



FITTING INSTRUCTIONS FOR THE INSTALLATION AND REMOVAL INSTRUCTIONS FOR REPLACEMENT OF A PRO 8000 BRAKE DISC

Please read and follow all instructions carefully.

If installed by a dealer, this document should be given to the end-user. The end-user should keep this document for the working life of the product. In the event of a change in the ownership of the vehicle into which the product has been installed, this document is to be transferred to the new owner.

GENERAL AND SAFETY INFORMATION

This AP RACING product has been designed to comply with all applicable safety standards. Products are not intended to be used differently from the specific use for which they have been designed and manufactured. Use for any other purpose, or any modification to, or tampering with, the Product can affect the performance of the Product and may render the Product unsafe. Such modification or improper use will void the Limited Warranty, and may subject the individual so using the Product to liability for bodily injury or property damage to others. As used in these instructions,

“**DANGER!**” means procedures which, if not observed, have a high degree of probability that they will cause serious injury or even death.

“**WARNING!**” means procedures which, if not observed, could possibly cause injury.

“**CAUTION!**” means procedures which, if not observed, could result in damage to the vehicle.

DANGER! This Product is vital to the safe operation of the vehicle on which it is installed, and it is intended to be installed only by a skilled, qualified individual who has been trained and/or is experienced in the installation and use for which the Product is intended. The installer must be equipped with the proper tools of his trade, and with the knowledge and experience to deal with vehicle repairs. Improper or incorrect installation, whether caused by a failure to faithfully and completely follow these Instructions or otherwise, will void the Limited Warranty and could subject the installer to liability in the event of personal injury or property damage. AP RACING shall not be liable for any damage or injury caused to or by any person operating a vehicle on which a replacement product has been improperly installed.

DANGER! The used product replaced by this Product must not be installed on any other product. Property damage and personal injury, including death, could result.

WARNING! In the course of replacing the product, and related items such as brake fluid, brake pads, brake shoes, and the like, the installer will be exposed to fluids and parts that may be deemed to be “hazardous waste” under applicable laws, rules and regulations. All such wastes must be handled, recycled and/or disposed of in accordance with all applicable laws, rules and regulations. The failure to do so can subject the generator of the hazardous waste to penalties under environmental laws, and could result in bodily injury or property damage to the generator or others.

DANGER! Always check that the brake fluid level in the reservoir is between the minimum and maximum levels indicated on the reservoir. An incorrect level can cause brake fluid leaks or reduced brake system efficiency. Too much or too little brake fluid in the reservoir could cause the brakes not to perform properly, and personal injury, including death, could result.

WARNING! To avoid creating a defective installation, avoid sharply striking and/or damaging the Product, its parts and its components, as this can impair their efficiency and may cause them to malfunction. If necessary, replace any damaged part or component.

WARNING! To avoid injury:

- Use suitable equipment to prevent the inhalation of dust raised during cleaning of the parts.
- Always wear gloves during disassembly and assembly of components with sharp edges.
- Do not allow skin surfaces to make direct contact between the pad and shoe linings since this could cause abrasions.
- Avoid direct contact with the brake fluid as it can cause irritation to the skin and eyes. In the event of contact, clean thoroughly in accordance with the vehicle or brake fluid manufacturer’s instructions.
- Do not subject the electrical components to electrostatic charges or to impact which could damage the plastic parts.
- Protect the disassembled electrical components from humidity.
- Ensure correct connection of any electrical contacts, checking that the warning lights come on. If they do not, non-operation of the warning lights can cause a reduction in efficiency of the braking system, or brake signalling failure.

DANGER! Avoid contact of grease and other lubricants with the braking surfaces of the disc and pads as this could affect the efficiency of the braking system and cause serious physical damage.

WARNING! Dispose of replaced parts in accordance with statutory regulations.

DANGER! Always replace both the brake discs on the axle, using the two discs provided. Every time the discs are changed you should also replace the pads.

DANGER! Before commencing replacement, ascertain that the spare parts used for replacement are suitable for the make and model of the vehicle.

REPLACEMENT PROCEDURE

The procedure described is for one wheel, and must be repeated on the other wheel of the axle.

