

MIR3080

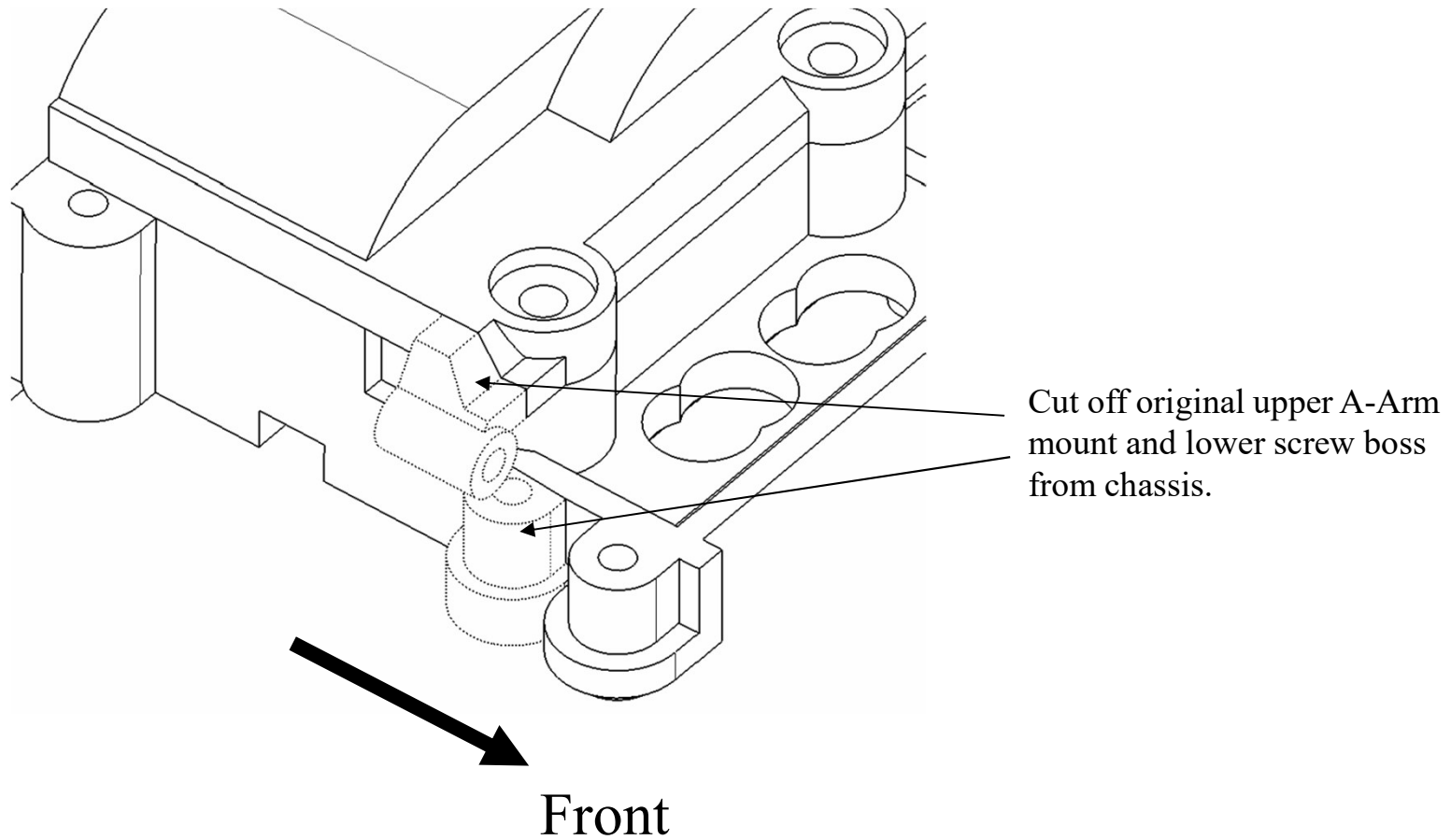
V4 MR03 PNR2.5W Front A-Arm Suspension Instructions

