

Tuning and Setup

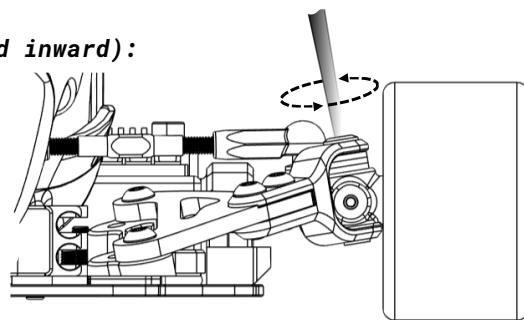
Camber Adjustment: The front camber is adjusted by rotating the eccentric king-pin (CR2006) inside the steering knuckle, thereby altering the stub axle angle relative to the chassis

Increasing negative camber (top of the wheels tilted inward):

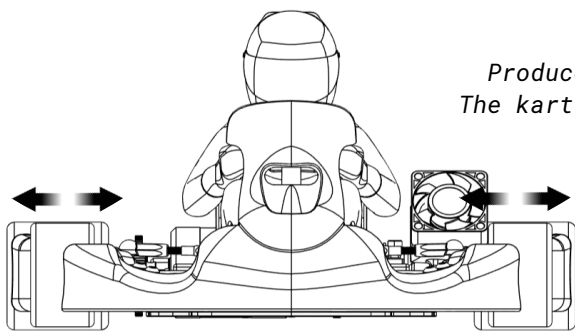
Increases front-end grip during cornering by maintaining a more consistent tyre contact patch as the chassis rolls. This improves steering response and mid-corner grip.

Reducing negative camber (toward zero):

Decreases overall front grip, resulting in smoother more stable steering. The kart will feel less aggressive on turn-in and easier to drive.



Front Track Width Adjustment: Front track width is adjusted using 1mm stub axle spacers. Optional 0.5mm spacers (Option CR2009-05) can be used for finer tuning.



Increasing front track width (adding spacers)

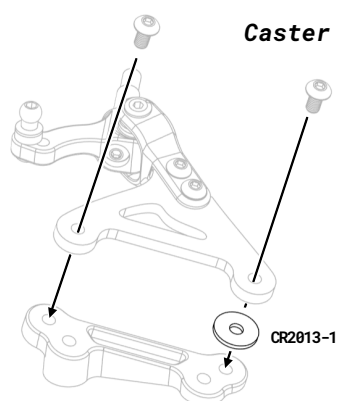
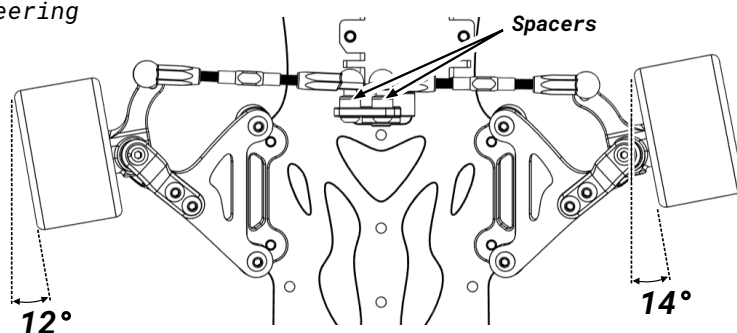
Produces a more stable and forgiving steering response. The kart will feel less reactive on turn-in and easier to drive, especially in high-speed sections.

Decreasing front track width (removing spacers)

Increases steering aggressiveness. The kart will respond more quickly to input, providing sharper turn-in but potentially making it more nervous or twitchy.

Ackermann Adjustment: To effect the rotation of the chassis through a corner, the steering ackermann angle can be adjusted by changing the thickness of spacers between the servo saver horn and ball ends.

Reducing the thickness of spacer used will increase positive ackermann, causing the inside wheel to turn at a greater angle than the outside wheel, increasing corner rotation.



Caster Adjustment: Front caster is adjusted by adding or removing spacers under the front mounting point of the front control arm, between the arm and the front bulkhead. Adding optional spacers CR2013-1 (1.0mm), CR2013-05 (0.5mm) raises the front of the control arm, tilting the king-pin axis rearward and increasing caster angle.

