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Owner's Manual with Installation Instructions

Banks Ram-Air® Intake System

2012-2018 Jeep 3.6L Wrangler JK

THIS MANUAL IS FOR USE WITH KIT 41837 & 41837-D

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General Installation Practices

1. For ease of installation of your Banks Ram-air intake system, familiarize yourself with the procedure by reading the entire manual before starting work.

2. The exploded view of the Ram-Air assembly (pages 4-5) provides only general guidance. Refer to each step and section diagram in this manual for proper instruction.

3. Throughout this manual, the left side of the vehicle refers to the driver's side, and the right-side to the passenger's side.

4. Disconnect the ground cable from the battery before beginning work. If there are two batteries, disconnect both.

5. Route and tie wires and hoses a minimum of 6 inches away from exhaust heat, moving parts and sharp edges. Clearance of 8 inches or more is recommended where possible.

6. During installation, keep the work area clean. If foreign debris is transferred to any Banks system component, clean it thoroughly before installing.

7. When raising the vehicle, support it on properly weight-rated safety stands, ramps or a commercial hoist. Follow the manufacturer's safety precautions. Take care to balance the vehicle to prevent it from slipping or falling. When using ramps, be sure the front wheels are centered squarely on the topsides; put the transmission in park; set the parking brake; and place blocks behind the rear wheels.

CAUTION! Do not use floor jacks to support the vehicle while working under it. Do not raise the vehicle onto concrete blocks, masonry or any other item not intended specifically for this use.

Notification

The Banks Ram-Air Filter comes pre-oiled and no oiling is necessary for initial installation. Service the filter as specified in the Filter Maintenance Section of this manual.

Tools Required:

- 10mm socket wrench
- Standard head screwdriver
- Standard pliers
- 5/16 in nut driver
- 5/64 in allen wrench
- Clean shop towels or rags

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Products available from Banks Power for the 2012-2018 Jeep 3.6L Wrangler JK



Banks Ram-Air® Oiled Filter Element (P/N 41837)

- High Volume Airflow with Superior Filtration.
- Large, serviceable

Banks Ram-Air® Dry Filter Element (P/N 41837-D)

- High Volume Airflow with Superior Filtration.
- Large, serviceable, Oil-less

Banks Ram-Air® Pre-Filter Element (P/N 42640)

Banks AutoMind® Programmer 2012-2014 (P/N 66412)

- Clear and view OBDII Diagnostic Trouble Codes (DTC).
- Loaded with dyno-proven tuning files
- Speed Limiter adjustment capabilities.

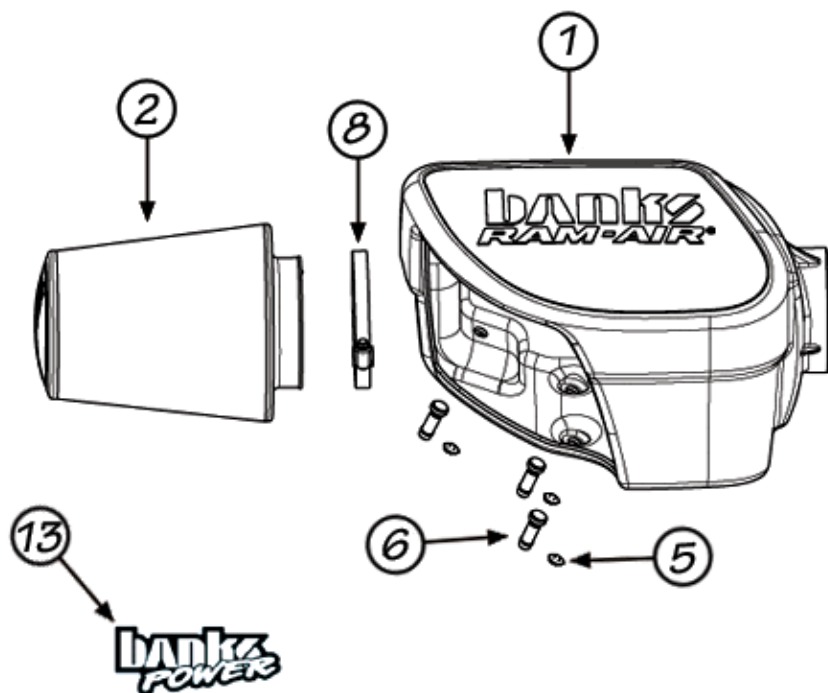
Banks Monster® Exhaust 2-Door (P/N 51342, 51342-B) 4-Door (P/N 51343, 51343-B)

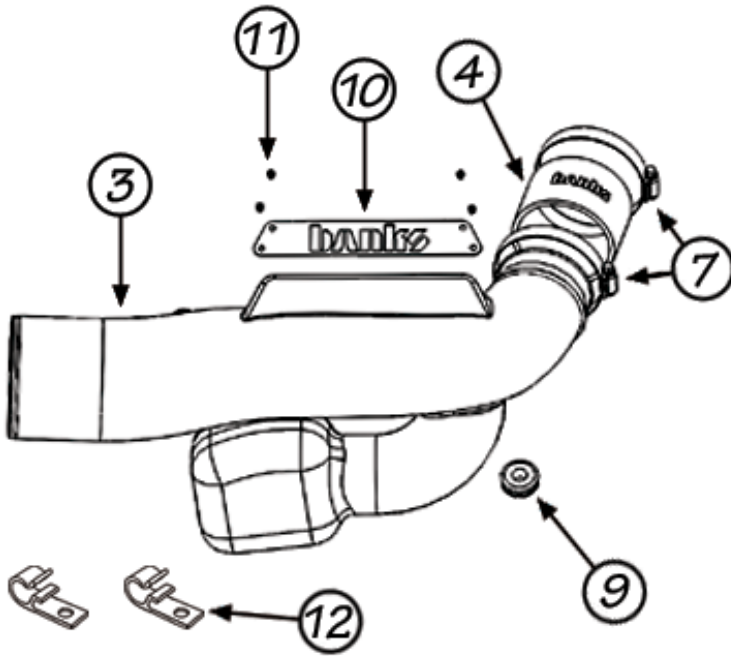
- 2.5" stainless mandrel-bent tailpipe.
- Flows up to 119% better than stock.
- Slashes backpressure.
- Rich, authoritative sound.

