



# Owner's Manual with Installation Instructions

## Banks Sidewinder<sup>®</sup> Turbo System Non-Intercooled

### 1999-2006 4.0L I-6 Jeep Wrangler

THIS MANUAL IS FOR USE WITH SYSTEMS: 2005-2006 WRANGLER - SYSTEM 24244,  
2003-2004 WRANGLER - SYSTEM 24241, 1999-2002 WRANGLER - SYSTEM 24240

#### **IMPORTANT NOTICE:**

*Gale Banks Engineering strongly recommends the use of an OEM radiator and fan assembly with the Banks Sidewinder Turbo System. **Cooling system issues can result from the use of aftermarket radiators and electric fans.***

*The Banks Sidewinder Turbo system results in significantly higher power and torque output. Depending on vehicle usage and driving style, **additional drivetrain upgrades may be required to ensure vehicle reliability.***

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Installation Support: (888) 839-2700

**bankspower.com**



# Additional products available from Banks for the 1999-2006 Jeep Wrangler



## **Banks iQ® System (P/N 61195)**

- 5" touchscreen Man-Machine 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 45001)**

- 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 45003)**

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

## **Banks Ram-Air® Filter (P/N 41506X)**

- Large Conical lifetime
- High-flow filtration

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

- Extra layer of filtration protection

## **Banks Blow-Off Valve Spacer (P/N 24285)**

- Reduces intake air temperatures
- Quickens turbo response
- Unmistakable sound

## **Banks TorqueTubes® Exhaust Manifold, 4.0L (P/N 51306)**

- Improves power and torque.
- Reduces engine load.
- Improves economy.
- Tough construction.

## **Banks Monster® Exhaust System (P/N 51314, 51315)**

- Increases exhaust flow.
- Decreases backpressure.
- Lowers exhaust gas temperatures.
- Increases power.

## **Banks Monster® Muffler Delete (P/N 52612)**

- Minimizes backpressure for increased turbocharger response, adds aggressive exhaust tone.
- For use with Banks Monster Exhaust Systems 51314 and 51315.

**For More Information please call (888) 635-4565  
or Visit us online @ [www.bankspower.com](http://www.bankspower.com)**

Dear Customer,

If you have any questions concerning the installation of your Banks Sidewinder® Turbo System, please call our Technical Service Hotline at (888) 839-2700 between 7:00 am and 4:00 pm (PT). If you have any questions relating to shipping or billing, please contact our Customer Service Department at (888) 839-5600.

Thank you.

## General Installation Practices

**1.** For ease of installation of your Banks Sidewinder® Turbo System, familiarize yourself with the procedure by reading the entire manual before starting work. This instruction manual contains 24 pages of text, illustrations and parts listing.

**2.** 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.

**3.** 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 hand 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.

**4.** During installation, keep your work area and components clean to avoid possible dirt entry into the engine.

**5.** For proper performance and to prevent engine damage it is essential that your engine systems be capable of supporting the additional requirements of the Banks Sidewinder® Turbo System. To ensure proper performance, please complete every step in the engine health inspection section.

## Tools Required

- 1/8" and 3/8" drive ratchets with inch and metric sockets .....
- 1/2" drive ratchet or breaker bar .....
- 1/4" and 3/8" drive extensions .....
- Inch and metric combination or open-end wrenches .....
- 5/8" Spark plug socket .....
- Standard and Phillips head screwdrivers .....
- T15, T20 and T40 Torx drivers .....
- Standard, vice grip & needle nose pliers .....
- Crescent wrench.....
- Pocket or X-Acto knife.....
- Tape measure.....
- Clean shop towels or rags.....
- Inch-pound or foot-pound torque wrench.....
- Pneumatic reciprocating saw or equivalent.....
- Pneumatic die grinder or equivalent.....
- Compressed air source and hoses .....
- Flashlight or shop light .....
- Ear and eye protection .....
- Drill and stepped drill bit .....
- Permanent marker.....

## Additional tools for 1999-2002 Model Years

- Wire cutters, strippers and crimpers .....
- Heat gun/source for shrink wrap..

## Highly recommended Tools and Supplies:

- Penetrating oil or light lubricant spray.....
- Deburring tool .....
- Cylinder leakage and compression testers .....
- 15 mm swivel socket.....
- 1 1/16" Oil pressure sensor socket....
- Fuel pressure tester adapter kit .....
- 60 PSI gauge.....

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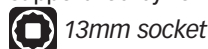
# Engine Health Inspection

The Banks Sidewinder® Turbo System MUST be installed on an engine that is known to be in good operating condition in order to maintain engine life. Before installing your Sidewinder® System, you must perform a cylinder leakage test, compression test, spark plug inspection, and key on fuel pressure test. If you are not familiar and experienced with these tests, we recommend that you have the vehicle inspected by a qualified technician to ensure that your engine is in good health and will support the Banks Sidewinder® Turbo System.

Whether you complete these tests yourself or have a qualified technician complete them, fill out the following tables for future reference.

## Reference Figure 1

1. Remove passenger side radiator support rod by removing two bolts.



2. Disconnect intake air temperature (IAT) sensor connector from stock intake tube. Remove and retain sensor for use on new intake tube.

3. Remove stock intake tube by loosening one clamp at throttle body and one clamp at air box. Cover throttle body inlet with a cap or clean rag.

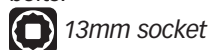


4. Remove front positive crankcase ventilation (PCV) hose from air box lid and top of engine.

5. Remove air box lid and air filter element. Remove air box housing by removing three bolts from inside air box housing.



6. Remove ignition coil pack to access spark plugs by removing four bolts.



**NOTICE:** Do not disconnect connector at rear of ignition coil pack. Set ignition coil pack where it will not interfere with removing spark plugs.

7. Using compressed air source, blow any debris away from spark plugs to prevent any foreign objects from falling into cylinders once spark plugs are removed. Remove ALL spark plugs.



**NOTICE:** Mark each spark plug with the cylinder number that it was in. If there is a problem, this may help locate which cylinder has the issue.

8. Perform a spark plug inspection, cylinder leakage test, dynamic compression test, and key on fuel pressure test. Record all values in following tables for future reference.

Engine Component	Good	Bad
Spark Plug 1		
Spark Plug 2		
Spark Plug 3		
Spark Plug 4		
Spark Plug 5		
Spark Plug 6		

Spark plugs should not have any unusual discoloration or pitting. We recommend replacing all spark plugs with new OEM parts. Check the gap on spark plugs, whether they are being reused or brand new. Gap requirements are posted on the inside of the hood or in vehicle owner's manual.

Engine Property	Value	Unit
Cyl. 1 Leakage		%
Cyl. 2 Leakage		%
Cyl. 3 Leakage		%
Cyl. 4 Leakage		%
Cyl. 5 Leakage		%
Cyl. 6 Leakage		%

Ideal cylinder leakage is less than 10%, however you may see higher values depending on the condition of your vehicle. Banks Sidewinder® Turbo System can be installed on a vehicle with up to 50% leakage in a cylinder, at the owner's discretion. If you are unsure whether your vehicle can support the Sidewinder® Turbo System, consult a qualified technician.

If you record cylinder leakage greater than 50% or if the leakage in a cylinder is 2-3 times greater than the other cylinders, there may be an issue with the engine.

Take the vehicle to a qualified technician before installing the Sidewinder® Turbo System.

Engine Property	Value	Unit
Cyl. 1 Compression		psi
Cyl. 2 Compression		psi
Cyl. 3 Compression		psi
Cyl. 4 Compression		psi
Cyl. 5 Compression		psi
Cyl. 6 Compression		psi

Typical cylinder compression is 160-185+ psi, with no more than 10% difference between the highest and lowest values. If you record compression lower than 160 psi or a difference greater than 10%, there may be an issue with the engine. Take the vehicle to a qualified technician before installing the Sidewinder® Turbo System.

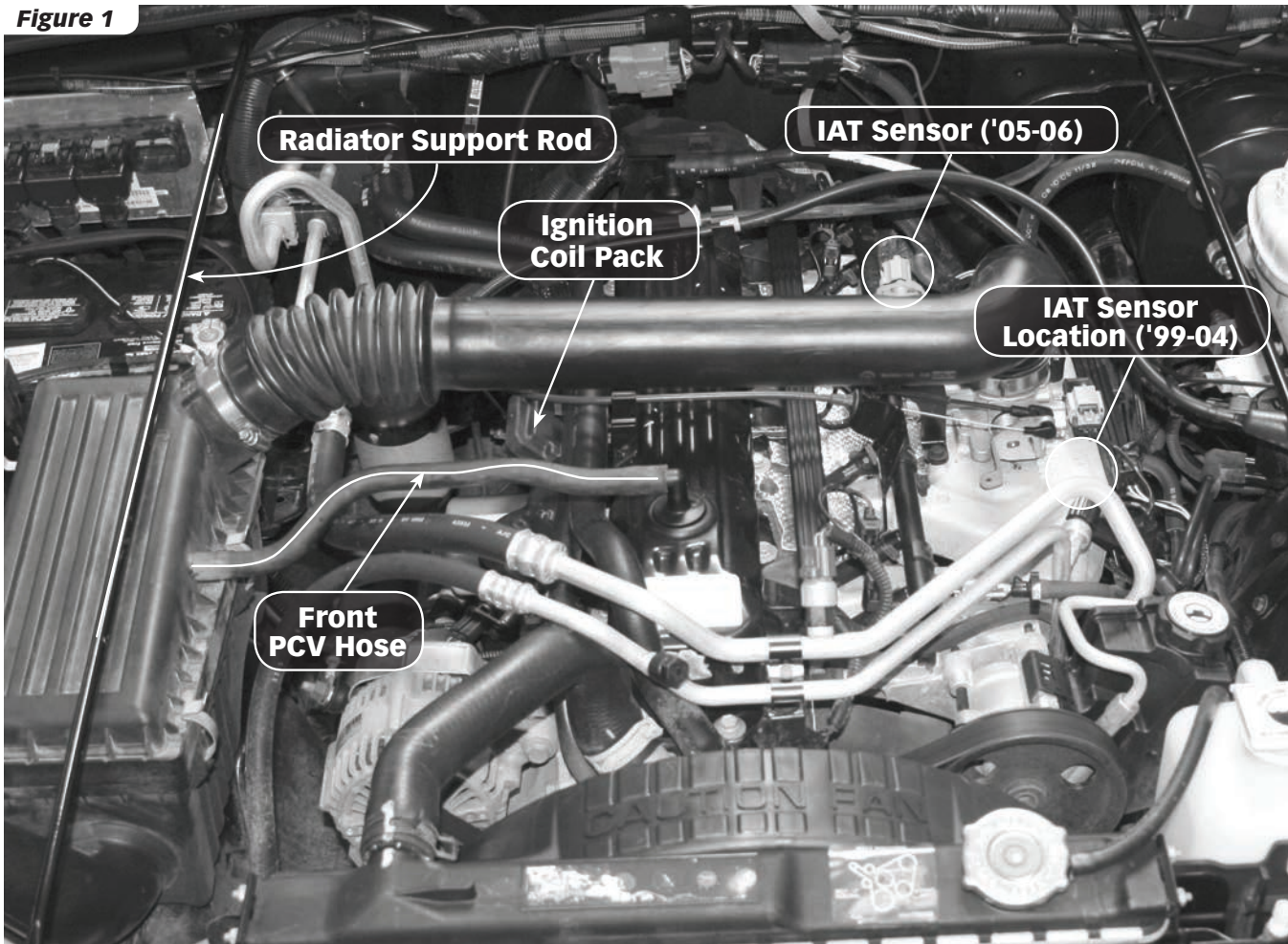
Key on fuel pressure: \_\_\_\_\_  
Verify that the key-on fuel pressure is within factory-specific tolerance. Lower or higher fuel pressure can cause major driveability issues and lead to engine damage with installation of the Sidewinder® Turbo System. If your measured fuel pressure is outside of the factory tolerance, take the vehicle to a qualified technician for repair before installing the Sidewinder® Turbo System.

Technician Signature: \_\_\_\_\_

Date: \_\_\_\_\_

9. Reinstall spark plugs and ignition coil pack after checking spark plug gaps. Apply dielectric grease to inside of ignition coil pack boots.

Figure 1



## Sidewinder® Turbo System Installation Procedure

**NOTICE:** If you are not going to weld oil return bung onto the oil pan yourself, we recommend starting by removing the oil pan so that it can be welded by a qualified welder as you proceed with installation. See Oil Pan and Exhaust Removal and Turbocharger Oil Return on pages 10 and 15.

**NOTICE:** The provided drive belt will only work for stock configuration front engine accessory pulleys. If your vehicle is equipped with an aftermarket power steering pulley or other aftermarket pulley with a diameter smaller than the stock equivalent, you must purchase a shorter drive belt from your


local automotive supply shop. We have found that a 91.0" (2310 mm 6PK2310 or 910K6 or equivalent) fits appropriately with aftermarket power steering pump pulleys.

