



Forth Association of Model Auto Racing

**FAMAR ON ROAD RACING  
AND TECH INSPECTION 1/8th I.C. 1/10 I.C and 1/8 GT.**

Revised: Jan/2016

## INDEX

1.	RACING FORMAT.....	4
1.1	SCHEDULE.....	4
1.2	EVENT SCHEDULE.....	4
1.4	DRIVERS' AND TEAM MANAGERS MEETINGS.....	4
1.5	TECHNICAL INSPECTION.....	4
1.6	CONTROLLED PRACTICE.....	4
1.7	OPENING CEREMONY.....	4
1.8	QUALIFYING HEATS.....	4
1.9	FINALS.....	5
1.10	RAIN SITUATION.....	5
1.11	MATERIAL PROVIDED.....	6
1.11.1	RACE PACKAGE.....	6
1.11.2	NUMBERING OF CARS.....	6
1.11.3	NUMBERING OF THE BODY/WING.....	7
1.11.4	NUMBERING OF TRANSMITTERS.....	7
1.12	BADGES.....	7
1.12.1	DRIVERS, MECHANICS AND TEAM MANAGERS.....	7
1.12.2	ACCESS TO PITS AND TRACK.....	7
1.13	PITS.....	7
1.14	TRANSMITTERS.....	7
1.14.1	TRANSMITTER IMPOUND.....	7
1.14.2	TRANSMITTER INSPECTION.....	8
1.15	LAP COUNTING AND TIMING.....	8
1.16	DISPLAY AND DISTRIBUTION OF THE RESULTS.....	8
2.	TRACK SPECIFICATIONS.....	8
2.1	SURFACE.....	8
2.2	LENGTH.....	8
2.3	WIDTH.....	8
2.4	PODIUM.....	8
2.5	VISION.....	8
2.6	MARKING.....	8
2.7	PITS.....	8
2.8	DESIGN.....	8
2.9	OUTSIDE BARRIERS.....	8
2.10	INSIDE BARRIERS.....	9
2.11	DOTS.....	9
2.12	SURROUNDINGS.....	9
2.13	MARSHAL POSTS.....	9
2.14	STARTING LINE.....	9
2.15	LE MANS START.....	9
3.	RACE PROCEDURES.....	9
3.1	POSITIONING.....	10
3.2	GENERAL STARTING PROCEDURE.....	10
3.3	MARSHALLING.....	11
3.4	TECHNICAL INSPECTION AND INFRINGEMENTS.....	11
3.5	FREQUENCIES.....	12
3.6	CAR NUMBERS AND LAP COUNTING TRANSPONDERS.....	12
3.7	FLAGS.....	12
3.7.1	USE OF THE BLACK FLAG.....	13
3.8	RACING REGULATIONS.....	13
3.8.1	PROTEST AGAINST A COMPETITOR OR THE ORGANISER.....	13
3.8.2	REQUESTS FOR LAP COUNTING CHECKING.....	13
3.9	PENALTIES AND SANCTIONS.....	13
3.10	OFFICIAL ANNOUNCEMENTS.....	14
3.11	OFFICIALS.....	14
3.11.1	REFEREES.....	14
3.11.2	REFEREES' DUTIES.....	14

3.11.3	GUIDELINES REGARDING OFFENCES.....	14
3.11.4	REFEREE'S AUTHORITY .....	15
3.11.5	REFEREES' REPORT.....	16
3.12	TIME-KEEPING SUPERVISOR.....	17
3.13	INTERNATIONAL JURY.....	17
3.14	RESPONSIBILITIES OF THE INTERNATIONAL JURY.....	17
3.15	RACE DIRECTOR .....	17
3.16	ASSISTANT RACE DIRECTOR.....	17
3.17	TEAM MANAGERS .....	17
3.18	TEAM MANAGERS' COMMITTEE .....	27
4.	TECHNICAL SPECIFICATIONS 1/8 IC Track.....	18
5.	TECHNICAL SPECIFICATIONS 1/10 Touring I.C .....	22
6.	TECHNICAL SPECIFICATIONS 1/8 GT I.C .....	27

## SECTION - CAR/TECHNICAL

### 1. RACING FORMAT

#### 1.0 PARTICIPANTS

The FAMAR Championship and South America Championship will consist of a maximum of one hundred and ten (110) competitors. A special waiver can be granted by the IC Executive to increase that limit up to one hundred and thirty (130) if rest of facilities can accommodate that superior figure.

### 2 SCHEDULE

1.1 The FAMAR Championship and South American Championship will be run over a period of four (4) days excluding a spare day.

#### 1.2 EVENT SCHEDULE

Schedule and number of heat/rounds for practice can be changed, depending on number of drivers after or with consultation from FAMAR. 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

#### 1.3 REGISTRATION

-Wednesday 12.00-19.00.

-Friday from 08.00-10.00.

Final deadline for registration: Friday 10.00. FAMAR may authorize later registration at its discretion. Registration is mandatory to be able to practice. 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.

#### 1.4 DRIVERS' AND TEAM MANAGERS' MEETINGS

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

1.4.2 A Team Managers' Meeting before the start of the first round of qualifying heats is compulsory. All Team Managers must attend.

1.4.3 Further Team Managers' Meetings are recommended but are called at the Organizer's discretion

#### 1.5 TECHNICAL INSPECTION

Inspection will be on Thursday, Friday from 08.00 until 10.30. A Schedule will be used for checking cars. Drivers or mechanics have to present their cars with bodies and empty tanks.

#### 1.6 CONTROLLED PRACTICE

All drivers will have the chance to participate in frequency controlled practice on Thursday. There will be a timed practice for drivers in their published heats (heat 1-10 and 1-10)

#### 1.7 OPENING CEREMONY

An opening ceremony will take place on Friday at 18.30. 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 organizer for each team. At the opening ceremony a Concourse d' Elegance will be held in one category. The category will be the best "paint job". There will be one (1) trophy for the winner.

#### 1.8 QUALIFYING HEATS

There will be four (4) qualifying rounds of five (5) minutes. For each round drivers will get points, based on number of laps and time of finishing lap.

Four (4) rounds of qualifying heats will be run as follows:

-Thursday approx. 08.00- 18.00, depending on sun-rise: Rounds 1, 2, 3 and 4.

In each round, drivers will score points based on the laps and times achieved. The number of points awarded to the best driver will be equal to 0, second position 2 points, 3rd position 3 points etc. Up to last position one by one.

In every round, in case of a tie, the points will be equally awarded to each driver, and the first driver not to tie, will receive one point less per tie.

For example:

1st driver will score 0 points

2nd driver will score 2 points

3rd driver will score 3 points

4th driver will score 4 points

5th driver 7 laps, 10:01:00 will score 5 points TIE

6th driver 7 laps, 10:01:00 will score 5 points TIE

7th driver 7 laps, 10:01:00 will score 5 points TIE

8th driver 7 laps, 10:10:00 will score 8 points

In case of a tie for the total result, only the counted times will be used and the driver with the fastest laps and time will win the tie, in case still the same, it will be the next fastest laps and time.

Out of four/three (4/3) rounds, two (2) will be add to count for the classification's ranking.

Out of two/one (2/1) rounds, one (1) will be added to account for the classification's ranking.

If a driver does not start a heat, he will receive the point of the last driver. All drivers will be entitled to a sub-final.

