

## **Installing Nameless Performance High Flow cats on a 2000-2002 Jaguar XKR**

### ***Part I, removal preparation under the hood, left side.***

1. Open the hood and remove the coolant tank cap on the driver's side of the car, towards the firewall.
2. Use a fluid transfer pump or turkey baster to suck the fluid from the coolant tank. Save the coolant in a clean container for later reuse.
3. Remove the torx retaining screw for the coolant tank and slide tank forward over grommet mounts.
4. Pry open the three small clic type hose clamps on the nipples on the upper part of the coolant tank with a small screwdriver in the rectangular window of the clamps. Squeezing the clamps together by their outermost ears with a pair of pliers while prying makes this easier. Remove the three small upper coolant hoses from the coolant tank once the clamps are released.
5. Place a hose line clamp on the large hose below the coolant tank to prevent loss of fluid. Remove the conventional flat spring hose clamp and large coolant hose at the bottom of the coolant tank.
6. Remove the coolant sensor connector from the bottom of the tank. Pop the metal spring off this connector with a jewelers screwdriver and the connector pulls off easily. (Afterwards replace the spring on the connector). Don't panic if the coolant sensor pops loose or displaces...just snap it back in firmly.
7. Set the coolant tank aside.
8. Look below where the coolant tank was and you will see a metal heat shield attached with 3 torx screws oriented in a triangular pattern. Remove these 3 torx screws.
9. Displace the heat shield to the left side(don't bother trying to lift out of the car) exposing the bracket for the heat shield and the four studs and 13mm nuts connecting the exhaust manifold to the cat.
10. Spray the nuts liberally with PB Blaster or equivalent and wait a few minutes for it to penetrate.
11. Remove the first two 13mm two nuts holding the gold colored heat shield bracket and remove the heat shield bracket .
12. Remove the remaining nuts. The lower left will likely require a universal joint socket extension.
13. There is another, lower heat shield hanging on the lower two studs. Remove this. The lower left stud also has a spacer...try not to drop it when removing this lower heat shield.

### ***Part II, removal preparation under the hood, right side.***

1. Remove the two bolts on the intake hose over the throttle body.

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2. Loosen the large intake hose clamp to the airbox.
3. Squeeze the ribbed side of the breather tube connector at the valve cover and firmly pull to release the breather tube.
4. Remove the intake hose/breather tube assembly and set it aside.
5. On the passenger side of the car, look for the silver heat shield attached with 3 torx screws oriented in a triangular pattern in the same relative position as was on the driver side of the car. Remove these 3 torx screws.
6. On some models, there may be two additional screws on the upper part of this heat shield connecting this heat shield to another one. Remove these two additional screws if applicable.
7. This heat shield is made of a silver painted fiberglass and may be brittle and delicate. Handle it gently. Displace this heat shield to the left side (don't bother trying to remove it from the car) exposing the bracket for the heat shield and the four studs and 13mm nuts connecting the exhaust manifold to the cat.
8. Spray the nuts liberally with PB Blaster or equivalent and wait a few minutes for it to penetrate.
9. Remove the first two 13mm nuts holding the gold colored heat shield bracket and remove the heat shield bracket.
10. Remove the remaining nuts. The lower left will likely require a universal joint socket extension.
11. Set up very bright lighting pointing behind the throttle body.
12. From the right side of the car, locate the four oxygen sensor connectors. All four are behind the throttle body, in the main firewall harness area. All four are most accessible from the right side, but it is a very tight squeeze back there. There is a grey and a black four wire connector for each of the cats' two oxygen sensors. Three are in line right up near firewall, and one (the grey one from the driver side cat) is 90 degrees from the other three, within a bit easier reach from the driver side. They are extremely difficult to un-mate while on position on their mounting tabs. Instead, lift each connector pair straight up off its metal mounting tab. They will pop off with some direct upward force. Once off of the tabs, there is enough cable slack to squeeze the locking tab on each connector body and un-mate all four connectors.