Rev. 210513

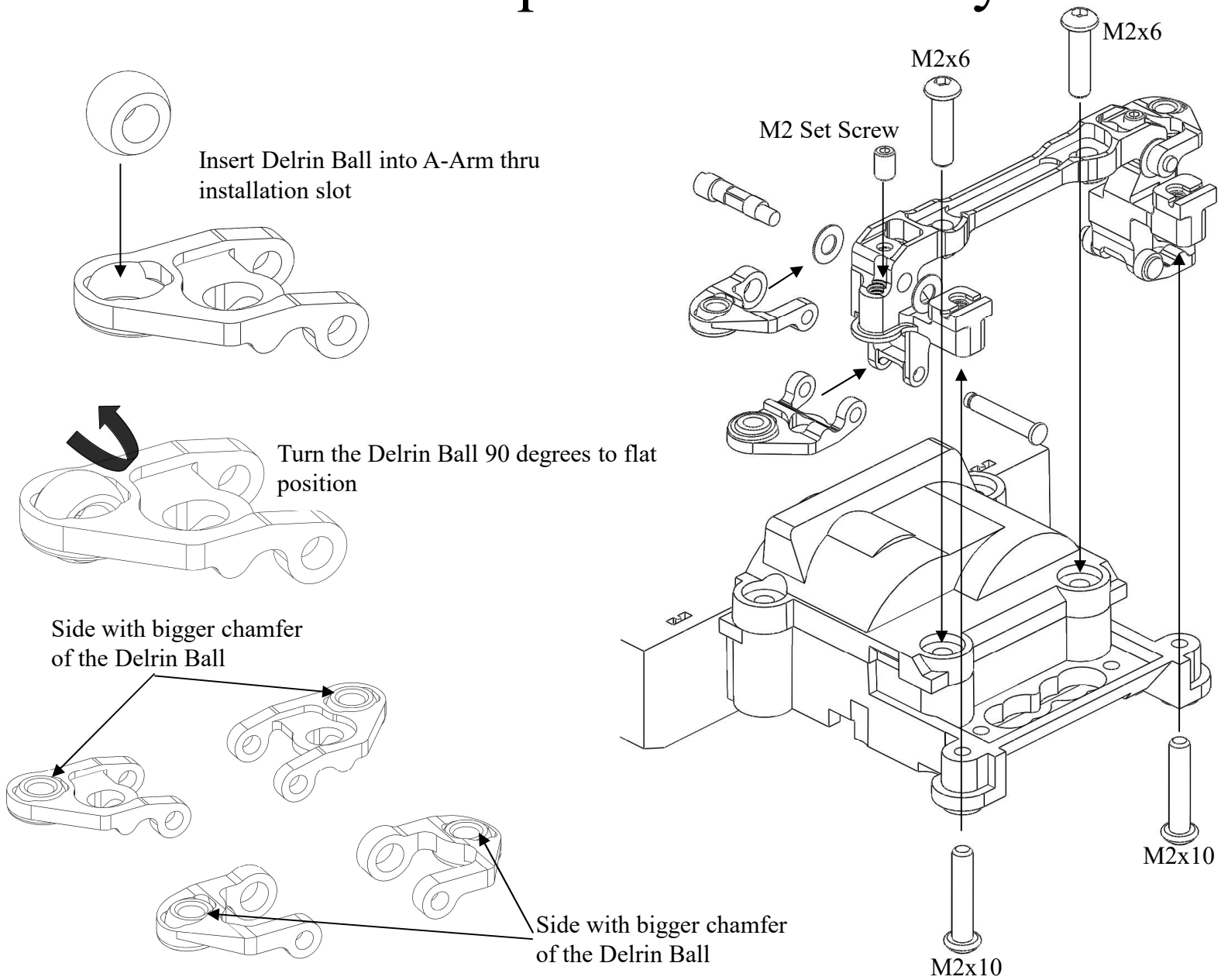
# V4 MR03 PNR2.5W A-Arm Front Suspension

