



BoonDocker Nitrous Manifold Nozzle Update Instructions

Your New BoonDocker Nitrous Manifold Nozzles have arrived!

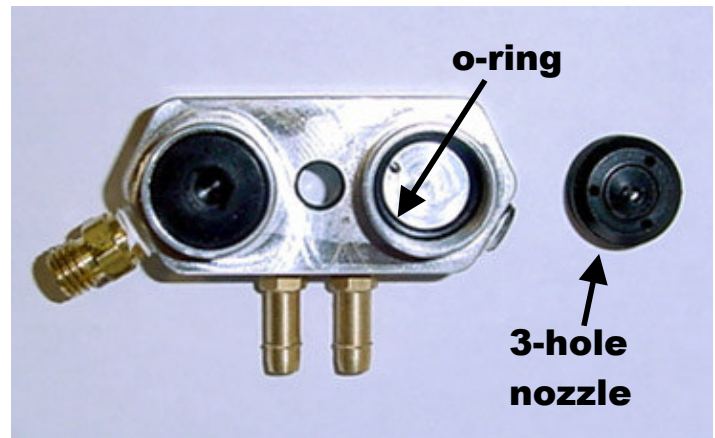
We're sending you these new black nozzles for free to replace the white nozzles originally shipped in your kit.

We found some inconsistencies in the white material and determined that the white nozzles are not up to the quality of BoonDocker standards. Do not use the white nozzles.

Thank you for choosing BoonDocker Liquid Nitrous. Please call our office with any questions at 208-542-4411.

Installing / Removing Nozzles

1. Remove the nitrous manifold from the airbox/airfilter.
2. Use a 7/32" hex wrench to carefully remove/install a nozzle. Be sure the o-ring is still in place before threading in a new nozzle. Be very careful not to overtighten the plastic nozzle – it needs to be just snug.
3. Retune the nitrous manifold according to the instructions below. Anytime the orifices are changed, the nitrous manifold pressure will change so retuning is necessary.
4. Please return your white nozzles to BoonDocker or your BoonDocker dealer.



Nitrous Manifold Tuning Instructions

The factory setting should provide a starting baseline. Each nitrous manifold requires a different number of turns on the fuel adjustment screws to make a given pressure to the float bowls. We recommend you first count the number of turns in each screw is set at before making adjustments. This will provide a baseline you can return to if necessary. If this setting accidentally gets changed and the initial setting is unknown, turn both screws in (clockwise) all the way and then back out 2.5 turns each, then proceed with the steps below.

There are two fuel adjustment screws on the nitrous manifold. These screws adjust the amount of fuel when nitrous is being used - they will not affect carburetor jetting off nitrous. All adjustments below should be done using the **fine adjustment screw** (small arrow, small "R") first. The coarse adjustment screw (large arrow, large "R") should only be used if correct results cannot be obtained using the fine adjustment screw (if fine screw is turned in all the way or turned out more than 5-6 turns). Two turns on the fine adjustment screw equal one turn on the coarse adjustment screw. "R" stands for "Rich" – turning the adjustment screws **in** will add more fuel when using nitrous.

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The steps below should be done with a full nitrous bottle that is at the proper operating temperature (70-90deg F). Make sure the engine is at normal operating temperature. Do not exceed 2 seconds of nitrous use until the fuel adjustment is complete and correct.

This adjustment process should only be performed by an experienced tuner. If you are not an experienced tuner, find someone who is. Remember, safety first!

1. Run the sled in an open area at full throttle and apply nitrous for 1 or 2 seconds. Note engine power and rpms when the button is pushed.
2. Enrichen the mixture by turning the nitrous manifold adjustment screw in (clockwise) 1/2 turn. Run nitrous for 1 or 2 seconds again and note power and rpm difference. If no power loss is noted, repeat step 2 until a loss is noted. A power loss indicates you are rich enough (be sure!) - go to step 3.
3. To find where the mixture starts to become too lean, turn the nitrous manifold adjustment screw out (counterclockwise) 1/2 turn and note power. A power increase should be noted. Turn nitrous manifold adjustment out 1/2 turn and compare to previous run. If no power increase is noted, go to step 4. If power increase is noted, repeat step 3 until no power increase is noted. Use extreme caution - you can go too lean!
4. For the final setting, turn the nitrous manifold adjustment screw back in (clockwise) 1/2 turn.
5. After this adjustment is made, if the engine does not run perfectly smooth when using nitrous, do not use it! If the exhaust note does not sound clean, the cause is likely detonation which can quickly destroy the engine. Either use higher octane fuel, add more ignition retard, reduce the engine's compression, or reduce the amount of nitrous (see next section) before using nitrous again.