#### 1.8.1 With the points received:

TQ direct into the main final. (for 1/10 Touring, 1/8 Pro and 1/8 GT)

**For 1/8 Pro and 1/8 GT:** For the remaining 9 places, 1 in the final top 3 of the semis and 3 remaining best times. Grid positions 2 till 10 based on lap/times from both semis. TQ will get track time after the semis, 10 minutes total.

**For 1/10 Touring:** For the remaining 11 places, 1 in the final top 4 of the semis and 3 remaining best times. Grid positions 2 till 12 based on lap/times from both semis. TQ will get track time after the semis, 10 minutes total.

#### 1.9 FINALS -

##### **1/8 Pro and 1/8 GT Class**

All sub-finals and final consist of ten (10) drivers, with exception of the last final (max 12 drivers). "Christmas Tree" System for 52 entries.

##### **1/10 Touring Class**

All sub-finals and final consist of twelve (12) drivers, with exception of the last final (max 14 drivers). "Christmas Tree" System for 60 entries.

#### CHAMPIONSHIP FINAL TO BE RUN OVER FORTY (40) MINUTES

The press conference and 1 hours lunch break will be utilized to compensate for any delay's encountered during the 1/8 or 1/4 Finals to ensure the start of the semifinals is on time at 11.00 hours.

Timetable Sunday:

To be used as spare day to allow for any delay in schedule. Banquet and Awards' presentation to be held on Sunday night or on Saturday if the event is held indoors or after approval from FAMAR. 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. In case the spare day is not needed to finalize the Final(s), it can be used for a team race between countries, format is up to the race organizer.

#### 1.10 RAIN SITUATION

**The Race Director will stop the racing if it rains. If there are delays due to weather, re- arrangements will be made as follows:**

## QUALIFYING HEATS

- 1) In case of the interruption of a heat, the entire heat will be re-run.
- 2) In the event of rain, the track must return to similar dry conditions as existed prior to any stoppage before racing can re-commence.  
The race director in consultation with the Jury will determine if conditions are suitable and fair to re-commencement of racing.
- 3) If a round of heats is started, it must be completed under the same conditions. If a round is halted due to rain or unforeseen circumstances and cannot be completed, this round will not be counted until the remaining heats in the round can be completed.
- 4) If weather and time permit and there is no time restriction on track use, every endeavour should be made by the Race Director to run as many of the maximum six (4) rounds of heats as possible.
- 5) A minimum of two (2) of the total of four (4) rounds must be completed.

## CHRISTMAS TREE FINALS

- 1) The lower finals up to the 1/2 finals will not be interrupted due to a wet track or rain.
- 2) In the semi-finals, if 75% of the race has been run before rain commences, the race is declared. If rain falls in the first 25% of the race, a total re-run will take place. If rain falls between the 25% and 75% mark, the total of the two (2) combined legs will be added together.
- 3) **In the event of a semi-final being interrupted in this way, the top five (5) from each semi-final will advance to the final.**
- 4) In the event of rain falling before the 25% mark where a complete re-start is required, drivers will be allowed to undertake maintenance on their cars.
- 5) MAIN FINAL - If 75% of the main final has been run before rain commences, the race is declared. In the event of the main final being interrupted by rain where the two results will be added together (i.e. after the 25% mark), drivers may make repairs, re-fuel and change tyres before the re-commencement of the main final.
- 6) If weather will cause the spare day to be used for the quarter finals, semifinals, or the final then the final must commence prior to 15h00 on the spare day. If any final cannot be run safely, as determined by the International Jury, then the qualifying results will be used to determine the finishing positions for that final.

## 1.11 MATERIAL PROVIDED

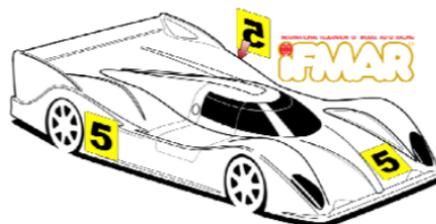
### 1.11.1 RACE PACKAGE

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, 3 sets of numbers for the wing, 1 number for the transmitter, 1 badge for the driver which allows him/her pit access and 1 badge for the mechanic, Furthermore must 1 badge for the country's Team Manager also be issued. Also included in the package there must be a sketch showing the correct positioning of the car numbers on the body shell.

### 1.11.2 NUMBERING OF CARS

Cars will be numbered 1 to 10/12 in each heat. Only the numbers supplied by the organizer will be used on the cars. They may not be cut out. Each car must have 3 numbers: - one on the front, one on the right side, one on the left side. See drawing.

The number on each decal has to be 50 mm high minimum (for instance Arial bold 200), see picture, with a stroke of minimum 9.52mm. These numbers will change during the qualifying heats (after re-seeding).



The organizer will provide other numbers for altered heats and for sub-finals and final. Number decals may not be trimmed to eliminate the background.

### **1.11.3 NUMBERING OF THE BODY/WING**

The registration number (1-150/180, with number 1 being the reigning Famar champion or Famar South American Champion) is put on the body/wing.

It is the same for the entire competition.

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

### **1.11.4 NUMBERING OF TRANSMITTERS**

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

## **1.12 BADGES**

### **1.12.1 DRIVERS, MECHANICS AND TEAM MANAGERS**

Two badges will be given to each competitor, blue for the driver, yellow for the mechanic. The driver's badge must show his passport-size photograph. The designated Team Manager from each country will receive an orange badge upon registration of his drivers (see Rule 4.18).

### **1.12.2 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 all areas

Red badges/Race Officials: all areas

Grey badges/FAMAR Officials: all areas

## **1.13 PITS**

Places are allocated for the duration of the FAMAR Championship and or Famar South American Championship . Places are grouped by country and marked by sign plates. Pits are covered. Every competitor will have a 60 x 120 cm (2 x 4 feet) table space.

Pits are equipped with either: 120 V/60 or 220 V/50 AC.

12 V DC (limited) in starting area

## **1.14 TRANSMITTERS**

### **1.14.1 TRANSMITTER IMPOUND**

With 99% of the drivers using 2.4GHz DSM/DSS systems, NO radio impound needed: HOWEVER,

Radio's may only be switched on for drivers that have to run their heat or final and the group that warms-up the engine and is to run the next heat or final. All other Radios must remain switched off in the paddock area, except when maintenance or adjustments are required. All radio maintenance must be carried out in area designated "radio maintenance area"

The designated area should be as far away as practical from the drivers' rostrum should be identified during the team managers meeting.

At any time the race director can change this decision to implement a radio impound if they receive complaints about radio problems from at least 3 countries and they feels the request is valid and is required for safety.

No delays or protests will be accepted due to radios not being impounded.

Drivers who come from the rostrum must give their radio to their mechanics before going to their Marshall position. Not obeying these simple rules can cause a penalty.

### **1.14.2 TRANSMITTER INSPECTION**

All transmitters must be marked with a driver identification number and only these transmitters, thus identified, may be used in the event. Transmitters are limited to the manufacturers' recommended voltage. External transmitter battery packs are not permitted.

#### **1.14.3 Use of 2.4GHz DSM/DSS systems.**

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

#### **1.15 LAP COUNTING AND TIMING**

See General **FAMAR** rules

#### **1.16 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.

### **2. TRACK SPECIFICATIONS**

#### **2.1 SURFACE**

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

#### **2.2 LENGTH**

The minimum length of the track is 250 meters (820 feet). Advised is 250 - 350 meters (820 – 1148 feet).

