

# Product Manual

## Air Jack 60 Competition

580-01-201

580-01-202

580-03-001

580-04-001

# Air Jack installation and plumbing

## PLUMBING METHODS :

The air jacks can be plumbed using either PTFE hose or aluminum hard tubing, depending on the user's preference. PTFE hose is more flexible and requires less tooling, while aluminum hard tubing is lighter and can be routed into tighter bends. We do not recommend mixing these installation options; it's preferable to use either PTFE hose or aluminum tubing exclusively. Nuke Performance offers two hose kits: a PTFE kit and a Hardline kit, both of which include the necessary fittings and hoses/tubes for either a 3- or 4-air jack setup.

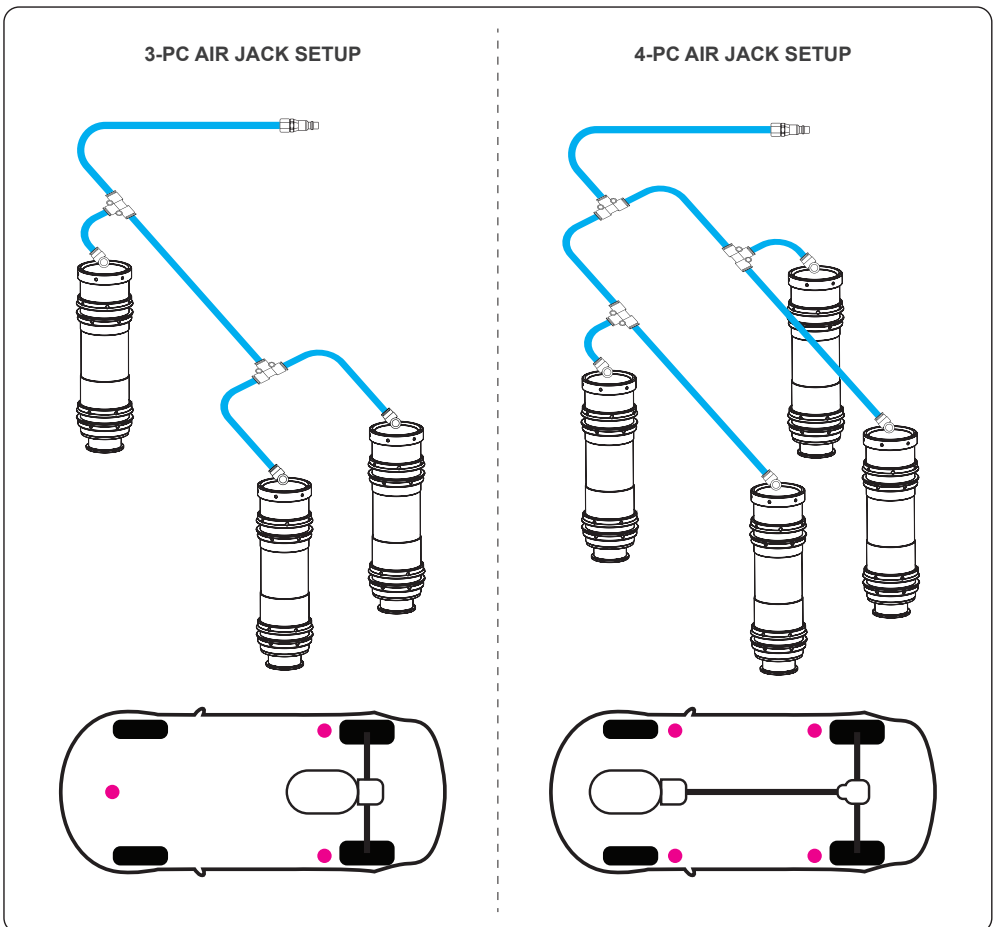
**Air Jack 60 C Hardline Kit, Part # 580-10-101**

**Air Jack 60C PTFE Hose Kit, Part # 580-10-910**

## 3 OR 4 AIR JACK KIT PLUMBING :

For a straightforward and efficient installation, we recommend using our hose kits. The Air Jack 60C can be installed in either a 3-jack or 4-jack configuration, depending on your vehicle's layout, weight, and design.

