OMVL R90/E CONVERTER MIXTURE ADJUSTMENT

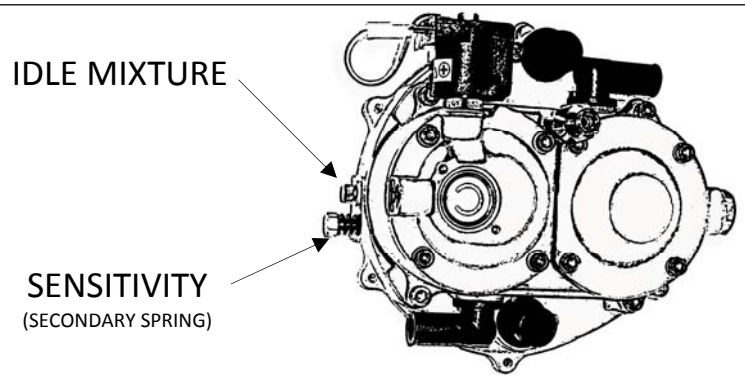
Adjusting the idle and sensitivity settings of the OMVL R90/E converter is a simple procedure.
Just take a little time to study this adjustment sequence before commencing.

IMPORTANT. Before adjusting the LPG mixture, you **MUST** make sure that all preliminary tuning checks and adjustments have been completed, as the fuel mixture readings can be dramatically affected by something as simple as valve clearances. Also, be sure to disable any air pumps, "gulp" valves and any other item which might add air to the exhaust and corrupt your emission readings. Check the exhaust system (including the EGR valve) for leaks, as air can be drawn in and indicate (incorrectly) a lean mixture. Deactivate any air intake redirection flaps whilst running on LPG.
NOTE: All stated CO readings are before the catalytic converter (if so equipped).

1. Warm up engine to operating temperature, the hold engine at 50% rpm. Adjust the maximum flow adjuster for approximately **0.2% CO** (no load, open loop). If closed loop, follow processor instructions.
2. Close the 8mm **top** (idle) screw and initially set the converter to idle on the bottom (sensitivity) screw for several minutes (only necessary on a new converter, to "bed in" seats).
3. With the engine idling, *quickly* **close** the 10mm **bottom** screw until the engine begins to run poorly. Now undo the screw until idle just returns to original idle speed.
4. **Open** the 8mm **top** (idle) screw, **(1/4 to 1/2 turn max.)** and adjust the idle mixture to **1.5% CO** unless otherwise specified. **Note:** If the system is to be operating in closed loop at idle, leave the **top** screw shut and set the **bottom** screw for optimum lambda oscillation.
5. Reset the vapour line maximum flow (power) adjuster to :-
   (a) **1.5% CO** @ maximum load (Dyno or mobile analyser), or **0.2% CO** @ 50% rpm (no load applied).
   (b) If closed loop, follow instructions supplied with processor.
6. Recheck the idle CO% after carrying out maximum flow adjustments.
7. Check the throttle response for a smooth progression from the idle circuit to the cruise circuit. A ***very small*** amount of "flat spot" will indicate a stable idle circuit. If there's an unacceptable "flat spot", simply **wind out** the bottom (sensitivity) screw a few "flats". On automatics, put the vehicle in gear and turn on the air conditioner to check idle stability and sensitivity adjustment.
8. Finally, a road test should be performed to test the converter for resistance to stalling during U-turns and quickly negotiating roundabouts. If this is noticed, then simply turn the bottom screw a few "flats" clockwise.

Note

After adjusting the sensitivity, both the maximum flow and idle circuits should be checked for correct mixture readings, as all three adjustments are inter-related. Eg: winding out the bottom screw (sensitivity) reduces the secondary spring tension, allowing the secondary diaphragm to "sense" a smaller mixer depression (signal). This feature, along with the innovative "self-checking automatic pilot" circuit allows the same converter to be adapted to vehicles from 500cc to 5000cc.



Think of the sensitivity screw In terms of a "float level"

Too loose means fuel is drawn from the "mains" circuit at idle, possibly resulting in unstable idle and stalling on turns. Too tight means an annoying "flat spot" (or progression fault) above idle. Follow the correct procedure and you'll be rewarded with a smooth, stable and efficient LPG system.

TECH HOTLINE	VIC– HEAD OFFICE	QLD	WA	NSW
1800 810 149	(03) 9350 5500	(07) 3262 4822	(08) 9417 7222	(02) 4956 6041

OMVL R90/E CONVERTER MIXTURE ADJUSTMENT

ADJUSTMENT WITH SPRING

IDLE MIXTURE

SENSITIVITY
(SECONDARY SPRING)

ADJUSTMENT WITH SPRING AND LOCK NUT

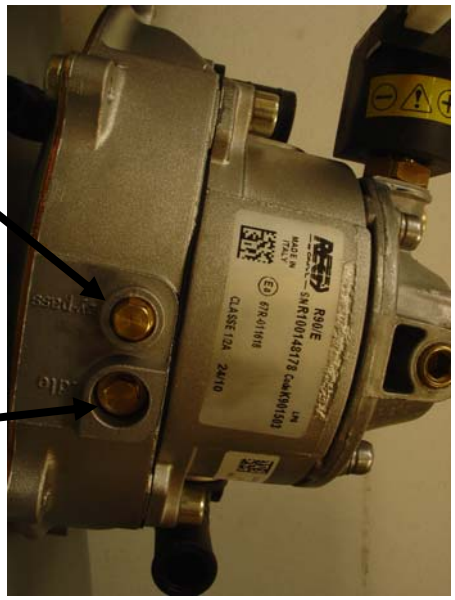
IDLE MIXTURE

SENSITIVITY
(SECONDARY SPRING)

ADJUSTMENT RECESSED

IDLE MIXTURE

SENSITIVITY
(SECONDARY SPRING)



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