#### **2.3 WIDTH**

The minimum width of the track is 4.5 meters (15 feet) between marking lines. The maximum width is 6.5 meters (21 feet).

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

#### **2.4 PODIUM**

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

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

#### **2.5 VISION**

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

#### **2.6 MARKING**

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

#### **2.7 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.

Exit from and entrance to the main track is advised to be on a slow section of the track

#### **2.8 DESIGN**

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

#### **2.9 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 centimeters/16 inches away from the marking lines of the track.

## 2.10 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 centimeters/8 inches away from the marking lines on the track

## 2.11 DOTS

No dots will be used on high speed sections.

## 2.12 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 minimize marshal assistance

## 2.13 MARSHAL POSTS

Marshal posts must be available for every 30 meters/100 feet of the track length.

They may not obstruct the vision of the drivers. The posts must be numbered. When a post is located on a dangerous part of the track (i.e. the straight or a fast corner), this post must provide protection for the marshal (wall, tyres, gate, fence etc.).

## 2.14 STARTING LINE

A start-finish line is to be painted across the track indicating the position of lap counting pickup loop; this must be in easy view of the timekeepers. The vision of the starting line may not be obstructed by the mechanics holding the cars or by the starter and starting equipment. The starting line must be located more than 10 meters/33 feet away from the first corner. Ten numbered boxes of 70-100 centimeters/27-40 inches long are painted with the starting line forming the front of all the boxes. The hold line for the mechanics is located 1 meter/3.3 feet behind the boxes.

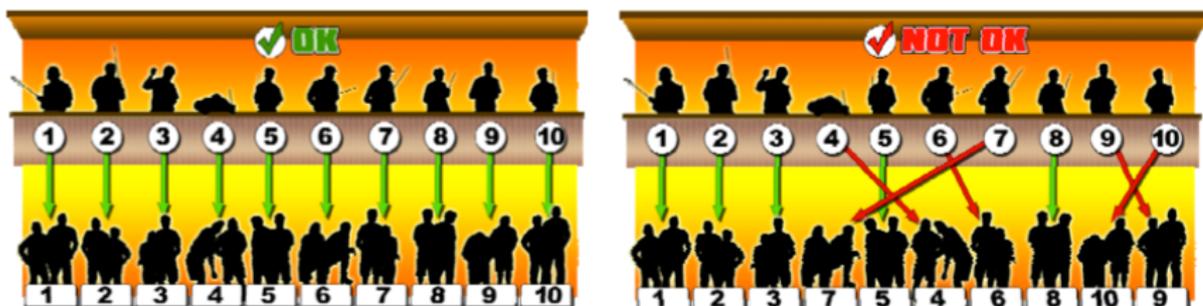
## 2.15 LE MANS START

For the "Le Mans" type starts, 10/12 numbered boxes are located on the side of the track at an angle of 20-45 degrees with the track, at a minimum of 2 meters/7 feet and maximum 4 meters/14 feet apart. The boxes must measure 70-100 centimeters/27-40 inches long and 30-40 centimeters/12-16 inches wide.

## 3. RACE PROCEDURES

### 3.1 POSITIONING

Mechanics must at all times pit in the position corresponding to the driver. i.e. mechanics of # (1) on the stand must use pit position 1. See drawing



During finals, position on the drivers stand 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.

For all heats and Finals two (2) mechanics are allowed per car. That can be the Mechanic and a team manager or 2 mechanics but a maximum of 2 people.

The only exception to this is an interpreter may be allowed only if there is sufficient space available and neither the driver nor their pit assistants speak enough English as to be able to understand the referee(s) or race control. This person may not assist in any other way, and must seek approval pre-approval from the race director

### 3.1.1 **RADIO COMMUNICATION IS ALLOWED BETWEEN DRIVER AND MECHANIC.**

a: Only designated public service bands with a maximum power output of 500 mW are allowed.

b: Radio communication can only be used by the driver their pit crew, only while their driver is on the drivers' rostrum for the duration of the race.

c: A single ear piece or one sided head set type that is not audible to others and does not reduce the ability to hear the referees' calls must be used.

d: All equipment must comply with the local & country radio communications rules.

e: Not allowed, any 2.4 GHz radio equipment.

f: Radio equipment cannot be used at any other time within or around the complex.

g: Race management has the right to test, decline or withdraw the use of any and all equipment without question.

Note: Rules, b, c & f, do not apply to race management

## 3.2 **GENERAL STARTING PROCEDURE**

3.2.1 **HEATS** – 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.

3.2.2 An audible warning will be given in English language at 1 minute and at 30 seconds

3.2.3 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: 12345678910

ROUND 2: 34567891012

ROUND 3: 56789101234

ROUND 4: 78910123456

ROUND 5: 91012345678

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.

### **SUB-FINALS and FINALS.**

3.2.4 An audible warning will be given in English language at 1 minute and at 30 seconds.

3.2.5 From 30 seconds until 10 seconds the cars may be placed in the starting boxes. If a car is not in the starting box at the 3 second mark, it must start from the pit lane after all cars have started officially.

3.2.6 From 10 seconds until 4 seconds, time is counted down in English language, second by second.

3.2.7 At 5 seconds, the starter will lower the starting flag and at 4 seconds. the flag will be down, touching the ground. At this time, cars must be released by the mechanics who will all step back behind the hold line. The cars must remain entirely within the start boxes with no part of the car touching or overlapping any part of the lines forming the box.

3.2.8 From 4 seconds, the counting stops and the start signal will be given by the starter between 0 and 4 seconds. If the grid is not to the satisfaction of the starter, he may command a re-start, beginning the count down from 30 seconds

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

**3.2.10 Early starts - ALL FINALS ONLY.**

Early starts (i.e. any car touching the starting line) will be penalized with a stop and go penalty. The duration of this stop and go penalty has to be determined at the Team Managers' Meeting and depends on the lap times. 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.

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

3.2.12 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.

3.2.13 **DELAYED START** - A ten (10) minute delay can be called only prior to the starter calling the cars to the starting line at the 30-second countdown announcement. Only participants of the semi-finals or final may request a delay. One only delay will be granted for each final. The track is shall be closed to all cars and all engines will be shut off for the duration of the delay period. The driver requesting the delay for whatever reason, except an error in frequencies by Race Control, must start off the back of the grid as directed by race control. The start position will be up to but not more than six (6) meters/19.68 feet behind the last official grid position.  
A 10-minute delay period can be reduced only if all drivers competing in the race are in full agreement.  
The race schedule start will resume from the two (2) minutes warm up countdown sequence

**3.3 MARSHALLING**

- The Organizer is required to supply marshals for all finals. If the organizer cannot supply marshals for qualifying then the drivers will perform the marshalling.
- If the drivers are required to marshal then they will marshal the heat following their racing heat. Drivers in the final heat of a group will marshal the first heat of that group. Substitutes are not allowed except if the driver is physically unable and authorized by the race director.
- Marshals who are not in position **one minute** prior to the start of the heat will be penalized by the loss of their best qualifying time.
- The organizer must provide marshals for vacant positions for which there are no available drivers.
- The organizer must supply gloves for use by the marshals at their discretion. All marshals must wear close-toe shoes.
- The organizer must provide running marshals to allow the proper marshals to remain at their positions. Running marshals must return disabled cars to the pit area. Only marshals and authorized personnel are allowed on the track while racing is in progress

**3.4 TECHNICAL INSPECTION AND INFRINGEMENTS**

Only vehicles which conform to all regulations will be accepted for racing. Technical inspection will be done on Saturday, 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, tires, wings and chassis.  
No race will be delayed because of non-compliance by a competitor. At the completion of each heat all cars in that heat, whether they finished or not, must be presented for technical inspection. Cars which are not presented for technical inspection at the end of a heat will be disqualified from that 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

The use of a non-homologated, modified homologated muffler will constitute disqualification from the 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 technical infringement, other than those concerning engine, fuel tank, weight and muffler 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.

