# DINAN 740,750 1995-2001

# E38 PERFORMANCE



#### **TECHNOLOGY**

#### **HOW DO YOU WANT TO DRIVE?**

The BMW 7 Series has received its fair share of accolades from the automotive press, and rightfully so. The 7 Series offers the discriminating driver a wonderful combination of luxury appointments, advanced safety features and, of course, that unmistakable BMW driving experience. It's really no wonder that the 7 Series has received such glowing reviews from the automotive press and driving enthusiasts alike.

Now imagine a 7 Series BMW that delivers an even higher level of driving fun and excitement. A BMW that has been performance-enhanced to deliver the level of acceleration and cornering capabilities that *you* demand. You know exactly how you want to drive!

Certainly the idea of a faster, better handling BMW is appealing to many owners. Often, however, concerns over reliability and possible warranty implications deter drivers who would otherwise love to take advantage of the opportunity to improve the performance of their BMW. But what if you could have your cake and eat it too? What if there was a serious BMW Tuner that offered not just well engineered, premium quality performance products, but also a comprehensive warranty that matched BMW's new car warranty coverage. And what if those performance products were available to you through a nationwide network of Authorized Dinan BMW Centers, fully prepared to build and service your very own high performance 7 Series? If you find the idea of owning the fastest, best handling, street legal BMW appealing, Dinan is *your* high performance solution.

Now you can select the type of driving experience that is right for you, thanks to Dinan, America's BMW Tuner. Dinan has been thrilling the BMW driving enthusiast for over two decades with BMW performance products that are based on sound engineering principles and uncompromising design and manufacturing standards, delivering on the promise of enhanced driving fun and excitement. And they're backed by the most comprehensive warranty in the business, covering both the products and the labor to install them; so you're covered by BMW and Dinan, year to year, mile to mile and bumper to bumper.

Start driving the high performance 7 Series of your dreams today by choosing from the collection of specially configured

Dinan Signature Vehicles, each delivering increasingly higher levels of power, acceleration and performance handling from your BMW. Dinan Performance Products are also available separately, enabling you to build your Signature 7 Series in phases, or pick and choose from our extensive line of products for your very own "Dinan 7". In either case, in addition to stunning performance, reliability, and the civility you expect from a BMW automobile, you will also receive the Dinan deck-lid badge; a tasteful advisory that this is no ordinary BMW 7.

"...Dinan builds cars by examining each area of performance, applying sound engineering principles and executing them with a precision found only at the world's finest tuners. Then as now, I'm in awe."

-european car,
March 2002

We invite you to learn more about Dinan Signature Vehicles and the individual components that comprise them in the following pages. Dinan is *driving technology*, so should you.

Inan takes BMW performance tuning very seriously. We don't just "tune" an intake system or offer a set of "lowering springs" for one or two BMW models. Dinan's objective is to offer complete performance systems for the entire range of BMW models, enhancing the total BMW driving experience. We feel owners of every 7 Series model deserve the opportunity to get the most from their BMW. From faster acceleration to improved cornering capabilities and stopping power, Dinan takes the guess work out of creating the high performance BMW of the driving enthusiast's dreams. The performance system approach results in a balanced, predictable and reliable high performance driving experience that is evident the moment you get behind the wheel. In addition to stunning performance, you will also enjoy the exclusivity of owning a serial numbered Dinan Signature Vehicle, registered with both Dinan and BMW. Each Signature Vehicle includes the Dinan deck-lid badge, a serial numbered under-hood plaque and Dinan embroidered floor mats, in addition to the performance enhancements.

#### Dinan S1 - 7 Series

The Dinan S programs have been designed for drivers seeking a noticeable increase in power for faster acceleration, as well as the look and sound of high performance. The systems feature intake and exhaust enhancements carefully designed to improve the engines' ability to "breathe", enabling them to produce more power, as well as faster throttle response. Lift the hood and you'll be greeted by a clean, purposeful look; everything fits and appears as if it might have come right from the factory. In the case of the 740, the restrictive stock air box is replaced with Dinan's aggressive Cold Air Intake System, winding it's way out of the engine compartment in order to scoop up plenty of cold, dense air for maximum power gains. The Dinan S-750 features polished and ported intake manifolds, enabling air to flow more efficiently along silky smooth runners for substantial horsepower gains. Free flowing rear exhaust systems complete the Dinan S engine-tuning equation, reducing back pressure for greater engine efficiency, as well as producing a sporty yet civilized exhaust note; a subtle hint that this is no ordinary BMW 7. Dinan Automatic Transmission Software for 740 models ensures that the shift points are carefully matched to the engines' revised power curves, as well as making shifting firmer and more rapid for faster acceleration. The Dinan S programs offer the look, sound and feel of a truly high performance BMW in an affordable and reliable package.

# *Dinan S1* – 7 Series 740

The Dinan S1-740 programs take engine performance a notch higher by incorporating the High Flow Throttle Body for even more punch and crisp throttle response. In addition to faster acceleration, the S1-740s feature a fully matched Performance Suspension System for tight and predictable cornering, while maintaining a comfortable, well dampened ride. The Stage 1 Suspension system is comprised of carefully tuned performance springs and Dinan by Koni Struts and Shocks that will turn your favorite back-roads and freeway on-ramps into a completely new experience.

# *Dinan S1* – 7 Series 750

The *Dinan S1-*750 incorporates specially tuned performance springs, carefully matched for use with the stock struts and shocks, in addition to the enhanced engine performance provided by the "*S*" package.

The S1 programs combine significant horsepower gains with an absolute transformation of the cars' handling capabilities, for a driving experience that is sure to please the most demanding BMW enthusiast.

#### Dinan S2 - 740

The S2 programs have been developed for the 740 driver who demands serious performance from a naturally aspirated engine, as well as even more aggressive handling capabilities. Further performance tuning of the intake system, including high flow air flow meters and intake manifolds, provide the additional horsepower gains. Complimenting the new-found horsepower, lower final drive gearing is incorporated for even faster acceleration resulting from torque multiplication, effectively delivering more "twist" right to the rear wheels. The S2 provides an even higher level of performance handling by adding front Camber plates to the Stage 1 Suspension System, significantly reducing understeer for exciting turn-in that almost defies the cars' significant size and weight. Add the optional Dinan Lightweight 3-piece Performance Wheels and the wide, sticky tires they have been designed to accommodate, and you'll have a BMW that not only handles as if it were on rails, but looks like it does as well. Dinan S2-740s offer the serious driver powerful acceleration, phenomenal handling and the performance "feel" that enthusiasts have come to expect from a Dinan-tuned BMW.

