

MicroTech

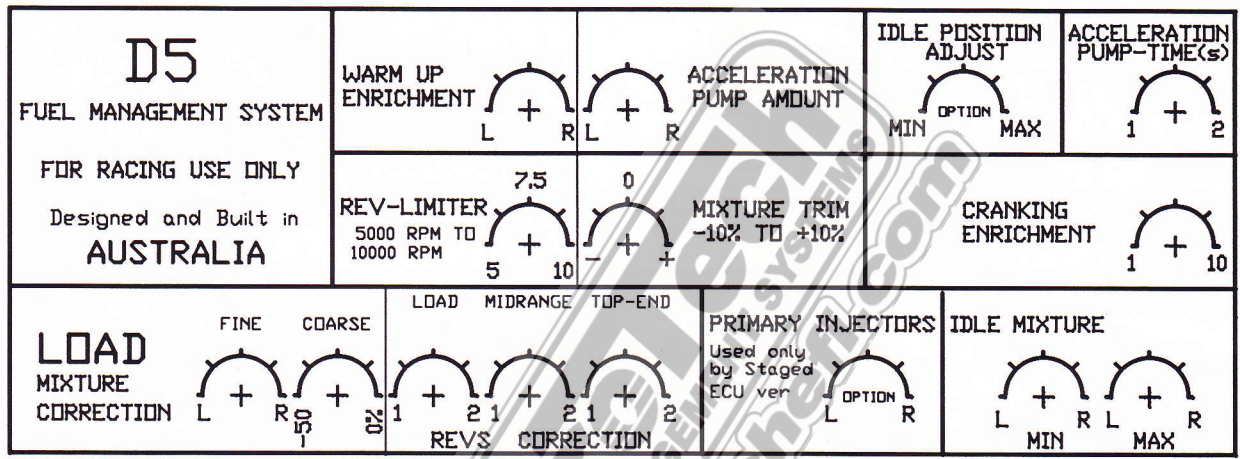
REV LIMITER ON

FUEL PUMP ON

IGNITION +12v

IGNITION PULSE

Injected by
MicroTech
AUTOMOTIVE SYSTEMS



● MICROTECH D5 basic settings for _____

MICROTECH QUICK REFERENCE GUIDE

● LOAD CORRECTION LEAN / RICH

As load increases, the vacuum in the inlet manifold drops. The ECU senses this change via the MAP sensor (manifold absolute pressure) and increases the injection ON time up to the maximum point which has been set via Load Correction LEAN / RICH. For turbo and supercharged engines, the MAP sensor also reads boost pressure and will continue to increase injection ON time.

● LOAD CORRECTION 0% TO -50%

Additional load correction is required to existing program when adding larger high flow injectors. You may trim the existing program which is supplied with the ECU by as much as 50%. ie. When adding a set of larger injectors which flow 25% more fuel than existing ones, you may subtract 25% of the existing program via 0% to 50% adjustment which leaves the bottom-end the same as it was with the smaller injectors. You can now add extra fuel via the "REV CORRECTION" adjustment for more midrange & top end where the extra fuel is needed.

Warning: Leave setting at 0% unless you have larger injectors or have increased fuel pressure above standard.

● REVS CORRECTION

There are 3 main adjustments for rev correction.

1. The "LOAD" adjustment is activated under full load and extra fuel can be added to the base program at any rev point without affecting the bottom end.
2. The "MIDRANGE" adjustment is activated under full load and R.P.M. (3500 to 4500 approx.) extra fuel can be added at this point of the program.
3. The "TOP-END" adjustment is activated in the same manner as the midrange adjustment but much higher in the rev range (4500 to 6500 approx.) and richens the top end all the way to red-line without affecting the bottom end and mid-range values.

● IDLE MIXTURE MIN & MAX

1. Turn "IDLE MIXTURE MAX" full lean
2. Lean the "IDLE MIXTURE MIN" until the engine falters, then richen up slightly until smooth idle. If idle speed is not satisfactory, adjust idle speed via the bypass air bleed screw on throttle body and re-adjusted "IDLE MIXTURE MIN".
3. Load engine up ie. turn on coolant fan, headlights, air-con or place in gear if Auto and richen "IDLE MIXTURE MAX" until the engine idles smoothly and does not stall.

A little juggling between "MIN" & "MAX" settings will soon get it right.

NOTES: - Engines with low or irregular vacuum use "IDLE MIXTURE MIN" to set idle mixture and turn "IDLE MIXTURE MAX" full lean which will prevent false readings due to vacuum pulsations & fluctuations.

- Red "IDLE" Indicator must be on at IDLE position for mixture to work correctly. (see Idle pos adjust)

● WARM-UP ENRICHMENT

Adjust "WARM-UP ENRICHMENT" for a nice smooth idle when first starting engine by richen or leaning mixture. The "WARM-UP" indicator will turn off when complete at about 60 Deg C.
WARNING: - If there is no air bypass valve to raise the engine idle speed when cold. Idle speed may be low until engine warms up.

- Coolant sensor MUST be connected up for warm-up enrichment to function correctly, check wiring and sensor if engine runs rich.

● ACCELERATOR PUMP AMOUNT AND TIME

To remove residual throttle opening stumble, adjust pump amount and time until there is a nice smooth progression. Beware that stumbles can be caused by TOO MUCH fuel or "IDLE POSITION ADJUST" not set correctly. A little juggling will get it right.

● IDLE POSITION ADJUST

Used only by variable resistor type Throttle position switch (T.P.S.). Check that throttle is closed, and then adjust "Idle position adjust" pot until the red "IDLE" Indicator is just coming on with throttle closed. A light touch of the throttle should turn off the "IDLE" Indicator.

● CRANKING ENRICHMENT

This is adjusted by cranking engine and gradually richen until engine starts when warm. The ECU will automatically add additional fuel while cranking engine when cold.

● MIXTURE TRIM +/- 10%

Additional correction of the total fuel mixture if required can be done via the "+/- 10%" adjuster.

● PRIMARY INJECTORS

Used only by Staged Injector version of ECU.

For staged injector setup "PRIMARY INJECTORS" is used to change the gain of enrichment for the primary injectors and is then ignored when secondary injectors are switched on by ECU. This feature is mainly used on turbo setup ie. Mazda 13B & 20B turbos with primary and secondary injectors or custom setups.

● FUEL PUMP ON

Fuel pump is automatically controlled by ECU via external relay and is indicated if ON.

● IGNITION PULSE

Allows you see instantly if the D5 ECU is receiving a correct Ignition pulse while engine is cranking or running.

● IGNITION +12V

A voltage indicator allows you to see instantly if the D5 ECU is receiving +12v IGN power. If the voltage is below +12v the indicator will dim.

● REV-LIMITER

Will cut one or two bank of injectors between 5000 and 10,000 rpm and is indicated if activated (Fully clockwise = rev-limiter OFF)