Depending on the vehicle's weight, you may choose one of our 3-piece air jack kits. For mid-engine or rear-engine vehicles, a single air jack can be positioned at the front.



Ensure that the air jack with the highest lifting requirement is the first in line from the air supply. Additionally, route the plumbing so that all hoses or tubes are of equal length to maintain consistent lifting performance.

## Air Jack connector valves, lance, and other accessories

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### CONNECTION VALVE PLACEMENT :

Position the connection valve to ensure it is protected from debris and potential malfunction. If the connection valve is in an exposed area, we recommend using the additional protective cap (part number 570-20-202) to prevent interference with the plumbing. Ensure that the valve is positioned so that the hose from the compressed air bottle does not obstruct necessary maintenance of the vehicle while the air jacks are in use.

### CONNECTION VALVE OPTIONS :

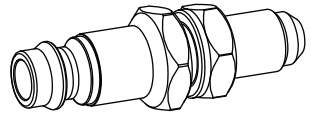
Depending on your needs, preferences, and intended use, we offer several different connection options, with or without shut-off, and with or without quick-connect functionality.

Regardless of which connection valve is used, all are compatible with the Nuke Performance Air Jack Lance AN-6 (part number 570-10-001), which also fits valves from other manufacturers, such as those found in factory Porsche GT racing cars.

### AIR JACK MALE CONNECTOR AN-6

Part # : 570-20-101

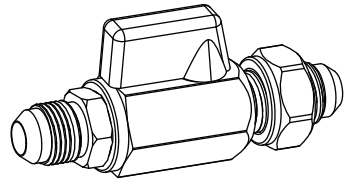
Quick-connect valve without shut-off functionality. The AN-6 male thread allows for easy connection to Nuke Performance hose or tube kits. This connector activates the lift immediately when pressure is applied and disengages the lift as soon as pressure is released by removing the air jack lance.



### AIR JACK PETCOCK BALL VALVE CONNECTOR AN-6

Part # : 570-20-102

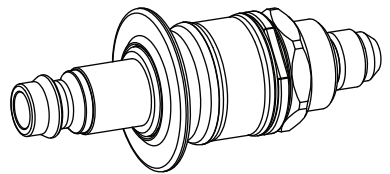
Quick-connect valve with optional shut-off functionality. The ball valve allows the system to remain pressurized even when the air jack lance is removed. Slowly opening the valve enables controlled lowering of the air jack system if needed. When the ball valve is open and the lance is removed, the lift will disengage immediately upon pressure release.



### AIR JACK QUICK RELEASE CONNECTOR VALVE AN-6

Part # : 570-20-103

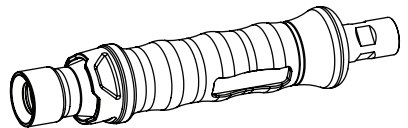
Quick-connect valve with quick-release functionality. The system stays pressurized when the air jack lance is removed from the valve. The lift remains engaged until the outer sleeve of the valve is pulled out, which opens the valve and quickly disengages the lift.



### AIR JACK LANCE AN-6

Part # : 570-10-001

Quick-connect lance that activates pressure immediately upon attachment to the optional connectors. The lance locks onto the valve when engaged, and disconnects while simultaneously closing the pressure when the sleeve is pulled out. Its lightweight aluminum body and stainless steel internals ensure durable and safe performance.



