

DOMINION OFFROAD

Phone: 626-Trails1 or 626-872-4571

JEEP JK AIR SYSTEM INSTALLATION

WARNING:

Always have the JK Engine Running, while running your Compressor

Required Tools and Materials:

- 13mm Wrench (preferably a ratcheting wrench)
- 10mm Wrench
- 5/16" Open End Wrench
- $\frac{3}{4}$ " Open End Wrench
- Philips Head Screw Driver
- Heat Gun or butane torch
- Large Standard Screw Driver
- Crescent / Adjustable Wrench
- 9/16" Open End Wrench
- 18mm Open End Wrench
- Electrical Connector Crimp Tool
- Torx Wrench Set

Tips before you start:

*** Deviate from these instructions at your own risk.

*** Use Thread Locker (supplied with kit) on all fasteners (NOT Brass Fittings)

*** All brass fittings must be installed using Teflon Pipe Fitting Tape (supplied with kit). Four wraps of white tape is recommended and will maximize fitting adjustability.

If you are installing an Air Tank, perform that installation first

These Installation Procedures are broken down into two parts. The Quick Install Guide is for experienced and professional mechanics, who have experience working behind the dash and in the engine bay of the Jeep JK. The Detailed Installation Procedure is a detailed guide that breaks a complex installation, into easy to follow steps. The Detailed Procedure is an excellent reference for those who are working through the Quick Install Guide.

Index:

Page 2. Inventory Checklist

Page 3. Quick Install Guide

Page X. Detailed Installation Procedure

Installation Guide Videos Link:

www.DominionOffRoad.com/jk_obo_install

Check for the latest version of these instructions at:

www.DominionOffRoad.com/jk_obo_install

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JEEP JK AIR SYSTEM - PARTS INVENTORY LIST

CHECK IT TWICE

Small Box	Small Box Non Bagged Items	1	Compressor Bracket
		1	Instructions
		1	Engine Bay Pressure Gauge
		1	Air Junction Box
		1	Air Junction Box Bracket
		1	Viair Pressure Switch
		1	.25" Air Hose Short for In-Cab Air Pressure
		1	.25" Air Hose Long for Air Coupler
	Bag 1	1	Fasteners Pack (2 Long Philips, 2 Short Hex Head, 4 Nuts)
		1	Quick Coupler
		1	Quick Coupler Dust Cap
		1	Brass Bulkhead Fitting
		1	In-Cab Coupler Bracket - Stainless Steel L-Bracket
		1	Burst Relief Safety Valve
		4	1/4 MPT X 1/4FPT 90 Degree Brass Fittings
		1	3/8" MPT Brass Plug
		1	1/4" MPT Brass Plug
		2	1/4X1/8 Brass Bushing
		1	3/8X1/4 NPT Bushing
		3	Viair Brass .25" comp to .25" MPT Fittings
		1	1/4" Push In to .125" FPT Brass Fitting
		Bag 2	3
	1		In-Cab Gauge
	1		Switch
	1		Fuse
	1		Air Intake 90 Fitting
	3		16 Gauge Wire Male Quick Connects (Red)
	2		12 Gauge Butt Connector (Yellow)
	2		12 Gauge Ring Terminal (Yellow)
	1		16 Gauge Butt Connector (Blue)
	1		16 Gauge Wire Splice Snap Connector (Blue)
	Bag 3	5	Zip Ties
		1	Stainless Steel In-Cab Switch and Gauge Back Plate
		1	Teflon Tape
		1	12 Gauge Wire
		1	16 Gauge Wire
		1	Thread Locker
		1	Fuse Holder
	Bag 4 (Tank Kit)	1	Gray Air Tank Hose 18" with two Push-Lock Fittings
		1	Tank Mount Brackets, U-Bolts and Fasteners
		3	1/4" Brass Plugs
		1	1/4" Drain Cock
1		1/4" 90 Degree Elbow	
Big Box Items	1	2 Gallon Air Tank	
	1	400C Compressor	

Jeep JK OBA Quick Install Reference

This is a Summary Install Guide Only. The Detailed Installation Procedure starts on Page X. Consult the Detailed Procedure for FAQs and Details.

