



PAC PERFORMANCE HIGH CAPACITY FUEL TANK & COMPLETE FUEL SYSTEM PACKAGE - MAZDA RX7 FD3S

Congratulations on purchasing a Pac Performance FD RX7 High Capacity Fuel Tank Combo or Complete Fuel System Package. This installation guide will provide all the information you require for the fitment of our fuel tank combo on its own, or if you have purchased the complete FD Fuel System Package, it will run through the install front to back in easy to follow steps.

We have designed these tank/pump setups & packages to be as simple & straight forward as possible for DIY installation however, if you are not confident in your capabilities to carry out the install we highly recommend having the job carried out by a professional with the correct tools and experience.

COMPONENT LIST

Fuel Tank Shell
Pump Cradle (Pre Assembled & Wired With Pumps)
Fuel Filler Neck Kit
Mounting Hardware

Additional Components Of The Complete Package

Complete Feed/Return Fuel Lines
3-way Distribution Block & Bracket
Turbosmart FPR2000 FPR Kit
4x Bosch 2000cc Fuel Injectors
Radium Primary & Secondary Fuel Rail Kit
Intake ACV Delete Kit
Flex Fuel Sensor Kit
Billet By Pac Fuel Filter & Insulated Clamp
Filler Breather Line & AN10 Fitting
Billet Fuel Line Mounts
Additional Mounting Hardware

INSTALLATION NOTES

The installation starts with the removal of the factory fuel system, including fuel tank, fuel lines & Filler neck. We recommend at this stage before you begin the install that you clean the area thoroughly, removing any dirt and debris that may have built up over the years. Once sorted you will be left with an open, clean area to work with (See pic 1.0).



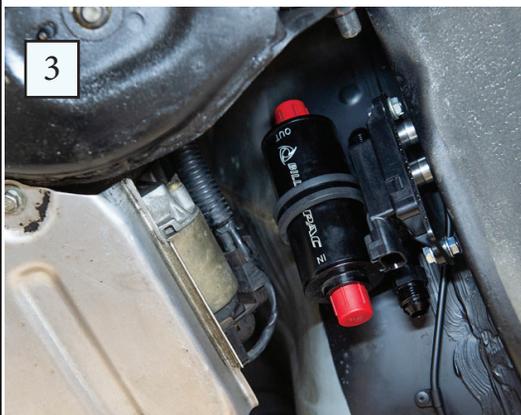
Being an under-car tank, the fuel lines will need to be installed first, before the tank is raised up into place. If you have purchased the fuel tank combo by itself and are sorting your own fuel lines, you will need to dummy the tank up in place to begin with to measure your lines.

While any fuel safe hose can be used to plumb the system, we highly recommend using quality Teflon braided line, as seen in this installation.

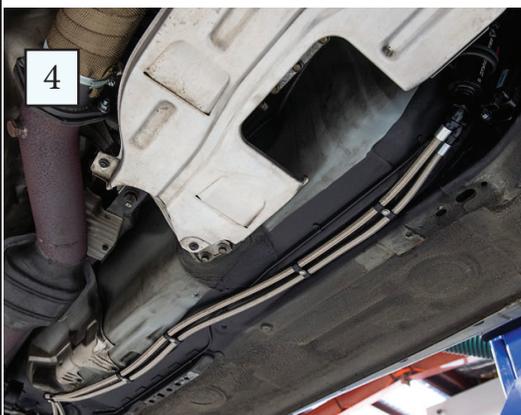


If you have purchased the complete fuel system package you will now install the supplied 3-way distribution block which bolts it in place to the factory mounting point found beside the rear brake line splitter with the supplied mount (See pic 2.0).

If you have purchased a Fuel Tank Combo on its own, you can also use these notes & images to assist in your installation.

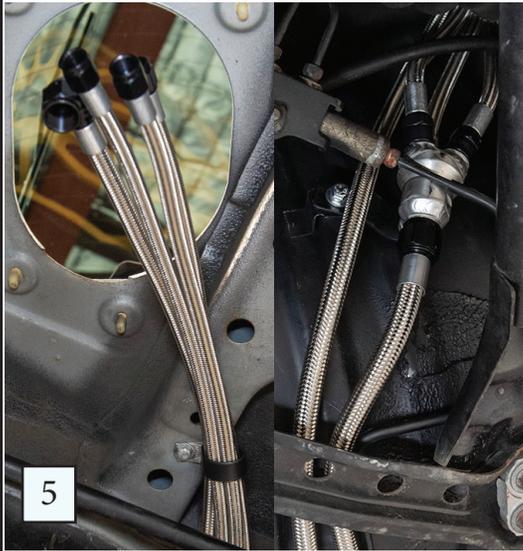


The next step is to mount up the flex sensor & fuel filter which are mounted tandem on the chassis rail beside the transmission/starter motor (See pic 3.0). Fitment of the sensor is done so using the supplied spacers & hardware, utilising 2 factory M6 mounting points on the chassis rail. The insulated filter clamp is simply attached to the floor pan using an M5 rivnut (recommended) or a 5mm large flange blind pop-rivet.