#### Dinan S3 - Supercharged 740

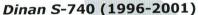
Could there be anything more exhilarating than the rush of acceleration produced by a well designed supercharged engine? *Dinan S3-*740s feature advanced supercharger technology coupled with painstaking engine management re-programming for huge gains in horsepower and torque, without sacrificing everyday driveability or the civility you expect from a BMW. Naturally, the driveline is enhanced with lower final drive gearing in order to take full advantage of the enormous horsepower gains. The *S3* also includes the Stage 1 Suspension System plus front Camber Plates for crisp turn-in and closer-to-neutral handling. Dinan's Lightweight Performance Wheels accommodate the largest tires possible in order to deliver all 400 plus horses to the ground and provide maximum grip. The Stage 2 Brake Conversion, featuring huge 334 x 32mm front and 328 x 20mm rear rotors, ensure that the proper braking power is available to haul your *S3* 740 to a stop safely and predictably.



Dinan S-750 (1996-2001)

Free Flow Exhaust, High Flow Intake Manifolds and Supplemental Gasket Set, Floor Mats, Dinan Deck-lid Badge, and Numbered Under-Hood *Dinan S* Badge.

365 hp @ 5500 rpm / Torque: 391 lb/ft @ 4500 rpm



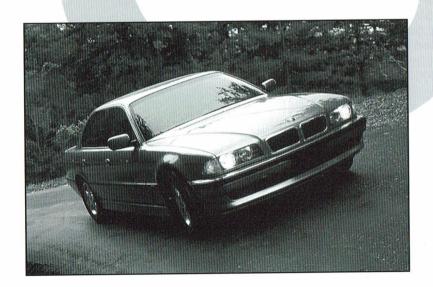
Stage 2 Engine Software, Performance Transmission Software, High Flow Cold Air Intake System, Free Flow Exhaust, Floor Mats, Dinan Deck-Lid Badge, and Numbered Under-Hood *Dinan S* Badge.

(9/98-2002):305 hp @ 5700 rpm / Torque:348 lb/ft @ 3500 rpm (6/95-8/98):305 hp @ 5700 rpm / Torque:341 lb/ft @ 4000 rpm

Dinan S-740 (1995)

Performance Engine Software, Performance Transmission Software, Free Flow Exhaust, Floor Mats, Dinan Deck-Lid Badge, and Numbered Under-Hood *Dinan S* Badge.

('95-5/95): 311 hp @ 6000 rpm / Torque: 306 lb/ft @ 4500 rpm









Dinan S1-750 (1996-2001)

Free Flow Exhaust, High Flow Intake Manifolds and Supplemental Gasket Set, Performance Spring Set, Floor Mats, Dinan Deck-lid Badge, and Numbered Under-Hood *Dinan S1* Badge.

365 hp @ 5500 rpm / Torque: 391 lb/ft @ 4500 rpm

Dinan S1-740 (1999-2001)

Stage 3 Engine Software, Performance Transmission Software, High Flow Cold Air Intake System, Free Flow Exhaust, High Flow Throttle Body, Stage 1 Suspension System, Floor Mats, Dinan Deck-Lid Badge, and Numbered Under-Hood *Dinan S1* Badge.

(9/98-'02): 308 hp @ 5700 rpm / Torque: 348 lb/ft @ 3500 rpm

Dinan S1-740 (1996-1998)

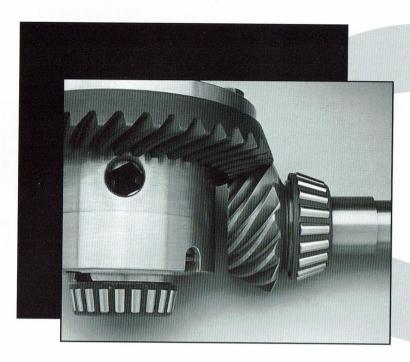
Stage 2 Engine Software, Performance Transmission Software, High Flow Cold Air Intake System, Free Flow Exhaust, Stage 1 Suspension System, Floor Mats, Dinan Deck-Lid Badge, and Numbered Under-Hood *Dinan S1* Badge.

(6/95-8/98): 305 hp @ 5700 rpm / Torque: 341 lb/ft @ 4000 rpm

Dinan S1-740 (1995)

Performance Engine Software, Performance Transmission Software, Free Flow Exhaust, Stage 1 Suspension System, Floor Mats, Dinan Deck-Lid Badge, and Numbered Under-Hood *Dinan S1* Badge.

('95-5/95): 311 hp @ 6000 rpm / Torque: 306 lb/ft @ 4500 rpm



#### Dinan S2 740 (1999-2001)

Stage 5 Engine Software, Performance Transmission Software, High Flow Cold Air Intake System, Free Flow Exhaust, High Flow Throttle Body, High Flow Air Flow Meter, High Flow Intake Manifold, Stage 1 Suspension System, 3.15 Differential\*\*, Floor Mats, Dinan Deck-Lid Badge, and Numbered Under-Hood *Dinan S2* Badge.

(9/98-'02): 321 hp @ 5700 rpm / Torque: 350 lb/ft @ 3500 rpm

#### Dinan S2 740 (1996-1998)

Stage 4 Engine Software, Performance Transmission Software, High Flow Cold Air Intake System, Free Flow Exhaust, High Flow Air Flow Meter, Stage 1 Suspension System, 3.15 Differential\*\*, Floor Mats, Dinan Deck-Lid Badge, and Numbered Under-Hood *Dinan S2* Badge.

(6/95-8/98): 309 hp @ 5700 rpm / Torque: 344 lb/ft @ 4000 rpm

#### Dinan S2 740 (1995)

Performance Engine Software, Performance Transmission Software, Free Flow Exhaust, Stage 1 Suspension System, 3.73 Limited Slip Differential, Floor Mats, Dinan Deck-Lid Badge, and Numbered Under-Hood *Dinan S2* Badge.

