Installation Instructions
For Audi TT*
and
Volkswagen Mark IV*
chassis including:
Jetta 1.8T (2000-01)
Jetta VR6 (1999-01)
New Beetle 1.8T (1999-01)
Golf 1.8T & VR6 (2000-01)

Front Big Brake Upgrade

*For kit Number 83-100-4300 & 83-886-4300

STOPTECH
HIGH PERFORMANCE BRAKE SYSTEMS

Note -

These instructions are for the Audi TT and Volkswagen Mark IV chassis vehicles. The photos shown are of an Audi TT. The Volkswagen applications use the same caliper brackets, rotors and hats, and the caliper bodies are identical, so the installations are very similar on all vehicles.

The one main difference is the brake lines, which may vary slightly from the photos shown. Also, brake pad wear sensors and ABS line routing may vary. Though the actual fitment may look slightly different, the order in which the kit is installed is the same for all vehicles.

If you have any questions, please contact the StopTech Customer Service Department at 310-218-1091.

Our Technical Support direct e-mail is: support@stoptech.com

APPLICATION DISCLAIMER

Caliper Clearance

Most 17" wheels will clear the outer diameter of the caliper for a 328mm or 332mm rotor kit. For a 355mm kit, a minimum 18" wheel is typically required, and for a 380mm rotor kit, a minimum 19" wheel is needed. The more critical clearance, however, is the gap between the spokes of the wheel and the face of the caliper. Do not assume that a larger-diameter wheel will automatically clear the face of the caliper.

To determine the actual metal-to-metal distance from the stock rotor face to the inside of the wheel spokes, refer to the StopTech website at www.stoptech.com, and click on the 'Wheel Fitment Charts' link at the bottom of the home page. BEFORE printing out a copy of the wheel fitment drawing for your vehicle, click on the 'How do I use the charts?' link at the top of the page, and review the instructions carefully, to ensure that you have a full understanding of how to accurately measure the critical wheel clearances. Only then should you click on the link for your vehicle, and print out the appropriate wheel fitment drawing, to use as a measurement template.

It is very important that you verify the accuracy of the scale of the printout by matching both a width and length dimension on your vehicle. Dimensions are shown in millimeters, but one dimension in each direction is also shown in inches, and StopTech recommends adding at least 2mm of additional clearance to these dimensions. Follow the instructions carefully, to produce a fitment template, and take care to ensure that your measurements are very precise.

Note: Final fitment of the wheel to the caliper is the responsibility of the customer.

Wheel Spacers

Wheel spacers can provide extra clearance to the outer face of the caliper. This will also space out the entire wheel, widening the track width of the vehicle. Fender clearances should be checked on lowered cars, and longer lug studs or wheel bolts are usually required.

Note: The Wheel Industry Council has issued guidelines advising that wheel spacers not be used. It is the responsibility of the customer to ensure that wheel spacers are properly specified and installed.

Caliper, Hat and Bracket Finish Disclaimer

Many wheel-cleaning solutions contain strong acids that may damage the finish on any caliper or aluminum anodized finish, especially the plating on the hardware. Check for adverse effects by trying a small amount of the cleaner in question on an inconspicuous area. Avoid over-spraying, and rinse cleaning solutions off as quickly as possible. StopTech is not liable for damage to calipers, hats or bracket finishes, due to corrosive chemical exposure.

APPLICATION DISCLAIMER (Cont'd.)

Permanent Trimming of Dust Shield

The dust shield on each front wheel must be permanently trimmed, to accommodate the AeroRotors. This involves cutting each shield with sheet metal snips or a power cutoff wheel, and deburring sharp edges with a file or power die grinder. These operations can be dangerous, and serious injury can occur. For anyone who is not competent or comfortable performing these operations, StopTech firmly recommends seeking the services of a trained professional. Proper precautions, such as safety glasses and work gloves, will be required.

Brake Noise

Certain brake pad compounds make more noise than others. Proper anti-squeal shim plates between the caliper pistons and backing plate of the pad help to reduce the problem. Anti-squeal lubricants are also available, to reduce some of the noise. The reality is that performance pads are more prone to brake squeal.

Note: The customer is responsible for any squeal-related problems due to pad selection.

Brake Vibration - THIS IS IMPORTANT!

The most common cause of brake vibration is improper bed-in of pads and rotors, or improper pad selection for the specific driving environment. Rotor run-out may also cause vibration, but precision manufacturing and inspection typically mean that run-out is not an issue. Modern production methods ensure that the rotor run-out is within +/- 0.002" when installed on a StopTech aluminum hat, and it controls thickness variation to within 0.0003". Under the most extreme conditions, any rotor may warp, but uneven pad deposition is a more typical cause of vibration. If the system is not properly bedded-in, or if street pads are run on an open track, uneven pad deposits will occur, causing an ever-worsening vibration. Failure to immediately address a pad deposition/vibration issue may lead to permanent damage of the rotors. Please read and understand the bed-in procedure included in this manual.

Note: StopTech is not liable for vibrations caused by extreme usage or improper bed-in of pads and rotors.

Important Notices

Wheel Fitment

Do not assume that your wheels will fit. An outline drawing of your StopTech Big Brake kit is available on our website at www.stoptech.com. Measure the distance from the outer face of your stock caliper to the inner face of your wheel spokes, or make a template according to the instructions on the website, to determine if a wheel spacer is necessary. DO THIS BEFORE YOU INSTALL YOUR KIT!