Section 1

GENERAL ASSEMBLY

Figure 1





P/N	Item	Description	QTY
41833	1	Housing, Ram-Air Filter	1
41835/ 41835-D	2	Air Filter Element, Ram-Air System	1
41838	3	Intake Tube, Ram-Air	1
94308	4	Hose, Throttle Body	1
91701	5	E-Clip, 3/8"	3
92152	6	Mounting Peg, A/F Housing	3
92857	7	Hose Clamp, #56 W/Liner	2
92872	8	Hose Clamp, #72 W/Liner	1
93652	9	Grommet, Temp Sensor	1
96112	10	Logo Plate	1
91716	11	#6-32 Button Head Screws	4
62073	12	Loop Clamp	2
96009	13	Banks Urocals	2

Section 2

RAM-AIR INSTALLATION

Use the Bill of Materials Chart and the General Assembly Drawing to reference component nomenclature and location. Use caution when working in the engine compartment. Make sure the engine has been OFF for several hours and cool.

You are about to install the Banks Ram-Air Intake System. Read and follow all steps before working on the vehicle. Some components from the stock air intake system will remain in service. Take caution when removing stock air intake components from damaging them.

- 1.** Remove the Engine Cover from the vehicle and set aside. The cover is held in place by rubber grommets.
- 2.** Un-clip the coolant overflow hose from the two holding clips in front of the vehicle. Loosen the bolts and remove the clips and bolts from the vehicle. See **Figure 2**. Retain the bolts for re-use.

- 3.** Loosen the band clamps at the intake housing and throttle valve. Carefully lift the intake tube loose and disconnect the Air Intake Temperature (AIT) sensor connector located on the lower part of the intake tube close to the throttle body, by moving the red tab back and pulling on the connector. Remove the intake tube from the vehicle.

- 4.** Remove the Air Intake Temperature (AIT) Sensor located on the intake tube by twisting the sensor half turn and pull out. Set connector aside and retain for re-use.

NOTE: Take caution when handling the sensor.

- 5.** Disconnect the CCV hose from the air intake housing. See **Figure 3**.

- 6.** Un-clip the four tabs holding the air filter housing cover. Remove the cover and the air filter from the engine compartment and set aside.