('95-5/95): 311 hp @ 6000 rpm / Torque: 306 lb/ft @ 4500 rpm





Dir Serial I

Dinan S2 Serial No. 003302









The *Dinan S3* 740 offers a tempting combination of supercharged power and high performance handling that is second to none. The *Dinan S3* 740 delivers 400 plus-horsepower in a seamless, pavement scorching rush that simply must be experienced to fully appreciate. In addition to the huge horsepower gains, power is delivered to the rear wheels through a shorter 3.15 final drive ratio\* (3.73 with Limited Slip for '95 cars), further increasing the torque delivered to the ground for even faster acceleration. The *S3's* improved grip is attributable to the Stage 1 Suspension System and front Camber Plates for closer-to-neutral handling and a dramatic improvement of "turn-in", as well as Three-Piece Performance Wheels and the wide, sticky tires they have been designed to accommodate (tires sold separately). The Stage 2 front and rear brake conversion ensures that your *S3* 740 has the stopping power necessary for a 400 horsepower vehicle.

The Dinan Supplemental Powertrain Warranty is provided at no additional charge, covering the factory BMW drivetrain components for the balance of the manufacturer's new car warranty, up to 4 years or 50,000 miles.

The *Dinan S3* 740 is the driving enthusiast's dream come true. Blistering acceleration, incomparable handling and everyday driveability, all without sacrificing warranty coverage or the civility you expect from a BMW 7 Series.

**Dinan S3 740** (9/98-01): 412 horsepower @ 5800 rpm

397 lb/ft torque @ 4800 rpm

Dinan S3 740 (1/97-8/98): 404 horsepower @ 5700 rpm

406 lb/ft torque @ 4500 rpm

**Dinan S3 740** ('95-5/95): 402 horsepower @ 6000 rpm

363 lb/ft torque @ 5000 rpm

#### Dinan S3 740 Components

Supercharger System

High Flow Throttle Body (9/98-01)

High Flow Air Flow Meter (except '95 740)

High Flow Intake Manifold (9/98-01)

Free Flow Exhaust

Stage 1 Suspension System

Front Camber Plates

Stage 2 Front/Rear Brake Conversion

3.15 Differential\*\*('96-'02)

**Dinan Floor Mats** 

Dinan Deck Lid Badge

Serial Numbered Underhood Badge

<sup>\*3.73</sup> with Limited Slip for '95 cars

<sup>\*\*</sup> Sport models came equipped from the factory with the 3.15 ratio. A 3.45 Limited Slip Differential is available as an option for sport and non-sport models.

# PERFORMANCE

#### PRODUCT LINE

In addition to the complete Dinan Signature Vehicle series, the individual performance products that comprise them are available separately. The following pages offer specific information regarding the individual components, performance data, the current emissions certification status and any required products.

When considering the individual Dinan Engine Tuning products, it is important to recognize that the components have been engineered for use in various combinations along with fully matched engine management software. The various stages of Dinan Performance Engine Software have been developed specifically for use with the combination of Dinan Engine Tuning products indicated. Any deviation with regard to the specific combinations of products installed, or the use of other manufacturer's "performance products" in conjunction with Dinan's, may result in a "service engine soon" warning or even damage to the engine. It is absolutely critical that the appropriate engine management software is installed with the Dinan Engine Tuning products selected in order to achieve optimum performance and driveability, as well as full compliance with the OBD II systems. Virtually any Engine Tuning product that is installed on a modern BMW, Dinan or otherwise, must be accompanied by the appropriate modifications to the engine management software for optimum performance and reliability.

Dinan's Performance Product Line has been organized into three tuning areas of your BMW: Engine Tuning, Driveline Tuning and Chassis Tuning. We invite you to learn more about the individual Dinan products available within these categories, and how they will make your driving experience even more exciting.



#### ENGINE TUNING

Performance Engine Software
High Flow Cold Air Intake Systems
Free Flow Exhausts
High Flow Throttle Bodies
High Flow Air Flow Meters
High Flow Intake Manifolds
Supercharger Systems



#### CHASSIS TUNING

High Performance Suspension Systems Three-Piece Forged Performance Wheels Brake Conversions



#### **DRIVELINE TUNING**

Performance Automatic Transmission Software Modified Final Drive Gearing

#### **PERFORMANCE ENGINE SOFTWARE-740**

Could there be a product that improves both acceleration and fuel economy? Dinan Performance Engine Software says, "Why not?" Taking full advantage of 91+ octane fuel, Dinan

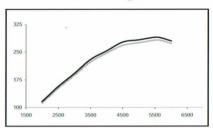


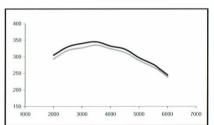
software unleashes more power by reprogramming the fuel mixture and ignition timing parameters of the engine management system. Furthermore, the software safely raises the factory rev-limit, giving your BMW a broader power band and greater road speed in each gear. But just because you can now out-accelerate other cars, that doesn't mean that you have to pay

the penalty of more frequent gas stops. During part throttle or "cruise" conditions, the Dinan software actually improves fuel economy. You will also notice that significant power gains are achieved at part throttle, as well as full throttle. That means that extra power is available where you spend most of your time driving. The Dinan software also removes the factory top speed governor. Granted, you probably wouldn't take your BMW over 128 mph; but now you can.

The software is 50 state emissions legal\*\*.

#### 9/98-2001 740 Performance Engine Software





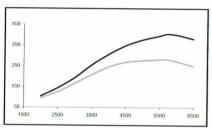
RPM	Stock HP	Dinan HP	Gain	RPM	Stock TRQ	Dinan	TRQ Gain
2000	112	116	4	2000	294	305	11
2500	152	157	5	2500	319	330	11
3000	187	192	5	3000	327	336	9
3500	223	230	7	3500	335	345	10
4000	247	253	6	4000	324	332	8
4500	268	277	9	4500	313	323	10
5000	275	283	8	5000	289	297	8
5500	282	290	8	5500	269	277	8
5700	281	288	7	5700	259	265	6
6000	273	280	7	6000	239	245	6

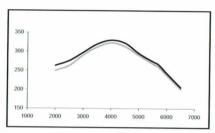
#### 740 Performance Software Data (9/98-2001 production)

Peak Horsepower Gain (Part-Throttle)16 bhp @ 5700 rpm
Peak Horsepower Gain (Full Throttle)9 bhp @ 4500 rpm
Peak Torque Gain (Part Throttle)25 lb/ft @ 2500 rpm
Peak Torque Gain (Full Throttle)11 lb/ft @ 2000 rpm
Rev limit increase+300 rpm

<sup>\*\*</sup>This product has been granted an exemption by the California Air Resources Board and is in compliance with U.S. EPA Memorandum 1A, or is a replacement part.

