



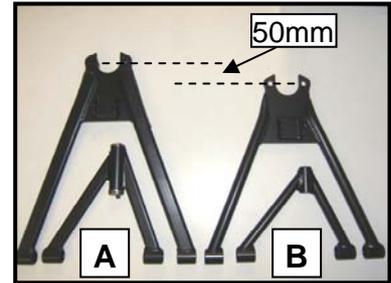
4 Front Suspension & Steering Rack

The Westfield modules are supplied with standard track width front suspension. If the upgrade suspension option is taken, wide track wishbones will be supplied. The wide track option increases the overall front track width by 100mm.

A – Wide Track Front Suspension Wishbones

B – Standard Track Front Suspension Wishbones

The fitting procedure for the standard and wide track suspension is the identical, however there are different lengths bolts required to mount the lower ball joint and an alteration to the track rod end.



Tools Required

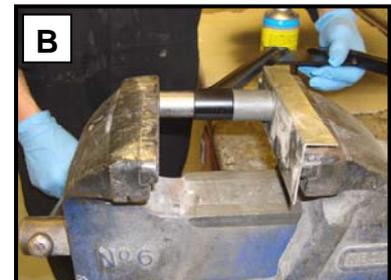
Spanner Set 3/8" to 3/4"
Spanner Set 10mm to 19mm
Torque Wrench
4.1mm Drill
Rivet Gun
Scissors

Fittings Suspension Bushes

In certain Westfield kits or if Nylon updated bushes are requested. The wishbones are supplied bare without bushes fitted, the type and size of bush used is the same for all wishbones. When fitting the standard rubber bushes we recommend using a press (**A**) as the bushes are a interference fit, however a large vice can be utilised (**B**).



Front upper wishbone, 2 bushes
Front lower wishbone, 2 bushes
Rear upper wishbone, 2 bushes
Rear lower wishbone, 3 bushes



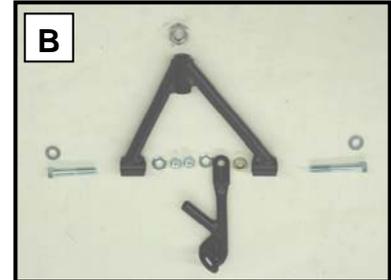
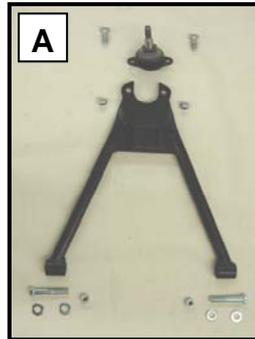
The Nylon updated bushes are supplied in three pieces and require a different method of fitting. Firstly the wishbones need to be reamed out with a 15/16" ream, the two halves of the bush should then be pushed by hand into the wishbone. The bushes should not have to be pressed in, however they may require starting in a vice if the manufacturing process has caused burrs on the edge.



Standard Front Suspension Components

Firstly identify the correct front suspension parts and fixings.

- A – Front lower wishbone
- B – Front upper wishbone
- C – Front lower and upper ball joints, Steering track rod ends



When fitting the front suspension, we recommend you follow the procedure outlined.

Fitting The Standard & Wide Track Wishbones

1. Position the front lower wishbone onto the chassis mounts. With the lower shock absorber mount facing up. Attach using

- 2 x 2 ½" long x 7/16" UNF bolt
- 4 x 7/16" plain washer
- 2 x 7/16" nyloc nut

The bolts should be put through the bushes so the nylocs are on the inside. Lightly tighten the bolts, do not torque until the vehicle is on its wheels.



