

National F1 Rules Proposed Enhancements from 1 January 2014

16 August 2013

Dear F1 Club

- In June we asked for feedback on the current National F1 Rules.
- In July we summarised the feedback received and formulated draft proposals for discussion. At that time your club was advised by email and encouraged to participate in the debate on RC Tech.
- No major changes are proposed to the existing rules but a number of clarifications and fine tuning amendments are proposed. A great deal of thought, discussion and effort has gone into drafting these proposals and we ask that your club takes the time to consider and vote on them.
- We are pleased to enclose the proposals for voting. Each club that has adopted the National F1 Rules has the right to vote once on each rule change. For a rule to be changed the following voting criteria must be met:
 - the majority of votes received must vote for the change; and
 - a minimum of 4 votes must be received regarding each change.If the above criteria is not met then the Rule will not change.
- For transparency all votes received will be published on RC Tech

Your clubs vote should be returned via email to rules@rcformula1.com.au. You may use the voting form on page 9 or simply include your vote in the body of the email in the same format as the voting form.

Votes must be received by 5pm Tuesday 1 October 2013.

Any rule changes will come into affect on 1 January 2014.

If you wish to refer to the discussion surrounding these proposals please visit: www.rcformula1.com.au/rules and click on the link to the RC Tech discussion thread.

As an advisory which does not require a vote. It is planned to add web links to:

Rule 7 - batteries – web links to be added to the [ROAR](#) and [BRCA](#) battery lists referred to in the existing rule.

Rule 2 - Tyres . Amendment (Guidance Added)

Why Change:

A great deal of discussion occurred around whether to change the tyre rule to rubber only. After consideration it was decided that it would be detrimental to some tracks. It is believed that most Events will specify rubber tyres but on certain tracks foam tyres might be specified due to the surface. The rules will remain that either type of tyre is allowed but adds guidance for clubs.

Existing rule:

2. Tyres - Rubber or Foam F1 tyres. No wheels or tyres manufactured for a class other than F1 may be used unless the manufacturer lists it as the primary wheel/tyre for that chassis eg; Corally.

Proposed Change:

The above rule would not be changed. The following text would be added to the end of the existing rule to provide guidance to clubs:

Rubber tyres are recommended, however, it is recognised that foam tyres are more practical for some surfaces including; carpet tracks that do not use traction compound, astro turf and some other surfaces. It is recommended that a track specify either Rubber tyres, or Foam tyres, when running an event.

Rule 4 . Wings . Amendment (Clarification)

Why Change:

Clarification for the avoidance of doubt.

Existing rule:

4. Wings - Any wing designed for the chassis or body shell in use is allowed. Custom built wings are not allowed.

Proposed Change:

Add to the end of the existing rule:

Touring Car wings may not be used.

Rule 10 . New Rule (Driving Aids Banned)

Why Change:

While discussing the rules for F1 for the Asian On road Championship (AOC) event in Melbourne with Scotty Ernst, we learned that Gyroscopes are a fairly common driving aid in Asia in F1. When the Gyro detects the back end stepping out it counter steers (using the steering servo) to bring the car back under control without driver input. We asked Scotty to not allow Gyroscopes at AOC and he agreed.

After looking at how other rule-sets deal with this issue we propose to adopt wording based on the UF1 rule which is inline with AARCMCC's rule 9.4.1.

Proposed New Rule:

10. Driving Aids - No electronic driving aids (steering control by gyroscope, Drag Reduction System, wheel speed sensors, etc). Transmitter functions are allowed.

Optional Event Rule 8 . ESC - Amendment

Why Change:

A great deal of discussion occurred on whether now was the right time to restrict the use of ESCs to a list. It was decided that the current Rule 8 which allows any blinky ESC to be used is working well and has not outlived its usefulness.

It was also decided that the Optional Rule 8 should be updated to add any BRCA legal ESC and also to bring it into line with the proposed AARCMCC on road changes for the 21.5 Blinky touring car class in 2014.

Current Rule 8 – no change proposed:

8. ESC Rule: Brushless - Any ESC that does not have dynamic timing ie; boost or turbo timing options, or any ESC that has a Blinky mode ie; a flashing light denotes that no dynamic timing is enabled, is allowed. Brushed ESC for silver can: Any.

Rule 8 is not being changed. Only the Optional Event Rule 8 is proposed to be amended.

Existing rule:

8. ESC Rule for events: Brushless - Any ESC from the ROAR Approved Non-Timing ESC list or the AARCMCC EP Off Road Stock Spec ESC List. These ESCs do not have dynamic timing ie; boost or turbo timing options. Brushed ESC for silver can: Any.

