

STOP TECH

BALANCED BRAKE UPGRADES™



AUTUMN 2003 TO SPRING 2004 CATALOG

ACURA ■ AUDI ■ BMW ■ CADILLAC ■ CHEVROLET ■ CHRYSLER ■ DODGE ■ FERRARI ■ FORD ■ GMC TRUCK ■ HONDA ■ HUMMER ■ INFINITI ■ JAGUAR ■ LEXUS
■ LINCOLN ■ MAZDA ■ MERCEDES ■ MINI ■ MITSUBISHI ■ NISSAN ■ PONTIAC ■ PORSCHE ■ SEAT ■ SKODA ■ SUBARU ■ TOYOTA ■ VOLKSWAGEN ■ VOLVO

**BIG BRAKE KITS ■ STAGE 1 & 2 UPGRADES ■ OE REPLACEMENT ROTORS ■ STREET AND RACE PADS ■
STAINLESS STEEL BRAKE LINES ■ CALIPER REBUILD KITS**



WHY BIG BRAKE KITS?



Big Brake kits give your vehicle that Supercar look and feel, and exceed stock performance in two areas. First, larger rotors increase heat capacity. Second, stiffer calipers and stainless steel lines reduce system compliance. StopTech further optimizes upgrade performance with Balanced Brake Upgrades™ and additional technical innovations.

Advantages of StopTech Balanced Brake Upgrades™ over other brake upgrades:

- | | |
|--------------------------------------|------------------------------|
| 1. Shorter Stopping Distances | 3. Firmer Brake Pedal |
| 2. Better Brake Modulation | 4. Less Brake Fade |

Unlike our competitors who take calipers from other platforms, StopTech's application specific designs optimize brake upgrade performance. Our design engineers take the following steps when developing a new brake upgrade:

1. Calculate front and rear stock brake torque reactions based on stock rotors, calipers and pads.
2. Using new rotor sizes, calculate piston sizes to maintain or improve the stock front to rear torque ratios (bias).
3. Track test new designs on the target vehicle to ensure ABS and dynamic vehicle stability control compatibility.

StopTech, the leader in Balanced Brake Upgrades™, is the only aftermarket brake company to take these steps. The result is a balanced brake upgrade similar to the stock design, with the increased heat capacity needed for racing and high performance street use. StopTech brakes consistently win magazine performance tests. Pro racers running StopTech find they brake deeper into turns and experience less fade in demanding racing environments. The same race proven StopTech products used by SPEED® World-Challenge and Grand-Am® teams are very drivable for day to day use and up to the challenge of club events.

StopTech outperforms other brake upgrades with four technical advantages:

1. Balanced Brake Upgrades™ offer the shortest stopping distance with the best pedal feel.
2. Our AeroRotors® with the best airflow available result in better cooling, less fade and longer rotor and pad life.
3. The stiffest aftermarket calipers result in better clamping under hard braking and less pad taper.
4. Track testing of new applications ensures optimum performance.

WHY BALANCE MATTERS

An unbalanced brake upgrade can degrade performance.

Front and rear engine cars, for example, demand different designs in order to account for weight distribution and maintain balance. You can't take the brakes from a Porsche and get optimum braking performance on an Audi. Front engine cars benefit most from front brake upgrades, since approximately 80% of the heat is dissipated by the front brakes. Rear engine cars and heavier, faster cars may find greater benefit with a 4 wheel kit.



↑
Too much front torque extends stopping distance.

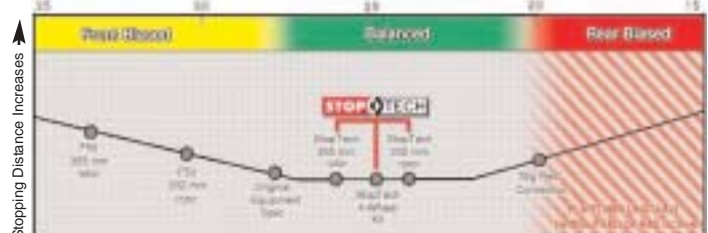
↑
Too much rear torque both extends stopping distance, and makes it easier to spin your car.