- Unequal length A-Arm suspension for MR-03 and PNW2.5W chassis.
  - Modeled after full scale performance car suspension for realism.
  - Double A-Arm suspension gives good control of suspension geometry and roll center during travel.
  - Camber change with suspension compression during cornering keeps wheels near vertical for maximum tire contact with road. Allows for precise cornering and maximum road holding.
- Direct suspension swap
  - Same width as stock.
  - Ride height adjustment with two position off-set axle base to knuckle mounting system. Allow for stock height or 0.4mm drop.
  - Steering axis moved outward .5mm for lower steering scrub and faster steering. Overall axle width still remain the same to fit Auto Scale bodies.
  - Optional #MR3080A3 Oversize 3mm Axle for use with #600126 3x6x2mm wheel ball bearing.
- No bump steer throughout suspension travel.
- Suspension movement use ball joints instead of sliding knuckle. Eliminates stiction associated with sliding pin especially with high offset wheels.
  - Low stiction results in consistent cornering.
- Machined Delrin ball socket instead of snap fit. Joints will not pop out even during hard collision.
- Adjustable camber from 0-3° degrees with 1.3°/mm of camber gain.
- Adjustable caster from 0-1.8° degrees
- 4 position adjustable upper A-Arm pivot
  - Changes camber gain, static camber and roll center
  - Quick adjustment with set screw
- Includes 3 tie-rods: 0° , +.5° and +1°
- Quick down stop adjustment with turn of a nut
- Benefits of the sophisticated suspension system are precise cornering and maximum road holding which adds to mini-z driving pleasure

