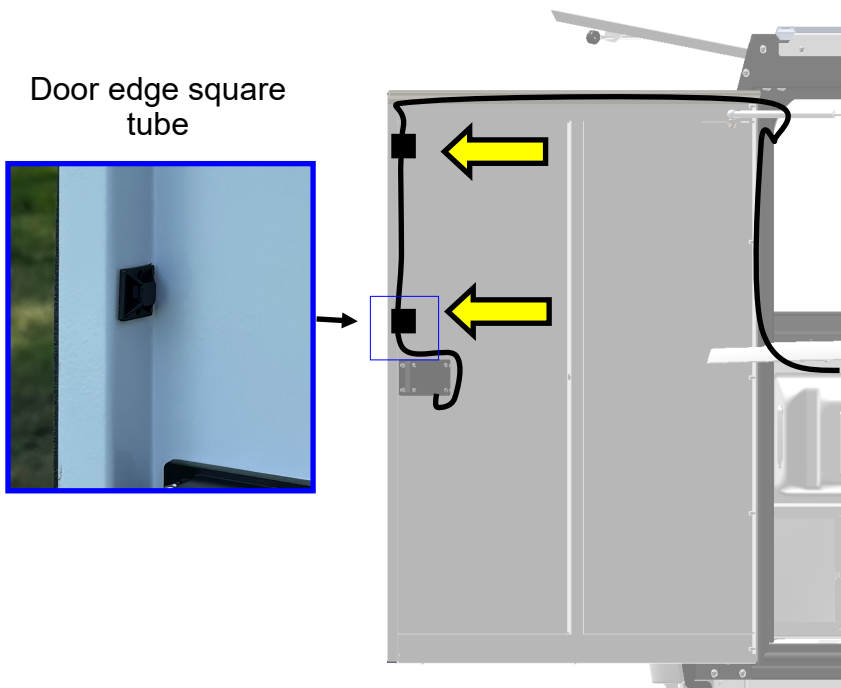
Step 8-3.



- These P-clips will be oriented like in the diagram so that wire is leaving the slot, then the looming cover on the coaxial cable begins, a small drip loop is formed, and then is fastened by the clips to the enclosure screws going upward to the top of the door.
- Again fasten the nuts with light torque while holding screws on the outside of the door to prevent spinning.
- During tightening, ensure the P-clips stay in position and do not twist and damage the cable and loom.

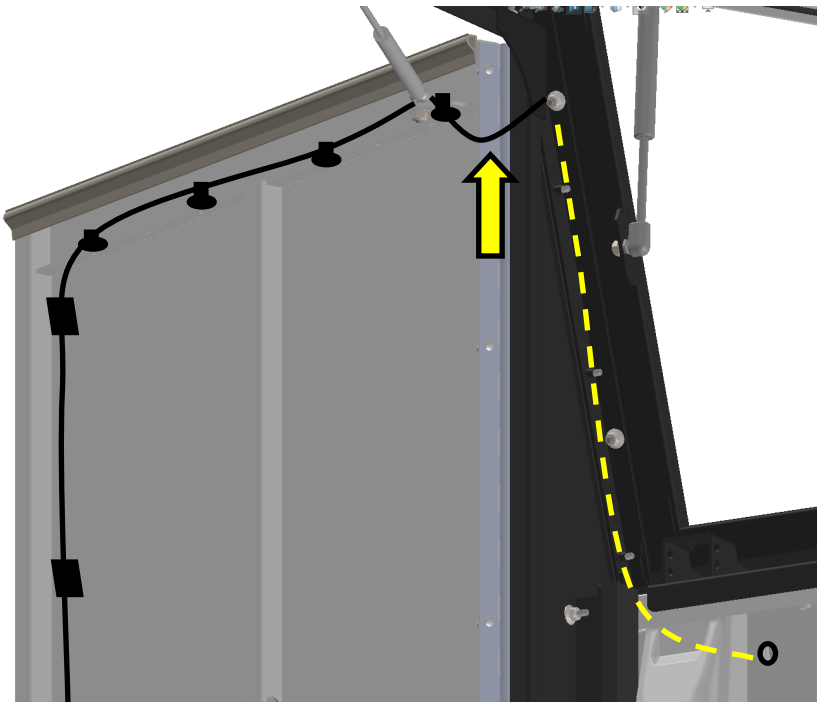
Section 8: Routing harness

Step 8-4.