1. Install brass fittings in the order indicated in the following picture:
 - Port 5 Options: Air Coupler Hose Connection or Plugged.
 - Port 6 Options: Air Tank, or Air Coupler Hose Connection, or Plugged.
 - Port 8 Options: Front Bumper Air Coupler Hose Connection or Plugged.



2. Install the Compressor on the Compressor Mount Bracket and the 90 Fitting on the Compressor Air Intake Port (do not use Teflon Tape and do not over tighten).

WARNING: Do not over tighten the Elbow fitting in the Intake Port



Install the Compressor/Bracket assembly in the JK

Warning: Do not bump, or pull the master cylinder away from the booster during this install. Doing so will dislodge the booster O-Ring. If the O-Ring becomes dislodged, do not drive the Jeep and contact tech support for additional information.

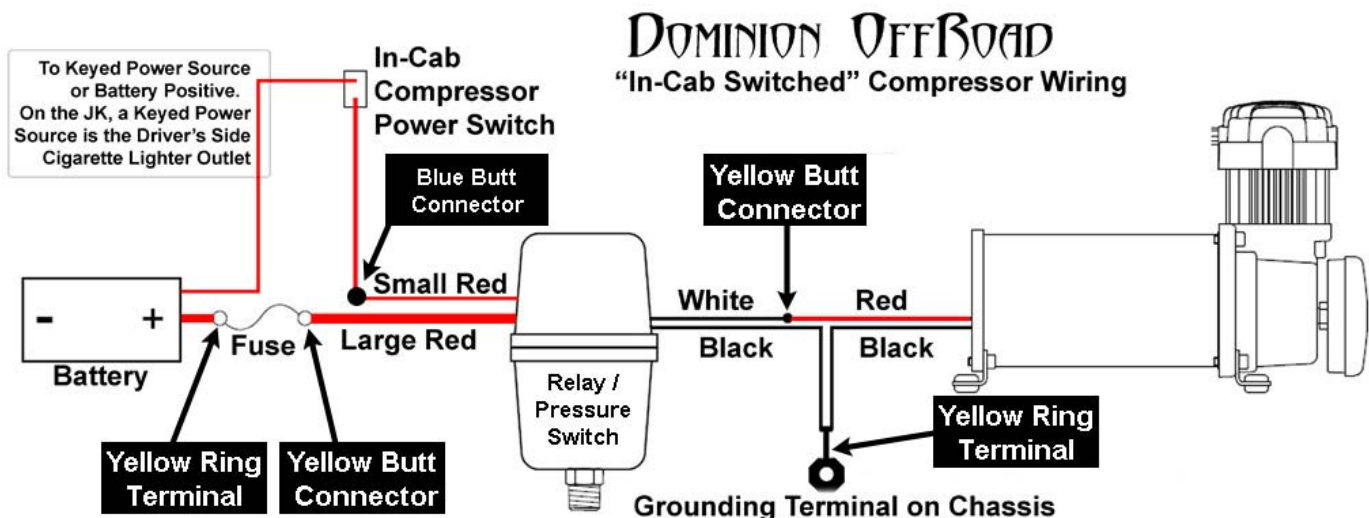
Advisory: Your Air Tank Hose Fittings are installed using Silicone Lubricant. This helps so the Fittings can swivel inside the Hose. Using a 9/16" wrench on the fitting, twist the hose to break the Fitting Loose. If the fitting will not Swivel, you must install the Air Junction Box onto the Hose Assembly prior to installing the Air Junction Box onto the Air Junction Box Bracket.

3. Install the Tank Air Hose to the Air Junction Box.
4. Pressure Switch - Install the Pressure Switch on the Air Junction Box.
5. I install the Air Junction Box onto the Stainless Steel Air Junction Box Mount Bracket.
6. Adjust the Pressure Switch and Air Tank Hose Fittings, to insure proper clearance.
7. Install the Compressor Leader Hose, onto the Air Junction Box.
8. Wire the Compressor according to the following Diagram:

Advisory: All pre-installed terminals on the Pressure Switch and Compressor will be cut off and discarded.

Advisory: The Black Pressure Switch Wire and Black Compressor Wire will be striped and twisted together, prior to installing the Ring Terminal.