### ***Part III, cat removal.***

1. Place the car on a lift (ideal), or on as tall as possible jack stands or ramps.
2. Spray with PB Blaster and remove the two 15mm nuts from each exhaust pipe to cat flange.
3. Remove the 2 cat bracket bolts for the left cat

4. On the left side, push the center muffler firmly toward the rear to clear the pressed in exhaust pipe flange bolts. (Note: If the bolts are not pressed in, the bolts can simply be removed). Discard the old gasket.
5. Place a support (such as an upside down 5 gallon pail) about 4" under the cat.
6. Wiggle the left cat free from the upper flange. If the heat shield falls with the cat, just wedge it back up into its previous position by the exhaust manifold flange in roughly the correct orientation. Discard the old gasket.
7. Place the cat on the support and cut the zip-tie for the oxygen sensor cables on the transmission housing.
8. Place the now free left cat with the oxygen sensors still attached aside.
9. Repeat steps 3-8 for the right side

#### ***Part IV, oxygen (O2) sensor transfer***

(Note: These were some of the tightest O2 sensors I have run across, I broke two O2 removal sockets on them. Either use very high quality sockets, such as Snap-On or KD Tools or else place vise grips on the outside of the socket to prevent flex around the socket wire slot)

1. Remove the primary (upstream) O2 sensor (the one closest to the 4-bolt flange) from the old left cat using a 22mm O2 sensor removal socket and a breaker bar.
2. Place anti-seize on the O2 sensor threads. Transfer the primary O2 sensor to the new left cat. Make sure it also goes closest to the 4-bolt flange. Tighten to 35 ft-lbs.
3. Remove the secondary (downstream) O2 sensor (the one in the center of the old cat) from the old left cat using a 22mm O2 sensor removal socket and a breaker bar.
4. Place anti-seize on the O2 sensor threads. Transfer the secondary O2 sensor to the new left cat. Make sure it also goes closest to the 2-bolt flange. Tighten to 35 ft-lbs.
5. Repeat steps 1-4 for the right cat.

#### ***Part V, cat install, under car.***

1. On the new left cat, place the two O2 connector ends together, one behind the other and wrap with 2-3 turns of masking tape.
2. Place the new 4 hole copper gasket on the flange studs, and mate the new left cat with the upper exhaust manifold 4 bolt flange.

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3. Place the new 2-hole aluminum gasket over the two 15mm studs on the exhaust pipe flange and push and slide the lower cat flange into position over the two 15mm studs on the exhaust pipe flange.
4. Replace the 2 left cat bracket bolts.
5. Look carefully in the cavity where the new cat is now mounted and make sure the new cat is not touching any of the heat shields on the walls of the cavity. If there is any contact, use a large screwdriver or pry bar to slightly bend the heat shield away so there is clearance between the cat and the heat shields on the walls of the cavity.
6. Repeat steps 1-5 for the right cat.
7. Place anti-seize on the 2 left exhaust pipe studs, and replace with new nuts included in the kit (or new nuts and bolts if the original studs were not pressed in, or were damaged).
8. Repeat 7. for the right side.
9. Lower the car temporarily.
10. On the left side, under the hood, locate the primary (upper) O2 sensor body. From this point pull and fish the taped connector ends up back near the firewall to near their original positions. Remove the tape.
11. Repeat 10. for the right side.
12. Raise the car again.
13. On the left side replace the O2 sensor cable tie on the transmission. Use a long tie (like 18-24"), and shape it into a hook, because there is very tight access here.
14. Repeat 13. for the right side.
15. Lower the car.

***Part VI, final assembly under hood, left side***

1. Place lower heat shield back on two lower cat studs, remember to put back spacer.
2. Place gold heat shield bracket on two RH cat studs.
3. Coat all four cat studs with anti-seize.
4. Replace all four 13mm nuts with new ones in kit.
5. Wiggle heat shield into position over gold bracket and replace 3 torx screws.
6. Replace the large lower coolant tank hose and remove the hose line clamp.

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7. Replace the coolant level sensor connector. Make sure the coolant level sensor is fully seated in tank body.
8. Slide coolant tank into mounting grommets and replace torx mounting screw.
9. Replace 3 small hoses on coolant tank. Use pliers to snap lock the clic type hose clamps by squeezing across the outermost ears.
10. Replace the coolant saved, and top up with 50--50 mix as needed, and recap the tank.

***Part VII, final assembly under hood, right side***

1. Mate all four O2 sensor connectors. It is easier to zip tie them to nearby, more easily accessed wiring harnesses rather than try to remount them on their original tabs. It also will be easier to service them in the future.
2. Replace the heat shield bracket over the 2 RH cat studs.
3. Coat all four cat studs with anti-seize.
4. Replace all four 13mm nuts with new ones in kit.
5. Wiggle heat shield into position over gold bracket and replace 3 torx screws (and two additional screws to other heat shield, if originally equipped).
6. Replace the Intake tube/breather hose assembly. Tighten the two mounting bolts on the throttle body, and replace the hose clamp to the air box.
7. Press the breather tube back on valve cover until it clicks.

***Part VIII- Check***

1. Turn on engine and make sure all is well.
2. Go for a test drive and start grin-in !!

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