Increasing caster (adding spacers)

Increases steering stability and smooths out the steering response especially at higher speeds.

Decreasing caster (removing spacers)

Produces a more aggressive steering response, particularly on corner entry.

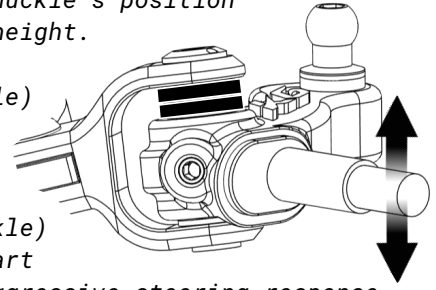
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Front Roll Centre Adjustment: Front roll centre is adjusted by changing the position of the two 1.5mm spacers **CR2016** on the kingpin. These spacers are placed either above or below the front steering knuckle, raising or lowering the knuckle's position relative to the chassis and altering the front roll centre height.

Raising the front roll centre (more spacers below the knuckle)
Reduces chassis roll and makes the front end more reactive.
Steering response becomes quicker and more direct, but can feel less forgiving, especially on low-grip surfaces.

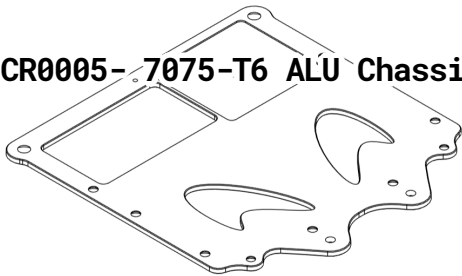
Lowering the front roll centre (more spacers above the knuckle)

Increases chassis roll and generates more front grip. The kart will feel smoother and more stable, but with slower, less aggressive steering response.

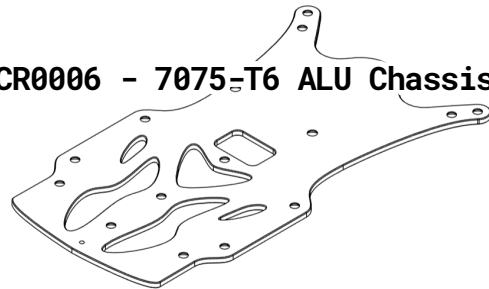


Chassis Flex: The supplied Forged carbon chassis plate mimics the torsional flexibility at the 'waist' of a real kart frame, giving you a responsive and organic driving feel. For those seeking a stiffer setup, the optional **CR0005 - CR0006** 2.0mm THK 7075-T6 ALU chassis plates offer reduced torsional flex over the Carbon version.

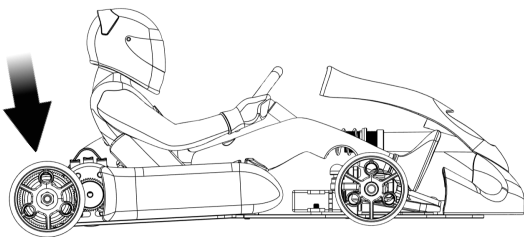
CR0005- 7075-T6 ALU Chassis



CR0006 - 7075-T6 ALU Chassis



Rear Droop: Rear droop is adjusted using the two set screws located in the rear pod (Part **CR2016D**), These screws control how far the rear pod can extend downward relative to the main chassis, effectively setting the rear droop angle.
Important: Both left and right droop screws must be adjusted equally.



Increasing rear droop (backing the screws out):
Allows the rear pod to extend further, increasing rear traction. This can help the kart feel more planted, especially over bumps.

Decreasing rear droop (turning the screws in):
Limits rear pod movement, reducing rear traction and making the kart feel more responsive.

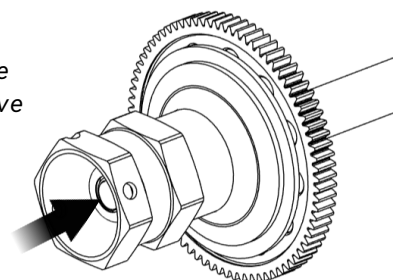
Ball Differential Adjustment: The differential is adjusted by tightening or loosening the **M4 nylon nut**, which compresses the internal balls and plates to change the slip level.

