



Internal Combustion Radio Controlled
Model Car Rules & Procedures

2018



1/8th, 1/8 GT, 1/10th & Nitro
Touring Scales

The following set of rules and specifications is the official guide for the running of all S.A.R.D.A. sanctioned races and must be adhered to for the results to be recognised.

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1 OFFICIALS

1.1 To be supplied by SARDA for National and Regional Events:

- 1.1.1 **RACE DIRECTOR.** Responsible for the smooth and timeous running of the event, the enforcement of rules, acts as the chairperson of the dispute committee and conducts drivers' briefing.
- 1.1.2 **DISPUTE COMMITTEE.** The dispute committee will consist of the Race Director and delegates appointed by the entrants prior to the event, based on fair regional representation. Duties include the settling of disputes, liaison between race control and contestants, the judging of concours, and generally assisting the Race Director in his duties.
- 1.1.3 **ASSISTANT RACE DIRECTOR.** A knowledgeable person whose primary functions include Lap Scoring, Race Control, Start procedures and to perform any other duties as required by the Race Director. Also is in control of black and other flags that may only be used on the express instructions of the Race Director.
- 1.1.4 **REFEREES.** Two experienced drivers (*one on the Rostrum, the other at the first corner*) to monitor the driving and report back to the Race Director.

1.2 Mandatory Officials to be supplied by host club for National and Regional Events:

- 1.2.1 **TRANSMITTER CONTROLLER.** A person responsible for controlling transmitters, transponders and marshalling bibs.
- 1.2.2 **SCRUTINEER.** A person responsible for ensuring all cars are within specifications.
- 1.2.3 **COMMENTATOR.** Responsible for commentating and keeping the participants and public informed of the racing. Can also be the race director
- 1.2.4 **CHIEF MARSHAL.** Responsible for ensuring that marshals are in position.
- 1.2.5 **ASSISTANT SCRUTINEER.** A person responsible for ensuring all cars are within specifications to assist the chief scrutineer.
- 1.2.6 **RACE CONTROLLER.** Responsible for setup up of timing loop and AMB system. Runs the race schedule, starts races and compiles race results through the specified race software.

2 FACILITIES AND EQUIPMENT

2.1 Facilities and equipment

- 2.1.1 **RACE TRACK:** For SARDA Gas sanctioned races, the SARDA Gas committee must be satisfied that the track is suitable and safe.

- 2.1.2 **LAP SCORING SYSTEM:** As far as possible only the AMB electronic system of scoring should be used. Should this not be available a SARDA Gas approved system must be used for SARDA Gas sanctioned events.
- 2.1.3 The AMB System must be ready and running on the Friday morning for members to check their lap times when running transponders. Personal Transponders are compulsory for a SARDA event. Failure of a personal transponder is the owner's responsibility.
- 2.1.4 **P.A. SYSTEM:** The P.A. System must be SARDA Gas approved and must cater specifically to the needs of the participants and their pit mechanics. They must be able to clearly hear announcements at all times including the starting signals, etc.
- 2.1.5 **IMPOUND:** The impound shall be an area to which all cars must be taken directly after a race for scrutineering. The cars may not be touched or worked on by anyone in the impound except on the express orders of the Race Director.
- 2.1.6 **FLAGS:** A race may be started and ended by the waving of a flag and/or the sound of a siren
- 2.1.7 **GRID MARKING:** A minimum spacing of 5m between cars in the same line is required for Grid starts
- 2.1.8 **VENDING:** Distributors are allowed to offer trackside support and spares backup for their respective customers during SARDA National events without prejudice from the hosting club/facility.
- 2.1.9 **MARSHAL POINT NUMBERS:** Boards need to be placed at each marshal point to enable the marshal to notify the referees of any infringements by car number.

2.2 Radio equipment and frequencies

- 2.2.1 **RADIO EQUIPMENT.** All radios shall conform to all the specifications as set out by the South African Post and Telecommunications (Government Gazette No 7345, of 24 December 1980) and SARDA at all times. All 2.4 GHz radio control equipment operating in South Africa must comply with the technical specifications of the Independent Communications Authority of South Africa's (ICASA).
- 2.2.2 All drivers shall practice and race under the freq they nominated on their entry.
- 2.2.3 Radio communication may be used between the pitman and driver. It is only one way, from Pitman to driver. Only systems that will not interfere with car to radio communication will be allowed. The race director can decline the right to use a system if it causes interference.

3 ENTRIES

- 3.1 Any member of SARDA Gas in good standing shall be eligible for participation in any SARDA Gas sanctioned race. (SARDA Gas may however elect to waive this requirement for international visitors or for any other reasons as they deem fit.) This invitational driver may race any one National event during the year, if he/she chooses to race more events they will need to join a SARDA Gas affiliated club.
- 3.2 All drivers shall be SARDA members. Therefore Club Membership fees for drivers of any affiliated Club shall include the appropriate SARDA Membership subscription.
- 3.3 SARDA Gas must send to every member, either via their Chairman or by direct mail, the dates of all the national events. Closing dates for all Nationals will normally be two weeks prior to the date of the National. The Club's Chairman to ensure all their members are aware of the National dates.
- 3.4 It is the responsibility of the SARDA Gas member to ensure that he has been entered for a national event. Entries has to be registered on the SARDA website together with entry fees. (SARDA Gas cannot be held responsible for non-receipt of entries).
- 3.5 Any National race entry received after the closing date will be regarded as a late entry. Such late entries will be subject to the late entry fee and the Race Director's acceptance.
- 3.6 All drivers contesting the national series must attend at least one Coastal event if more than one Coastal Nationals are scheduled for the year for their points to count for the National Championships. The same will apply to Coastal drivers. No single event will be compulsory if not all events count.
- 3.7 All participants have to conform to one of the following to qualify for year-end SA Championship points:
 - 3.7.1 At least do 1 Home Club event prior to each National event
 - 3.7.2 At least active in home club such as track owners and one man clubs in any
 - 3.7.3 discipline.
 - 3.7.4 At the Committee's discretion for any other circumstance.
- 3.8 By entering, a contestant acknowledges that he has read this set of rules and understands them. He furthermore subjects himself to the will of the Race Director and the Dispute Committee and agrees to abide by their rulings, the SARDA code of conduct and this book of rules.
- 3.9 Pensioner's and scholar's dependant on parents for entry fees pay a reduced fee as stipulated in the annual fee structure.