Cleaning of Rotors

The AeroRotors supplied with this kit are coated with a water-soluble, environmentally friendly rust inhibitor. This coating MUST BE WASHED OFF WITH SOAP AND WATER before installation. Brake cleaner is not as effective as soap and water. Even if it doesn't look as if anything is coming off the rotor, the rust inhibitor is there, and must be entirely cleaned. Rotors will quickly rust without protection, so if the rotor is not rusty, it's still coated. After cleaning, you may see the rotor start to develop a slight rust color. This is normal, and indicates that all of the rust inhibitor has been removed.

Rotor and Pad Bed-in

Proper rotor and pad bed-in is essential to the performance of your new brake system. Failure to properly bed-in the brakes will seriously impact how well they work, and how long they will last. The number one cause of brake vibration is uneven pad material deposition on the rotor. Proper bed-in will greatly minimize such problems. Follow, as closely as possible, the bed-in procedure detailed later in this manual, or refer to the StopTech website at www.stoptech.com for further information.

Safety Notice

Improper handling of a vehicle, especially while raised and supported by jack stands, ramps or other mechanical means, can cause serious bodily injury or even death. It is strongly recommended that a trained, experienced mechanic, with proper equipment, install the Big Brake Kit supplied by StopTech. StopTech assumes no liability, expressed or implied, for the improper installation or use of this product or its components.

Important Notices (Cont'd.)

Disclaimer of Warranty / Limitation of Liability

By purchasing the STOPTECH brake components described herein and opening the accompanying box or packaging, the purchaser(s), buyer(s) and /or the ultimate user(s) expressly (1) acknowledge that they have read and understand all terms set forth herein; (2) understand and agree that the STOPTECH brake kit and/or components, whether acquired new or used, whether complete or incomplete, whether of merchantable or non-merchantable quality, whether saleable or non-saleable, is taken, purchased, selected and/or acquired "AS IS" and "WITH ALL FAULTS"; (3) acknowledge that the brake kit and/or components contained herein are intended only for off-street use, regardless of whether said brake kit and/or components are approved by a state or the United States Department of Transportation; (4) understand and agree that they bear all risks, including but not limited to the risk as to quality and performance of said brake kit and/or components, and the risk of bearing the costs of repair or replacement of the subject brake kit and/or components, whether in defective or non-defective condition. STOPTECH is not responsible for damage, consequential or otherwise, for equipment failure or mal-performance after installation: understand that (5) Auto Racing is a dangerous sport, and products are subject to failure when exposed to the high stresses involved with use on a racetrack.

STOPTECH MAKES NO EXPRESS OR IMPLIED WARRANTIES, WHETHER ORAL OR WRITTEN, WHETHER TRUE OR UNTRUE AND REGARDLESS OF SOURCE, TO ANY PURCHASER(S), BUYER(S) OF ITS BRAKE KITS AND COMPONENTS. ANY IMPLIED WARRANTY OF MERCHANTABILITY OR WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE IS HEREBY EXPRESSLY AND EFFECTIVELY DISCLAIMED AND SUCH DISCLAIMER IS ALSO HEREBY ACKNOWLEDGED BY THE PURCHASER(S), BUYER(S) AND/OR ULTIMATE USER(S). RATHER, THE PURCHASER(S), BUYER(S) AND/OR ULTIMATE USER(S) EXPRESSLY AND IMPLIEDLY AFFIRM THAT HE/SHE/THEY ARE RELYING UPON THEIR OWN SKILL AND JUDGMENT IN SELECTING AND PURCHASING THE KIT AND/OR COMPONENTS CONTAINED HEREIN AS SUITABLE FOR THEIR INTENDED USE. The purchaser(s), buyer(s) and/or the ultimate user(s) understand and agree that no officer, director, employee, agent salesman, representative, distributor, or other affiliate of STOPTECH has any authority to make nay statement or representation contrary to the terms set forth hereinabove. Any such statement or representation is hereby effectively disavowed.

Audi TT & VW Mk IV Front Axle Kit

Safety Notice

Improper handling of a vehicle, especially while raised and supported by jack stands, ramps or other mechanical means can cause serious bodily injury or even death. It is strongly recommended that a trained, experienced technical mechanic, with proper equipment, install the Big Brake Kit as supplied by STOPTECH LLC. STOPTECH LLC assumes no liability expressed or implied for the improper installation or use of this product or its components.

Please read and understand this ENTIRE Installation Manual, including the attached Break-in Procedures before starting the installation.

Tools and Equipment Required

18mm socket and ratchet (1/2" drive suggested), or wrench
17mm socket (1/2" drive suggested)
14mm wrench
11mm wrench
1/2" socket drive and ratchet (6 point suggested)
Torque wrenches capable 10-90 lb-ft settings
5mm Allen wrench
Small drip tray or several rags
1 pair of jack stands
Small funnel
Small blade screwdriver
Phillips screw driver
Brake bleed bottle
DOT 3 or 4 Brake Fluid

Additional items you may need include:
Adhesive backed lead wheel weights
Non-marring hammer or mallet

NOTE- Some different models or years may use different sized fasteners. Every effort has been taken to correctly identify the proper size tool for each job. Occasionally, the manufacturer (including ourselves) may use an alternate fastener. Check that each tool correctly fits the fastener before tightening or loosening.

Check manufactures recommendation for compatibility. STOPTECH recommends flushing brake fluid every 1-2 years. If not done recently, the installation of a brake kit is an excellent opportunity to refresh your brake fluid.

