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Digital Adrenaline For Your...
Porsche 986 Boxster S 3.2



Powerchip technology enhances your Porsche to its ultimate level, delivering faster, smoother acceleration in all driving conditions. Whether you enjoy a leisurely weekend cruise or a hard racetrack drive – there is no easier and more effective way to release the potential from your 986 Boxster S 3.2.

The following information is an overview of the performance the Powerchip will deliver. If you have any questions, your Power Consultant will assist you as best as possible. We look forward to giving you the best performance possible from your Porsche.

Make	Porsche
Model	986 Boxster S 3.2
Engine	
Year	Jan 00 to Dec 02
Powerchip Code	POR0037



Power

In standard form the Porsche 986 Boxster S 3.2 produces 250 hp at the flywheel, and Powerchip improves the engine power to 272 hp.

Power (hp)			
Standard	Bronze/ Silver	Gold 91	Gold 93
250	N/A	267	272

The extra performance achieved by the Powerchip allows your vehicle to respond much better than stock 986 Boxster S 3.2s. You will notice an effortless push back into the driver's seat, to give you a much more enjoyable and at times safer driving experience. The Powerchip will tap into your Porsche's 'hidden reserves', to give you an immediately noticeable improvement from your vehicle – we guarantee it!

Torque

Torque is a measurement of your engines pulling power, and it's torque that pulls you up hills, allowing your engine a more linear and aggressive acceleration curve. With the Powerchip, you notice the increase in torque right throughout the rev range, which gives you far greater flexibility at low engine revolutions. Towing will become less demanding, and you will no longer feel the need to take the engine to the redline in each gear to get the performance you demand... It's always there for you, when you really need it most!

Torque (lb.ft)			
Standard	Bronze/ Silver	Gold 91	Gold 93
225	N/A	238	243



Acceleration

Increased Power and Torque results in faster acceleration. And it is not just standing start acceleration that is improved, your in-gear acceleration is improved and faster.

If overtaking is important to you, you will feel safe knowing that you spend less time on the "wrong side of the road", improving the safety of your car, for you and your family or passengers.

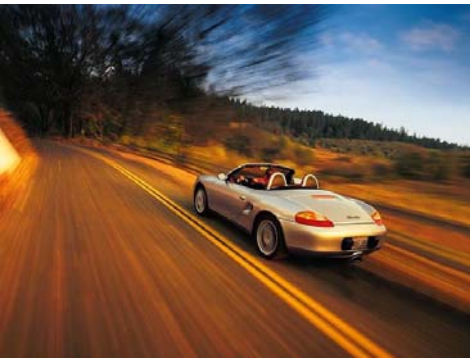
Perhaps you feel that you need that extra bit of power when you are lined up at the "traffic light grand prix" against another car with similar (or more) power? If you want to have the unfair advantage that will give you more 'GO' away from the lights, you need a Powerchip performance software upgrade for your 986 Boxster S 3.2.

Fitting Details

Your car contains the latest technology ECU that can be re-programmed through the on-board diagnostic port (OBD-II). Specialised software interfaces with your vehicle's engine management system to extract the electronic code via serial download. Once the information has been read, Powerchip technicians apply the performance changes and upload the performance program back through the OBD-II port. Installation cannot be performed by the end user. Programming must occur at an Authorized Powerchip Office or at authorised Powerchip Platinum dealers. The programming takes approximately 2 hour's to complete.

On Road Development

Where Powerchip really shines out over its competitors is the emphasis and time spent refining the program for drivability and enjoyment. Much more a 'real world' gain than full throttle horse power runs on a dyno, part throttle refinement is a gain everyone uses every time they drive the vehicle. Flat spots and poor off the line performance are smoothed out in this process, and transient throttle conditions are made razor sharp for the ultimate in response. Real time changes to tables like throttle response and power enrichment are done on road to fine tune the driving experience of the vehicle, with acceleration timing equipment used to ensure consistent and measurable gains in part throttle drivability.



Driveability

Beyond the impressive torque and power gains on full throttle, many hours were spent refining the part throttle timing maps for maximum throttle response and driveability. Both the full throttle and part throttle maps are changed for improved driveability in day-to-day driving.