At this stage you are now ready to run the supplied feed & return fuel lines under the car. Starting at the filter & sensor, the lines run to the rear of the car, held in place with the supplied line holders to the factory fuel line mounting points (See pic 4.0)

INSTALLATION NOTES



Running the fuel lines up to the 3-way distribution block and then up to the bulk heads on the tank, the lines are routed neatly behind the suspension arms, between the floor pan up to the top of the tank, ready to be connected.

The package is supplied with an insulated P-Clip which is used to secure the lines in place and prevent them from rubbing on the fuel tank. The clamp is simply attached to the floor pan using an M5 rivnut (recommended) or a 5mm large flange blind pop-rivet.

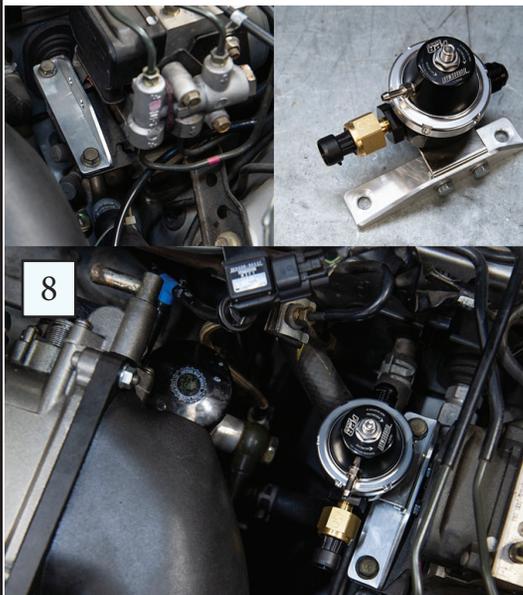


With the fuel lines, sensor & fuel filter all mounted in place, the tank can now be raised into position and bolted into place. Supplied pre-assembled and ready to go, the FD3S RX7 Fuel Tank set-up is a bolt-in replacement for the OEM tank, utilising the 4 factory M8 mounting points (see pic 1.0)



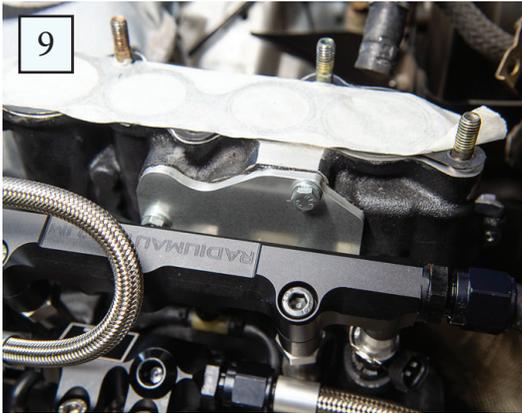
The fuel filler neck can now be installed from the underside of the rear quarter using the stainless allen heat bolts supplied. Due to space restrictions (see pic 7.0) the joiner hose needs to be slid onto the end of the fuel tank inlet prior to installing. Once the filler neck is in place, the hose is then slid over the filler neck & clamped in place. A light smear of lubricant over the filler neck tube & tank inlet will allow the hose to be positioned easily.

The filler breather hose, supplied with push lock fittings can also be plumbed up, running the line from the filler neck to the AN10 port on the left side of the tank.

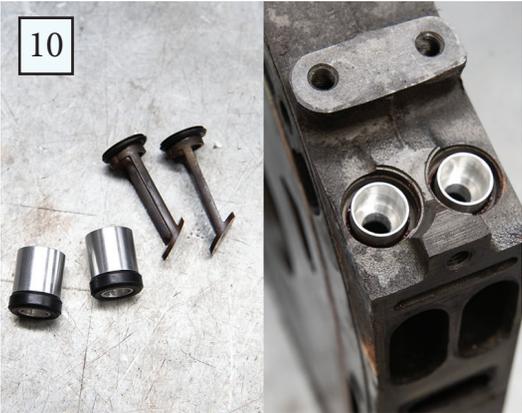


Installation of the fuel pressure regulator is as simple as bolting the FPR to the supplied bracket which then mounts off the ABS pump, via the two factory M8 bolts.

