

INTERNATIONAL FEDERATION OF MODEL AUTO RACING



IFMAR 1/5th I.C. TRACK RACING AND TECHNICAL RULES

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IFMAR 1/5th SCALE I.C. (GAS) CIRCUIT RACING AND TECHNICAL RULES

(To be read in conjunction with 1. GENERAL Rules for IFMAR World Championships.)

2. RACING FORMAT

2.1 SCHEDULE

The World Championship will be run over a period of nine (9) days. The schedule for the event must be submitted to IFMAR for approval.

2.2 EVENT SCHEDULE

No practice on the event track will be allowed in that specific W.C. class during the two (2) weeks preceding frequency controlled practice. The track surface should be prepared so that good quality practice will be obtained when practice commences. This may be achieved by a spraying and/or cleaning of the track surface, as required. Frequency controlled practice will not normally be changed but may be if, because of unforeseen circumstances, the Team Managers' Committee votes to do so with approval from the International Jury. The schedule for the event will be as follows:

1 st – 2 nd	Event Days	Saturday-Sunday	Frequency controlled practice
3 rd	Event Day	Monday	Controlled heat practice and Opening Ceremony
4 th – 6 th	Event Days	Tuesday-Thursday	Qualification rounds
7 th	Event Day	Friday	Lower Christmas Tree finals – 1/8 th and lower
8 th	Event Day	Saturday	Higher Christmas Tree finals – 1/4 and higher
9 th	Event Day	Sunday	Spare Day – to be used to allow for any delay in schedule. Banquet and Awards' presentation to be held on Sunday night or, if approved by IFMAR, on the Saturday night.

2.3 REGISTRATION

Sunday from 08.00 to 18.00 and Monday from 08.00 to 18.00. Final deadline for registration: Monday 18.00. IFMAR may authorise later registration at its discretion.

When registration of drivers is carried out, each driver will sign a form which states that he accepts, and will abide by, the published rules of the event.

2.4 DRIVERS' AND TEAM MANAGERS' MEETINGS

2.4.1 Any drivers briefings are to be held at the Organiser's discretion when all drivers must attend.

2.4.2 A Team Managers' Meeting before the start of the first round of qualifying heats is compulsory. All Team Managers must attend. They must be able to understand and speak English.

2.4.3 Further Team Managers' Meetings are recommended but are called only by the most senior IFMAR officer at the track or, in his absence, by the Race Director.

2.5 TECHNICAL INSPECTION

Technical Inspection will be held on Sunday and Monday from 08.00 until 18.30 in provisional heat order. Drivers or mechanics have to present their cars with bodies, empty tanks, a bottle of fuel and transmitters.

2.6 CONTROLLED PRACTICE

All drivers will have the chance to participate in frequency controlled practice on Saturday and Sunday. There will be a timed practice for drivers in their published heats on Monday, ten (10) minute practice heats beginning at 08.30 **and 3 consecutive laps from the timed practice will be used for the heat seeding.**

2.7 OPENING CEREMONY

An Opening Ceremony will take place on Monday. The time must be published in the time schedule. Competitors will participate in a welcoming procession. Each national team is asked to wear similar shirts. A flag and sign bearing the name of each country will be provided by the organiser for each team.

2.8 QUALIFYING HEATS

There will be six (6) qualifying rounds of ten (10) minutes for each entrant. The entrants will be divided into two (2) groups: Group A, heats 1 to 7, Group B, heats 8 to 15.

Six (6) rounds of qualifying heats will be run as follows:

Tuesday: Rounds 1 and 2

Group A		
heat 1	09.30	11.15
heat 2	09.45	11.30
heat 3	10.00	11.45
heat 4	10.15	12.00
heat 5	10.30	12.15
heat 6	10.45	12.30
heat 7	11.00	12.45

Group B		
heat 15	13.45	15.45
heat 14	14.00	16.00
heat 13	14.15	16.15
heat 12	14.30	16.30
heat 11	14.45	16.45
heat 10	15.00	17.00
heat 9	15.15	17.15
heat 8	15.30	17.30

After round two (2) of qualifying heats, drivers will be re-seeded within their group for remaining rounds of heats.

After re-seeding:

Wednesday: Rounds 3 and 4

Group B starts at 09.30 – heat 8 to 15, heat 8 to 15
Group A starts at 13.45 – heat 7 to 1, heat 7 to 1

Thursday: Rounds 5 and 6

Group starts at 9.30 - heat 4 to 1, heat 15 to 5
Group starts at 13.30 – heat 4 to 1, heat 5 to 15

This schedule assumes 150 drivers. For less, there would be equivalent heats.

Time	TUESDAY	WEDNESDAY	THURSDAY
9.30	Heat 1	Heat 8	Heat 4
9.45	Heat 2	Heat 9	Heat 3
10.00	Heat 3	Heat 10	Heat 2
10.15	Heat 4	Heat 11	Heat 1
10.30	Heat 5	Heat 12	Heat 15
10.45	Heat 6	Heat 13	Heat 14
11.00	Heat 7	Heat 14	Heat 13
11.15	Heat 1	Heat 15	Heat 12
11.30	Heat 2	Heat 8	Heat 11
11.45	Heat 3	Heat 9	Heat 10
12.00	Heat 4	Heat 10	Heat 9
12.15	Heat 5	Heat 11	Heat 8
12.30	Heat 6	Heat 12	Heat 7
12.45	Heat 7	Heat 13	Heat 6

13.00		Heat 14	Heat 5
13.15	Break	Heat 15	
13.30			Break
13.45	Heat 15	Break	
14.00	Heat 14		Heat 4
14.15	Heat 13	Heat 7	Heat 3
14.30	Heat 12	Heat 6	Heat 2
14.45	Heat 11	Heat 5	Heat 1
15.00	Heat 10	Heat 4	Heat 5
15.15	Heat 9	Heat 3	Heat 6
15.30	Heat 8	Heat 2	Heat 7
15.45	Heat 15	Heat 1	Heat 8
16.00	Heat 14	Heat 7	Heat 9
16.15	Heat 13	Heat 6	Heat 10
16.30	Heat 12	Heat 5	Heat 11
16.45	Heat 11	Heat 4	Heat 12
17.00	Heat 10	Heat 3	Heat 13
17.15	Heat 9	Heat 2	Heat 14
17.30	Heat 8	Heat 1	Heat 15

When the number of entries for an IFMAR 1/5th W.C. is less than 100, the organiser, with IFMAR's approval, is allowed to change the qualification schedule (must be announced at the end of official Registration).

Qualification then can be three (3) days of qualifying with three (3) rounds each day.

Tuesday: Rounds 1, 2, 3

Group A

Heat 1	9.00	10.15	11.30
Heat 2	9.15	10.30	11.45
Heat 3	9.30	10.45	12.00
Heat 4	9.45	11.00	12.15
Heat 5	10.00	11.15	12.30

Group B

Heat 5	13.45	15.15	16.45
Heat 6	14.00	15.30	17.00
Heat 7	14.15	15.45	17.15
Heat 8	14.30	16.00	17.30
Heat 9	14.45	16.15	17.45
Heat 10	15.00	16.30	18.00

Wednesday: Rounds 4,5,6

Group B starts at 9.00

Group A starts at 13.45

Thursday: Rounds 7,8,9

Group A starts at 9.00

Heat 5 to 1

Group B starts at 10.15

Heat 10 to 6

Group A starts at 11.30

Heat 5 to 1

Group B starts at 13.45

Heat 10 to 6

Group A starts at 15.15

Heat 1 to 5

Group B starts at 16.45

Heat 6 to 10

2.9 FINALS

All sub-finals and final consist of ten (10) drivers or if IFMAR approval is granted, up to a maximum of fifteen (15) if the track and facilities permit. The number of drivers in the "Christmas Tree" finals must be published in the Stage II Report.

