

Tractor AeroKit[™] Installation Guide

PACCAR Dealer Instructions For Factory Specified AeroKits



Introduction



Thank you for purchasing an aerodynamic product from FlowBelow. Our engineers have created a product that is proven effective, durable, easy to install and simple to maintain. We are always available to answer any questions about the installation process.

Important Notes Before You Begin

All Tractor AeroKit installations should be performed by a properly trained technician using the recommended tools and following all federal and state safety laws, as defined by OSHA (Occupational Safety and Health Act). Failure to follow the recommended installation instructions and safety precautions may result in product damage and/or safety concerns. Please follow our step-by-step installation manual and check your work at the end.

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Wheel Cover Components

Before beginning the installation process, please inspect your Tractor AeroKit for damaged and/or missing parts. If parts are damaged or missing, FlowBelow Aero, Inc. can be reached via email at support@flowbelow.com or by phone at 512-520-5350.



LATCH HARDWARE (x1)

LATCH ASSEMBLY (x4)



WHEEL COVERS (x4)

Tools Required

- + Air or Electric 1/2" Impact
- + Torque Wrench
- + Sockets (1/2" drive, 1 1/8" or 15/16")
- + Straight Edge

A Install Latch Assembly

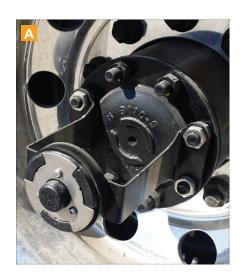
- 1. Place each latch bracket over axle studs; the base of the latch bracket should rest on top of the axle stud nuts. (Note: Removal of the existing axle stud nut is not required)
- 2. Orient the latch bracket so the latch assembly does not overlap the axle plate notch.
- 3. Install a lock nut onto each axle stud. Torque the lock nuts (in a star pattern) based upon axle stud size (%" studs torqued to 50 ft-lbs. ± 10%, %" studs torqued to 90 ft-lbs. ± 10%).
- 4. Place a straight edge across the latch face to ensure it is flush with the wheel face.

B Attach Wheel Covers

- 1. Orient the wheel cover so that the wheel cover plate fits over the latch.
- 2. Push the center of the wheel cover into the latch and rotate the wheel cover until the latch snaps closed and the cover is held securely in place.

Remove Wheel Covers

- 1. Push and hold the latch button located in the center of the bracket.
- 2. Rotate the wheel cover until the cover is ejected from the latch. Removal of the wheel cover is now complete.







D Check Your Work

- The wheel cover edges should never touch any part of the wheel rim.
- The wheel cover should have equal spacing distance of wheel cover to wheel rim between 3%" to 1/2".
- If there is an uneven gap between the wheel cover and wheel rim, it will be necessary to remove the wheel cover and verify the latch is installed correctly and is level.

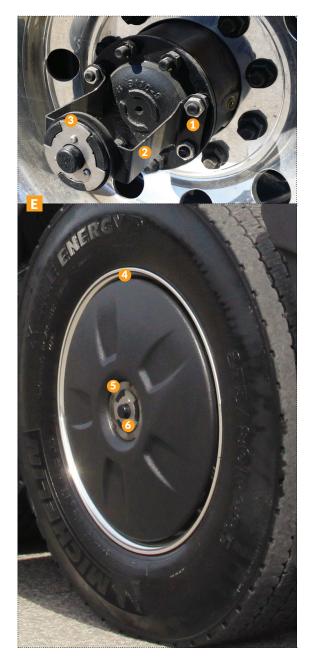


I Maintenance and Inspection Areas

Warning: if the Wheel Covers are not properly secured, components may detach from the truck while driving.

As part of routine pre-trip inspections or at least once per month, inspect the Wheel Covers for the following:

- 1 Inspect lock nuts and verify the nuts are secure
- 2 Inspect latch assembly bracket for cracks, breakage or corrosion
- 3 Inspect latch assembly for cracks, breakage or corrosion
- 4 Inspect wheel cover; verify the cover is centered within the rim and has the minimum required spacing of 3/8" to 1/2"
- 5 Inspect wheel cover ring for cracks or corrosion; verify the cover ring is free from damage and ring hardware is secure
- online in Inspect locking mechanism of each latch assembly; verify the wheel cover is firmly held in place when installed



TIME SAVING TIP

Complete the wheel cover installations on all wheels before proceeding to the fairing installation process. Once you complete the first wheel, the remaining wheels proceed much quicker.



Center Fairing Components

Before beginning the installation process, please inspect your Tractor AeroKit for damaged and/or missing parts. If parts are damaged or missing, FlowBelow Aero, Inc. can be reached via email at support@flowbelow.com or by phone at 512-520-5350.

Tools Required

- + Wrenches (1/2", 1/16")
- + Torque Wrench
- + Sockets (1/2", 1/16")





CENTER FAIRING (x2)

FlowBelow



FAIRING MOUNTING BAR (x2)



• Attach the Mounting Bar to the Mounting Receiver

HWK-KW5 (X1)

(Set aside leftover Hardware for later steps)



- Attach the Adapter Plate to the Mounting Bar
- Attach the Center Fairing to the Adapter Plate **HWK-KW4(X1)**

(Set aside leftover Hardware for later steps)



TIME SAVING TIP

installer will already be familiar with the adjustments required on the second side.



A Pre-Installation

- Inspect center fairing and mounting components; verify all parts and tools needed are present
- Fully inflate truck air bag system
- Locate the two factory installed Center Fairing Mounting Receptors

B Install **Fairing Mounting Bar**

- 1. Using the M8 bolts supplied in the HWK-KW5 hardware bag, loosely attach the Fairing Mounting Bar to the Center Fairing Mounting Receptor.
- 2. Torque the Mounting Bolts to 26 ft-lbs.



