



## KARTSPORT NEW ZEALAND MANUAL

### SECTION S – SUPERKART

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#### S SUPERKART

This Section includes key variations related to SuperKart racing. Where this Section is silent the relevant Sprint racing Rules, Codes and Specifications apply. Competitors must also be familiar with all other relevant Sections of the Manual.

#### S1 SUPERKART CHAMPIONSHIP CLASSES

##### S1.1 KZ2

125cc reed valve engine as homologated by the CIK for the KZ2 class with the homologated gearbox ratios, homologated exhaust pipe and a CIK homologated inlet silencer and exhaust silencer for the respective engine.

MAW: 184kg.

Fuel: Pump petrol (Rule L4.1)

Wheels: 5". The front and rear wheels must have a minimum of three bead locks fitted on the outside of each rim.

The tyre manufacturer's minimum tyre pressure settings must be observed.

For further information (Rule N3, N4, N5 and N6)

Karts must comply with Sprint chassis rules (K1) unless otherwise noted.

No belt drives, axle clutches or semi laydown seats.

Bodywork: (Rule S3.4.1)

No seat may be at less than 45° measured to the horizontal.

##### S1.2 125cc ROTAX MAX LIGHT

Eligible engine: Bombardier Rotax FR125 Max to KartSport New Zealand specs.

MAW 165kg.

Fuel: Pump petrol (Rule L4.1)

Tyre restricted class. (Rule L3.5)

Front and rear dry tyre wheels must have a minimum of three bead locks fitted on the outside of each rim.

Brakes: Front wheel brakes not permitted.

Karts must comply with Sprint chassis rules (K1) unless otherwise noted.

No belt drives, axle clutches or semi laydown seats.

Bodywork: (Rule S3.4.1)

No seat may be at less than 45° measured to the horizontal.

- S1.3 125cc ROTAX MAX HEAVY**  
 Eligible engine: Bombardier Rotax FR125 Max to KartSport New Zealand specs.  
 MAW 185kg.  
 Fuel: Pump petrol (Rule L4.1)  
 Tyre restricted class. (Rule L3.5)  
 Front and rear dry tyre wheels must have a minimum of three bead locks fitted on the outside of each rim.  
 Brakes: Front wheel brakes not permitted.  
 Karts must comply with Sprint chassis rules (K1) unless otherwise noted.  
 No belt drives, axle clutches or semi laydown seats.  
 Bodywork: (Rule S3.4.1)  
 No seat may be at less than 45° measured to the horizontal.  
 (**Note:** A competitor is not permitted to compete in more than one 125cc Rotax Max class at any one event.)
- S1.4 NATIONAL 250**  
Minimum Age: 17 years old.  
Eligible engines: Any single cylinder 2 stroke engine not exceeding 250cc.  
Carburettor: Single carburettor, venturi size and shape open.  
MAW: International SuperKart chassis: 215kg  
Sprint chassis: 205kg  
Chassis: International SuperKart or Sprint Chassis Chassis (Rule S3)  
6" Dry and Wet tyres only. Dry tyres must have a 220kph minimum speed rating.  
The tyre manufacturer's minimum tyre pressure settings must be observed.  
Rear wheels must have a minimum of three bead locks on the outside and three bead locks on the inside of each rim.  
Front wheels must have a minimum of three bead locks fitted on the outside of the rim.  
Fuel: Category 1 or 2 (Rule L4.1)  
Brakes (Rule S3.8)  
Bodywork: (Rule S3.4.2)
- S1.5 INTERNATIONAL**  
Minimum Age: 17 years old.  
 Eligible engines: Any engine or combination of 2-stroke engines not exceeding 250cc.  
 MAW: 220kg  
 Chassis: International SuperKart chassis (Rule S3)  
 6" Dry and Wet tyres only. Dry tyres must have a 220kph minimum speed rating.  
 The tyre manufacturer's minimum tyre pressure settings must be observed.  
 Rear wheels must have a minimum of three bead locks on the outside and three bead locks on the inside of each rim.  
 Front wheels must have a minimum of three bead locks fitted on the outside of the rim.  
 Fuel: Category 1 or 2 (Rule L4.1)  
 Brakes (Rule S3.8.1)  
 Bodywork: (Rule S3.4.2)

**S1.6****NATIONAL 125**

Eligible engines: Any single cylinder 2 stroke engine not exceeding 125cc.

Carburettor: Single carburettor, venturi size and shape open.

MAW: 210kg

Chassis: International SuperKart chassis (Rule S3)

6" Dry and Wet tyres only. Dry tyres must have a 220kph minimum speed rating.

The tyre manufacturer's minimum tyre pressure settings must be observed.

Rear wheels must have a minimum of three bead locks on the outside and three bead locks on the inside of each rim.

Front wheels must have a minimum of three bead locks fitted on the outside of the rim.

Fuel: Category 1 or 2 (Rule L4.1)

Brakes (Rule S3.8.1)

Bodywork: (Rule S3.4.2)

**S.1.7****ROTAX DD2**

Eligible engine: Bombardier Rotax 125 Max DD2 to KartSport New Zealand specs.