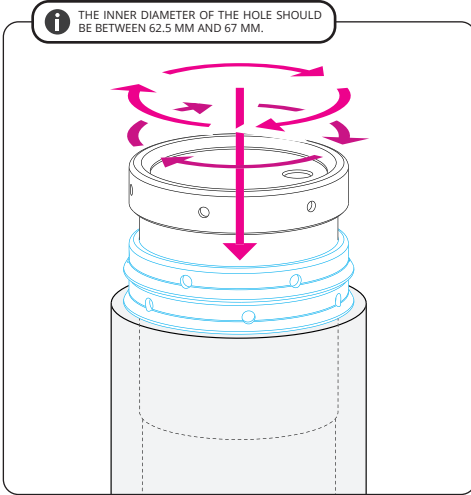
### PRESSURE REGULATOR, PRESSURE HOSE, VALVE ENCLOSURE :

Explore a wide range of accessories for the Air Jack 60C, including steel mounting brackets, compressed air bottle pressure regulators, PTFE and Hardline hose kits, valve enclosures for secure installation, and much more—all available on our website and accessible by scanning this QR code.

For additional information on accessories, installation procedures, and air jack specifications, contact Nuke Performance at [support@nukeperformance.com](mailto:support@nukeperformance.com).



## Mounting instructions

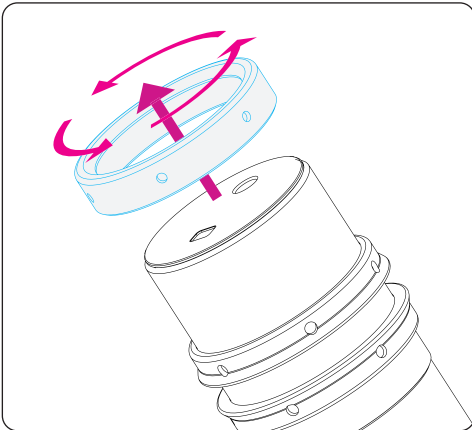


### MOUNTING WITH PIPES :

When mounting the cylinder through pipes, nuts must be used with a counter function. This is the recommended installation. Requires upper and lower attachment.

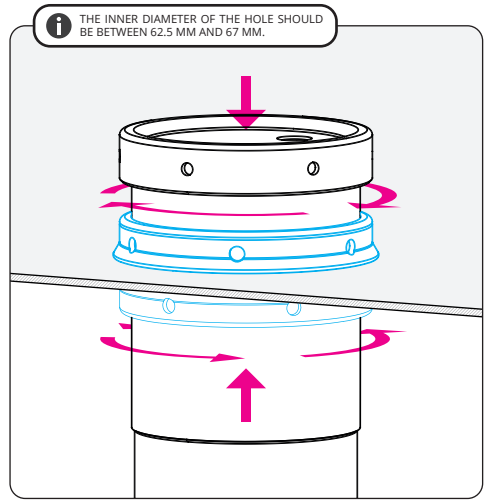
Ø Min 62.5 mm (2.46")

Ø Max 67 mm (2.64")



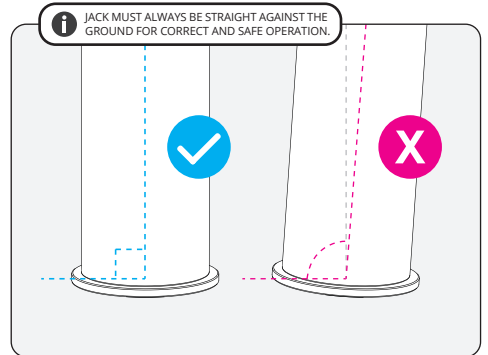
### MOUNTING FROM BELOW :

For mounting through pipes or a surface from below, remove the upper ring to enable mounting. Reassemble the ring in place when it is mounted. Tightening torque 40 Nm (29.5lbs-ft). Use a drop of thread locker for added security, but avoid excess to prevent difficult removal and thread damage.



### MOUNTING WITH FLAT SURFACE :

When mounting the cylinder against/through a flat surface, a nut can be mounted on each side, whereupon the material is clamped between the nuts. Requires upper and lower attachment.



### POSITIONING WHEN LIFTED :

For safe and optimized function and use, it is required that the jacks are mounted vertically in the vehicle. When the jacks are facing the ground, they should be in a fully vertical position.

