



Skidoo ZX DPM Update Instructions

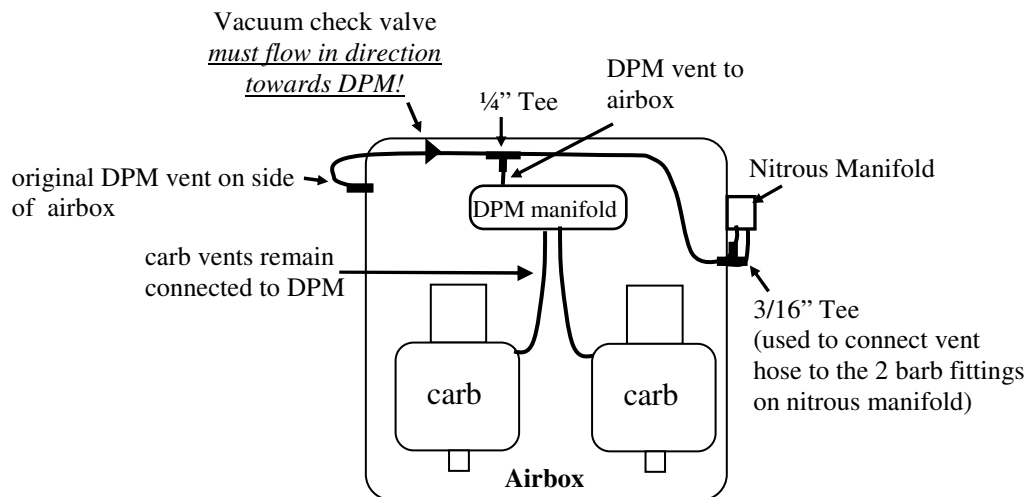
We're sending you a plastic check valve to replace the brass-colored orificed cup plug originally shipped in your kit.

This check valve will allow the nitrous manifold to build more pressure inside the DPM. Remove the orificed cup plug and insert this check valve as shown below.

1. Connect the Plastic Vacuum **Check Valve** so it is in-line between the original DPM vent on the airbox and the 1/4" Tee. Be sure the check valve allows air to flow towards the DPM from the airbox (White end towards airbox vent, Black end points towards DPM). Double check that the check valve flows the right direction by blowing on it both directions. **If the check valve is backwards, you will be too lean on nitrous!**

Be sure the hoses do not get kinked when the sidepanel is shut!

2. Retune your manifold according to the instructions on the following page.



Nitrous Manifold Fuel Adjustment Procedure: For both Updates

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 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.

Warning: Only adjust the fuel mixture screws on the Nitrous Manifold according to the steps below.

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 1.5 turns each, then proceed with the steps below.

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 before using nitrous again.