"Christmas Tree" System for 150 entries (10 drivers, 12 in first final)

A leg	FINAL 60 minutes	B leg
1 st , 2 nd , 3 rd , 4 th + *** 1, 3, 5, 7, 9, 11, 13 1 st , 2 nd + **	1/2 30 minutes	1 st , 2 nd , 3 rd , 4 th + *** 2, 4, 6, 8, 10, 12, 14 1 st , 2 nd , 3 rd + **
15, 17, 19, 21, 23, 25, 27 1 st , 2 nd , 3 rd *	1/4 30 minutes	16, 18, 20, 22, 24, 26, 28 1 st , 2 nd , 3 rd *
29, 31, 33, 35, 37, 39, 41 1 st , 2 nd , 3 rd *	1/8 20 minutes	30, 32, 34, 36, 38, 40, 42 1 st , 2 nd , 3 rd *
43, 45, 47, 49, 51, 53, 55 1 st , 2 nd , 3 rd *	1/16 20 minutes	44, 46, 48, 50, 52, 54, 56 1 st , 2 nd , 3 rd *
57, 59, 61, 63, 65, 67, 69 1 st , 2 nd , 3 rd *	1/32 20 minutes	58, 60, 62, 64, 66, 68, 70 1 st , 2 nd , 3 rd *
71, 73, 75, 77, 79, 81, 83 1 st , 2 nd , 3 rd *	1/64 20 minutes	72, 74, 76, 78, 80, 82, 84 1 st , 2 nd , 3 rd *
85, 87, 89, 91, 93, 95, 97 1 st , 2 nd , 3 rd *	1/128 20 minutes	86, 88, 90, 92, 94, 96, 98 1 st , 2 nd , 3 rd *
99, 101, 103, 105, 107, 109, 111 1 st , 2 nd , 3 rd *	1/256 20 minutes	100, 102, 106, 108, 110, 112 1 st , 2 nd , 3 rd *
113, 115, 117, 119, 121, 123, 125 1 st , 2 nd , 3 rd *	1/512 20 minutes	114, 116, 118, 120, 122, 124, 126 1 st , 2 nd , 3 rd *
127, 129, 131, 133, 135, 137, 139, 141, 143, 145, 147, 149	1/1024 20 minutes	128, 130, 132, 134, 136, 138, 140, 142, 144, 146, 148, 150

* First three go forward. Duration is 20 minutes.

** First two go to semi-final; then the next two fastest from either quarter-final. Duration is 30 minutes. In case of three from each final, they stay in their respective side of the Christmas tree. In case of four going forward from the odd final, number four car moves to the even semi-final. In case of four going forward from the even final, number four car moves to the odd semi-final.

*** First four (4) go to final and then the next two fastest from either semi-final. Duration is 30 minutes.

Timetable Friday:

Lower finals from 1/1024 to 1/8 to be run over 20 minutes.

Start time	B leg Finals		Start time	A leg Finals
08.00	1/1024 B		08.30	1/1024 A
09.00	1/512 B		09.30	1/512 A
10.00	1/256 B		10.30	1/256 A
11.00	1/128 B		11.30	1/128 A
12.00 – 13.30 LUNCHBREAK				
13.30	1/64 B		14.00	1/64 A
14.30	1/32 B		15.00	1/32 A
15.30	1/16 B		16.00	1/16 A
16.30	1/8 B		17.00	1/8 A

Timetable Saturday

Saturday: 1/4 finals to be run over 30 minutes.

Start time	B leg Final		Start time	A leg Final
10.00	1/4 B		10.30	1/4 A

11.30 – 13.30 Lunchbreak

1/2 finals to be run over 30 minutes.

Start time	B leg Final		Start time	A leg Final
13.00	1/2 B		13.45	1/2 A

CHAMPIONSHIP FINAL TO BE RUN OVER ONE (1) HOUR.

All ten (10) finalists will be allowed a maximum of 700ccm of fuel in an unbreakable fuel bottle. The organiser must provide fire extinguishers and fire-blankets in the pit area with easy access for all mechanics. The organiser must have a minimum of two (2) specially-trained fire personnel in the pit-lane during the final.

Cars must be removed from the pit lane to the table and mechanics have to stop the engine, minimum during 90 seconds, and switch off radio equipment. Then they have to take off the body shell completely before they start re-fuelling. Fuel tanks will be checked after the final for capacity.

15.00 Drivers' presentation to the public

15.15 Warm-up Practice

15.28 Trial start

15.30 Start

16.40 End of the race

16.50 Unofficial publication of result

17.10 End of protest time

17.20 Prize ceremony on the track

Sunday: To be used as spare day to allow for any delay in schedule. Banquet and Awards' presentation to be held on Sunday night. At the conclusion of the Banquet and Awards' presentation, Team Managers will be given a result folder showing the qualification results and the final positions, as a closing report.

2.10 RAIN SITUATION

In case of different weather conditions during sub-finals the final classification will be as follows: Place 4 of sub-final A and Place 4 of sub-final B will both be awarded place 11th equal in the general classification. Place 5 of sub-final A and place 5 of sub-final B will both be awarded place 13th equal in the general classification and so on.

2.11 RACE INTERRUPTIONS

- 1 In the case of a race which is interrupted for more than sixty (60) minutes for reasons beyond the control of the organiser, the Jury will decide whether to cancel or continue the meeting.
- 2 In the case of an interruption of a heat the entire heat will be re-run.
- 3 In the case of an interruption of sub-final or a final the following procedure will be used:
 - A. If less than 10 minutes of a final has been run, the results will be cancelled and a new start given for the total time of the final. Vehicles may be repaired before the new start.
 - B. If more than 10 minutes of the final have been run, the results at the moment of the interruption will be kept. The new start will be given for the time which remains to complete the final. The two results will be added to give the final and definitive placing. If the second start cannot be made for any reason, the results from the first part will be used as the final and definitive placing.
 - C. When the interruption takes place after 75% or more of the race is past, the results as at the time of the interruption becomes the final result. At the moment of the interruption of the race, the drivers will leave their vehicles on the start-line under the control of the Race Director. They may switch off the radio and stop the engine. There will be no repairs carried out to the vehicle or changing of tyres. Any driver who does not observe this rule will be immediately disqualified.

2.12 RAIN PROCEDURE DURING QUALIFYING

- 1 The Race Director and the Referees are jointly responsible for the decision to stop a race in the event of rain.
- 2 On the result sheets the Race Director or the appointed official must mark a heat "WET" when the heat was raced under wet conditions. On the corresponding record sheets, this must also be marked. The Race Director together with the Referees will decide in case of doubt. Heats are generally considered to be "WET2" when average lap times are approximately 20% slower than before, due to rain or moisture on the track.
- 3 When all drivers have had at least one dry heat, all results will be counted.
- 4 When weather and time permits, with intention of equalising opportunity, the Race Director may decide to schedule or re-schedule qualification heats to allow those affected by wet conditions to participate in dry conditions.
- 5 When not all drivers have had a chance to run a dry heat, only the wet results will be counted.
- 6 When continuation is judged to be senseless, or when other drivers should be offered a fair chance to drive under dry conditions, the Race Director together with the Referees may decide to end a heat or cancel a complete heat (2.11 -1).