Proposed Change:

8. ESC Rule for Events: Brushless - Any ESC from the ROAR Approved Non-Timing ESC list or the BRCA Non-Timing ESC List or any AARCMCC EP Stock Spec ESC List (Currently this means the offroad list, should an onroad list be developed by AARCMCC, or an onroad/offroad list then these lists will also be acceptable). These ESCs do not have dynamic timing ie; boost or turbo timing options. Brushed ESC for silver can: Any.

Optional Event Rule 9 . Motor - Amendment

Why Change:

A great deal of discussion occurred on whether now was the right time to restrict the use of 21.5 motors to a list. It was decided that the current Rule 9 which allows any 21.5 motor to be used is working well and has not outlived its usefulness.

It was also decided that the Optional Rule 9 should be updated to add any BRCA legal motor and also to bring it into line with the proposed AARCMCC on road changes for the 21.5 Blinky touring car class in 2014.

Current Rule 9 – no change proposed:

9. Motor Rule: Brushless – any 21.5 turn brushless motor with any rotor. Any end bell timing is allowed. Brushed – any 540 size 27 turn Johnson or Mabuchi silver can motor which may not be modified or tampered with in any way.

Rule 9 is not being changed. Only the Optional Event Rule 9 is proposed to be amended.

Existing rule:

9. Motor Rule for Events: Brushless ó any 21.5 turn brushless motor from the ROAR Approved Brushless Motors list with any rotor on the ROAR Approved Brushless Motors list. Any end bell timing is allowed. Brushed ó any 540 size 27 turn Johnson or Mabuchi silver can motor which may not be modified or tampered with in any way.

Proposed Change:

9. Motor Rule for Events: Brushless ó any 21.5 turn brushless motor from the ROAR Approved Brushless Motors list or the BRCA 21.5 motor list with any rotor on those lists specified for that motor. Any end bell timing is allowed. Brushed ó any 540 size 27 turn Johnson or Mabuchi silver can motor which may not be modified or tampered with in any way.

Rule 1 . Chassis . New Rule (Add Custom Chassis Rules)

Why Change:

A number of people commented that the F1 class may appeal to modellers and provides an opportunity for modelling that other classes may not. Rules to allow for this enthusiast segment of the RC world have therefore been proposed.

This rule is designed for enthusiasts who wish to make their own parts for the fun of the build. It is not meant for those seeking an edge over the competition. The rules have therefore been designed to prevent this type of abuse.

RC Formula1 recommends adoption in order to add one more reason for people to join the growing F1 class.

Existing rule:

1. Chassis - Any commercially available 1:10 scale rear wheel drive F1 or Indy Car chassis with a T-bar, Pivot Ball Link or independent rear suspension. 4WDs must have drive to the front wheels disabled. Any hop ups specifically available for that chassis are allowed.

Proposed Change:

The above rule would not be changed. The following text would be added to the end of the existing rule:

Modellers may build their own Chassis following the rules in the Appendix Custom Chassis.

So as not to clutter the existing rules the following Appendix would be added:

Appendix - Custom Chassis

It is recognised that the F1 class may appeal to modellers and provides an opportunity for modelling that other classes may not.

Guiding principle - all custom chassis builds must be based on the scale dimensions and appearance of a real world F1 car including body, wings and all visible components. It is recognised that there may be some compromises necessary because it is a model RC car and those compromises are likely to be similar to those present on many commercial model RC F1 cars (for example that the spur gear and pinion is visible).

Custom 1:10 scale F1 Chassis may be approved as legal provided the following minimum requirements are met. Approval must be applied for and is not automatic:

- a. All references to commercial F1 parts in these rules refers to parts for 1:10 scale F1 models.
- b. All pieces of the chassis including main chassis, top deck and rear pod plate must be custom made (because these rules are for modellers and not for racers trying to simply merge the best parts of various commercial chassis).
- c. Any parts for any commercially available F1 car may be attached to the custom chassis. You may also custom make any or all parts except where these rules state otherwise. Commercial parts not manufactured for F1 chassis are not allowed unless

