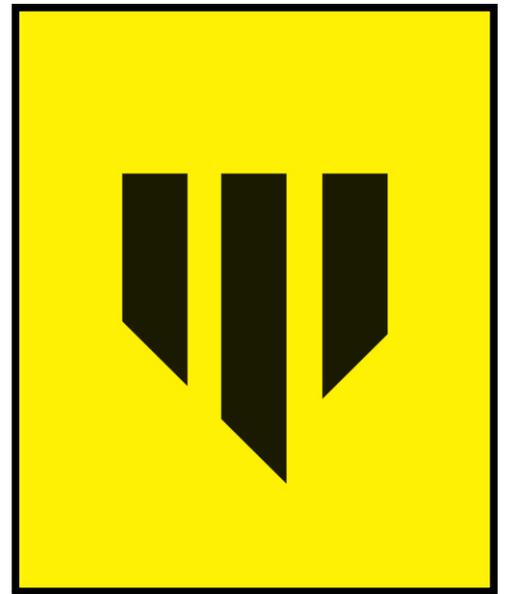


Code: Z179F

Rev A

INSTRUCTIONS



Contents:

1. 2 x Alloy mounts with pre fitted poly bushes and centre tubes.
2. 2 x M16 nyloc nut
3. 2 x large chamfered washers
4. 1 x grease satchel

Fitting: (Please read the complete instructions before commencing work).

1. Lift the front of the car with wheels at full droop and support on vehicle safety stands.

Note; Vehicles equipped with manual transmission. For ease of removal and fitment, remove gearbox crossmember.

2. Loosen existing rear lower control arm nut.

3. Remove lower control arm rear bush bracket to chassis bolts.

4. Remove rear control arm-rear mount nut. Slide OE mount off the control arm.(use a lever to pry control arm away from the body).

5. Inspect and clean end of control arm ensuring that there is no residual dirt or rubber bonded to any mounting surface. Clean as necessary. Failure to do so may result in premature wear and bush noise.

6. Select appropriate mount (#1) and lightly grease (#4) all bush to metal surfaces.

NOTE: Vehicles with alloy control arm have a remountable flange face washer that **MUST** be retained.

7. Reverse the procedure and refit new alloy mount (#1) to control arm. Note the orientation of the mount/bush, large bush flange to face front.

8. Loosely fit new nyloc nut (#2) and new chamfered washer (#3) supplied. Note the orientation of the washer, chamfered side to face bush.

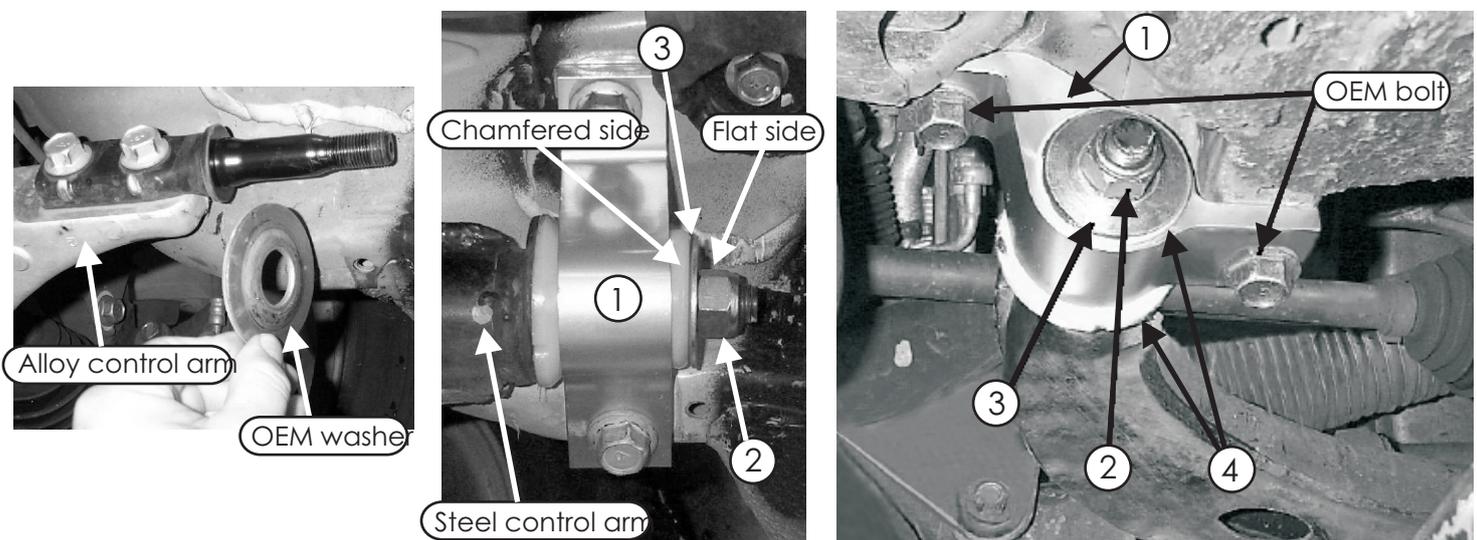
8. Refit OEM mounting bolts, do not tighten at this stage.