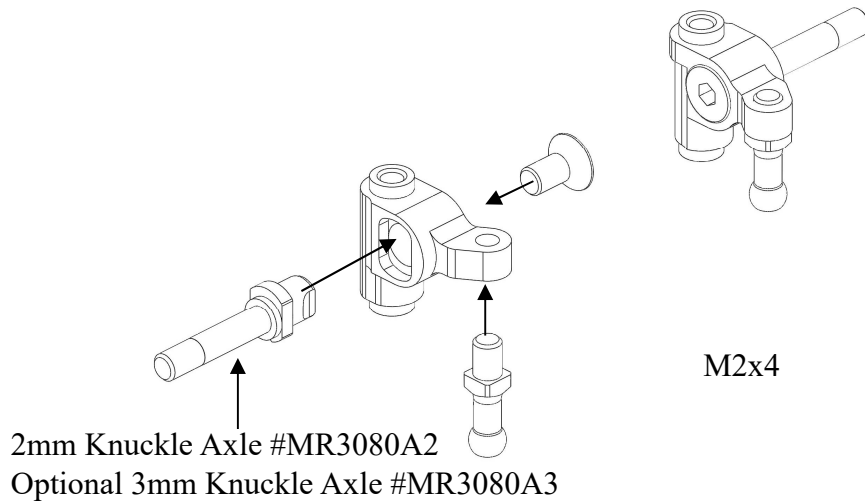
# Chassis Preparation



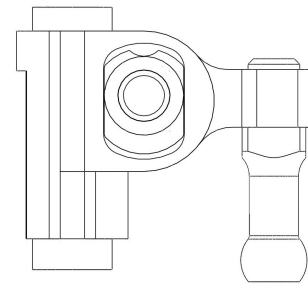
# A-Arm Suspension Assembly 1



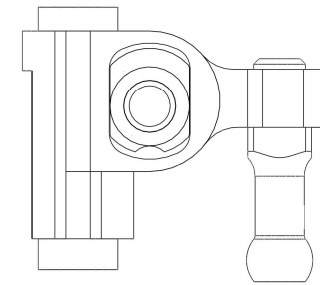
# A-Arm Suspension Assembly 2



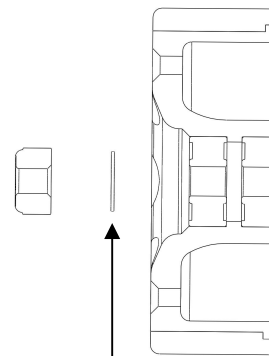
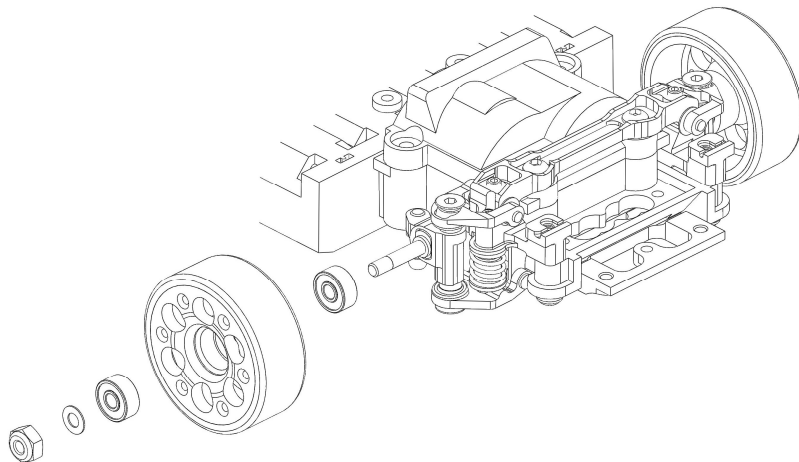
## Adjustable axle ride height