Figure 2- Factory Stock Intake

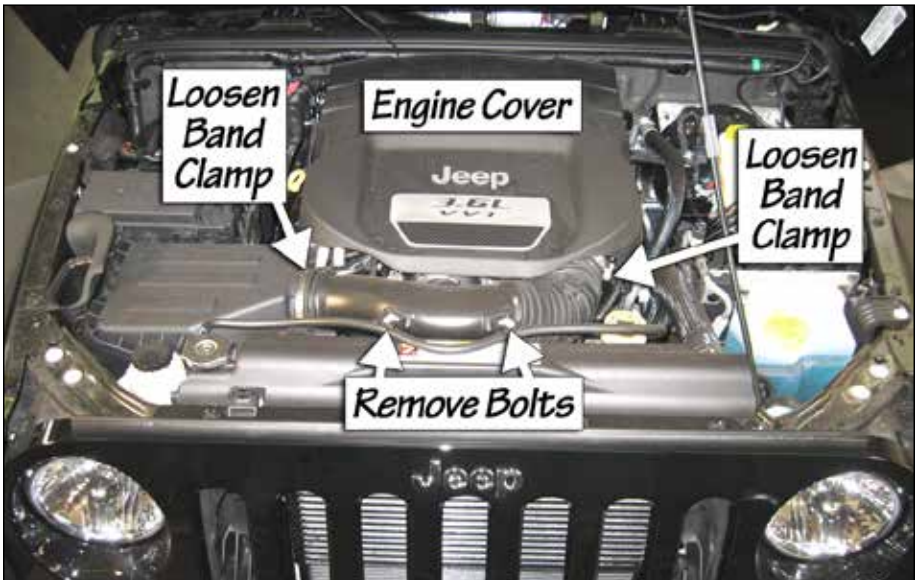


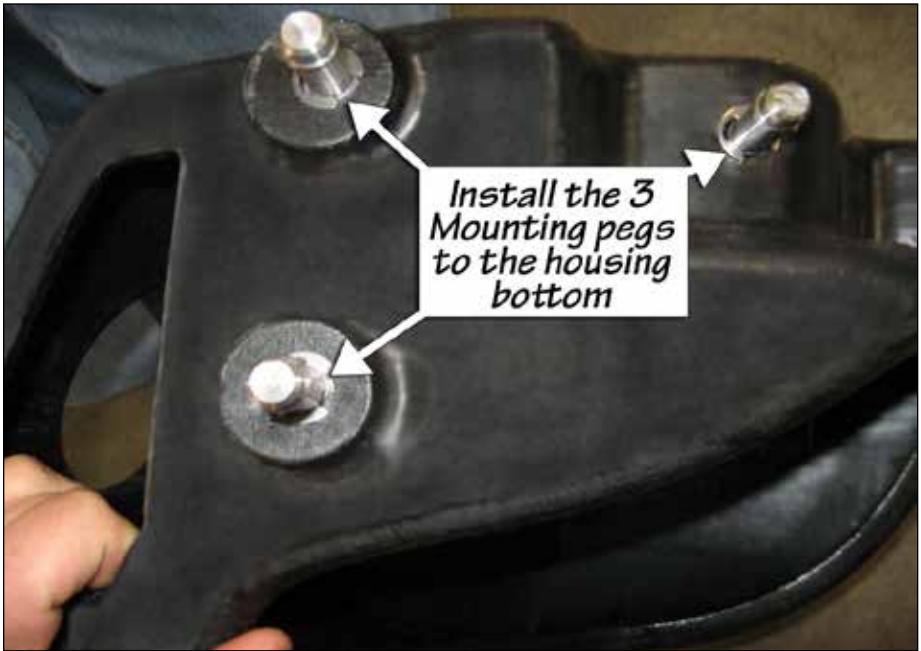
Figure 3- Disconnect CCV hose from intake housing



Figure 4- Removal of filter housing bottom



Figure 5- Attaching mounting pegs to the housing bottom



7. Remove the air filter housing (bottom) by lifting up from the passenger side of the engine compartment and set aside. See **Figure 4**.

8. Install the 3 three (supplied) Mounting Pegs onto the Banks air filter housing so that they extend out of the housing and then attach the E-Clips onto the three Mounting Pegs from the outside of the housing. See **Figure 5**.

9. Locate the supplied filter hose clamp and install onto the Banks filter.

10. Locate the supplied rubber AIT grommet from your Banks kit and install onto the air intake tube. See **Figure 6**.

11. Install the AIT sensor flush into the grommet on the air intake tube.

12. Insert the Banks intake tube onto the Banks Ram-Air Housing; be sure to insert the end of the intake tube that has an arrow on it.

13. Insert the Banks air filter into the end of the Banks intake tube that is inside of the Banks Ram-Air Housing. For proper fit be sure that the arrows on the Banks air filter and intake tube line up. Tighten Banks filter hose clamp. See **Figure 7**.

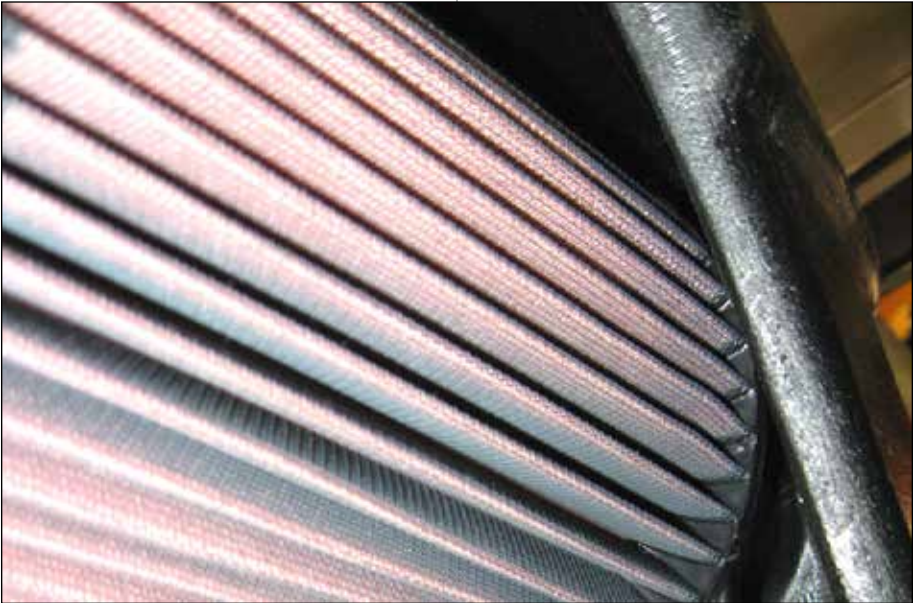
14. Install the hose and two hose clamps onto the intake tube where it will attach to the throttle body.

15. Lower Banks intake tube and housing into place and connect the AIT sensor connector to the sensor before install the intake tube.

Figure 6- Installation of AIT rubber grommet



Figure 7- Connecting air filter with intake tube



16. Insert Banks intake tube into the throttle body opening first. Then, insert the three Banks air filter housing mounting pegs onto the stock grommets.

NOTE: Be sure that the mounting pegs have been properly inserted onto the grommets.

17. Tighten the two hose clamps that connect the Banks Ram-Air intake tube to the throttle body.

18. Re-Install the CCV vent hose connection to the Banks Ram-Air intake tube.

19. Locate supplied hose clips and clip on the coolant over flow hose. Re-use the existing bolts and secure the hose clips to the radiator. See **Figure 8**.

20. Re-install the engine cover. Make sure cover is installed correctly.

21. Your system contains a CARB EO label for emissions purposes. This label should be placed on the grill/radiator cross member inside the engine compartment, so that it is easily seen by an emissions technician.