In other words, you don't need to be on the racetrack to notice the Powerchip performance improvement.

Manufacturers Tolerances

Porsche unfortunately leaves large tolerances in the performance characteristics of its entire fleet to allow for drivers that are negligent on maintenance, and who are non-enthusiasts. The 986 Boxster S 3.2 is 'de-tuned' to be able to run on the poorest grade of fuel that the car is likely to encounter anywhere in the world, and also to allow for the small percentage of owners who put their cars reliability to the test due to their lack of mechanical understanding. In most cases, our clients are enthusiasts who place more emphasis on the performance characteristics of their vehicle, and therefore the Powerchip does not need to be programmed as conservatively as the stock software.



Modified Spark Advance

In the old days the ignition distributor controlled the engine spark timing. Changes to the position in the distributor will result in changed ignition settings, and is a good method of 'tune-up' for older vehicles. Modern engine ignition is controlled by a series of tables or maps. These maps give the engine any instructions required to operate, under ALL load and rev per minute access points.

Similar to the old systems, advancing the point of ignition within a cylinder results in increased horsepower and torque. It is important not to advance the timing beyond the capabilities of the fuel used, or else detonation can occur. Peak horsepower is achieved when ignition timing is set as close to the point of detonation as possible, without exceeding it. This is the primary purpose for asking the octane rating each client uses most frequently, so that the software is set to the correct level of ignition advance for the fuel used.



The end result of ignition advance changes is increased horsepower and torque, resulting in better acceleration and various other driving benefits.

49 State Emissions Legal

The Powerchip complies with U.S. EPA Memorandum 1A, or it has not been found nor is believed to be unlawful for use under the provisions of the Clean Air Act. Currently, Powerchip is not legal in California for vehicles that may be used on a highway. Powerchip is currently undergoing testing for certification under the Californian Air Resources Board (CARB) exemption process.

Our Satisfaction Guarantee

Every Powerchip sold in North America comes with an unconditional 14-day money back guarantee. This ensures that the Powerchip will live up to your expectations, not ours! If for any reason you are unsatisfied with the Powerchip, you may return the Powerchip to your place of purchase for a full refund of the purchase price (not including shipping and handling, installation and removal etc.).

Our satisfaction guarantee offers you total peace of mind, and makes the purchase of the Powerchip risk free. By purchasing a Powerchip you have nothing to lose – and everything to gain!

Octane ratings

The Powerchip is designed to get the best from your engine, and to do this you must use a high performance fuel (91 Octane minimum). It is not possible to improve the performance on late model fuel injected vehicles using poor quality fuels, such as 87 or 89 octane. When ordering your Powerchip upgrade, your Power Consultant will ask you for the octane rating you would like your program to run.

Powerchip Gold 91 is designed to run on fuel with an octane rating of either 91 or 92. Powerchip Gold 93 is designed to run on fuel with an octane rating of 93 or higher. We highly recommend that you use the highest-octane fuel available to you, such as 92, 93 or 94 octane if a higher than 91-octane fuel is available.



Warranty

All Gold 93 Powerchips come with a three year, unlimited mile warranty, which means that if anything occurs with the Powerchip in that time, we will replace it without charge to you. An optional extended Powerchip warranty is also available at an additional \$90 at the time of ordering. This extends the warranty period on any Power chip to six years.

The terms and conditions of the Powerchip warranties can be viewed in detail on our web site at

<http://www.powerchipgroup.com/products/warranty.asp>



To briefly summarize the information: if your car is covered by a new or dealer warranty, the dealer may not 'void' a warranty simply because you have fitted an aftermarket product. SEMA, the automotive aftermarket industry body in North America has made the following statements regarding aftermarket products such as performance chips...

"The vehicle manufacturer is not allowed to void the vehicle warranty just because aftermarket equipment is installed on the vehicle..."

"...In cases where such a failed aftermarket part is responsible for a warranty claim, the (vehicle) manufacturer must arrange a settlement with the part manufacturer, but the new vehicle warrant is not void under the law."