BENEFITS OF STOPTECH'S BALANCED BRAKES:

1. Shorter stopping distances
2. Better brake modulation
3. Firmer brake pedal
4. Less pedal travel
5. Optimum integration with ABS
6. Optimized for stock master cylinder

The chart below shows that StopTech's Balanced Brake Upgrades™ resulted in the shortest stopping distance. This is because StopTech selects piston sizes to optimize balance, whereas other brake companies use the same piston size across a much broader range of cars.

Stopping Distance vs. Brake Bias



Front to rear brake torque ratios

(Calculated on the 2001 Audi S4. Distance results are from same day tests with brakes the only change.)

IMPROVED COOLING AND HEAT CAPACITY

StopTech has incorporated several design innovations to improve rotor airflow, cooling and heat capacity. The ability to absorb and dissipate heat is essential to brake system performance.

BENEFITS:

- ◆ Less fade
- ◆ Longer rotor and pad life
- ◆ Better performance

AEROROTOR®

The patent-pending AeroRotor® features curved vanes with innovations on leading and trailing edges. The uniquely designed vanes inside the disc optimize airflow through the rotor. This improved directional design minimizes turbulence and flows more air than any rotor tested. The result is up to 80% better airflow over original equipment rotors and 10-30% better airflow than directional vanned racing rotors currently available.



AeroRotor® vane design improves airflow and cooling to resist fade.



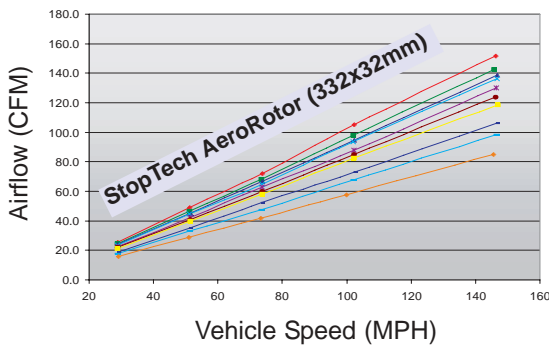
On this competitor's rotor, turbulence created by one vane blocks airflow into the next.



The AeroHat™ allows air to flow between the rotor and hat to cool the outside face of the rotor, whereas other 2-piece floating rotors do not.

AEROHAT™

Outer rotor faces run hotter. The patent pending AeroHat™ has directional stand offs between the rotor and mounting bell (hat) that increase airflow to the outside faces of the rotor by 50-100%. Increased airflow reduces the temperature difference between the inside and outside faces of the rotor resulting in less distortion and better performance compared to other fully floating designs. Outer pad wear is reduced. AeroHat™ improves entire brake system airflow by up to 4%.



This chart shows that StopTech (top red line) has the highest induced airflow of any rotor tested. Leading aftermarket and original equipment rotors were tested for airflow from 30mph to 150mph. AeroRotor® dramatically outperformed all other rotors, with improvements from an impressive 11% to a staggering 80% increase in airflow. (Corrected to 20°C and sea level.)

BETTER AIRFLOW MEANS BETTER COOLING AND LESS FADE.

