

# FITTING INSTRUCTIONS

## Adjustable Mini suspension

**Partnumber: 042.534**

### GENERAL INFORMATION

These specialised suspension components are designed to allow the ride height of all Minis with "dry" suspension to be easily adjusted. In addition, the diameter of the rubber cone support lip is larger than the standard cone to increase effective spring rate. This makes them suitable for fitment in all the following cases:

**ROAD CARS** : For load carrying and towing to optimise handling and adjustments.

**RALLY CARS** : Increase height for rough forestry stages then lower for smooth tarmac.

**RACE CARS** : Stiffen and lower the suspension as far as possible but can still be raised for bumpy circuits.

### INSTALLATION

Fitment of the Hilo units should prove a straight forward replacement of the existing aluminium cones. Be careful to ensure the hole (A) drilled in the side of the alloy cones is accessible once fitted to prevent the one rotating when it is being adjusted. (The two plastic blanking plugs should be inserted in the rear units). The only extra work necessary is to drill two holes in the rear valence through which the long hexagonal section rod may be inserted for quick adjustment. (Only possible on Minis up to 1990).

### ADJUSTMENT

The threaded bolt (B) in the Hilo unit has a total travel of 45mm. This theoretically allows 135mm of adjustment on the front suspension and 225mm on the rear although this will be limited by other suspension and bodywork considerations. In both cases, The mid position should give near standard ride height thereby permitting the car to be raised or lowered as required.

Before carrying out any adjustments the lock nuts (C) must first be released. Adjustment of the front units is then achieved by passing the shorter hexagonal rod through the existing hole in the main bulkhead cross member (it may prove easier to first remove the bonnet) and rotating the rod with a suitable ring spanner. Great care should be taken to ensure the car is supported on the front subframe before removing the locating bolts and cover plate or single central locating bolt. Failure to do this could result in the subframe location being disturbed. The rear units are simply adjusted by passing the longer hexagonal rod through the hole already drilled in the rear apron. Alternatively both front and rear units may be adjusted by turning the bolt heads (D) with a spanner. If the cones start to rotate when being adjusted this can be prevented by inserting the spare hexagonal rod in the drain hole (A).

### VERY IMPORTANT

The Hilo unit should only be adjusted once the car has been jacked up. Do not try to force the car round once it has reached the end of its travel in either direction. If the Hilos have been filled for some time or used in very dirty conditions" is a good idea to clean and lubricate the exposed thread before adjusting.

If using very low ride heights the rubber cone may become displaced when the vehicle is jacked up. This can be avoided by fitting chock straps to the rear suspension and packing up the lower front suspension buffer rubbers. In addition, shorter shock absorbers should be fitted to prevent any possibility of them "bottoming out".

When ride heights are adjusted to extremes it is advisable to re-set the wheel alignment.