This Kit Incudes the Following:

1 pair of ST-40 4-Piston Calipers

1 set of high performance brake pads (Not suitable for track use)

1 pair of 328mm X 28mm AeroRotors

1 pair of caliper adapter brackets, with stainless steel mounting studs and hardware pre-installed.

1 pair of stainless steel covered Teflon brake lines.

- 1 pair of "C" clips for brake line brackets (used for VW kits only)
- 1 pair of Banjo Bolts
- 2 pair of copper washers
- 1 pair of rubber end caps
- 2 High temperature Ty-Wraps

Caliper, Hat and Bracket Finish Disclaimer

Many wheel-cleaning solutions contain *strong acids* that may damage the finish on any caliper and or aluminum anodized finish, especially the plating on the hardware. Check for adverse effects by trying a small amount of the cleaner in question on an inconspicuous area. Avoid over spraying, and rinse the cleaning solution off as quickly as possible. STOPTECH *will not be held liable for damage to caliper, hat or bracket finish due to corrosive chemical exposure.*

A level, stable and clean surface suitable for supporting the car on jack-stands should be used for the installation.

Step 1

Jack up the car.

Refer to the Owners Manual for correct location for jacking up the vehicle. Jack up the vehicle and secure on a pair of jack stands. Or jack one side only using a single jack stand of suitable load rating.

Apply Parking Brake and properly block rear wheels.

Remove plastic wheel nut covers using the factory supplied tool.

Brake loose the lug nuts on both front wheels with a 17mm socket (for stock wheels) before jacking up the vehicle and secure on a pair of jack stands. Or jack one side only using a single jack stand of suitable load rating.

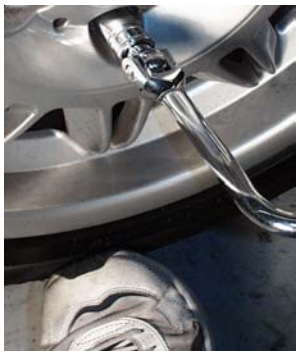
NEVER LEAVE ANY VEHICLE SUPPORTED WITH ONLY A JACK, ALWAYS USE JACK STANDS.

Note: All Photographs Show Right Side Installation

Step 2

Remove Wheels

After securing the vehicle at a convenient height, remove the front wheels.



Wheel shown may not be representative of vehicle described in this manual.

Step 3

Remove Inner Brake Line Connection

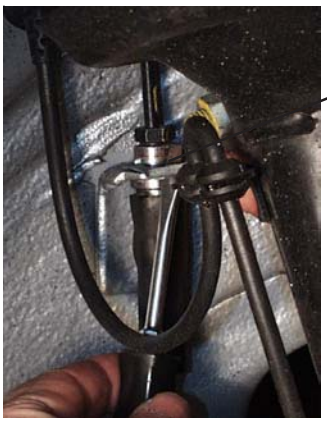
WARNING - Brake line fluid will damage most painted surfaces. Immediately clean spilled brake fluid from any painted surfaces.

Place a drip tray or several rags directly below the inboard brake line connection. If the area around the connection is dirty, clean with brake cleaner or appropriate cleaning agent

Note- Be sure the cap is securely installed on the master cylinder. If the cap is loose or removed, it is likely more fluid will drip.

Using an 11mm wrench, loosen and remove the hard line fitting from the stock brake line.

Note- Brake fluid will drip onto your hands during this operation. Latex gloves may be preferred. Be aware that brake fluid will soak through fabric or leather gloves and transfer to everything touched after that.



Removal of Clip Shown

Quickly place one of the rubber caps over the end of the hard line. This should effectively control fluid loss for the duration of the installation.

Step 4

Remove Stock Calipers

On left side only of the TT is a brake pad wear sensor.

Separate the male end of the brake pad wear sensor connector (wires attached to the brake pad) from the female connector (wires attached to the chassis side).

Use a small blade type screwdriver in the chassis side of the connector to release the 2 parts.

Disconnect brake line from strut as shown:

Remove clip

Note: For Audi TT installations, retain this clip for later use.

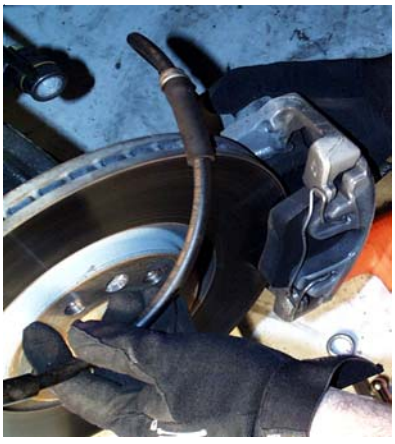
Remove line from bracket

If not done so already, please read Step 12 on page 15. The end of the plug attached to the brake pads on the left side of the vehicle will need to be modified to prevent the "Brake Warning" light from coming on. You may want to make this modification at this point as the rotor assembly will not be in the way.

- Loosen the stock caliper mounting bolts with a 18mm wrench or socket.

Note- Bolts are at 90 lb-ft of torque from the factory. A great deal of force is required to loosen them. It may be necessary to turn the steering to the side you are working on so the wrench handle sticks out clearing the wheel well. Full lock will slightly straighten out if the steering wheel not held.

Remove the caliper with stock line attached. Be aware there may be some leakage from the open end of the brake line, but it should remain fairly dry unless the pads/pistons on the caliper are retracted.



Step 5

Remove the Stock Rotor

Remove the Phillips head screw holding the rotor.