2.13 MATERIAL PROVIDED

2.13.1 RACE PACKAGE

During registration, every driver will be given an envelope which includes:

A detailed schedule including starting times of each heat

3 sets of numbers for the car – black on white (each number to measure a minimum of 7 cm/2.75 in. wide x minimum of 9.50 cm/3.74 in. high with a stroke of minimum 15.00 mm/.590 in.)

3 sets of numbers for the wing

1 number for the transmitter

1 badge for the driver showing his passport-size photograph, 2 badges for the mechanics and 1 badge for the country's Team Manager will be issued.

2.13.2 NUMBERING OF CARS

Cars will be numbered 1 to 10 in each heat.

Each car must have 3 numbers: - one on the motor-hood
one on the right front door
one on the left front door.

It is not allowed to place them on windscreen or front side windows.

These numbers may change after timed practice (re-seeding).

The organiser will provide other numbers for altered heats and for sub-finals and final. Drivers must use numbers provided by the organiser with no modifications.

2.13.3 NUMBERING OF THE BODY/WING

The registration number (1-150, with number 1 being the reigning world champion) is put on the body/wing. It is the same for the entire competition.

The numbers provided by the organiser must be attached to the right side of the body/wing, the other side being reserved for the competitor's national flag. Every competitor must have his national flag on the left side of the body/wing of his car (when looking from the rear).

2.13.4 NUMBERING OF TRANSMITTERS

Every transmitter will have the competitor's number on it. (The same number as on the wing.)

2.14 BADGES

2.14.1 DRIVERS, MECHANICS AND TEAM MANAGERS

Three badges will be given to each competitor, blue for the driver, yellow for the mechanics. The designated Team Manager from each country will receive an orange badge upon registration of his drivers (see Rule 4.17).

2.14.2 ACCESS TO PITS AND TRACK

Orange badges/team managers:	pits, staging area, special viewing area
Blue badges/drivers:	drivers' stand, pits, staging area
Yellow badges/mechanics:	pits, staging area
Green badges/Press:	pits, staging area, special viewing area
Red badges/race officials:	all areas
Grey badges/IFMAR officials:	all areas

2.15 PITS

Places are allocated for the duration of the World Championship. Places are grouped by country and marked by sign plates. Pits are covered. Every competitor will have a 90 x 150 cm (3 x 5 feet) table space.

Pits are equipped with either 120 V/60 or 220 V/50 AC. Limited quantity of transformers will be available

2.16 TRANSMITTERS

2.16.1 TRANSMITTER IMPOUND

Transmitter impound will commence on the first day of the event. All transmitters must be placed in impound upon arrival at the track.

Transmitters will be furnished to each competitor after completion of technical inspection and prior to their heat. All transmitters must be returned to impound following their heat, final or practice run.

Transmitters in the pit area, or areas other than the drivers' stand and impound, during official competition hours, will cause disqualification.

2.16.2 TRANSMITTER INSPECTION

All transmitters must be tested and inspected prior to their use. A spectrum analyser will be used for radio inspection. All transmitters passing inspection will be identified and only these transmitters, thus identified, may be used in the event.

2.16.3 TRANSMITTER MODIFICATIONS

Any extensions and/or additions to the antenna on a transmitter are forbidden. Any modifications of the power pack (higher voltage) are forbidden.

2.16.4 USE OF 2.4GHz DSM/DSS SYSTEMS

These systems can be used, if permitted in the organising country. However, due to the way they operate, a driver using such a system cannot ask for any delaying case of radio problems.

2.17 LAP COUNTING AND TIMING

Automatic lap counting, with cumulative and split lap times, will be in place for each car. Competitors are required to install a small transponder into their cars according to the organiser's instructions.

An audio/video tape recording will be made.

Every competitor is allowed to use his own IFMAR approved personal transponder if the lap counting officials are informed and agree.

If an organiser is using a personal transponder system, he has to provide to all participants not having their own transponder, a transponder for every heat or final free of charge. It is strictly forbidden to ask for a rental fee. A deposit of the replacement value for the personal transponder may be demanded. If a competitor by any reason destroys or does not return a personal or normal transponder, he loses his deposit.

The driver has to ensure that his personal private transponder belongs to the marked chassis.

Significant stops (tyre changes, crashes, etc.) will be notes with times of stop and restart. This record might not include every incident, however, its intent is to verify incidents, whenever possible.

AMB lap counting system or IFMAR approved equivalent must be used in duplicate.

A suitable working computer with proper race proven programmes must be provided to sort lap times, print results from heats and sort final positions from each round of heats within 15 minutes of the completion of the round of heats.

Chronometers must give time to 1/100th of a second, in all cases, the hundreds will be utilised.

In the case of equal results, the following best heat will separate the competitors.

If both the primary and support lap counting systems fail during a qualifying heat or final, the heat or final will be re-run as soon as is practicable. Under no circumstances will any lap score or time, other than those from the official time keeping equipment, be accepted for any purpose to do with the running of an IFMAR race.

2.18 DISPLAY AND DISTRIBUTION OF THE RESULTS

The display of the positions in a specific heat or final will be done in the pits and in the Team Managers'/Press stand.

At the end of each heat (every 15 minutes) or of the finals, a copy of each competitor's lap sheet will be available for checking and information. Copies of the time-lap sheets of all cars of the heat or the final will be displayed with the result.

At the end of each round, after the 15th heat, results of the general classification will be available.

3. TRACK SPECIFICATIONS

3.1 SURFACE

Track surface should be unsealed asphalt or coarse finished concrete with smooth joints, if any.

3.2 LENGTH

The minimum length is 250 metres/820 feet. Advised is 300-350 metres/984 feet-1148 feet.

3.3 WIDTH

The minimum width of the track is 4.5 metres/15 feet between marking lines. The maximum width is 6.5 metres/ 21 feet.

The marking lines must be 8-10 centimetres/3-4 inches wide.

3.4 PODIUM

Maximum distance from the middle of the drivers' podium to the furthest point of the track is 60 metres/197 feet.

Minimum height of the drivers' podium is 2.5 metres/8 feet from track level and the podium is at least 10 metres/33 feet long. (10 Drivers)

3.5 VISION

No obstacles may interrupt the vision from the drivers' podium to all parts of the track.

3.6 MARKING

A broken line may be painted in the middle of the straight to increase the vision.

3.7 PITS

The (refuelling) and pit area should be clearly distinct and separated from the main track and as close as possible to the drivers' podium. A fire-extinguisher is mandatory.

Exit from and entrance to the main track is advised to be on a slow section of the track. Drivers have to reduce speed while entering the pit area.

3.8 DESIGN

Track design must include both right and left turns and must have a straight of minimum 60 metres/164 feet.

3.9 OUTSIDE BARRIERS

Outside barriers must provide positive means of stopping a car when missing a corner or out of driver's control. The consideration at selection of the outside barriers shall be the protection of the spectators and not the cars, although, if both can be obtained, it is ideal. The outside barriers must be at least 40 centimetres/16 inches away from the marking lines of the track.

