



This document outlines some pre-dyno checks RaceCal would expect the customer to undertake prior to any dyno work commencing. This applies for either a power run or an engine calibration session. Towards the end of this document, a disclaimer form is attached which will need to be completed before any dyno activities can take place.

## **Making sure your car is 'dyno ready'**

Dyno power runs and engine calibration sessions create a similar level of load on the engine that you could expect on a track day. With this in mind, the best course of action to take when preparing for the dyno is to do the same as if you were about to do a track day. Before a track day we would expect you to check fluids are topped up (oil, coolant, fuel etc.) and that there are no leaks from the engine or its ancillaries. Furthermore, we also recommend checking the condition of your spark plugs, and, in the case of a manual transmission, a healthy clutch that is not slipping, or will start to slip if expecting a large increase in torque from your current setup. If you require advice on which spark plugs to use and which gap to run, please email [tech@racecal.co.uk](mailto:tech@racecal.co.uk)

### **Fuel Level**

I know we have mentioned fuel level in the fluids section above, however this is a point that is so often forgotten/overlooked. To properly calibrate your engine, we will require a suitable amount of your chosen fuel to complete the job. Calibration can consume anywhere between 20 and ~ 70 litres depending on the car and how long the dyno session will last subject to the complexity of the setup. Therefore, we would recommend arriving to the dyno with a full tank of fuel. RaceCal always recommend a '99 RON' fuel for your pump fuel map - this would be either Shell V-Power or Tesco 99 (Momentum). If these fuels are not available in your geographic location, please contact RaceCal with the fuel that you will be using so we are aware. If you are running an ethanol blend or a specific race fuel, please feel free to contact us to discuss suitable required quantities.

### **Fluid Leaks**

Please ensure your engine has no fluid leaks - not only can this be dangerous to your engine on the dyno, a large leak can also damage critical dyno equipment. RaceCal reserve the right to invoice customers for any cleaning or damage to calibration equipment caused by a fluid leak.

### **Known Underlying Problems**

Whilst tuning on the dyno isn't going to stress the engine any more than driving at full throttle on the road/track, if your engine is using oil and/or smoking, pushing water out on load, low on compression or generally in poor health, completing a dyno power run or calibration session is not advised. RaceCal reserve the right to decline a power run or calibration session if we believe the engine is not suitably healthy. If you are unsure, we can arrange a health check, including compression/leakdown test, before your appointment.

### **Realistic Expectations**

Following on from the previous point, we urge customers to have a realistic expectation, whether this be in power goal or reliability. If you come to us with a healthy, well-prepared engine, the



chances of any problems are very very low. As highlighted earlier in this document, a dyno session is no more stressful than full throttle running on the road or the track. RaceCal use the latest knock detection equipment and AFR monitoring devices, and can review hundreds of ECU channels from the CAN link on our Mainline Dyno, which also incorporates safety trips/alarms. RaceCal always take the necessary precautions and extra care as reliability is of utmost importance.

Power figures supplied from our dyno are accurate and will not under any circumstances be manipulated to change the perceived output, even if requested by the customer.

### **Mapping Slot Deposit**

At time of booking RaceCal request a small deposit is placed to secure your slot. We ask for this deposit to confirm your attendance on your requested date as traditionally our lead time can run up to 8 weeks. Failure to arrive means other customers would miss a slot they could have previously taken. If you cancel your slot the deposit is non-refundable; if you envisage there will be a problem and you need to delay your booking, please email [sales@racecal.co.uk](mailto:sales@racecal.co.uk) to discuss your options.



## Dyno Disclaimer

### *Customer Information*

<i>Full Name:</i>	
<i>Telephone Number:</i>	
<i>Email Address:</i>	
<i>Registered Address:</i>	

### *Vehicle Information*

<i>Make:</i>	
<i>Model:</i>	
<i>Year:</i>	
<i>Mileage:</i>	
<i>Engine:</i>	
<i>Transmission:</i>	
<i>Registration:</i>	
<i>Engine Builder (if applicable):</i>	
<i>Max Boost Pressure (if applicable):</i>	
<i>Max Rev Limit:</i>	

Following review of this document, I (the customer) confirm that the necessary pre-dyno checks have been completed on my vehicle, and that my vehicle has been maintained in line with the original engine manufacturer's guidelines or as advised by my engine builder.

For the purpose of accurate testing and safety, further to the above I am satisfied that all relevant components are in safe and functioning states, for example but not limited to, tyres, injectors, turbocharger(s), ignition coils, fuel pumps, intercoolers/chargecoolers (if applicable), timing belts/chains etc.

I can confirm the vehicle has suitable points for securing straps to be attached to hold the car to the dyno, and will also supply a serviceable locking wheel nut key if using the hub dyno. I understand that failure to adhere to any of the responsibilities, terms and conditions detailed in this document may result in the session being cancelled and any appropriate labour being invoiced to me.



As a customer of RaceCal Ltd I am therefore happy for RaceCal Ltd to undertake a power run or engine calibration session on my vehicle. I have read, understood and accept the responsibilities, terms and conditions outlined in this document. Furthermore I accept that power runs and calibration sessions are carried out at my own risk, and that RaceCal Ltd and their respective employees/staff cannot be held responsible for any mechanical failure or damage, failure of components or loss of any kind.

RaceCal Ltd accepts no liability for any injury caused to customers whilst the dyno is in operation. We have specific customer waiting areas in place for your own health and safety.

*Please note when using the hub dyno your vehicle's wheels will be removed to attach it to the dyno. RaceCal will always re-torque the wheels with a calibrated torque wrench after your session. We do however ask customers to re-check the torque after 50 miles.*

CUSTOMER NAME: \_\_\_\_\_

CUSTOMER SIGNATURE: \_\_\_\_\_

DATE: \_\_\_\_\_