22. You have successfully completed the installation of the Banks Ram-Air Intake system. Make sure to go over all hose clamps for tightness and connectors for a sure fit. Make sure that the intake tube is not touching any engine components.

-END, SECTION 2-

Figure 8- Installed Banks Ram-Air Intake System



Section 3

AIR FILTER CLEANING INSTRUCTIONS

OILED AIR FILTER ONLY

NOTICE: The Banks Ram-Air Oiled Air Filter comes pre-oiled and no oiling is necessary for initial installation. Use Banks Ram-Air Filter Cleaning System (part#90094), available from Gale Banks Engineering to service the Air Filter. Follow the instructions included with the cleaning system to clean and re-oil your Bank Ram-Air Oiled Air Filter.

1. PRE-CLEANING

Tap the element to dislodge any large embedded dirt, then gently brush with a soft bristle brush. *NOTE: If complete cleaning is not practical at this time, recoil the element and reinstall in your vehicle.*

2. SPRAY-ON CLEANING

Spray air-filter cleaner liberally onto the entire element and let soak for 10 minutes.

3. PAN CLEANING

Large air-filter elements can be rolled or soaked in a shallow pan of air-filter cleaner. Remove immediately and let soak for approximately 10 minutes.

NOTICE: NEVER use gasoline, steam, caustic solutions, strong detergents, high-pressure nozzles, or cleaning solvents to clean the filter element. All of these can cause harm to the filter media as well as SHRINK and HARDEN the rubber end caps.

4. RINSING

Rinse off the element with low-pressure water. Tap water is okay. Always flush from the clean side to dirty side. This removes the dirt

and does not drive it into the filter.

5. DRYING

Always dry naturally. After rinsing, shake off all excess water and let the element dry naturally.

6. AEROSOL OILING

After cleaning air filter always reoil before using. Spray air filter oil down into each pleat with one pass per pleat. Wait 10 minutes and re-oil any white spots still showing.

7. OILING HINTS

Never use a Banks Ram-Air filter without oil (the filter will not stop the dirt without the oil). Use only air filter oil. Air-filter oil is a compound of mineral and animal oil blended with special polymers to form a very efficient tack barrier. Red dye is added to show just where you have applied the oil. Eventually the red color will fade but the oil will remain and filter the air. NEVER USE Automatic Transmission Fluid. NEVER USE Motor Oil. NEVER USE Diesel Fuel. NEVER USE WD40, LPS, or other light-weight oils.

8. REINSTALL

Reinstall your Banks Ram-Air filter element with proper care. Make sure the element seats properly in the filter case. Install the cover making sure it's in the right position. Tighten all the nuts, bolts, screws or clips to factory specifications.

9. DO NOT DISCARD

Affix the "Do Not Discard" sticker to the filter case (included with every Banks replacement element). Make sure you put the sticker in a highly visible place to alert your mechanic not to discard.

10. PERFORMANCE HINTS

Service every 50-100,000 miles on

street-driven applications. Service more often in offroad or heavy-dust conditions. If an air-filter restriction gauge is installed, then change the element when the air-filter restriction reaches 18"–H.O.

⚠ CAUTION: **Extremely fine dust from agriculture or offroad use will pull the oil from the element. Frequent reoiling of the element's clean side might be required. Completely service when practicable. For extra protection use an air-filter sealing grease on rubber ends of the element. Service only with air-filter cleaner and air-filter oil.**

DRY FILTER CLEANING

Clean every 50-100,000 miles on street-driven applications. Clean more often in offroad or heavy-dust conditions. If an air-filter restriction gauge is installed, then change the element when the air-filter restriction reaches 18"–H.O.

1. PRE-CLEANING

Carefully tap the air filter element to dislodge any large embedded dirt or debris.

2. CLEANING

Spray an appropriate DRY AIR-FILTER CLEANER SOLUTION liberally onto both sides of the entire filter element with the majority applied to the dirty side. Soak for 10 minutes. Do not allow the DRY AIR-FILTER CLEANER SOLUTION to dry on the air filter.

NOTICE: **NEVER use gasoline, steam, caustic solutions, strong detergents, high-pressure nozzles, or cleaning solvents to clean the filter element.** All of these can cause harm to the filter media as well as SHRINK and HARDEN the rubber end caps.

3. RINSING

Rinse the filter element with cool or warm (not hot) water from the clean side out in order to flush the dirt out of the filter. It may be necessary to use your fingers on the hose to apply light water pressure. Repeat steps 2 and 3, until the water flowing through the media is completely clear of any dirt and debris.

5. DRYING

After rinsing, gently shake off excessive water and allow to dry naturally. Re-install the filter onto the intake system, airbox or custom assembly once it is dry or just slightly damp. Follow all original installation instructions.

6. REINSTALL

Reinstall your Banks Ram-Air filter element with proper care. Make sure the element seats properly in the filter case. Install the cover making sure it's in the right position. Tighten all the nuts, bolts, screws or clips to factory specifications.

7. DO NOT DISCARD

Affix the "Do Not Discard" sticker to the filter case (included with every Banks replacement element). Make sure you put the sticker in a highly visible place to alert your mechanic not to discard.

8. PERFORMANCE HINTS

Service every 50-100,000 miles on street-driven applications. Service more often in offroad or heavy-dust conditions. If an air-filter restriction gauge is installed, then change the element when the air-filter restriction reaches 18"–H.O.