4 GENERAL

- 4.1 All drivers and assistants must obey the instructions of the Race Director at all times. Any decision by him and his dispute committee is final and binding for that meeting.
- 4.2 All drivers and assistants must at all times obey the rules and specifications of racing. Special mention must also be made that we are participating in a sport/hobby, and that we act accordingly. As far as racing is concerned, a driver is deemed to be in charge of his assistants and can therefore be held responsible for their actions and be penalised thereon.
- 4.3 Driving of a hazardous or inconsiderate nature will not be tolerated. This includes unsportsmanlike driving.
- 4.4 No verbal coaching, commentary or personal discussions from pit lane to driver between an assistant and vice versa. The exception being, if you have radio communication.
- 4.5 All cars and other equipment must conform to the rules and specifications of racing at all times as contained in sections 17, 18, 19 and 20 (for 1/8th, 1/10th Nitro Touring and 1/8th GT scale respectively) of this rule book. Any deviation that occurs during a race must be repaired at the end of the lap on which it occurred.
- 4.6 The car, body and wing to be used at a meeting must be submitted for scrutiny before the first official practice session. Any additional equipment required, must be scrutinised prior to use, i.e. second car, body, wing, etc.
- 4.7 No competitor may use more than one car in any one sprint or final.
- 4.8 No competitor may use a car which has not been officially entered for the event. A car is deemed to have been officially entered for an event when it is presented for scrutineering. The penalty for infringements of 4.1.6 and 4.1.7 above is disqualification from the particular sprint or final in which the offence occurred, and penalty D for a repeat offence.
- 4.9 Cars must complete all laps under their own power. A car pushed over the line will not be scored.
- 4.10 Personal transponders are to be mounted as specified by the manufacturer for best efficiency.
- 4.11 Only drivers participating in the heat or final will be allowed on the drivers' stand.
- 4.12 Rain rules as described in section 16 of this set of rules may be used to resolve any time related problem that may arise.
- 4.13 The use of traction control devices, active suspension devices and any steering control aided by gyroscopes/'G'-force sensors is strictly forbidden. The use of on board data recording sensors or data transmission devices is not permitted.

5 TELEMETRY

The use of any electronic device is forbidden with the exception of:

- 5.1.1 Two radio channels of the receiver, which will be used to operate steering, throttle and brake.
- 5.1.2 A passive data recording system to record functions of the car. A feedback recording or information system (data logger) can only be used up to the end of controlled practice.
- 5.1.3 No mobile phones calls allowed on the driver stand during racing.

6 DRIVERS' BRIEFING

- 6.1 All drivers must attend every driver's briefing. The time and place will be specified on the race allocation sheet.
- 6.2 At drivers' briefing the number and duration of the practice sessions, starting procedures and race sequence for the event will be explained.
- 6.3 The dispute committee will also be introduced.

7 CONCOURS D' ELEGANCE

- 7.1 The concours competition will be held on the first race day of a National weekend. Concours judging will take place after drivers' briefing by the dispute committee.
- 7.2 Concours judging for Technical trophy must be done on the proper Concours Judging Form and according to the rules contained therein. (See Concours Judging Form at the back of these rules)
- 7.3 Concours judging for the "Concours Racing trophy" will be done by majority vote of the dispute committee and is based on the most impressive looking "Race Body" or replica entered at the National. This will be judged from all cars entered at the National.
- 7.4 All cars entered for concours must be capable of completing one lap under their own power.
- 7.5 The winning body may not be entered in future concours competitions at national events.

8 OFFICIAL PRACTICE

- 8.1 At least one official practice session must be allowed. This applies to Sprints and Final races. This can be a lengthened warm up for heat 1 of the sprints. It is not necessary to have marshals in their positions during practice sessions.

9 MARSHALLING PROCEDURES

- 9.1 Marshalling points must be clearly marked around the circuit. Marshalling points must be marked 1 to 8 and must be spaced around the circuit to cover all the problem areas, without obscuring the track. The Race Director or Chief Marshal may relocate a marshal as and when required.

- 9.2 All marshals must wear a highly visible bib which is to be supplied by the host club.
- 9.3 The last group marshals for the first group and all other groups marshal directly after completing their own sprint or final race.
- 9.4 Only competing drivers will stand as marshals. A substitute marshal may only be used after being approved by the Race Director or Chief Marshal. No "hired" marshals are permitted unless approved by the Race Director.
- 9.5 All marshals must be in position at the 3-minute call-up for a race even if the race has to be delayed. Marshals must remain in position until the last car has finished.
- 9.6 Marshals number nine and ten in the finals will be allocated to control the pit area and to assist the Race Director as and where required by him.

10 SPRINT RACING

- 10.1 Sprints will only be run on the first day of the National event. The number, duration and starting system of the Sprints shall be decided for an entire National series at a time by the AGM or Rules Conference prior to the start of the series. These rules shall be publicised in a set of Supplementary Regulations applicable to that series and attached to the rules as an addendum.
- 10.2 A sprint group will not consist of more than ten drivers.
- 10.3 Drivers will be seeded according to their standing in the Sprint Championships and run in the same sprint group as others with similar abilities. This seeding will include any adjustments the Competitions Manager feels will improve the racing and the safety of other drivers cars.
- 10.4 Once entries have closed the Competitions Manager will circulate the entry list to Club Chairpersons for comment. These comments and recommendations are to be returned to the Competitions Manager within 48 hours. Final race schedule is to be circulated and forwarded to the Race Director and the host club.
- 10.5 A four-minute call up period must be allowed before the start of each sprint. Drivers must be informed over the P.A. System of the time remaining to the start of the sprint. Specifically at one minute, 30 seconds, 20 seconds and then continuously from 10 seconds to the time of release.
- 10.6 If in the opinion of the Race Director everybody is at the starting-grid and ready before the 4 minutes is up, he may start the race earlier. He can only do so after announcing his intention and must then count down from 10 seconds to the start. When he announces ten seconds this becomes the new starting time for the sprint and the race can no longer be delayed by an engine cut or other problem.
- 10.7 All drivers are under starters' orders at the thirty (30) second call.
- 10.8 The track is closed between qualifiers and during lunch times.