### STRONG ATTACHMENT IS REQUIRED :

The mounting of the jack in the vehicle must be sufficiently rigid so that the jack cannot move in its position or worst case get loose.

We advocate that the fastening part is welded to load-bearing parts of the vehicle body. Under no circumstances may the air jack be used as a traditional jack without being mounted in the vehicle.

## Plumbing and installation of the Air Jacks

### PLUMBING AND INSTALLATION OF THE NUKE PERFORMANCE AIR JACK 60 COMPETITION :

Mount the hose so it is protected from damage when the driver enters or exits the vehicle, and ensure it is positioned away from moving parts that could crush or pinch it. Keep the hose or tube clear of the downpipe, turbo, exhaust, and other excessive heat sources. Use appropriate tools to cut the hose or tube to the desired length, ensuring it is not crushed or distorted during the process. Ensure that all corresponding hoses or tubes are cut to the same length to maintain consistent lifting performance.

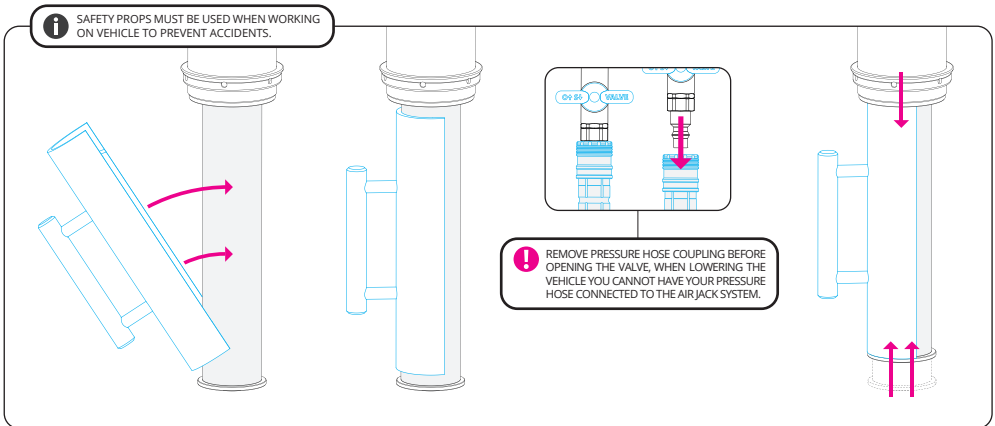
### AIR JACK PLACEMENT / MOUNTING POINTS :

Front-mounted air jacks should be installed just behind the front tires, but as far forward as possible. Rear air jacks should be placed ahead of the rear tires when feasible. The vehicle's standard lift points provide a good reference for air jack placement. Ensure the air jacks remain level with the vehicle, both when extended and retracted. The air jack foot should be positioned above the lowest point of the frame rails or vehicle floor to prevent damage during racing. Each air jack must be securely mounted to the vehicle's structure or chassis in a position that is as vertical as possible.

### VALVE / CONNECTION PLACEMENT :

Position the pressure supply connection in a protected area to prevent malfunctions caused by debris. If the valve is exposed to external elements, we recommend using the additional protection cap (part number 570-20-202). It's also advisable to keep the valve open during use to allow the system to release air pressure. Temperature changes can cause air jacks to lower slightly during driving due to increased air pressure caused by rising temperature within the hose or tube.

## Safety Prop instructions



### USAGE OF SAFETY PROPS :

Safety Props must be used if you intend to work under the vehicle or when the wheels of the vehicle are to be removed longer than during a quick change.

We advocate and recommend that you use the Nuke Performance safety props for all type of use of the Nuke Performance Air Jacks 60 Competition.