A solid fence of one (1) metre/3.30 feet in height must be placed behind the outside barriers made from a material to stop an out of control car.

3.10 INSIDE BARRIERS

Inside barriers must avoid short-cutting of corners or cars getting on other parts of the track.

Inside barriers must be positioned and dimensioned to avoid cars flying over the outside barriers into the public.

Inside barriers must be smooth and must be 20 cm/8 inches away from the marking lines on the track.

3.11 DOTS

No dots will be used on high speed sections.

3.12 SURROUNDINGS

The inner and outer surroundings of the track must have grass or other suitable materials, such as concrete. The object of these surroundings is to slow down the car that leaves the track. The car must be able to leave the infield or outfield on its own to minimise marshal assistance.

3.13 STARTING LINE

A starting line must be painted across the track, preferably in front of the time keeping. The starting line must be located more than 10 metres/33 feet away from the first corner.

3.14 FORMULA 1 START

The grid will be painted on the track, preferably on the straight. Two (2) rows of numbered boxes will be located on the track with approximately 2.5 metres-3 metres/

8.20 feet-9.84 feet space between each row. On one (1) side, the boxes will be numbered 1, 3, 5 etc. and on the other side 2, 4, 6 etc. No. 1 box is situated

3 metres/9.84 feet in front of No. 3; No. 2 stands 3 metres/9.84 feet in front of No. 4 etc. The boxes should have a width of 50 centimetres/19.68 inches.

4. RACE PROCEDURES

It is not allowed to drive a model car on any other place than the track and the marked pit lane.

4.1 POSITIONING

Mechanic must be positioned under his driver's position. During finals, positions will be selected by drivers in order of qualifying position, i.e. No. 1 qualifier has first choice, No. 2 qualifier has second choice, etc. During qualifying heats only one (1) mechanic is allowed per car. During Sub-Finals and Main Final, two (2) mechanics are allowed per car. The use of all electronic communication devices between drivers and mechanics is banned during heats and Finals.

4.2 GENERAL STARTING PROCEDURE

HEATS -

4.2.1 There must be a 5 minute gap between the end of one heat and the start of the next. Also a minimum of 3 minutes must be allowed between the issuance of the transmitters and the start of the heat.

4.2.2 An audible warning will be given in English language at 1 minute and at 30 seconds during the warm up period. At the starting time an audible and visible signal will be given for a rolling start.

SUB-FINALS AND FINALS

4.2.3 **For all Finals, the track will be opened 5 minutes prior to the start of the Final. At 2 minutes to "start" all cars will be called back into the pit lane and re-fueling is allowed. At 45 seconds to start" the cars are called to the start line, all cars will leave the pits in number order and drive round the track to their respective starting positions. The 10 second count-down will commence within 5 seconds of**

all cars being stationary in their correct grid position. If a car has not left the pit lane at 30 seconds due to unforeseen problems, the car may start from the pitlane after the other cars have officially started. The race director and referees will monitor the pitlane for the abuse of this facility.

4.2.4 **From 10 seconds until 3 seconds prior to the start a second by second count-down will be made in English.**

4.2.5 From 3 seconds, the counting stops and the start signal must be given by the starter between 0 and 5 seconds.

If the grid is not to the satisfaction of the starter, he may command a re-start, beginning count down from 30 seconds. **If the grid is not to the satisfaction of the starter, he may command a re-start, beginning count down from 30 seconds.**

4.2.6 The official starting signal will be audible by means of a horn operated by the starter. This signal will also start the timing systems.

4.2.7 Early starts - ALL FINALS ONLY.

Early start (i.e. any car touching the starting line) will be penalised with a ten (10) second top and go penalty.

This penalty is issued by the starting official or the time-keeping official and has to be announced immediately after the start. The penalty will be marked on the result sheet.

4.2.8 Under no circumstances will the race be stopped due to a jumped start.

4.2.9 Only the Race Director may interrupt the race and order a restart in the event that he considers the starting procedures or the start were not carried out correctly.

4.2.10 DELAYED START -

As long as the starter has not called the cars to the starting line, every participant of the quarter-finals, semi-finals and the final may request a delay of ten (10) minutes for repairs on his car. The delay will be granted only once for each quarter-final, semi-final and final.

The driver requesting the delay for whatever reason, except an error in frequencies by Race Control, must start from the back of the grid (last position).

The track shall be closed to all cars during the delay period. When the frequency problem was created by Race Control, the driver keeps his starting position.

4.3 MARSHALLING/ACCIDENTS/CRASHES

a) A yellow flag will be shown and announced, if an accident occurs. (This must be a yellow flash-light combined with an audible signal, that can be operated by the Referees and the Race Director). During the yellow period overtaking other cars is not allowed. Cars are required to slow down so that they can stop immediately. Disregarding this rule will be penalised by deducting one lap from the result of the driver concerned in that particular heat, sub-final or final. An official warning has also to be issued.

Racing will recommence at racing speed following display of a green flag or the official announcement "track is clear". Signals given by flags have to be visible for all drivers.

b) One mechanic for each driver is allowed to enter the track to save the car of his own driver. The mechanic has a maximum of three (3) attempts to restart the engine beside the track, but not repair the car. The mechanic may not disturb the progress of other cars in the race.

Mechanics or spectators entering the track from outside the pit lane to save a car will produce a penalty for that particular car. (Penalties can be given as stop and go or one lap penalty. The Referees will inform the Team Managers about the type of penalties given). If served by a spectator then this car should remain stationary until touched by the mechanic to save a penalty being given.

c) Closed shoes to be worn by all mechanics.

4.4 TECHNICAL INSPECTION

Only vehicles which conform to all regulations will be accepted for racing. Technical inspection will be done on Sunday and Monday. The cars will be examined and, if the car conforms to the rules, the chassis will be marked. At any time, the Race Director may ask the competitors to present their cars to the Technical Inspector. Random inspection will occur on the start line for numbers, tyres, wings and chassis.

No race will be delayed because of non-compliance by a competitor. Technical inspection may take place at the finish of any heat. Any race damage will be taken into account. At the end of finals, all cars will be impounded and may be inspected for engine size, fuel tank capacity, etc.

Any infringement concerning engine, fuel tank and weight will cause disqualification from a driver's best qualifying heat or a final. The disqualified driver's position will be shown as the last position in that heat or final for the first infringement.

A second infringement concerning any one of engine, fuel tank or weight will cause total and immediate disqualification from the entire event. The disqualified driver will be placed on the last position of the final qualifying results and/or the last position of the final positions' results and he will be noted as a disqualification.

Any infringement, other than those concerning engine, fuel tank and weight, will cause disqualification from that heat or final and the disqualified driver's position will be shown as the last position in that heat or final..

Under all circumstances it is the responsibility of the driver, that his car is within the IFMAR rules during a race meeting. If a car is found illegal during heats, semi-finals or final, its result will be made void and the car has to stay in technical inspection until the result is published and the protest time is over.

All cars must be fitted with a clutch, a braking system, an air box to reduce the intake noise of the carburettor and an three-chamber exhaust.

The engine and fuel tank may be checked at any time. **The engines (including the drivers 2nd engine if used/marked) of the top 3 from the main final will be disassembled and checked after the final.**

The volume of the fuel tank will include all fuel piping and filters up to the carburettor.