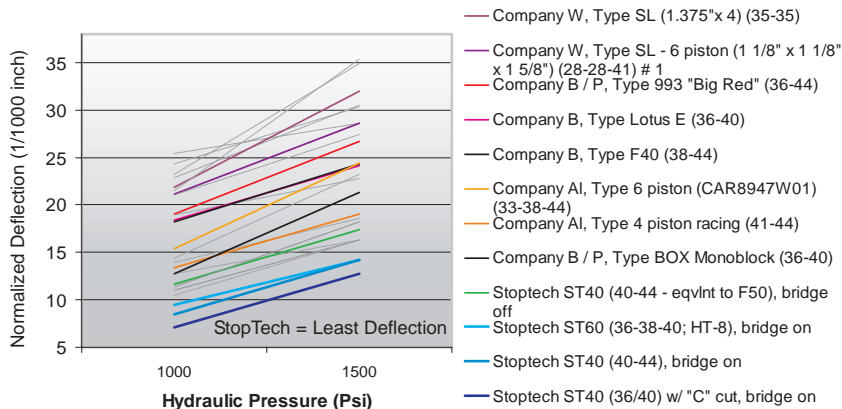
STIFFER CALIPERS MEAN BETTER PERFORMANCE AND FEEL

Using finite element analysis (FEA) modeling software, we have designed a bolt-in bridge strong enough to stop distortion without sacrificing cooling through the top of the caliper. Distortion is virtually eliminated. The StopTech **squeeze forged** caliper has the least flex of any tested aftermarket and OE caliper. The chart below shows the results of testing 25 leading caliper models by the major caliper companies. Each caliper was subjected to the same pressures and deflection was measured with a dial caliper. StopTech is the stiffest caliper of the major brands tested.

BENEFITS:

- ◆ Better performance with less vibration, noise and pad taper
- ◆ Better pedal feel under extreme braking conditions
- ◆ No radial pad taper

Caliper Deflection Chart*



Patented bolt-in bridge makes StopTech calipers twice as stiff as the same type cast aluminum caliper from competitors.

* For details on test set-up, please see notes on our web site.

StopTech Big Brake Kits - Standard Options

Complete kits include:

- ♦ Floating directional rotors with billet aluminum directional hats
- ♦ Mounting brackets with stainless steel studs
- ♦ DOT compliant stainless steel braided Teflon[®] lines
- ♦ High performance street pads (race pads optional)
- ♦ Squeeze forged high performance, patented 4-piston calipers

Teflon is a registered trademark of DuPont



Rotors

StopTech provides rotors slotted or drilled. For most performance applications slotted is the preferred choice. Slotting helps wipe away debris from between the pad and rotor as well as increasing the "bite" characteristics of the pad. A drilled rotor provides the same type of benefit, but is more susceptible to cracking under severe usage. Many customers prefer the look of a drilled rotor and for street and occasional light track use they will work fine. For more severe applications, we recommend slotted rotors. Drilled rotors cost \$100. extra per axle set.



Slotted



Drilled

Calipers

Standard caliper colors are red and black paint. Silver has a 30 day lead time. Blue and yellow are \$200 per axle set extra. Kits that come standard with black anodized calipers are noted on the price list.



Red



Black



Silver*



Blue*



Yellow*



Black Anodized**

* Please allow a 30-day lead time for silver, yellow and blue paint.

** Anodized calipers may be painted any color for an additional \$200 per axle set (per two calipers). Lead time is 30 days.

Pads

StopTech does extensive testing of all popular pad compounds. We found Axxis Ultimate street performance pads to be the best high performance pad for street and autocross based on dyno and track tests. The pad works cold, and has a MOT of 932°F with no fade until 850°F. This pad is included with all big brake kits. StopTech stocks these pads and others:



StopTech Big Brake Kits - Additional Information

Wheel Fitment

Whether a kit fits a stock wheel is dependent on the specific application. Our ST-40 4-piston calipers usually requires the following:

328mm rotor (12.9 inches) - Minimum 17" wheel
332mm rotor (13 inches) - Minimum 17" wheel
355mm rotor (14 inches) - Minimum 18" wheel
380mm rotor (15 inches) - Minimum 19" wheel

More important than the diameter is the clearance between the face of the caliper and the inside of the wheel spokes. Wheel width and offset have nothing to do with this clearance area; it is strictly a function of the spoke design.

Detailed templates and instructions on how to use them are on www.stoptech.com under "Wheel Fitment Charts." These will allow you to accurately test fit any wheel. Be sure you check wheel fitment before committing to a wheel set. Checking wheel fitment is the responsibility of the customer.