If an accident should occur and the pressure disappears due to leakage, malfunction or handling error, there is a risk of very serious injuries if the correct safety equipment is not used

### SAFETY PROPS OPERATION :

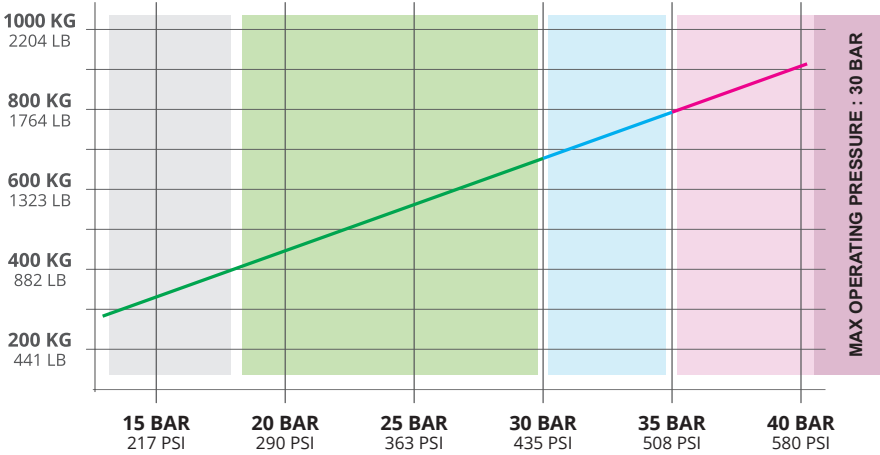
- 1 Once the vehicle is fully raised, ensure the pressure remains constant. Next, attach the safety props to each air jack.
- 2 After all of the vehicles air jacks are equipped with safety props, release the pressure from the system. If your setup includes an optional valve, open it to release the pressure.
- 3 At this point, the vehicle is securely supported by the safety props, and the system no longer needs to maintain pressure from the nitrogen tank.

# Specifications

## AIR JACK SPECIFICATIONS :

The Nuke Performance Air Jack 60 Competition was developed in response to global motorsports demand for a high-pressure, user-friendly air jack system. Designed to complement the low-pressure Air Jack 90C, this 20 BAR (290 PSI) system works with a nitrogen tank and air jack lance for quick, high-performance operation.

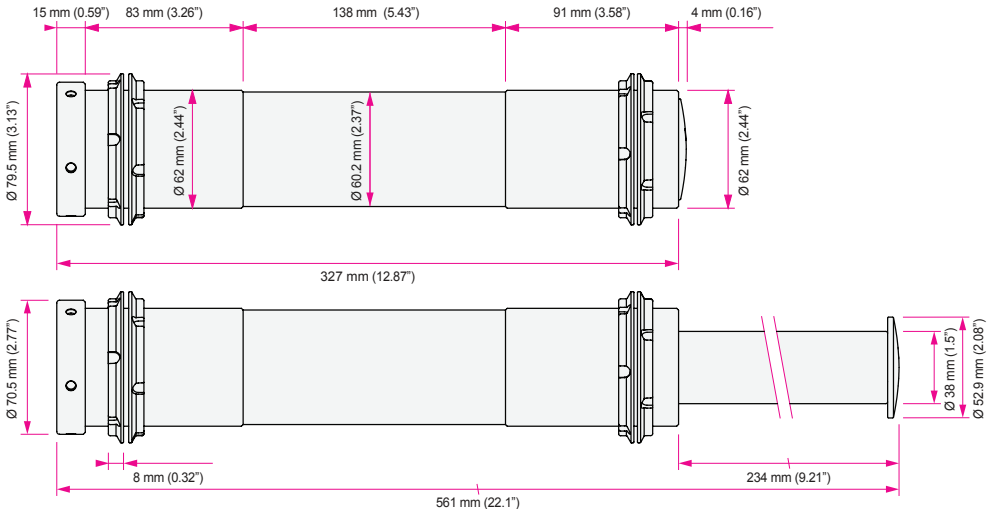
Optimal pressure ranges from 18 to 30 BAR (260 - 435 PSI), offering a total lift capacity between 1600 kg (3527 lbs) and 2700 kg (5952 lbs) with a four-jack setup. Lift capacity may vary by +/-10% due to factors like air line setup, temperature, nitrogen capacity, and vehicle corner weight. These variables should be considered when determining the required pressure.