MAW: 185kg.

Clutch: Obligatory Must be original Rotax Clutch (Rule M2)

Primary drive gear ratios unrestricted.

Fuel: Pump petrol (Rule L4.1)

Tyre restricted class: (Rule L3.5)

Front and rear dry tyre wheels must have a minimum of three bead locks fitted on the outside of each rim.

Brakes: Operating on front and rear wheels mandatory.

Karts must comply with Sprint chassis rules (K1) unless otherwise noted.

No semi laydown seats allowed. No seat may be at less than 45 degrees measured to the horizontal.

Bodywork: (Rule S3.4.1)

Rotax rear protection system must be fitted (ref Rule K1.6)

Chassis: 125-MAX-DD2- specific

**S2 SUPERKART GRAND PRIX CLASSES**

Each Grand Prix winner is entitled to use the letters 'GP' as race plates up to and including the next respective New Zealand Grand Prix.

**S2.1****ROTAX GRAND PRIX**

Rotax DD2 as per Rule S1.7

125cc Rotax Max Light as per Rule S1.2

125cc Rotax Max Heavy as per Rule S1.3

Mixed Grid as per Time Trials, fastest to the front.

Class winners to be recognised.

**S2.2****OPEN GRAND PRIX**

KZ2 as per Rule S1.1

National 250 as per Rule S1.4

International as per Rule S1.5

National 125 as per Rule S1.6

Mixed Grid as per Time Trials, fastest to the front.

Class winners to be recognised

### S3 - CHASSIS SUPERKARTS

Exactly as for Sprint Karts unless otherwise specified.

**S3.1 MAXIMUM LENGTH:** No limit

#### S3.2 WHEELBASE:

##### S3.2.1 125cc Rotax Max Light, 125cc Rotax Max Heavy, Rotax DD2 and KZ2 Karts:

Minimum wheelbase: 1030mm  
Maximum wheelbase 1060mm.

##### S3.2.1 International, National 250 and National 125:

Minimum wheelbase: 1030mm  
Maximum wheelbase: 1300mm

**S3.3 MAXIMUM HEIGHT:** 700mm. All classes except for head rests in the National and International classes.

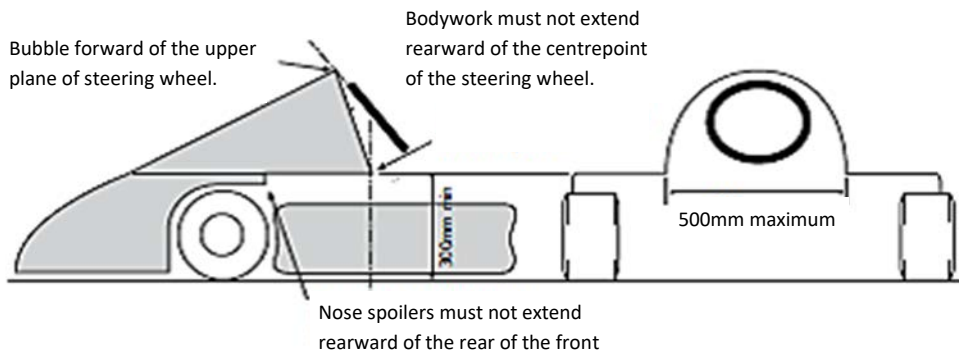
**S3.4 BODYWORK:** Fairings, Spoilers, Bubbles and Wings: Bodywork must be of safe and sound construction and must be securely fastened to the frame. Bodywork must be so designed in such a way that it does not come into contact with the track.

If a competitor loses a Fairing, Spoiler, Bubble, Sidepod or Wing from the kart during practice or competition he/she must immediately cease practice/competition and return directly to the pits.

##### S3.4.1 125cc Rotax Max Light, 125cc Rotax Max Heavy, Rotax DD2 and KZ2 Karts

- Nose Spoiler, Nosecone and Bubble are the only aerodynamic devices permitted.
- Side pods (Rule K1.43).
- Floor tray: OEM for chassis or same shape/size as OEM. Original chassis mounting points to be used. Securing nuts must be on the top of the floor tray.
- No skirts or sealing devices are allowed below the frame rails.
- Nose Spoiler may not extend behind the rear of the front tyres.
- Bubble must be forward of the upper plane of the steering wheel when it is in the straight-ahead position and not wider than 500mm (chord). The sides of the Bubble must not be lower than 300mm from the ground.
- The Bubble and Nose Spoiler floor must be of non-metallic material.
- Front end bodywork must not extend rearward of the centre point of the steering wheel.
- Nose Spoiler and Bubble joined to create one piece bodywork complying with the silhouette below and specification/dimensions above and below is permitted.