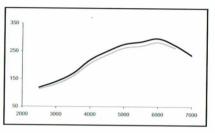
#### 1996-8/98 740 Performance Engine Software

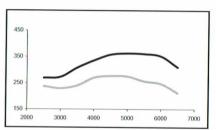




Dinas TDO	0-1-
Dinan TRQ	Gain
263	13
276	13
298	7
320	8
330	7
322	9
295	5
274	6
266	6
243	5
206	4
	276 298 320 330 322 295 274 266 243

**1995 740 Performance Engine Software** 





<b>RPM</b>	Stock HP	Dinan HP	Gain	RPM	Stock TRQ	Dinan T	RQ Gain
2500	113	119	6	2500	237	250	13
3000	131	140	9	3000	229	245	16
3500	160	171	11	3500	240	257	17
4000	206	219	13	4000	270	288	18
4500	237	250	13	4500	277	292	15
5000	262	275	13	5000	275	289	14
5500	269	284	15	5500	257	271	14
6000	282	296	14	6000	247	259	12
6500	262	272	10	6500	212	220	8
7000		235		7000		176	

# 740 Performance Software Data (1996-8/98 production) Peak Horsepower Gain (Part-Throttle) 13 bbp @ 3500 rpm

### 740 Performance Software Data (1995 production)

# HIGH FLOW COLD AIR INTAKE SYSTEMS -740 (1996-'01)

Dinan High Flow Cold Air Intake Systems develop horsepower and torque gains by improving the engine's intake air flow. The

aggressive system design provides for a less restrictive intake air flow than the stock system for greater engine efficiency and the lowest possible intake air temperatures.

The High Flow Cold Air Intake Systems replace the factory air box with a cylindrical performance filter and carbon fiber or aluminum intake pipe. The filter is relocated to a separate compartment behind the front bumper and below the headlights in order to insulate it from engine compartment heat and maximize exposure to outside air. The filter to air-flow-meter pipe is designed to

minimize air turbulence and maximize efficiency.

A Stage 2 version of the Dinan Performance Engine Software is required in order to optimize the fuel mixture and ignition timing for maximum power gains. The High Flow Cold Air Intake System is 50 state emissions legal\*\*.

\*\*This product has been granted an exemption by the California Air Resources Board and is in compliance with U.S. EPA Memorandum 1A, or is a replacement part.

740	Peri	formance Da	ta (9)	/98-2001 prod	ducti	on)	)				
				13							
Pe	eak	Torque Gain		12	lb/ft	@	5700	rpm			
740	740 Performance Data (6/95-8/98 production)										
Pe	eak	Horsepower	Gain	16	bhp	@	6500	rpm			
				12	11 /6	0	F700				

### FREE FLOW EXHAUSTS-750, 740

Dinan's Free Flow Exhaust for the 7 series provides power gains without the excessive noise associated with typical "performance" mufflers. Internally, the systems feature Dinan's Tuned Resonance Chamber technology, which provides the optimum balance between maximum power gains and a civilized, yet sporty exhaust note. The Free Flow Exhausts are 50 state emissions legal\*\*.

#### 750 Performance Specifications ('96-2001)

Peak Horsepower Gain	10 bhp @ 5500 rpm
Peak Torque Gain	10 lb/ft @ 5500 rpm

#### 740 Performance Specifications ('96-2001)

Peak Horsepower Gain	7 bhp @ 6500 rpm
Peak Torque Gain	6 lb/ft @ 6500 rpm

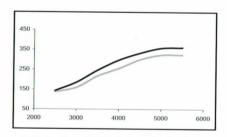
#### 740 Performance Specifications (1995)

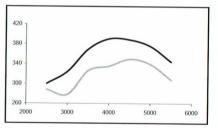
Peak Horsepower Gain	17 bhp @ 6500 rpm
Peak Torque Gain	14 lb/ft @ 4500 rpm

### **HIGH FLOW INTAKE MANIFOLDS-750**

Dinan High Flow Intake Manifolds provide substantial increases in horsepower and torque. The manifolds are ported and polished for improved flow using the extrude hone process, then powder coated black for a dramatic, high performance look. The manifolds are 50 state emissions legal.\*\*

# Dyno Results for 750 High Flow Intake Manifolds and Free Flow Exhaust





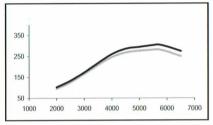
RPM	Stock HP	Dinan HP	Gain	
2500	137	143	6	
3000	159	185	26	
3500	217	246	29	
4000	255	297	42	
4500	299	335	36	163
5000	323	360	37	
5500	323	365	42	

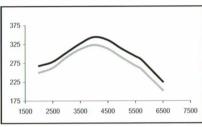
RPM	Stock TRQ	Dinan TRQ	Gai
2500	288	300	12
3000	278	324	46
3500	326	369	43
4000	335	390	55
4500	349	391	42
5000	339	378	39
5500	308	349	41

<sup>\*\*</sup>This product has been granted an exemption by the California Air Resources Board and is in compliance with U.S. EPA Memorandum 1A, or is a replacement part.



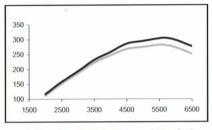
#### Dyno Results for 740 (1996-8/98) Stage 2 Engine Software, High Flow Cold Air Intake and Free Flow Exhaust

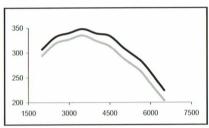




				_				
RPM	Stock HP	Dinan HP	Gain		RPM	Stock TRQ	Dinan TRQ	Gain
2000	95	102	7		2000	250	268	18
2500	125	133	8		2500	263	279	16
3000	166	173	7		3000	291	303	12
3500	208	218	10		3500	312	327	15
4000	246	260	14		4000	323	341	18
4500	268	286	18		4500	313	334	21
5000	276	294	18		5000	290	309	19
5500	281	303	22		5500	268	289	21
5700	282	305	23		5700	260	281	21
6000	272	296	24		6000	238	259	21
6500	250	274	24		6500	202	221	19