### Fuel Injectors

1. Disconnect ground cable from battery before beginning work. If there are two batteries, disconnect both.
2. Disconnect manifold air pressure (MAP) sensor connector, throttle position sensor (TPS) connector, and idle air control (IAC) valve connector from throttle body. **See Figure 2**
3. Disconnect throttle, trans control (if equipped), and cruise control cables from throttle lever.

4. Remove throttle body by removing four bolts and lifting straight up. Cover intake manifold inlet with a cap or clean rag.

5. Remove throttle cable/cruise control cable bracket by removing two bolts. **See Figure 2**

 10mm socket

**CAUTION:** Fuel system may be under pressure!

6. Using compressed air source, blow any debris away from fuel injectors to prevent any foreign objects from falling into intake manifold once fuel injectors are removed. Disconnect fuel injector connectors. Remove injector rail by removing two nuts and two studs.


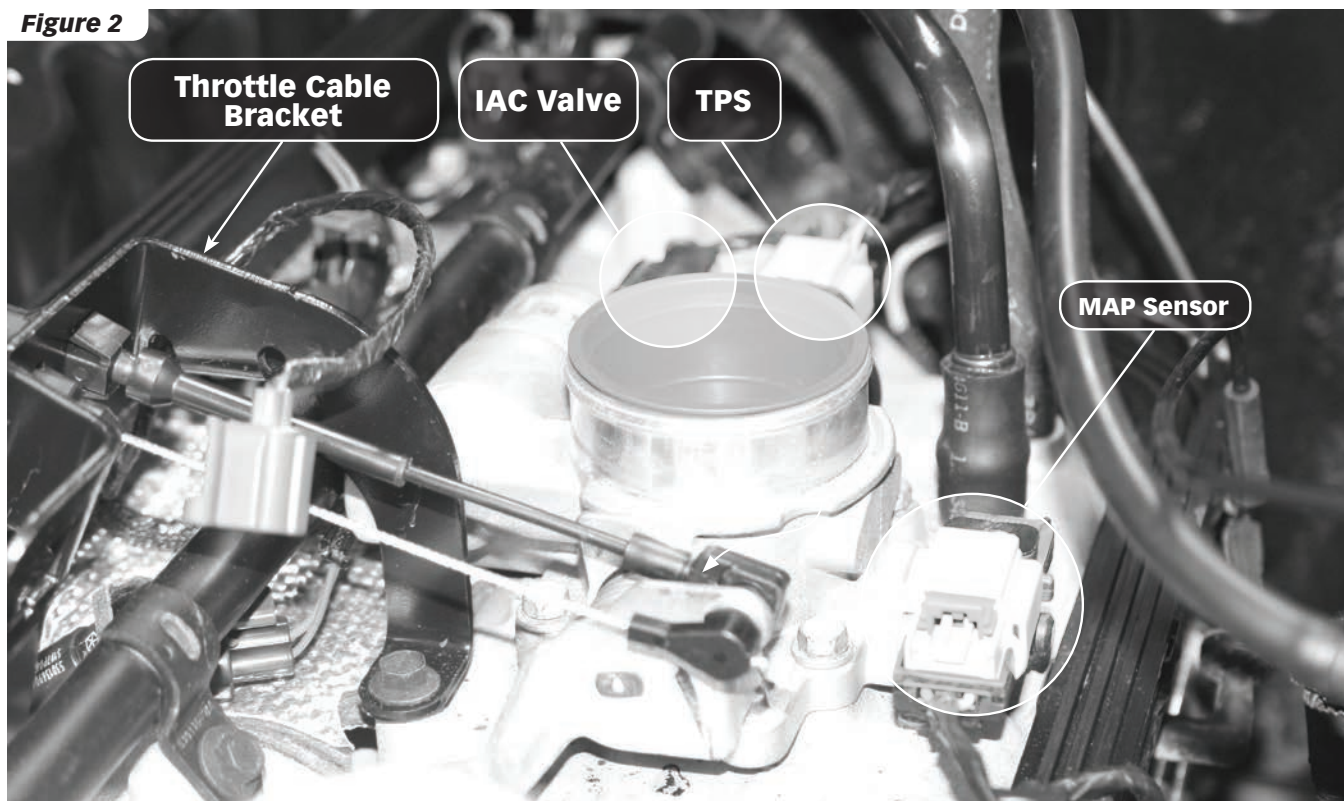
 10mm deep socket

Figure 2



**7.** Drain injector rail by placing a cup under rear of fuel injector rail and removing the #6 injector (rear most). Tilt fuel injector rail towards cup at rear.

**8.** Remove remaining injectors and retain securing clips. Injectors should have O-rings at both ends. Locate and remove any o-rings that separated from injectors during removal.

**9.** Install provided injectors (P/N 43643) into fuel injector rail using original securing clips. A drop of oil can be used on o-rings to ease installation.

**NOTICE:** Be careful not to pinch or cut o-rings when reinstalling fuel injectors as this will cause a major fuel leak.

**10.** Reinstall fuel injector rail and reconnect fuel injector connectors. Torque to 10 lb-ft.

**11.** Reinstall throttle cable/cruise control cable bracket using provided spacers (P/N 42730) and bolts (P/N 91759). Torque to 8 lb-ft.

**NOTICE:** Bracket varies de-pending on model year, one spacer and one bolt may not be used.

**12.** After installation of upgraded fuel injectors, a leak check must be performed under pressure. To check for fuel system leaks, turn ignition key on but do not start engine. This will run the in-tank fuel pump for a brief time, which will build fuel pressure in fuel rail. After keying ignition on, examine area around the fuel injectors and fuel rail for any leaks. Turn ignition off and back on again without starting engine, and re-examine for leaks. Repeat this process 4-5 times to insure there are no fuel system leaks - it may be helpful to have an assistant during this process.

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## Throttle Body Spacer


**NOTICE:** At this point in the installation disconnect both leads to the battery. Leave disconnected until installation is complete.

**1.** Remove stock MAP sensor from throttle body by removing two bolts.

 T15 Torx

**2.** Mount high pressure MAP sensor (P/N 43625) in throttle body spacer (P/N 43628) using provided washers (P/N 91826) and bolts (P/N 91860). See Figure 3

**3.** Mount brass barb fitting (P/N 92131) and brass compression ferrule (from boost gauge kit) in throttle body spacer (Figure 3) using provided thread sealant (P/N 90040).

 7/16" and 9/16" wrenches

**4.** Carefully scrape intake manifold and throttle body to remove any debris that will prohibit sealing. Wipe clean with rag. Ensure that no debris enters intake.

**5.** Install throttle body and spacer with the provided gaskets (P/N 93078) on both sides of spacer and secure with bolts (P/N 91761). Torque to 8 lb-ft.

 10mm socket

**6.** Connect blow-off valve (BOV) reference hose (P/N 94122) to stock

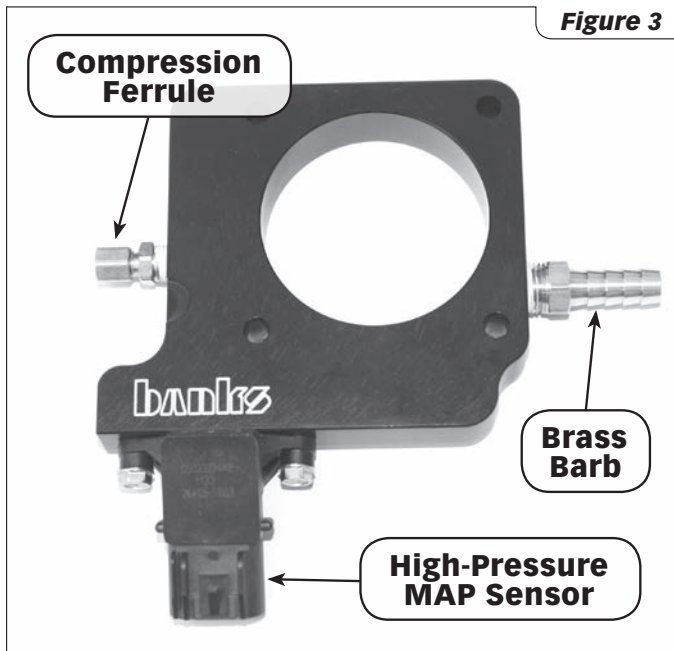


Figure 3

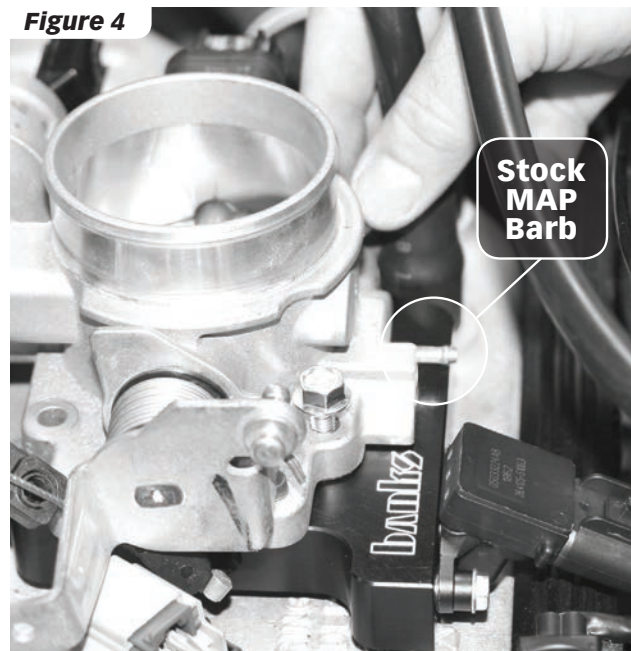


Figure 4

MAP sensor barb on throttle body using silver spring band clamp (P/N 92775). **See Figure 4**

**7.** Reconnect throttle, trans control (if equipped), and cruise control cables to throttle lever.

**8.** Reconnect MAP sensor, TPS, and IAC valve connectors.

**NOTICE:** *Tape on wire harness may need to be cut for MAP sensor connector to reach new position. Take care while cutting as to not damage any wires.*

### For 1999-2002 Model Years ONLY: MAP Sensor Connector Replacement

The 1999-2002 model Wranglers are equipped with a factory MAP sensor connector that is not compatible with the high-pressure (2 atmosphere) sensor that is required for proper operation with the Sidewinder® Turbo kit - your system includes a connector pigtail kit (PN 43626) to replace your stock sensor connector.

**To install the new MAP sensor connector:**

**1.** Locate the stock MAP sensor connector, peel back the electrical

tape at least 2.5" from the connector and cleanly cut all three wires leading to it approximately 1.5" back from the connector. **See Figure 5.** Strip approximately 5/16" of insulation from the end of each wire using an appropriately sized wire stripping tool, then crimp one side of the supplied barrel-butt crimp sleeves to each wire end.

**2.** Locate the three pre-terminated wires in the MAP sensor pigtail kit, cut the unterminated end of the lead down to leave approximately 3" total lead length, including the crimped-on terminal. Strip approximately 5/16" of insulation from the un-terminated end of each wire, then slip a piece of the supplied heatshrink tubing over each one.

**3.** Insert the stripped end of a pre-terminated lead into the open end of a barrel-butt crimp sleeve attached to the factory MAP sensor harness, and crimp it snugly. Double-check the crimp by tugging lightly on the opposing ends of the wire, ensuring that the crimp is solid. Repeat for the remaining two leads.

**4.** Center each piece of heatshrink over the crimp barb on each lead, then apply heat using a heat gun to fully shrink and seal all of the tubing.