Note- Rust and corrosion may make this screw difficult to remove. Be careful not to strip the screw head. If screw does not easily come loose, try a penetrating thread lubricant to loosen the threads. If bolt is not easily removed, consult a professional mechanic of brake technician for assistance.

Be sure to prevent rotor from dropping as bolt is removed.

In some cases the rotor may be rusted or corroded into place. Again, a penetrating type oil may help loosen the rotor. In severe cases it may be necessary to tap the rotor off with a non-marring hammer or mallet.

Step 6

Install Caliper Bracket

Install the caliper adapter bracket to the upright on the stock caliper mounting lugs using the stock mounting bolts. The pre-installed studs face forward, and the bracket mounts on the inboard side of the caliper mounting lugs on the upright. The round boss goes under the bolt head.

Torque the bolts to 90 lb-ft. The factory bolts have a locking feature built into the retained washer. DO NOT use any thread locker such as Loctite™.

Again, it may be necessary to turn the wheels in order for the wrench handle to clear the wheel well.

Step 7

Install AeroRotor Assembly

Non-plated rotors *MUST* be washed with soap and water prior to installation.

Install the pre-assembled AeroRotor and aluminum hat assembly onto the spindle using the stock Phillips head screw.

Be sure the rotor assemblies are on the correct side of the car. Reversing the rotors will severely decrease the cooling capacity of the system. The vanes inside the rotor should lean to the rear of the car on the top-side of the rotor. See green Break-In Procedure Sheet to determine rotor direction. See next page for proper orientation.

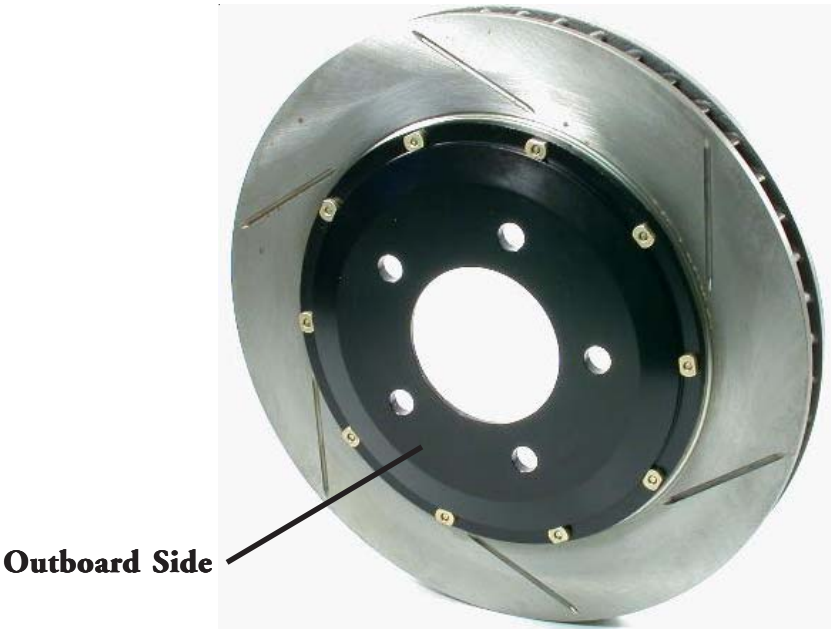
☞ Rotate the rotor assembly and check that the backing plate (dust shield) is not touching the rotor. If there is interference, simply bend the plate out of the way where there is interference.

AeroRotors *MUST* be cleaned with soap and water prior to installation. Not doing so will damage the rotors and pads, and will prevent the brakes from performing properly.

Even though the rotors may look clean, the rust inhibitor is in place, and it must be removed. Not cleaning the rotors will severely impact the performance of your new brake system.

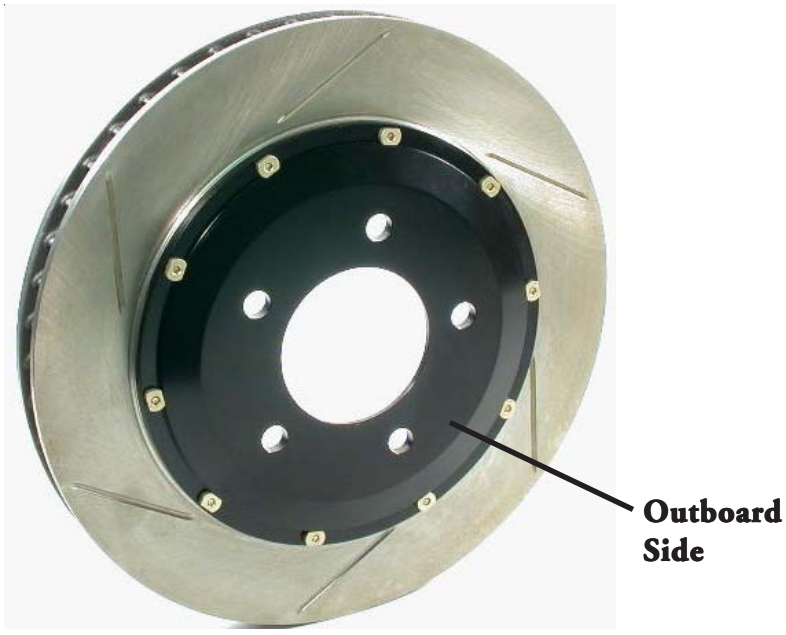
Warning: Do not skip this step!