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with Installation Instructions

Owner's Manual

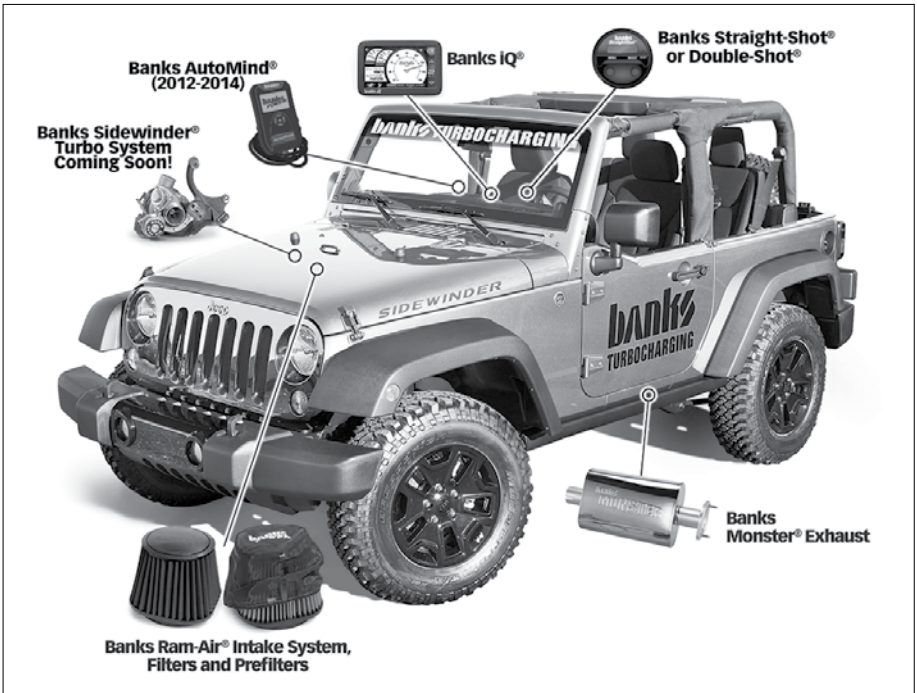
Banks Monster® Exhaust System

2012-2016 Jeep 3.6L Wrangler 4 Door

THIS MANUAL IS FOR USE WITH MONSTER EXHAUST SYSTEM 51343

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Products available from Banks Power for the 2012-2016 Jeep 3.6L Wrangler



Banks Ram-Air® Intake System (P/N 42215)

- Increases your airflow over stock.
- Adds power, improves fuel economy.

Banks Ram-Air® Oiled Filter Element (P/N 41837)

- High Volume Airflow with Superior Filtration.
- Large, serviceable lifetime filter

Banks Ram-Air® Dry Filter Element (P/N 41837-D)

- High Volume Airflow with Superior Filtration.
- Large, serviceable, Oil-less lifetime filter

Banks Ram-Air® Pre-Filter Element (P/N 42640)

Banks AutoMind® Programmer 2012-2014 (P/N 66114)

- Clear and view OBDII Diagnostic Trouble Codes (DTC).
- Loaded with dyno-proven tuning files
- Speed Limiter adjustment capabilities.

Banks iQ® System (P/N 61201)

- 5" touchscreen interface
- Interchangeable gauge display, read and clear codes, monitor engine diagnostics, log data, time your vehicles runs and much more.

Banks Straight-Shot® Water-Methanol Injection (P/N 45000)

- Maximizes Engine Performance
- Cools Intake Temperatures
- Digital Controller (included)
- Plug-and-Play wiring
- Greater flow than the competition
- Higher Pump Volume than others

Banks Double-Shot® Water-Methanol Injection (P/N 45002)

- The Double-Shot system offers the same benefits of the Straight-Shot and adds a second stage for increased output and control.

Banks Sidewinder® Turbo System (P/N 24248 Non-Intercooled) (P/N 24249 Intercooled)

- Coming soon!

General Installation Practices

1. Before starting work, familiarize yourself with the installation procedure by reading all of the instructions.

2. The exploded view (**Figure 1**) provides only general guidance. Refer to each step and section diagram in this manual for proper instruction.

3. Throughout this manual, the left side of the vehicle refers to the driver's side, and the right side to the passenger's side.

4. Disconnect the negative (ground) cable from the battery (or batteries, if there are two) before beginning work.

5. Route and tie wires and hoses a minimum of 6" away from exhaust heat, moving parts and sharp edges. Clearance of 8" or more is recommended where possible.

6. When raising the vehicle, support it on properly weight-rated safety stands, ramps or a commercial hoist. Follow the manufacturer's safety precautions. Take care to balance the vehicle to prevent it from slipping or falling.

When using ramps, be sure the front wheels are centered squarely on the topsides. When raising the front of the vehicle, put the transmission in park, set the parking brake, and block the rear wheels. When raising the back of the vehicle, be sure the vehicle is on level ground and the front wheels are blocked securely.

CAUTION! Do not use floor jacks to support the vehicle while working under it. Do not raise the vehicle onto concrete blocks, masonry or any other item not intended specifically for this use.

7. During installation, keep the work area clean. Do not allow anything to be dropped into intake, exhaust, or lubrication system components while performing the installation, as foreign objects will cause immediate engine damage upon start-up.