- **A** Remove the wheel.
- **B** Remove the pads from the caliper and retract the piston/s, using the special tool.
- **C** Remove the caliper from its mount. **DANGER!** Do not disconnect the brake fluid line to the caliper. Suspend the caliper, ensuring that the pipeline is not pulled taut.
- **D** If necessary, remove the wheel hub before removing the disc. Remove the disc.
- **E** Clean the mounting face of the new disc. **CAUTION!** Do not foul the mounting face with oil or grease.
- **F** Clean the mounting face of the wheel hub, removing any deposits and rust; check that the surface is not damaged or deformed, and restore it to the proper condition if necessary.
- **G** Check for smooth rotation and correct end float of the wheel bearings.
- **H** If the wheel hub has not been removed: fit the new disc to the wheel hub and secure with the fixing bolt; adjust the bearing when required, following the directions of the vehicle maker.
- **J** If the wheel hub was removed in step D : assemble the hub and disc, tightening the fixing bolts to the specified torque. Fit the assembled hub and disc to the axle, adjust the bearing and complete the operation as directed by the vehicle maker.
- **K** Check lateral runout of the disc using the metrological kit; the dial gauge must be positioned as illustrated, 5mm from the outer diameter. Secure the disc with a number of wheel nuts to simulate the condition in which the wheel is mounted. The maximum value of runout per full revolution of the disc is: 0.10 mm for cars - 0.12 mm for commercial vehicles. If necessary, remove the disc and refit to the wheel hub in a different position, then repeat the measurement.
- **CAUTION!** Conduct this test with care. A runout value higher than indicated will lead to abnormal wear and generate vibration when braking.
- **L** If the runout measurement is unacceptable, measure the runout of the wheel hub mounting face; if necessary, replace the hub and refit the disc.
- **CAUTION!** The permissible runout value for the wheel hub mounting face is approximately half that specified for the disc.
- **M** Refit the caliper to its mount; in the case of a floating caliper, check for smooth sliding action of the pins and guides bushes. **WARNING!** Check that rubber parts are not damaged. Replace if necessary.
- **N** Fit the new pads, with the relative springs and pins. Grease the back and edges of the pads where indicated. Connect the wear indicator, if installed.
- **O** Depress the brake pedal to squeeze the pads against the disc. Repeat the operation until the pedal travel is at it should be.
- Check the level of brake fluid in the reservoir, topping up if necessary.
- Refit the wheel and tighten the wheel nuts as indicated by the vehicle
- Balance the wheel.

TESTING AND RUNNING IN

Road test the vehicle, taking care not to stab at the brakes or keep the pedal depressed for more than 3 seconds; make certain there is no noise or vibration from the brakes. The user of the vehicle should run in the new discs and pads for at least 200 km, applying the brakes gently and sparingly, and without activating the ABS.

WARNING! If new brakes are not properly run in, the braking system could be prevented from operating efficiently.

Continued overleaf:

替换制动盘指示 中文

仔细阅读并执行下列指示。

如果设备的安装由供应商进行，本手册应该在安装完成后提交给用户，用户必须在产品的整个使用周期内很好地收藏本手册。如果产品所安装的车辆被转让，本手册必须交给新户主。

一般安全信息

本AP Racing产品的设计是遵照最安全的标准而进行的。产品不得使用于与产品所设计和生产用途不同的方面。用于不同的用途、对产品进行修改或篡改可能会改变产品本身的性能并因此危害产品的安全。对产品的修改或不正确使用将中断有限保证条款，任何使用这种状况产品的人员应该对其行为而对第三方造成的人身或材料的损害负责。

在本指示中，

“危险！”意味着如果忽视规定的流程操作，可能会对人身造成严重伤害甚至导致死亡。

“注意！”意味着如果没有遵守该操作程序会造成人身伤害。

“警告！”意味着如果没有遵守该操作程序会对车辆造成损害。

危险！本产品对于安装它的车辆的安全运行是至关重要的，因此必须由在产品的安装和用途方面经过培训或经验丰富的人员进行安装。安装人员必须配备正确的安装工具，对车辆的维修有足够的知识和经验。由于不遵守本手册的指示或其他原因而进行的不正确或错误的安装，将导致本有限保证的失效，执行错误安装的人员必须对其行为引起的对人或材料的伤害负责。由驾驶不正确安装本产品的车辆的人员造成的对材料或人身的任何损害或对其自身的伤害，AP Racing概不负责。

危险！用本产品替换下的已使用过的部件不可以再安装在其他产品上。会造成对材料和人员的损害，包括死亡。

注意！当替换产品及相关材料（如制动液、垫片、夹爪等）时，安装人员将接触的流体和部件根据现行法律，法规和条令规定可能被视为“危险废物”。这些废料因此必须根据现行法律、法规和条令进行管理、回收和/或处理。如果不遵守该警告，产生废物的人员将会受到环境保护法的制裁，可能会对废物生产者或他人造成人身或材料的伤害。