11 Grid Start

- 11.1 No car may travel beyond the No.1 grid after the thirty (30) second call.
- 11.2 All cars must be at the starting-grid at 10 seconds before the start. If any car is not in the grid box at the count of 10 seconds it must start from the pit lane and must leave the pit lane only after the pack has gone past. Any interception by cars leaving the pit lane, with cars that have started from the start grid will be penalised.
- 11.3 All cars must be released and the grid cleared at the count of five (5) seconds.
- 11.4 No car may be placed more than one car's length behind the front edge of the start line.
- 11.5 Should any part of the car protrude past the front edge of the start line at the sound of the siren it will be regarded as a jumped start.

12 Staggered Start

- 12.1 In the event of the staggered start system being used, all cars will be called to the staging area at 30 seconds. No cars may travel beyond the staging area after the 30 sec call
- 12.2 The cars will be released by the race control in number sequence in round 1 and thereafter in the finishing order from the previous round of heats.
- 12.3 If a car misses his start call, he must start last in his group but will always start his first lap from this staging area.
- 12.4 Pit Lane Staggered start

A pit lane start as per IFMAR and EFRA rules:

A staggered start timing system will be used during qualifying. The cars will leave the starting boxes or pit lane after the starting signal in the following order (example for 10 cars):

ROUND 1: 1 2 3 4 5 6 7 8 9 10

ROUND 2: 3 4 5 6 7 8 9 10 1 2

ROUND 3: 5 6 7 8 9 10 1 2 3 4

ROUND 4: 7 8 9 10 1 2 3 4 5 6

ROUND 5: 9 10 1 2 3 4 5 6 7 8

ROUND 6: 10 9 8 7 6 5 4 3 2 1

- 12.5 Each car's individual official time will start when the car passes the timing system for the first time. When the first car completes the first lap, all official timing not yet activated will be started.

13 FINALS

- 13.1 The number, duration and starting system of the Finals shall be decided for an entire National series at a time by the AGM or Rules Conference prior to the start of the series. These rules shall be publicised in a set of Supplementary Regulations applicable to that series.
- 13.2 If there are more than 70 entries at a National, race durations can be shortened with the 1/8 scale being reduced to 30 minute finals as well.
- 13.3 Where possible all finals will consist of 10 cars, except when the overall entry is such that a lower final will consist of only 1 or 2 cars. In this instance the Race Director may exercise discretion to squad the finals in such a way as to allow lower mains to be run with a suitable number of cars by reducing or increasing the number of cars in a main. In all cases the following criteria must be observed:
- The ideal is always a minimum of 10 cars in the A main.
 - Reducing the number of competitors in a higher main should not create an unfair advantage for competitors moved to a lower main – example: moving 2 competitors from a 10-car main down into a 3-car main. (In this case it would be more equitable to create two mains of 6 cars each)
 - An Alternative would be to run an 11 or 12 car main, provided transponder availability allows.
- 13.4 A four-minute warm-up period must be allowed before the start of each final race.
- 13.5 Drivers must be informed over the PA system of the time remaining to the start of the final. Specifically at one minute, 30 seconds, 20 seconds and then continuously from 10 seconds to the time of release.
- 13.6 Any driver who experiences any problem may call a time-out. This time-out must be called before the drivers come under starters' orders (30 seconds). The final will then be postponed for ten minutes to enable him to repair it.
- 13.7 If there is a frequency problem between two or more of the participants (interaction or interference) the highest qualifier of those with the problem can insist that the other person or persons that are interfering with him change frequency but only if he can prove that his equipment is not the cause of the problem in the first place. In any event the start of the final race must not be delayed for more than 10 minutes.
- 13.8 Only one time-out is allowed. The time-out is followed by normal call-up procedures.

- 13.9 Any car not on the start grid at the count of 10 seconds must start from the pit lane and must leave the pit lane only after the pack has gone past. Any interference with cars that have started from the start grid will be penalised.
- 13.10 All drivers are under starter's orders at the count of 30 seconds.
- 13.11 All cars must be released by the mechanics at the 5-second call and the grid cleared.
- 13.12 In the event of a jump start in a final the AA-type penalty will be enforced.
- 13.13 On completion of a final all cars must be taken directly to the impound until such time as the results of that race become official. The Race Director has the right to scrutinise any car during this period and if it is found to be illegal, the driver will be disqualified.

14 RESULTS

- 14.1 Results of qualifying sprints must be posted at a specified place after every round of heats. They must indicate what penalties have to be added to them.
- 14.2 These results are unofficial for a period of fifteen minutes after the results have been posted and should indicate the time of posting.
- 14.3 All protests must be submitted before the fifteen-minute period has expired.
- 14.4 If protests are received they are attended to and the (possibly amended) results are again posted for the same procedures and all affected parties must be advised. Once a protest-free period of fifteen minutes has expired, the results become official and cannot be amended again even if they are proved to be incorrect at a later stage.
- 14.5 Results of final races must be posted at a specified place as soon as possible after completion of a race. The results are subject to the same rules and procedures as described in 14.1.2 and 14.1.3 of this set of rules.
- 14.6 The host Club must submit a Race Report within ten days after the completion of the national event or will be penalised with a fine of R250.

15 THE SOUTH AFRICAN CHAMPIONSHIPS

- 15.1 The number of National events to constitute the National series shall be decided by the AGM or Rules Conference prior to the start of the series, and shall be publicised in the Supplementary Regulations applicable to that series.
- 15.2 The allocation of points for Sprint and Finals racing for a National series shall be decided by the AGM or Rules Conference prior to the start of the series, and shall be publicised in the Supplementary Regulations applicable to that series.
- 15.3 Competitor shall only score points in any race provided he starts the race.
- 15.4 The South African Champions shall be determined by adding together each competitor's best results as per the schedule below.