Left-Side Rotor

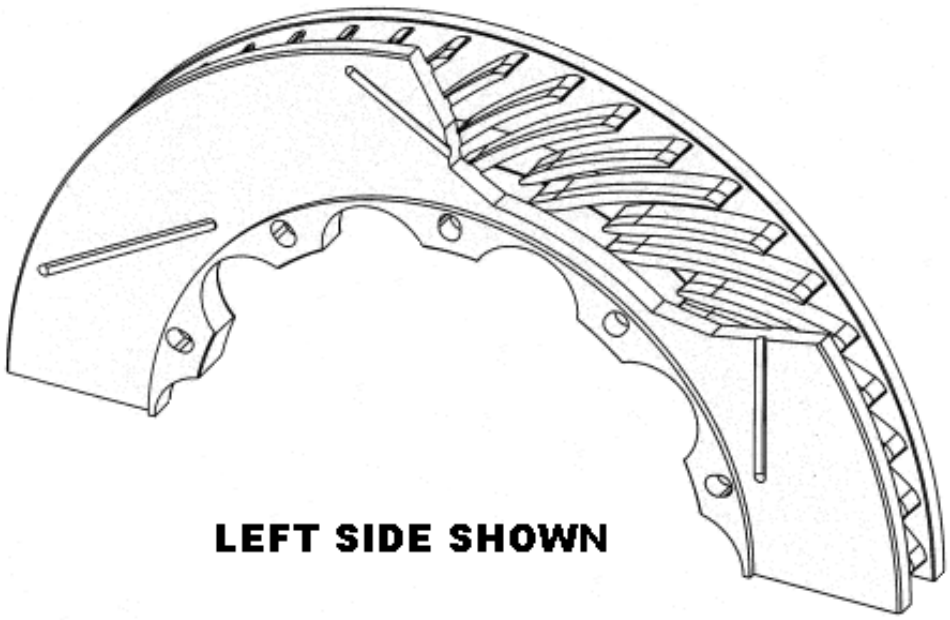


Driver's Left

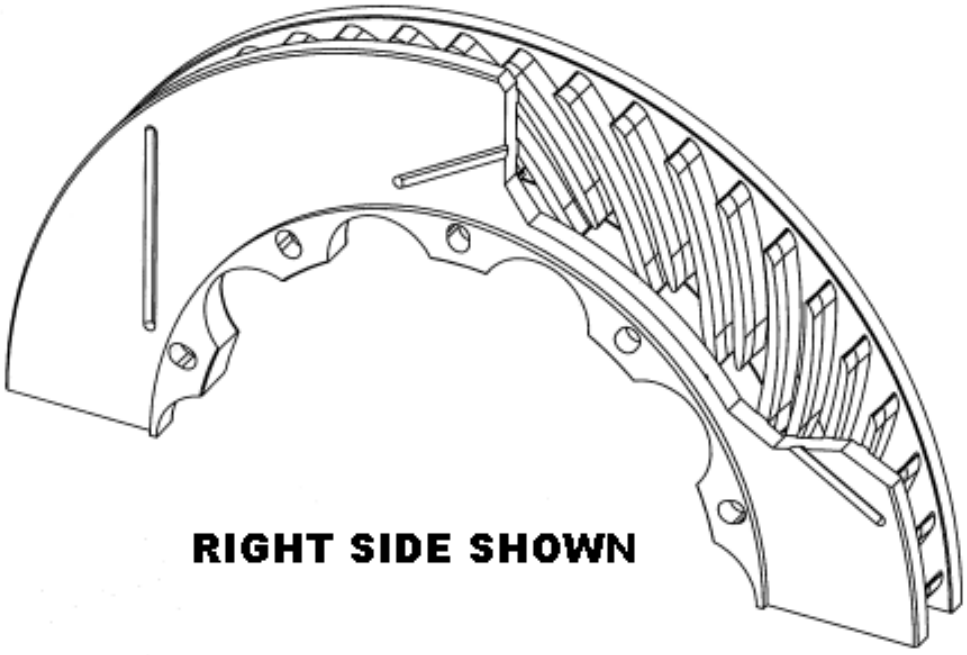
Right-Side Rotor



Driver's Right

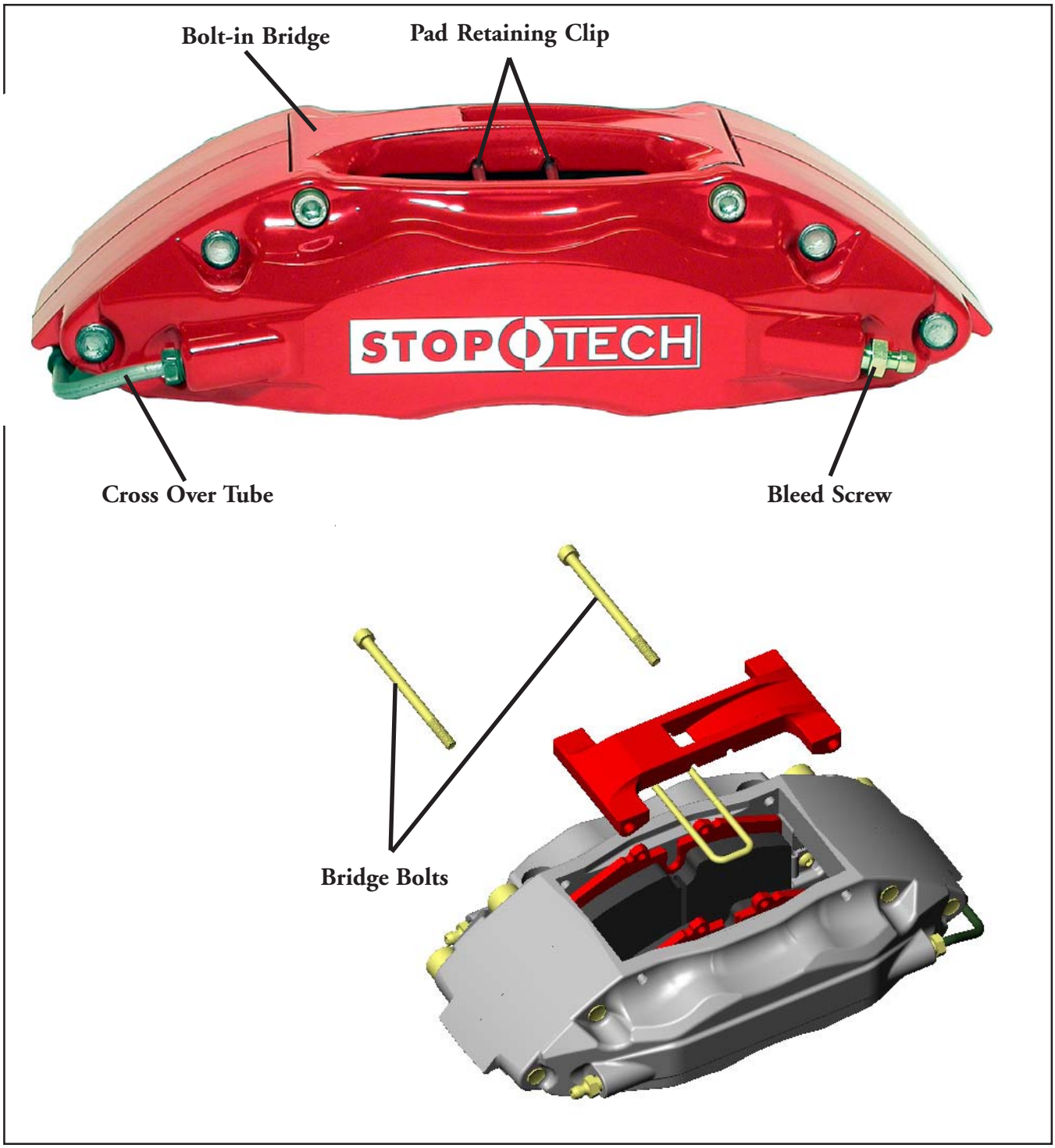


LEFT SIDE SHOWN



RIGHT SIDE SHOWN

Caliper Component Identification

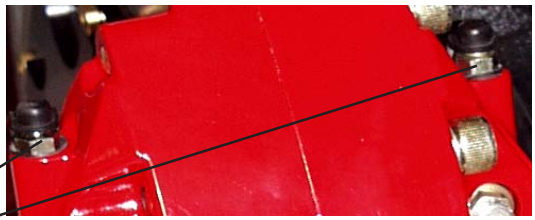


The ST-40 original equipment caliper uses a common Porsche-style pad.
The Friction Materials Standards Institute (FMSI) number for the pad backing plate is D372.

For further pad interchange information, please see the FAQ section of the StopTech website at: www.stoptech.com

Step 8

Install ST-40 Calipers

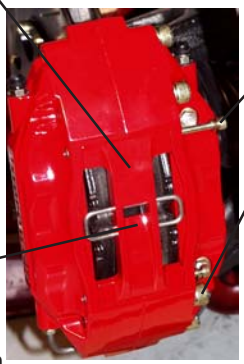


Determine the left and right side calipers. The calipers are marked on each box. *As a check, the bleed screws always go to the top of the caliper.*

Remove the Jet Nuts and washers from the studs of the caliper adapter bracket.

Remove the caliper bridge by gently tapping from the inside of the caliper with a non-marring tool

Remove the 2 bolts holding the caliper bridge using a 5mm Allen wrench.