#### Dyno Results for 740 (9/98-2001) Stage 2 Engine Software, High Flow Cold Air Intake and Free Flow Exhaust





RPM	Stock HP	Dinan HP	Gain	RPM	Stock TRQ	Dinan TRQ	Gain
2000	112	117	5	2000	294	307	13
2500	152	158	6	2500	319	332	13
3000	187	194	7	3000	327	340	13
3500	223	232	9	3500	335	348	13
4000	247	258	11	4000	324	339	15
4500	268	286	18	4500	313	334	21
5000	275	295	20	5000	289	310	21
5500	282	304	22	5500	269	290	21
5700	281	305	24	5700	259	281	22
6000	273	298	25	6000	239	261	22
6500	252	277	25	6500	204	224	20

# HIGH FLOW THROTTLE BODY-740 (9/98-2001)

Dinan's High Flow Throttle Bodies improve intake air flow for



additional horsepower and torque gains. The internal diameter of the stock 740 throttle body is bored for an 8% increase in air flow area. The resulting increase in air flow provides more horsepower and torque throughout the rpm range, with noticeably quicker throttle response. Fully matched Stage 3 Engine Software and the Cold Air Intake System are required. This product is 50 state emissions legal.\*\*

#### 740 Performance Data (9/98-2001 production)

Peak Horsepower	Gain8	bhp	(a)	5500	rnm
Peak Torque Gain	8	lb/ft	(a)	5500	rpm

<sup>\*</sup>This product is in compliance with U.S. EPA Memorandum 1A, or this product has not been found, nor is believed to be, unlawful for use under the provisions of the Clean Air Act. Currently: This product is legal in California only for racing vehicles which may never be used upon a highway.

# **HIGH FLOW AIR FLOW METERS-740**

Dinan's High Flow Air Flow Meter for the 740 compliments the Cold Air Intake System by opening up the intake tract for increased power and quicker throttle response.



9/98-2001 PRODUCTION



The Dinan Air Flow Meter Housing features a larger internal diameter and is manufactured from aluminum, as compared to the smaller plastic stock unit. The Air Flow Meter is designed to accommodate the stock electronics and comes with all of the components necessary for a clean and simple installation. The Dinan Cold Air Intake System is required when installing the Air Flow Meter on cars produced through 8/98, as well as specially tuned Dinan Stage 4 Engine Software. Cars produced 9/98-02 require the Cold Air Intake, Throttle Body and Stage 4 Engine Software. This product is currently 49 state emissions legal\*.

1996-8/98 PRODUCTION

#### Performance Data 1996-8/98 production

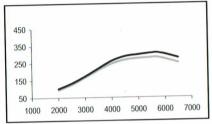
Peak Horsepower	Gain4	bhp	<b>a</b>	5000 rr	m
Peak Torque Gain	4	lb/ft	@	5000 rp	m

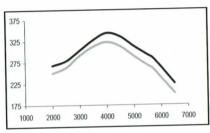
#### Performance Data 9/98-2001 production

Peak Horsepower Gain8	bhp	<b>(</b>	6500	rnm
Peak Torque Gain6	lb/ft	(0)	6500	rnm

<sup>\*\*</sup>This product has been granted an exemption by the California Air Resources Board and is in compliance with U.S. EPA Memorandum 1A, or is a replacement part.

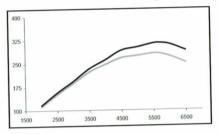
# 740 (1996-8/98 production) Dyno Results for Stage 4 Engine Software, Cold Air Intake, Free Flow Exhaust and High Flow Air Flow Meter

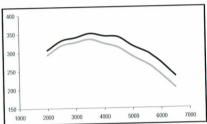




RPM	Stock HP	Dinan HP	Gain	RPM	Stock TRQ	Dinan TRQ	Gain
2000	95	102	7	2000	250	268	18
2500	125	133	8	2500	263	279	16
3000	166	173	7	3000	291	303	12
3500	208	218	10	3500	312	327	15
4000	246	262	16	4000	323	344	21
4500	268	288	20	4500	313	336	23
5000	276	298	22	5000	290	313	23
5500	281	307	26	5500	268	293	25
5700	282	309	27	5700	260	285	25
6000	272	300	28	6000	238	263	25
6500	250	278	28	6500	202	225	23

# 740 (9/98-2001 production) Dyno Results for Stage 4 Engine Software, Cold Air Intake, Free Flow Exhaust, Throttle Body and High Flow Air Flow Meter





	Stock HP	Dinan HP	Gain	RPM	Stock TRQ	Dinan TRQ	Gain
RPM	0.000	-	5	2000	294	307	13
2000	112	117		2500	319	332	13
2500	152	158	6	anning	ATTERIOR OF THE PERSON OF THE	THE THE TOTAL	13
3000	187	194	7	3000	327	340	
3500	223	234	11	3500	335	351	16
4000	247	262	15	4000	324	344	20
		292	24	4500	313	341	28
4500	268	AUUHHU	27	5000	289	317	28
5000	275	302	HILITACHERUSH:		HARRING, AIR	300	31
5500	282	314	32	5500	269	lp.	31
5700	281	315	34	5700	259	290	
6000	273	311	38	6000	239	272	33
	252	291	39	6500	204	235	31
6500	232	201	00	0000			

#### **HIGH FLOW INTAKE MANIFOLD-740**

The replacement intake manifolds feature larger diameter "runners" for improved engine efficiency at higher engine speeds (rpm), resulting in increased horsepower and torque. When



installed in conjunction with fully matched Stage 5 Engine Software, the Cold Air Intake System, Exhaust, High Flow Throttle Body and Air Flow Meter, peak horsepower is increased to 321 @ 5700 rpm, for a 40 hp gain (with a peak gain of 48 hp @ 6500 rpm) over the stock rating; torque is up by 39 lb/ft @ 6000 rpm. The result

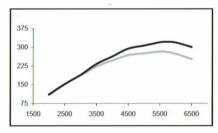
is faster overall acceleration, with the car feeling noticeably more willing right up to the rev-limiter.

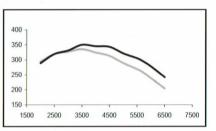
#### Performance Data 9/98-01 Production

Peak Horsepower Gain	9 bhp	@	6500	rpm
Peak Torque Gain	7 lb/ft	@	6500	rpm

Street Legal Status pending. Currently: This product is not legal for sale or use in California on any pollution controlled motor vehicles. Legal only for racing vehicles which may never be used upon a highway.