- a suitable part is not made for an F1 car in which case a commercial part for a non-F1 RC car may be used (keep a list of any such parts as they must be disclosed when seeking approval for the custom chassis).
- d. Cars must meet all technical regulations commercially built cars must comply with (refer to the main rules).
 - e. Chassis must be fitted with a commercially available F1 body and wings or a custom made body and wings based on the scale dimensions of a real world F1 body and wings (of any time period).
 - f. The front wing may not be wider than the width of the front tyres. The rear wing must not be wider than the width of the rear tyres.
 - g. No part of the chassis may be wider than the widest part of the body.
 - h. The car must be safe for marshals to handle with no sharp edges.
 - i. The front wing must be made of plastic, lexan or similar pliable material so that it will not cause injury should the car hit a person.
 - j. Roll over posts are not allowed and nothing must extend above the body except for an aerial.
 - k. The bottom of the chassis must be smooth and must not damage the racing surface or track barriers should it touch them.
 - l. Dampers (shock absorbers) are allowed for any wheel but must fit wholly under the body and may not be visible when the body is on the car (unless they were visible on the real world F1 car on which the design is based).
 - m. The front arm pivot points (where the front arms attach to the chassis) must be hidden by the body shell.
 - n. Length (measured from the front edge of the front wing to the rear edge of the rear wing) must be between 400mm - 440mm.
 - o. Height from the ground to the highest part of the model (body shell or rear wing) may not exceed 130mm.
 - p. Maximum width - refer to Rule 5 in the main rules.
 - q. The car ready to run may not weigh more than 1,600 grams. Minimum weight refer to Rule 6 in the main rules.
 - r. Custom made wheels / tyres are not allowed.

Compliance with the above rules does not automatically allow the car to compete at club level or at events that run the National F1 Rules, approval must be requested and granted. There is no automatic right to run a Custom Chassis.

Approval should always be sought from the club where you wish to race. If you wish to build and race a chassis at more than one club then also contact RC Formula1 (rules@rcformula1.com.au) and we will review your design and if we feel it meets the spirit and letter of the rules then we will provide you with a letter stating this which you can show to the club at which you wish to race. We recommend opening discussions before starting work on your build.

This rule is designed for enthusiasts who wish to make their own parts for the fun of the build. It is not meant for those seeking an edge over the competition.

The existing Rule 4 ó Wings states that custom wings are not allowed. To remove the conflict with the new Appendix above, Rule 4 would be amended as follows:

Replace: ~~Custom built wings are not allowed.~~

With: Custom built wings are only allowed on a Custom Built Chassis (refer to Appendix).

National F1 Rules

Proposed Enhancements

from 1 January 2014

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VOTING FORM

Rule 2 - Tyres . Amendment (Guidance Added)

Refer to the proposed change on page 2.

Voting:

Please choose one of the following options by placing an X next to your chosen option:

- Yes** ó make the change.
- No** ó do not change the current rule.
- Abstain** ó no opinion on this proposed rule change.

Rule 4 . Wings . Amendment (Clarification)

Refer to the proposed change on page 3.

Voting:

Please choose one of the following options by placing an X next to your chosen option:

- Yes** ó make the change.
- No** ó do not change the current rule.
- Abstain** ó no opinion on this proposed rule change.

Rule 10 . New Rule (Driving Aids Banned)

Refer to the proposed change on page 4.

Voting:

Please choose one of the following options by placing an X next to your chosen option:

- Yes** ó make the change.
- No** ó do not change the current rule.
- Abstain** ó no opinion on this proposed rule change.

Optional Event Rule 8 . ESC - Amendment

Refer to the proposed change on page 5.

Voting:

Please choose one of the following options by placing an X next to your chosen option:

- Yes** ó make the change.
- No** ó do not change the current rule.
- Abstain** ó no opinion on this proposed rule change.

Optional Event Rule 9 . Motor - Amendment

Refer to the proposed change on page 6.

Voting:

Please choose one of the following options by placing an X next to your chosen option:

- Yes** ó make the change.
- No** ó do not change the current rule.
- Abstain** ó no opinion on this proposed rule change.

Rule 1 . Chassis . New Rule (Add Custom Chassis Rules)

Refer to the proposed change on page 7.

Voting:

Please choose one of the following options by placing an X next to your chosen option:

- Yes** ó make the change.
- No** ó do not change the current rule.
- No** ó do not change the current rule. We do not support the rule as written but believe the concept has merit for further discussion.
- Abstain** ó no opinion on this proposed rule change.

Club Name: _____

Your vote should be returned via email to rules@rcformula1.com.au. You may use this voting form or simply include your vote in the body of the email in the same format as the voting form.

Votes must be received by 5pm Tuesday 1 October 2013.

Any rule changes will come into affect on 1 January 2014.

Thank you for participating in this process and helping to grow the F1 class.