



# ROTAX MAX CHALLENGE MALAYSIA 2022

## TECHNICAL REGULATIONS

To be read together with the Supplementary  
Regulations



AUTHORISED DISTRIBUTOR  
KARTING



<b>A</b>	<b>GENERAL REQUIREMENTS</b>	
1.	<b>Front Fairing Mounting Kit</b>	<p>The use of a CIK FIA homologated Front Fairing and the CIK FIA homologated Front Fairing Mounting Kit of the bodywork homologation period <b>2021 – 2023</b> is mandatory, in accordance with CIK Specific Prescriptions, article 30 and CIK Technical Drawing No 2d. The provisions of CIK Specific Prescriptions, article 30 regarding mounting, installation, checking, reporting of breaches and application of penalties will be applied in full.</p> <p>1.1 Clearance Between Minimum</p> <p>(i) Measurement between the top and bottom front bumper tubes, between the mounting brackets: 60 mm</p> <p>(ii) Measurement between the front bumper (upper and lower tubes) and the front fairing. (CIK Technical Drawing No. 2c): 27 mm</p> <p>1.2 From Qualifying until the Final, each kart must enter the Start Servicing Park with the front fairing fully detached. The Mechanic or the Driver himself must mount the front fairing in the Start Servicing Park under the supervision of a Scrutineer.</p> <p>1.3 During each Race it is only allowed to restore the front fairing to the correct position in the Repair Area.</p> <p>1.4 The black flag with an orange disc will not be shown to Drivers with front fairings in an incorrect position.</p>
2.	<b>Petrol and Lubricants</b>	<p>2.1 Two - stroke lubricant. Only Xeramic Synmax, fully synthetic 2T, kart racing oil is allowed. Fuel will be checked in the fuel tank with INOVA X5 led lights. The led light must show fuel coloured in green.</p> <p>2.2 C.I.K. approved fuel or commercial fuel on general sale. By commercial fuel it is meant a motor fuel produced by an oil company and currently distributed at roadside refilling stations throughout the country, on sale commercially and including no other additives. Any infringement of this rule will entail disqualification from the event. The Organisers may specify in the Additional Supplementary Regulations a particular fuel station to purchase all fuel and fuel testing may be conducted using fuel from that station as the base.</p> <p>2.3 Note the following Rotax Global Technical Regulations 2022: <b>2.11. Fuel/ Oil</b> Unleaded fuel 95-98 octane</p> <p>2.4 <u>Fuel Test procedure</u></p> <p>(a) <u>Digatron FT- 64 Fuel Meter Test</u></p> <p>(i) The Digatron meter is set to -75 in Cyclohexane (C<sub>6</sub>H<sub>12</sub>).</p> <p>(ii) Test is conducted by immersing the test probe into a sample removed from the competitor's fuel tank.</p> <p>(iii) The result of the test should be zero or a –ve number. Any fuel tested showing any number above 0, (meaning a positive number) will be considered illegal.</p> <p>(b) <u>Ceric Nitrate Reagent Testing</u></p> <p>(i) A fuel sample is taken and ceric nitrate reagent added and the mixture inverted a few times.</p> <p>(ii) If the reagent after settling down changes to orange or red, the fuel sample contains alcohol and is considered illegal.</p> <p>Any competitor found to be using illegal fuel and failing either of the above tests will be disqualified from the event and his/her results deleted from the records and no championship points will be awarded.</p>
3.	<b>Scrutineering</b>	<p>All karts shall conform to the C.I.K. Technical Regulations. Engines shall conform with the Global RMC Technical Regulation 2022 and the Global RMC Sporting Regulation 2022.</p> <p>The eligibility of all karts taking part in the competition will be checked by the duly appointed Scrutineers who shall not be required to give any reason for a decision they may take, but may at their absolute discretion require a driver to comply with their request. Drivers electing not to do so will be excluded from the competition.</p> <p>Drivers must present themselves and their kart, together with protective clothing, equipment and tyres for scrutineering at the scheduled time.</p>