Note- The pad retaining clip (rectangular wire) typically, but not always, stays engaged with the bridge. If it comes loose, it can be simply pressed into place with the weld of the clip in the recess of the bridge. It should be centered side to side. Note orientation of bridge. The "air-scoop" faces the smaller piston.

Note- In order to stiffen the caliper, the bridge is a very snug fit and the bolts may be tight when coming out. Keep turning bolts while applying pressure in the direction of removal.

Caliper shown on vehicle for reference only.

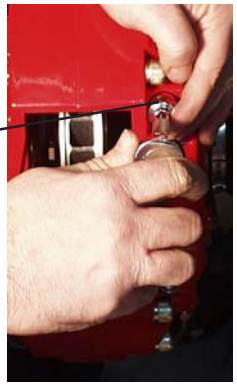
Step 8 (Continued)

Remove the caliper bridge by gently tapping from the inside of the caliper with a non-marring tool such as the handle of a hammer.

Slide the caliper over the mounting studs with the bleed screws facing up.

Install the jet nuts onto each stud with one 12mm washer under each nut.

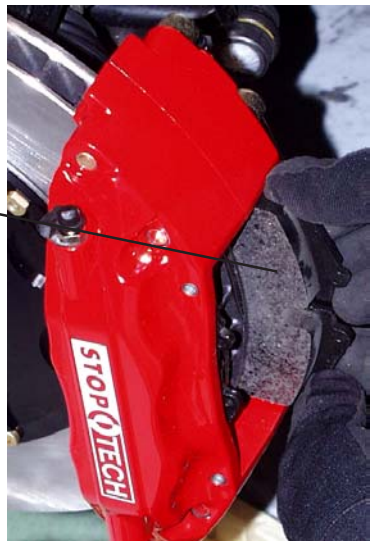
Tighten the nuts to 40 lb-ft of torque using a ½" socket (6 point preferred, but 12 point will work).



