

## STaSiS Engineering MkV Mono4 Front Brakes

### 355mm Brake Kit

#### KB04.1001

#### Parts List:

Qty	Description	Part Number
1	Rotor Alcon 355x28 RH	BR01.1018.00
1	Rotor Alcon 355x28 LH	BR01.1019.00
2	MkV 355 Brake Hat	BR02.2007.00
4	SHCS M12x1.75x70 Blue	HA01.1207.75
4	Spacer 328-355	BR05.5001.00
4	Serrated Belleville Washer	HA03.0201.00
1	Caliper Alcon Mono4 RH Trailing	BR03.1012.00
1	Caliper Alcon Mono4 LH Trailing	BR03.1013.00
2	Bracket MkV 355 Mono4	BR04.2001.05
1	Line Kit Audi MkV Front Alcon	BR20.1006.00
1	Pads Mono4	
1	Fluid Motul 5.1	BP99.1000.00
1	Loctite	BP99.1009.00
1	Anti-seize	BP99.1010.00

### Special Tools Required

Qty	Description
1	T30 Torx bit
1	T55 Torx bit
1	11mm open wrench
1	14mm open wrench
1	Brake pad spreader

### Installation Guidelines

Please follow these guidelines when installing the front brake kit.

- Torque all fasteners to specification. Do not use impact wrench.
- The rotors are side-specific, rotational direction is labeled. Open portion of crescents face toward the direction of rotation.
- Tighten hydraulic connections with a line wrench.

- Bleed brakes properly to assure proper brake operation; the use of a power bleeder is recommended.
- Ensure all ABS sensor and Pad wear sensor plugs are reconnected.
- Proper pad bedding is essential to proper brake operation.
- Drive the car at low speeds for a few miles to check brake operation before beginning brake bedding procedure.
- During bedding do not thermally shock the rotors with aggressive braking before the rotors have come up to temperature. Cracks on new rotors can form due to thermal shock. Gradually increase brake pressures as instructed in the bedding procedure.
- After bedding brakes re-torque wheel nuts to proper torque specifications.
- If vibration occurs during normal usage, check for abnormal pad wear deposits on the rotor. Double check all fasteners and repeat the bedding process 2-3 cycles until the pad deposits on the rotor becomes uniform.

## Instructions

1	Sort the parts in the brake kit for the right and left side. Brake bleeders face upward. Caliper mounting brackets are universal. Install brake pads in calipers, and the lines onto the caliper.
2	Raise vehicle and remove the front wheels.
3	Using brake cleaner, clean the brake line connection at the body flange. Remove all dirt and debris from this area and from the line connection threads so that no dirt will get into the new brake line when it is installed.
4	<p>Disconnect the brake pad wear sensor wire from the driver's side front brake inner pad.</p> <p>Remove caliper mounting bolts (the bolts holding the caliper mounting bracket to the upright). Save these bolts as they will be reused.</p> <p>Remove caliper and support it so that the brake line is not under tension.</p>
5	Remove the brake rotor. Clean the hub, removing all rust from the rotor mounting surface, the rotor pilot and wheel pilot. Apply some anti-seize to the pilot surface to prevent rotors and wheels from sticking in the future. Do not get any anti-seize on the rotor mounting surface of the hub.

6	<p>Install caliper mounting brackets using the stock mounting bolts. Put Loctite on the mounting bolts and torque to 92 ft-lb.</p> <p>The bracket will mount to the outside face of the upright with the angle flange going over the mounting ears in the upright. The OEM bolts will fit through the upright from the backside and thread into the bracket.</p>
7	<p>Install the new rotors making sure they are free of dirt and grease. Tighten the rotor retaining bolt to 48 in-lbs.</p>
8	<p>Install brake line with the banjo bolt and crush washers into the caliper. To determine brake line orientation, tighten finger tight until the caliper is mounted.</p>