危险！油箱内的制动油位应该总是在油箱标示的最低油位和最高油位间。不正确的油位会导致制动油溢出或降低制动设备的效率。油箱内制动油量过多或不足可能会降低制动器的功能，对人身造成损害甚至死亡。

注意！避免暴力碰撞和/或损坏产品及其部件，因为可能会减低产品的效率并造成故障。如果需要替换损坏的部件。

注意！为了避免对人体的伤害：

- 在清洁部件时，应该使用适当的保护装置以避免吸入飞尘。
- 在拆卸和更换锋利边缘的部件操作时，务必佩带手套。
- 皮肤应该避免直接与刹车垫片和夹爪的摩擦材料接触以免被磨伤。
- 避免直接与制动液接触因为它可能会刺激皮肤和眼睛。如果不小心接触了，要根据车辆生产商或制动液生产商提供的指示小心清洁。
- 不要让电器件受到静电荷或冲击，可能会损坏塑料部分。
- 拆卸下的电器件要避免受潮。
- 确保所有的电气触电的正确连接，检查警示灯是否点亮。警示如果灯不亮会导致制动系统的效率降低或制动信号故障。

危险！避免润滑油脂和其他润滑材料接触制动盘和制动垫片的表面，可能会使自动系统无法发挥其效率并对人体造成系列的伤害。

注意！应该遵循法律规定销毁所替换的部件。

危险！必须使用本包装内的两个产品替换所有轴上的制动盘。每次替换制动盘建议也替换制动垫片。

危险！在开始进行替换前，要确保所使用的替换零件材料适合所要安装的车辆品牌和型号。

替换步骤

本描述步骤仅为一个轮子的操作，必须重复操作步骤替换同一轴上的另一个轮子。

- A 卸下轮子。
- B 使用专门的工具拆下制动垫片，回收活塞。
- C 把卡钳从其支架上卸下。

危险！不要把制动液供液管从夹钳上卸下。把夹钳吊挂着，让供液管不会被牵引。

- D 如果需要，先拆卸轮毂后卸制动盘。
- E 清洁新的制动盘的安装表面。

警告！安装表面不要上油或上油脂。

- F 在轮毂上清理制动盘的安装表面，清除沉积物和锈迹；检查安装表面是否有损坏或变形，如果需要的话将其恢复到原状。
- G 检查车轮轴承的平稳旋转和正确的轴向间隙。
- H 如果轮毂没有被卸下：把新的制动盘安装到轮毂上，用固定螺丝将其锁定；如果要求，根据车辆制造商的指示调节轴承。

• J 如果轮毂在 D 步骤被卸下：组装轮毂和制动盘，用固定螺丝拧紧到制定的扭矩。把组合的轮毂和制动盘安装到轮子上，调节轴承，根据车辆制造商的规定完成安装。

• K 用计量表控制制动盘的振动；比较器必须放在图的位置，距离外径5毫米。用多个车轮螺丝固定制动盘，以模拟轮子安装的状况。制动盘完全旋转一周的最大振动值应该为：应用在汽车上0.10毫米，应用在商业用车上0.12毫米。如果需要，在轮毂上不同的位置拆下再安装制动盘，重复检查振动值。

警告！高度小心执行控制。不正确的振动会导致异常的磨损和制动器的振动。

- L 如果振动值不正确，控制在轮毂上制动盘支撑平面的振动值，如果需要的话，替换轮毂重新安装制动盘。

警告！要考虑到在轮箍上检测到的振动值只有制动盘所规定的一半。

- M 把卡钳再安装到卡钳架上，如果卡钳浮动，检查销和导轨衬套是否平滑移动。

注意！检查橡胶部位是否受到损坏，如果必要的话进行替换。

- N 使用相关的弹簧和销钉安装新的制动垫片，如果适用，润滑垫片的背面和侧面。连接磨损的信号灯。

- O 按下制动踏板把垫片带近制动盘。重复操作直到踏板行程处于正确的位置。

• 控制油箱内制动器液体的水平位，如果需要添加液体。

- 重新安装上轮胎，按照车辆制造商的指示锁住轮胎的螺丝。

- 平衡轮胎。

测试和运行

通过车辆道路测试对产品进行测试，避免急猛刹车和踩刹车板时间超过3分钟；测试用于确保制动器没有噪音和振动。

建议最终用户对车辆进行200公里的测试，刹车要轻踩，短暂，不要制动ABS。

注意！不正确的测试可能会影响制动器的效率。