

## The Brief

As some may know we have been involved with Turbo Charging many Renault engines, in this case the Renault 2.0 16v F4R, which we were the first to do in Europe since 2002. Since this time we have produced or been involved with a lot of various Road Cars, Track Cars, Daily drivers and some extremely high boost high powered setups. In recent times our attention has been aimed at producing a conversion and DIY kit that met with some of the key points below.

- A 230 BHP kit that can be increased to 280 BHP with minimal extras.
- Cost effective, so reachable for more customers, either fitted or DIY.
- 230 Conversion must run safely on 95 Ron Unleaded fuel (97 Ron for 280 kit)
- Retains Air conditioning, but also fits with Non- Air con models, without extra accessories.
- Reliability and performance to satisfy the Daily Driver, Fast Road User and Track Day enthusiast.
- Will pass a MOT test with a catalyst fitted.
- Low maintenance costs with no major decline in Fuel MPG for daily sensible driving



## The Conversion

We now have a genuine 230 BHP kit that satisfies the above brief. Costs have been reduced by manufacturing certain items in numbers and retaining as much of the OEM engine setup as possible without compromise. The 230 Kit even operates on a good working OEM clutch, again keeping costs minimal.

Careful mapping and the use of a slightly thicker up rated MLS head gasket has allowed the use of normal 95 Ron unleaded fuel for all UK and most European customers with a good safety margin.

Works with both Air Con and Non Air con models without need for other parts and retains the original bonnet slam panel and latch. No altering of structural body work is required.

The conversion is at home on the road as a daily driver, weekend bit of fun or as track day weapon and will pass an MOT test with a catalyst fitted. You won't even begrudge a simple trip to the shops as the fuel economy is virtually untouched for general driving.

The 230 Kit is upgradable to 280 BHP with the fitment of some Forged pistons and an up rated clutch kit. The basis of the kit is unchanged except the Fuel and Ignition settings are altered to suit and 97 Ron fuel is recommended.

If your engine has covered high mileage we can offer in-house engine refreshment or the parts to carry out the work required, however this may not be required.



### So how does it compare?

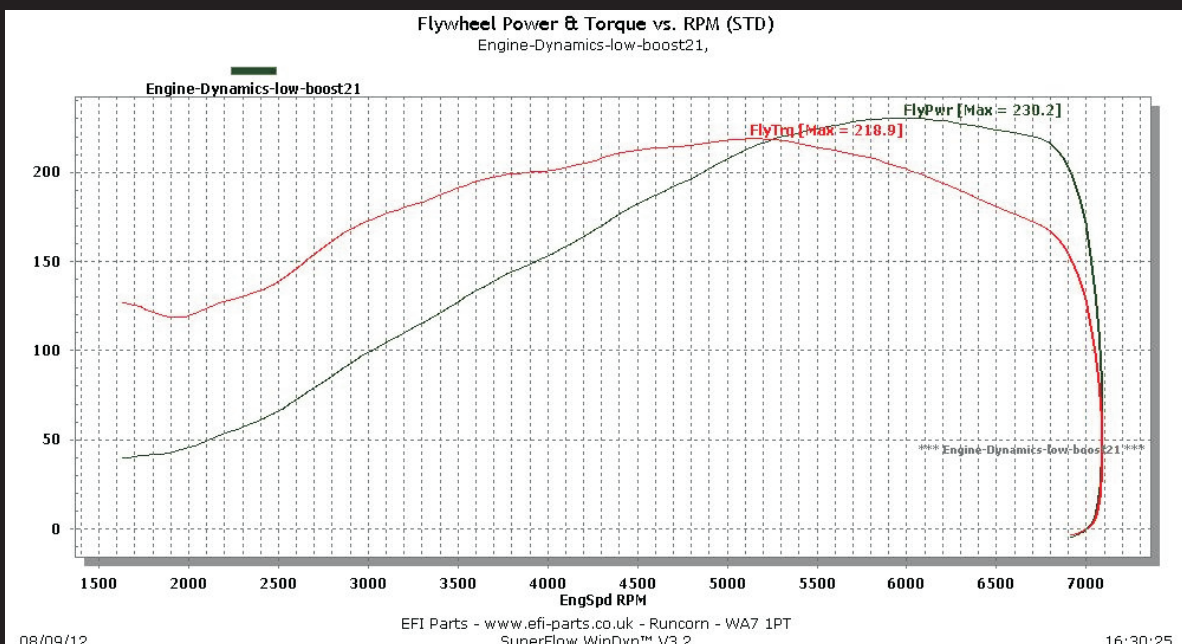
Well we can all run away with bragging numbers and in some cases figures don't sound that impressive, but if you actually look at power to weight ratio's it can paint a different picture. Take a look at the table below which compares some Renault and other make hot hatches you may be surprised!