## Dimensions

<b>Outer diameter</b>	62mm (2.44")	<b>Min Ø mounting Hole</b>	62.5mm (2.46")	<b>Lift capacity 20 BAR (290 PSI)</b>	448 KG (987 LB)
<b>Length retracted</b>	331mm (13.03")	<b>Max Ø mounting Hole</b>	67mm (2.63")	<b>Lift capacity 30 BAR (435 PSI)</b>	677 KG (1492 LB)
<b>Total lift height</b>	230mm (9.06")	<b>Hook wrench width</b>	72mm (2.83")	<b>Tightening torque (top ring)</b>	40 Nm (29.5lbs-ft) *
<b>Air Jack thread connection</b>	AN-6 ORB	<b>Max operating pressure</b>	30 BAR (290 PSI)	<b>Tightening torque (nut ring)</b>	40 Nm (29.5lbs-ft) *

\* Use a drop of thread locker for added security, but avoid excess to prevent difficult removal and thread damage.



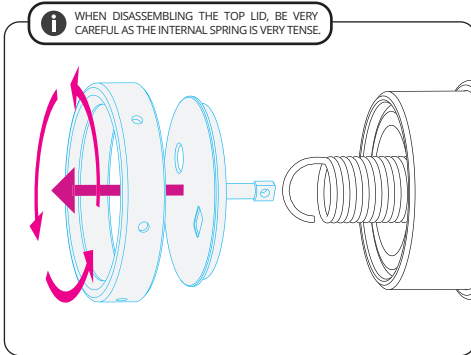
## Replacement of air jack feet

### REPLACEMENT OF DAMAGED FEET :

If the air jack foot is damaged, it can be replaced.

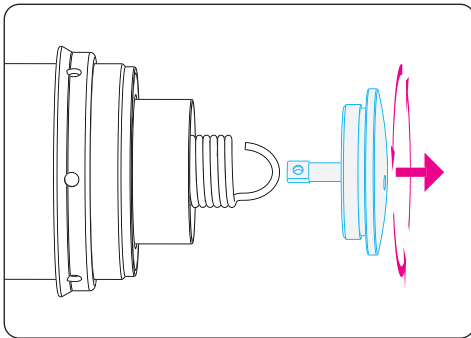
#### Replacement foot, part # 580-20-101

If the piston thread is damaged, please contact us for consultation; there must be a valid seal between the piston and the foot.



#### STEP 1 :

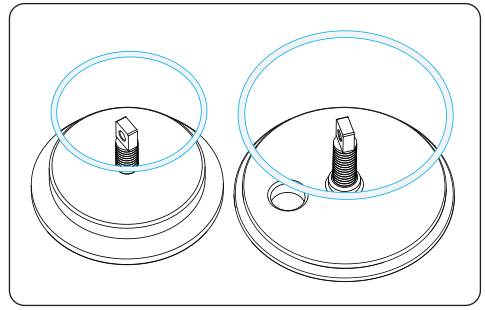
Loosen the nut on the top side of the air jack by screwing it counterclockwise. Pull the lid straight out of the air jack, preferably pulling the air fitting. Be careful and pull the cover out with high force. Be sure to fixate the spring at the same time so that it does not travel back into the piston with force. We recommend a spring hook tool for this operation.



#### STEP 2 :

After releasing the spring back into the piston, unscrew the foot using a pin wrench and pull it out to unhook it from the internal spring.

If the foot is to be heavily damaged to be able to use the pin wrench, drill two holes at the same place where the pin wrench holes have been and use these instead, make sure to not damage the piston.



#### STEP 3 :

Fit new o-rings on the foot and at the top lid, these are included together with the replacement foot. Attach the spring to the foot first and then reassemble the air jacks in the opposite order. We recommend that you use a spring hook tool for this operation.

### Safety disclaimer

**Trained Personnel Only:** This product is intended to be installed and used only by trained personnel.

**Proper Installation:** Ensure the air jacks are installed correctly. Weld the tube or bracket mounts to the chassis for a rigid and secure installation. The air jacks must not touch the ground when racing.