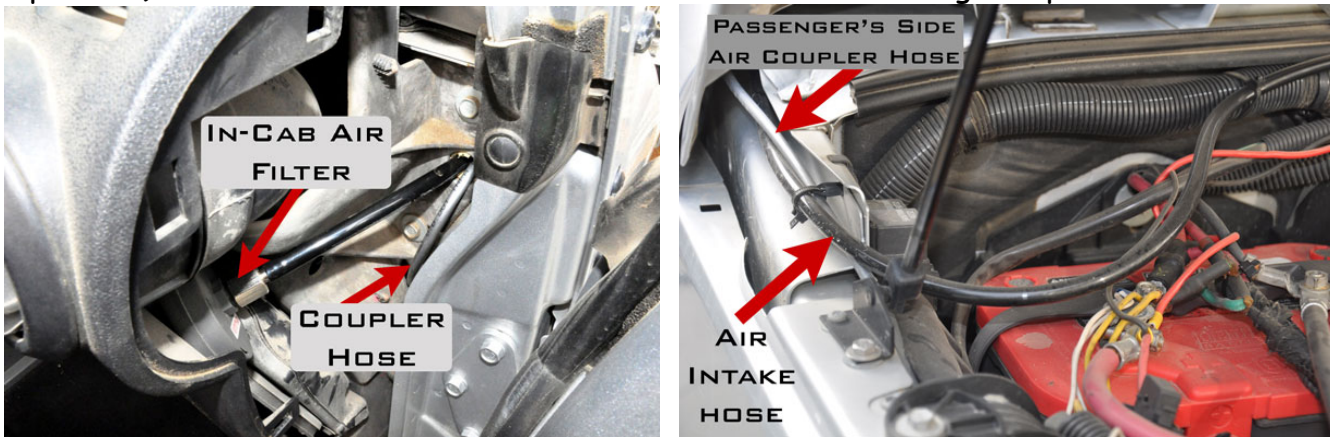
Advisory: All Engine Bay Connectors are Heat Shrinkable and Adhesive Lined. Use a heat gun, lighter or equivalent to shrink and seal the connector covers



9. Install In-Cab Air Pressure Gauge and Switch. Recommended locations:



10. 3/8" Black Hose and 1/4" FPT X 3/8" Barbed Fitting (Hose and Fitting supplied with compressor) - Rout the air intake hose as indicated in the following two pictures:



11. Air Couplers, Brass Compression Fittings, Air Coupler Brackets and Long Hoses - Using a Torx Wrench, install the In-Cab Air Coupler/s according the following picture:



Jeep JK OBA Detailed Installation Procedure

1. Install brass fittings in the order indicated in the following picture:
 - Port 5 Options: Air Coupler Hose Connection or Plugged.
 - Port 6 Options: Air Tank, or Air Coupler Hose Connection, or Plugged.
 - Port 8 Options: Front Bumper Air Coupler Hose Connection or Plugged.



2. Install the Compressor on the Compressor Mount Bracket and the 90 Fitting on the Compressor Air Intake Port (do not use Teflon Tape).

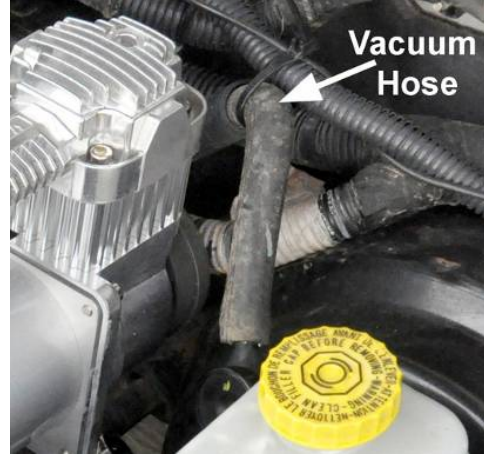
WARNING: Do not over tighten the Elbow fitting in the Intake Port