"If the failure to honor a claim involves the new-vehicle warranty, and it appears that the (vehicle) manufacturer is improperly denying a claim, the incident should be reported to the Federal Trade Commission (FTC)."

The fitment of the Powerchip will not have a detrimental effect on your vehicle performance or engine longevity, and therefore does not interfere with the manufacturers warranty in any way.

Value for a Lifetime

The investment you make in the Powerchip will last for as long as you keep your car, and for most of our customers, that is normally for 3 or 4 years. So when you consider the benefits of the chip over a number of years, it is not a lot to pay for extra performance you will probably use nearly every day. As a percentage of the total cost of your car, the Powerchip works out to be very cost effective.

Cost Effectiveness

As we all know, modifying late model vehicles is not a cheap exercise, however, when you look at it on a hp per dollar basis, the Powerchip comes in ahead of any other modification you could make to your Porsche. Have a look at just how well the Powerchip stacks up:

Price	\$840
hp Gain	22 hp
Price/hp	\$38.18

The Powerchip is designed to offer excellent value for money compared with other modifications you might be planning in the future.



COST USD(\$) (not including shipping/handling)			
Bronze	Silver	Gold 91	Gold 93
N/A	N/A	\$840	\$840

Ask the Experts

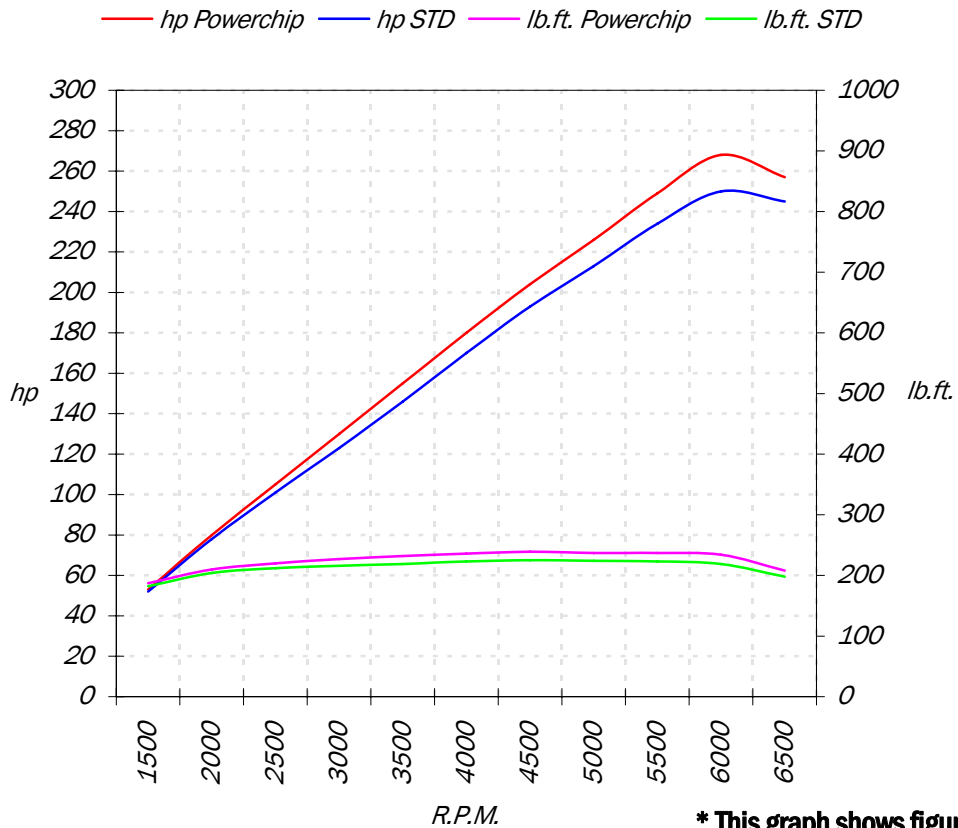
Your Powerchip Power Consultant is trained to provide you with the best information about getting more performance for your car. We have a specific Power Consultant who is responsible for the Porsche range, and he is an expert at answering all of your technical questions, especially about the 986 Boxster S 3.2. If you would like to speak with your Power Consultant about any aspect of the upgrade, please telephone Toll Free North American headquarters in California on 1800-495 0777 or email your Porsche Power Consultant directly at tcattach@powerchipgroup.com

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Gold 91 Performance Data for your...