Following method of measurement will be used:

The fuel tank must be empty. A measuring cylinder (DIN) of 700ccm will be filled with the competitor's fuel. Then this fuel will be placed in the tank. If the tank is not filled completely, the technical inspector will not accept that tank.

* Only one car per driver will be accepted.

* The chassis plate and two engines of each car will be marked with the competitor's number.

* Only one chassis may be used for all qualifying heats and finals. The only exception to this rule will be in the case of a broken or bent chassis which may be changed with the Race Director's approval. The new chassis of the same type must be presented to Technical Inspection for marking before re-building the car. The old one will be stored in technical inspection until the end of the competition.

4.5 FREQUENCIES

In the case of two drivers using the same frequency and qualifying for the same final, the higher placed driver may keep his frequency and the lower placed driver must change. The time allowed for frequency change will be ten (10) minutes. The lower placed driver who cannot or will not change his frequency may not take part in the final for which he qualified.

If a driver must change his frequency before the start of a semi-final or a final, due to an organiser's error, he will be allowed ten (10) minutes. If a driver finds his radio defective or has made an error in the selection of his frequency at the start of a final, the race will not be delayed.

For the entire duration of the event, the frequencies in use by all drivers will be known only by the Race Director and each individual driver.

All frequency changes must be authorised by the Race Director before the change is made.

The organiser shall not display any driver's transmitter frequency on any heat sheets, result sheet or race schedule to preserve the security of the frequency control systems. Each driver in the Main Final shall be permitted to change his frequency before the start of the race. Only the Race Director is permitted to know the frequency used by the main finalists.

4.6 LAP COUNTING TRANSPONDERS

Each participant is responsible for attaching the lap counting transponder to his car. During qualifying, any car starting without a lap counting transponder will not be counted. If a lap counting transponder fails or falls off during the heats, the vehicle will be timed and counted manually, if possible. In this case, the Race Director will verify the results and his decision will be final. During the final, any car without a lap counting transponder will be counted manually by a manual back-up system. Under no circumstances will a heat or a final be re-run due to a car not having a lap counting transponder or failure of the same. This also applies to a car not having the correct numbers and placement of these numbers.

4.7 FLAGS

Start	green flag or national flag
Finish	chequered flag for final only
Blue	The car which is blue flagged must allow the car behind him to pass
Yellow	Danger on the track - slow down, overtaking forbidden. (Must be a yellow flash-light visible for all drivers on the rostrum))
Black & white	Official warning to the car which is flagged (diagonal)
Black	The car in question must stop immediately in the pits
Green	Track open
Red	Track closed. All cars must stop immediately.

The black and white diagonal and the blue flags are recommended but are not compulsory. All flags are under the direction of the Race Director who can delegate and authorise their use.

4.7.1 USE OF THE BLACK FLAG

- Drivers who impede the progress of other participants
- Unsportsmanlike racing and behaviour of driver/mechanic
- Participants driving in a manner deemed to be dangerous by the Race Director
- Cars judged by the Race Director to be in an undriveable or dangerous condition. these cars, after the repairs have been carried out, may be allowed to resume.
- Cars which lose their bodies or silencers must immediately stop and carry out the necessary repairs after which they may restart.
- Cars found exceeding the IFMAR noise level of 81 dB(A).
- Cars which have been black flagged may re-enter only with permission from a Race Official.

4.8 RACING REGULATIONS

4.8.1 PROTEST AGAINST A COMPETITOR OR THE ORGANISER

Protest must be entered by the Team Manager, in writing, in English language, within ten (10) minutes after the display of the result or after the incident it concerns, with a deposit of \$50 U.S. or equivalent.

The time of display of the result will be written on the result sheet.

The deposit is forfeited if the protest is not upheld and the deposit is returned if protest is justified.

Protests may be handed to the Race Director or an IFMAR Official.

Protests are processed by the Race Director and, if necessary, by the Jury.

Appeal to IFMAR may be made. IFMAR is not obliged to handle such appeal.

Deposit returned if protest is upheld.

4.8.2 REQUESTS FOR LAP COUNTING CHECKING

Requests do not need to be written and need no deposit. The Team Manager will show to the Race Director the time-lap sheet in question (the one given or displayed by the organizer) and will indicate where he thinks an error has been made.

The Race Director will resolve the problem by checking with the second lap counter and, if necessary, with the manual record of stops.

The audio/video tape may be used as a last resort, if necessary, for the final result.

If the request is justified, the result will be modified immediately and the Race Director will advise the Team Manager, in writing, of the result. After checking, if the Team Manager persists with his request, he will have to present a written protest within ten (10) minutes, including a \$50 U.S. deposit.

4.9 PENALTIES AND SANCTIONS

During finals, participants will be allowed to change the bodies of the car with the authorisation of the Race Director, providing the bodies are of the same type and painted in the same colour scheme. In the event of a different body being fitted to the car, the Race Director must give his permission before the participant re-enters the race.

Any illegal modification or change made to the car which is found during the technical inspection at the end of the race will automatically entail disqualification of the participant.

EXCEPTIONS: Tolerances allowed in technical inspection for fuel tanks +1%.

Any damage incurred during a heat or final will not entail a forced stop or disqualification of the participant except in the following cases:

- loss of a body (the spoiler does not count as part of the body)
- loss of the silencer or its ability to silence the engine
- a car which becomes dangerous or undriveable.

The car in question may re-start after the repairs have been effected.

Any car which, by the fault of another driver, is damaged or obstructed during a heat or final cannot, under any circumstances, be allowed to re-run in another heat.

All participants must strictly observe the instructions given by the Race Director, Jury and Referees. The bad sportsmanship and behaviour of any competitor, even outside the official race meeting, which could injure the image and promotion of the sport, may become the object of an official, national or international sanction.

4.10 OFFICIAL ANNOUNCEMENTS

All official announcements concerning the race must be made in the English language in the pit area, drivers' stand and mechanics' area.

4.11 OFFICIALS

4.11.1 REFEREES

The main task of the Referees is to observe the racing and, in particular, the good sportsmanship during the racing. They will ensure that the current rules are observed by everyone.

Referees may be called for information by the International Jury when a meeting is called by the Race Director.

One (1) IFMAR Referee will be appointed by IFMAR. Travel and accommodation expenses will be paid for by IFMAR, EFRA, ROAR, FEMCA and FAMAR equally. The IFMAR Referee will be supported by two (2) appointed deputy Referees, one nominated and paid for by the host Bloc and one nominated and paid for by the host Country's Association (see General Rule 1.12). They must be experienced and unbiased people with good knowledge of the English language and the IFMAR rules and have acted at least at national level before. A back-up Referee must be nominated by each organisation in case of absence of the official Referee.

Referees must be provided with an area from where all parts of the track, the drivers' rostrum and refuelling area can be observed. The place must be separated from the drivers' area to ensure a quiet and undisturbed working area. Protection (walls, roof, etc.) must be given against all weather conditions. The place must be equipped with a minimum of three (3) chairs, a table and a monitor connected to the lap counting system to show the race order. There must be a separate communication system with a microphone and speakers direct to the drivers' rostrum and the pitlane to enable Referees' instructions to be heard only by the drivers and the mechanics in the pitlane. N.B. This system is to be totally separate from any public address system used for announcements. The organiser is responsible for providing the Referees with lunch, refreshments and a ticket to the Awards' Banquet.