- 15.5 In the event of a tie for a South African Championship, the winner will be determined by adding the next best result (*e.g. fourth result followed by fifth result*) to the total points for the individual drivers who have tied. If there is still a tie, then the Championship will be shared.
- 15.6 The South African Champion in each class and discipline will be determined using the following scoring system.

One event	One to count
Two events	Two to count
Three events	Two to count
Four events	Three to count
Five events	Three to count
Six events	Four to count

- 15.7 The Inter-Provincial Trophy for each class will be decided on the qualifying performance of the top 12 drivers of each section at each national event. The points scored will be as follows:

Top Qualifier	12 points
2nd place	11 points
3rd place	10 points
4th place	9 points
5th place	8 points
6th place	7 points
7th place	6 points
8th place	5 points
9th place	4 points
10th place	3 points
11th place	2 points
12th place	1 points

15.8 Race Format.

3 x staggered start qualifying rounds – 2 of the best 3 to count for the Finals on Sunday. The top 10 drivers then race a 10 minute sprint on Saturday, to decide the title for the Sprint Championships.

16 PROTESTS

Protests are to be handled as follows:

Any participant who feels that he/she has been unfairly treated or penalised in terms of these rules may lodge a protest in writing to the member of a dispute committee.

- 16.1 The protest must specify the rule pertaining to the protest.
- 16.2 Notice of a protest must be given before the results become official and must be accompanied by a protest fee of R100.00
- 16.3 The dispute committee member in turn informs the Race Director who must then declare a dispute and attend to it immediately. The Race Director calls the dispute committee together for a meeting. Also present at this meeting is the protester and anybody else the Race Director needs as advisors or witnesses. The protester shall be allowed a maximum of two minutes to explain his protest and the dispute committee may then consult with the protester, advisors and witnesses. The protester, advisors and witnesses will then be excused from the meeting and only the dispute committee will make a decision regarding the dispute.
- 16.4 The dispute committee representative will inform the protester of the decision taken by them with an explanation.
- 16.5 The decision taken by the dispute committee is final and binding for that meeting. If, at a later stage, their decision was proved to be faulty in terms of this set of rules, the decision shall stand. This faulty decision shall then not be deemed to have set a precedent to allow further violation of the rules.
- 16.6 If the protest lodged is upheld the Race Director must take the appropriate action immediately and return the R100.00 fee to the protester. If the protest lodged is turned down by the Dispute Committee the protester forfeits his R100.00 to SARDA On Road Gas.

17 RERUNS

Reruns can only be staged for the following reasons:

- 17.1 If the result of the race is lost during or after the race has been run.

- 17.2 If a protest submitted by one of the competitors requesting a rerun is upheld by the dispute committee.
- 17.3 Reruns may also be implemented in terms of the rain rule as described in section 16 of this rule book.
- 17.4 If any part of the AMB system or computer fails to record all or any individual driver's laps during a race unless the laps completed can be accurately counted and recovered.
- 17.5 When a race is rerun the result of the original race is declared null and void.
- 17.6 The onus rests on the competitor to ensure that he has enough backup equipment to be able to participate in a rerun.

18 PENALTIES

18.1 Penalty definitions:

PENALTY AA:	A Stop/Go. This is for minor infringements such as jump start, corner cutting, illegal fuel filling in the pit lane, etc. Control of this is handled by the race director.
PENALTY A:	One lap deducted from the result of the offender's heat or final in which the offence occurred.
PENALTY B:	One lap deducted from the result of the best qualifying heat or 5 laps from the final of the offender.
PENALTY C:	5 laps deducted from the offender's final result.
PENALTY D:	Disqualification from the entire race meeting.

18.2 Penalties will be awarded as follows.

18.2.1 Points: 18.2.4, 18.2.7, and 18.2.17 are allowed a one warning grace.

18.2.1	Failing to attend drivers briefing	PENALTY B
18.2.2	Failing to marshal in a qualifying sprint	PENALTY B

18.2.3	Failing to marshal in a final	PENALTY C	
18.2.4	Hazardous, unsportsmanlike or dangerous driving	PENALTY AA	
18.2.5	Continuous driving as per 18.2.4	PENALTY A	
18.2.6	Continuous driving as per 18.2.5	Black Flag	
18.2.7	Jumping the start in a sprint	PENALTY AA	
18.2.8	Corner cutting	PENALTY AA	
18.2.9	Jumping a start in a final	PENALTY AA	
18.2.10	Any minor infringement of the rules in this rule book (at the discretion of the Race Director and/or the dispute committee)	AA	A
18.2.11	For any major infringement of the rules in this rule book (at the discretion of the Race Director and/or the dispute committee)	PENALTY D	
18.2.12	For unsportsmanlike behaviour, swearing or abuse of club/own equipment. First offence.	PENALTY A	
18.2.13	For unsportsmanlike behaviour, swearing or abuse of club/own equipment. Second offence.	PENALTY D	
18.2.14	Blatant dishonesty	PENALTY D	
18.2.15	Jumping the pit flag	PENALTY AA	
18.2.16	Working on car after a sprint or final race before taking to impound.	PENALTY D	
18.2.17	Failing to take car directly to the impound after a final race	PENALTY D	
18.2.18	Failing to accept the ruling of the dispute committee	PENALTY D	
18.2.19	Illegal use or misuse of a transmitter	PENALTY D	
18.2.20	Assistant/mechanic on the driver's stand during a race	PENALTY AA	

- 18.3 A black flag shown to a car means that car must immediately retire to the pits to be informed of the reason for the black flagging. The Race Director may use the PA system instead of a flag to inform the competitor of the black flag and the reasons for it.
- 18.4 If in the opinion of the dispute committee a participant is not adequately punished by the implementation of a penalty D, they must report the fact of the incident to the SARDA Gas committee with a recommendation for further punishment. (For very serious offences only).
- 18.5 The penalty for transgression of any of the engine, exhaust system and fuel rules shall be disqualification from the event in which the offence occurs for a first offence and disqualification from this class of racing for one calendar year for a second offence.