2. Fit the lower ball joint onto the wishbone and attach using

Standard Track

- 2 x 25mm long x 10mm bolt
- 2 x 10mm Metaloc nut

Wide Track

- 2 x 45mm long x 10mm Capscrew
- 2 x 10mm Metaloc nut

The bolts/capscrews go down through with the nuts on the lower side. Torque the bolts to 38n/m (28 ft/lbs)



3. Position the front upper wishbone onto the chassis. With the longer wishbone arm forward. Attach using

- 1 x 2 ½" long x 7/16" UNF bolt (**rear bolt**)
- 1 x 3" long x 7/16" UNF bolt (**front bolt with spacer**)
- 4 x 7/16" plain washer
- 2 x 7/16" nyloc nut
- 1 x mm spacer (**between chassis and headlight bracket**)





4 Front Suspension & Steering Rack

The bolts should be put through the bushes so the nylocs are on the inside. Lightly tighten the bolts, but do not torque until the vehicle is on its wheels.



At the same time as attaching the top wishbone, it is necessary to attach the headlight bracket. The headlight mounting bracket face towards the rear.

4. The head light bracket attaches to the same point as the upper wishbone, with a spacer between the chassis and the mount. Another bolt is then used to secure the second mounting for the headlight bracket.

1 x 35mm long x 8mm bolt

2 x 8mm plain washer

1 x 8mm nyloc nut



As a security measure place a 4.1mm rivet through the chassis and into the headlight bracket.



5. Wind the upper ball joint locking nut onto the ball joint. Apply copper slip to the ball joint thread and wind it into the upper wishbone, with the locking nut in place.

A – Standard Track Front Suspension

B – Wide Track Front Suspension



The wide track wishbones differ slightly from the standard track ones in that they have a different type of attachment for the ball joint.

When fitting wide track top ball joints the metal sleeve located in the wishbone will need holding via the small holes at the rear, use a suitable metal bar to do this.



As a rough guide, wind until the distance from the ball joint centre to the wishbone edge is 55mm.



Fitting The Shock Absorbers

Firstly identify the correct front suspension shocks and springs. Front shocks come in a box with **part number 1105** on the side, rear shocks have a **part number 1106**. **Rear shocks are longer** than the fronts and **Rear springs are also longer** than the front springs.



1. Place the front shock in its place, with the ride-height adjusting thread at the bottom and the damping adjuster on the inside.



If using the Nitron upgrade shocks, they mount up side down with the ride-height adjusting threads at the top and only require four washers to mount, they don't use plan washers inside the chassis mounts.



Mount using the following; only lightly tighten at this stage.

2 x 2 ½" long x 7/16" bolt

8 x 7/16" plain washer (**both sides of the chassis mount**)

2 x 7/16" nyloc nut

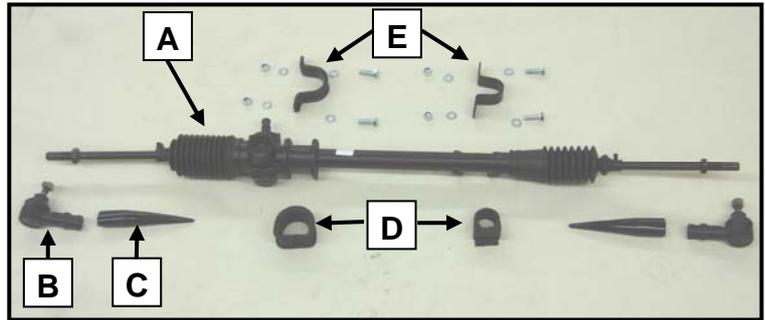




Fitting The Steering Rack

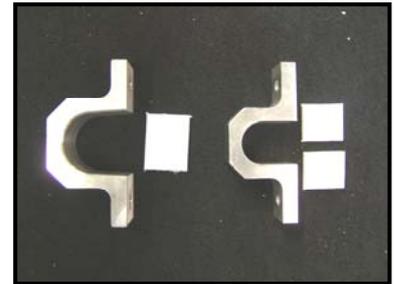
The steering rack kit consists of

- A** – Steering Rack
- B** – Track Rod Ends & Lock Nuts
- C** – SVA Track Rod End Covers
- D** – Rack Mount Rubbers
- E** – Rack Mounts



Upgrade Rack Mounting Kit

- F** – Aluminium Rack Mounts
- G** – Plastic Pads (fit between chassis and rack)



Before mount the steering rack, if fitting the wide track suspension, 15mm needs to be trimmed off the end of each steering rack arm. This is only done if fitting the wide track, no not cut if fitting standard track suspension.