All cars must be fitted with a clutch, a braking system and a homologated exhaust pipe.

The engine and fuel tank may be checked at any time.

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

Following method of measurement will be used:

- take off pressure lines
- fill the fuel tank completely
- remove fuel pipe from the carburetor inlet and make sure fuel line is full.
- connect an air pump to the pressure nipple and measure fuel amount with a calibrated glass. The amount of fuel pressed into the glass will be considered as the total content of the fuel system.
- Only one car per driver will be accepted.
- The chassis plate 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 must be presented to technical inspection for marking before re-building the car

### 3.5 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 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 Organizer's error, he will be allowed 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 authorized by the Race Director before the change is made.

The organizer 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.

### 3.6 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.

The use of personal transponders is mandatory. The Race Director's decision is final.

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 per section rule 2.11.2

### 3.7 FLAGS

Start – green flag or national flag

Finish	– checkered 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
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 authorize their use.

### 3.7.1 USE OF THE BLACK FLAG

- Drivers who impede the progress of other participants
- Unsportsmanlike racing
- 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 which have been black flagged may re-enter only with permission from a Race Official.

## 3.8 RACING REGULATIONS

### 3.8 RACING REGULATIONS

#### 3.8.1 PROTEST AGAINST A COMPETITOR OR THE ORGANIZER

Protest must be entered by the Team Manager, in writing, in English/Spanish/Portugues language, within 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 FAMAR Official. Protests are processed by the Race Director and, if necessary, by the Jury. Appeal to FAMAR may be made. FAMAR is not obliged to handle such appeal. Deposit returned if protest is upheld.

#### 3.8.2 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 10 minutes, including a \$50 U.S. deposit

### 3.9 PENALTIES AND SANCTIONS

During finals, participants will be allowed to change the bodies of the car without the authorization of the Race Director, providing the bodies are of the same type. 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

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 affected.

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.

### 3.10 **OFFICIAL ANNOUNCEMENTS**

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

### 3.11 **OFFICIALS**

#### 3.11.1 **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) FAMAR Referee will be appointed by FAMAR. Travel and accommodation expenses will be paid for by Host Country Member.

The FAMAR Referee will be supported by one (2) appointed Deputy Referees, both nominated and paid for by the Organizer (see Rule 1.12). They must be experienced and unbiased people with a good knowledge of the English language and the current FAMAR Rules and will have acted as a Referee at least on national level before.

A back-up Referee must be nominated by organization 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 pit lane to enable Referees' instructions to be heard only by the drivers and the mechanics in the pit lane. N.B. This system is to be totally separate from any public address system used for announcements.

The organizer is responsible for providing the Referees and officials with lunch, refreshments and a ticket to the Awards' Banquet.

#### 3.11.2 **REFEREES' DUTIES**

At all time, during qualifying heats, one (1) of the Referees present will be watching and observing the racing from start to finish. During finals, all two (2) Referees will observe the racing from start to finish. During qualifying, the Referees work on an alternative relief schedule. Only Referees on duty are authorized 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.

#### 3.11.3 **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 behavior including language, actions or behavior that is deemed unacceptable being exhibited by either the driver, their mechanics team managers or support persons.

- 3 Incorrect use of entry and exit of the pits.
- 4 Repairs and refuelling outside the appointed pit area.
- 5 Mechanics going onto the track during the race.
- 6 Any combination of three warnings will cause disqualification.
- 7 Instructions may also be given by the Referees but they do not constitute a warning. Sample of instructions follow under number 12.
- 8 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).
- 9 Cars that are in an undriveable or dangerous condition due to damage or malfunctioning of the car (one instruction).
- 10 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 (one lap penalty). In the event of an early start not being observed, it may be called and noted by the Referee.
- 11 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.
- 12 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 recognize the above English words and statements.

#### 3.11.4 REFEREE'S AUTHORITY

- 1) The Referee issues warnings in case of infringements of any point as described under 3.11.3, 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 FAMAR in writing. FAMAR is not obliged to act on such a complaint.
- 7) The referees have at their discretion the right to issue penalties instead of a warning for any infringement of the rules
- 8) For pit lane infringements the referees have the right to issue penalties ranging from a stop go, to time in seconds to a one (1) lap penalty, taking into account the severity of the infringement or if there is a case of repeat offending.
- 9) The FAMAR Referee has the authority to withdraw a FAMAR Championship and South America Championship badge (pass) from any person contravening the FAMAR Championship and South America Championship Rules or spirit of the FAMAR Championship and South America Championship Rules.
- 10) The FAMAR Referee has the authority to instruct other race Officials to take remedial action in any situation which might compromise the well running of the race meeting. Any serious situation will be referred to the most senior FAMAR Official present before taking any action.
- 11) Driver Infringements during the final 2 laps of any heat or final will incur a 1 lap penalty or be deferred to the international jury to determine the penalty upon examination of the incident.

Stop & go penalties that have not been performed within 3 laps of issuing the penalty will be resolved by a lap deduction or time penalty instead. This will be issued after the finish of that race.

### **3.11.5 REFEREES' REPORT**

Referees make up a report to be sent to FAMAR within 10 days. The report contains information on the organization, accommodation and the racing. The Referees' 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 FAMAR.

### **3.12 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.

### **3.13 INTERNATIONAL JURY**

The International Jury consists of official representatives of each country member, which will furnish a minimum of one (1) representative and a maximum of three (3) representatives to serve on the International Jury. Each FAMAR Member will have a total of one (1) vote, regardless of the number of representatives it supplied.

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

The Race Director and FAMAR 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 organization 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.

### **3.14 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 South American Championship and FAMAR Championship through the ranking FAMAR Officer present at the event.

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

The organizer 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 FAMAR 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.

### 3.15 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 FAMAR.

### 3.16 ASSISTANT RACE DIRECTOR

The Assistant Race Director will represent the host country or **organization** and will assist the Race Director in co-ordinating all race matters with host organization officials.

### 3.17 TEAM MANAGERS

The Country Team Manager, or a nominated deputy, must be present during all official racing. Team Manager is appointed by his national association.

The responsibilities of the Country 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 Organiser may call
- The Country 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.

### 3.18 TEAM MANAGERS' COMMITTEE

Each country will have a Country 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.