Figure 5

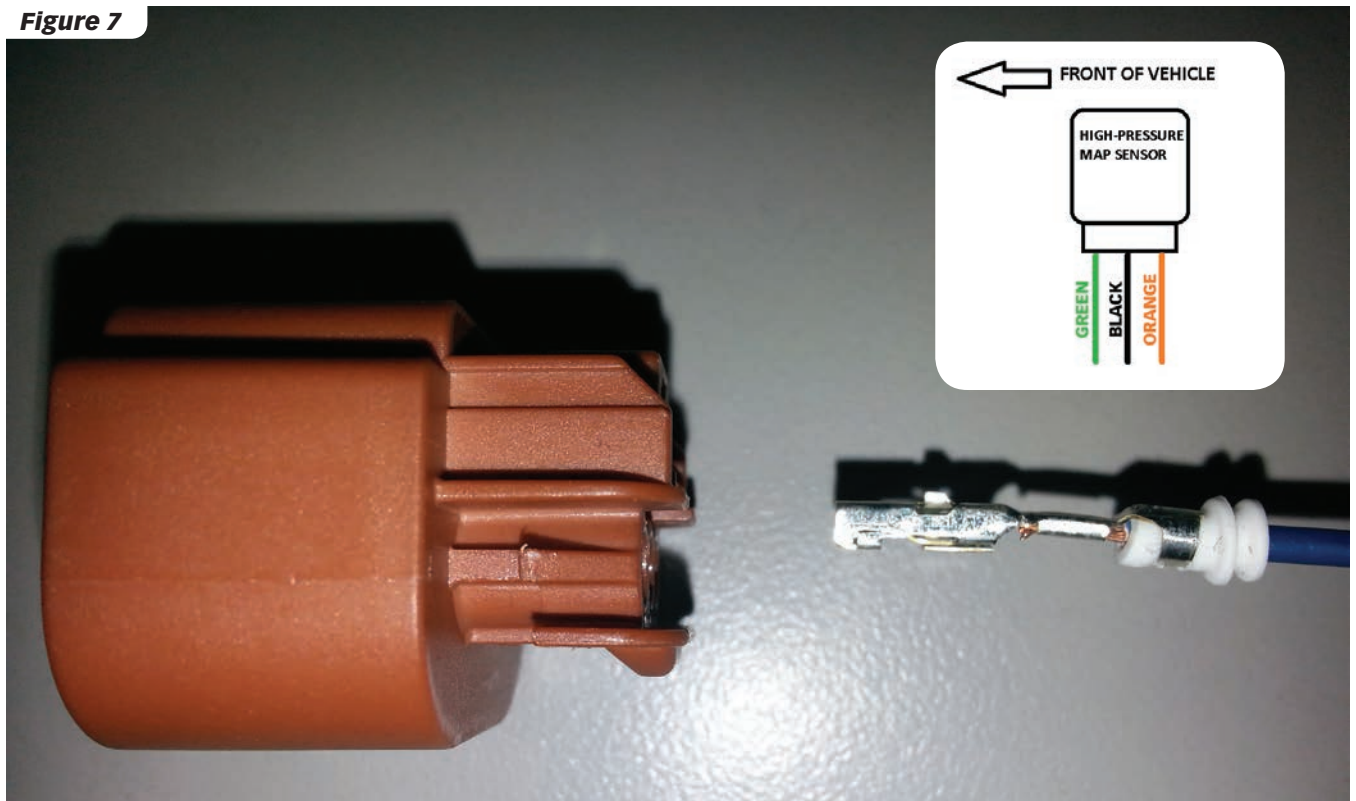


Figure 6

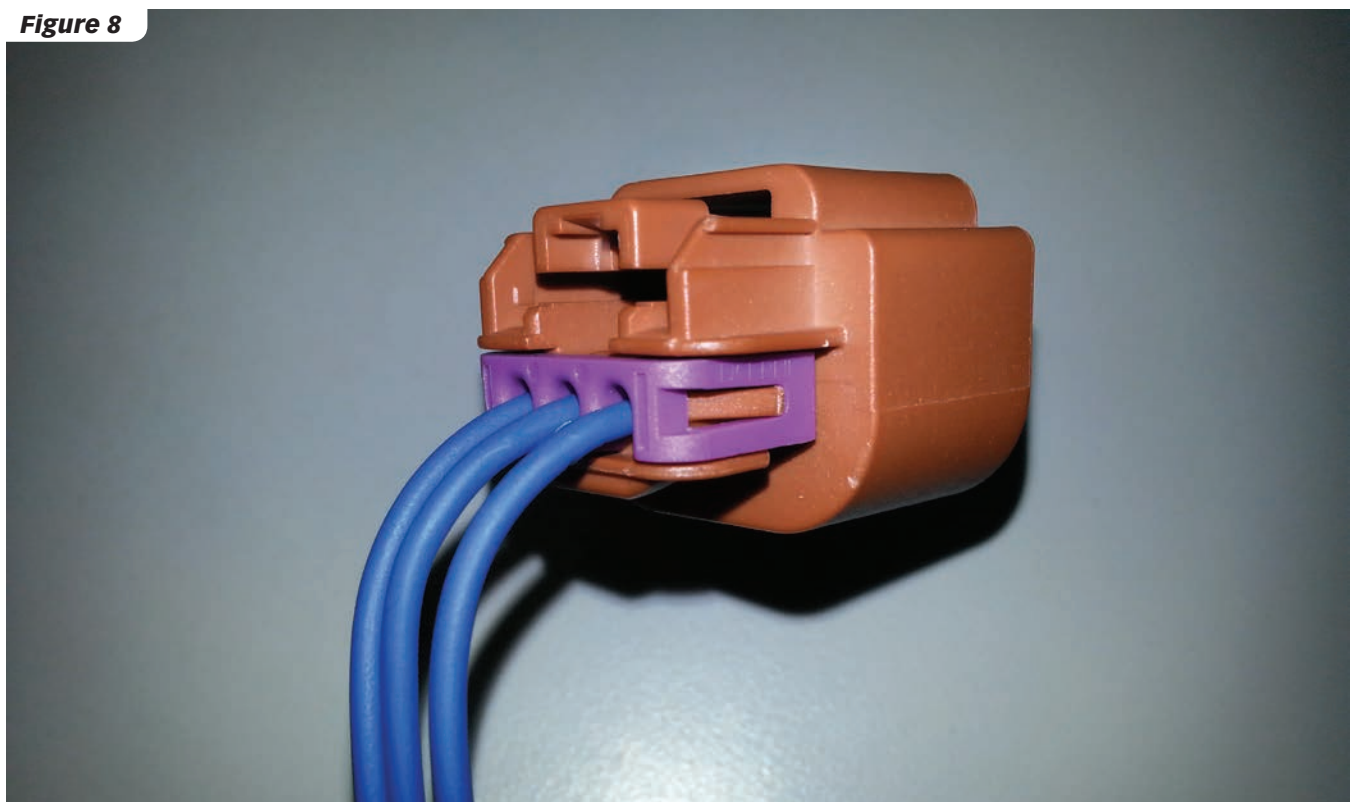


**5.** Locate the connector body supplied in the 43626 kit and, using a small screwdriver, remove the purple sensor-side terminal lock inside the connector - this allows insertion of the terminals from the other side of the connector. **See Figure 6**

**Figure 7**



**Figure 8**





**6.** Place the new connector body from the pigtail kit onto the High-Pressure MAP sensor, ensuring that it seats and locks properly - this guarantees the connector orientation to the sensor, and assists in reconnecting the newly terminated factory leads to the proper pins on the replacement sensor - the pin orientation IS NOT the same as the original sensor.

**7.** Insert the newly terminated leads into the connector body, using the wire color code, terminal orientation and pin location as shown in **Figure 7** - Green wire to forward pin (front of vehicle)  
- Black wire to middle pin  
- Orange wire to rear pin (rear of vehicle). Each lead should lock into place, verify with a light tug outwards.

**8.** Remove the connector from the MAP sensor by depressing the thumb catch, then re-install the purple sensor-side terminal lock inside the connector, ensuring that it seats fully back onto the connector. Locate the purple seal retainer clip from the 43626 kit, and install onto the back of the connector body. **See Figure 8.** Assembly of the new MAP sensor connector is now complete - re-connect it to the new high-pressure MAP sensor.

Figure 9

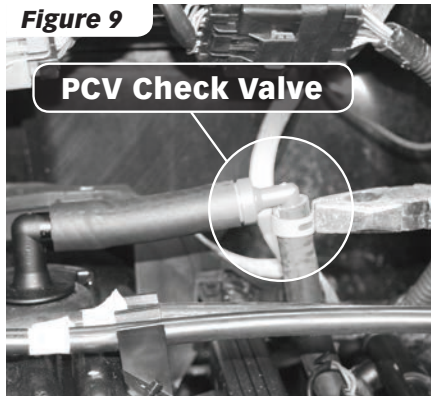


Figure 10

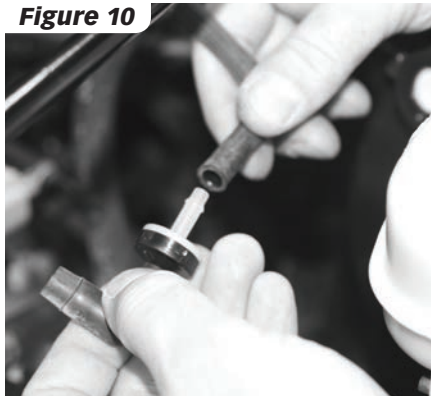


Figure 11

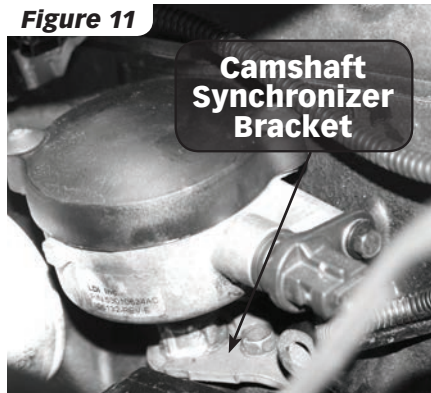


Figure 12

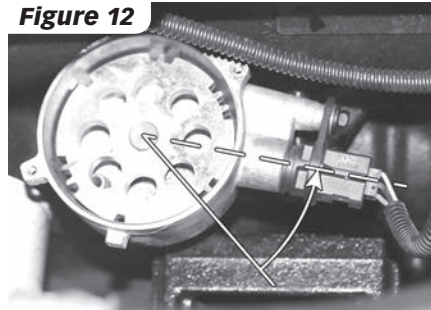
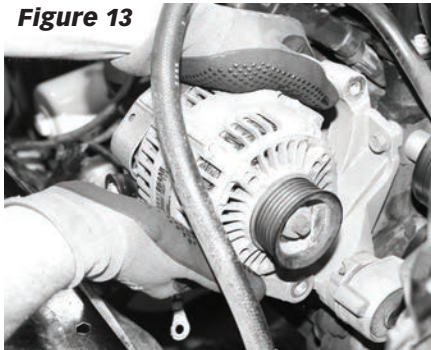


Figure 13



## PCV Hose/Vacuum Control

1. Remove PCV hose from intake manifold (next to throttle body) and top of engine (towards the rear).

2. To prevent unintentional over-pressurization of crankcase under boost, install provided PCV check valve (P/N 47105) into provide 3" length of 1/2" inner diameter PCV hose (P/N 94138). Install assembly onto existing PCV elbow on top of engine (towards the rear). Rotate PCV check valve to face down.


**See Figure 9**

3. Install provided 16" length of 3/8" inner diameter PCV hose (P/N 94136) from brass barb on throttle body spacer to PCV check valve using spring clamps (P/N 92777) on each end. Mark length and trim, if necessary.

4. Install PCV cap (P/N 92032) onto existing PCV barb located on intake manifold using spring clamp (P/N 92879). Trim cap if desired.

### For 1999-2002 Model Years ONLY:

Remove PCV barb from intake manifold and replace with supplied 1/4" NPT plug (PN 92257) after applying sealant tape to threads.

 1/4" Allen

5. To prevent unintentional over-pressurization of vacuum control system under boost, install vacuum check valve before tee in cruise control actuator line. Remove line from barb on side of intake manifold (underneath throttle body). Cut line before tee and push in

vacuum check valve. Replace line on barb. **See Figure 10**

**NOTICE:** Install with black end of vacuum check valve towards engine.

## Camshaft Synchronizer (2006-2006 Model Years)

1999-2004 Models Years skip to Alternator Removal

**NOTICE:** Rotating the camshaft synchronizer/oil pump drive assembly (Figure 8) is ONLY necessary if the factory position will interfere with the turbine outlet pipe. We recommend taking your vehicle to your local dealership to have this service performed.


1. Using compressed air source, blow any debris away from camshaft synchronizer to prevent any foreign objects from falling into the housing once cap is removed.

2. Remove camshaft synchronizer cap and use a permanent marker to mark the position of timing wheel relative to housing.

 T20 Torx

3. Remove camshaft synchronizer bracket by removing one bolt.

**See Figure 11**

 1/2" wrench

4. Remove camshaft synchronizer by lifting straight up. Rest on clean rag near motor mount.

**NOTICE:** Inspect Camshaft Synchronizer/Oil Pump Drive Assembly (OPDA) drive for

Figure 14

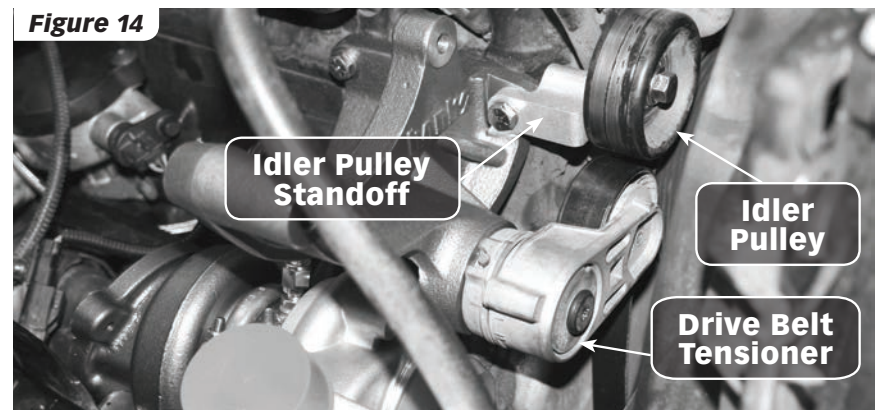


Figure 15

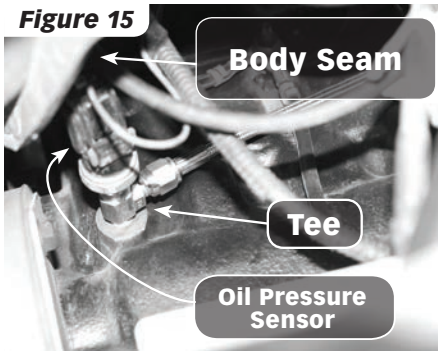
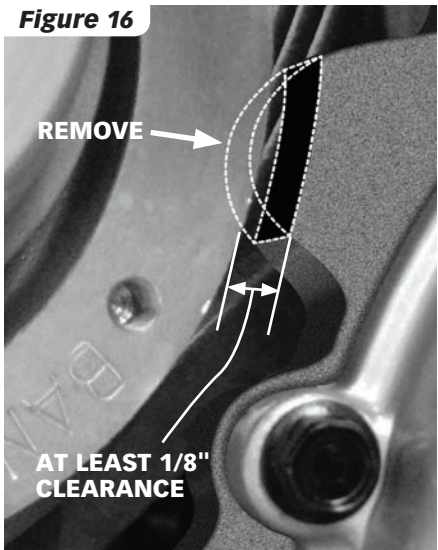


Figure 16



excessive wear. If worn, Camshaft Synchronizer/OPDA should be replaced to prevent drivability issues.