	<b>Protective Clothing</b>	<p>Protective clothing must be CIK approved and must be produced at the time of scrutineering.</p> <p>(i) A helmet with an efficient and unbreakable protection for the eyes. For all classes, helmets must comply with the following prescriptions:</p> <ul style="list-style-type: none"> <li>- Snell Foundation SA2015, SA2010, SAH 2010, K2020, K2015, K2010.</li> <li>- FIA-CMS 2016, FIA-CMS 2007, CMR2016, CMR2007 (for under 15 years old).</li> <li>- FIA 8859-2015, 8860-2018, 8860-2018-ABP, 8860-2010, 8860-2010.</li> </ul> <p>The weight of helmets may be checked at any time during an event and must not be more than 1,300g for Juniors / Cadets. It must be noted that certain types of helmets must not be painted or carry adhesive material. In accordance with Appendix L to the International Sporting Code (Chapter III, Article 1.2), any addition of devices, whether aerodynamic or other, to helmets is forbidden if they have not been homologated with the helmet concerned. After scrutineering, the helmets will have an OK sticker pasted on them. Any driver found using helmets that were not scrutineered will be disqualified.</p>

	<p>(ii) A pair of gloves covering the hands completely.</p> <p>(iii) Fabric overalls must have a "Level 2" homologation granted by the CIK/FIA bearing in a visible way the CIK/FIA homologation number. They must cover the whole body, legs and arms included. Overalls remain valid 5 years after their date of manufacturing and the homologation (i.e. the period during which they can be produced) is valid for 5 years.</p> <p>(iv) Leather overalls complying with the standards defined by the FIM are authorised.</p> <p>(v) Boots must cover and protect the ankles.</p> <p><b>All Micromax drivers MUST WEAR a proper neck brace. This is compulsory otherwise he/she will not be permitted to take part in the event.</b></p>
<b>Engine Seal</b>	<p>If the engine seal is broken or lost during a race, the Scrutineers are to be immediately notified and fresh seals applied. Any seal that is broken or missing before Practice, Time Trials or a Race will entail immediate exclusion from the meeting. No equipment may be exchanged between competitors and offenders will be excluded from the meeting.</p>
<b>Chassis &amp; Engines</b>	<p>Competitors will be allowed to scrutineer a maximum of 2 engines and 1 chassis</p> <p>Tyres: 2 sets slicks and 2 sets wet tyres or 1 set slick and 1 set wet plus 1 front and 1 rear spare tyres (slick and wet) are allowed.*</p> <p>* Only 8 pieces of slicks and 8 pieces of wet tyres are permitted to be used throughout the whole meeting.</p> <p>a) The driver must submit all sets of tyres during Scrutineering and only these tyres can be used throughout the competition. All tyres must be inspected and marked by the Scrutineers before use.</p> <p>b) Only 2 engines are allowed to be used throughout the whole meeting. Both engines must be scrutineered and recorded in the Scrutineering sheet. From the start of scrutineering to the end of racing on Sunday, no engine seals may be replaced and/or broken throughout the race weekend. This includes engines which have seized and/or other defects. All engines registered on the scrutineering card, regardless of whether or not the engine is defective <b>MUST HAVE</b> intact seals.</p> <p>c) Bodywork in compliance with CIK Art 34 is mandatory. There will be no noise tests but no open exhausts will be allowed. Changing of chassis, engine and engine/chassis unit is forbidden between the start and finish of any race. Any karts involved in an accident at any time must be presented to the Scrutineers for rescrutineering before returning to the circuit. The Scrutineers reserve the right to impound any kart for rescrutineering after a race to verify compliance with the regulations</p> <p>d) No changing of chassis will be allowed throughout the meeting. If a chassis is damaged and certified unfit for use by the Chief Scrutineer, a replacement of the same make may be permitted only when authorised by the Stewards.</p>