9. Repeat procedure for the other side.

10. Lower the vehicle back to normal ride height and bounce the front of the vehicle. Tighten mount to chassis bolts to 250 Nm (184 ft-lb). Then tighten control arm to rear mount nut to 190 Nm (140 ft-lb).

11. Test drive, and re-tension all fittings.

12. Check wheel alignment, and adjust as required.



Warning: Please drive carefully while you accustom yourself to the changed vehicle behaviour.

Front Roll Centre Kit

Application:

Subaru - various platforms

Always refer to current catalogue for complete application listing.

Contents:

2x Engineered Ball-joints with boots

2x Engineered Tie-rods with boots

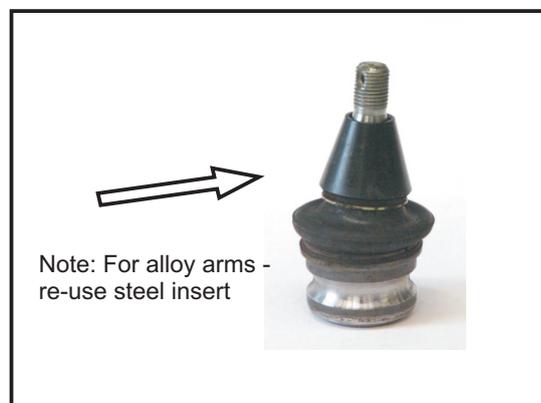
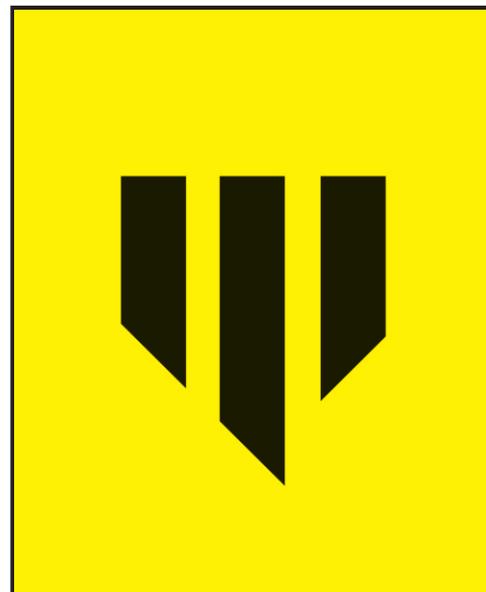
WHITELINE Roll Centre adjust kit - is designed to raise front roll-centre geometry by using new special ball-joints, also improving original bump-steer by using new tie-rod ends.

Changing front suspension geometry by raising roll-centre, results in substantial increase to roll resistance and significant reduction of suspension compression of outside front wheel during cornering through improved weight transfer distribution. During cornering, this leads to significantly reduced understeer through reduced front wheel compression, as well as improved steering feel and precision and vehicle stability.

Fitting Instructions:

Please carefully read and follow complete fitting instructions and check kit components prior to fitment. Whiteline recommends that all work be carried out by a qualified technician.