Step 9

Install the brake pads

Slide the pads into position through the outboard side of the calipers. Be sure friction side of the pad is facing the rotor (Yes, they have been installed backward before).



Reinstall the bridge by sliding it into position and rocking it until one of the holes lines up.

Note: In order to reduce caliper flex, the bridge is a precision fit that must be aligned correctly to slide straight in and out. The bridge is directional, in that the "air-scoop" detail should always face the smaller caliper piston.

It may be necessary to gently tap the bridge into place with a plastic or leather hammer. Insert the first bolt most of the way, then insert the second bolt. **Do not hammer the bridge bolts into place.** Adjust the position of the bridge until the bolts slide in more easily. Gently tapping the bridge while pressing on the bolt works well.

Torque each bolt to approximately 8-10 lb-ft, using a 5mm Allen wrench. Do not over-torque the bridge bolts, a torque wrench is not recommended - snug is tight enough.

Step 10

Install the Stainless Covered Teflon Brake Line

Slip the flat washer provided over the Banjo bolt as shown

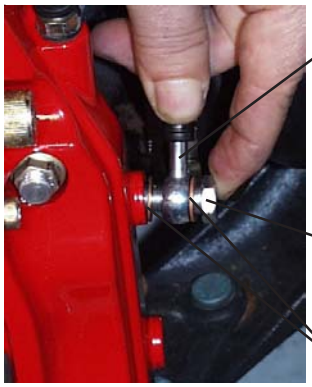
Washer shown over line

Washer over Banjo

Install the strut bracket fitting into the strut bracket, with the washer placed between the fitting and the bracket, and with the banjo fitting oriented toward the caliper.

For a Volkswagen kit, press the supplied "C" clip into the groove to secure the line.

For an Audi TT kit, reuse the stock clip, and press it into the groove to secure the line.

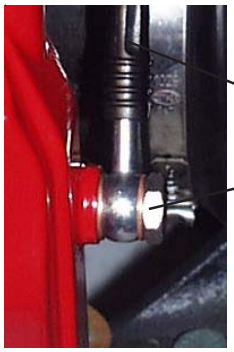


Banjo fitting

Install the Banjo bolt with a copper washer on each side of the Banjo fitting on the brake line, and thread into the inlet port of the caliper.

Banjo bolt

Copper washers



While pointing the line toward the strut bracket, use a 14mm socket or wrench to **tighten the Banjo bolt to approximately14 lb-ft of torque. Do not use a torque wrench, as overtightening the bolt can strip the aluminum threads, causing irreparable damage to the caliper.**

Remove the rubber cap from the end of the hard brake line.

Step 10 (Continued)

Note proper installation of line and clip in bracket

Slide the inboard end of the new stainless line into the existing bracket hole the old line came out of. Be prepared to use both hands to align the fittings as the spring clip may keep the hard line fitting from immediately lining up. Start the hard line fitting into the new line several threads by hand before using a 11mm wrench to tighten the fitting. It will be necessary to hold the stainless brake line fitting in place with a 14mm wrench to tighten the fitting.

Step 11

Check brake line clearance

Turn the wheels lock-to-lock and be sure the brake line is not binding in any way. If necessary, loosen the Banjo bolt and slightly realign the brake line.

After securing the brake line, turn the wheels lock-to-lock, to ensure that the brake line is not binding in any way, nor interfering with any suspension component, including the CV boot and axle/drive shaft.

Step 12

Modify Brake Wear Sensor (Left Side Only)

In order to prevent the "Worn Brake" indicator light from coming on, the plug from the brake pad wear sensor needs to be modified and reinstalled.

Cut the sensor plug from the pad leaving approximately 1 ½" of both wires behind the plug.

Strip approximately ½" of insulation from each wire and twist the ends together. Twist both wires together as well. Though not mandatory, soldering the wire ends together is desirable. Insulate the connection with shrink tubing or high quality electrical tape.

Reinstall the plug into it's mating connector and ty-wrap wires against the bracket.

Step 13

Bleed the brake system

Note- Complete installation on both sides before bleeding the brake system.

Step 13 (Continued)

Bleed system using a 11mm wrench on the bleed screws:

- The sequence for bleeding the brakes should be:
  1. **Right outboard bleed screw**
  2. **Right inboard**
  3. **Left outboard**
  4. **Left inboard**

> ***Note: The calipers will need to fill with fluid, quickly draining the brake fluid reservoir. Keep a close watch on the fluid level when initially bleeding the system. The reservoir location on the TT is such that a small funnel will make filling with brake fluid easier.***

DO NOT LET THE MASTER CYLINDER RUN DRY AND SUCK AIR. Doing so on an ABS equipped vehicle may require the brake system to be serviced by a certified brake technician.

After bleeding, with a constant pressure applied to the brake pedal, check all connections for leaks.

Brake fluid will damage most painted surfaces. Immediately clean spilled brake fluid from any painted surface, including the caliper. Though caliper paint is designed to resist harsh chemicals, prolonged exposure will damage the finish.

Step 14

Check Wheel Clearance and Install Wheels

Check wheel to caliper clearance before installing wheels - see Note below!

Note: The stock TT wheels are normally balanced on the inside with adhesive backed lead. If the lead is on the outboard edge near the spokes, it may interfere with the caliper. If necessary note weight and location and place a new piece of the same weight further inboard to clear the caliper.