<b>Rear wheel Protection</b>	<p>Please note that CIK Technical Regulation 2.5.3 – "Rear wheel protection" will be implemented in its entirety. Please read it carefully.</p> <p><i>"...The rear protection must be made of hollow plastic moulded in one piece and must not present any danger as regards safety. Furthermore, the structure must be moulded plastic without foam filling, and the wall thickness must be constant in order to provide uniform strength..."</i></p>
<b>Chain Guard</b>	<p>Please note that CIK Technical Regulation 2.9 "Chain Guard / Driving Belt" will also be implemented.</p> <p><i>"In all categories without a gearbox, it is compulsory and must be an effective protection over the top and both sides of the exposed chain and sprockets and extend to at least the lower plane of the rear axle."</i></p>
<b>Spot Checks</b>	<p>Race officials reserve the right to conduct random checks on all engines, chassis, tyres, helmets and any other items deemed necessary at any time during the course of the meeting. The Scrutineers with the approval of the Stewards, have the right to impound carburettor, exhaust, electronic ignition and petrol at their discretion. Should this be the case, the parts impounded will be replaced with new original manufactured parts at the expense of the Entrant/ Driver at Rotax Official price list.</p>
<b>Weighing</b>	<p>a) All karts and drivers will be weighed during Scrutineering and after Time Trials, all Heats, and the Final. Karts that do not cross the Finish Line at the end of a race may not be required to be weighed.</p> <p>b) Only Scrutineers and Officials are permitted in the weighing area. No mechanics are permitted anywhere near their karts until after weighing. <b>No crew will be allowed to enter the weighing area and assist the driver. Anyone caught assisting or handling items to the drivers will result in the exclusion of the driver concerned.</b></p> <p>c) No solid, liquid or gaseous matter or substance is permitted to be added or given to a kart or driver from the time of the dropping of the chequered flag and the weighing of the kart and driver.</p>

		<p>d) No kart or driver is permitted to leave the weighing area without the authorisation of the Chief Scrutineer.</p> <p>e) It is authorised to adjust the mass of the kart with one or several ballast weights subject to their being solid blocks, fixed to the chassis or to the seat by two bolts for each weight with a minimum diameter of 6 mm.</p> <p>Any infringement of these provisions relating to the weighing procedures may entail the exclusion of the driver and kart concerned.</p>
	<b>Fire Extinguishers</b>	Each Entrant is to present an ABC fire extinguisher of minimum 1.5 KG capacity during scrutineering which must be kept within easy reach in the paddock at all times. Each extinguisher will be identified against the competition number of a competitor.
4.	<b>Telemetry</b>	The use of all systems of telemetry is forbidden.
5.	<b>Race Numbers And Name Of the Driver</b>	Number plates shall be of plastic and rounded corners with 22 cm. sides. Numbers shall be at least 15 cm. high and 2 cm. wide. The number plates must be fitted to the front and rear and must carry <b>NO</b> advertising except that assigned by the Organiser. Number plates that are part of the bodywork must be rimmed by a 10 mm black line. The name of driver and country flag shall appear on each side of the side pod and is now mandatory in accordance with Article 2.24 of the FIA Technical Regulations. All names <b>MUST</b> be visible at all times during the event. Maximum size 5cm x 35cm. The flag of the Driver's nationality shall be that of the nationality of his licence.