1. It is recommended to measure wheel alignment settings prior to fitment.
2. Raise the vehicle with a hoist / lift or alternatively raise, support on safety stands and remove front wheels.
3. Disconnect front swaybar endlinks off lower control arms.
4. Remove ball-joint pin to control arms split-pins, undo retaining nut, and using a suitable tool separate the ball-joint from the control arm.
Warning: Do not strike any parts with a hammer as this could result in permanent damage. Always use appropriate ball-joint separator tool.
5. Undo ball-joint housing to hub retaining nut and remove through bolt.
6. Lever the control arm down, remove original ball-joint from the hub, and replace with new Whiteline ball-joint.
Note: On vehicles equipped with alloy control arms, ensure that the original steel tapered insert/reducer is removed off the original ball-joint and re-used with Whiteline ball-joint. Refer image.
7. Refit ball-joint to hub retaining bolt and tighten to manufacturer's torque setting.
8. Connect the control arm to ball-joint, and secure with new nut. Tighten to manufacturer's torque setting. Secure with new split-pins supplied.
9. Reconnect swaybar endlinks, and tighten all hardware to manufacturers torque settings.
10. Remove tie-rod end safety split-pins, and loosen tie-rod end to steering arm and hub lock nuts.
11. Using a ball-joint separator tool, loosen original outer tie-rod ends in the hub. Completely remove top nut, remove tie-rod ends from the hub, and undo from steering arms.
Warning: Do not strike any parts with a hammer as this could result in permanent damage. Always use appropriate ball-joint separator tool.
12. Fit new outer tie-rod ends and tighten with new nuts supplied and original steering arm lock-nuts. Tighten to manufacturer's torque setting. Secure with new split-pins supplied.
13. Refit front wheels, and lower the vehicle.
14. Test drive the vehicle, and check tension on all fasteners.



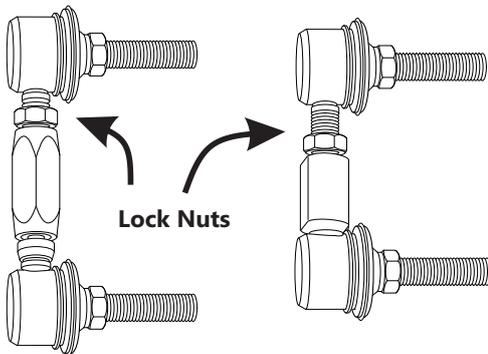
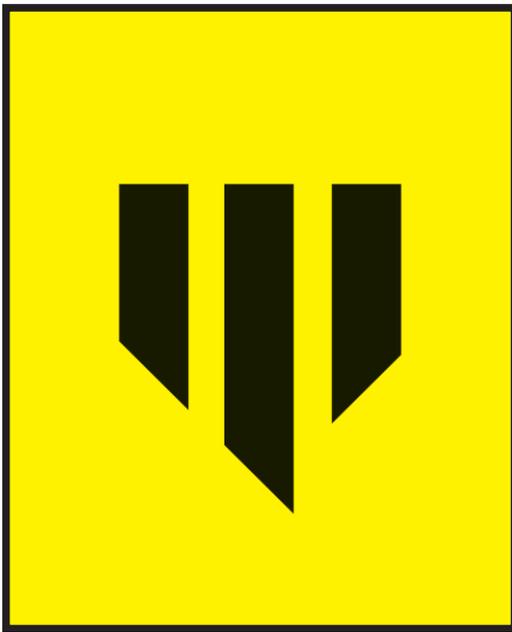
Warning: Please drive carefully while you accustom yourself to the changed vehicle behaviour.

Installation Guide

Performance Swaybar Links - Live Adjustable

(This installation guide should be used in conjunction with the workshop manual)

WHITELINE HEAVY DUTY swaybar links improve swaybar function and reaction time - due to forged steel, low-compliance ball joints along with live-adjustable turn buckles made from 6061 heat treated aluminium.



- Raise vehicle evenly and safely support.

Never rely on a Jack only

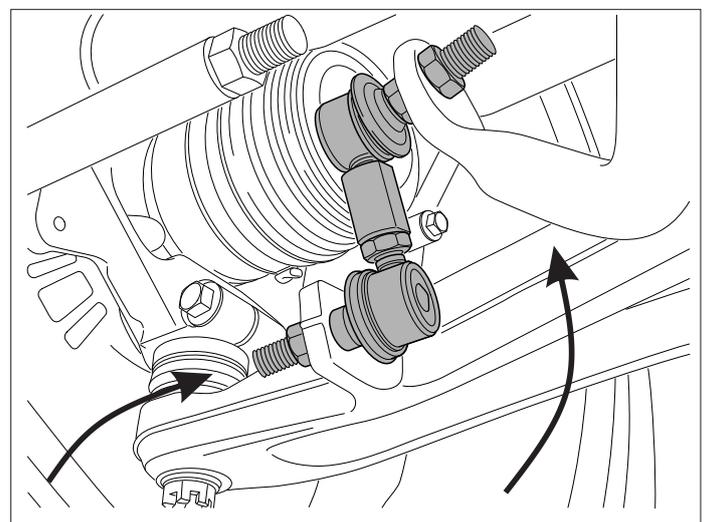
Note - Swaybar links are best accessed with wheels at full droop.