4.11.2 REFEREES' DUTIES

At all time, during qualifying heats, two of the Referees present will be watching and observing the racing from start to finish. During finals, all three Referees will observe the racing from start to finish. During qualifying, the Referees work on an alternative relief schedule. Only Referees on duty are authorised to make decisions and to issue warnings and instructions. A Referee may take action after an initial warning but, in all cases, three (3) warnings means automatic disqualification from the event. Any appeal against the Referee's decision must be brought before the International Jury accompanied by a protest fee.

4.11.3 GUIDELINES REGARDING OFFENCES

- 1 Bad sportsmanship during racing, i.e. impeding progress of other participants, deliberate slowing down or walling of another car, deliberate short-cutting of corners and reckless driving in general.
- 2 Unsportsmanlike behaviour of drivers, mechanics and Team Managers involved in the racing.
- 3 Incorrect use of entry and exit of the pits.
- 4 Repairs outside the appointed pit area.
- 5 Any combination of three warnings will cause disqualification.
- 6 Instructions may also be given by the Referees but they do not constitute a warning. Sample of instructions follow under numbers 7 and 8.
- 7 Cars that do not conform to the regulations before the start is given or during the race, (i.e. loss of body-shell, exceeding noise rules due to loss or damage of the silencer).
- 8 Cars that are in an undriveable or dangerous condition due to damage or malfunctioning of the car (one instruction).
- 9 Starting procedure, i.e. writing down early starts and, if necessary, reporting to the Time Keeper. The Time Keeper and the Starter are first responsible to issue starting penalties (10 sec. stop and go penalty). In the event of an early start not being observed, it may be called and noted by the Referee.
- 10 It is not the duty or the responsibility of the Referees to check if the cars conform to the technical rules. This is always the responsibility of the Technical Inspector.
- 11 All warnings will be announced in the English language with the words: "Car number ...Warning". All instructions will be announced in the English language with the words: "Car number.... Stop". Each competitor must be able to recognise the above English words and statements.

4.11.4 REFEREE'S AUTHORITY

- 1 The Referee issues warnings in case of infringements of any point as described under 4.11.3, and ultimately may even issue a black flag (disqualification) when there is no response to his warnings.
- 2 Warnings and instructions are announced by the Referee himself. He will keep a record of the warnings and instructions used (Referee's notes).
Three (3) successive warnings lead to disqualification (black flag).
Instructions issued by the Referee must be observed immediately. All announcements must be made in the English language. Warnings will be posted on the result sheet.
- 3 Reasons for warning or instruction will be announced in the English language at time of issue.
Further explanation, if necessary, due to language difficulties, will be given to the driver or the Team Manager at the end of the race.
- 4 Under no circumstances may a warning or an instruction issued by the Referees lead to the interruption of the whole race.
- 5 During the event, only if all three Referees agree, they will have the authority to black flag a driver and/or a whole team, if one member of that team is positively interfering with the racing of another car in the event.
- 6 Appeals to the decision of the Referee must be addressed to IFMAR in writing. IFMAR is not obliged to act on such a complaint.

4.11.5 REFEREE'S REPORT

Referees make up a report to be sent to IFMAR within ten (10) days. The report contains information on the organisation, accommodation and the racing. The Referee's notes have to be included. A copy of the report is sent to the Organizer of the race meeting. Copies may be obtained on application to IFMAR.

4.12 TIME-KEEPING SUPERVISOR

The Time-Keeping Supervisor is responsible for recording all the individual lap times and total laps plus finishing time of all drivers during all heats and finals. He is responsible for the classification of the results and for selecting of the finals. The Race Director must verify this classification and selection.

After the finish of any heat or final, the results of the first and second time-keeping systems are compared by the Time-Keeping Supervisor and, in case of difference between the two systems, the Time-Keeping Supervisor investigates both results and makes the decision of the final result.

In case of a request for checking of the results, the Time-Keeping Supervisor, together with the Race Director, will check on the questioned result and will make the decision.

4.13 INTERNATIONAL JURY

The International Jury consists of official representatives of each Bloc, which will furnish a minimum of one representative and a maximum of three representatives to serve on the International Jury. Each Bloc will have a total of one vote, regardless of the number of representatives it supplied.

The relevant IFMAR Section Chairman shall always act as Chairman during International Jury Meetings and exercise a casting vote, if necessary. In the absence of the relevant IFMAR Section Chairman, the highest ranking IFMAR official shall take the chair at any International Jury Meetings.

The Race Director and IFMAR President (see above) are members of the Jury but do not have a vote in the decisions.

The Referees may be called by the Jury for opinions and explanations as deemed necessary.

All decisions are taken by simple majority vote. The International Jury may request evidence and/or presence of drivers involved or Team Managers.

Jury members must be approved by their organisation and a second person appointed to serve in the event of a temporary absence of the official representative.

Prior to the commencement of an International Jury Meeting, any mobile telephones in the meeting room must be turned off and placed on the meeting table until after the completion of the Meeting.

4.14 RESPONSIBILITIES OF THE INTERNATIONAL JURY

- 1 - To decide in unforeseen situations.
- 2 - To handle protests not covered by the Race Director's responsibility
- 3 - To make official by announcement any decisions voted on by the Team Managers' Committee providing the International Jury agrees with these decisions.
- 4 - To check that the race is run according to the official rules.

The Chairman of the International Jury will make official the results of the World Championship through the ranking IFMAR Officer present at the event.

When necessary, the Race Director calls the International Jury to meet. The International Jury may also be called by IFMAR.

The organiser will provide a room for the International Jury to meet where no-one can interfere with the meeting.

Jury members may not have dual duties or be a race official but may act as a Referee and IFMAR Delegate. The Race Director may appoint a stand-in Referee, if required. Jury members may be participants in the event but must allow auxiliary jury representatives to serve and vote in any protest involving said jury member as a participant.

4.15 RACE DIRECTOR

The Race Director is responsible to follow the schedule of the event.

The Race Director ensures that various tasks under his responsibility are well done, including:

- Time-keeping
- Starts
- Marshalling
- Display of results
- Comments to the public
- Comments to the drivers
- Technical inspection
- Frequency control

The Race Director receives the protests and decides if the International Jury has to meet. He takes urgent decisions or stops a race for safety, rain or any other unforeseen situation. He is under the authority of IFMAR.

4.16 ASSISTANT RACE DIRECTOR

The Assistant Race Director will represent the host country or organisation and will assist the Race Director to co-ordinate all race matters with host organisation officials.

4.17 TEAM MANAGERS

The Team Manager, or a nominated deputy, must be present during all official racing. The Team Manager is appointed by his national association. The responsibilities of the Team Manager are:

- To be present at the drivers' registration of his team

- To be present at the Technical Control either before, during or after the end of the race in which his team members participate
- To look after the welfare and behaviour of his team and take care that they all receive proper accommodation in the pit area
- To attend the Team Managers' Meeting and any driver briefing/s that the Organizer may call.
- The Team Manager is the link between the national team and the race direction by receiving all information referring to timetable changes, frequency changes, results of heats, sub-finals and finals and all other information referring to the race.
- He is allowed to stay in the pit area when a race has a participant from his team and is in progress.

4.18 TEAM MANAGERS' COMMITTEE

Each country will have a Team Manager who is responsible to pass on complaints, protests or suggestions from his team to the Race Director. The Race Director will then decide whether a Team Managers' Meeting should be called to discuss and vote on the matter raised. If the Race Director does call such a meeting and the majority of the Team Managers support the matter raised, the Race Director must then refer to the International Jury for final decision.