<b>B</b>	<b>ENGINES</b>	
1.	<b>General Regulations</b>	<p>The only engines permitted in this competition are the <b>ROTAX FR125 Micro MAX, ROTAX FR125 Junior MAX, ROTAX FR125 Senior MAX, ROTAX 125 DD2 MAX.</b></p> <p>a) This engine is a single cylinder, liquid cooled, reed valve two stroke. All engines will be sealed between cylinder, crankcases, cylinder head and reed valve block with an official Rotax seal to prevent modifications.</p> <p>All engines are issued with an official identity card. It is the competitor's responsibility to ensure that the numbers inscribed on the engine and seal must correspond with those on the identity card at all times. Only authorised dealers are issued with seals for use during maintenance of the engines. The identity card must be filled in and signed by the authorised distributor. The engine must be presented at scrutineering with the official class seal intact and the identity card lodged with the scrutineers. The card must be collected by the competitors at the end of the race meeting. Should a seal become damaged, loose or lost during racing it must be reported to the scrutineers before leaving Parc Ferme. The scrutineers may at their discretion re-seal the engine. The new seal number must be entered in the engine's identity card and signed by the scrutineer.</p> <p>b) The engine and its ancillaries may not be modified in any way and must conform to the official Technical Specifications. The engine must be raced in standard form as manufactured by Rotax. Filing, grinding, polishing, surface treating, machining or lightening of any component is expressly forbidden. The addition of material to any component is not allowed. All parts used in or on the engine must be of original manufacture or source except where expressly allowed. The engine is to be used with an airbox, carburettor, fuel pump, radiator, wiring loom, ignition system and exhaust system as supplied by the manufacturer. The radiator must be fitted to the right hand side of the engine using standard hoses and connections supplied by Rotax. Customising the cylinder head by painting is permitted.</p> <p><b>ANYTHING WHICH IS NOT STATED TO BE ALLOWED IS FORBIDDEN.</b></p> <p>c) Eligible engines allowed to be used in the classes are:-</p> <ul style="list-style-type: none"> <li>i. <b>Full EVO Max engines as standard.</b></li> <li>ii. <b>Non-EVO Max engines, 2014 and below.</b></li> <li>iii. <b>Non-EVO Max engines but with COMPLETE EVO upgrade kit.</b></li> </ul> <p><u>NO mix and match of EVO parts is allowed.</u></p> <p>For Micromax class, ONLY FULL EVO Max engines and Non-EVO Max engines with complete EVO upgrade kits are allowed. The 2022 upgrade kit on exhaust and restrictor for Micromax will be enforced or delayed depending on availability of the Upgrade kit.</p> <p><b>WITH EFFECT 2 JANUARY 2017, ALL CYLINDERS WITH NUMERAL MARKS (0 TO 9) WILL NO LONGER BE ALLOWED TO BE USED. ONLY CYLINDERS WITH ALPHABETS AND BARCODES WILL BE PERMITTED.</b></p>

		<p>d) In all matters concerning the technical eligibility of the engine, the reference document shall be:</p> <ul style="list-style-type: none"> <li>i. Rotax Max Challenge Technical Regulations 2022 Edition Issued by : BRP-Powertrains GmbH &amp; Co KG, A-4623 GUNSKIRCHEN, Welser Strasse 32, AUSTRIA.</li> <li>ii. Any technical bulletins that may be issued by BRP-Powertrain relating to the above engines.</li> </ul> <p><b>All drivers must surrender their engine card at Scrutineering. Engines without an engine card and appropriate seals will not be permitted to be used. There will be no engine sealing at Scrutineering unless the seal is broken by the Chief Scrutineer and resealed.</b></p>
<p><b>C CLASSIFICATION OF KARTS &amp; ENGINES</b></p>		
