CREATIVE ENGINEERING

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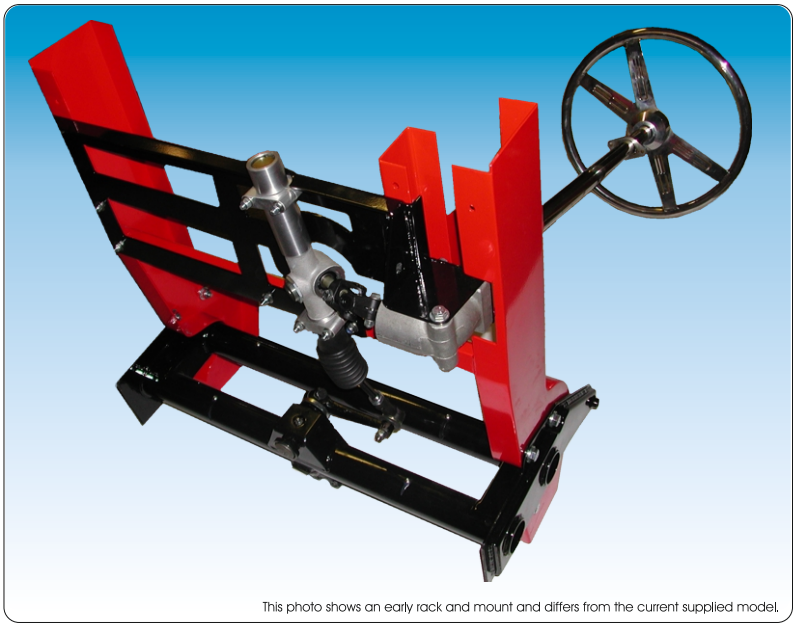

This photo shows an early rack and mount and differs from the current supplied model.

Our rack and pinion conversion kit is designed to replace your old worn out old steering box and give your bus the feel of a modern car. Several years of development have gone into this kit to make it the safest and best designed conversion in the world.

It has been manufactured to the highest quality for safety and performance. The result is a rack that will give you the most precise steering you could imagine. You will discover the slightest movement of the steering wheel will give immediate response at the wheels. After driving a bus with a lot of slack in the old steering box, care must be taken whilst adjusting to a system that is extremely precise.

The new steering column exceeds the original factory item in its build quality. Its outer case is manufactured from stainless steel and is available polished for show or powder coated for an original look. It runs on a needle roller bearing in an acetyl housings so you will find the new internal steering shaft runs as smooth as silk. Your original Bus steering wheel will bolt straight on to the new column as we have reproduced the factory taper and woodruff key fitment. You will however need to use a separate dash mounted horn button as it is not possible to run the horn cable inside the new steering column. Creative now offer a new Indicator column switch with a horn facility as well as turn, flash and main beam all on one high quality switch. see website for details.

If your bus is lowered, you'll appreciate the added bonus that this system is positioned higher in your chassis than your old box giving you approx 50mm greater ground clearance.

The kit is a bolt in application requiring only a small amount of trimming to the chassis for clearance and five 8mm diameter holes drilled. No welding is required and installation should only take approximately five to six hours to install.

Please study and understand the included photographic step by step fitting instructions prior to fitting any part.

Although not difficult, we do advise that the installation is only carried out by an experienced automotive engineer.

Creative Engineering accept no liability for damage caused by incorrect installation, Injury or loss of life.

The use and installation of this steering conversion kit are the responsibility of the end user.

This rack cannot be fitted to buses with chassis that have been modified for a raised steering box. If yours has, the modifications have to be reversed to exact factory location as our kit locates on the 5 original box mounting holes. Call for advise if your bus has been modified.

If you have any doubts during installation call for technical advise.

You should always use protective gloves and eye protection when installing these parts.