#### 4. TECHNICAL SPECIFICATIONS 1/8 IC. TRACK.

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

- 4.1 The engine may have a total capacity of not more than 3.5 cubic centimeters/0.214 cubic inches. No tolerance allowed
- 4.2 The fuel tank, including filter and fuel pipes up to the carburetor may hold a maximum of 125 milliliters/4.23 fluid ounces. No loose inserts allowed. Any tank found to be illegal (over 125 milliliters/4.23 fluid ounces) after a heat or final shall be removed from the car and inspected for a second time after an initial 'cool down' period of fifteen (15) minutes. This 'cool down' period is only necessary in the case of temperatures above 20 degrees C/68 degrees F.
- 4.3 Overall dimensions:  
Wheel base  
Maximum overall width Maximum overall height  
270 - 330 mm/11-13 in.  
267 mm/10.5 in.  
180 mm/7.5 in. (except aerial, incl. Gurney strip)
- 4.4 In General foam and/or rubber tyres may be used.  
**In case the handout tires**, all tires will be supply by organizer, same brand/model and quantity for all drivers.  
For all official racing under dry circumstances a controlled rim and tire from a single brand is mandatory.  
The pre-determined hardness and diameters for the front and the rear will be fixed and the same during the whole event. The tire diameter and hardness must be enough to run a sub final of 20 minutes on a single set.  
One type of rim must be used, no special rims with a possibility to change the softness (or hardness). The rim must be used as it comes out of the moulding, no extra milling to make it lighter or softer is permitted.  
The only addition allowed is the use of a disc to close a rim, however that disc must be mounted by means of a screw to avoid it comes off.  
Whenever one set is referred to, this means 2 front and 2 rear tires = 1 set.  
The general measurements and hardness for 1/8th IC track tires:  
**The diameter and hardness of the controlled tire is in General:**  
Front, 69mm, 32 shore  
Rear, 74mm, 35 shore  
Final measurements and shore after consultation with the organizer, changes are possible due to very high traction facilities

The final values are made by the FAMAR IC Executive in consultation with the organizer and can depend on the track surface.

Before official racing starts the tires will be checked for shore rate (shore A) and diameter by FAMAR or the organizer to make sure equal tires will be handed out.

Tires will be handed out in the controlled staging area.

It will not be allowed to check tires with a shore meter and refuse them. You get one set and you put them on your car. Only in case you chunk a tire in the warm-up you can get another tire from an official.

Every driver will need a minimum of 6 sets of tires (4 sets for Qualifying, 1 sets for timed practice and 1 set for the first final you are in). Every time you go racing you come without tires and you will receive a new set. Extra sets for those that move up due to the Christmas tree finals must be paid extra to the manufacturer/organizer; this can be done by means of a ticketing system.

For sub finals (20 minutes) you can only use 1 set of tires.

For Semifinals (20 minutes) you can use 1 sets of tires

For the main final (max 40 minutes) you can use maximum 2 sets of tires.

Tires needed for the practice, these can be ordered on the entry form.

All the "race" tires must be paid in advance.

In case of rain or a wet track the race director together with FAMAR officials can allow the use of another tire as the controlled tire. In that occasion the following rule will apply. The use of tire treatment is forbidden. This means that it is forbidden to put any product on your tire with the aim to change the "grip" of the tire. FAMAR has the right to employ any testing methods and or procedures it sees fit to test for treatments. Suspect tires will be confiscated, but approved replacements may be used.

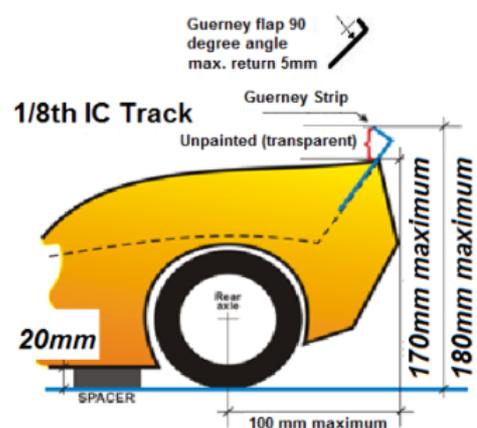
The start of a heat or final will not be delayed due to additional inspection of tires.

Confiscated tires may be held for future testing. IFMAR's decision for inspecting tires is final. If upon further independent lab testing tires are found to contain illegal treatments further action may be taken.

Choosing the brand of tire will be done by Organizer and FAMAR, who will send out a tender to various tire manufacturers. The choice will be determined by different values, including price,

- 4.5 Rims: The rim's diameter must not exceed 54 mm/2.1259 in. An edge to reinforce the rim of 2 mm/0.0787 in. thickness and 3 mm/0.1181 in. height on the inside (car side) is allowed. Flange diameter maximum 60 mm/2.3622 in. Any fixing bolts or other equipment installed in the wheel rim must not extend beyond the exterior of the wheel rim. The wheel rim must not extend more than 1.5 mm/0.059 in. from the exterior of the tyre.  
The use of wheel discs on an open rim is only allowed when they are mechanically secured.
- 4.6 All cars will be equipped with brakes and a clutch in such a manner that the car may be held stationary with the engine running.
- 4.7.1 Homologated mufflers and homologated inlet noise silencer boxes (INS box) must be used.  
The maximum noise level for a muffler with INS box is 85 dB's, measured at ten (10) meters distance and one (1) meter high for 2009.  
IFMAR's definition of a noise level is always final.  
The muffler must be of a 3-chamber type minimum.  
The shape of the exhaust pipe has to be of a straight circular rotated type. Any other shape like oval, bent or any other form that is not reproducible by a lathe is not allowed.  
This dB level should be 83 in 2010, due to environmental rules
- 4.7.2 The mufflers have to bear their homologation numbers during the entire competition. The mufflers' and INS boxes' measurements (both internally and externally) have to conform with those on the homologation sheet issued by IFMAR.
- 4.7.3 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
- 4.7.4 Mufflers and inlet noise silencer boxes (INS box) may be homologated by ROAR, EFRA, FEMCA or FAMAR up to four (4) months before the event. Mufflers and INS boxes homologated in the four (4) month period before the event will not be included on the IFMAR Muffler and Inlet Noise Silencer Box Lists for that event.
- 4.7.5 The IFMAR Muffler List and IFMAR Inlet Noise Silencer Box List will be supplied to each participant with the rule book two (2) months prior to the event. The IFMAR Muffler and Inlet Noise Silencer Box Lists, with detailed drawings, must be available in Technical Control. Additional copies of the IFMAR Muffler and INS Box Lists must be available to each participant, if requested.
- 4.7.6 The outlet or tailpipe of the muffler must project horizontally or downward. No upward or vertical exhaust outlets are allowed. The outlet pipe may have a minus tolerance of 2mm/0.078 in. (length).
- 4.8 The front of the car must be equipped with a bumper in such a manner that it will minimise a wound in the case of it entering into contact with other participants or members of the public. The bumper must be made from a flexible material with all corners and sharp edges rounded off. The contour of the bumper will follow the contour of the body with which it is being used. At no point may the bumper protrude more than 5 mm/0.20 in. in front of the body.
- 4.9 If a rear bumper is fitted, it must finish no more than 10 mm/0.40 in. behind the rear wheels.