Vehicle	Weight	BHP	BHP Per Ton
Clio 172 / 182 Turbo Conversion (230)	1080 KG*	230	212.96
Clio 172 / 182 Turbo Conversion (280)	1080 KG*	280	259.26
Clio 172 / 182	1070 KG*	177	165.42
Clio 197 / 200	1240 KG	197	158.87
Megane Sport 230	1375 KG	230	167.27
Megane Sport 265	1379 KG	265	192.17
Vauxhall Astra VXR	1393 KG	237	170.14
Focus RS Mk2	1467 KG	301	205.18

\* Represents an average of the models weights, some models are lighter and some slightly heavier.

The figures clearly show the BHP per ton and why our Clio conversion makes a very competitive road / track car and why they have surprised many owners of various performance cars. This power to weight ratio can be further improved on by removing weight from the vehicle and fitting lighter weight components i.e. seats, this is becoming very common practice with some owners.

Facts and figures are only part of the equation. We would always encourage the serious buyer to make an appointment to experience our Demo car and have a chat about their requirements, we can guarantee that you won't be disappointed and you will get the bug to turbo convert your Clio Sport.





## FAQ

Q) Hello I'm from Mexico, is this kit suited to my Country?

A) Yes, Kit is suitable, If you have very low fuel quality we would recommend a water injection kit.

Q) My engine has covered 92,000 miles; do i need a new engine before i convert to turbo?

A) No not always. We have converted higher mileage cars and found some well serviced higher mileage engines to be pretty sound. You could consider minimal refreshment with some new Piston rings, crank bearings and cylinder head refurbished to get the max from your setup. Each engine is individual, but we would always recommend a replacement clutch and exchange surface ground flywheel if you have no history.

Q) Do you offer conversions above 280 BHP?

A) Yes we can and have gone way beyond that, but only some of the kit we have manufactured would be suitable, therefore some items would need to be ordered in or constructed to suit. The things you need to consider is how is the car being used and can you afford to maintain at your desired power goal? The engine is not the problem it's the transmission i.e. gearbox and drive shafts, plus you get out of the range of up rated organic clutches in favour of paddle and race clutches, these obviously will take the torque, but only return a limited amount of mileage due to their aggressive action and material. Possibly best to contact us for advice.

Q) My timing belt is due for changing, i would like a new clutch fitted and i would like the car serviced, can you offer this at the same time?

A) Yes, we can offer package deals, so best to contact us with your requirements.

Q) My car is fitted with a decat pipe and cat back performance exhaust will that add to the power on the 230 and 280 kits ?

A) No, The power quoted is with fitment of such items as most owners have them anyway, if you wish to use a STD Cat and exhaust for the 230 Kit it will be around 220 BHP. At minimum a sports cat and performance exhaust are recommended for the 280 Kit.

Q) Is it an easy DIY fitment and how do i programme the ECU?

A) Well its always easy if you know how, its suggested that you have mechanical knowledge to fit the kit or get someone to help you. We do provide brief instructions / pictures. For the ECU we supply an RS Tuner Programming tool and the AEM control unit is pre-programmed. You will need a laptop with Win XP, Vista, 7 or 8 installed.

Q) How much boost pressure is used?

A) Around 0.5 Bar on the 230 Kit and 0.9 Bar on the 280 Kit

Q) What turbo do you use?

A) We have settled for a T28 / T25 type turbo that is rated to around 290 BHP. The gives a good power delivery from low down, but also allows for good top end and "off boost" cruising.

Q) Can i fit a Dump Valve (Blow off valve)

A) Yes we can offer a Dump Valve kit for those that want one.

Q) Do you offer finance?

A) No, we have looked into store finance, but the rates are not very competitive, you can better deals with your bank or with an online personal loan. There are many loan companies online and via comparison site, these usually have better acceptance rates than store finance also.





Below is a list of fully fitted prices and options for fitting our Turbo Conversion kits at our premises. Please note this is only a selection of whats available and packages can be tailored made to suit your requirements. For DIY kits please our turbo conversion kits on the website.

All prices include Parts, Labour and VAT.

<b>230 BHP Turbo Conversion fitted</b>	<b>£3,999.00</b>
<b>280 BHP Turbo Conversion fitted (Includes Uprated Clutch)</b>	<b>£4,999.00</b>
Clio 182 is + £100.00 for additional Link Pipe for Exhaust System	

Below is additional costs for optional work that can be done whilst carrying out a turbo conversion. Please note some items only apply to certain kits as marked.

<b>Lower Engine refresh, Piston rings, Crankshaft Bearings, Check oil pump (230 kit only)</b>	<b>£399.00</b>
<b>Lower Engine refresh, Crankshaft bearings and Check oil pump (280 kit only)</b>	<b>£149.00</b>
<b>Cylinder Head refresh, Valves cleaned / seated and New Valve stem seals (Either Kit)</b>	<b>£199.00</b>
<b>Timing Belt Kit (Either Kit)</b>	<b>£199.00</b>
<b>Auxiliary Belt kit for Air Con Models (Either Kit)</b>	<b>£72.00</b>
<b>Dephaser (VVT) Pulley (Either kit)</b>	<b>£139.00</b>
<b>Replacement Clutch Kit (230 kit only)*</b>	<b>£299.00</b>

\* Add our Surfaced Ground Flywheel for only £ 99.00

Prices include VAT