740 (9/98-2001) Dyno Results for High Flow Intake Manifold, Stage 5 Engine Software, Cold Air Intake, High Flow Throttle Body, Air Flow Meter and Free Flow Exhaust





RPM	Stock HP	Dinan HP	Gain	<b>RPM</b>	Stock TRQ	Dinan TR	Q Gain
2000	112	110	-2	2000	294	289	-5
2500	152	152	0	2500	319	319	0
3000	187	189	2	3000	327	331	4
3500	223	233	10	3500	335	350	15
4000	247	263	16	4000	324	345	21
4500	268	294	26	4500	313	343	30
5000	275	306	31	5000	289	321	32
5500	282	319	37	5500	269	305	36
5700	281	321	40	5700	259	296	37
6000	273	318	45	6000	239	278	39
6500	252	300	48	6500	204	242	38

# 740 SUPERCHARGER SYSTEM (9/98-2001)

Dinan's supercharger system for VANOS equipped 740s (9/98-2001 production) delivers unparalleled acceleration, everyday driveability and the reliability enthusiasts have come to expect from a Dinan-tuned BMW. Countless hours of development,

refinement and testing have resulted in a supercharged engine that produces 412 horsepower and 397 lb/ft. torque, yet behaves in a civilized manner. Close attention to detail and the highest quality materials ensure that the fit and finish are on par with factory standards.

"Buy a Dinan car and you get a factory warranty along with pavement-scorching performance—something to think about before bolting [on] that Acme blower..."

-european car

Dinan's expertise in forced induction engine technology is evident in every aspect of the 740 Supercharger System. The system employs Vortech's efficient and reliable gear driven supercharger, featuring helical cut gears for quiet operation. In addition, the supercharger bracket system features a special Tension Compression Rod, designed to supplement the primary bracket for superior rigidity and further reduction of noise. The engine management systems have been programmed for maximum power gains, driveability and compliance with applicable emissions standards; the system is currently 49 state emissions legal.\* Dinan engine management software ensures that the system maintains all On Board Diagnostic (OBD II) functions and that the ignition timing and air/fuel mixtures are optimal throughout the engine's operating range. The variable valve timing (VANOS)

has been re-mapped as well, fully matching the programming to the supercharger. The system also features Dinan's High Flow Air Flow Meter and Intake Manifold, which reduce the intake system restrictions presented by the stock components. An aggressive Cold Air Intake System ensures that the supercharged V8 is breathing plenty of cool, dense air for maximum power. The optional Free Flow Exhaust reduces back pressure for greater engine efficiency. The High Flow Throttle Body can be added for extra power and improved throttle response.

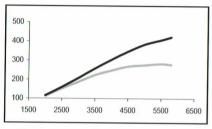
#### **Warranty/ Supplemental Powertrain Warranty**

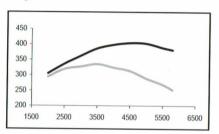
The Supercharger System is backed by Dinan's comprehensive 2 year, unlimited mileage warranty. A Dinan Supplemental Warranty Program is included which provides coverage for eligible factory drivetrain components that are no longer covered by the original vehicle manufacturer's new car warranty due to the installation of the Supercharger System. The Dinan Supplemental Powertrain Warranty provides coverage for the remaining term of the original vehicle manufacture's new car warranty, up to 4 years or 50,000 miles.

<sup>\*</sup>This product is in compliance with U.S. EPA Memorandum 1A, or this product has not been found, nor is believed to be, unlawful for use under the provisions of the Clean Air Act. Currently: This product is legal in California only for racing vehicles which may never be used upon a highway.



# Dyno results for the 740 Supercharger System (9/98-01) (with optional Free Flow Exhaust)





<b>RPM</b>	Stock HP	Dinan HP	Gain
2000	112	115	3
2500	152	158	6
3000	187	204	17
3500	223	253	30
4000	247	298	51
4500	268	340	72
5000	275	376	101
5500	282	398	116
5800	278	412	134
6000	273	401	128

<b>RPM</b>	Stock TRQ	Dinan TRQ	Gain
2000	294	302	6
2500	319	332	13
3000	327	357	30
3500	335	380	45
4000	324	391	67
4500	313	397	84
5000	289	395	106
5500	269	380	111
5800	252	373	121
6000	239	351	112

#### **Performance Data**

Peak Horsepower	412	bhp @	5800	rpm
Peak Horsepower Gain	134	bhp @	5800	rpm
Peak Torque	397	lb/ft@	4500	rpm
Peak Torque Gain	121	lb/ft @	5800	rpm

"This uncompromising performance is just that, performance without the compromise to driveability or the refinement expected by a BMW owner. This is a Dinan hallmark."

> -european car March, 2002

# 740 SUPERCHARGER SYSTEM ('96-8/98)

Dinan's Supercharger System for the 740 delivers unparalleled acceleration, everyday driveability and the reliability enthusiasts have come to expect from a Dinan tuned BMW. Countless hours of development, refinement and testing have resulted in a supercharged engine that produces 404 horsepower and 406 lb/ft of torque, yet behaves in a civilized manner. Close attention to detail and the highest quality materials ensure that the fit and finish are on par with factory standards.

Dinan's expertise in forced induction engine technology is evident in every aspect of the 740 Supercharger System. The system employs Vortech's efficient and reliable gear driven supercharger, featuring helical cut gears for quiet operation. A wide, 8-rib belt ensures maximum reliability at the speeds necessary to deliver 8 pounds of boost pressure. The engine management systems have been programmed for maximum power gains, driveabilty and compliance with applicable emissions standards. The Supercharger is currently 49 state emissions legal\*. Dinan software ensures that the system maintains all On Board Diagnostic (OBD II) functions and that the ignition timing and air/fuel mixtures are optimal throughout the engine's operating range. The system also features an aggressive Cold Air Intake, designed to ensure that the supercharged engine is breathing plenty of cool, dense air for maximum power gains.

### Warranty/Supplemental Powertrain Warranty

The Supercharger System is backed by Dinan's comprehensive 2 year, unlimited mileage warranty. A Dinan Supplemental Warranty Program is included which provides coverage for eligible factory drivetrain components which are no longer covered by the original vehicle manufacturer's new car warranty due to the installation of the Supercharger System. The Dinan Supplemental Powertrain Warranty provides coverage for the remaining term of the original vehicle manufacture's new car warranty, up to 4 years or 50,000 miles.