<p>1.</p>	<p><b>ROTAX FR125 Micro MAX</b></p>	<p>a) <u>Chassis</u> Shall conform to the C.I.K. Technical Regulations except where stated below: The following are banned: Parts made from Kevlar, carbon fibre (other than seats), magnesium and titanium.</p> <ul style="list-style-type: none"> <li>I. <u>Wheelbase</u> Maximum 1010mm</li> <li>II. <u>Transmission</u> Drive must be direct by means of a single length of chain from the clutch sprocket to the rear axle sprocket. All methods of chain oiling or greasing while the kart is in motion are forbidden. A chain guard is compulsory and must cover the top of the engine sprocket, the chain and the axle sprocket up to the centreline of the rear axle. There must be sufficient side protection to prevent a finger from being caught between the chain and the engine sprocket.</li> <li>III. <u>Rear Axle</u> Solid or hollow, magnetic and parallel with a maximum diameter of 30 mm.</li> </ul> <p>b) <u>Engine</u> The only engine permitted in this class is the <b>Rotax FR125 EVO Micro MAX engine or Non-EVO Max engine with complete EVO upgrade kit and 2022 upgraded exhaust and restrictor as per Rotax Technical Regulations 2022 or as otherwise informed by ASR.</b></p> <p>c) <u>Brakes</u> Mechanical or hydraulic operation on the rear wheels only using a single disc. The brake linkage must be duplicated.</p> <p>d) <u>Wheels</u> Wheels may be mono or two piece aluminium only.</p> <p>e) <u>Tyres</u> <u>Dry:</u> <b>MOJO Slick Tyres Type C2</b> Front: 4.0 x 10.0 – 5                      Rear: 5.0 x 11.0 – 5 <u>Wet:</u> <b>MOJO Wet Tyres Type CW</b> Front: 3.6 x 10.0 – 5                      Rear: 4.5 x 11.0 – 5 Tyres must be bought from the Organisers and will be marked to identify the source. No other tyres from other sources will be accepted.</p> <p>f) <u>Weight</u> Minimum <b>105kg</b> including the driver</p> <p>g) <u>Age Limit</u> The driver must have his/her 8th birthday during the year of the event and must have his/her 12th birthday after the year of the event.</p> <p>h) <u>Number Plates</u> Yellow plates with black numbers starting from 10 to 99.</p> <p>i) <u>License</u> Minimum of MAM Novice grade Licence only.</p>

2.	<b>ROTAX FR125 Junior MAX</b>	<p>a) <u>Chassis</u></p> <p>Chassis must be CIK homologated or sanctioned by the authorised Rotax Distributor. Maximum diameter of chassis tubing 32mm, round tubing only. Rear axle maximum diameter: 50mm. Only 1 chassis allowed per driver.</p> <p>b) <u>Engine</u></p> <p>The only engine permitted in this class is the <b>Rotax FR125 Junior MAX</b> [see B, ENGINES; General Regulations; c)]. The Junior MAX adheres to the Senior Rotax FR125 MAX fiche plus extension for the Junior, including the cylinder and carburettor differences. The cylinder is to be of <b>Non-Power Valve type</b>. All other descriptions as per the 125 Senior MAX.</p> <p>c) <u>Brakes</u></p> <p>Hydraulic disc brakes operating on the rear wheels only.</p> <p>d) <u>Tyres</u></p> <p><u>Dry:</u></p> <p><b>MOJO Slick Tyres Type D5</b></p> <p>Front: 4.5 x 10.0 – 5                      Rear: 7.1 x 11.0 – 5</p> <p><u>Wet:</u></p> <p><b>MOJO Wet Tyres Type W5</b></p> <p>Front: 4.0 x 10.0 – 5                      Rear: 6.0 x 11.0 – 5</p> <p>Tyres must be bought from the Organisers and will be marked to identify the source. No other tyres from other sources will be accepted.</p> <p>e) All tyres must be fitted in the direction indicated on the tyre. Penalty for flouting this rule will be exclusion from the results of that particular race. Strictly no modifications or tyre treatment allowed.</p> <p>f) <u>Weight</u></p> <p>Minimum <b>145kg</b> including the driver at all times.</p> <p>g) <u>Age Limit</u></p> <p><b>The driver must have his/her 12th birthday during the year of the event and must have his/her 15th birthday after the year of the event.</b></p> <p><b>If a driver who is 15 years old during the year of the event can participate if he/she holds a valid National or International Grade G Karting Licence (formerly Grade C-Junior), according to CIK-FIA INTERNATIONAL DRIVERS' LICENCES FOR KARTING DRIVERS &amp; CODE OF DRIVING CONDUCT, Article 3.4.1.</b></p> <p>h) <u>Number Plates</u></p> <p>Yellow plates with black numbers starting from 100 to 199.</p> <p>i) <u>License</u></p> <p>Minimum of MAM Novice grade Licence only.</p>