Porsche 986 Boxster S 3.2 *

R.P.M.	hp STD	hp Powerchip	hp Gain	lb.ft. STD	lb.ft. Powerchip	lb.ft. Gain
1500	52	53	1	182	187	5
2000	78	80	2	204	210	6
2500	101	105	4	212	220	8
3000	123	130	7	216	227	11
3500	146	155	9	219	232	13
4000	170	180	10	223	236	13
4500	193	204	11	225	239	14
5000	213	226	13	224	237	13
5500	234	249	15	223	237	14
6000	250	268	18	219	234	15
6500	245	257	12	198	208	10



* This graph shows figures for Powerchip Gold 91

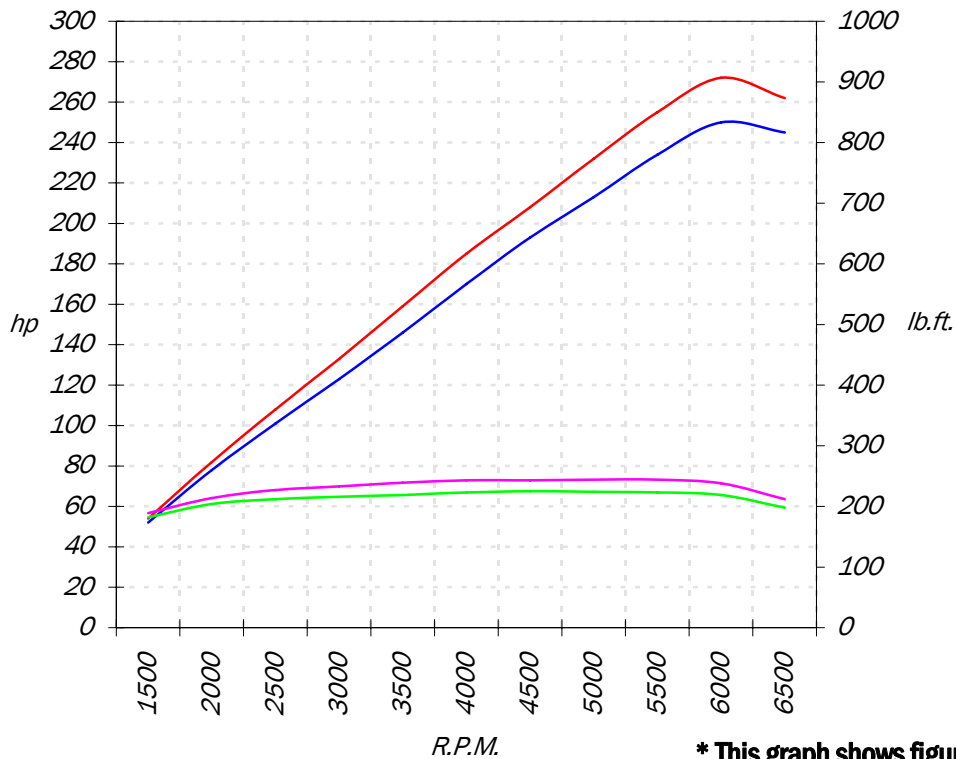
MODEL	ENGINE	VERSION	CAPACITY	Max hp	Max lb.ft.	0-60 Auto	0-60 Man
986 Boxster S 3.2		Standard	3179cc	250	225	N/A	N/A
986 Boxster S 3.2		Gold 91	3179cc	267	238	N/A	N/A

Gold 93 Performance Data for your...