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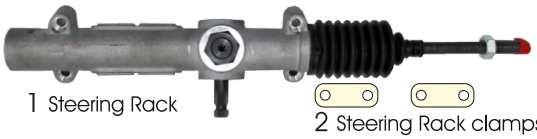
Parts ID Chart



1 Steering Rack

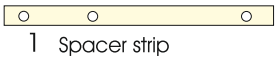
2 Steering Rack clamps

1 Steering Column

1 Steering shaft

1 Tie rod end

1 Universal Joints / equal size holes



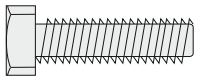
1 Spacer strip

1 Bevel Box

1 Universal Joints / Unequal size holes

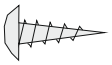
1 Mounting Plate

Fastener ID Chart

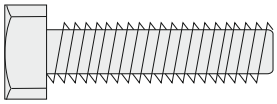


2 M6 x 20 hex screw 10.9

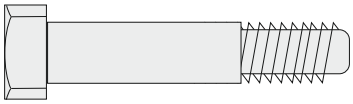
2 M6 washer



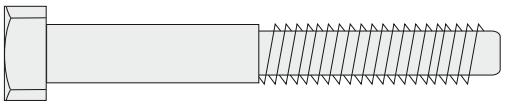
4 Self tapper



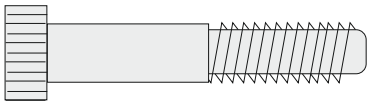
2 M8 x 30 hex screw 10.9



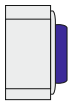
4 M8 x 40 hex bolt 10.9



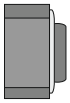
4 M8 x 60 hex bolt 10.9



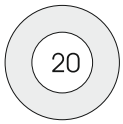
4 M8 x 40 Caphead bolt 12.9



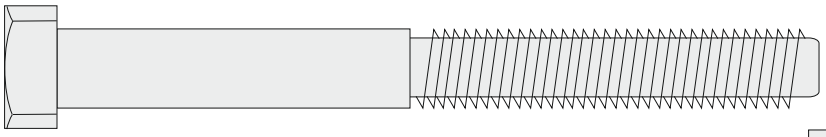
5 M8 nyloc



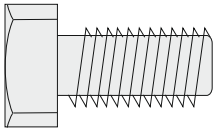
8 M8 PT Locknutt



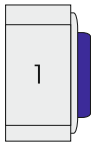
M8 washer



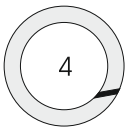
1 M10 x 100 hex bolt 10.9



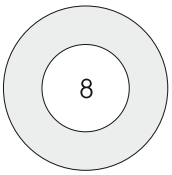
9 M10 x 20 hex screw 10.9



1 M10 nyloc



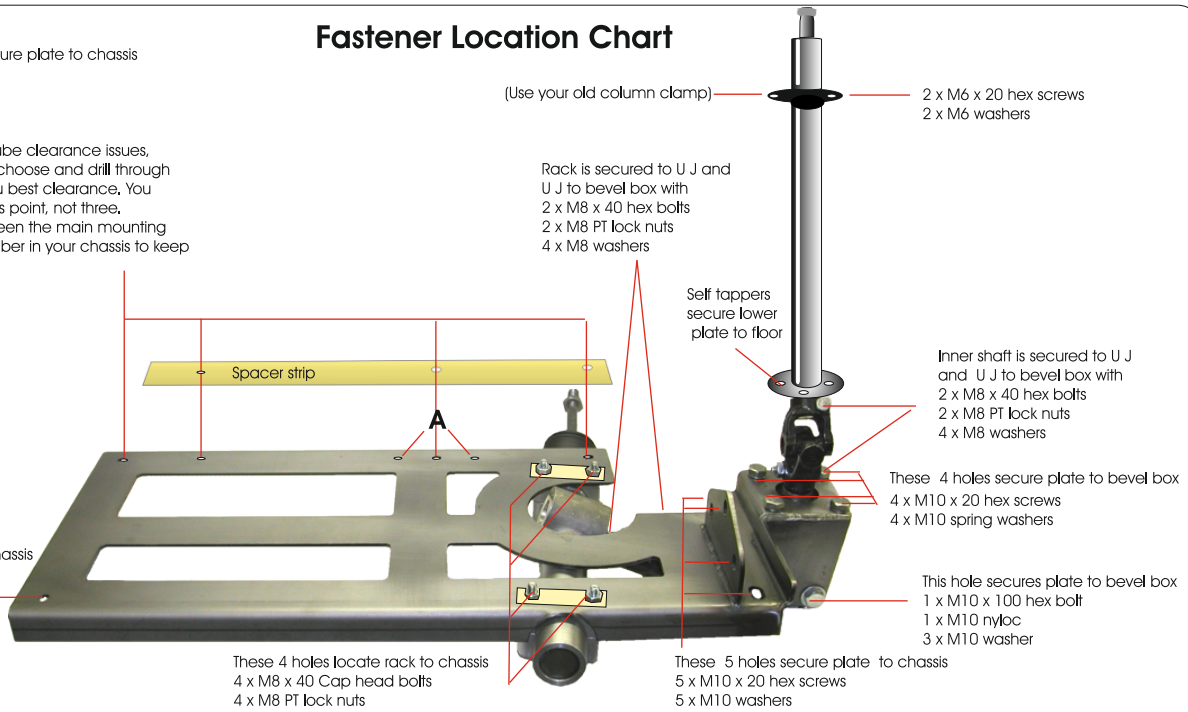
M10 spring washer



M10 washer

Fastener Location Chart

Use these 4 holes to secure plate to chassis
4 x M8 x 60 hex bolts
4 x M8 nylocs
4 x M8 washers
NOTE
Due to possible heater tube clearance issues, at the group of holes **A**, choose and drill through the hole that will give you best clearance. You only need one bolt at this point, not three.
The spacer strip fits between the main mounting plate and the crossmember in your chassis to keep the mounting plate flat.



(Use your old column clamp)

2 x M6 x 20 hex screws
2 x M6 washers