If the aluminium upgrade rack mounts are being fitted, proceed to step 2

1. Slide the mount rubbers over the rack, if they are tight use some silicone spray or rubber grease. The rubber mounts are sided, with one mount being larger than the other.

2. Place the rack in its position and attach the rack mounts. (If using aluminium mounts, you need to place the plastic pads between the chassis and the rack, the larger mount has one pad and the small mount uses two pads). Attach the mounts using:

- 4 x 25mm long x 8mm bolt
- 8 x 8mm plain washer
- 4 x 8mm plain washer

Torque the rack mounting bolts to 27n/m (20 ft/lbs)



3. Using a pair of scissors or a knife, cut the end off the track rod covers. The cut should be made approximately 5mm from the pointed end.





4. The procedure differs slightly for standard and wide track suspension.

A – Standard track suspension requires the track rod cover to be placed over the steering rack arms. Then the track rod end and locking nut can then be wound onto the rack arms.

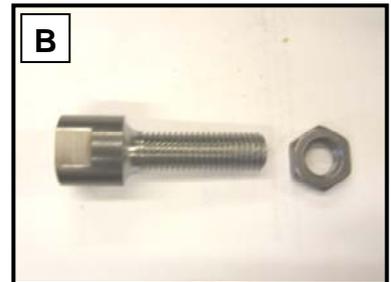
As a rough guide, wind the track rod end on until there are only four to five threads showing.



B – Wide track suspension requires firstly the cover to be placed over the arm. Then a locking nut to be wound onto the shortened steering rack arm, followed by the lengthening adapter. This is wound on as far as possible and the lock nut tightened up against it.

The track rod end can then be wound on with a lock nut.

As a rough guide, wind the track rod end on until there are only four to five threads showing.





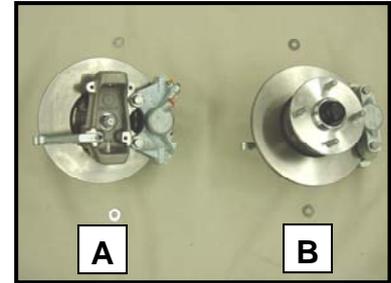
Fitting The Front Upright

The Westfield front uprights are supplied as a complete assembly, with the hub, brake disc and callipers fitted. To identify between the two uprights, use the following points.

A – Right Hand Side

Steering arm pointing forwards and located at the bottom of the upright.

RH cast into the upright behind the bottom ball joint



B – Left Hand Side

Steering arm pointing forwards and located at the bottom of the upright

LH cast into the upright behind the bottom ball joint



The front brake discs have a protective coating that must be removed with a solvent cleaner, such as white spirit before assembly. While cleaning the discs do not allow the brake pad to become contaminated with solvent and make sure that the discs are dry before assembly.

1. Identify the correct upright assembly, attach it to the bottom ball joint. Torque the nuts to 34n/m (25 ft/lbs)

1 x 12mm plain safety washer

1 x 12mm Metaloc nut (**supplied on ball joint**)

Make sure the safety washer is fitted correctly



2. Locate the upright into the top ball joint, when tightening the Metaloc nut, direct pressure to the ball joint top may be required to stop the joint turning. Torque to 34n/m (25 ft/lbs)

1 x 12mm safety washer

1 x 12mm Metaloc nut (**supplied on ball joint**)

Make sure the safety washers is fitted correctly



3. Fix the track rod end to the steering arm, the rod pin should go up through the steering arm. Torque to 38n/m (28 ft/lbs)

1x 10mm Metaloc nut (**supplied on track rod end**)