Tools Required:

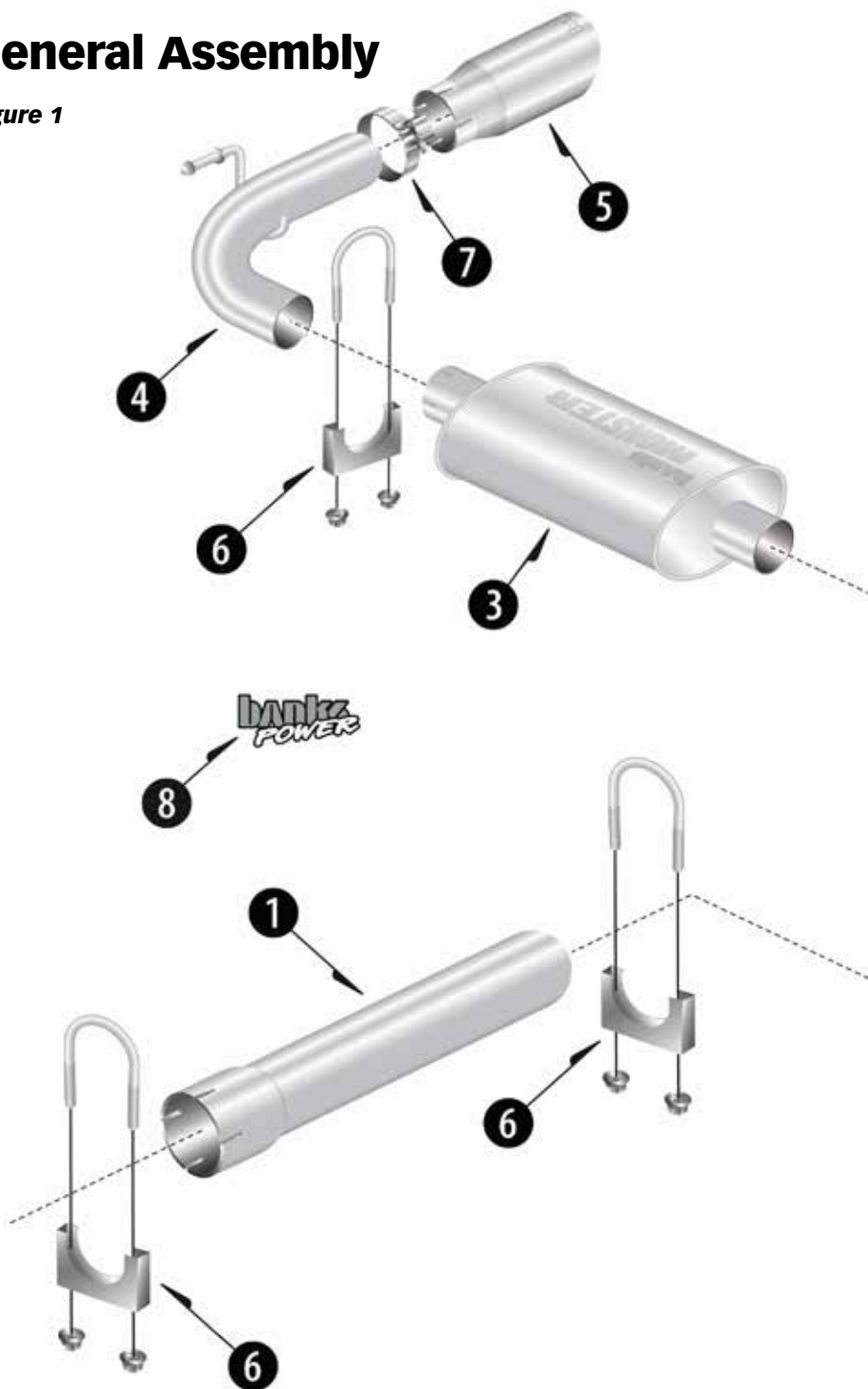
- 1/2" and 3/8" drive ratchets with standard and metric sockets and 1/2" and 3/8" drive extension
- Standard and metric combination or open-end wrenches
- Standard screwdriver
- Clean shop towels or rags
- Pry-bar
- Reciprocating Saw

Highly recommended tools and supplies:

- Foot-pound torque wrench
 - Penetrating oil or light lubricant spray
-

General Assembly

Figure 1



Item #	Description	P/N	QTY
1	Intermediate Pipe	52642	1
2	Front Tailpipe	52658	1
3	Monster Muffler	52639	1
4	Rear Tailpipe	52659	1
5	Tailpipe Tip, Chrome/Black	52700/52701	1
6	Saddle Clamp, 2.5"	52461	4
7	Band Clamp, 2.5"	52462	1
8	Banks Decal	96009	2



Monster Exhaust System Installation

1. Disconnect the negative (ground) cable from the battery (if there is more than one battery, disconnect both negative cables). Secure the cable so it cannot accidentally come in contact with the post.

2. Raise the vehicle and support it securely with properly weight-rated safety stands, ramps or a commercial hoist. Take care to balance the vehicle to prevent it from slipping or falling. When using ramps, be sure the wheels are centered squarely on the topsides. Place the transmission in park (automatic), set the parking brake and securely block the wheels that are on the ground.

CAUTION: DO NOT WORK UNDER ANY VEHICLE SUPPORTED ONLY BY A JACK. SEVERE INJURY MAY RESULT.

3. Loosen and remove the band clamp from the inlet of the muffler. Remove the front and rear muffler hanger pins from the rubber hangers. Remove the factory muffler from the vehicle. See **Figure 2**.

NOTE: Spray lubricant may assist in hanger pin removal. Rubber hangers can also be removed from the vehicle to assist in muffler removal.