Attach Fairing Adapter Plate

- 1. Align Adapter Plate forward mounting holes with fairing mounting bar forward mounting holes. Adapter plate should be parallel with Fairing bar as shown.
- 2. Loosely install the hex dog point screw bolts (2) supplied in HWK-KW4 into the forward mounting holes.
- 3. Pivot Adapter fixture forward to align rear mounting holes of bar with rear holes in the Adapter Plate.
- 4. Loosely install hex dog point screws (2) supplied in HWK-KW4 into the rear mounting holes.
- 5. Tighten all hex dog point screws to 19 ft-lbs.

Attach Center Fairing Panel

- 1. Using the hex dog point screws (4) supplied in the HWK-KW4 hardware bag, attach the Center Fairing to the Fairing Adapter Plate.
- 2. Torque the mounting bolts to 12 ft.-lbs.
- 3. Verify that the Fairing is centered between the tires and is flush with the outer sidewall of the tire.













TIME SAVING TIP

Prior to securely attaching the center fairing panel, hand tighten a few bolts and assure that the center fairing panel is properly centered before locking down all the nuts and bolts.

E Check Your Work

- After tightening all mounting bolts, verify that the Center Tandem Fairing is centered between the tires and there is at least 2" clearance on all sides.
- To verify fairing alignment, the air bags need to be fully deflated to ensure there is sufficient (½" to 1") of fairing-to-wheel and fairing-to-ground clearance.
- Final adjustments may need to be performed to ensure sufficient clearance is available.



Maintenance and Inspection Areas

Warning: if the Center Fairing Assembly is not properly secured, components may detach from the truck while driving.

As part of routine pre-trip inspections or at least once per month, inspect the Center Fairing Assemblies for the following:

- 1. Verify that the fairing mounting bar is firmly secured to the fairing mounting receptor
- 2. Inspect the center fairing to ensure it is centered between the tires
- 3. Verify that the center fairing is not rubbing or showing signs of unique wear
- 4. Inspect all hardware; verify hardware is secure



Rear Fairing Components

Before beginning the installation process, please inspect your Tractor AeroKit for damaged and/or missing parts. If parts are damaged or missing, FlowBelow Aero, Inc. can be reached via email at support@flowbelow.com or by phone at 512-520-5350.

Tools Required

- + Wrenches (%16", and 34")
- + Torque Wrench
- + Sockets (%16 and 34")
- + Impact Driver (3/8" or 1/2")







REAR FAIRING PANEL (x2)



Attach the Rear Fairing to the Adapter Plate
 HWK-KW4 (X1)

(remaining hardware from center fairing step)



Attach the Adapter Plate to the Mudflap Hanger
 HWK-KW5 (X1)

(remaining hardware from center fairing step)



TIME SAVING TIP

Perform the rear fairing installation steps to completion on one side of the truck. By doing so, the installer will already be familiar with the adjustments required on the second side.



A Pre-Installation

- Inspect Rear Fairings and mounting components; verify all parts and tools needed are present
- Fully inflate truck air bag system
- Truck will be equipped with FlowBelow Rear Hanger Assembly from the Factory

B Attach Rear Fairing Adapter Plate

- 1. As a starting point, use the top two vertical mounting holes on the Rear Fairing Adapter Plate, attach the Rear Fairing Adapter Plate to the outer face of the mud flap sleeve using the 1/2-13 bolts supplied in HWK-KW5.
- 2. Before tightening, ensure that the curved edge of the Adapter Plate is concentric with the far outside tire. Torque bolts to 50 ft.-lbs.

Attach Rear Fairing Panel

- 1. Attach the panel to the Adapter Plate using the hex dog point screws (2) supplied in HWK-KW4.
- 2. When installing the Rear Fairing, **provide at least 2" of clearance between the tire edge and the inner section of fairing.** Verify that the clearance is even, concentric with the tire and the top edge of the panel is aligned with the top edge of the Center Fairing. Make adjustments if needed.

Rear Fairing Orientation

- 1. The leading edge of the fairing should be flush with the outside of the tire.
- 2. To verify fairing alignment, the air bags need to be fully deflated to ensure there is at least ½" of fairing-to-wheel clearance.
- 3. If needed, perform adjustments to ensure sufficient clearance is available.
- 4. After all final adjustments have been made, torque Rear Fairing to Adapter Plate hardware bolts to 12 ft.-lbs.









E Check Your Work

- After tightening all mounting bolts, verify that the Rear Fairing barely extends above the top of the tire and there is at least 2" clearance between the tire and fairing.
- To verify fairing alignment, the air bags need to be fully deflated to ensure there is sufficient (½" to 1") of fairing-to-wheel and fairing-to-ground clearance.
- Attach tractor to trailer to ensure all final clearances.
- Final adjustments may need to be performed to ensure sufficient clearance is available.

I Maintenance and Inspection Areas

Warning: if the Rear Fairing Assembly is not properly secured, components may detach from the truck while driving.

As part of routine pre-trip inspections or at least once per month, inspect the Rear Fairing Assemblies to ensure the following:

- 1. The rear fairing is oriented properly
- 2. No signs of interference or unique wear
- 3. The hanger assembly and all hardware is secure
- 4. The hanger assembly springs are tensioned
- 5. No rust or corrosion events



Need Installation Help?

We are always here to answer any questions or concerns that you might have about your product installation. Should you require immediate help, give us a call at (512) 520-5350.

Corporate Information

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