INSTALLATION NOTES



With the regulator mounted up in place, you can now begin the fitment of the fuel injectors and fuel rails. If you are fitting the kit to a standard FD and still have the factory ACV (Air Control Valve), it will now need to be removed and blocked off with the supplied block-off plate & hardware - adding a light smear of gasket maker.

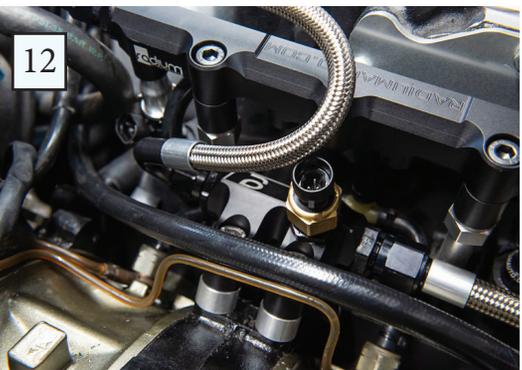


Before the new injectors can be installed, we recommend first removing the primary injector diffusers located in the injector ports on the center plate. This is easily done with a simple pick tool or a set of small needle nose pliers, taking care not to be too forceful as to break them which could lead to contaminants in your engine.

Once removed, you will replace them with the supplied injector bases.



To make the job as easy as possible, the injectors and rails are supplied assembled with the correct spacers, block-offs & fittings in place so the whole assembly is ready to just drop in place of the factory setup.



The supplied fuel pressure sensor can be fitted to the regulator as shown previously (see pic 8) or, it can be mounted on the primary fuel in the spare sensor port (see pic 12) which is the position we recommend for ease of wiring & to keep things as neat & hidden as possible.



With the injectors and fuel rails now in place, the plumbing can now be finished up. All fuel lines are supplied labeled, ready to screw in place onto the primary & secondary fuel rails.

INSTALLATION NOTES



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Fuel lines running to and from the fuel pressure regulator and down to the flex sensor and filter again are all finished to suit and simply sit in place without the need for any specialty mounts. A billet line holder has been included to keep the feed and return lines neat (see pic 14)



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With the new fuel rails & injectors installed and the fuel lines connected the system can now be primed and checked for leaks.

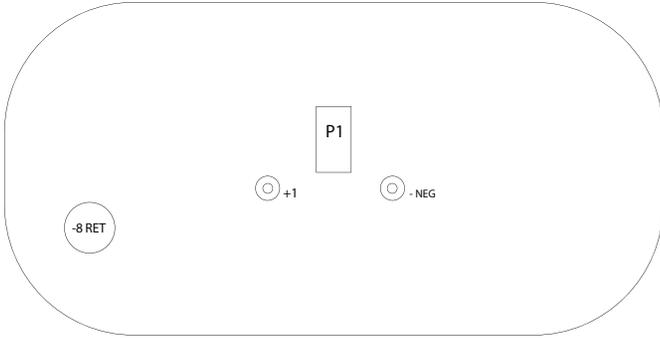
Once completed without issue, the intake manifold can be bolted back in place and that part of the installation completed.



PUMP CRADLE LAYOUT

An option wiring kit is available to aid in the installation however, we recommend electrical work be carried out by a qualified auto electrician to ensure the job is carried out correctly & safely. Pac Performance accepts no responsibility for component damage or poor performance as the result of incorrect installation

SINGLE PUMP



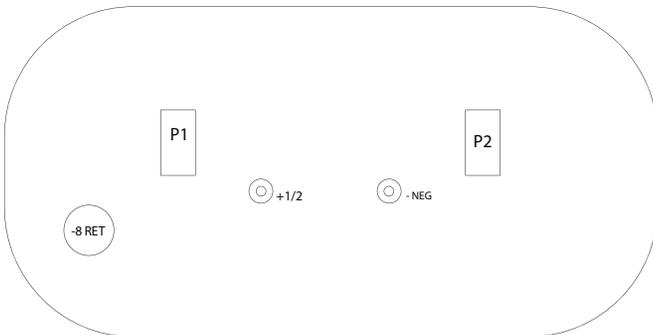
Single Walbro 342 Pump (Standard)