- Lubricate all threads before un-bolting old links

Take note of original link position and stud direction before removing. Or replace one link at a time.

- Remove old link and place next to new WHITELINE link.
- Loosely adjust WHITELINE link to similar length to old link length - do not tighten lock nuts yet.

Note - if vehicle is very low (or high) - a different length link may be entertained — *Refer Page 2*



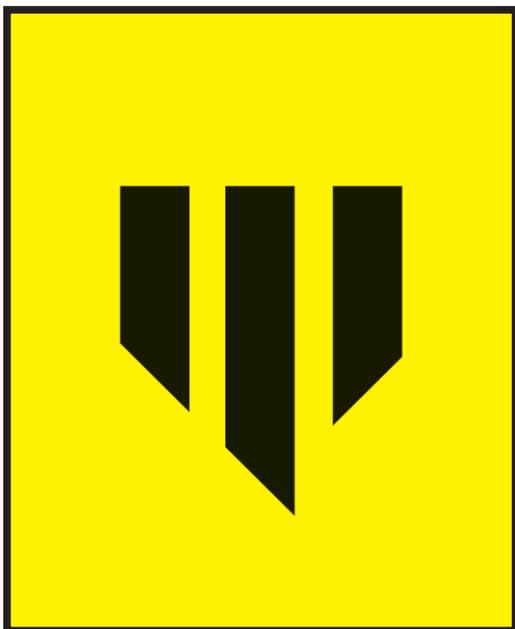
Subaru Example - note swaybar location and link stud direction

Installation Guide

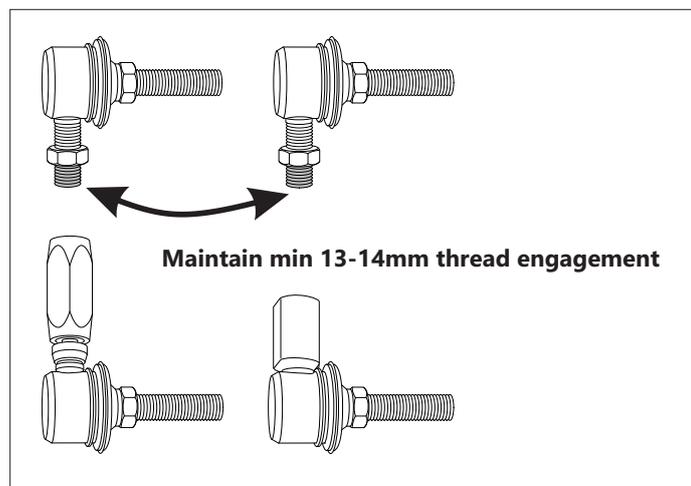
Performance Swaybar Links - Live Adjustable

(This installation guide should be used in conjunction with the workshop manual)

IMPORTANT - Big diameter/performance swaybars add significant stress to swaybar links. WHITELINE recommends a minimum thread engagement of 13-14mm - refer image below. WHITELINE supply 'hardened/thick washers' to maintain solid contact to swaybar blade, ensuring excellent operation.



Toyota Example below - swaybar performance is best with swaybar near 90 degrees to swaybar link



Subaru Example below - place hardened washers either side of swaybar blade

- Place 1x hardened washer over each stud before pushing through swaybar hole.
- Proceed to bolt up new links to vehicle.

IMPORTANT - confirm supplied hardened washers are placed either side of swaybar blade (and vehicle control arm)

- Tighten ball joints with supplied flange nuts, then proceed to fine tune turn buckles.

WIND centre turn buckles - lengthen or shorten link length until there is **zero** pre-load on swaybar. Now tighten lock nuts.

If possible, this is best done at ride height.
(wheels on ramps)

- All nuts to be re-torqued after 100-200kms

