



T H E S P E C I A L I S T S I N L A N D R O V E R S • U S A

Base Idle and Air Gap Setting - eliminating stalling at idle

INTRODUCTION: I can't tell you how many times in a week that a shop or a do-it-yourselfer calls and says they have done a Land Rover V8 tune-up and the vehicle idle is not steady and/or it stalls when coming to a stop. So I ask them... "Did you set your airgap?" and... "what about the base idle?" Usually there is silence on the phone before I hear... "what's that?!" The following should be completed, in this order with each tune-up.

1) To set the air gap you will have to remove the distributor cap, rotor arm, and the dust cover by removing three screws. (Be careful not to drop the dust cover screws, they are really small and you won't be able to find them), see figure 1.



Figure 1. Dust cover screws are marked with red paint - don't loose them!

2) Set your feeler gauge, which must be **non-magnetic** (most people use brass or plastic), to .010. On the distributor shaft you will notice what looks like a wagon wheel. Turn the engine by hand until one of the wagon wheel spokes aligns with the eye of the pick-up mounted to the distributor base plate. Insert the feeler gauge, see figure 2. Does it feel loose? If yes, loosen the two screws holding the pick-up and adjust the gap to .010. Once the proper gap is achieved, tighten the pick-up screws and reassemble the distributor.



Figure 2. Insert feeler gauge into air gap area to obtain .010 clearance.

3) Now for the base idle. First, at the top of the throttle body you will notice a small round plug. If not already removed, you will need to drill a small hole in the center of the plug. Once the hole is drilled, insert a small screw into the hole. Using a pair of needle-nose pliers between the screw head and the plug, pry the plug out of the throttle body, see figure 3.

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- 4) With the plug removed you will notice an Allen head screw. Before we mess with the screw, find the black hose connected to the side of the throttle housing to the rear of the plenum. Disconnect this hose and plug at both ends, see figure 4.
- 5) Start the engine, and with the proper Allen wrench, adjust the idle RPM by turning the screw clockwise to decrease RPM or counter-clockwise to increase RPM, see figure 3. The base idle should be set at 525 +/- 25 rev/min.
- 6) Once this is done, turn the engine off, unplug and reinstall the hose. Now you should set your timing to 6° +/- 1° Before Top Dead Center.
- 7) The last thing to do is replace the tamper proof plug part # RNM109 - this is the one you removed to set the base idle, see figure 3.



Figure 3. Location of throttle body allen screw adjustment screw, shown with tamper proof plug # RNM109 removed.

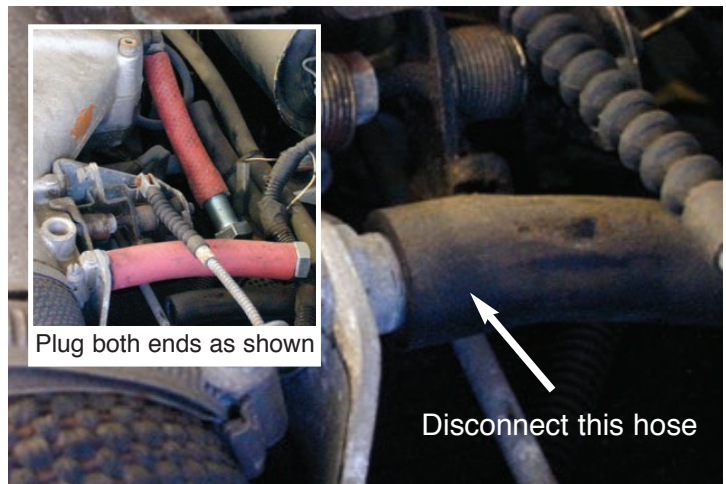


Figure 4. Disconnect black hose on side of throttle body and plug both ends as shown.

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