5. Use a standard screwdriver and flashlight to rotate camshaft synchronizer drive in engine block. Rotate drive so that sensor and connector will face towards front of vehicle. **See Figure 12**

6. Replace camshaft synchronizer and check the alignment of your mark. If misaligned, remove camshaft synchronizer and rotate drive. Repeat until alignment is correct.

7. Reinstall bracket and snug bolt. Check alignment and tighten if properly aligned. Torque to 18 lb-ft. Replace camshaft synchronizer cap.

## Alternator Removal

1. Remove drive belt by relieving drive belt tensioner and lifting belt off alternator.

 1/2" drive breaker bar or ratchet


2. Remove power cable and

connector from alternator. Remove plastic clip that secures wiring to alternator bracket.

3. Remove alternator from bracket by removing two bolts. **See Figure 13**

 15 mm socket

4. Remove alternator bracket by removing four bolts.

 9/16" socket

5. Remove drive belt tensioner from alternator bracket. Remove idler pulley from engine.

 T40 Torx and 9/16" socket

6. Install drive belt tensioner on new alternator/turbo bracket (P/N 52157). Use original hardware. Torque to 21 lb-ft. **See Figure 14**


## Turbocharger Oil Supply

1. Disconnect oil pressure sensor on passenger side of engine block (towards rear of vehicle). Remove oil pressure sensor.

 1 1/16" oil pressure sensor socket or crescent wrench


2. Use vice grip pliers to bend body seam near oil pressure sensor location to provide clearance for new oil pressure sensor assembly. Approximately 1/4" of clearance is needed.

3. Install tee fitting (P/N 92106) into oil pressure sensor location using thread sealant. Position tee fitting as shown. **See Figure 15**

 9/16" wrench

4. Install oil pressure sensor into tee fitting with provided thread sealant. Reconnect oil pressure sensor connector. **See Figure 15**

5. Connect straight end of braided steel oil supply line (P/N 94075) to tee fitting. **See Figure 15**

 9/16" wrench


**NOTICE:** The 90-degree end will connect to turbocharger. Route accordingly, avoiding moving vehicle components. To avoid heat of turbocharger,

route close to engine block.

## Turbocharger Assembly

1. Inspect turbocharger to ensure no foreign objects entered compressor or turbine during shipping. Cover all turbocharger openings with caps or clean rags.

2. Using provided blue thread locker (P/N 90001), install turbocharger assembly (P/N 24250) and idler pulley standoff (P/N 65298) with four short bolts (P/N 91458), one long bolt (P/N 91468), and five washers (P/N 91401). **See Figure 14.** Torque all bolts to 45 lb-ft.

 9/16" wrench and socket

**NOTICE:** Long bolt is used in top right corner of alternator/turbo bracket, and passes through both bracket and standoff.

## For 1999-2003 Model Years ONLY:

Test-fit the turbocharger/bracket assembly to the engine block and look for any interference with the compressor cover and the block boss behind the front engine cover. If there is interference as shown in (Fig 16), mark location and remove turbocharger / bracket assembly. Using pneumatic die grinder or reciprocating saw, relieve the block boss until there is approximately 1/8" clearance to the turbocharger compressor when installed. Note: There are no oil galleries in this location, but take care not to cut down into the front cover-to-block seal interface.

3. If A/C lines contact BOV actuator or alternator case/mounts, gently pull A/C line to provide approximately 3/8" clearance. **See Figure 17**

4. Using provided blue thread locker, install idler pulley onto standoff with one bolt (P/N 91457) and washer (P/N 91402). Torque to 30 lb-ft.


 9/16" socket

Figure 17

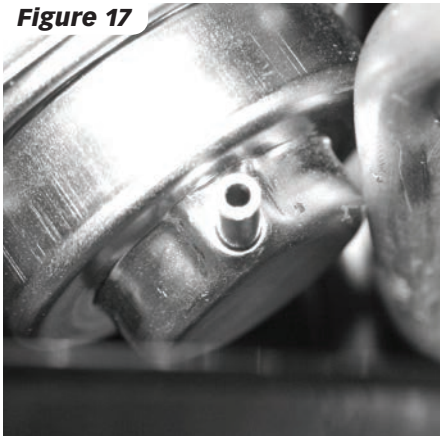


Figure 19

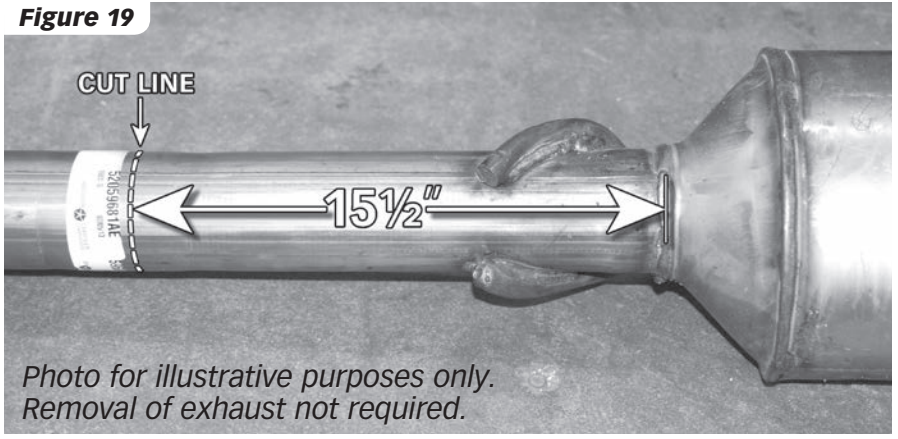


Figure 18

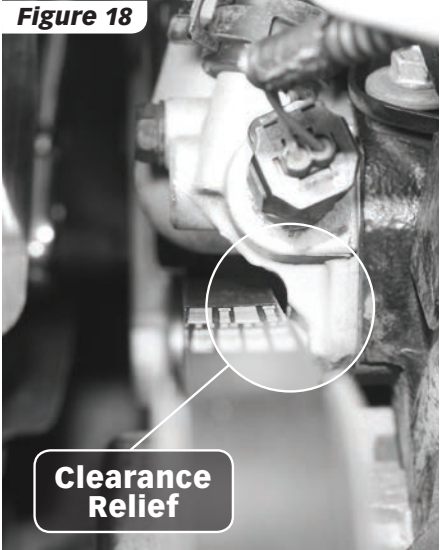
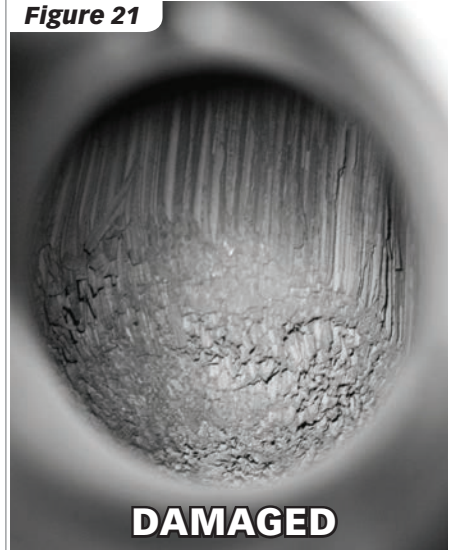



Figure 20



Figure 21



5. Connect braided steel oil supply line to turbo oil supply fitting on top of turbocharger.

 9/16" wrench

6. Install alternator onto new bracket using original hardware. Torque to 41 lb-ft. Connect power cable (9 lb-ft) and connector. If needed, gently adjust A/C lines for clearance.


7. Install new drive belt (P/N 65330) following routing noted at front of engine compartment or in vehicle owner's manual. (Replacement drive belt 6PK2325 or 915K6 or equivalent.)

8. Check for belt clearance near thermostat housing. If clearance is needed, mark location and remove belt. Using pneumatic die grinder, relieve thermostat housing to provide approximately 1/4" clearance. Replace drive belt and check clearance once more. **See Figure 18**

### Oil Pan and Exhaust Removal

1. Soak exhaust manifold outlet to "Y" pipe bolts and clips with penetrating oil.

2. Place an oil pan under oil drain and remove plug to drain oil.

 5/8" socket


3. Measure 15 1/2" forward of rear catalytic converter and mark exhaust with permanent marker. Place a hose clamp around exhaust at mark and use permanent marker to create a line that will ensure a square cut. Remove clamp. **See Figure 19**

4. Cut exhaust on mark with pneumatic reciprocating saw. Take care while cutting and beware of surrounding components.

**CAUTION:** Use eye and ear protection while cutting.

5. Remove "Y" pipe with front

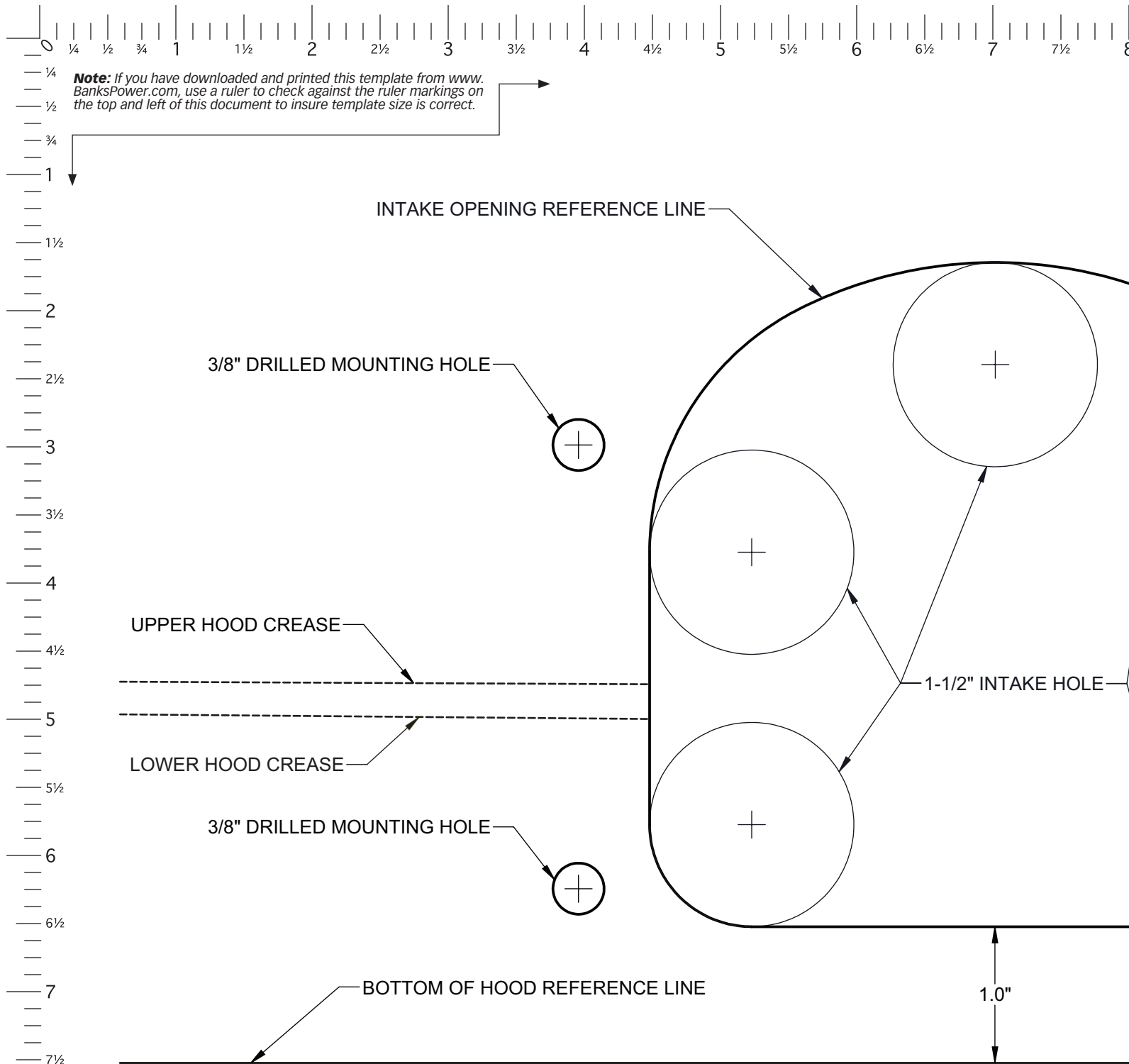
catalytic converters by disconnecting both oxygen sensors and removing four bolts at exhaust manifold outlet.

