

PERFORMANCE CHIP INSTALLATION MANUAL

CAR MODELS

LANCIA NUOVA DELTA (836) 16V TURBO HF LS/HPE
FIAT COUPE 16V TURBO

INJECTION/IGNITION SYSTEM:

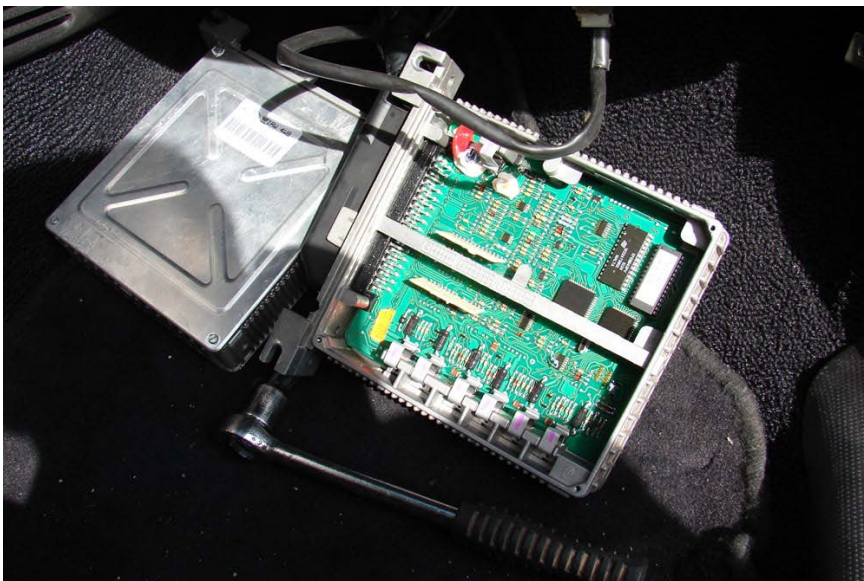
MAGNETTI MARELLI IAW 4WG/P8 AND 4WB/P8
EPROM MAXIMUM TURBO PRESSURE: 1,35bar

THIS CHIP IS NOT INTENDED FOR ROAD USE, TRACK USE ONLY.

THIS CHIP INCREASES ENGINE POWER OVER THE INTENDED POWER OF IT'S MANUFACTURER SO FOLLOW THESE INSTRUCTIONS CAREFULLY!

ALWAYS USE RON98 FUEL

INSTALLING THE CHIP



The ECU can be found under the dashboard by the passenger foot well behind the plastic cover. The plastic cover is fixed with 2 thumb screws. The ECU again is held with 2 screws. Remove the ECU from its support and disconnect the wiring harness. To remove the ECU, release the plug retainer at the side where cables come out of the plug. The plug then swivels out of the socket.



Open the front of the ECU (front is this lid with the label on) by unscrewing the 4 small screws and retract the lid. Extract the chip shown on the right of the picture below. This can be done with a special extraction tool available in any electronics shop or with a small screwdriver. The chip can be installed the wrong way so when installing the new chip in the socket, make sure the notch of the chip is pointing to the right direction (see arrow on the picture).

Close up the ECU and reinstall it under the foot well. Take your time to install the chip it is tricky to get all the pins into the socket.

INSTALLING HARDER SPARK PLUGS



Harder spark plugs are necessary, we recommend the NGK B8EGV.

Tighten up the spark plugs with the correct torque setting.

Also the spark plug leads are difficult to reinstall, make sure they are pressed all the way down on the spark plug.

FUEL PUMP TEST

A fuel pump check is vital! This test consists if the fuel pump is supplied with the correct voltage from the battery. Open the boot and remove the carpet. Retract the hatch to get access to the fuel tank and its wiring.

Putting the ignition key in the on position but not firing up the engine should indicate 12,4Volts. With a running engine it should show 13,10V.

Anything lower indicates the battery might be tired or that there is a voltage drop in the wiring. In case of doubt place a direct feed from the battery to the fuel pump. I can provide more detailed information about this if necessary. Do not run the car if you have doubts about the fuel pump or its wiring.