Rack is secured to U J and U J to bevel box with
2 x M8 x 40 hex bolts
2 x M8 PT lock nuts
4 x M8 washers

Self tappers secure lower plate to floor

Inner shaft is secured to U J and U J to bevel box with
2 x M8 x 40 hex bolts
2 x M8 PT lock nuts
4 x M8 washers

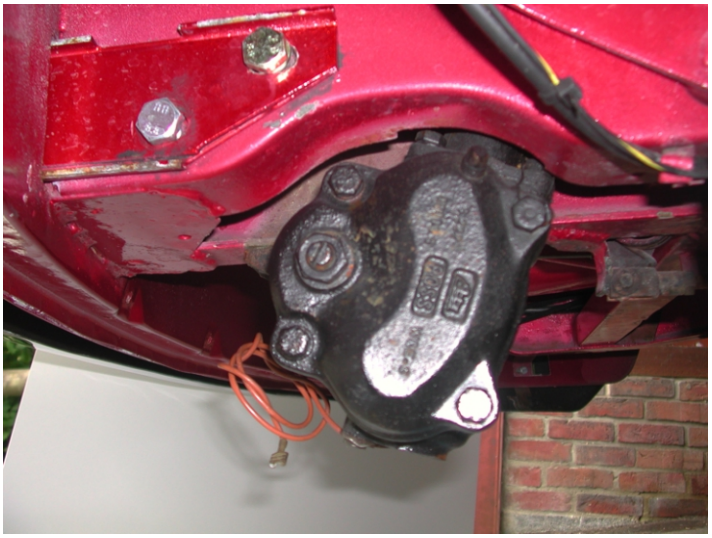
These 4 holes secure plate to bevel box
4 x M10 x 20 hex screws
4 x M10 spring washers

This hole secure plate to chassis
1 x M8 x 30 hex screw
1 x M8 nyloc
2 x M8 washers

This hole secures plate to bevel box
1 x M10 x 100 hex bolt
1 x M10 nyloc
3 x M10 washer

These 4 holes locate rack to chassis
4 x M8 x 40 Cap head bolts
4 x M8 PT lock nuts
4 x M8 washers

These 5 holes secure plate to chassis
5 x M10 x 20 hex screws
5 x M10 washers



The mounting plate can now be fitted to your chassis. (Mounting plates may differ slightly from one shown)
It must be fitted onto your chassis on its own ***before*** any other parts are attached to it.

Firstly, bolt it to the five original steering box mounting holes using the M10 x 20 hex screws and washers. Only turn each screw a couple of threads until all five are in place. Then you can tighten all five up equally.
When it is secured by the five M10 bolts (below in red), drill through the four holes in the mounting plate (marked blue below) and through your chassis using an 8mm drill bit. Be sure to keep the drill bit vertical and square when you are drilling through your chassis.
Check all drilled holes are ok by fitting the M8 bolts and screws. When you are happy with all mounting points being correct, you can remove the mounting plate from the chassis and start its build up.
After it has been fitted to the chassis and all holes drilled it can be removed and then built into a complete unit as shown in the next box.

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