Porsche 986 Boxster S 3.2 *

R.P.M.	hp STD	hp Powerchip	hp Gain	lb.ft. STD	lb.ft. Powerchip	lb.ft. Gain
1500	52	54	2	182	189	7
2000	78	82	4	204	214	10
2500	101	108	7	212	227	15
3000	123	133	10	216	233	17
3500	146	159	13	219	239	20
4000	170	185	15	223	243	20
4500	193	208	15	225	243	18
5000	213	232	19	224	244	20
5500	234	255	21	223	244	21
6000	250	272	22	219	238	19
6500	245	262	17	198	212	14

— hp Powerchip — hp STD — lb.ft. Powerchip — lb.ft. STD



* This graph shows figures for Powerchip Gold 93

MODEL	ENGINE	VERSION	CAPACITY	Max hp	Max lb.ft.	0-60 Auto	0-60 Man
986 Boxster S 3.2		Standard	3179cc	250	225	N/A	N/A
986 Boxster S 3.2		Gold 93	3179cc	272	243	N/A	N/A

Customer Testimonials

Customer Name: Brian H, Canada

Car: 986 Boxster S 3.2

Testimonial added: Jun 28 2003

Customer Comments:

"My business dealings with Powerchip as to purchase of re-mapping for ECU have been very good indeed. My e-mail questions have been answered patiently and promptly ; shipping 3 ways was speedy ; the company rep continues to follow-up after purchase as to how things are going (installation, initial impressions after modification ; product satisfaction ; etc.. So far, I have logged about 70 miles post-installation. The car is smoother in operation, overall, something which was apparent from the beginning. Power increase is subtle but now noticeable – it wasn't really noticeable at first, but it would seem that some time and miles are necessary for the re-mapped ECU to teach the fuel and ignition controllers some new tricks. It is too soon to tell whether fuel economy will be improved, but I can say that it is certainly not lessened by the ECU modification. One thing for sure, the exhaust does not smell any differently, and this is a good thing – such was not the case with my previous car, a 944 Turbo which I re-chipped with DME and KLR units from a supplier other than Powerchip – so I expect both added emissions and unburned gasoline will not be any problem for the Boxster. In summary, I am a satisfied customer and can recommend Powerchip to potential buyers. (I am a very particular consumer, so my being satisfied is testimony to good service and product. The ECU changes have made a very good sports car into an even more balanced drive. BH

"

Customer Name: Dimitrios T, Los Angel;es

Car: 986 Boxster S 3.2

Testimonial added: Oct 27 2003

Customer Comments:

"Very impressed with the chip. Improved throttle response and improved power and torque. I am very happy with the service. No false promises from Powerchip. Also, excellent website."

Customer Name: Joseph F C, Dunmore

Car: 986 Boxster S 3.2

Testimonial added: Apr 25 2005

Customer Comments:

"First I would like to compliment your staff for their professionalism concerning your product and my satisfaction with it...I received the "chipped" ECU for my 2001 Boxster S yesterday...with record breaking round trip speed..California to Pennsylvania..WOW !! But most importantly, the Powerchip performed absolutely flawlessly from the second I installed it...and believe me I should know as I have tried the "less expensive" route and what a disaster...Six attempts, two months and twelve shipping bills later, I wound up with my ECU in the OEM condition...which is when I finally sent my ECU to you for the guaranteed "one shot" Performance Powerchip. I am not going to go on and on to say how terrific the Powerchip performs, but I will say that it performs exactly as your web site says it does and maybe a little better, which is only one of the reasons why I am so pleased!! I would also like to stress the importance of the very quick turnaround, the flawless performance of the Powerchip with the very smooth shifting in 'automatic mode' of my Tiptronic Transmission contrasted by the roar and thrust of the engine when I put the pedal to the metal..Holy Shite!! Lastly and most importantly, your competent staff assuring me that I am getting what I paid for and quite a bit more..So, Thank You and Your Staff...Sincerely Yours, One Very Pleased Powerchipper..Dr Joe Capalong"

Customer Name: Stuart , Washington

Car: 986 Boxster S 3.2

Testimonial added: Dec 2 2004

Customer Comments:

"Everyone at Powerchip was very customer service oriented and made the entire process seamless. I have truly enjoyed the added performance and driveability of my car and would do it all over again. The Powerchip crew took great care of me when my dealer reflashed my chip during a service call and changed some things. I sent my ECU back out to Powerchip and had everything put back in order with no hassles, just smiles. Thanks for everything."