Install the Compressor/Bracket assembly in the JK

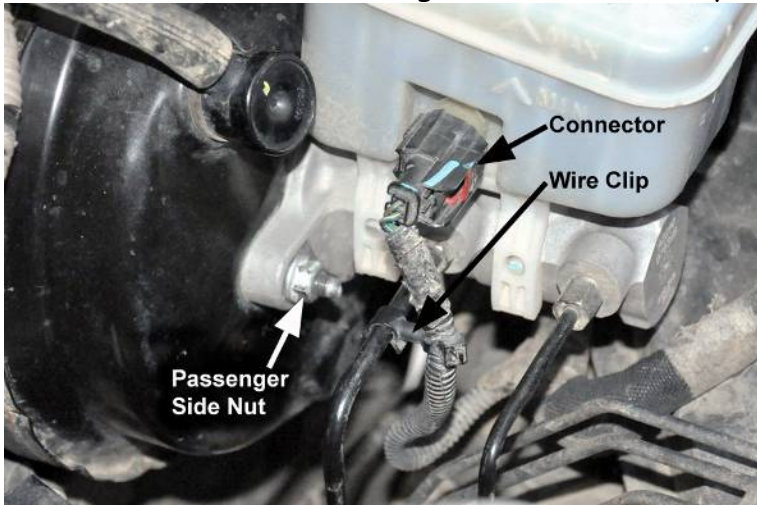
Advisory: Do not bump, or pull the master cylinder away from the booster during this install. Doing so will dislodge the booster O-Ring. If the O-Ring becomes dislodged, do not drive the Jeep and contact tech support for additional information.

3. Using firm pressure and pushing as indicated in the following picture, bend the A/C hose toward the distributor cap in order to provide clearance for the bracket and compressor.



4. Loosely zip tie the vacuum hose as indicated in the previous picture, in order to assure at least $\frac{1}{2}$ " clearance around the compressor head.

5. Remove Driver's and Passenger's Side Master Cylinder Nuts as indicated below:



6. Remove the brake fluid sensor wire connector - With a small flat head screw driver, slide the red tab toward the passenger's side. Press the tabs and pull the connector off of the brake fluid reservoir.

7. Disconnect the small plastic wire clip indicated in the previous picture.

8. Thread the connector and wire bundle under the steel brake line and re-attach as indicated in the previous picture.

9. 13mm wrench - Remove both driver's and passenger's side master cylinder nuts.
10. Philips Head Screw Driver - Remove the Passenger Side ECU Mounting Bolt.
11. Using the previously removed factory nuts and bolt, install the bracket and compressor assembly.

If you purchased this kit with an Air Tank, it should be installed now.

Air Tank Fitting (If you are not using an Air Tank, skip to the wiring section)

12. You're Air Tank Hose should be installed on the Tank.

Advisory: Your Air Tank Hose Fittings are installed using Silicone Lubricant. This helps so the Fittings can swivel inside the Hose. Using a 9/16" wrench on the fitting, twist the hose to break the Fitting Loose. If the fitting will not Swivel, you must install the Air Junction Box onto the Hose Assembly prior to installing the Air Junction Box onto the Air Junction Box Bracket.

13. If you purchased a Front Bumper Air Coupler Kit, install the Hose to the Air Junction Box.

14. Pressure Switch - Install the Pressure Switch on the Air Junction Box.

15. (2) 1 $\frac{3}{4}$ " Stainless Fasteners, Nuts and Thread Locker - install the Air Junction Box onto the Stainless Steel Air Junction Box Mount Bracket.

16. As necessary, adjust the Pressure Switch and Air Tank Hose Fittings, to insure clearance.

17. Install the Compressor Leader Hose, onto the Air Junction Box. Twist the leader hose at the Air Junction Box end in order to form a clean coil.