WARNING! The following step may require the use of a torch and/ or saw. Proper safety equipment should be used. Failure to use proper safety equipment may result in severe injury.

4. Measure 5" from the rear face of the factory resonator to the back of the vehicle along the factory pipe and mark the location. See **Figure 3**.

Figure 2

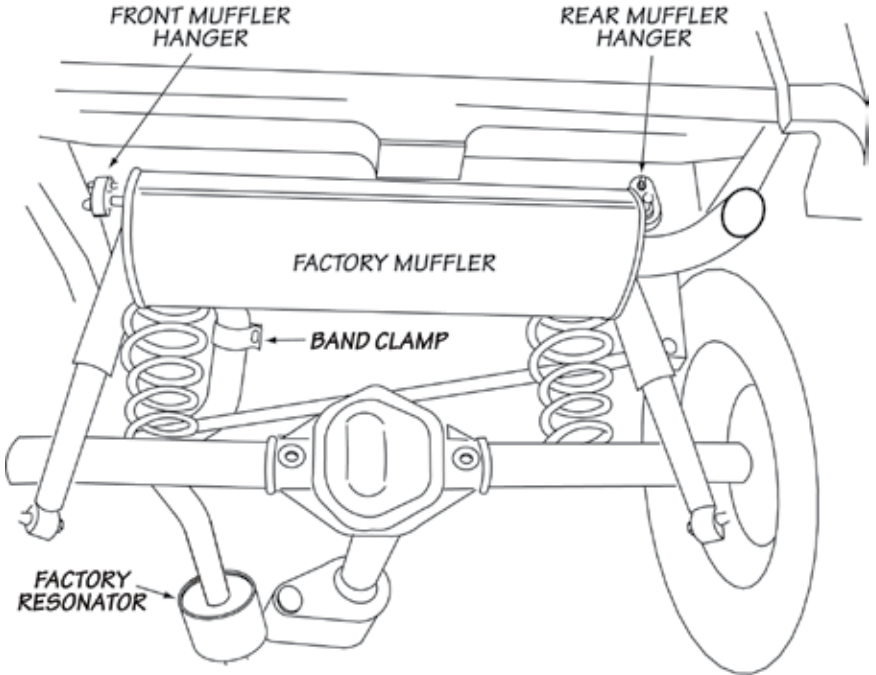
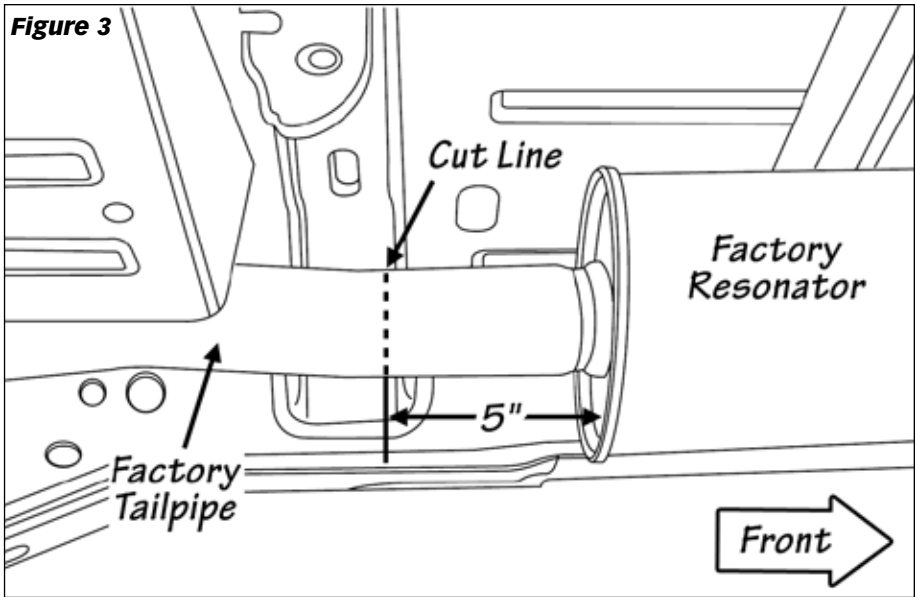


Figure 3



Using a reciprocating saw, cut the factory tailpipe assembly. Take time when measuring and cutting the factory tailpipe to ensure the proper location and a straight cut. Improper cut will result in poor fitment of the Banks Monster Exhaust System.

NOTE: Gale Banks Engineering has tested and designed this Monster Exhaust System to work with the factory resonator. Keeping the factory straight-through resonator design on the vehicle will not reduce performance and it will help reduce resonance in-cab due to the aggressive camshaft profiles and variable valve timing of the engine design.

