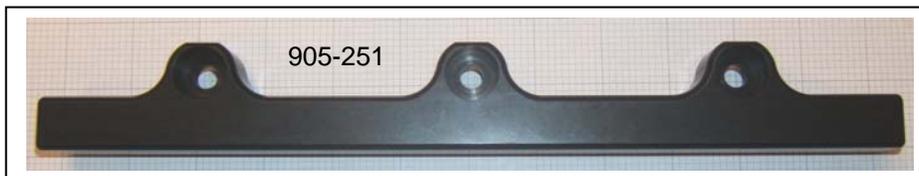


1                   **Supplemental Information & Instructions for**  
2                   **905-249 High Flow Fuel Rail Miata 90-93**  
3                   **905-250 High Flow Fuel Rail Miata 94-97**  
4                   **905-251 High Flow Fuel Rail Miata 99-05**



9   **Why Do I Need One?**

10 When you increase the horsepower (HP) while using the stock fuel rail, you are increasing the flow. At  
11 about 180 WHP, problems begin to occur. As the flow increases on the stock rail, the pressure drops  
12 along the rail. The injector at the end of the rail has lower pressure than the injector closest to the end of  
13 the rail that is fed with fuel. Basically, if you increase the HP by 50%, or more, the fuel requirement  
14 increases, and in extreme cases, it doubles.

15  
16 On the 90-93 and 99-05 Miatas, the fuel is fed to the rail at #4 cylinder and #1 can be starved for fuel.  
17 That is why you hear of people damaging #1 cylinder.

18  
19 The 94-97 feed from #1 cylinder and the relief back to tank is between #3 and #4 cylinder. With the stock  
20 fuel rail, the #4 cylinder commonly fails. A lot of people blame the cooling system and talk about  
21 modifying the way cooling water gets to the engine. The truth is that it is probably low fuel pressure and  
22 fuel starvation that causes the problems reported.

23   **About these Fuel Rails**

24 The stock fuel rail has an ID of 3/16" and the ID of our High Flow Fuel Rail is 3/8" or about 4 times the  
25 volume. The flow rate is actually determined by the injectors. Note that we are not increasing the flow,  
26 we just normalize the pressure so all cylinders can flow the same amount of fuel through the injectors.  
27 With our fuel rails, all cylinders get the same pressure and flow.

28  
29 With the 94-97 rail we recommend feeding at #4 and mounting the FPR at the #1 end of the rail.  
30 By the way, most people will tell you that the 99-05 (returnless system with the FPR back at the tank) feed  
31 from #1 cylinder. The feed does attach at the front of the engine at #1 cylinder but then travels all the  
32 way to the back of the engine via 3/16" tube and makes a 180° turn and then feeds #4 first and dead ends  
33 at #1.

34  
35  
36  
37 *Although every effort has been made to ensure the accuracy and clarity of this information, errors and/or*  
38 *omissions on our part are almost inevitable. Any suggestions that you may have that will improve the*  
39 *information (especially detailed installation notes) are welcome. Please use the simple email form on the*  
***"Contact Us"** page on the Moss website: <http://www.mossmotors.com/AboutMoss/ContactUs.aspx>*  
*If you prefer, you may call our Technical Services Department at 805-681-3411. So many people call us for*  
*help that we are often not able to answer the calls as fast as we'd like, and you may be asked to leave a*  
*message. We apologize in advance for the inconvenience. We will get back to you within 2 business days.*



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