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3.	<b>ROTAX FR125 Senior MAX</b>	<p>a) <u>Chassis</u> Chassis must be CIK homologated or sanctioned by the authorised Rotax Distributor. Maximum diameter of chassis tubing 32mm, round tubing only. Rear axle maximum diameter: 50mm. Only 1 chassis allowed per driver.</p> <p>b) <u>Engine</u> The only engine permitted in this class is the <b>Rotax FR125 MAX</b> [see B, ENGINES; General Regulations; c)].</p> <p>c) <u>Brakes</u> Hydraulic disc brakes operating on the rear wheels only.</p> <p>d) <u>Tyres</u> <u>Dry:</u> <b>MOJO Slick Tyres Type D5</b> Front: 4.5 x 10.0 – 5                      Rear: 7.1 x 11.0 – 5 <u>Wet:</u> <b>MOJO Wet Tyres Type W5</b> Front: 4.0 x 10.0 – 5                      Rear: 6.0 x 11.0 – 5 Tyres must be bought from the Organisers and will be marked to identify the source. No other tyres from other sources will be accepted.</p> <p>e) All tyres must be fitted in the direction indicated on the tyre. Penalty for flouting this rule will be exclusion from the results of that particular race. Strictly no modifications or tyre treatment allowed.</p> <p>f) <u>Weight</u> Minimum <b>162kg</b> including the driver at all times.</p> <p>g) <u>Age Limit</u> <b>The driver must have his/her 14<sup>th</sup> birthday during the year of the event.</b> <b>If a driver is 14 years old during the year of the event, he/she must hold a valid National or International Grade F Karting License (formerly Grade C-Restricted) according to CIK FIA INTERNATIONAL DRIVERS' LICENCES FOR KARTING DRIVERS &amp; CODE OF DRIVING CONDUCT, article 3.4.2.</b></p> <p>h) <u>Number Plates</u> Yellow plates with black numbers starting from 200 to 299.</p> <p>i) <u>License</u> Minimum of MAM Novice grade Licence only.</p>
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4.	<b>ROTAX DD2 MAX Masters</b>	<p>a) <u>Chassis &amp; Brakes</u></p> <p>Only chassis approved by BRP-ROTAX are allowed to be used. Chassis must be designed according to CIK rules for shifter classes (front and rear brakes mandatory). Brake system must have a valid CIK Homologation. ROTAX Rear Tyre Protection System or latest CIK homologated rear bumper is mandatory to be used. Approved chassis will be listed at:</p> <p><a href="https://www.rotax-kart.com/en/Racing/MAX-Challenge/Registered-Chassis%3Cbr%3E125-MAX-DD2">https://www.rotax-kart.com/en/Racing/MAX-Challenge/Registered-Chassis%3Cbr%3E125-MAX-DD2</a></p> <p>b) <u>Engine</u></p> <p>The only engine permitted in this class is the <b>Rotax 125 DD2 MAX</b> [see B, ENGINES; General Regulations; c)]. Please refer to Rotax Max Challenge Global Technical Regulations 2022.</p> <p>c) <u>Brakes</u></p> <p>Foot operated hydraulic disc brakes on the front and rear wheels.</p> <p>d) <u>Tyres</u></p> <p><u>Dry:</u></p> <p><b>MOJO</b> Slick Tyres Type D5  Front: 4.5 x 10.0 – 5                      Rear: 7.1 x 11.0 – 5</p> <p><u>Wet:</u></p> <p><b>MOJO</b> Wet Tyres Type W5  Front: 4.0 x 10.0 – 5                      Rear: 6.0 x 11.0 – 5</p> <p>Tyres must be bought from the Organisers and will be marked to identify the source. No other tyres from other sources will be accepted.</p> <p>e) All tyres must be fitted in the direction indicated on the tyre. Penalty for flouting this rule will be exclusion from the results of that particular race. Strictly no modifications or tyre treatment allowed.</p> <p>f) <u>Weight</u></p> <p>Minimum <b>180kg</b> including the driver at all times.</p> <p>g) <u>Age Limit</u></p> <p>The driver must have his/her 32<sup>nd</sup> birthday during the year of the event.</p> <p>h) <u>Number Plates</u></p> <p>Yellow plates with black numbers starting from 300 to 399.</p> <p>i) <u>License</u></p> <p>Minimum of MAM Novice grade Licence only.</p>
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