 15mm swivel socket & extension

**NOTICE:** Use a flashlight to inspect all of the catalytic converters (two front and one rear) and replace if damaged. A typical good catalytic converter is shown in Figure 20. A damaged catalytic converter will have cracks or holes in the ceramic core. Severely damaged catalytic converters will be missing parts of the ceramic core, which may cause the core to become misaligned inside the housing, as in Figure 21. Using damaged catalytic converters may cause catastrophic damage to engine and/or turbo system.

6. With "Y" pipe removed, measure 3 1/4" from where welds join together. Place a hose clamp around exhaust at mark and use permanent marker

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**Note:** If you have downloaded and printed this template from [www.BanksPower.com](http://www.BanksPower.com), use a ruler to check against the ruler markings on the top and left of this document to insure template size is correct.

**1.** Cover entire turbo with clean rag. Cover any other open ports or electrical connectors.

**2.** Use scissors to carefully cut provided template on reference lines labeled bottom of hood and edge of hood latch.

**NOTICE:** Edge of hood latch reference line refers **ONLY** to OEM hood latches!

**3.** Position template on hood by aligning bottom of hood reference line with bottom edge of hood. Then,

align edge of hood latch reference line with left side of hood latch. Ensure the upper and lower hood crease reference lines are aligned with crease in side of hood and adjust if necessary. Use masking tape to hold template in place. **See Figure 27**

**4.** Use a center punch to mark four mounting hole centers and five intake hole centers for drilling locations. Carefully remove template from hood without damaging it. **See Figure 27**

**5.** Using a stepped drill bit, drill a  $\frac{3}{8}$ " hole in four mounting hole locations

(outside center marks). Drill a  $\frac{5}{16}$ " starter hole in five intake hole locations (inside center marks) to guide  $1\frac{1}{2}$ " hole saw. Take care while drilling and cutting and beware of surrounding components.

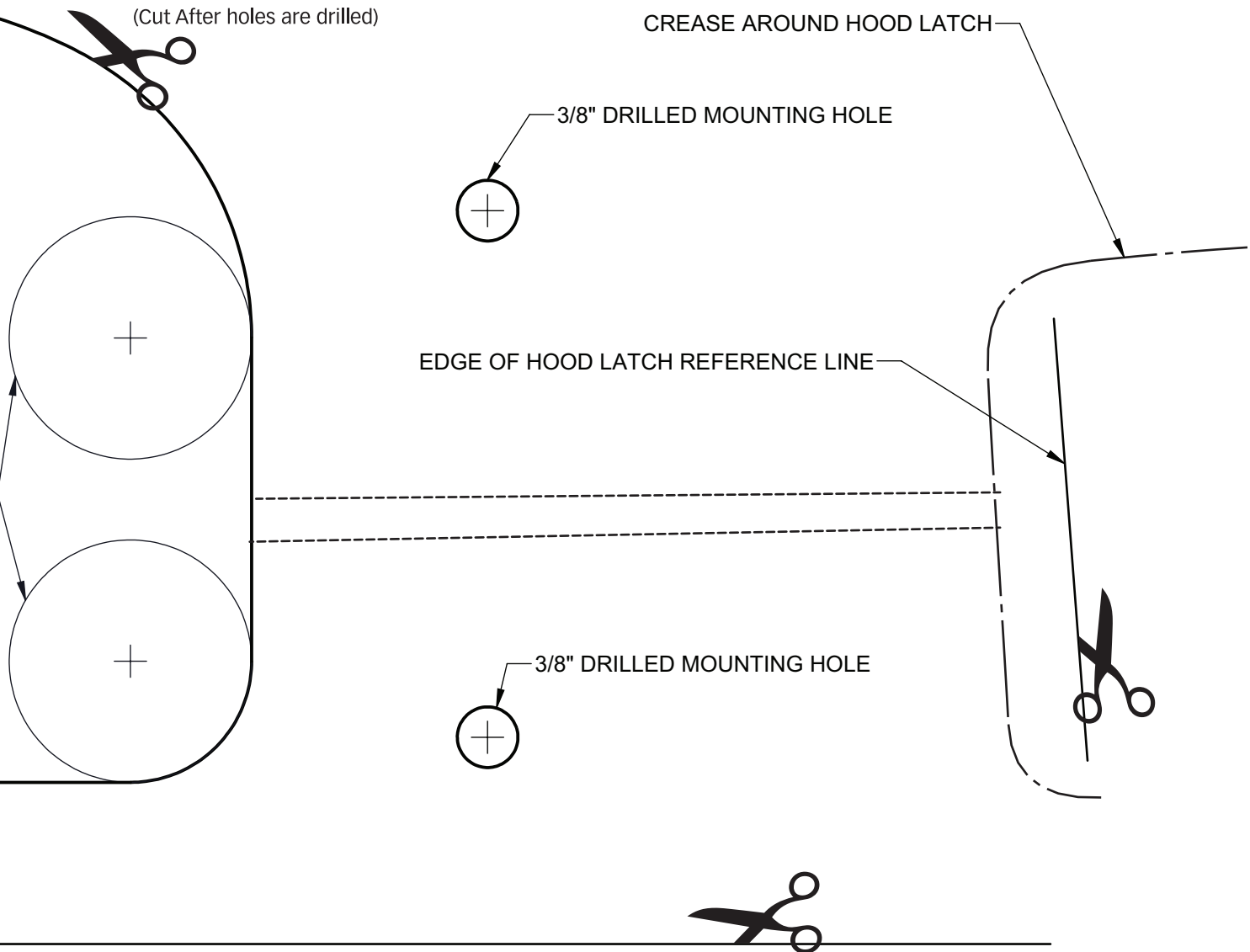
**CAUTION:** Use eye and ear protection while drilling and cutting.

**6.** Use a  $1\frac{1}{2}$ " hole saw to cut five intake holes where the starter holes were made. **See Figure 28**

**7.** Use scissors to fully cut intake hole



# '99-06 Jeep Wrangler TJ Super-Scoop® Hood Cut Template



from template (arch shape). Position intake hole by aligning outer edge with outer edges of all five 1 1/2" holes. Ensure bottom edge of intake hole is parallel to bottom edge of hood. Secure with masking tape and trace along outer edge to create intake hole shape on hood.  
**See Figure 28**

**8.** Use a pneumatic reciprocating saw or similar cutting implement to cut along inside edge of trace, connecting all five outer edges of 1 1/2" holes. Deburr all edges and carefully remove

rags, trapping all debris. Use touch-up paint to cover raw metal edge. **See Figure 28**

**9.** Center Super-Scoop® (P/N 41565) in intake hole with bottom edge parallel to bottom edge of hood. Mark mounting locations on Super-Scoop® through inside of hood.  
**See Figure 29**

**10.** Use stepped drill bit to drill four 3/8" holes in Super-Scoop® at marked mounting locations. Deburr all edges.

**⚠ CAUTION:** *ONLY drill through inside wall of Super-Scoop®.*

**11.** Use four push type retainers (P/N 92023) to mount Super-Scoop® on hood. Install edge seal (P/N 93141) onto inside edge of Super-Scoop®.  
**See Figure 30**



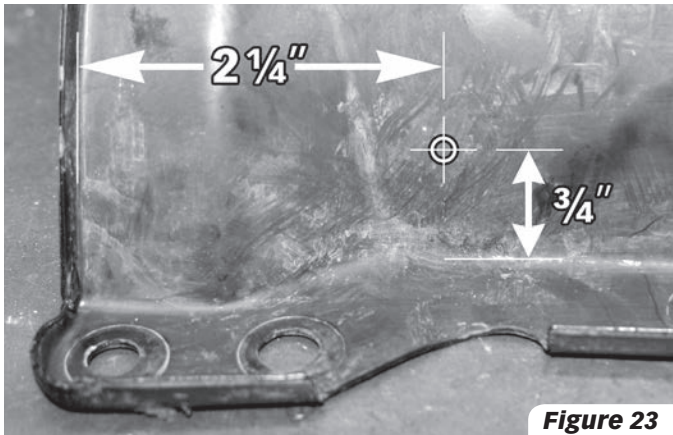
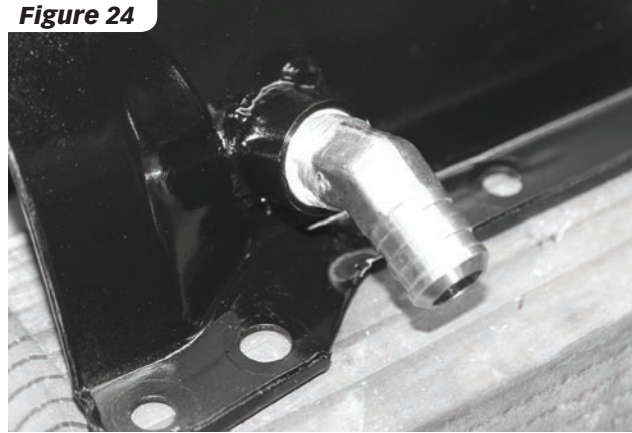
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**Figure 22**



**Figure 24**



**Figure 25**



**Figure 23**

to create a line that will ensure a square cut. Remove clamp. **See Figure 22**

**7.** Cut exhaust on mark with pneumatic reciprocating saw. Take care while cutting and beware of surrounding components.

**⚠ CAUTION:** Use eye and ear protection while cutting.

**8.** Remove oil pan by removing all bolts. Note stud location for reinstallation.

 7/16" deep socket and extension

**9.** Inspect oil pan gasket. Replace if damaged or clean if reusable.

## Turbocharger Oil Return

**1.** Thoroughly clean oil pan in preparation for welding. Scrape flange to remove any silicone or gasket material.

**2.** Mark location for oil return bung. Measure 2 1/4" from front edge and

3/4" from top edge. Use a center punch to mark oil pan once location is determined. **See Figure 23**

**3.** Use a stepped drill bit to drill a 5/8" hole in oil pan at marked location.

**4.** Deburr edge of hole and prepare oil pan for welding by using a wire brush to remove paint around hole.

**5.** Center oil return bung on drilled hole and weld around outer edge.

**NOTICE:** If you are not an experienced welder, take the oil pan to your local welding shop to have it welded by a qualified welder.

**6.** Clean weld with a wire brush and inspect for imperfections that may cause it to leak. Prime and paint raw metal to prevent rust and corrosion. Plug bung to protect threads during painting.

**7.** Using thread sealant, install 45° brass fitting (P/N 92177) into oil return bung on oil pan. Position as

shown in **Figure 24.**

**8.** Clean gasket surfaces of oil pan and engine block. Apply silicone sealant to rear main bearing cap corners and engine block to front cover joints. **See Figure 25**

**9.** Hold gasket and oil pan in position, install all 1/4" bolts and torque to 7 lb-ft. Install four 5/16" bolts and torque to 11 lb-ft.

**10.** Install oil pan drain plug. Torque to 25 lb-ft.

**11.** Install oil drain hose (P/N 94203) from turbocharger to 45° brass barb with two worm gear clamps (P/N 92810).

## Turbine Inlet and Outlet

**1.** Reinstall modified "Y" pipe with front catalytic converters. Use provided anti-seize (P/N 90045) on original hardware, but do not tighten. Reconnect both oxygen sensors.

