TECHNICAL NOTE 1.0 (Rev.C)

Bedding-In (Burnishing) Brake Rotors

The following procedure is *not required* for typical, light vehicular braking during normal, routine driving. However, it is *advantageous* for braking performance and longevity to burnish your new brakes.

Burnishing is the process of transferring a uniform layer of brake pad material onto the brake rotor which assists in smoother brake operation, improved braking power and helps to minimize brake squeal and vibration.

For this procedure, you will need a long stretch of road with no traffic – ideally a stretch of paved country road.

Caution 1: *Use common sense, obey speed limits and take precaution as Performance Brake Systems (PBS) does not take responsibility for erratic driving or accidents.*

Caution 2: *PBS assumes no responsibility for any damages incurred during the burnishing process. Safe burnishing requires that the vehicle is in sound operating condition and more specifically; that the entire braking system (rotors, pads, calipers, hydraulic system) is in good operating condition. If in doubt, DO NOT PERFORM THIS PROCESS and have your braking system inspected by a licenced mechanic.*

Step 1: Perform 6-8 *medium* pressure stops in a continuous manner, from 60 kph/40mph down to ~10kph/5mph (ie; *slightly* more aggressive than normal braking). Step 1 will bring the brake rotors and pads up to temperature so they are not exposed to sudden thermal shock in step 2.

Step 2: Make 8-10 *aggressive* stops from 100kph/60mph down to ~10kph/5mph. For this set of semi-stops, you want to be firm and aggressive, however:

- DO NOT Brake so hard that your ABS activates and/or the wheels lock up.

- DO NOT come to a complete stop but rather a semi-stop (~10kph/5mph), as stopping can melt your pads to the rotor and cause smearing and “high-spots” of pad material on the disc.

- Accelerate quickly back up to ~100kph/60mph as soon as you slowed down to your semi-stop. Repeat a total of 8-10 cycles.

- You may notice that your brakes will start fading, sometimes smoke and create an acrid smell – which is normal after the 6th or 7th cycle. This fade/smoke/smell will diminish and return to normal feel once your brakes have cooled down to normal operating temperatures.
- After these cycles, DO NOT come to a complete stop, but rather find a long stretch of road (ideally a highway) where you can drive for 15-20minutes, using your brakes as seldom as possible.

After the burnishing process, there may be a light blue tint on your iron brake rotors (from high-heat tempering), as well as a gray film deposit on the rotors where the pads contact the rotors. The blue tint shows that your iron rotor reached the appropriate high temperature during the burnishing process, and the gray film is the thin layer of pad transfer material.

Some vehicles may require two (2) complete cycles of the burnishing process. This may be the case if you are using old brake rotors with new brake pads, or new brake rotors with old pads. This may also be the case if you don't think you fully heated up the rotors/pads in the initial burnishing procedure. In any case, it's required that you wait at least 20 minutes between each cycle to prevent your braking system overheating.

SPECIAL NOTE: *The above cycle parameters are suggested for normal street pads and rotors. If you are using higher-performance pads & rotors, lower brake dust pads or racing pads & rotors, the energy required to complete the burnishing process will be greater. Speeds of 130-150kph/80-90mph may be required, as well as more cycles to heat the pads and rotors to allow for pad material transfer.* *Greater caution is highly advised!*

Maintaining your Burnish

You will notice that the grey pad layer will eventually wear-off after 2-4 months of normal use. The burnishing process can then be repeated as desired.