5. GENERAL TECHNICAL SPECIFICATIONS

The official measurements in the Technical Specifications are the metric measurements.

- 5.1 There is one series to recognise in accordance to the 1:1 scale series, namely FIA Class 2 and Super 2000. Super Touring Car (4-door cars) minimum length 4200mm/165.35 in. FIA Group N (only 4-door cars, minimum length also 4200mm/165.35 in.) 4-door touring cars raced in national series like TC 2000, Australian V8 Supercars and USTCC should be also allowed with the only restriction that rear wing has to follow 6.4.2.
- 5.2 No refuelling allowed during all racing for 1:5 Touring Cars, (with the exception of the main final).

6 TECHNICAL SPECIFICATIONS

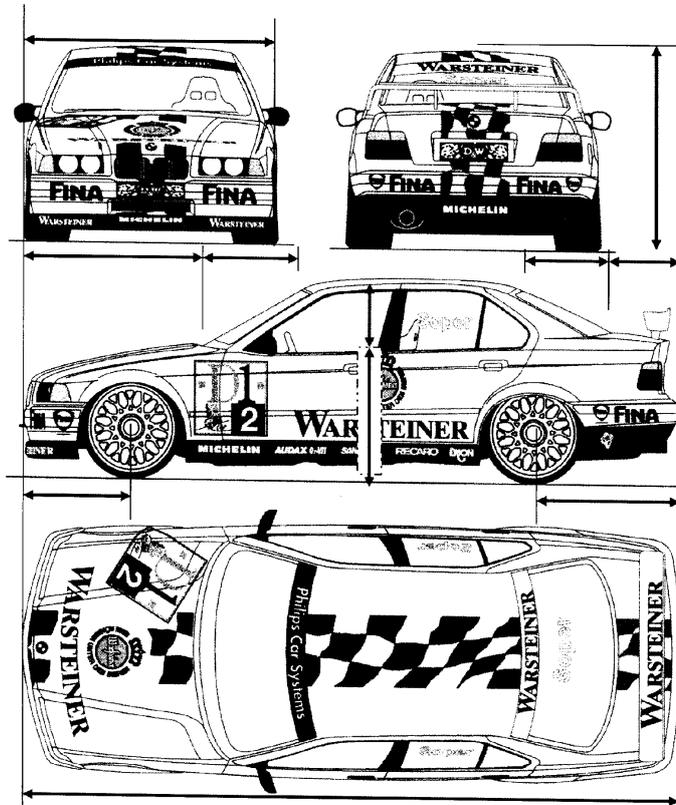
- 6.1 All 1:5 cars have to be genuine scale in all details and proportions and be a fully detailed model of an existing 1:1 touring race car. If the allowed tolerances are used then all parts of the model in that particular view have to be within the same sign (wheel-base -, length - //wheel-base +, length +). Mixtures of car designs are not allowed.
- 6.2 The minimum length of a Super Touring Car is 4,200 mm/165.35 in. that gives a minimum length of 798 mm/31.41 in. in scale including max. -tolerance. TC 2000, Australian V8 Supercars and USTCC also must have a minimum length of 4,200 mm/165.35 in. No type of body shell can be used longer than two (2) years after the same 1:1 full-size car was replaced by a new car or the car has retired from 1:1 full-size racing. Only body shells that are approved by IFMAR and listed on the IFMAR 1/5th Scale Body shell List will be allowed to race. Six (6) months prior to the event, IFMAR will send a notice to all Blocs to submit their body shell homologation lists(s) for approval four (4) months prior to the event. The homologation number has to be permanently engraved or moulded in within the space normally used for car-registration numbers at the rear end of the model.

6.3 GENERAL SPECIFICATIONS

The car body has to comply with the calculated scale dimensions 1:5 with the allowance of using the following tolerances.

Length:	within scale +/- 5%
Width:	within scale max. body width 395mm/15.55 in. excl. side mirrors

Height: within scale
 Tank capacity: max. 700 cm³ incl. fuel pipe to the carburettor
 Minimum weight, without fuel: **10,000 g/22.04 lb.**
 Maximum weight, without fuel: 12,000 g/26.45 lb.



CAR

The car has to have a functioning brake, which has to be capable of keeping the car stationary whilst the engine is running.

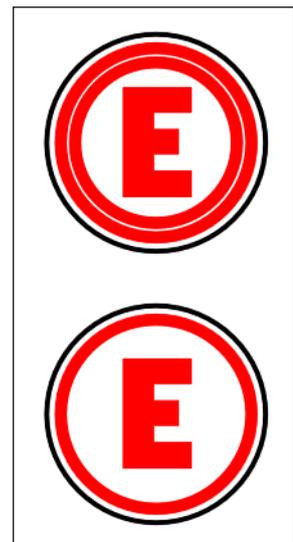
A mechanical failsafe has to be fitted to the carburettor which returns the throttle to a closed position in case of breaking of the throttle linkage.

Variable ratio transmission is not allowed.

Only 2WD (rear-wheel drive) cars are allowed.

No other function than steering and throttle/brake are allowed to operate with radio control by the driver. Any other electronic or hydraulic systems are not allowed in the car, with the exception of electronic/hydraulic failsafe to stop the car in case of radio failure.

The position of the ignition cut-out switch must be marked on the body shell with a white circular decal, 30 mm/1.18 in. in diameter, outlined in red with a red 'E' in the centre (see drawing below). The switch must be located **in the original position on the engine.**



6.4 BODY

Bodies have to follow the description in point 6.1. They have to be properly fixed to the chassis and must cover the outer edge of the wheels at the centre of the axle when viewed from the top .

It is not permitted to cut the windscreen out. The side and rear windows may be cut out for cooling. It is not allowed to open them by cutting out only some holes. Also it is not allowed to mould air channels into the side windows to guide air into the interior.

The body shells have to be painted and all windows to remain clear. All parts of the car have to be covered by the body. Only the radio antenna is allowed to come outside. All openings in the body have also to be in the existing 1:1 race car. It is not allowed to modify the car-body by cutting it over the marked trim lines or to widen it by heating it or parts of it.

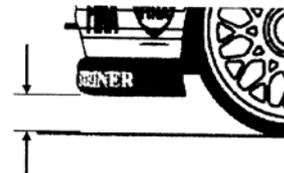
Only allowed for manufacturers:



Aerodynamic modifications at the front, the sides and the rear below the wheel hub centre are free subject to the requirements for ground clearance, overall length and overall width. The modifications have to correspond to the original. The material has to be the same as that of the body shell. The homologation number has to be engraved. A photo of the modification 1:1/1:5 has to be sent to the responsible IFMAR Homologation officer.

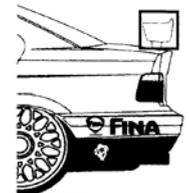
6.4.1 GROUND CLEARANCE

The measurement of the bodyshell height will be made with 6 mm/ .236 in. ground clearance.