Figure 26

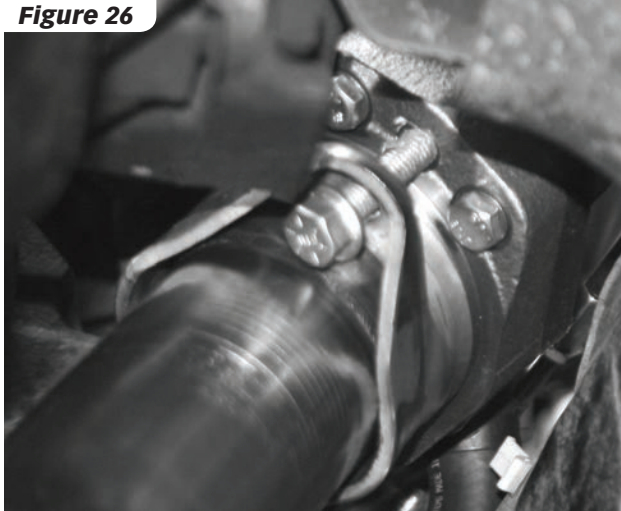


Figure 27

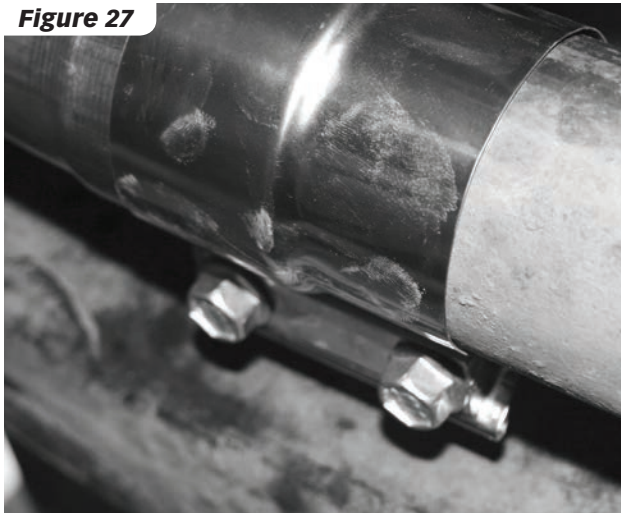


Figure 28

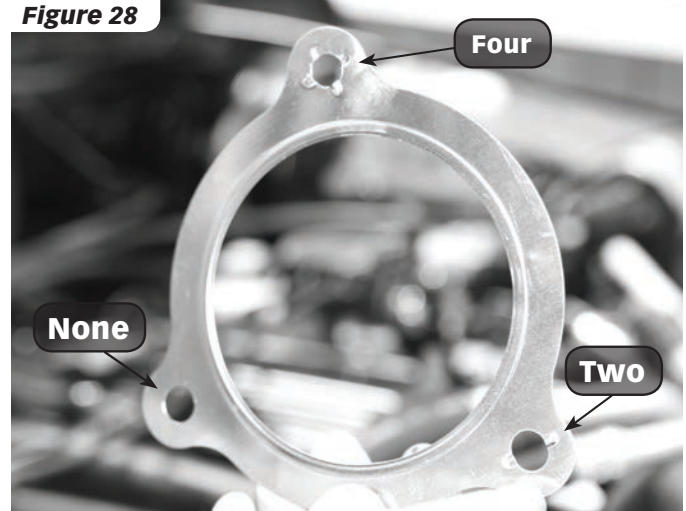
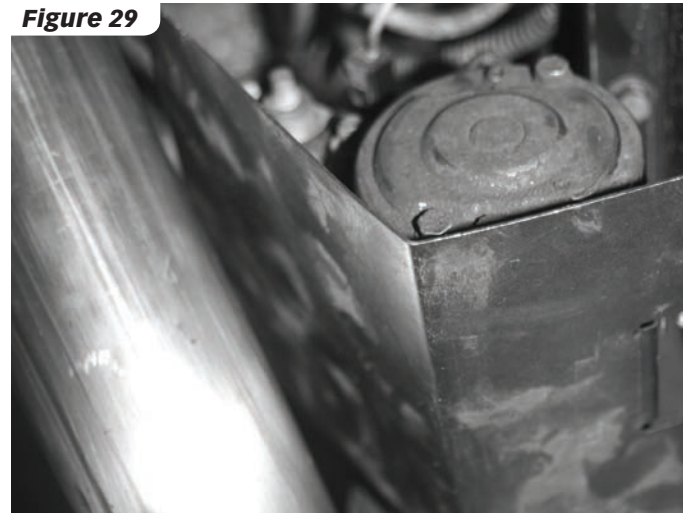


Figure 29



**2.** Slide flange and clamp (P/N 52462) over turbine inlet pipe (P/N 52096). Slide turbine inlet pipe over the "Y" pipe until the double-slip cuff is fully bottomed. If needed, carefully adjust turbine inlet pipe in vice so that it will fully slip over "Y" pipe. Using provided Anti-Seize, mount turbine inlet pipe to turbo with two bolts (P/N 91459). Torque to 45 lb-ft. **See Figure 26.** Tighten clamp at "Y" pipe.

  $\frac{9}{16}$ " and 15mm sockets

**3.** Secure "Y" pipe by tightening four bolts at exhaust manifold outlet. Torque to 23 lb-ft.

**4.** Install starter heat shield (P/N 26062) onto starter with hose clamp (P/N 92841). Do not tighten.



**5.** Slide lap joint clamp (P/N 52492) over exhaust with larger end closer to turbocharger. Install the turbine

outlet pipe by sliding it over the exhaust. **See Figure 27**

Position gasket (P/N 93013) between turbine and turbine outlet pipe.

**NOTICE:** Turbine outlet gasket has marks near each hole. Position gasket with four mark hole closest to engine block, two mark hole closest to fender, and zero mark hole at bottom. **See Figure 28**

**6.** Using provided anti-seize, install three bolts (P/N 91817) at the turbine outlet flange. Torque bolts to 28 lb-ft. Tighten lap joint clamp.

   $\frac{9}{16}$ " socket, 13mm wrench and socket

**7.** Position starter heat shield half way between starter and turbine outlet pipe, as shown above. Tighten

clamp to secure. **See Figure 29**

**8.** Install the preformed turbocharger heat shield (P/N 26110) over the turbocharger and secure with bolt (P/N 26110). Secure wire harness away from turbine outlet pipe using large cable tie (P/N 62003). **See Figure 30**

## Boost Tube

**1.** Install 90° brass barb (P/N 92122) and pipe plug (P/N 92251) into boost tube (P/N 42452) with thread sealant. **2005-2006 Only - Install stock IAT sensor into boost tube. See Figure 31**

**Figure 30**



**Figure 31**



**2.** Install small end of boost tube using hose coupler (P/N 94253) at turbo with hose clamps (P/N 92850), Install large end using hose coupler (P/N 94276) at throttle body with hose clamps (P/N 92855).

**2005-2006 Only - Connect IAT sensor connector.**

**3.** Connect free end of BOV reference line to BOV barb with spring clamp (P/N 92775). Use cable ties to secure line to avoid hot or moving parts.

**4.** Install wastegate actuator reference line (P/N 94123) by pushing it onto 90° brass barb on boost tube and on to wastegate actuator barb. Use cable ties to secure line to avoid hot or moving parts.

## Ram-Air® Intake & Super-Scoop®

**NOTICE:** Installing the Ram-Air® Intake & Super-Scoop® requires that you cut a hole in your hood. The

**Figure 32**



**Banks Sidewinder® Turbo System can be run without the Super-Scoop®; however the performance of the Banks Sidewinder® Turbo System will suffer and cannot be guaranteed.**

**1.** Cover entire turbo with clean rag. Cover any other open ports or electrical connectors.

**2.** Use scissors to carefully cut provided template on reference lines labeled bottom of hood and edge of hood latch.

**NOTICE:** Edge of Hood Latch Reference Line refers ONLY to

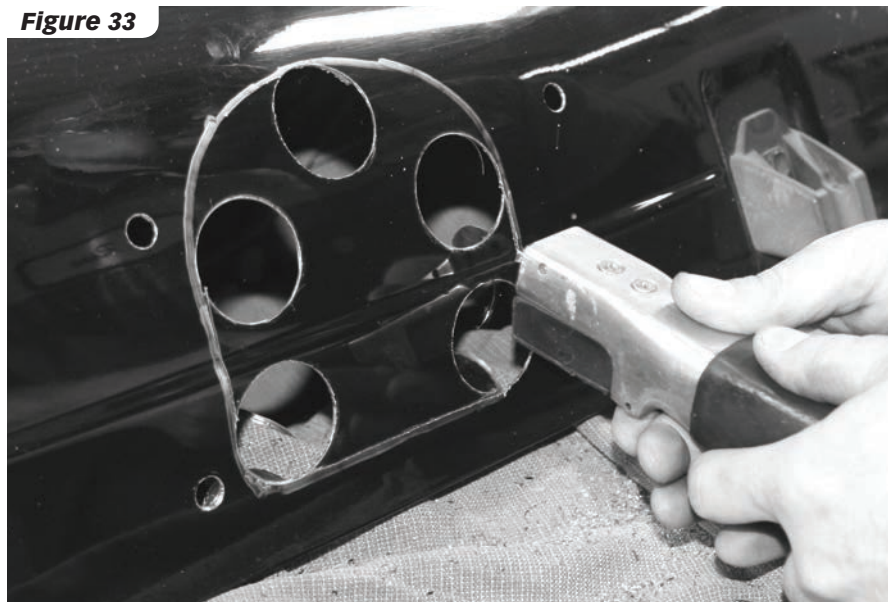
### OEM hood latches!

**3.** Position template on hood by aligning bottom of hood reference line with bottom edge of hood. Then, align edge of hood latch reference line with left side of hood latch. Ensure the upper and lower hood crease reference lines are aligned with crease in side of hood and adjust if necessary. Use masking tape to hold template in place.

**See Figure 32**

**4.** Use a center punch to mark four mounting hole centers and five intake hole centers for drilling locations. Carefully remove template

**Figure 33**



**Figure 34**



**Figure 35**



from hood without damaging it. **See Figure 32**

**5.** Using a stepped drill bit, drill a  $\frac{3}{8}$ " hole in four mounting hole locations (outside center marks). Drill a  $\frac{5}{16}$ " starter hole in five intake hole locations (inside center marks) to guide  $1\frac{1}{2}$ " hole saw. Take care while drilling and cutting and beware of surrounding components.

**⚠ CAUTION:** Use eye and ear protection while drilling and cutting.

**6.** Use a  $1\frac{1}{2}$ " hole saw to cut five intake holes where the  $\frac{5}{16}$ " starter holes were made. **See Figure 33**

**7.** Use scissors to fully cut intake hole from template (arch shape).

Position intake hole by aligning outer edge with outer edges of all five  $1\frac{1}{2}$ " holes. Ensure bottom edge of intake hole is parallel to bottom edge of hood. Secure with masking tape and trace along outer edge to create intake hole shape on hood.

**See Figure 33**

**8.** Use a pneumatic reciprocating saw or similar cutting implement to cut along inside edge of trace, connecting all five outer edges of  $1\frac{1}{2}$ " holes. Deburr all edges and carefully remove rags, trapping all debris. Use touch-up paint to cover raw metal edge. **See Figure 33**

**9.** Center Super-Scoop® (P/N 41565) in intake hole with bottom edge parallel to bottom edge of hood.

Mark mounting locations on Super-Scoop® through inside of hood.

**See Figure 34**

**10.** Use stepped drill bit to drill four  $\frac{3}{8}$ " holes in Super-Scoop® at marked mounting locations. Deburr all edges.

**⚠ CAUTION:** ONLY drill through inside wall of Super-Scoop®

**11.** Use four push type retainers (P/N 92023) to mount Super-Scoop® on hood. Install edge seal (P/N 93141) onto inside edge of Super-Scoop® **See Figure 35**