19 RAIN RULES

- 19.1 The Race Director and available dispute committee members shall judge of when to terminate a race in progress due to rain or other weather effects, dependent on their assessment of the track conditions and the resultant comparability of the race in progress to races already completed.
- 19.2 The Race Director and Dispute Committee shall decide when racing is to be resumed, again taking track conditions, time constraints and comparability into account. Since every situation regarding loss of time differs, the decision on what to do, how and when, must lie with the Race Director and Dispute Committee. They must however always remain within the provisions of these Rules, and must be guided by the principles set out below.
- 19.3 The Race Director and Dispute Committee shall also be responsible for determining the race schedule, length and type of races, etc., should the start of the race day be delayed.
- 19.4 They shall also decide on the time at which a race day shall be abandoned due to insufficient time available.
- 19.5 Competitors shall remain available to resume or commence racing at any time until the race day is abandoned.
- 19.6 The Race Director and Dispute Committee, in making their decisions, shall be guided by the following principles:
- 19.6.1 No races shall be run unless all heats or finals of one class can be accommodated on that day.
- 19.6.2 On any one day, enough time must be available for all Final races of one class, or for two complete rounds of sprint races of one class to be completed, otherwise the day shall be abandoned. Sprint racing that is not completed on the first day of a National cannot be carried over to the second day.
- 19.6.3 If the first day of a National event is totally lost due to weather effects, then a mixture of Sprint and Final racing in the different classes (e.g.: Sprints for 1/8, Finals for 1/10) is

allowable on the second day only when one class will be using those results for World Championship qualifying. Under no circumstances shall one class compete in Sprint racing so that the other class can have Finals which are longer than the minimum duration.

- 19.6.4 The minimum duration for Final races shall be 20 minutes for all classes. Sprint race duration shall remain at 5 minutes.
- 19.7 The Race Director and Dispute Committee shall decide on the time of abandonment of a race day by using the number of Finals or Sprint groups and working back from a suitable finishing time to allow the minimum racing specified in 19.6.2 and 19.6.3 above to be completed. The finishing time shall be decided upon by the Dispute Committee, based on local conditions of light, weather conditions, etc. At the latest, the last race should be completed by 18h00 in summer and 17h00 in winter.
- 19.8 At least two full sets of Sprints shall be run, in a class, for the results of that class to be valid. If this is not possible, no result will be declared.
- 19.9 All Final races in a class must be completed, under essentially the same conditions and over the same duration, for the Finals event to be valid for that class. If this is not possible, no result will be declared.
- 19.10 Any set of Sprints per class, interrupted by rain or other weather effects shall be re-run in its entirety unless the Race Director and Dispute Committee are unanimously in agreement that the track conditions have not been significantly altered by the rain or weather.
- 19.11 Should a set of Sprints be re-run, then the results of those Sprints in the set which were run before the stoppage must be cancelled.
- 19.12 The results of full sets of Sprints per class completed before the stoppage shall stand.
- 19.13 The number of sets of Sprints may be reduced, by decision of the Race Director and Dispute Committee, should there not be sufficient time to complete the original racing schedule, subject to 19.6 above.
- 19.14 Any Final race interrupted by rain or other weather effects shall be rerun in its entirety and over its original duration, unless it is the first of a set of Finals for a class, in which case the Dispute Committee may decide on a shortened duration for all of the finals in that class, or both classes if no finals have been run in the other class and time does not allow the completion of the event with normal duration.

20 GENERAL SPECIFICATIONS - 1/8th SCALE

20.1 CAR

All cars must conform to the following specifications:

- 20.1.1 Scale: 1/8th in general appearance
- 20.1.2 All cars must have 4 wheels.
- 20.1.3 All cars must be equipped with a de-clutching device.
- 20.1.4 All cars must have effective brakes at the start of a race.
- 20.1.5 The total volume of the fuel tank as measured from the top of the filler neck on the fuel tank (with pressure pipe blocked) to the inlet nipple on the carburettor (including the fuel line) shall not exceed 125ml.
- 20.1.6 Bumpers and all other protruding items must be constructed so as to minimise injury. Front bumpers shall be made from a resilient material. Rear bumpers shall be made from a resilient material or piano wire 2 to 4 mm thick. All cars must be fitted with front bumpers.
- 20.1.7 Antennas on both cars and transmitters shall have blunt ends. No rigid antennas allowed on cars.
- 20.1.8 Wheel nuts or wheel axles shall not protrude beyond the outside of the wheel rims.
- 20.1.9 No part of the rolling chassis of the car may protrude through or beyond the profile of the body, except for the antenna tube of the receiver, the body mounting posts, bumper, wing mounting posts, the roll-over bar and a strap for opening the fuel tank.
- 20.1.10 The outlet of the exhaust pipe may protrude through the body as long as it remains inside the line between the front and rear wheels. The outlet of the exhaust pipe may not point above the horizontal.
- 20.1.11 The minimum weight limit of the cars is 2400 grams. The weight limit will be checked with the car being ready to race but with empty fuel tank and with timing transponder installed. The weight will be checked by a set of digital electronic scales and can be done at any time during the meeting, i.e. before the start of a heat, sub-final or final or after the end of either. An approved test weight must be provided for checking calibration of the digital electronic scales.

21 BODY AND WINGS

21.1 Bodies and wings must conform to the following rules:

- 21.1.1 All bodies must be SARDA Gas approved. A non SARDA Gas approved body or a modified approved body must be scrutinised by the dispute committee and declared legal by them at scrutinising. They have the power to declare any body illegal.
- 21.1.2 Only one rear wing is allowed on a car. Should a multi-level wing be used it must be fitted to scale in size and positioning and shape of the prototype and approved by the

dispute committee In the case of formula one a separate front wing may be used so long as it conforms to the dimensions in section 22.2 below.