**NOTE:** Rule K1.8 applies to all bodywork.

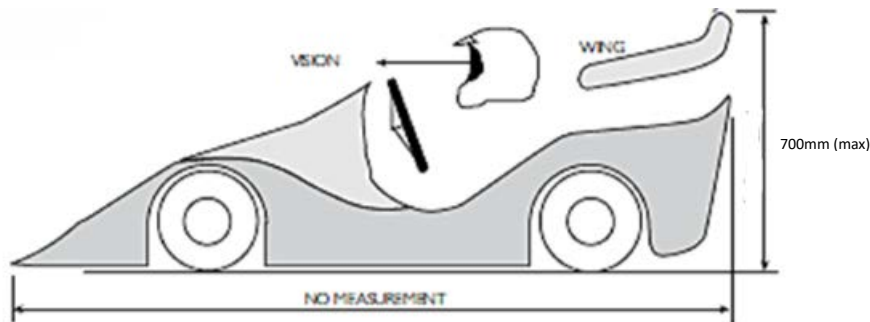


**S3.4.2 National 125, National 250 and International Karts:**

- Nose Spoiler, Nosecone and Bubble permitted.
- Full bodies permitted but the centre section must be secured by quick release fasteners.
- Bodywork shall not extend in width more than 50mm beyond the outer edges of the front and rear tyres.
- Bodywork must not cover the front and rear tyres in the vertical plane when the steering wheel is in the straight-ahead position and not impede the safe exit of the driver from the kart.
- Bubbles, if fitted, must be forward of the upper plane of the steering wheel when it is in the straight-ahead position and not wider than 500mm (cord). Bubble must be of non-metallic material.
- Side pod shape is non-tech.
- Undertray (floor tray) must be of suitable non-perforated material and as a minimum confined within the main frame rails and be parallel to the frame. Securing nuts must be on the top of the floor tray. Under tray must extend from forward of the driver's feet to a minimum of between the front edge and lowest point of the seat. If extended past the lowest portion of the seat it is not to extend past the end of the rear chassis rails. If the floor tray extends outside the chassis rails it must be confined within the bodywork.
- No skirts or sealing devices are allowed below the frame rails.

**S3.5 VISION:** A driver must be able to look over the steering wheel in the driving position. Vision through or under the steering wheel is not permitted.

**S3.6 AEROFOILS, WINGS:** Must be securely fixed to the kart and locked in one position. They must not be able to be adjusted while the kart is in motion. Aerofoils cannot be used as containers. The leading edge of an aerofoil must have a minimum radius of 5mm. (Note: This does not include Side Plates and End Plates.). No sharp edges allowed.



**S3.7 CLUTCH:** All karts in this type of competition must be fitted with an operative clutch which will allow the kart to freewheel.

**S3.8 BRAKES**

**S3.8.1 INTERNATIONAL CHASSIS**

Two independent systems must be fitted. These being either front and rear brakes or twin systems operating twin rotors or drums on the rear axle. All other specifications in Rules K1.14 and K1.15 will apply. Twin systems to mean two master cylinders, two hoses, two callipers, two rotors

**S3.8.2 SPRINT CHASSIS** Rules K1.14 and K1.15 apply.

**S3.9 RAIN LIGHT:** A red rain light is mandatory. It must be either a unit approved by the CIK-FIA ([http://www.cikfia.com/fileadmin/content/REGULATIONS/Technical/Technical%20Lists/1\\_Technical%20List%20of%20Lights%20for%20Rain%20Homologated%20by%20the%20ASNs%20and%20Approved%20by%20the%20FIA.pdf](http://www.cikfia.com/fileadmin/content/REGULATIONS/Technical/Technical%20Lists/1_Technical%20List%20of%20Lights%20for%20Rain%20Homologated%20by%20the%20ASNs%20and%20Approved%20by%20the%20FIA.pdf) ) or a Narva L.E.D Trailer Stop/Tail Lamp part number 93816BL mounted horizontally. The brighter brake light circuit of the lamp must be used.

International SuperKart chassis classes are permitted to use a L.E.D vehicle brake light or L.E.D vehicle high stop light mounted horizontally.

In operation the light must be static. It must be powered by a fully sealed 12 volt battery that complies with Rule K1.37 and is controlled by a waterproof switch fitted within 150mm of the steering wheel.

For Rotax Max and Rotax DD2 classes it is a permitted option to power the rain light by a second fully sealed 12 volt battery that complies with Rule K1.37.

The light must be placed in an area located 400-600mm from the ground and 100mm maximum from either side of the central axis of the kart and must be rear facing and clearly visible by following karts. It must be in good working condition throughout the event displaying maximum light output.

It must be switched on when the race is declared "wet" by the Clerk of Course and is recommended to be switched on in any conditions where visibility may be reduced.

The Chief Steward's decision on the suitability and effectiveness of the rain light will be final.

**S3.10 BUMPERS:** Front and rear bumpers must be fitted (Rule K1.5 and K1.6). Maximum overhang (Rule K1.5 and K1.6) does not apply.

The lower Bar, Bar 2, (Rule K1.6) is optional on National and International class karts.

**S3.11 REAR AXLE: INTERNATIONAL, NATIONAL 250\_and NATIONAL 125:** The rear axle must be of magnetic steel material (checked for compliance using Rule M9) with a maximum outside diameter of 40mm and a minimum wall thickness at all points (except in keyway seats) of 2.5mm.

**S3.12 BUTTERFLY STEERING WHEEL:** Permitted on National and International chassis only.