- From the P-Clip, the cable will be routed to the top of the door along the door's edge square tube.
- Be sure to use alcohol solution to remove any dirt or oils. Allow to dry.
- Apply the VHB adhesive mounts BOM ITEM #21: VHB ADHESIVE CABLE TIE BASE MOUNT.
- For excellent bonding, apply 15 lbs. of pressure for a few seconds.
- The adhesive will continue to bond for a few hours, do not stretch the cable too tightly between the squares when affixing cable ties.
- After the adhesive squares are affixed, use the BOM ITEM #22: 4" CABLE TIES

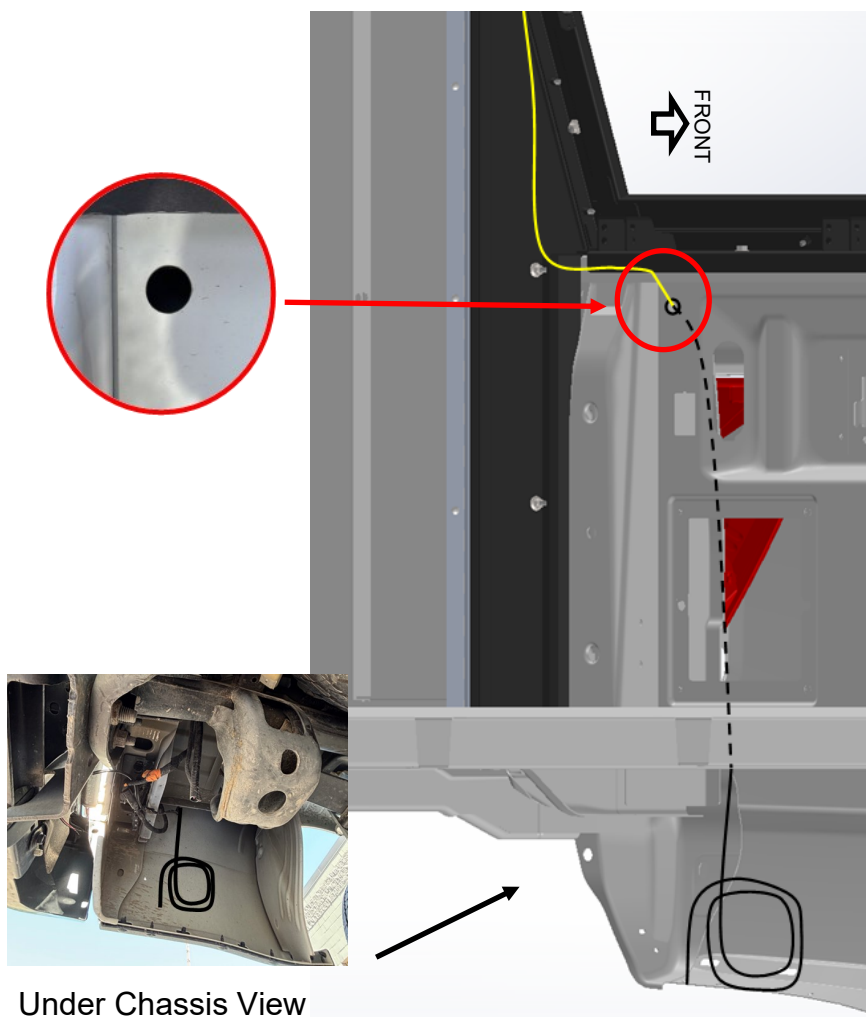
Step 8-5.



- Upon reaching the top of the door the cable will be neatly guided to the hinge side of the door. Fastening about every 10-12 inches to a Christmas tree cable mount in to the quarter inch holes in the top of the door bracket BOM ITEM #19: 0.25" FIR TREE CABLE TIE
- The cable will be brought to the end of the door and a small amount of loop will be left in the space between the end mounting hole on the door bracket and the affixing point in the corner of the cap.

Section 8: Routing harness

Step 8-6.