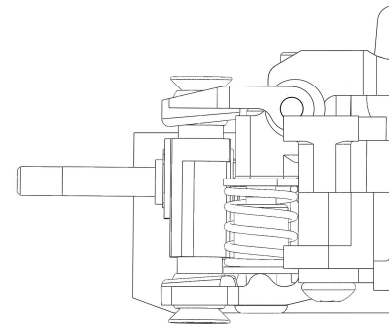
Low down 0.4mm



Standard height

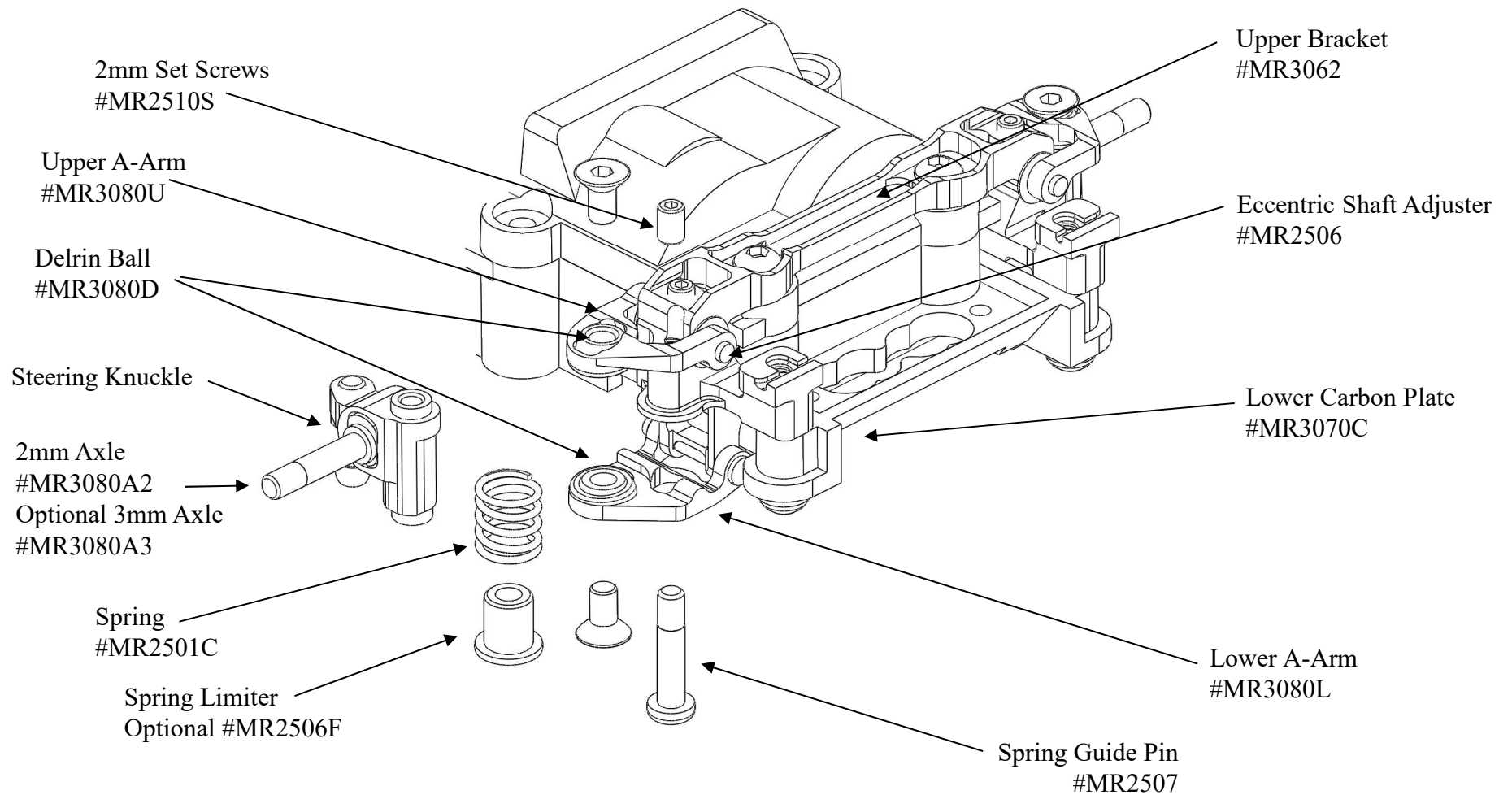


Place shim outside for  
Stock Wheel offset



Place shim inside for  
+0.2mm Wheel offset

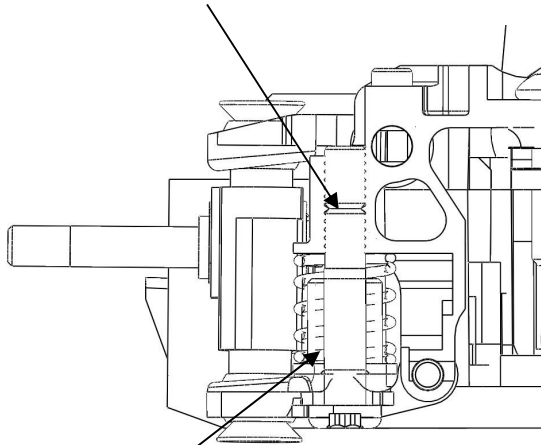
# A-Arm Suspension Assembly 3



# Suspension Adjustment

## Droop Adjustment

Tighten set screw after droop adjustment



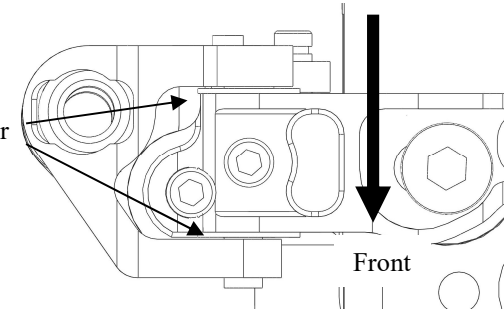
When bottom of A-Arm is horizontal with ground, suspension is at stock ride height. Each additional  $\frac{1}{4}$  turn of spring guide screw drops ride height by .2mm, or 1 washer equivalent of suspension drop.

## Tie Rod Adjustment

Due to wide track feature of the A-Arm suspension, wider tie-rods are necessary to compensate for geometry. Included are  $0^\circ$ ,  $+5^\circ$  and  $+1^\circ$  toe out tie rods. Optional  $+1.5^\circ$  #MR3050T,  $+2.0^\circ$  #MR3050Q. If a stock MR03 tie rod is used, a  $+3.5^\circ$  toe out will be equivalent to  $0^\circ$  on the A-Arm suspension.

## Caster Adjustment

Two washers in front =  $0^\circ$  caster  
Washer on both sides =  $.9^\circ$  caster  
Two washer in rear =  $1.8^\circ$  caster



## Camber Gain and Camber Adjustment