18. Wire the Compressor according to the following Diagram:

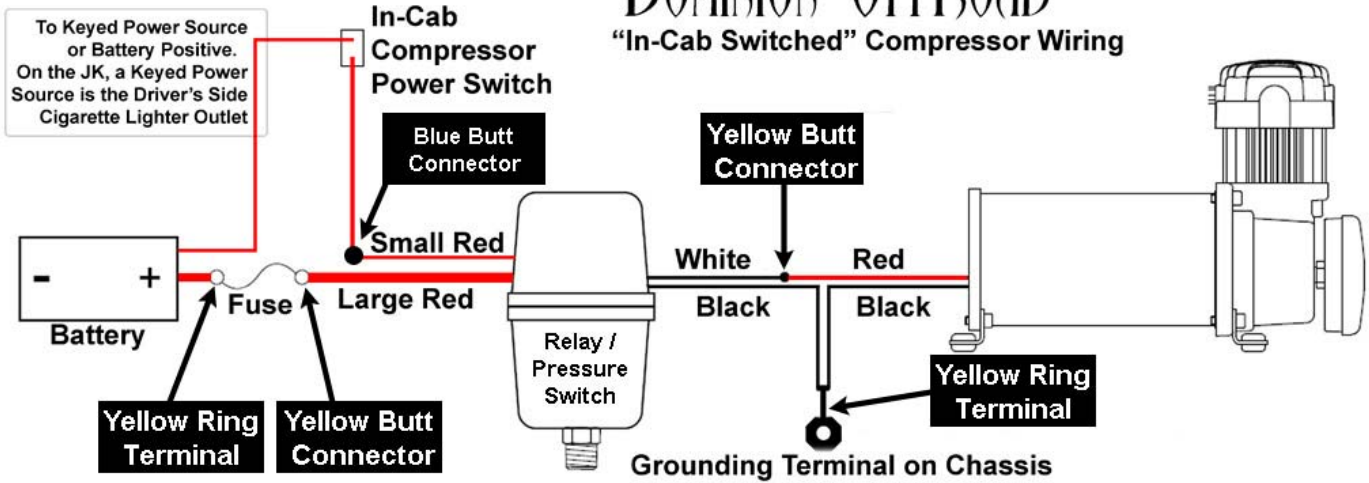
Advisory: All pre-installed terminals on the Pressure Switch and Compressor will be cut off and discarded.

Advisory: The Black Pressure Switch Wire and Black Compressor Wire will be striped and twisted together, prior to installing the Ring Terminal.

Advisory: All Engine Bay Connectors are Heat Shrinkable and Adhesive Lined. Use a heat gun, lighter or equivalent to shrink and seal the connector covers