Terms and Conditions

Prices

This catalog reflects USA list prices, ex-works Torrance, California. Prices are subject to change without notice.

Ordering

Please order by part number; this saves time and prevents errors. Deposits are required on special orders and may be non-refundable.

Payment

Payment is in advance via either wire transfer or credit card. We accept Visa, MasterCard and American Express.

Shipping

Unless otherwise specified, all US orders ship UPS Ground, and international orders ship most economical airfreight. Please allow up to 5 days shipping time for US orders and up to 7-10 days shipping time for most international orders. Faster shipping may be specified, and you will be billed the according rate. You may also use your own shipping account or freight forwarder.

All orders ship from Torrance, California 90505 USA. When ordering online at www.stoptech.com, shipping costs are listed for orders to the Continental US. Shipping is included on some international price lists. Please see notes at the bottom of the price list page. Please visit www.baxglobal.com or www.ups.com for specific shipping costs to your particular location. Weights and dimensions below can be used to estimate costs.

2-Wheel Kits:

2 boxes
35 lbs (16 kilos) each
14x14x14 inches

4-Wheel Kits:

4 boxes
35 lbs (16 kilos) each
14x14x14 inches



Returns

To return goods for exchange or credit, please call Customer Service and obtain an RMA (Returned Materials Authorization) number. Any item(s) received without an RMA, will be refused and returned. All returned goods must be in their original packaging or equivalent that meets or exceeds the requirements for shipping the corresponding goods. All items must be properly wrapped and packed for shipment. All goods must be returned freight pre-paid and insured. To obtain full credit, returned goods must be unused and in new condition. Returns after thirty-days (30) will be charged a re-stocking charge of 15% or a minimum of \$25, whichever is lower.

Important Notice: Auto racing is a dangerous sport and products are subject to failure when exposed to the high stresses involved. All products are sold without warranty expressed or implied. No warranty or representation is made to the products ability to protect the user from any injury or death. The user assumes the risk. StopTech is not responsible for damage, consequential or otherwise, for equipment failure or mal-performance after installation.

BEST STOPPING BRAKE SYSTEM FOR THE TRACK AND STREET



Don Istook, Audi S4 - Rolex GT
 GS2 Winner Mont-Tremblant 2002, Consistent top 10 finishes 2003

"The first time I ran StopTech I immediately noticed a firmer pedal and better brake modulation. The callipers run 100° cooler and the rotors last three times longer than my previous brake systems. StopTech's are the best by far on my car."



Gary Sheehan, Subaru WRX - USTCC
 Winner PIR and AMP 2003

"StopTech's do their job so well we don't even worry about the brakes anymore and that inspires a lot of confidence when the driver is putting it on the line."



Roger Foo, Mazda Protege - World Challenge Touring Car
 5th overall in points (as of 10/24/03)

"At Road Atlanta braking played a critical role in passing. I was able to make passes under braking that I couldn't do before with other systems."



Andrew Monterrubio, Acura Integra Type R -
 World Challenge Touring Car

Winner of Hard Charger and Holeshot Awards, Sears Point 2003

"The StopTech brake system has great brake modulation and reliability. I can brake deeper without wheel lock up than any other previous sytem I have used. I am going to run StopTech Balanced Brake Upgrades™ on all my cars!"



George Mehallick, Mini-Madness Mini Cooper S
 CAR AND DRIVER SUPERFOUR CHALLENGE 2003

*"...Best 130-to-0 MPH stop in class at 534 feet."
 "...Best road course time by 1.5 seconds."
 "What is so impressive about the StopTech brake system is that it performs so well on both the track and on the street."*



Josh Decker, Achtuning Audi S4
 AUDI S4 CHALLENGE 2003

*Best 60-0 mph Single Stop
 "As a tuning shop owner and club racer, StopTech brakes have exceeded my expectations on the street and track. Simply put they are the best brake system available."*

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