Tightening the differential:

Reduces slip between the rear wheels, increasing forward drive and acceleration. The kart will feel more direct and responsive under throttle, but may become less forgiving and more prone to breaking traction in corners.

Loosening the differential:

Increases slip, making the kart smoother and easier to drive. This can improve cornering consistency but may reduce forward drive and acceleration out of corners.



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Centre Pivot - Pitch Damper System: Pitch Damper System controls chassis rotation (pitch) around the centre pivot. It plays a critical role in rear traction, corner entry stability, and overall chassis response. Proper tuning of this system allows the kart to be adjusted for different track conditions and driving styles.

1. Spring Rate (Coil Spring)

Softer spring: Increases rear traction, Improves grip on low-traction surfaces
Produces more weight transfer

Stiffer spring: Reduces chassis movement, Improves responsiveness and stability in high-grip conditions, Prevents excessive weight transfer

2. Damper Oil (Damping)

Lighter oil: Faster chassis movement, more responsive weight transfer, better for low-grip or bumpy tracks

Heavier oil: Slower - more controlled movement, increased stability in high-speed sections, reduces oscillation and "bounce"

3. Preload (Ride Support)

Increasing preload raises initial chassis support and reduces initial movement
Reducing preload allows earlier engagement of the suspension, improving grip

4. Tuning Guidelines

Low grip tracks:

Use a softer spring, lighter oil, and increased travel to maximise traction.

High grip tracks:

Use a stiffer spring and heavier oil to maintain stability.

Smooth tracks:

Run slightly stiffer settings for precision.

Bumpy tracks:

Use softer, freer movement to maintain tyre contact.

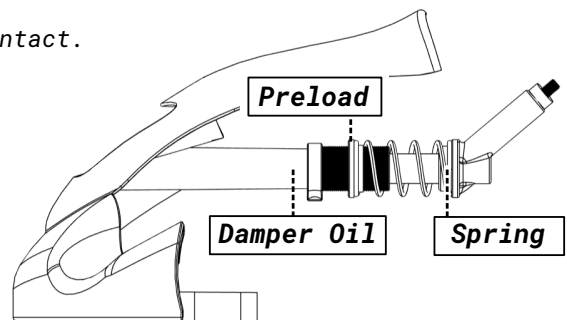
Capelli K6 Damper Springs

#CR0900 - Damper Spring orange SOFT

#CR0900 - Damper Spring green MEDIUM

#CR0900 - Damper Spring yellow MED-HARD

#CR0900 - Damper Spring pink HARD

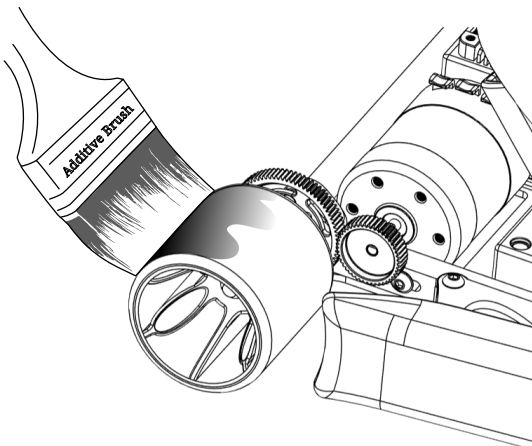


Capelli Racing Silicone Damper Oil

#CR0SIL-S - Silicone Oil SOFT

#CR0SIL-M - Silicone Oil MEDIUM

#CR0SIL-H - Silicone Oil HARD



Foam Tyre Treatment: To achieve optimal performance it is crucial to apply a chemical tyre additive to the rear foam tyres entire width.

This is particularly important when racing on low grip surfaces, such as asphalt.

Allow sufficient time for the chemical to soak into the foam and soften the tyres.

The soaking time can vary from 30 minutes to overnight in a sealed container, depending on the desired effect.

Once the chosen soaking time has elapsed, gently wipe the excess additive from the surface of the tyre before hitting the track.