5. Remove the tailpipe hanger pins from the rubber hangers. Remove the tailpipe assembly from the vehicle

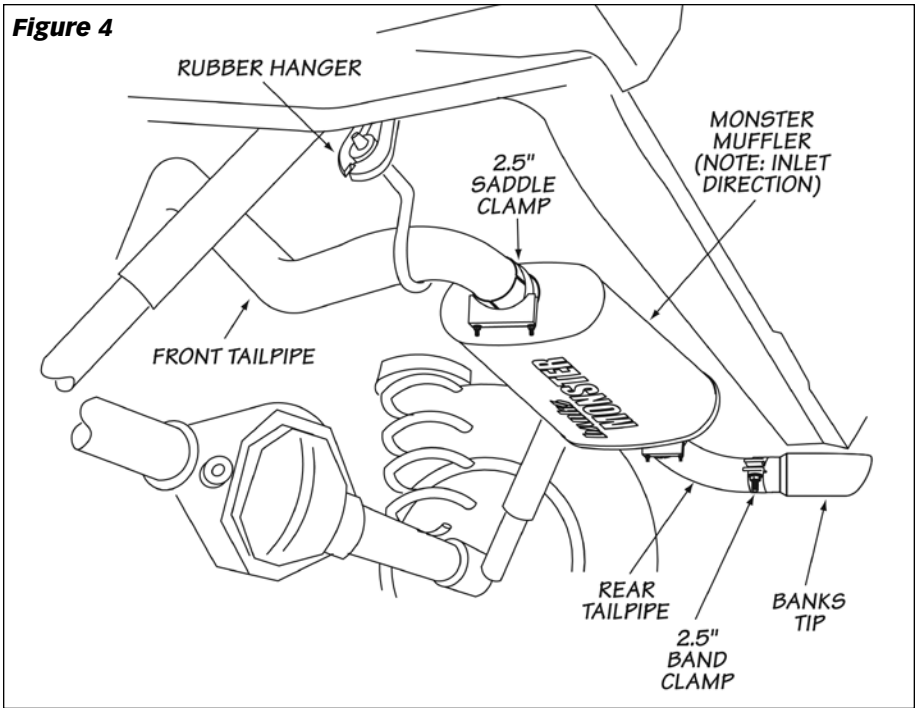
6. Place a 2.5" saddle clamp on the inlet of Banks intermediate pipe. Install the intermediate pipe onto the factory pipe outlet. Loosely tighten the 2.5" clamp.

NOTE: All clamps should be positioned at the beginning of the slots (on the 1/2 circle punch).

NOTE: Once the pipe / muffler has been completely engaged in the slip joint, mark the pipe with a scribe or tape for reference when tightening the clamps later in the installation. Mark each slip joint in this fashion.

7. Place a 2.5" saddle clamp on the inlet of Banks Front tailpipe. From the vehicle rear, route the tailpipe over the rear end. Install the tailpipe onto the intermediate pipe outlet. Insert Banks two (2) hanger pins into the vehicle's rubber hangers. Loosely tighten the 2.5" clamp.

Figure 4



8. Place a 2.5" saddle clamp on the inlet of the Monster Muffler. (Note the inlet labeling of the muffler) Install the Monster Muffler onto the front tailpipe. Orient the Monster Muffler such that it is parallel with the cab and the Monster logo is visible once the exhaust is installed. Loosely tighten the 2.5" clamp (See **Figure 4**)

9. Place a 2.5" saddle clamp on the outlet of the Monster Muffler. Install the rear tailpipe into the Monster muffler. Insert the Banks hanger pin into the vehicle's rubber hanger. Adjust the tailpipe so that it is straight and flat under rear bumper. Loosely tighten the 2.5" clamp.

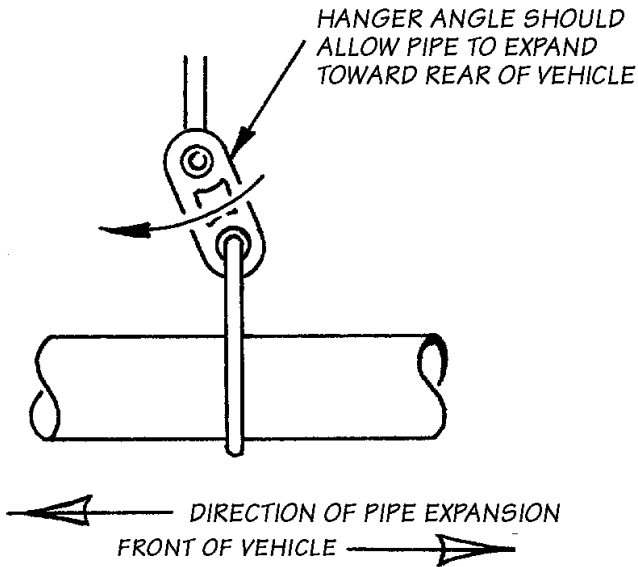
10. Install the 2.5" band clamp onto the tailpipe tip inlet. Install the tip and clamp assembly onto the tailpipe

outlet. Adjust the tip to be flat under the body panel, such that the tip position is aesthetically pleasing (See **Figure 4**).

11. Adjust each of the pipes to ensure that all of the hanger pins are parallel with the frame mounted pins and that the rubber hangers are all positioned slightly forward (See **Figure 5**). This allows the hangers to be properly positioned once the exhaust reaches operating temperature.

12. With the exhaust positioned properly, begin to evenly tighten the clamps starting with the ones closest to the front of the vehicle and working your way back. Torque the exhaust clamps evenly to 35 ft-lbs. Make sure that each slip is fully inserted (+/-1/4").

Figure 5



13. Remove the protective covering from the tailpipe tip.

CAUTION: The protective covering may ignite and burn if not removed prior to running the engine.

14. Your system includes two (2) Banks Power logos designed to complement the vehicle's front fenders. See **Figure 6** for recommended logo placement.

15. Re-connect the negative battery cable. Start the engine and listen for exhaust leaks. Tighten the exhaust clamps as necessary. Whenever possible, tack welding slip connections to prevent disengagement is recommended.

16. The Banks Monster Exhaust installation is now complete.

Figure 6