- (Red Circle Area) If necessary, utilize the Step Bit and drill to widen the existing 18.4mm hole to 3/4" (19mm).
- It is best practice to add etching paint to prevent any corrosion if the hole is enlarged.
- At this point the snap bushing in the kit BOM ITEM #20: SNAP BUSHING WITH 15.3MM I.D. can be pushed into the hole on the side of the bed wall and the cable can be fed down into that hole.
- Be sure the cable end will stay clean as it travels down the interior of the sidewall down to the bottom of the truck.
- Pull the cable all the way through so that there is just enough cable left inside of the topper/bed area to begin to finish routing.
- Use about three - 8" cable ties from the kit to hold the cable to exiting non-moving structures on the inside corner of the cap and ensure they are out of the way to prevent anything from snagging.

Step 8-7.

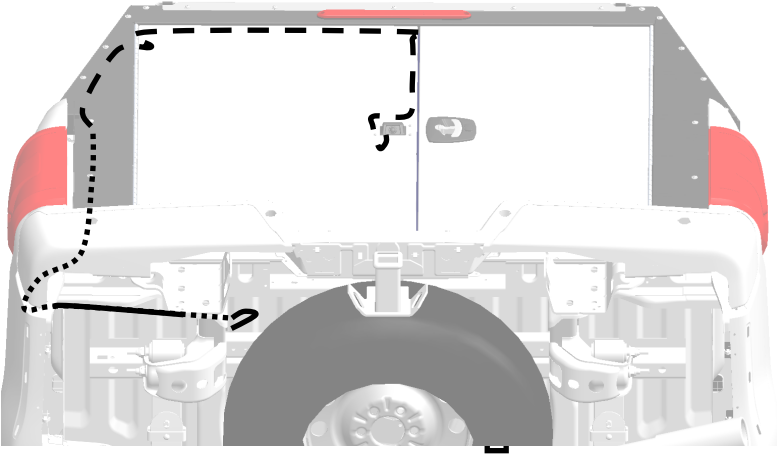


The wire **MUST** be tied up above the frame rail to avoid damage from ice and road debris.

1. UNDER the vehicle, by the rear bumper, BE AWARE of the hot exhaust systems, and route the harness above the frame rail and follow other wiring harnessing to the open OEM Mating connector circled in **RED**

Section 8: Routing harness

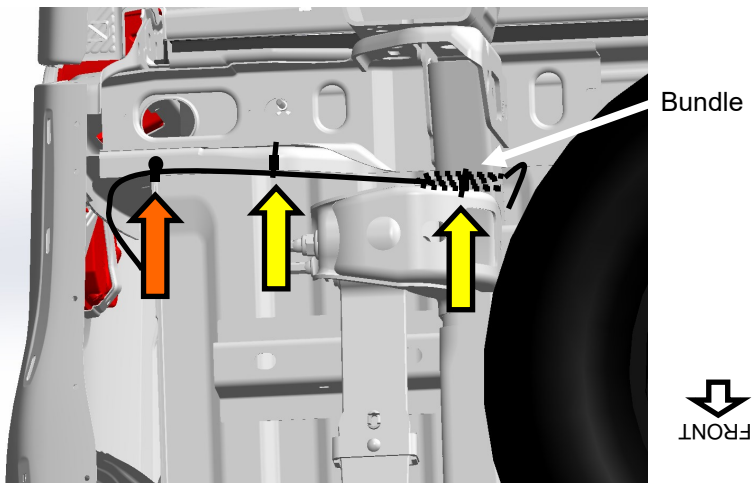
Step 8-8.



- The wire **MUST** be tied up above the frame rail to avoid damage from ice and road debris.

Step 8-9.

Under Chassis View



- It will be helpful to find a 1/4" hole [Area of Orange Arrow] in the trucks underbody sheet metal and utilize one of the Christmas tree cable mounts to secure the cable where it drops down from the hole on the topside bed wall.
- When routing is established, connect the coaxial cable and bundle/ loop any extra cable to tie high above the bottom of the truck.

- The installation is completed— please test and finish install by making sure cable will not be pinched or damaged during customer use.

Section 9: Testing and Finish

The camera installation should now be checked:

- Start vehicle.
 - Check around for safety.
 - Hold the brake, shift the vehicle into reverse and observe the back-up camera monitor in the vehicle. The image should be very similar to original image from the OEM tailgate installed backup camera.
 - If there any doubts, please ensure to validate with FMVSS111 procedure to ensure compliance.
- ◇ If the vehicle does not activate the backup camera while in reverse, check that there is no damage to the harnessing, and reassure all connections have been made securely.
- ◇ Lastly, ensure all harness is properly secured and cable ties are trimmed.
- ◇ The install is now complete!