- 21.1.3 Damaged bodies may be replaced during a race meeting but not during a race. Such replacement bodies must be accepted by the Race Director. The Race Director may, at any time during a race, rule a body unfit for use and insist that it be repaired if in his opinion it is unsafe or a menace to other drivers.
- 21.1.4 All saloon or closed cockpit cars must have a windscreen that must be clear or painted in a realistic transparent colour. A hole no larger than 65 square mm may be cut in the windscreen, in the case of a Touring car body 50% of the windscreen may be cut out to allow for more efficient cooling. Side and/or rear windows must be clear, translucent or open.
- 21.1.5 All open cockpit bodies must have a realistically painted driver figure (a minimum of helmet and shoulders), made to 1/8th scale and painted in a minimum of three colours, fixed at the normal place in the body. The head may not be amputated to make way for the fuel filler cap or any other element.
- 21.1.6 The body must be painted, cut-outs finished off and completed in "racing trim".
- 21.1.7 All cars will have three racing numbers, one in front and one on each side. These numbers shall be 40mm high (minimum) and be black on a white background.
- 21.1.8 The body may not exceed 150mm from the bottom of the chassis to the top of the body. The spoiler/wing and gurney strip for 1/8 on road class shall conform to the IFMAR rules. The gurney strip may not exceed 10mm above the body.

22 ENGINES, EXHAUSTS AND FUEL

22.1 All engines, exhausts and fuel must conform to the following:

- 22.1.1 Engines shall be normally aspirated internal combustion reciprocating two-stroke engine with a total swept volume not exceeding 3,5cc. There are no other restrictions.
- 22.1.2 All cars should be fitted with an effective muffler. It is highly recommended that competitors only use EFRA approved exhaust systems.
- 22.1.3 Fuel mixture may contain a maximum of 25% nitromethane, measured using the EFRA Nitro content measurement system. Oil type and content are free.
- 22.1.4 INS boxes are compulsory on 1/8 cars, INS Boxes must be standard, and cannot be tampered or modified with the inner and outer construction.

23 DIMENSIONAL SPECIFICATIONS

23.1 The following IFMAR dimensional specifications must be adhered to:

23.1.1 Wheel base 270 - 330 mm.

23.1.2 Maximum overall width 267 mm.

23.1.3 Maximum overall height 180 mm. (except aerial, incl. Gurney strip)

24 TYRES

24.1 Maximum width front 37 mm

24.2 Maximum width rear 64 mm

24.3 Tyres must be black, except for writing on sidewalls.

24.4 Treatment of the tyres with additives is allowed.

25 TELEMETRY

25.1 The use of any electronic device is forbidden with the exception of:

25.1.1 Two radio channels of the receiver, which will be used to operate steering, throttle and brake.

25.1.2 A passive data recording system to record functions of the car. A feedback recording or information system (data logger) can only be used up to the end of controlled practice.

25.1.3 No mobile phones allowed on the driver stand during racing.

26 GENERAL SPECIFICATIONS - 1/10th SCALE- 200mm NITRO TOURING

26.1 CAR

26.1.1 The class to be run will be known as the "NITRO TOURING" class, which will be 4WD.

26.1.2 Only one brake, working on the central power transmission, is allowed. No second or individual brake system(s) for front and/or rear axles or single wheels is allowed.

26.1.3 Maximum 2-speed gearbox allowed

26.1.4 All cars must have a de-clutching device and have an operating brake capable of stopping the car and holding the car motionless with the engine running.

- 26.1.5 The aerial support must be flexible. Carbon, GRP, steel, etc. are not allowed.
- 26.1.6 Only two (2) servos are allowed.
- 26.1.7 Drivers must have more than one (1) frequency available.
- 26.1.8 All measurements referred to in these rules are maximum or minimum values.
- 26.1.9 INS boxes are compulsory. INS Boxes must be standard, and cannot be tampered or modified with the inner and outer construction.
- 26.1.10 Minimum weight without fuel and transponder: 1650.00 grams. Add 25gms if transponder is fitted

26.2 ENGINE, EXHAUSTS AND FUEL

- 26.2.1 The engine may have a total capacity of not more than 2.11 cc.
- 26.2.2 They shall be air-cooled, with front rotary valve, two-stroke induction.
- 26.2.3 They engines may have a maximum of four (4) ports in the liner, including the exhaust port, seen with the piston at its lowest position.
- 26.2.4 No form of forced induction is allowed.
- 26.2.5 No form of variable port timing. Only glow plug ignition is allowed.
- 26.2.6 The piston skirt may only be relieved for clearance of the crankshaft counterweight.
- 26.2.7 No additional openings in the piston. Additional slits or openings in the liner are allowed as long as they do not reach the top of the piston at lowest position.
- 26.2.8 Standard or conical glow plugs allowed.
- 26.2.9 The carburetor size is to be 5.50mm maximum.
- 26.2.10 Engine capacity is to be maximum .12 (2.11cc) only.
- 26.2.11 Standard pull-start is optional.
- 26.2.12 Engine internal modifications are allowed as long as they are within the parameters of Rules 26.2.1 and 26.2.2.
- 26.2.13 Homologated mufflers of a double chamber design in conjunction with a homologated inlet noise silencer boxes (INS box) must be used. For homologation purposes, each muffler will be tested with an engine at 40,000 rpm. The muffler may not produce more than eighty five (85) decibels measured at ten (10) meters distance and one (1) meter high. IFMAR's definition of a noise level is always final.

- 26.2.14 The muffler has to bear their homologation numbers during the entire competition. The mufflers' measurements (both internally and externally) have to conform to those on the homologation sheet issued by IFMAR.
- 26.2.15 Mufflers can be checked and may be cut open at the completion of a qualifying heat and/or final and checked for compliance with homologation drawings submitted to IFMAR.
- 26.2.16 The IFMAR Muffler List will be published on the IFMAR website and Organizer's website two (2) months prior to the event.
- 26.2.17 The outlet or tailpipe of the muffler must project horizontally or downward. No upward or vertical exhaust outlets are allowed. Tail pipe maximum internal diameter* 5.20mm. Tail pipe minimum length 10.00mm. * This dimension includes a tolerance to account for manufacturing variations in commercially available tubing.
- 26.2.18 Fuel tank capacity to be 75.00cc including all fuel tubing, filters, etc. No loose inserts allowed inside the tank.
- 26.2.19 Fuel will only contain methanol (methyl alcohol), lubricating oil and a maximum of 16% nitro methane in volume. The specific gravity of the mixture may not be heavier than 0.87. An IFMAR approved fuel tester, e.g. Nitro max 16 will be available to verify fuel's conformity to the rules at Technical Inspection. Any fuel adjudged to be dangerous by the Organizer or Race Director may not be allowed.