- 4.10 If a roll-over bar is built in, it must be placed behind the driver or just behind the imaginary driver's position.
- 4.11 The aerial must be made from a flexible material in such a manner that it will bend completely under the weight of an inverted car. Metallic aerials must have the free end protected.
- 4.12 Bodies must be a one-eighth scale authentic reproduction of sports cars or prototype cars in full scale racing participating in FISA's, IMSA's or CANAM's official sport classes. There will be an allowance of 10% tolerance in all dimensions.
- 4.13 Only bodies that are recognized and approved by IFMAR will be allowed. Bodies may be homologated by ROAR, EFRA, FEMCA or FAMAR up to four (4) months before the event. The combined list from the blocs will be valid for the WC event.
- 4.14 The body must be made from a flexible material and painted properly.
- 4.15 A realistic PAINTED driver's figure (minimum helmet and shoulders) made to 1/8th scale must be 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. The driver need not be fitted under a closed body.
- 4.16 All bodies must have the front and rear sides cut out for the wheels if the original was so designed. The radius of the cut-out must not exceed the tyre by more than 13 mm/0.5 in
- 4.17 The windscreen must not be cut out. In closed bodies, a hole of maximum 6.5 square centimeters/1 square inches for cooling is allowed to be cut out in the front of the windscreen. The windscreen may be painted in a realistic transparent colour.
- 4.18 Side windows and rear window may be opened.
- 4.19 No wheels, tires or rims of the car may extend outside the body shell, as viewed from above.
- 4.20 Cut-outs in the body that were not in the original full scale version will be allowed for the following:
- 1 The cylinder head and air filter must follow their contour and have a maximum of 20 mm/0.787 in. clearance on all sides.
  - 2 The aerial hole will be no larger than 20 mm/0.787 in. in diameter
  - 3 The radio switch hole will be no larger than 25 mm/0.984 in. in diameter
  - 4 Cut-out for the fuel filler cap will follow the contour of the above piece with a maximum of 20 mm/ 0.787 in. in gap between the body and the filler cap, as viewed from above.
  - 5 The hole for the exhaust pipe must follow the contour of the above piece with a maximum of 25 mm/0.984 in. in gap, in any direction, between the body and the exhaust outlet
  - 6 The slot for the roll-over bar should be no more than 20 mm/0.787 in. in width. The roll-over bar should not protrude more than 50 mm/1.968 in. above the cylinder head.
- 4.21 A spoiler/wing which conforms to IFMAR regulations may be fitted.
- 4.22 Spoiler/wing sizes for sports cars/prototypes:  
 Overall width of body and spoiler max 267mm (measured on top).  
 Separate Wings or spoilers are not allowed. Only a Gurney strip directly mounted on the rear of the body is allowed.  
 No additional items may be fastened to the body exterior other than a rear Gurney strip. All measurements for the wing height will be taken with the chassis raised on 20mm blocks. The Gurney strip return should not be greater than 5mm with a 90 degrees angle.
- Maximum height for the body, side and rear wing is 170 mm, with the chassis placed on 20 mm spacer blocs. The maximum overall height including the Gurney strip is 180 mm, the Gurney strip, must be attached directly to the body. No independently mounted wings are allowed.
- The maximum overhang behind the rear axle measured from the rear axle centre point is 100mm
- If body stiffeners are used they cannot cause



the body to be wider than 277mm at any point.

For 2016 Full Global Body Spec Rules will be used, final dimensions must be available early 2015

**4.23 Fuel:**

Fuel is free brand/type for all class: Fuel or fuels must be commercially available containing only methanol, oil lubricant and any % of the nitro methane for 1/8th measured by volume plus a small allowance in % for anti-foaming and anti-corrosion agent.

4.23.10 Any infringement of these rules by a mechanic/team manager/driver or any associated person will cause that driver to be excluded from the event. Further punishment to be determined by FAMAR, such as a ban from future international racing.

4.23.11 Controlled Pit lane Area: It is suggested that the organizer build this area in a way that eliminates opportunities for contact with persons outside the controlled pit lane area.

4.24 The minimum weight limit of the cars is 2450 grams/5.40 pounds. 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.

4.25 The car shall be measured for the width by placing it on a baseboard equipped with two side rails of 25.4 mm/1 in. in height spaced 267 mm/10.5 in. apart, constructed in such a way that the car can roll freely between them. Base board and rails must be constructed of high quality material, suitably stiffened to prevent distortion. The car must roll freely between the rails with any steerable wheel set in the straight ahead position, irrespective of the compression or extension of the suspension.

The car shall be measured for length and height in a similarly constructed box of internal dimensions 637 x 267 mm/25 x 10.5 in. which includes provision for checking the maximum height. Measurement of the wheel base may be made by simple measurement of axle centre distance but the Race Director should be prepared to make more exact checks in case of doubt or protests. It is suggested that the wheels are removed and the wheel spindles firmly placed on V-blocks whilst accurate measurements are made.

It is the responsibility of the driver to ensure that his car complies with the regulations at all times it is on the track and the organizer may check any car, at any time during the championship, for compliance with the regulations. On checking immediately after a race, if a car is found to be under the minimum weight or has incorrect dimensions, positive proof of race damage may prevent disqualification.

4.26 The maximum carburetor size will be 9.00 mm/0.35 in.

**4.27 Technical restrictions:**

Not allowed:

-4 wheel brakes (no independently controlled braking on the front wheels is allowed)

liquid cooled engines

-hydraulic systems

-more than 2 servos

-no more than 3-speed transmissions.

4.28 Driver Aids – 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. It is the object of this rule to ensure that the IFMAR 1/8th I.C. Circuit World Championship be a test of driver skill.

**NEW APPENDIX 1 (see 5.4 tires)**

The diameter and hardness of the controlled tire is in General:

-Front, diameter 69mm, 32 shore

-Rear, diameter 76mm, 35 shore

The above dimensions and harness are the recommended starting reference point only.

The final diameter and hardness of the controlled tire will be determined consultation with the organizer, after testing under local conditions have been taken into consideration.

Nitro Percentage for all on-road EVENTS after 2016.

Only commercially available fuels containing methanol, oil/lubricant and nitromethane (with a maximum of 16% measured in volume with an Specific Gravity of no more than 0.87), decided by the IFMAR I.C. Executive, must be used

FINISH.

## **TECHNICAL SPECIFICATIONS FOR 1/10 Touring Cars**

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

### **5. TECHNICAL SPECIFICATIONS 1/10 IC Touring**

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

5.1 The class run will be the 200mm Nitro Touring Car which will be 4WD. Only one (1) 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.

5.2 Maximum 2-speed gearbox allowed

5.3 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.

5.4 The engine may have a total capacity of not more than 2.11 cc. They shall be air-cooled, with front rotary valve, two-stroke induction. 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.

No form of forced induction is allowed. No form of variable port timing.

Only glow plug ignition is allowed. The piston skirt may only be relieved for clearance of the crankshaft counterweight.

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.

Standard or conical glow plugs allowed.

The carburetor size is to be 5.50mm maximum.

5.5 Engine capacity is to be maximum .12 (2.11cc) only

5.6 Standard pull-start is optional.

5.7 Engine internal modifications are allowed as long as they are within the parameters of Rules 6.4 and 6.5

5.8.1 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.