**Torque Specifications:** Tighten the top ring and nut rings to 40Nm (29.5 lbs-ft). Apply a drop of thread locker for added security, but avoid excess to prevent difficult removal and potential thread damage.

**Safe Operation:** Always use safety gear when operating the air jacks.

**Support the Vehicle:** Never work underneath the vehicle if it is lifted solely by air jacks. Always use safety props to secure the vehicle.

**Air Supply Requirements:** Use only clean and dry compressed air or Argon with a maximum operating pressure of 30 BAR (435 PSI).

**Operating Conditions:** Do not exceed the maximum operating temperature of 40°C (104°F).

**Lubrication:** Use only silicon-based grease for lubrication.

**Annual Inspection:** Perform a comprehensive inspection of the entire setup, including hoses, tubes, valves, and jacks, every year.

**Motorsports Use Only:** This product is designed exclusively for motorsports applications and is not suitable for other uses.



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INCORRECT INSTALLATION CAN CAUSE SERIOUS DAMAGE TO THE PRODUCT AND VEHICLE. AS A RESULT, ACCIDENTS, PROPERTY DAMAGE AND PERSONAL INJURY ARE POSSIBLE. INSTALLATION MAY ONLY BE CARRIED OUT BY EXPERTS. MAKE SURE TO ALWAYS USE ALL NECESSARY SAFETY EQUIPMENT. THE MANUFACTURER IS NOT LIABLE FOR DAMAGE CAUSED BY IMPROPER INSTALLATION.

DE



BEI UNSACHGEMÄßER INSTALLATION KÖNNEN SCHWERE SCHÄDEN AN PRODUKT UND MOTOR ENTSTEHEN. INFOLGEDESSEN SIND UNFÄLLE, SACH- UND PERSONENSCHÄDEN MÖGLICH. DER EINBAU DARF NUR DURCH GESCHULTES FACHPERSONAL MIT DER NOTWENDIGEN SICHERHEITSAUSRÜSTUNG ERFOLGEN. DER HERSTELLER HAFTET NICHT FÜR SCHÄDEN DURCH NICHT FACHGERECHTE MONTAGE.

ES



UNA INSTALCIÓN INCORRECTA PUEDE CAUSAR SERIOS DAÑOS TANTO AL PRODUCTO COMO AL VEHÍCULO. COMO CONSECUENCIA, ES PROBABLE QUE SE PRESENTEN ACCIDENTES, DAÑOS MATERIALES Y LESIONES PERSONALES. LA INSTALCIÓN SÓLO DEBE SER REALIZADA POR EXPERTOS, CERCÍÓRESE DE UTILIZAR SIEMPRE TODO EL EQUIPO DE SEGURIDAD NECESARIO. EL FABRICANTE NO SE HACE RESPONSABLE DE LOS DAÑOS CAUSADOS POR UNA INSTALCIÓN INCORRECTA.

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SE



FELAKTIG INSTALLATION KAN ORSAKA ALLVARLIGA SKADOR PÅ PRODUKT OCH FORDON. SOM ETT RESULTAT ÄR OLYCKOR, EGENDOMSSKADOR OCH PERSONSKADOR MÖJLIGA. INSTALLATIONEN FÄR ENDAST UTFÖRAS AV EXPERTER. SE TILL ATT ALLTID ANVÄNDA NÖDVÄNDIG SÄKERHETSUTRUSTNING. TILLVERKARE ANSVARAR INTE FÖR SKADOR ORSAKADE AV FELAKTIG INSTALLATION.

## Information :

For more information about our brand, our products, our history, our dealers, our conditions and technical documentation, visit [www.nuke-performance.com](http://www.nuke-performance.com) or contact your local dealer.

This product is developed, designed and manufactured in-house by Nuke Performance AB in Sweden. All of our products are installed at your own risk and could damage your equipment, engine or vehicle if not properly installed. Only to be used in motorsports applications.



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