9	<p>Place the caliper with the brake pads installed onto the caliper mounting bracket and install the caliper mounting bolts M12 x 1.75.</p> <p>Make sure to put anti-seize on the threads. Torque to 70 ft-lb. If the caliper will not go over the rotor because the pads are too close together, push the pads back using a pad spreader.</p> <p><b>IMPORTANT:</b> Check the caliper mounting bolts for wear each time the brake pads are replace, and make sure to put anti-seize on the threads when re-installing the calipers.</p>
10	<p>Replace the front brake lines.</p> <p>Use an 11-mm line wrench on the hard line nut and a 14-mm wrench on the flats on the flex line hose-end.</p> <p>Remove the stock flexible line from the hard line and completely remove the stock caliper and line from the vehicle.</p> <p>Install the new flexible line, using the stock spring clip under the hard line nut and clean with brake clean once tightened.</p> <p>Install the brake line grommet into the factory bracket on the back of the upright.</p> <p>Re-connect the brake pad wear sensor.</p>
11	<p>Orient brake line on caliper so that there is no binding or stretching of the line when the upright assembly is turned from full lock left to right (checked at ride height position). Tighten banjo bolt.</p>
12	<p>Make sure that the brake rotor spins freely and that the rotor is flush on the hub.</p>
13	<p>Bleed the brakes using fresh high-quality brake fluid. A power bleeder is highly recommended. Two bleeders are on each front caliper.</p> <p>Bleed the outers first until no air exits, then the inners until no air exits Wait 10-15 minutes.</p> <p>Power bleed again while turning the ignition on/engine off and stroke the brake pedal five times when each bleeder is open. This process will assure a proper bleed with the ABS equipped system.</p> <p>Tighten all bleeders securely.</p>



14	Clean all brake line connections with brake cleaner and compressed air so that they are clean and dry. Start engine and pressurize brake system several times and check for leaks at all the brake line connections. Correct any leaks before driving the car.
15	Check the clearance between the wheels and the new brake calipers. Make sure that there is at least 1/8"(0.125") between the wheel and the caliper.
16	Install wheel and tighten lug bolts. Note – Do not fully tighten bolts until vehicle is unsupported and sitting at ride height.
17	Test drive the car using the brakes gently.
18	<b>WARNING:</b> Do not aggressively test the brakes until they are properly bedded.
19	Bed the pads and rotors. See the Bedding Procedure attached to these installation instructions. After brakes are fully bedded recheck wheel lug bolt torque.

## STaSIS Bedding Procedure

After installing new pads, rotors, or both, it is necessary to properly bed the pad to the rotor before using the brakes to their full capacity.

### What is bedding?

Bedding is simply the process of depositing a layer of pad material (often called the *transfer layer* or *transfer film*) onto the surface of the rotor. The frictional characteristics of the pad/transfer layer interface are far better than those of a pad/rotor interface. It is therefore crucial to bed pads properly to ensure the reliability, performance, and longevity of your STaSIS/ALCON brake system.

### When should I bed pads and rotors?

Bedding is recommended whenever you install new pads or rotors, or experience vibrations while braking. Vibrations felt through the brake pedal are almost always a result of uneven pad deposition, which is remedied by re-bedding the existing components.

### Bedding Process

1. Find a suitable road. You will need a relatively straight road with minimal traffic where you can safely (and legally!) reach speeds up to 65 MPH.
2. Bring the car up to approximately 65 MPH. Gently apply constant pressure (about 10%) to the brakes, bringing the car down to about 20 MPH.
3. Accelerate briskly back to 65 MPH. Apply the brakes again, however this time use more force (about 20%).
4. Repeat steps 2 and 3, each successive time applying more pressure. Your last two brake applications should engage or nearly engage the ABS system.
5. Drive for awhile using absolutely minimal brake application to cool the rotors to ambient temperature.
6. Once the system has cooled, repeat the entire process.

After completing two heat cycles on the rotors, check the rotors for an even, slightly hazy coating (often with a slight blue tint). Any spotting or blotches indicate uneven pad deposition. Repeat the process until the rotor surface is even.