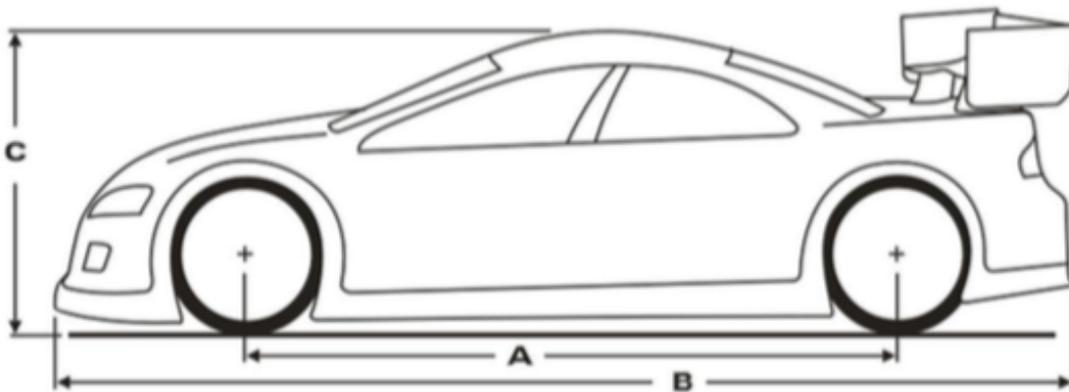
5.8.2 The muffler have to bear their homologation numbers during the entire competition.

The mufflers' measurements (both internally and externally) have to conform with those on the homologation sheet issued by IFMAR.

- 5.8.3 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.
- 5.8.4 Mufflers may be homologated by ROAR, EFRA, FEMCA or FAMAR up to four (4) months before the event. Mufflers homologated in the four (4) month period before the event will not be included on the IFMAR Muffler Lists for that event
- 5.8.5 The IFMAR Muffler List will be published on the IFMAR website and Organizer's website two (2) months prior to the event
- 5.8.6 The IFMAR Muffler list, with detailed drawings, must be available in Technical Control.
- 5.8.7 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.
- 5.9 The minimum weight without fuel: **1650.00** grams (including transponder).  
NOTE: The minimum weight of a 1/10th scale IC track 200 mm car will be reviewed every 2 years
- The minimum weight will be calculated by taking the average weight of 3 cars minimum in standard version, prepared ready to race, without any lightweight parts (light weight parts meaning titanium, special alloy or other high value weight saving items) The outcome of the average weight will be rounded down by up to 10 grams to the closest round figure. IFMAR will determine if a kit contains light weight components that are deemed inappropriate for a standard kit, such kits cannot be included in determining the nominal weight
- 5.10 Fuel tank capacity to be 75.00cc including all fuel tubing, filters, etc. No loose inserts allowed inside the tank
- 5.10.1 **Fuel:**  
Fuel is free brand/type for all class: Fuel or fuels must be commercially available containing only methanol, oil lubricant and any % of the nitro methane for 1/10th measured by volume plus a small allowance in % for anti-foaming and anti-corrosion agent.
- 5.11 Bodies must be a 1:10 scale in character reproduction of touring car (sedan) 2 and 4-door vehicles that exists or have existed, and raced in an international Touring Car series. For homologation purposes, the bodies dimensions will be checked according the Global Body Specifications.  
Bodies must be made from polycarbonate.
- 5.12 The front bumper must follow the body contour and must be constructed so as to minimize injury that may result from being hit by a car. The bumper must be made from foam rubber or a flexible plastic material.
- 5.13 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.
- 5.14 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. Rear of the body may not be cut away higher than 50.00 mm measured with a 10.00mm spacer under the chassis plate. Details of all front and rear

lights, grills, air intakes and windows must be clearly contrasted from the surrounding paintwork.

- 5.15 Only the following openings and sizes are permitted in the body shells.  
 Only one opening may be made in the front screen with a maximum dimension of 60mm in any direction not intruding into the roof or bonnet.  
 An additional opening of 50 mm may be made above the fuel filler cap when viewed from above. The minimum distance between any openings is 5 mm.  
 An opening with a maximum diameter of 35mm is allowed just above the cooling head for easy glow plug access and cannot be combined with any other hole.  
 Additional non-mounting openings may be made for exhaust, transponder, radio antenna and carburettor access.
- 5.16 Roll-bars (roll-over bars) must be kept under the body
- 5.17 Only the muffler outlet, antenna and body posts may protrude outside the body shell.  
 The shape of the exhaust pipe has to be of a straight circular rotated type. Any other shape like oval, bent or any other form that is not reproducible by a lathe is not allowed.
- 5.18 Under body/chassis aerodynamic aids of any nature are not allowed
- 5.19 General Dimensions: -Minimum (mm) -Maximum (mm)



Item	Limit	Specification	
Length (B)	Maximum	460 mm	
Width	Without Body (excluding stinger)	Maximum 200 mm	
	With Body (including stinger)	Maximum 205mm	
Height (C) (with 20mm blocks under chassis)	Minimum	130 mm	
Wheelbase (A)	Maximum	270 mm	
	Minimum	230 mm	
Weight	Minimum	1650 gr	
Wheels	Diameter	Minimum 46 mm	
	Width	Maximum 31 mm	
Tires	Width	Maximum 31 mm	
Rear Wing	Chord	Maximum 50 mm	
	Width	Maximum 200 mm	
	Side dam	Length	Maximum 50 mm
		Height	Maximum 35 mm

Note: Height (C) if use 10mm blocks under chassi minimum is 120mm.

- 5.20 One (1) wing and one (1) 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. Wing and spoiler must not be fixed to body with piano wire. Basically, they must be mounted to body directly. Wing and spoiler 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 bumper. The height of the wing may be adjusted but the wing, including endplates must not extend higher than the roofline. Wings (excluding endplates) are to be of single moulded construction (no flat-packs/bend your own). Total chord of wing is 50.00mm.

- 5.21 Foam and/or rubber tyres may be used. Any materials used in, or on, the tyres must not damage the racing surface. Treatment of the tyres with additives is allowed as long as the products used are not volatile or toxic.

Tires may be checked at the entrance of the pitlane with equipment such as the the MinRAE 3000 or other similar industry standard VOC detection equipment for the detection of volatile and or toxic products.

Tires must pass the testing equipment in the controlled pit area. If testing provides a positive result the tires will be confiscated by IFMAR. But new approved tires will be allowed to be fitted to the car. The start will not be delayed due to such an event. The organizer must make all efforts to bring the track surface at a good grip level.

**Special Note:** If a track provider states for what ever reason either personal, council or state regulations that no additives may be used this must be observed.

**IMPORTANT:** This must be made clear at the time of application to host any event.

- 5.22 **In case the handout tires**, all tires will be supply by organizer, same brand/model and quantity for all drivers.

For all official racing under dry circumstances a controlled rim and tire from a single brand is mandatory.

The pre-determined hardness and diameters for the front and the rear will be fixed and the same during the whole event. The tire diameter and hardness must be enough to run a sub final of 20 minutes on a single set.

One type of rim must be used, no special rims with a possibility to change the softness (or hardness). The rim must be used as it comes out of the moulding, no extra milling to make it lighter or softer is permitted.

The only addition allowed is the use of a disc to close a rim, however that disc must be mounted by means of a screw to avoid it comes off.

Whenever one set is referred to, this means 2 front and 2 rear tires = 1 set.

The general measurements and hardness for 1/10th IC track tires:

**The diameter and hardness of the controlled tire is in General:**

Front, 62mm, 37 shore

Rear, 64mm, 40 shore

Final measurements and shore after consultation with the organizer, changes are possible due to very high traction facilities

The final values are made by the FAMAR IC Executive in consultation with the organizer and can depend on the track surface.