- 40A Relay / 30A Fuse
- 5mm Cable Recommended

Single Walbro 460 Pump (Optional Upgrade)

- 40A Relay / 30A Fuse
- 6mm Cable Recommended

TWIN PUMP



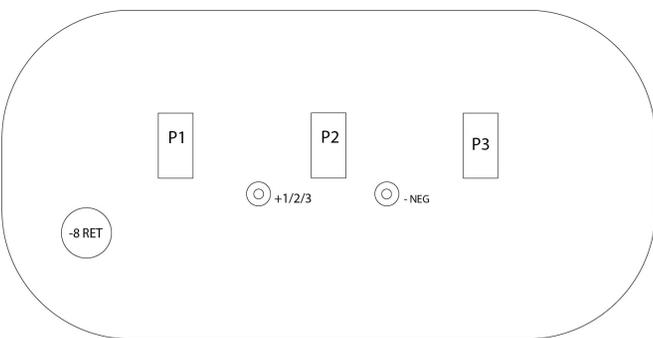
Twin Walbro 342 Pumps (Standard)

- 70A Relay / 50A Fuse
- 6mm Cable Recommended

Twin Walbro 460 Pumps (Optional Upgrade)

- 70A Relay / 50A Fuse
- 6mm Cable Recommended

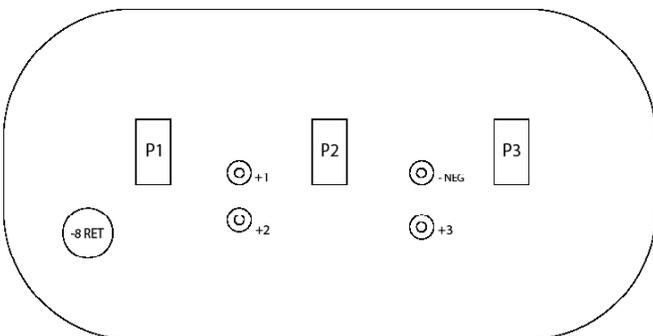
TRIPLE PUMP 342



Triple Walbro 342 Pumps (Standard)

- 40A Relay (Pump 1) 70A Relay (Pumps 2/3)
- 60A Fuse
- 8mm 8BNS Cable Recommended

TRIPLE PUMP 460/525



Triple Walbro 460 Pumps Staged (Optional Upgrade)

- 40A Relay (Pump 1) 70A Relay (Pumps 2/3)
- 60A Fuse
- 8mm 8BNS Cable Recommended

Triple Walbro 525 Pumps Staged (Optional Upgrade)

- 40A Relay (Pump 1) 70A Relay (Pumps 2/3)
- 60A Fuse
- 8mm 8BNS Cable Recommended

Upgraded pumps are set up in staged operation as standard with pump #1 operating constant & pumps #2 & #3 set to turn on based on tuner set parameters - This is our recommended setup.

OPTIONAL EXTRAS

An option wiring kit is available to aid in the installation however, we recommend electrical work be carried out by a qualified auto electrician to ensure the job is carried out correctly & safely. Pac Performance accepts no responsibility for component damage or poor performance as the result of incorrect installation



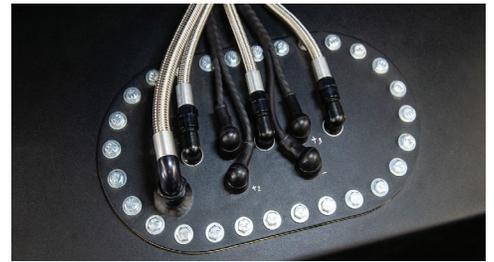
PUMP WIRING KIT

To assist with the installation of your new fuel tank setup, specifically wiring up the fuel pump, this kit will provide all the major components required to get you started, matched to your chosen pump combination.

Note: We recommend wiring be carried out by a qualified auto electrician.
Single pump kit pictured

FUEL LINE PLUMBING KIT

Taking the hassle out of plumbing up your new multi-pump fuel system, we can supply you with a pre-assembled fuel line set to suit twin or triple pump tanks, with quality Speedflow 550 Series crimp fittings & teflon braided hose, plumbed up to the 2 or 3-way distribution block also supplied with the kit.



While this quick guide will provide you with the information needed to carry out the installation of your new Pac Performance Fuel Tank, if you should have any questions or concerns or require any technical assistance we are here to help - Simply give us a call at the workshop on +612 9792 7076 or email info@pacperformance.com.au

THANK YOU FOR CHOOSING PAC PERFORMANCE



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