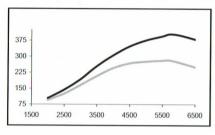
# Performance Data for the 740 Supercharger System ('96-8/98)

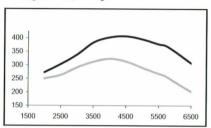
•	1301			0	F700	
	Peak	Horsepower414	bhp	(a)	5/00	rpm
	Peak	Horsepower Gain140	bhp	(a)	6500	rpm
	Peak	Torque412	lb/ft	@	4500	rpm
	Peak	Torque Gain122	lb/ft	@	5700	rpm

<sup>\*</sup>This product is in compliance with U.S. EPA Memorandum 1A, or this product has not been found, nor is believed to be, unlawful for use under the provisions of the Clean Air Act. Currently: This product is legal in California only for racing vehicles which may never be used upon a highway.



# Dyno results for the 740 Supercharger System with Optional Free Flow Exhaust (96-8/98)





RPM	Stock HP	Dinan HP	Gain	RPM	Stock TRQ	Dinan TRQ	Gain
2000	95	104	9	2000	250	273	23
2500	125	144	19	2500	263	303	40
3000	166	194	28	3000	291	340	49
3500	208	257	49	3500	312	386	74
4000	246	309	63	4000	323	406	83
4500	268	353	85	4500	313	412	99
5000	276	382	106	5000	290	401	111
5500	281	402	121	5500	268	384	116
5700	282	414	132	5700	260	382	122
6000	272	409	137	6000	238	358	120
6500	250	390	140	6500	202	315	113



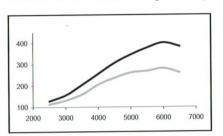
### 740 SUPERCHARGER SYSTEM (1995)

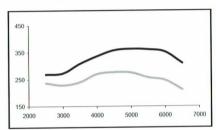
Dinan's Supercharger System for the '95 740 offers outstanding horsepower and torque increases in an extremely cost effective package. These systems have been carefully engineered to deliver serious performance without negatively affecting everyday driveability or the reliability you expect of your BMW. The system is 50 state emissions legal.\*\*

Dinan's expertise in forced induction engine technology is evident in every aspect of the Supercharger System for BMW's 4-liter V8s. The package includes an extremely efficient Centrifugal Compressor type supercharger, which is belt driven internally for quiet operation. The supercharger features, which require no lubrication or maintenance and also provides for very low intake charge air temperatures for greater power gains and minimal energy waste. The Dinan Supercharger actually turns 20,000 fewer rpm than more common designs.

The kits have been carefully designed to bolt on to the 740 without any major modifications to the cars. Custom Dinan Engine Management Software is included as well as the Dinan TurboTronics-10, an electronic device that recalibrates the stock air flow meter for use with the supercharger system. Dinan electronics provide maximum horsepower gains by insuring the optimum ignition timing and fuel enrichment required under boost, as well as protecting the engine against detonation.

# Dyno results for 740 Supercharger System with Optional Free Flow Exhaust (1995 production)





RPM 2500 3000 3500 4000 4500 5000 5500	Stock HP 113 131 160 206 237 262 269	Dinan HP 128 156 205 256 307 346 378	Gain 15 25 45 50 70 84 109	RPM 2500 3000 3500 4000 4500 5000 5500	Stock TRQ 237 229 240 270 277 275 257	Dinan TRQ 269 273 308 336 358 363 361	32 44 68 66 81 88 104
	-	ABHIADIB	10000		HUMBER AU		40,007

#### **Performance Data**

Peak Horsepower	402 bl	1p @	6000	rpm
Peak Horsepower Gain	122 bl	np @	6500	rpm
Peak Torque	363 lb,	ft @	5000	rpm
Peak Torque Gain	105 lb	/ft @	6000	rpm

<sup>\*\*</sup>This product has been granted an exemption by the California Air Resources Board and is in compliance with U.S. EPA Memorandum 1A, or is a replacement part.

# The Dinan 1995 740 Supercharger includes the following major components:

- Supercharger
- CNC Machined Crank Pulley
- 6-Rib Drive Belt
- Intake Plumbing
- Engine Management System
- Performance Air Filter Assembly
- Air Filter and Belt Cover
- High Flow Fuel Injectors
- Dual Fuel Pump Assembly
- Turbotronics-10
- Automatic Transmission Software

# **DINAN SUSPENSION SYSTEMS STAGE 1 SUSPENSION SYSTEM-740**

The Stage 1 Suspension System for the 740i consists of a matched



set of performance tuned springs, front struts and rear shocks. The Stage 1 System dramatically reduces the pitch and roll associated with the stock suspension, while maintaining a nicely dampened ride. Systems are available for cars equipped with Hydraulic Load Leveling as well, maintaining or eliminating the load-leveling feature.

# 740 Stage 1 Suspension System, without Load leveling or EDC System Components:

- •Performance Spring Set
- •Bilstein Rear Shocks and Front Struts

# 740 Stage 1 Suspension System, Maintaining Load leveling, without EDC System Components:

- Performance Spring Set
- •Bilstein Front Struts
- •Load Leveling Maintenance Kit

#### **STAGE 1 SUSPENSION SYSTEM-750**

The Stage 1 Suspension System for the 750i consists of a matched set of performance tuned springs, designed to work in conjunction with the stock struts and shocks. The Stage 1 System dramatically reduces the pitch and roll associated with the stock suspension, while maintaining a nicely dampened ride.

#### **FRONT CAMBER PLATES-740**

Camber Plates can be added to the Stage 1 Suspension System



in order to increase negative camber on the front wheels. The Camber Plates will dramatically reduce understeer, or the car's tendency to plow the front end, for further improvement of turnin and even more predictable handling.

#### **BRAKE CONVERSIONS**

Dinan offers larger front and rear brakes for improved stopping power and reduction of rotor warpage. The front rotors are



increased from the stock 324 x 30 mm to 334 x 32 mm, and the rears are increased from 324 x 12mm to 328 x 20mm. The conversion retains the factory brake sensors and does not affect ABS operation.

#### **DINAN 18 INCH THREE-PIECE WHEELS**

Nothing creates a performance look and feel more than a set



of larger wheels fitted with wide, sticky tires. An aggressive set of wheels and tires tenaciously grip the pavement for better handling and braking. Improved agility also makes it easier for you to maneuver in traffic and avoid accidents.

Dinan Three Piece Modular Wheels deliver maximum performance while having the clean, contemporary appearance of a one-piece wheel. The centers are forged, then machined from aluminum billets. The half shells are spun aluminum. This manufacturing

process, while more expensive and time consuming, delivers the lightest and strongest wheel possible to contribute to the overall handling and balance of the car. Dinan wheels also provide the ability to fit the largest tires possible, for maximum grip and further reduction of understeer. The  $18 \times 9$ " wheel is designed for use with a 265/40-18 tire, front and rear.