Reinstall the wheels using the manufacturer or wheel supplier recommended torque on the fasteners. It may be necessary to snug the bolts before lowering the vehicle and then torque the wheel bolts when the car is on the ground.

Step 14

Carefully test-drive the vehicle in a safe area at low speed to insure all components are working correctly. Follow pad and rotor break-in procedures on following page.

If there are any questions as to what you feel, hear or see during this slow drive, consult a professional mechanic or brake technician for advice, or call the StopTech Technical Support at 310-218-1091

STOPTECH
HIGH PERFORMANCE BRAKE SYSTEMS

AeroRotor™ Installation & Break-in Procedure

READ THIS NOW

FAILURE TO READ, UNDERSTAND AND FOLLOW THESE PROCEDURES WILL CAUSE PERMANENT DAMAGE TO YOUR BRAKE ROTORS AND KEEP THE SYSTEM FROM WORKING AT IT'S FULL CAPACITY.

The majority of brake system problems are due to improper installation and/or break-in of the rotors and pads. By reading and understanding the following, you will avoid the most common causes of poor brake performance and vibration. FAILURE TO READ AND UNDERSTAND THIS MAY CAUSE SERIOUS PERMANENT DAMAGE TO YOUR NEW ROTORS.

Wash Non-Plated AeroRotors with SOAP AND WATER before installation.

StopTech coats non-plated AeroRotors with a water soluble, environmentally friendly rust inhibitor that MUST be cleaned before use. A non-plated rotor looks like bare metal, plated rotors are bright silver in color and do not need to be washed. Even though you may not see a change in the rotor color, if the rotor is not rusty, the rust inhibitor is there. Use soap and water, NOT BRAKE CLEANER to wash the rotors. A small piece of Scotchbrite works well to scrub with. When cleaned and rinsed properly, the surface of the rotor will immediately show a light rust color which is normal.

Break in your new pads and rotors by carefully following the procedure described below and on the opposite side of this page.

Breaking in rotors and pads is critical to the optimum performance of your new brakes. When breaking in new parts, you are not only heat cycling the pads, but depositing a layer of pad material onto the rotor face as well. If not broken in properly, an uneven layer of pad material will be deposited onto the rotor causing vibration. ***Virtually every instance of a "warped" rotor is attributed to uneven pad deposition.***

Note: Plated rotors must be driven with gentle braking until CAD plating is worn off rotor faces BEFORE starting the break-in procedure. Do not use brakes aggressively until plating is worn off, typically several miles of driving.

Typically, a heavy braking street driver will experience approximately 1 to 1.1G's of deceleration. At this rate, ABS will be activated on such equipped vehicles. A moderate braking effort is needed to properly break in rotors and pads. If ABS intervention or lockup was called 100% brake effort, a stopping force of approximately 70-80%, just short of ABS intervention or lockup is a general estimate of pedal effort you are trying to achieve.

(Please see other side)

Note-
Bedding of pads should not be done in wet weather or wet road conditions.

After completing installation, make a series of 10 stops from 60 to 5-10 MPH. At the end of each stop, immediately accelerate to 60 again for the next stop. Run all stops in one cycle.

During the 60 to 5-10 MPH series of stops, the exact speed is not critical. Accelerate to approximately 60 and begin the braking cycle. As you approach 5-10 MPH, it is not necessary to watch the speedometer, keep your eyes on the road and approximate your speed at the end of each cycle. DO NOT COME TO A COMPLETE STOP, AS YOU WILL IMPRINT PAD MATERIAL ONTO THE ROTOR, CAUSING A VIBRATION.

There are several indicators to look for while breaking in the system:

On the 8th or 9th stop, there should be a distinct smell from the brakes. Smoke may be evident after several stops as well.

Also on the 8th or 9th stop, some friction materials will experience "green fade". This is a slight fading of the brakes. The fade will stabilize, but not completely go away until the brakes have cooled.

After the break-in cycle is finished, there will be a blue tint color on the rotor with a light gray film on the rotor face. The blue tint indicates the rotor has reached the proper break in temperature and the gray film is pad material starting to transfer onto the rotor face.

If racing or higher performance pads are being used, add four stops from 80 to 5-10mph and if a full race pad, four stops from 100 to 5-10 mph.

After the first break in cycle shown above, the brakes will still not be operating at their best capacity. A second or third bed-in cycle is typically necessary before the brakes really start to "come in". A "cycle" is a series of stops with a cool down in between each cycle.

StopTech does not endorse speeding on public roads. If going above the legal speed limit, do so in a safe area, away from traffic at your own risk.

After the final stop of each cycle, drive as much as possible without using the brakes to cool off the system. Ideally, the brakes should be allowed to cool to ambient temperature before using again.

DO NOT COME TO A COMPLETE STOP WHEN THE SYSTEM IS HOT AND LEAVE YOUR FOOT ON THE PEDAL. PAD MATERIAL WILL IMMEDIATELY TRANSFER TO THE ROTOR CAUSING A VIBRATION.

If you have any questions about rotor and pad break in, or any aspect of your StopTech brake kit or brakes in general, please contact our Technical Support Department at 310-218-1091 or e-mail us at support@stoptech.com

Thank you for selecting STOPTECH, we know you had a choice in selecting your big brake upgrade for your Audi TT or Volkswagen Mark IV performance car.

We proudly support our fine products. For any assistance or questions, please contact our Technical Support Department at
(310) 218-1091
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STOPTECH
HIGH PERFORMANCE BRAKE SYSTEMS