26.3 BODIES AND WINGS

- 26.4 Touring car style bodies shall be used. Only bodies that are recognized and approved by IFMAR, ROAR, EFRA, FEMCA or FAMAR will be allowed and must bear the appropriate homologation stamp.
- 26.5 The front bumper must follow the body contour and must be constructed so as to minimise injury that may result from being hit by a car. The bumper must be made from foam rubber or a flexible plastic material.
- 26.6 The body must be made from a flexible material and be painted properly. All windows must remain clear and not be painted over or be semi-transparent
- 26.7 Bodies are not to be cut above the lower bumper line at the front or the back or above the bottom line of the doors. Details of all front and rear lights, grills, air intakes and windows must be clearly contrasted from the surrounding paintwork.
- 26.8 Only the following AIR HOLES and sizes are permitted in the body shells:
 - 26.8.1 One (1) cooling hole may be cut in the front windscreen with a maximum size of 50% of the windscreen area. This hole cannot intrude into either the roof or the bonnet.
 - 26.8.2 25.00 mm maximum diameter hole in the roof for glow plug access.

- 26.8.3 Both front side windows and the rear windscreen can be removed for ventilation, except for the side rear windows which must remain intact.
- 26.8.4 Re-fuelling hole maximum 50.00mm diameter.
- 26.8.5 Small holes can be made for the exhaust pipe, transponder, radio antenna, tuning screw and tank cable tie. No other holes are permitted.
- 26.9 Roll-bars (roll-over bars) must be kept under the body.
- 26.10 No parts of the car, except the muffler outlet may protrude outside of the body shell when viewed from above.
- 26.11 Underbody/chassis aerodynamic aids of any nature are not allowed.
- 26.12 One wing and one spoiler may be mounted to any car (if the original full-size car had more, it is allowed to do the same). Wing and spoiler must be made from a flexible material and be painted. Wing and spoiler must not be fixed to body with piano wire. Basically, they must be mounted to body directly. Wing and spoiler (gurney) may not protrude outside the maximum height and width of the body (including the side dams). Rear wings must be mounted in the same place as was intended by the body manufacturer. The overhang must not exceed 10.00mm at the furthest point, to be measured from the rearmost edge of the boot lid.
- 26.13 The height of the wing may be adjusted but the wing, including endplates and gurney must not extend higher than the roofline. Wings (excluding endplates) are to be of single molded construction (no flat-packs/bend your own). Gurney strip (if allowed) may not exceed the width of the wing and have an edge not more than 5.00mm high. Total chord of wing, plus the strip is 55.00mm.

26.14 DIMENSIONAL SPECIFICATIONS

	Minimum (mm)	Maximum (mm)
Wheelbase	230.00	270.00
Width (without body)	170.00	200.00
Width (with body)	175.00	205.00
Length (incl. Body & Wing)	360.00	460.00
Height (to top of roof) measured from the bottom of the chassis when standing on	120.00	175.00

fixed-height blocks		
Wing width inclusive	125.00	200.00
Wing chord	40.00	50.00 (55.00with gurney)
Wing endplate (equal size)		35.00 x 50.00
Wing overhang (at rear)		10.00
Wheel diameter (excluding tyre bead)	46.00	50.00
Wheel width (including bead)	18.00	30.00
Tyre width (across side walls)	18.00 +1mm tolerance (as per IFMAR)	30.00 +1mm tolerance (as per IFMAR)

26.15 TYRES

26.15.1 TYRES - Pro-Touring: Foam and/or Rubber tyres may be used. Any materials used in, or on, the tyres must not damage the racing surface.

26.15.2 Treatment of the tyres with additives is allowed.

27 GENERAL SPECIFICATIONS - 1/8th SCALE- GT

27.1 CAR

27.1.1 The class to be run will be known as the "1/8 Scale GT" class, which will be 2WD or 4WD.

27.1.2 Only one brake, working on the central power transmission, is allowed. No second or individual brake system(s) for front and/or rear axles or single wheels is allowed.

27.1.3 Any 1/8 scale Buggy or Truggy based shaft driven nitro powered vehicle. Off-road conversion is allowed with front kick up. Chassis with Kick up cannot be altered to change original manufacturers design.

27.1.4 Stock and factory optional chassis are permitted, but it must retain all the characteristics of the standard off-road chassis on which it's based. Chassis must be identical to their off-road counterparts in all dimensions except where it's necessary to convert the chassis for on-road use. Carbon fibre chassis plates are not permitted.

- 27.1.5 Transmission: Single speed or two-speed only. Single speed configurations must include a solidly mounted spur gear to a standard bevel gear centre differential or a solid spool (no one-way bearing). No other differential types will be permitted.
- 27.1.6 A shaft-drive system with two gear-type open differentials are required. No one-ways, spools, locking "Torsion type," or externally adjustable differentials are permitted. Shaft-drive only – belt driven cars are not permitted.
- 27.1.7 Only buggy based 2, 3, or 4 shoe clutch systems. No radial type clutches (Centax)
- 27.1.8 Minimum weight: 4WD 3500 gram
- 27.1.9 All cars must have a de-clutching device and have an operating brake capable of stopping the car and holding the car motionless with the engine running.
- 27.1.10 The aerial support must be flexible. Carbon, GRP, steel, etc. are not allowed.
- 27.1.11 Only two (2) servos are allowed.
- 27.1.12 Drivers must have more than one (1) frequency available.
- 27.1.13 All measurements referred to in these rules are maximum or minimum values.
- 27.1.14 INS boxes are compulsory. INS Boxes must be standard, and cannot be tampered or modified with the inner and outer construction.

27.2 ENGINE, EXHAUSTS AND FUEL

- 27.2.1 Any buggy engine of .21 size or ready to run kit with a factory .25 or .28 (must keep pull start on .25 and .28 if ready to run came with it.)
- 27.2.2 No engine modifications may be made to any engine.
- 27.2.3 Rubber extensions to stinger OK. No internal moving parts.
- 27.2.4 Max carb bore 7mm
- 27.2.5 Fuel will only contain methanol (methyl alcohol), lubricating oil and a maximum of max 25% nitro with an SG of 0.91 maximum.