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## Air Filter and Housing

**1.** Install air filter housing isolators

Figure 36

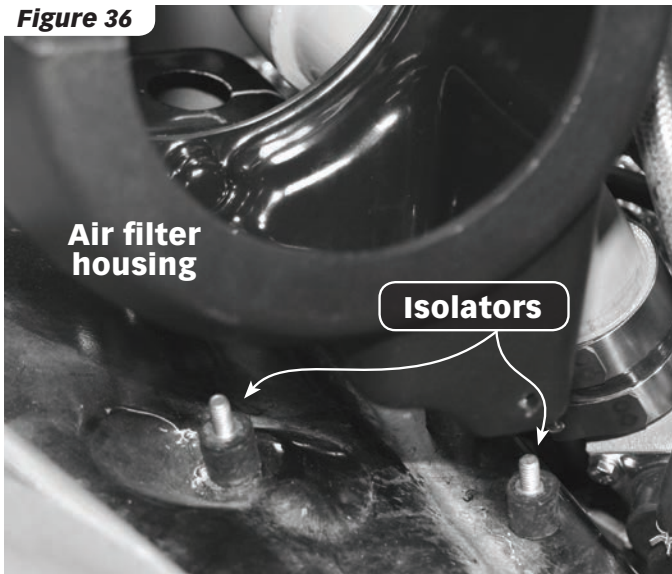


Figure 38

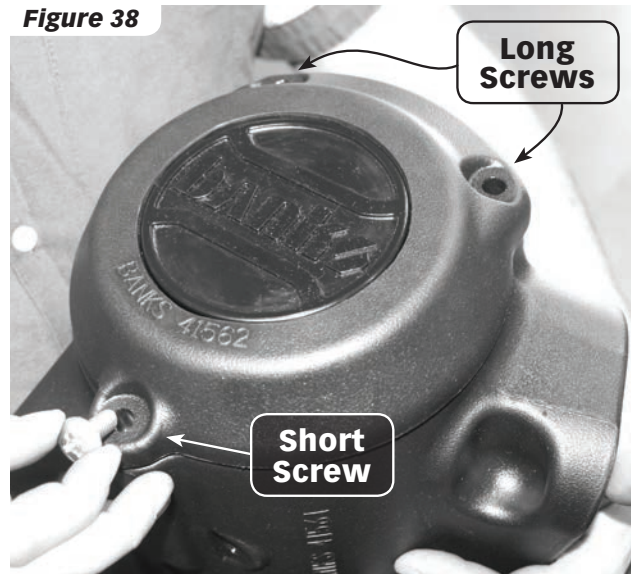


Figure 37

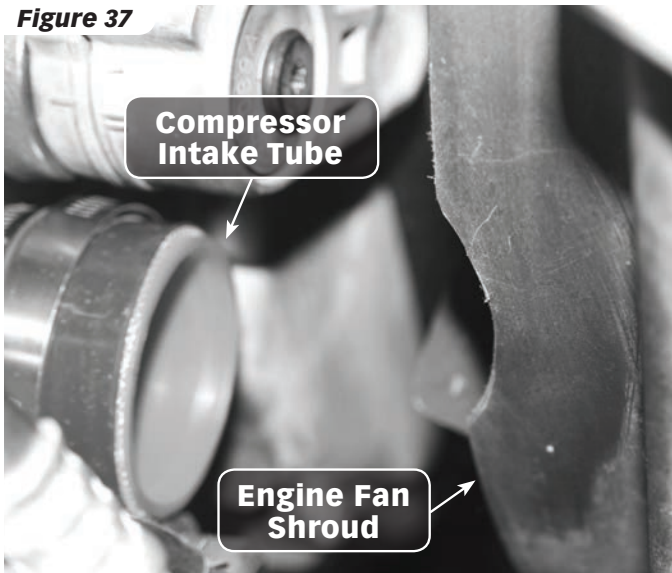
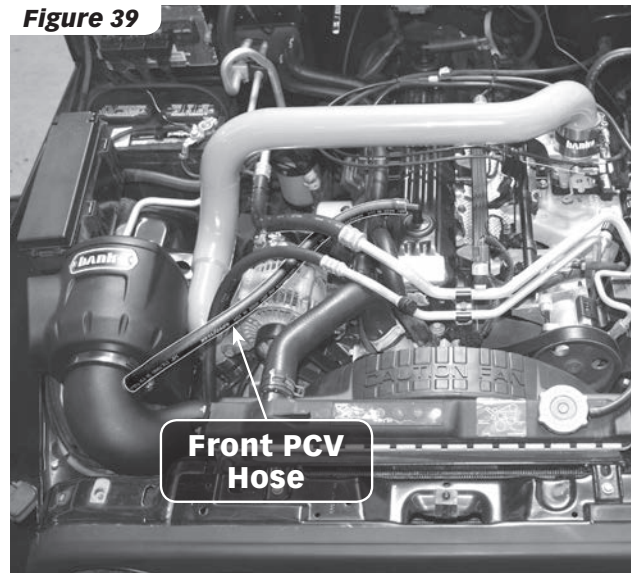



Figure 39



(P/N 92980) onto fender with washers (P/N 91102) and Keps nuts (P/N 91112). Do not tighten.

**See Figure 36**

**2.** Install air filter housing (P/N 41561) onto isolators with washers and Keps nuts. Torque all fasteners to 8 lb-ft.

  $\frac{7}{16}$ " wrench and socket

**3.** Install compressor intake tube (P/N 41564) onto compressor using one hose coupler (P/N 94265) and two worm gear clamps (P/N 92841). Do not tighten.

**NOTICE:** Place coupler and clamps on compressor (position clamps where worm

gear is accessible), then install compressor intake tube.

**4.** Install air filter element into air filter housing with open end towards compressor intake tube. Use hose clamp (P/N 92872) to secure air filter element to compressor intake tube. Do not tighten.

**NOTICE:** Check for clearance between compressor intake tube and engine fan shroud. If necessary, mark where clearance is needed and remove compressor intake tube. Trim fan shroud to provide approximately  $\frac{3}{8}$ " clearance. See Figure 37

**5.** Install air filter housing cover (P/N 41562) with one short machine screw (P/N 91226) in bottom hole and two long machine screws (P/N 91242) in top two holes. Tighten compressor intake tube clamps at compressor inlet, then the clamp at air filter.

**See Figure 38**

  #3 Phillips, 8mm socket

**6.** Install provided 20" length  $\frac{1}{2}$ " inner diameter front PC (P/N 94138) from compressor intake tube to PCV elbow on top of engine (towards the front). **See Figure 39**

**7.** Reinstall passenger side radiator support rod.

## Boost Gauge

1. Using compression ferrule installed in throttle body, install boost gauge kit. Refer to provided boost gauge kit installation instructions for full procedure.

## Flash Tune: '05-06 ONLY

**FOR '99-04:** Refer to supplemental SCT Tuning Guide that is included with your kit for all tuning instructions.

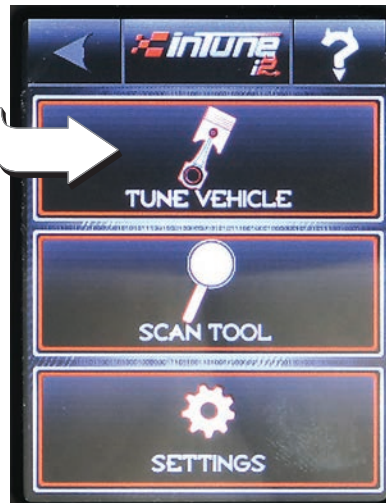
**NOTICE:** Banks Sidewinder® Tune must be successfully loaded before running vehicle.

1. Run the inTune auto update software by connecting inTune to your computer with provided USB cable.
2. Software should install automatically. If it does not, click Run InTune.exe in popup window. If there is no popup window, click the Windows icon in bottom left corner. Then, click on Computer (Windows 7, 8, 10). In new window, double click on drive labeled i2. In the i2 drive, select Updater. Then choose your system (Linux, Windows, Mac).
3. If an update is available, you will be prompted to not unplug the device, click OK. The update will begin, do not unplug device until it has restarted.
4. Connect the inTune to vehicle's diagnostic port using OBDII Cable.

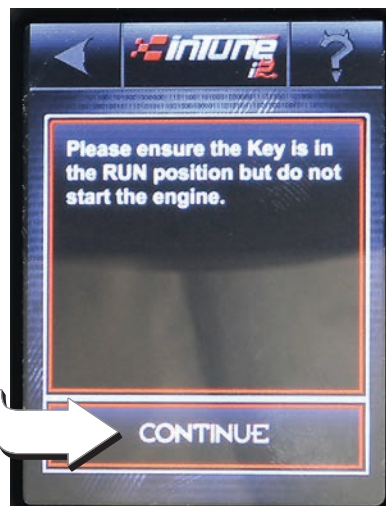
**NOTICE:** Diagnostic port is located below steering column, on left hand side.

5. After terms agreement, the Main Menu will appear with the following selection options: Tune Vehicle, Scan Tool, and Settings.

6. To flash tune vehicle, select Tune Vehicle from the Main Menu.



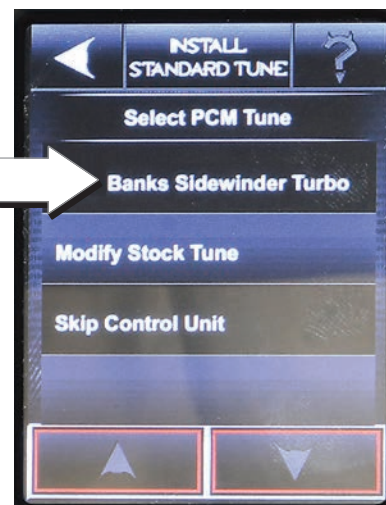
7. Wait for prompt, then turn key to the RUN position without starting the vehicle and select Continue.

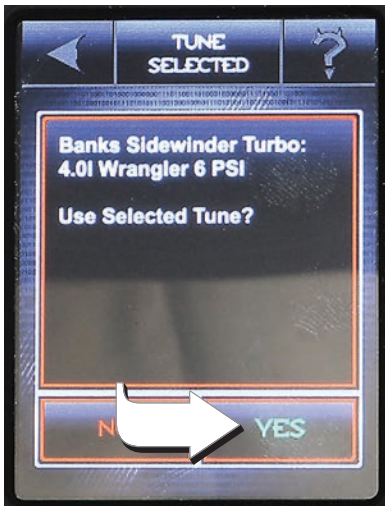


8. Select Advanced Tune and then select Install Standard Tune.

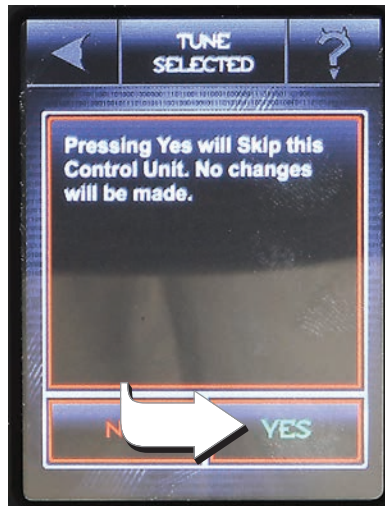


9. Select Banks Sidewinder® Turbo and then select YES to use selected tune.

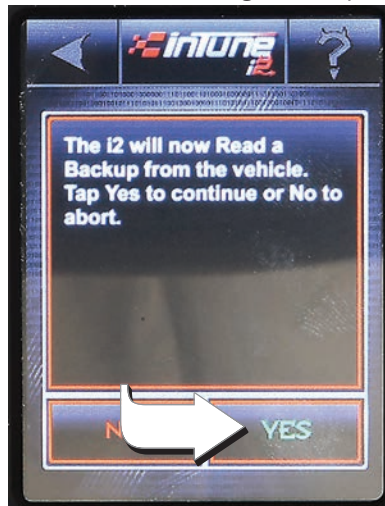




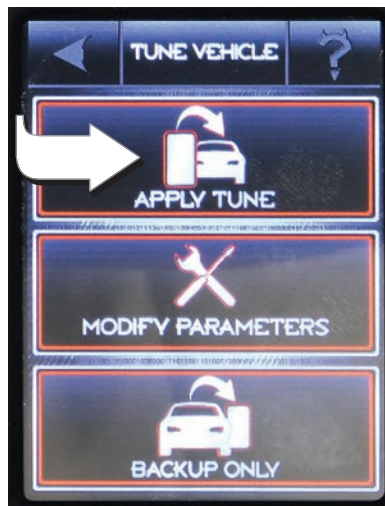
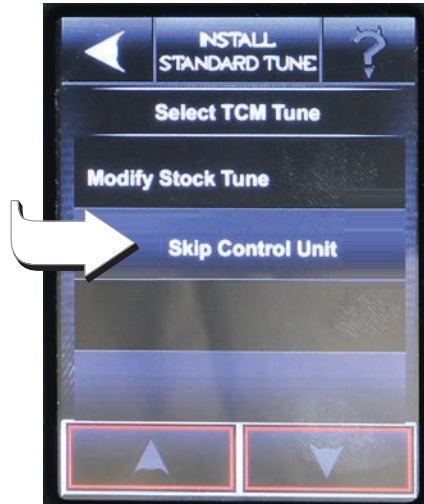
**10.** Select Install Standard Tune and then select Skip Control Unit. select YES to confirm skip.



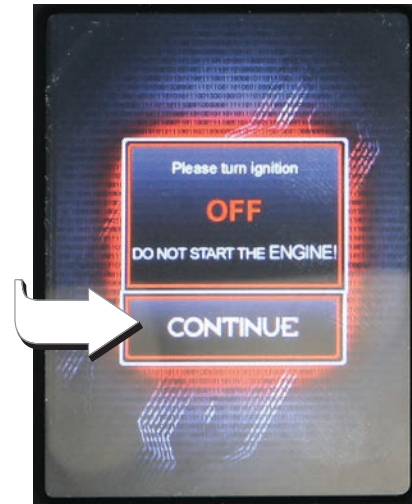
**11.** Select YES to begin Backup.



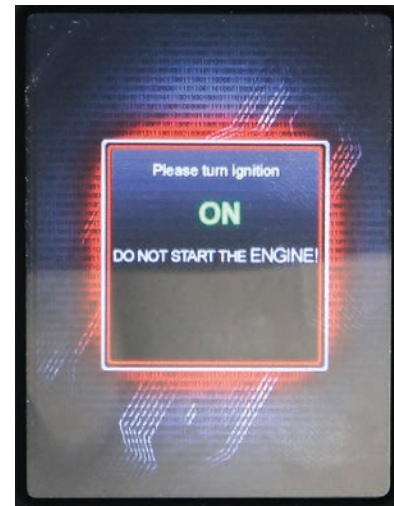
**12.** Once backup is complete, select Apply Tune.



**13.** Wait for prompt, then turn key to OFF position and select Continue.



**14.** When prompted, turn key to ON position without starting the vehicle.



**15.** Once tune is installed and prompt appears, turn key to OFF position and select Continue.



**16.** When prompted, turn key to ON position without starting the vehicle and select Continue.



**17.** Select Continue after successful install to return to Main Menu or unplug inTune.



## Fuel and Oil

**1.** If you were not using 91 octane gasoline, drain all fuel from the vehicle and refill using 91 octane gasoline.

**⚠ CAUTION:** *Using fuel with an octane rating lower than 91 will cause severe damage to engine and/or turbo system.*

**2.** Fill vehicle with 10W-30 synthetic motor oil. See vehicle owner's manual for quantity. We also recommend replacing your oil filter.

**NOTICE:** *It is important to use synthetic oil due to increased oil temperature caused by the turbocharger.*

**3.** Check engine bay for tools and other items. Start vehicle and let idle for several minutes. Shut down the vehicle.

