

BOX CONTENTS

4x Assembled 640cc Injectors

3x Fuel Rail Spacers

4x PnP Adapters

Install Instructions

Remove your existing injectors (the exact procedure varies between 1.6 and 1.8 cars). DO NOT LOSE THE OEM PLASTIC FUEL RAIL SPACERS

Put the OEM plastic fuel rail spacers back into the head and then put 1 of the included 2mm spacers on top of each one. 1.6 cars generally have 2 spacers while 1.8 cars have 3. These spacers are necessary as the assembled injector is 2mm taller than OEM.



Failure to install the provided spacers on top of the oem spacers may result in the fuel rail bending or damage to the injectors at install

The lower isolating cushion and the upper o-ring should be lubricated and each injector pushed into place. It doesn't matter which end of the injector you install first (isolating cushion in the head or upper o-ring into the fuel rail) just make sure they go in straight and the seals don't get pinched.



The injectors are based on the Bosch EV14 and have a V shaped spray pattern. For this reason they should be installed with the connector straight up or straight down wherever possible. In some cases, the shape of the Intake Manifold prevents perfect positioning, but try and get as close as you can.



Use the original OEM bolts to secure the fuel rail, tighten each bolt bit by bit to push everything together evenly. There is no need to over tighten these, the OEM Torque Spec is 14-19 ft-lbs.

Connect one end of the PnP adapters to the injectors and the other end to the loom to complete installation. Ensure the wires are not pinched or rubbing against anything.

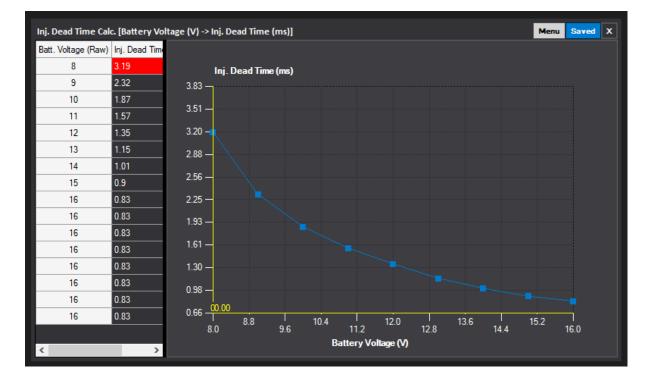
Injector Data

These injectors will require some changes to be made to your tune on your standalone ECU. The flow rate and dead time curves are presented below.

All figures presented are based on 3 bar (43.5 psi) of fuel rail pressure – OEM on NA and NB1 cars. If running a higher fuel pressure, both the flow rate and the dead times will need to be adjusted to get a proper tune.

FLOW RATE: 640cc @ 3 bar

ME221 Dead Times



MS3 Dead Times

Voltage	Value
13.2	1.12ms
11	140.3%
12	120.9%
13	102.9%
14	90.4%
15	80.7%
16	73.8%