27.3 BODIES AND WINGS

- 27.3.1 Any commercially available factory licenced replicas of ALMS, GT1 or GT2, Super GT, DTM, and V8 Supercar Cars. Any GT like body. No lightweight polycarbonate, minimum 0.9mm thickness.
- 27.3.2 All wheel wells must be cut out and rear of the bodies should maintain tail lamps and cannot be completely cut out. No wedge style Bodies.

- 27.3.3 All body approvals will be subject to scrutiny of the respective or collective advisory committees regarding compliance to the “spirit of the rules.”
- 27.3.4 Bodies must include full front and rear fascia’s, and conform to the rules herein that limit openings in the body for the purposes of refuelling, starting, engine tuning, and antenna holes.
- 27.3.5 Bodies must be fully detailed in order to compete in competition. The body must have visible window, body panel and trim markings, and the windows must be mostly clear. Some intrusion for creative painting purposes and tinting is permitted, but the windows must be transparent.
- 27.3.6 Rear Wing Side dam Length Maximum: TBD.
- 27.3.7 Height Maximum: TBD.
- 27.3.8 Chord Maximum 77mm.
- 27.3.9 Width Maximum: 217 mm

28 DIMENSIONAL SPECIFICATIONS

Overall Length: Defined by body.

Maximum width 310mm.

Wheelbase between 270-379mm

Maximum height 250mm including wing with suspension fully compressed, chassis against the floor.

Wheels Mounting Bead diameter: Maximum:79.00 mm / 83.50 mm.

Overall Diameter Maximum:88.50 mm.

Width Maximum 44.45 mm.

Tyres Diameter Maximum 119.22 mm. Minimum TBD

Width Maximum 47.0 mm

29 TIRES

29.1 Wheels must use a 17mm hex hub consistent with the dimensions and function of the hubs used in 1/8 off-road racing.

29.2 The wheel must be affixed by a 7mm wheel nut, threaded on to the hex hub. Quick change mechanisms are not permitted.

29.3 Tyres must be moulded rubber – no foam tyres are permitted in any class.

30 DEFINITIONS

SARDA Gas	South African Radio Drivers Association, Gas section
EFRA	European Federation of Radio-operated model Automobiles
AGM	Annual General Meeting
SPRINTS	1/8 th , 1/8 th GT, 1/10 th and Nitro Touring scale heats
ENDURANCE racing	1/8 th , 1/8 th GT, 1/10 th and Nitro Touring scale main races

○

31 INDEMNITY

SARDA Gas, its officials, committee members, contestants, their families, helpers as well as hired help, patrons, hosting clubs and owners of facilities owned, used or rented are hereby indemnified from any legal and/or civil claims whatsoever that may arise as a result of injury, cancellation of events, material loss, damages to person or property, and/or any other reason whatsoever, which may arise or be suffered at/or because of any SARDA Gas sanctioned event, even if any of the above was directly caused due to negligence of the aforesaid peoples.

32 Supplementary Regulations - Appendix to the SARDA Gas Rule Book

32.1 EVENTS

Number of Nationals events	Four					
	1	2	3	4	5	6
National venues	BRCCC	TRAP	TVR	WELKOM		
National dates	03/04 March	05/06 May	07/08 July	03/04 October		

32.2 SPRINT RACING

Number of heats per group (At least **two** sets to qualify for points)

Race format	1/8	1/8 Scale
	N/T	Nitro Touring
	1/8 GT	1/8 Scale GT

Race duration

Starting system:	Grid:	Comments Accordingly as per 9.20 on page 10 & 11.
	Straight line	
	Staggered start	

Starting order:	First heat:	According to car number
	Following heats:	According to 9.20 on page 10 & 11.

32.3 FINALS

Race duration	1/8	All groups the same, 45 Minutes
	1/10	All groups the same, 30 Minutes
	N/T	All groups the same, 30 Minutes
	1/8 GT	All groups the same, 30 Minutes

Starting system:		Comments
Grid:	<input checked="" type="checkbox"/> See grid above.....
Straight line	<input type="checkbox"/>
Le Mans	<input checked="" type="checkbox"/>	Optional, Race Director's Discretion
Other	<input type="checkbox"/>	Specify: <input style="width: 150px;" type="text"/>

33 CHAMPIONSHIP POINTS

33.1 Sprint racing (Qualifiers)

Number of heat/s to count: Two

	Position	Points	Position	Points	Position	Points
Points allocation:	1st	53	11th	40	21st	30
	2nd	50	12th	39	22nd	29
	3rd	48	13th	38	23rd	28
	4th	47	14th	37	24th	27
	5th	46	15th	36	25th	26
	6th	45	16th	35	26th	25
	7th	44	17th	34	27th	24
	8th	43	18th	33	28th	23
	9th	42	19th	32	29th	22
	10th	41	20th	31	30th	21
						etc.

Split to make up the finals: Evenly split to make up final groups.

33.2 Finals

	Position	Points	Position	Points	Position	Points
Points allocation:	1st	53	11th	40	21st	30
	2nd	50	12th	39	22nd	29
	3rd	48	13th	38	23rd	28
	4th	47	14th	37	24th	27
	5th	46	15th	36	25th	26
	6th	45	16th	35	26th	25
	7th	44	17th	34	27th	24
	8th	43	18th	33	28th	23
	9th	42	19th	32	29th	22
	10th	41	20th	31	30th	21

Method of allocation of points:

According to the total laps completed (irrespective of which group the driver has driven in)

33.2 Comments:

Separate championships for each section:

Your best Three out of Four, for 1/8th, 1/8th GT & Nitro Touring class count towards championship points

Endurance Championship for 1/8th, 1/8th GT & 200mm Nitro Touring main races

Sprint Championships for 1/8, 1/8th GT & 200mm Nitro Touring

All inland drivers contesting the National series must attend at least one Coastal event for their points to count in the Championships. Vice versa, coastal drivers must attend at least one inland event for their points to count in the Championships. Committee discretion may be applied.