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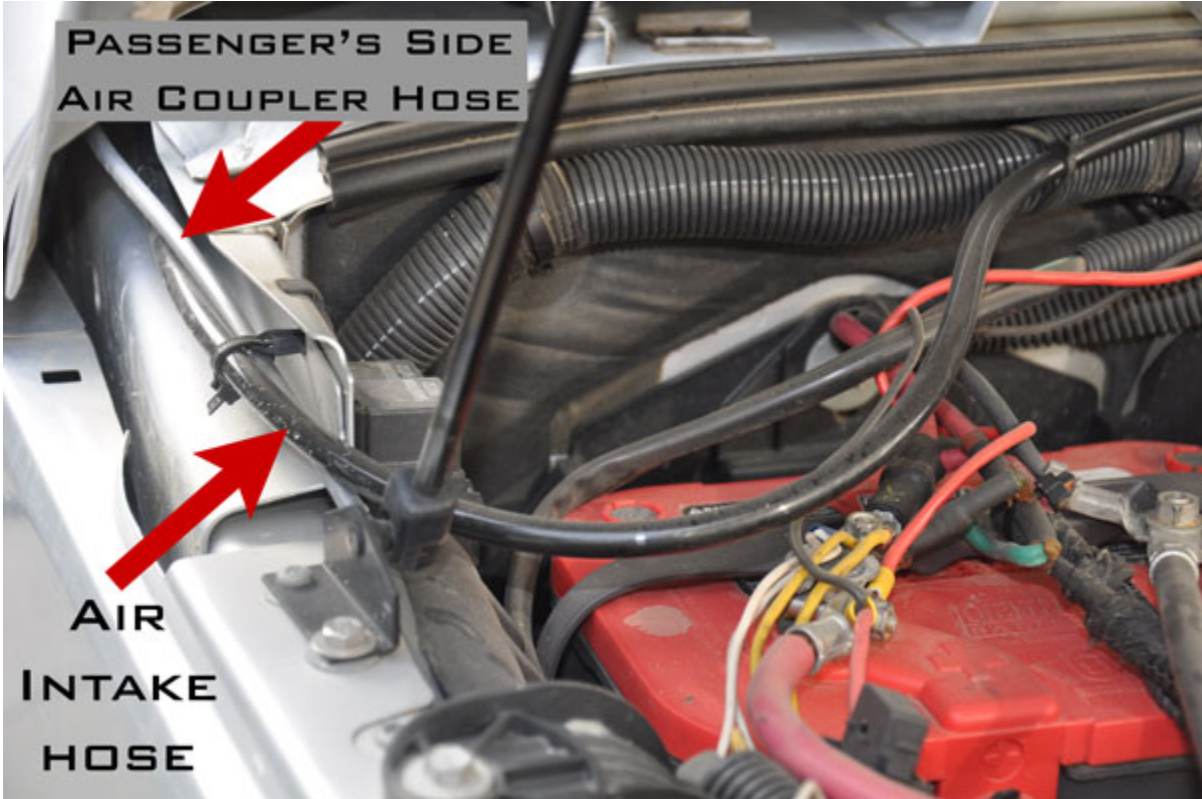
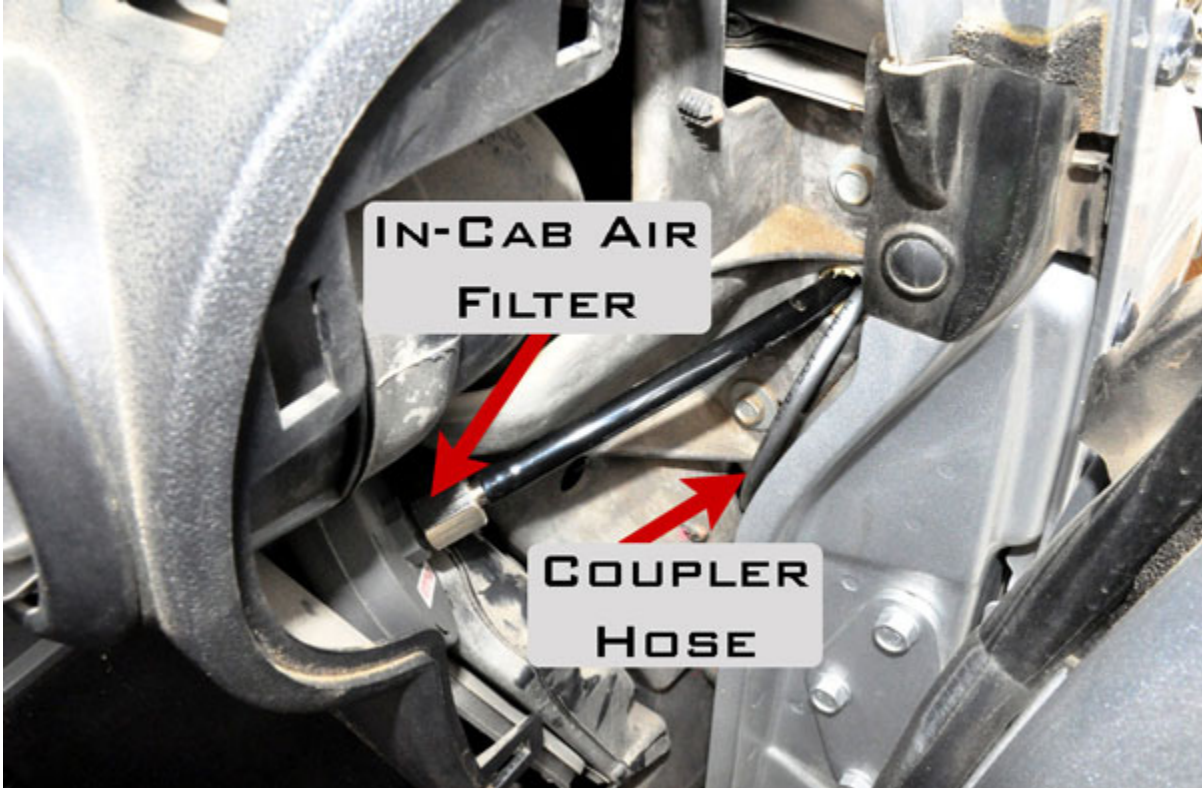
"In-Cab Switched" Compressor Wiring



19. Install the In-Cab Air Pressure Hose (Silver 1/4" OD Brake Line). Soaking the hose end in hot water may make it easier to install the hose on the brass fitting. Tighten the Brass Collar until it stops turning against the brass fitting. The following three locations have been identified as good in the JK:



20. 3/8" Black Hose and 1/4" FPT X 3/8" Barbed Fitting (Hose and Fitting supplied with compressor) - Rout the air intake hose as indicated in the following two pictures:



21. Air Couplers, Brass Compression Fittings, Air Coupler Brackets and Long Hoses - Using a Torx Wrench, install the In-Cab Air Coupler/s according the following picture:



22. If using a front bumper air coupler, the following is a clever protected and hidden location:



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