**4.** Check for leaks. Check oil level and add oil if needed.

## Test Drive

**NOTICE:** *Banks Sidewinder® Tune must be successfully loaded before running vehicle.*

**1.** After ensuring that there are no leaks, start the vehicle. Allow vehicle to idle for several minutes to warm-up.

**2.** Test drive vehicle in a location with minimal traffic. Drive for several minutes at light load, keeping boost at or below 2 PSI and engine RPM under 3000. Shut down vehicle if engine temperature increases above 245 degrees Fahrenheit or if boost pressure increases above 7 psi.

**3.** Park in a safe location and allow vehicle to idle. Exit vehicle and check for any leaks, including oil, fuel, and exhaust.

**4.** If no leaks are found, continue to drive vehicle, gradually increasing throttle / load and boost pressure while listening for any pinging / detonation. It is important to allow the ECU time to re-learn the new fuel system configuration - typically, a full tank of fuel used over several drive cycles while gradually increasing boost and RPM will provide adequate time for the system to adapt.



# Parts List

<b>24240</b>	<b>Sidewinder Turbo System, Non-Intercooled, w/AutoMind HH Prgrmr - '99-02 Jeep Wrangler, 4.0L I-6</b>	<b>Qty</b>
24240-1	Owner's Manual & Installation Kit, Turbo Systems - 99-06 Jeep 4.0L	1
24240-2	Turbocharger, 6-PSI W/G & Mounting Bracket Assembly, Turbo Syst - 99-06 Jeep 4.0L	1
24240-3	Lubrication Parts Kit, Turbo Syst - 99-06 Jeep 4.0L	1
24240-4	Exhaust Components Kit, Turbo Syst - 99-06 Jeep 4.0L	1
24240-6	Ram-Air Components Kit, Turbo Syst - 99-06 Jeep 4.0L	1
24240-7	Fuel Injection Parts Kit, Turbo Syst - 99-02 Jeep 4.0L	1
24240-5	Boost Tube Kit, Turbo Syst - 99-04 Jeep 4.0L	1
66123	AutoMind Programmer, Hand Held, Sidewinder Turbo only - 99-04 Jeep 4.0L	1
<b>24241</b>	<b>Sidewinder Turbo System, Non-Intercooled, w/AutoMind HH Prgrmr - '03-04 Jeep Wrangler, 4.0L I-6</b>	<b>Qty</b>
24240-1	Owner's Manual & Installation Kit, Turbo Systems - 99-06 Jeep 4.0L	1
24240-2	Turbocharger, 6-PSI W/G & Mounting Bracket Assembly, Turbo Syst - 99-06 Jeep 4.0L	1
24240-3	Lubrication Parts Kit, Turbo Syst - 99-06 Jeep 4.0L	1
24240-4	Exhaust Components Kit, Turbo Syst - 99-06 Jeep 4.0L	1
24240-6	Ram-Air Components Kit, Turbo Syst - 99-06 Jeep 4.0L	1
24241-7	Fuel Injection Parts Kit, Turbo Syst - 03-04 Jeep 4.0L	1
24240-5	Boost Tube Kit, Turbo Syst - 99-04 Jeep 4.0L	1
66123	AutoMind Programmer, Hand Held, Sidewinder Turbo only - 99-04 Jeep 4.0L	1
<b>24244</b>	<b>Sidewinder Turbo System, Non-Intercooled, w/AutoMind HH Prgrmr - 2005-06 Jeep Wrangler, 4.0L I-6</b>	<b>Qty</b>
24240-1	Owner's Manual & Installation Kit, Turbo Systems - 99-06 Jeep 4.0L	1
24240-2	Turbocharger, 6-PSI W/G & Mounting Bracket Assembly, Turbo Syst - 99-06 Jeep 4.0L	1
24240-3	Lubrication Parts Kit, Turbo Syst - 99-06 Jeep 4.0L	1
24240-4	Exhaust Components Kit, Turbo Syst - 99-06 Jeep 4.0L	1
24240-6	Ram-Air Components Kit, Turbo Syst - 99-06 Jeep 4.0L	1
24244-7	Fuel Injection Parts Kit, Turbo Syst - 99-06 Jeep 4.0L	1
24244-5	Boost Tube Kit, Turbo Syst - 05-06 Jeep 4.0L	1
66124	AutoMind Programmer, Hand Held, Sidewinder Turbo only - 05-06 Jeep 4.0L	1
<b>24240-1</b>	<b>Owner's Manual &amp; Installation Kit, Turbo Systems - 99-06 Jeep 4.0L</b>	<b>Qty</b>
26062	Heatshield, Starter - Ford 460 Efi Truck/Motorhome	1
63001	Mounting Panel, One Gauge - Black, W/Fasteners	1
64050	Boost Gauge Kit, 0-15 PSI	1
90001	Threadlocker, Blue .5MI	1
26111	Heatshield, 4.0L Sidewinder Turbo Housing	1
91117	Bolt, (1/4" - 20 x 3/4")	1
91102	Washer, 1/4" Flat	1
90040	Thread Sealant w/PTFE - 1oz Tube	1
90045	Anti Seize, 5 Grams -	1
92841	Hose Clamp, #40 W/Liner	1
93013	Gasket, Turbine Outlet - 99-06 Jeep 4.0L	1
96002	Decal, Stop Do Not Discard - Ram Air Filter	1
96009	Urocal, Banks Power, Small - Red, Black & Silver	2
96312	Owners Manual, Sidewinder Turbo Syst - 1999-06 Jeep 4.0L	1
96399	Product Registration Card - All Products	1
97173	Logo Plate, Banks - Super-Scoop, Jeep Turbo System	1
<b>24240-2</b>	<b>Turbocharger, 6-PSI W/G &amp; Mounting Bracket Assembly, Turbo Syst - 99-06 Jeep 4.0L</b>	<b>Qty</b>
24250	Turbocharger Assembly - 99-06 Jeep 4.0L	1
24317	Hex Nut, Flex Lock, 1/4-28	2
24335	Bracket, Wastegate Actuator, Turbo Syst - 99-06 Jeep 4.0L	1

24373	Linkage, Wastegate Actuator, Turbo System - 99-06 Jeep 4.0L	1
24382	Wastegate Actuator, Uncalibrated - 99-06 Jeep 4.0L	1
52157	Bracket, Turbo Mounting, 99-06 Jeep Wrangler 4.0L	1
62003	Cable Tie, Black, 13" -	2
65298	Stand-Off, Idler Pulley, Turbo Syst - 99-06 Jeep 4.0L	1
65330	Belt, Accessory Drive, Turbo Syst - 99-06 Jeep 4.0L, Stock Pulleys, w/ AC	1
91126	Nut, Jam, Thin Hex - 1/4"-28, Zinc	1
91201	Washer, AN, S/S - 5/16"	6
91401	Washer, AN, S/S - 3/8"	5
91402	Washer, Sae Flat, Zinc - 3/8"	1
91457	Hex Bolt, Flange Head, Non-Serrated, Grade 5, Zinc - 3/8"-16 X 1"	1
91458	Hex Bolt, Grade 8, Zinc - 3/8"-16 X 1 1/4"	4
91468	Hex Bolt, Grade 8, Zinc - 3/8"-16 X 1 5/8"	1
91738	Hex Bolt - 6Mm-1.00 X 12Mm, 8.8, Zinc	2
91739	Hex Bolt, Flange Head - 6MM-1.00 X 10MM, 8.8, Zinc	2
91806	Hex Nut, Locking, 8MM X 1.25, High-temp Steel, Copper Coated	2
91939	Hex Bolt, 8MM X 1.25 X 30MM, 10.9 Zinc	2
91943	Hex Bolt, 8MM X 1.25 X 45MM, 10.9 Zinc	2
92024	Cap, Silicone, Turbocharger Assy - Various Applications	1
93010	Gasket, Turbine Inlet - 99-06 Jeep 4.0L	1
96059	Decal, Banks Big Head - Wastegate Actuator	1
<b>24240-3</b>	<b>Lubrication Parts Kit, Turbo Syst - 99-06 Jeep 4.0L</b>	<b>Qty</b>
92106	Fitting, Tee, 1/8 MPT X 1/8" FPT X -4 AN	1
92177	Fitting, 3/8" NPT X 5/8" Hose 45° Brass	1
92275	Weld Bung, 3/8" NPT	1
92810	Hose Clamp, #10	2
94075	Hose, Turbo Oil Feed - 99-06 Jeep 4.0L	1
94203	Hose, Oil Drain, Turbo System - 99-06 Jeep 4.0L	1
<b>24240-4</b>	<b>Exhaust Components Kit, Turbo Syst - 99-06 Jeep 4.0L</b>	<b>Qty</b>
52096	Up-Pipe, Turbo System - 99-06 Jeep 4.0L	1
52098	Turbine Outlet Pipe, Turbo System - 99-06 Jeep 4.0L	1
52257	Plug, Oxygen Sensor Port, Turbo System - 99-06 Jeep 4.0L	1
52462	Exhaust Clamp, Band Style - 2 1/2"	1
52492	Exhaust Clamp, Lap Joint, 2-1/2", 304 SS	1
91459	Hex Bolt, Flange Head, Grade 8, Zinc - 3/8"-16 X 1 1/2"	2
91817	Hex Bolt, Flange Head, 10.9 Zinc - 8MM-1.25 X 25MM	3
93170	Gasket, Copper - Plug, Oxygen Sensor Port, Turbo System - 99-06 Jeep 4.0L	1
<b>24240-6</b>	<b>Ram-Air Components Kit, Turbo Syst - 99-06 Jeep 4.0L</b>	<b>Qty</b>
24240-61	Small Parts Kit, Ram-Air - Turbo Syst - 99-06 Jeep 4.0L	1
41506X	Air Filter Element, Turbo System - 1999-06 Jeep 4.0L	1
41561	Housing, Air Filter, Turbo System - 99-06 Jeep 4.0L	1
41562	Cover, Air Filter Hsg, Turbo System - 99-06 Jeep 4.0L	1
41564	Intake Tube, Turbo System - 96-06 Jeep 4.0L	1
41565	Super-Scoop, Turbo System - 99-06 Jeep 4.0L	1
96002	Decal, Stop Do Not Discard - Ram Air Filter	1
<b>24240-7</b>	<b>Fuel Injection Parts Kit, Turbo Syst - 99-06 Jeep 4.0L</b>	<b>Qty</b>
42730	Spacer, 0.85" H X .600 OD X .25 ID - Aluminum	3
43625	MAP Sensor, 2-Bar, Turbo System - 99-06 Jeep 4.0L	1

43628	Spacer, Throttle Body/Mount, MAP Sensor - Turbo System - 99-06 Jeep 4.0L	1
43643	Fuel Injector, 35 lb/hr@43.5 PSI, EV6 - Turbo Syst - 99-06 Jeep 4.0L	6
47102	Valve, Vacuum Check - Turbo System, 1999-06 Jeep	1
47105	Valve, PCV Check - Turbo System, 1999-06 Jeep	1
62001	Cable Tie, Black, 6" -	12
91759	Hex Bolt, Flange Head - 6Mm-1.00 X 35Mm	3
91761	Hex Bolt, Flange Head - 6Mm-1.00 X 45Mm	4
91826	Washer, Int Tooth Lock, Zinc - #10	2
91860	Hex Bolt - 10-32 X 3/4"	2
92032	Cap, Vacuum/Boost, 5/8" ID, Rubber	1
92131	Fitting, 1/4" NPT Male X 3/8" Push On Barb, Brass	1
92251	Plug, 1/8" NPT- Hex Countersunk, Zinc	1
92775	Clamp, 11/32" Spring Band, Silver	2
92777	Clamp, 19/32" Spring Band, OD Green	2
92879	Clamp, 3/4" Spring Band, Black - 97-06 Jeep 4.0L	1
93078	Gasket, Throttle Body - 99-06 Jeep 4.0L	2
94122	Hose, Silicone, Black - 3/16" ID X 3/8" OD Bulk	5
94136	Hose, PCV, 3/8"Id X 1/2"Od - Bulk	1.33
94138	Hose, 1/2"Id X 3/4"Od, Bulk - Jeep 4.0L, PCV Hose	0.25
<b>24244-5</b>	<b>Boost Tube Kit, Turbo Syst - 05-06 Jeep 4.0L</b>	<b>Qty</b>
42452	Boost Tube, Non-Intercooled, Turbo System - 05-06 Jeep 4.0L	1
92122	Fitting, 1/8" Npt X 1/4" Hose - Elbow, 90 Degree	1
92251	Plug, 1/8" NPT- Hex Countersunk, Zinc	1
92850	Hose Clamp, T-Bolt Style, 2 3/8" - Various Applications	2
92855	Hose Clamp, T-Bolt Style - 3"	2
94123	Hose, Silicone, Black - 1/4" ID X 7/16" OD Bulk	1
94253	Hose, 2.0" ID x 1.875" Lng, Reinforced silicone, Black w/Brick Red Liner	1
94276	Hose, Throttle Body Inlet - 1997-06 Jeep 4.0L	1

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