

# TRIGONAL REAR SUSPENSION

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For the comfort and dynamics of a car, the rear suspension is just as important as the front. Combined with reduced dimensions, the trigonal rear suspension provides **very high-quality directional functions**, far better than those provided by conventional “H” rear suspensions.



▸ Safety

▸ Environment

▸ **Life on board**

▸ Mobility

▸ Competitiveness

## BASIC FACTS

**The rear wheels of a car do not only move vertically.** Practically, in relation to the car, the rear wheels move in three axes (longitudinally, transversally and vertically). These movements are used

to optimise the vehicle's dynamics. The trigonal suspension enables these movements to be perfectly controlled. It is thus a solution able to provide a highquality service. The complex design

of the trigonal suspension, which has led to numerous patents filed by Renault, offers dynamic safety combined with a level of comfort which restricts its use to top-range cars.

## IN SHORT

**BY PROVIDING PERFECT CONTROL OF THE MOVEMENTS AND TURNING OF THE CAR'S REAR WHEELS, THE TRIGONAL SUSPENSION OFFERS A TOP-QUALITY LEVEL OF COMFORT AND HANDLING. IN ADDITION, ITS REDUCED OVERALL DIMENSIONS PRESERVE THE SPACIOUSNESS OF THE VEHICLE.**

## HOW DOES IT WORK?

### **The trigonal suspension**

is composed of three connecting rods and a quadrilateral arm. It belongs to the family of suspension known as multi-arm, whose features are the most efficient on the market. Its layout provides high transversal stiffness, necessary for good road holding, while at the same time enabling

longitudinal flexibility to ensure comfort. The major feature of the trigonal suspension is its kinematics, using various connecting rods pivoting in several axes. The combination of the different axes enable wheel parallelism and camber to be adjusted separately, which is not the case for all multi-arm axles.

This produces a stabilising effect (known as understeer) in bends or when the brakes are applied. Finally, a major advantage of the trigonal suspension is its compactness (greater than the competition), while maintaining significant wheel travel, necessary for suspension comfort.



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