

MEMS Immobiliser Interface Datasheet

APPLICABILITY

Applicable to: Any Rover or Land Rover vehicle using the 'MEMS' immobiliser protocol

Including: Rover Mini: 1995 onwards
Rover 100: petrol models, 1995 onwards
Rover 200 Series: all with Rover engines, including L Series Diesel, 1995 on
Rover 400 Series: all with Rover engines, including L Series Diesel, 1995 on
Rover 600 Series: 620Ti and 620Sdi, 1994 onwards
Rover 800 Series: all models, 1995 onwards
Rover 25: all models, from Launch onwards
Rover 45: all models, from Launch onwards
MGF, MGTF: All
Land Rover Defender: All models with TD5 engine
Land Rover Discovery Series 2: All
Land Rover Freelander: All pre-EWS3D, i.e. pre-2000MY

NOTE: Rover 75 and Freelander post-2000MY will have MEMS ECU's fitted which require a different signal from the immobiliser. This unit does NOT work on these models.

OPERATION

In order to understand how this unit works, it is useful to understand how the MEMS Immobilisation system works on the vehicles listed above

When the Immobiliser fitted to these vehicles (eg 5AS, 10AS, etc) is disarmed and the Ignition is ON, it sends a number to the Engine ECU. This number is unique to this vehicle and there are 64,000 different numbers.

When the engine is started, the Engine ECU will check the signal received from the Immobiliser. If this is not present or is incorrect, the engine will run for a couple of seconds and then stop.

If a new Immobiliser is fitted to the vehicle, the Engine ECU is put into Learn Mode via diagnostics in order to match it to it.

NOTE: The interface unit is not waterproof and it will not withstand high temperatures such as those seen under the bonnet. It is best placed on a dry area in the passenger cabin.

How this Interface works:

This Interface is programmed with a single number. This allows Engine ECU's fitted to vehicles such as Kit cars, etc, to be exchanged between vehicles without having to be re-matched to the immobiliser.

When this Interface is first fitted to the vehicle, the Engine ECU needs to be matched to it via diagnostics.

The interface is powered via an Ignition feed (to the RED wire). This ensures the signal is there only when is needed without unnecessary drain on the battery.

The interface also requires a Ground connection (to the BLACK wire).

Finally, the BLUE wire REPLACES the signal wire from the immobiliser to the Engine ECU. When installing this Interface to a vehicle that has an Immobiliser fitted to it, it is necessary to disconnect the original wire from the Immobiliser prior to matching to avoid interference.

On MEMS 1.6 and MEMS 1.9, this wire should be connected to pin 13 of the Black connector on the ECU.

On MEMS 2J, this wire should go to pin 17 of the Black connector on the ECU.

On TD5, this wire should be connected to pin 34 of the Black connector on the ECU.

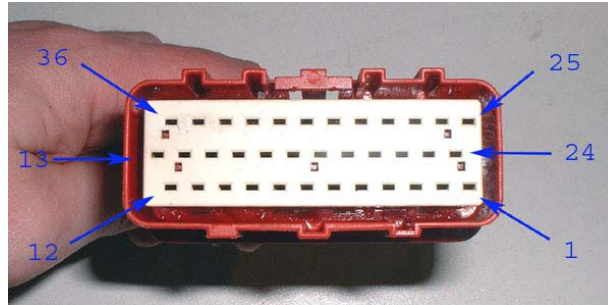


Photo of 36-way connector fitted to MEMS 1.6, 1.9, 2J and TD5 ECU's.
Pin numbers are the same on the Black connector.

On MEMS 3, this wire should be connected to pin 72 of the small connector on the ECU.

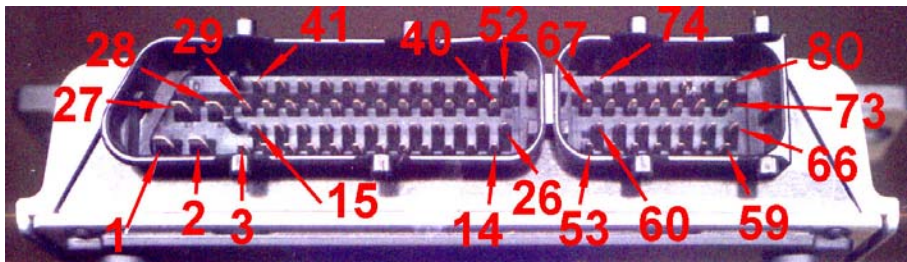


Photo of 80-way connector fitted to MEMS 3.



Photo of MEMS Immobiliser Interface.