# **AUTOMATIC TRANSMISSION SOFTWARE** -740

Sporty acceleration is no longer the sole domain of those who like to shift gears; Dinan Automatic Transmission Software



welcomes you to the performance zone. To fully utilize the extra power extracted by Dinan Engine Performance Products, the transmission software raises the shift points to a higher rpm for faster acceleration in both the "Sport" and "Economy" modes, allowing you to carry more road speed in each gear.

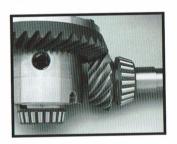
The software also provides firmer and quicker shifting, further improving acceleration. The transmission software will typically shave .01 seconds off of 0-60 mph times and .03 seconds to 100 mph. The software provides the same benefits in both the automatic and manual shifting modes.

The Dinan transmission software also provides the driving enthusiast with a revised "manual" mode that is better suited to performance driving. In the "manual mode", the Dinan programming will maintain the selected gear regardless of engine speed, giving the driver true control over gear selection. Regardless of the selected gear when the vehicle is brought to a stop, the transmission will automatically downshift to 3<sup>rd</sup> gear. Of course the driver can manually downshift as the car is brought to a stop, for a more typical 1<sup>st</sup> gear start. The program will only automatically force an up or downshift in the manual mode when the "kick-down switch" is activated by the accelerator pedal beyond the wide-open throttle position. The result is much greater control over gear selection for varying driving conditions and speeds, enabling the driver to maintain the appropriate engine speeds for maximum acceleration.

# LIMITED SLIP DIFFERENTIALS AND MODIFIED FINAL DRIVE GEARING

- 740

Dinan offers a 3.15 differential for non-Sport 740 models, featuring a shorter final drive ratio. The 3.15 final drive gearing takes



advantage of torque multiplication, lowering the stock 2.81 gearing for a 12% increase in torque delivered to the ground. The improvement in acceleration comes with only a minor increase in engine speeds at cruise and no effective reduction in top speed. Sport models have been equipped from the factory with the 3.15 final drive ratio.

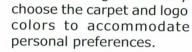
For even faster acceleration, as well as improved handling, a 3.45 Limited Slip Differential is available for both sport and non-sport 740i/iL models. The 3.45 gearing provides a 23% increase in torque to the rear wheels vs. the stock 2.81 gearing.

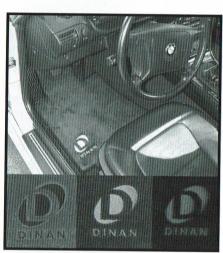
Dinan offers a 3.73 Limited Slip Differential for 1995 740s, lowering the stock 3.15 gearing for faster acceleration, with no effective reduction in top speed. Limited Slip improves the car's handling as well as providing for faster starts.

### **ACCESSORIES**

### **DINAN SIGNATURE FLOOR MATS**

A set of floor mats is available for 7 series models featuring the Dinan Logo. You may





Warranty

Product quality and support is a cornerstone at Dinan, resulting in the best warranty available anywhere. Dinan's warranty matches whatever period remains on the original vehicle manufacturer's new car warranty for up to 4 years/50,000 miles. For vehicles no longer covered by the original vehicle manufacturer's warranty, Dinan's products are covered by a 2-year, unlimited mileage warranty. Both warranties cover parts and labor associated with the repair of any Dinan product. Dinan Performance Engine and Transmission Software are guaranteed for life. Whether you've owned your BMW for a few days or a few years, BMW and Dinan cover you year to year, mile to mile, and bumper to bumper.

#### **Emissions**

The environmental impact of vehicle emissions is important to us from both a social conscience and legal perspective. We actively support emissions legislation that protects our environment.

Most Dinan products have been tested and are 50 state emissions legal. The current emission status of each Dinan product is indicated in the model specific product information.

**Dyno Testing** 

Dinan employs sophisticated dyno testing procedures in the development and verification of our Engine Tuning Products. Every effort is made to provide the BMW driving enthusiast with the most accurate and reliable performance data possible, based upon the results of the very latest in dyno equipment and time-proven testing procedures.

It is important to understand that the results produced by various dynamometers will vary, depending upon a number of environmental factors, the level of sophistication in testing procedures, as well as the abilities and experience of the operator. It should also be noted that the dynamometer is used to quantify the change or increase in horsepower and torque as compared to the "baseline" dyno run of the stock vehicle. In order to obtain valid dyno results, the vehicle must be tested both before and after the performance products have been installed so that the resulting difference between "stock" and "performance enhanced" can be quantified.

Dinan measures the gains achieved by our performance products using the very latest in chassis dynamometer technology. The system is connected directly to the vehicle's drive wheel hubs, eliminating the variables introduced by different tires and other factors associated with the "roller systems" employed by more common chassis dynamometers. Dinan products are dyno-tested using 93 octane premium pump fuel as the standard. If 93 octane fuel is not available in your area, your BMW will produce somewhat lower horsepower and torque output than that published due to the engine management system's compensation for the lower octane fuel. The dyno data published in this catalog is based upon SAE (Society of Automotive Engineers) standard J1349.

### The Dinan Deck Lid Badge

"Performance" is a concept that each of us defines individually, so



we have made it possible to create your own Dinan vehicle. We will send the Dinan deck lid badge when your Dinan performance selections accumulate a total of 10 points.

#### **Points** Description 2 Performance Engine Software (all Stages) 1 Performance Transmission Software High Flow Cold Air Intake Systems 3 Free Flow Exhaust Systems 2 High Flow Throttle Bodies 2 High Flow Air Flow Meters 2 High Flow Intake Manifolds 10 Supercharger Systems 2 Dinan Differentials 5 Suspension Systems 5 Dinan Wheel Sets 3 Dinan Brake Conversions

#### In Conclusion

We hope that this information helps you understand Dinan's products and how they can raise the level of driving fun and excitement of your BMW. Whereas Dinan products are designed to enhance the driving experience, we do not advocate reckless or irresponsible driving.

Product development is an ongoing process at Dinan. As a result, product availability, specifications and prices are subject to change without notice. For current information, contact your Dinan Authorized Center, our web site at dinanbmw.com or a Dinan Performance Representative at 408-779-8584.



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