

Micro DYNAMICS

DIGITAL SERIES

**Digital Rev Limiter
WITH
FULL THROTTLE GEAR CHANGE
-TWIN COIL VERSION
DRL 4**

INSTRUCTION LEAFLET

Thank you for choosing a quality **MicroDynamics** product.

The **MicroDynamics Digital Rev Limiter** provides protection against over revving which can easily lead to serious engine damage. It is precisely controlled using microprocessor technology which also provides high reliability and ease of use.

The system works on all negative earth contact breaker ignition systems, opto breaker systems and most transistorised and ECU controlled ignition systems. It can be adjusted to any engine speed from 1,000 sparks-per-minute to 40,000 sparks-per-minute (e.g. 500RPM to 20,000RPM 4 Cylinders).

Installation Procedure

1. Mount the clutch switch (supplied) above the vehicle's clutch pedal or in any position along the clutch activator linkage such that the switch is partially compressed and, therefore, open circuit when the clutch pedal is released. Some production cars are equipped with a threaded mounting hole above the clutch pedal into which the clutch switch can be installed. If the vehicle does not have this mounting hole a bracket arrangement will have to be fabricated. Whatever the mounting

arrangement used, the clutch switch must have good electrical contact with the vehicle's chassis EARTH.

2. Mount the Rev Limiter on to a part of the vehicle's bodywork close to the ignition coil but away from any high temperature areas e. g. exhaust, coolant system. Secure using the screws supplied and clamp the BLACK wire to a good earth bolt near to the coil. Select the two wires which are connected to the ignition coils and crimp a blue T-splice connector (supplied) over each of the wires using a pair of pliers. With the ignition switched off, plug the RED wire into the T-splice connector on the positive (+) coil wire and the GREEN wire(s) to the negative (-) coil wire(s).

Ballast Resistors

If the ignition system to which the Rev Limiter is to be connected incorporates a ballast resistor connected to the positive (+) terminal of the coil, then attach the RED wire of the Rev Limiter to the ignition switch side of this resistor and not to the coil side.

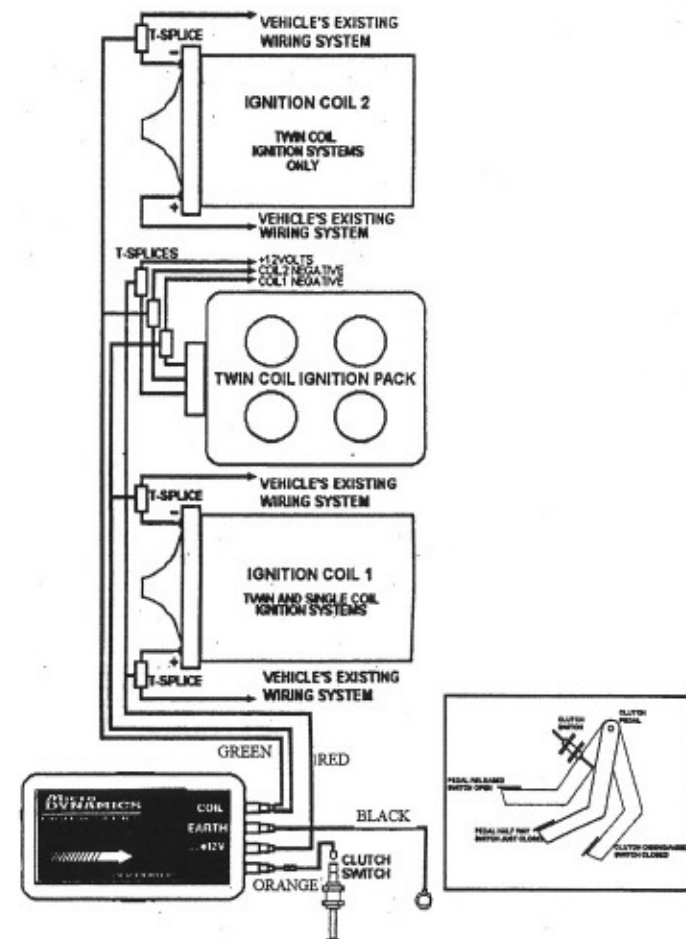
Setting Up

First start the engine and decide what engine speed you wish to set the maximum limit to. Press in the push-button switch and hold until the LED stops flashing and remains lit. With the button still pressed in, use the throttle to set the engine speed to half your required maximum engine speed. As soon as the engine speed is stable at half your maximum speed, release the button. The Rev Limiter will then measure the engine speed immediately the button is released, double it and store it in its memory. This setting will not be lost even if the battery is removed from the vehicle for long periods. The setting can be re-adjusted again to any engine speed at any time by repeating this procedure. The current speed setting can be determined without the need to rev the engine to the maximum, as the LED will illuminate every time the engine speed passes the half-maximum speed point.

Full Throttle Gear Shift

By setting the Rev Limit speed the Gear Shift speed is also set but to the exact speed at which the engine was running when the button was released, i.e. half the Rev Limit speed. If the clutch pedal is now pressed when the engine speed is above the Gear Shift speed the Rev Limiter will assume that the driver is attempting to change up a gear under full throttle and will, therefore, introduce a secondary rev limit which will be set to the exact speed at which the engine was running when

the clutch pedal was pressed. For example, if the Rev Limit speed is set to 8,000RPM the Gear Shift speed will be 4,000RPM. If the driver then presses the clutch pedal at 5,500RPM then the rev limiter will hold the revs at 5,500RPM whilst the clutch is disengaged. This allows the driver to safely change up gear without lifting off the throttle pedal for quicker gear shifts and improved acceleration. If the clutch pedal is pressed when the engine speed is below the Gear Shift speed the Rev Limiter will not introduce this secondary rev limit as it may hinder acceleration off the start line.



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