



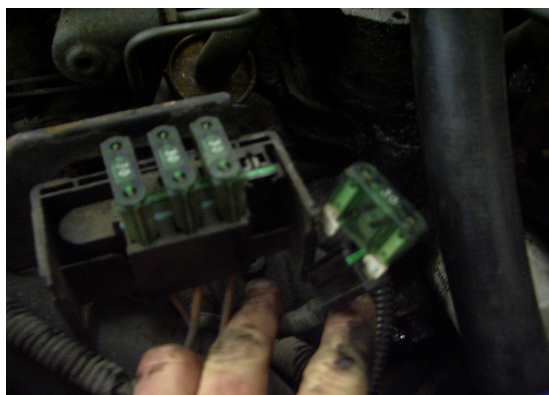
## Specialist Components – Technical Information

### SC D400 Engine Management System

#### Rover Mini MPi 5 Port Engine Management Kit Fitting Instructions



- Disconnect Battery before starting the installation of this kit.
- Remove Rover air box from the throttle body setup.
- Disconnect the wiring loom from the throttle body (injectors, TPS etc)
- Remove fuel lines from the fuel rail. Be careful of spillages. Removing the fuel cap will relieve any pressure, preventing spillages. We advise using a bit of fuel hose going from the feed straight to the return
- Remove the inlet manifold and throttle body assembly.
- Remove Maxi fuse and holder (pictured below) and disconnect the rest of the wiring loom. Removing the coil or front grill will make this process easier and also when you come to install the new loom.



- Remove the old wiring loom and MEMS ECU from the car.
- Fit fuel lines and plumb in the fuel pressure regulator. The orange fuel line is the supply into the engine and the green fuel line is the return back to the fuel tank. The fuel pressure regulator plumbing should be plumbed into the return line of the fuel system. The fuel enters

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the regulator into the side and out of the bottom back to the tank.

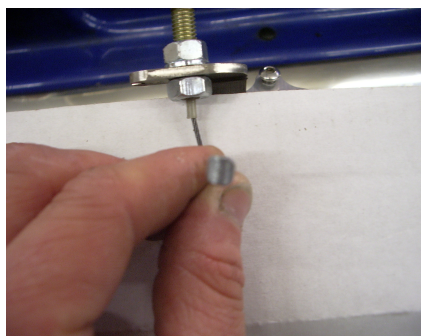
- When mounting the fuel pressure regulator, do not fix this to the engine as the vibration will cause long term damage of the internal components. Use high quality injection fuel hose and the correct hose clips.



- Before fitting the throttle body assembly, you will need to fit the full load breather and Inlet Air Temperature (IAT) sensor into the air filter back plate. Use the rubber grommet in a 1/2" (12.5mm) hole in the back plate, the 90-degree adapter will push through this and be retained by the grommet. The IAT also fits into the air filter back plate and will require two holes and a slot to be made in the back plate for mounting.
- The existing MPI throttle cable can be used with a few modifications to the nipple on the throttle body end of the pedal. First of all the square plastic nut that holds the throttle cable needs to be cut off. This is easiest with either a junior hacksaw or a pair of wire cutter, be very careful not to damage the cable itself.



- The nipple on the end of the cable needs to be slimmed down in a rounded shape to allow the fitment of the two M10 lock-nuts over the end of the cable (one prior to putting the cable through the bracket and the other after, before inserting into the throttle quadrant). Use the picture as a guide but check frequently.

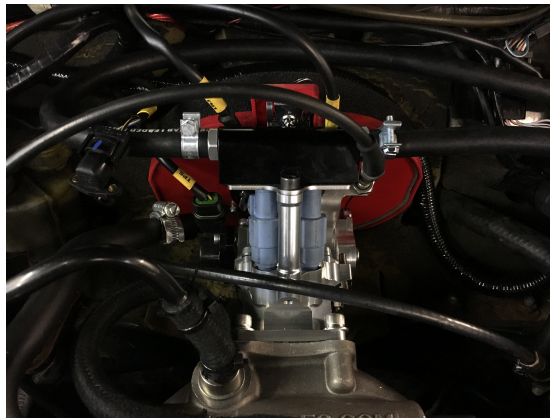


- Fit cable to the throttle body with locking nut arrangement as above and put cable nipple in the throttle quadrant.
- Install the new SC wiring loom to the car, don't connect anything yet, just position the loom roughly.

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- Fit inlet manifold assembly to Engine.



- Complete the fuel line plumbing from Fuel regulator.
- Fit D400 ECU to existing Rover ECU bracket. Position the ECU on the bracket and mark where the 2 holes are. Remove the bracket and drill the 2 new mounting holes.
- Fit the part load breather manifold to the breather pipes behind the rocker cover. The servo take off adapter fits into the inlet manifold in the threaded hole (use some PTFE tape to aid sealing) and a joiner piece of hose to connect the servo pipe into on the top. The part load breather goes into the side of the adapter and secure using a cable tie or jubilee clip.
- Connect the wiring loom to all the sensors and to the ECU.



- At this point the ignition coil pack/front grill can be refitted if removed and the hardware installation is now finished.
- Check that the wide-open throttle can be obtained with a small amount of slack on the cable to ensure that the throttle returns fully.
- Reconnect the battery, switch the ignition on and wait for the fuel pump to prime. Check fuel lines for any potential leaks at this stage.
- Start engine and allow to idle, use the closed throttle stop to set the idle speed to approx 1000rpm. Switch off after setting the idle to allow the ECU to 'learn' the zero throttle position.
- The ECU can now be custom mapped on a rolling road dynamometer to suit your engine.