The second part of the test is a fuel pressure test. Install a professional fuel pressure into the fuel return line to verify that you have the correct fuel pressure. You should read 2,5bar with the engine turned off and slightly less with an idling engine (2,2bar)



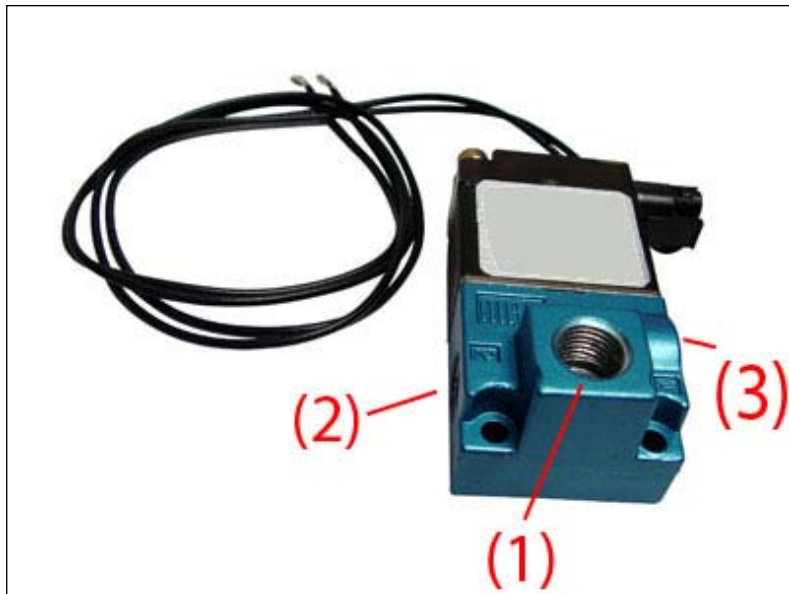
INSTALLING THE UPGRADED OVERBOOST VALVE

The new overboost valve is more precise than the standard one and allows for more rapid accelerations and helps to keep boost levels in the high rpm-range. The chip that comes with this solenoid is designed to work with this solenoid to achieve minimal spool-up time.

The overboost valve has 3 connections. Screw the 2 brass connectors on the entries (1) and (2) See *picture below*. The brass filter is placed on port (3)

Installing the silicone hose provided :

1. Center of the picture: Arrival, pressure coming from the turbo compressor **(1)**
2. Adjusted pressure towards the wastegate **(2)**.
3. Block the original return hose and let the valve vent to atmosphere **(3)**

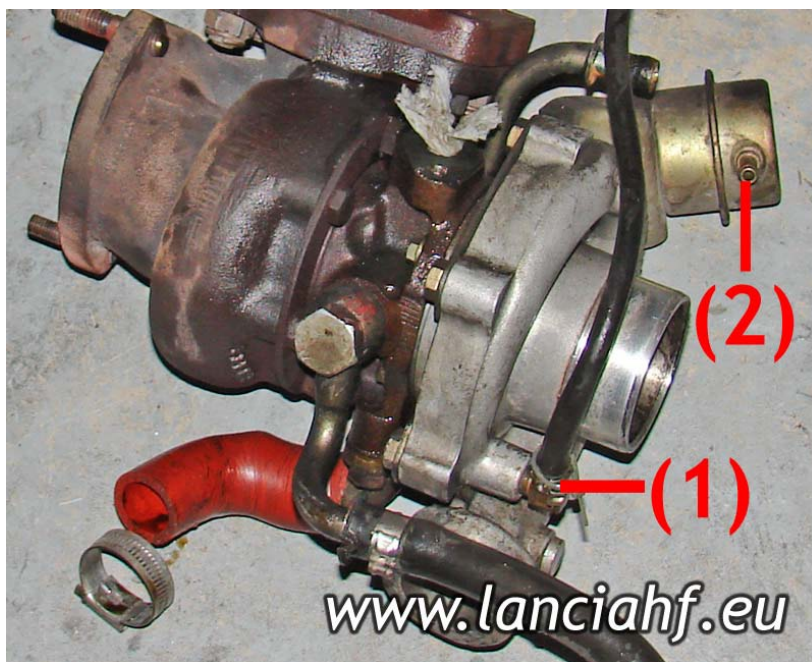


Electrical wiring :

Cut-off the original electrical connector and connect the overboost valve wires to the original loom with the provided terminal lugs. This overboost valve is a direct replacement and the wires do not have a polarity so they can be switched.

View of the hoses turbo side :

1. Pressure exit **(1)** to port **(1)** on the overboost valve
2. The regulated pressure going to the wastegate **(2)** to port **(2)** on the overboost valve



ADDITIONAL RECOMMENDATIONS

Warm up your engine slowly and don't put it under any stress until all fluid levels are at working temperature. Also allow your engine cool down after a run.

A good oil will help protect your engine, Motul 300V 15W50 or Selenia Racing 10W60 is recommended.

Install a professional boost gauge to verify the turbo pressure. Max boost with this chip is 1,35bar.

Check the fueling on a rolling road with a wide band lambda gauge.

Finally: ENJOY your CAR 😊