6.4.2 WING/SPOILER

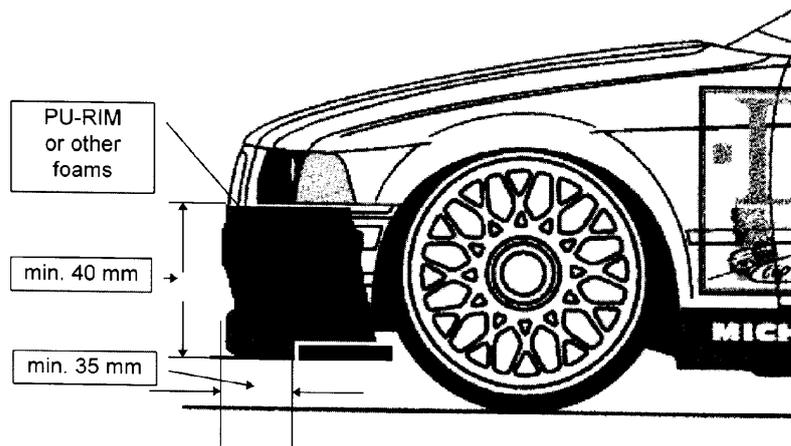
A rear wing is permitted as long as it does not exceed the front view profile and the length of the car. It has to fit in a side "profile box" measuring 60 mm/2.36 in. x 60 mm/2.36 in. per side and should not overhang the end of the car.



6.5 BUMPER

A bumper has to be fitted to the chassis. Bumpers have to be designed in a way that they fill the front of a car body completely and be a minimum height of 40mm/1.57 in. The material used has to be flexible like PU-RIM or other foams that are used in 1:1 car construction to absorb impact energy.

At no point may any part of inflexible material for body shell mounting protrude from the body more than 10mm/.39 in.



6.6 TYRES

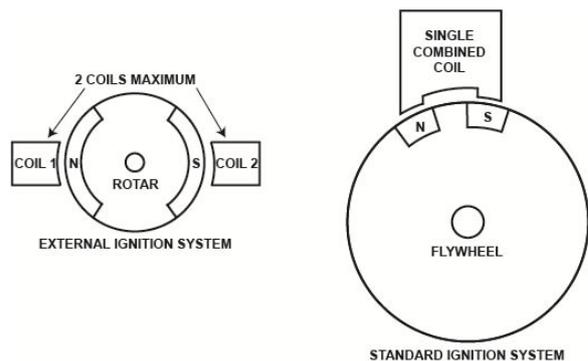
Rim diameter max.:	107 mm/4.21 in.
Rim and fitted tyre diameter max.:	136 mm/5.35 in.
Rim and fitted tyre width – front max.:	75 mm/2.95 in.
Rim and fitted tyre width – rear max.:	80 mm/3.14 in.

Tyres have to be black and only semi-pneumatic rubber. The design of the tyre profile is free. Foam tyres are not allowed.

Its absolutely forbidden to treat tyres inside the racetrack premises/venue. If tyres are treated anywhere else, then the chemical components of those products should be harmless to people and the environment. Liability of the use of tyre additives lies with the user and manufacturer. Oil of wintergreen, paragon and other strong smelling products are prohibited.

6.7 ENGINE AND FUEL

1. The engine to be a single cylinder, 2 or 4 stroke, maximum 23 cm³, pull start.
2. No Turbo charging, Fuel injection, Supercharging, Wankel or rotary valve/distribution engines are allowed.
3. All ignition systems must have mechanically fixed ignition coil/s, only manual static adjustment is allowed.
4. No Battery operated ignition allowed. Only a passive ignition system using R.P.M. as the single input parameter is allowed. The flywheel can only have 1(one)pair of magnetic poles (i.e. one north and one south). There can only be a maximum of 2 coils (either a single combined LT and HT coil with the standard type ignition or two LT coils with the external ignition systems) working with the flywheel/rotor.



5. Only open deck admission ports are allowed. The removal of material is free as long as the modified shape of the transfer/admission port walls is in the direction of the cylinder bore at all times.
6. The Cylinder block must be of a single casting. No independent liners or slipping liners are allowed.

7. The maximum number of admission/transfer ports is limited to four (4).
8. Engine must be air-cooled, the air being driven directly by the flywheel.
9. The crankshaft must be of split shaft configuration, with enclosed big end. No half crankshafts allowed.
10. An air filter must be fitted to the carburettor. The maximum venturi diameter of the carburettor is limited to 13mm/.51 in.
11. The fuel allowed will be petrol available at street petrol stations. The fuel must be bought at the fuel station named by the organiser of the event. The information regarding this fuel station, e.g. name and address, will be included in the Stage II Report. Special fuels like Avgas, race fuel, etc. are strictly forbidden. The only additive allowed is mass-production two stroke oil. Technical inspection may ask for a sample bottle of that oil to check it.

If an organiser is legally able to provide enough fuel at the track, all competitors have to use this fuel. The price of this fuel must not exceed the normal street price by more than 5%.

Fuel tests may be made at random during the race. The fuel of all competitors will be tested at some time during the race. If a fuel is found illegal, the driver will be disqualified from that particular event and he may lose his right to participate in IFMAR races for up to ten (10) years.

The IFMAR fuel tester must be available to the competitors during the event.

If a driver wants to appeal that decision, he has to make a written appeal with a deposit of six hundred US dollars (\$US600). The International Jury may then allow him to continue on a provisional basis. An FIA-approved laboratory has to analyse the fuel in question and the result will be published within a time limit of three (3) months.

12. Each driver is only allowed to use a maximum of two (2) engines per event. The crankcase of the two engines will be marked with the entry-number + digit 1 and 2. Technical inspection must be informed, when the competitor changes the engine and will make a report notice. Marked engines can be rebuilt to be used again.

6.8 EXHAUST/NOISE REDUCTION SYSTEMS

Maximum noise level is 81dB (A) measured at ten (10) metres, one (1) metre above the track. IFMAR's definition of noise level is final.

This noise level will be measured at all times when the track is open. The position of the noise meter may vary depending on the decision of the Race Director.

If a car produces an average noise level over 10 or more laps that is higher than the limit then the driver will receive a warning. If a cars average over 10 or more laps exceeds +3dB (A) higher than the limit at any time during the qualifying then the driver will loose their best qualifying result and if this level is exceeded during a final then the penalty is a 1 lap deduction at the end of that final. Under exceptional circumstances common sense will be used.

Both the Race Director and Referee's can decide if any car producing excessive noise is allowed to race.

Exhausts have to be of minimum three-chamber type. No open exhausts or pipes are allowed. All three chambers must be designed that way, that the exhaust fumes will pass it and have to change the direction twice to get the max. possible noise reduction.

The total exhaust has to be inside the body, with the exception of the tailpipe which may protrude outside the body at a maximum of ten (10) mm/.39 in.

The body may be cut out at that point by a maximum of 20 mm/.78 in. more than the tailpipe diameter. Maximum inside diameter tailpipe is 13 mm/.51 in.

All cars to be equipped with an air-box designed to reduce the intake noise of the carburettor.

FINISH

APPROVED OCTOBER, 2000
AMENDED OCTOBER, 2001
AMENDED SEPTEMBER, 2002
AMENDED OCTOBER, 2003
AMENDED JANUARY, 2004
AMENDED OCTOBER, 2004
AMENDED DECEMBER, 2004
AMENDED APRIL, 2005
AMENDED SEPTEMBER, 2005
AMENDED NOVEMBER 2008
AMENDED APRIL 2011
AMENDED JANUARY 2012
AMENDED DECEMBER 2012
AMENDED APRIL 2013
AMENDED APRIL 2015
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