Before official racing starts the tires will be checked for shore rate (shore A) and diameter by FAMAR or the organizer to make sure equal tires will be handed out.

Tires will be handed out in the controlled staging area.

It will not be allowed to check tires with a shore meter and refuse them. You get one set and you put them on your car. Only in case you chunk a tire in the warm-up you can get another tire from an official.

Every driver will need a minimum of 6 sets of tires (4 sets for Qualifying, 1 sets for timed practice and 1 set for the first final you are in). Every time you go racing you come without tires and you will receive a new set. Extra sets for those that move up due to the

Christmas tree finals must be paid extra to the manufacturer/organizer; this can be done by means of a ticketing system.

For sub finals (20 minutes) you can only use 1 set of tires.

For Semifinals (20 minutes) you can use 1 sets of tires

For the main final (max 40 minutes) you can use maximum 2 sets of tires.

Tires needed for the practice, these can be ordered on the entry form.

All the "race" tires must be paid in advance.

In case of rain or a wet track the race director together with FAMAR officials can allow the use of another tire as the controlled tire. In that occasion the following rule will apply. The use of tire treatment is forbidden. This means that it is forbidden to put any product on your tire with the aim to change the "grip" of the tire. FAMAR has the right to employ any testing methods and or procedures it sees fit to test for treatments. Suspect tires will be confiscated, but approved replacements may be used.

The start of a heat or final will not be delayed due to additional inspection of tires.

Confiscated tires may be held for future testing. IFMAR's decision for inspecting tires is final. If upon further independent lab testing tires are found to contain illegal treatments further action may be taken.

Choosing the brand of tire will be done by Organizer and FAMAR, who will send out a tender to various tire manufacturers. The choice will be determined by different values, including price,

- 5.23 The aerial support must be flexible. Carbon, GRP, steel, etc. are not allowed.
- 5.24 Only two (2) servos are allowed. Frequency must be legal as specified by Race Director. Drivers must have more than one (1) frequency available. Under no circumstances shall a transmitter be taken onto the track
- 5.26 The use of electronic gyroscopes is not allowed
- 5.27 All measurements referred to in these rules are maximum or minimum values
- 5.27 Not allowed
  - "Pressurized" braking systems including pneumatic or hydraulic systems.
  - Only mechanical, single braking units such as those already in use on the rear or middle shaft axle
  - Liquid cooled engines
  - Hydraulic systems
  - More than 2 servos
  - No more than 3-speed transmissions.
  - Quick-change wheel systems are not allowed. Wheels must be fixed by a screw or nut that must not extend beyond the exterior of the wheel rim.

## 5.29 TELEMETRY & DRIVERS' AIDS

- 5.29.1 It is not allowed to use any electronic devices with the exception of:
  - Two radio channels of the receiver which will be used to operate steering, throttle and brakes.
  - A passive data recording or information system to record functions of the car can only be used up to the end of controlled practice
- 5.29.2 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. It is the object of this rule to ensure that the FAMAR Championship be a test of driver skill.
- 5.29.3 The aerial support must be flexible. Carbon, GRP, steel, etc. are not allowed.

# TECHNICAL SPECIFICATIONS FOR 1/8 GT Cars

## 6. TECHNICAL SPECIFICATIONS 1/8 GT Cars

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

- 6.1 The class run will be the 1/8 GT Nitro Cars which will be 4WD. Allowed only Drive Shafts Transmission. The chassi derived from a model car Buggy or Truggy. Not allowed belt transmission system.
- 6.2 General Dimensions  
Length (includes Body): Maximum 730mm.  
Width (includes Body): Maximum 336mm.  
Wheelbase: Minimum 270mm Maximum 361mm.  
Width to outside of wheels: 310mm.  
Height: Maximum 280mm measured with a 30.00mm spacer under the chassis plate the highest point (excluding the receiving antenna of the radio)
- 6.3 CHASSIS: Only allows the chassis is aluminum, with kick-up. It is not allowed carbon fiber chassis or other composite material.
- 6.4 ENGINES
- 6.4.1 The engine may have a total capacity of not more than 3.5cc. They shall be air cooled, with front rotary valve, two-stroke induction. They engines may have a maximum of five (5) ports in the liner, seen with the piston at its lowest position.
- 6.4.2 The carburetor size maximum 7 mm.
- 6.4.3 Engine capacity is to be maximum .21 (3.5cc).
- 6.4.4 Standard pull-start is optional.
- 6.4.5 Engine internal modifications are allowed as long as they are within the parameters of Rules 6.4.1, 6.4.2 and 6.4.3
- 6.5 AIR FILTERS: It is mandatory to use a filter of INS-BOX type approved by EFRA to reduce noise. (See listing <http://www.ifmar.org/pdf/mufflers/mufflerlist%208th%202013.pdf>)
- 6.6 WEIGHT: Minimum weight: 3500grs. (including battery and transponder, fuel)
- 6.7 GEAR BOX: Maximum 2 Speed Gear Box is allowed
- 6.8 RADIO AND SERVO: Maximum 2 Servos. The "D-Box Drift Box systems are not permitted. The use of electronic gyroscopes are not allowed, and neither is allowed to use active telemetry during competitions.
- 6.8 BRAKES: Maximum two (2) brakes provided they are in the main shaft, working on the central power transmission, is allowed. No other or individual brake system(s) for front and/or rear axles or single wheels is allowed.
- 6.9 DIFFERENTIAL: Central diff is allowed.
- 6.10 CLUTCHES: Only the use of clutches 2, 3 and 4 shoe from centrifugal action is permitted only and may be adjustable. Using clutches Centrifugal / Axial (Centax) action is not allowed.\*
- 6.11 FUEL Tank Capacity to be 150cc: The total capacity of the tank including filter and hoses should be up to 150cc. No loose inserts allowed inside the tank.
- 6.12 **Fuel**  
Fuel is free brand/type for all class: Fuel or fuels must be commercially available containing only methanol, oil lubricant and any % of the nitro methane for 1/8th GT Cars

measured by volume plus a small allowance in % for anti-foaming and anti-corrosion agent.

- 6.13 PIPES: Every engine must be equipped with an exhaust system with muffler system to reduce the noise generated by the car.  
(see list <http://www.ifmar.org/pdf/mufflers/mufflerlist%208th%202013.pdf>)  
The exhaust outlet of the muffler must project horizontally or downward. Not upward or vertically exhaust outlets are allowed.
- 6.14 TIRES: **In case the handout tires**, all tires will be supply by organizer, same brand/model and quantity for all drivers.  
The tires use that is specifically manufactured for the GT and / or 1/8 Rally Game categories and also meets the following measures and characteristics only be permitted:
- Only the rubber tires is allowed, both natural and synthetic. It is expressly forbidden to use wheels foam (foam).
  - All tires must be black with the exception of the side letters, which can be colored.

For all official racing under dry circumstances a controlled rim and tire from a single brand is mandatory.

The pre-determined hardness and diameters for the front and the rear will be fixed and the same during the whole event. The tire diameter and hardness must be enough to run a sub final of 40 minutes on a single set.

One type of rim must be used, no special rims with a possibility to change the softness (or hardness). The rim must be used as it comes out of the moulding, no extra milling to make it lighter or softer is permitted.

The only addition allowed is the use of a disc to close a rim, however that disc must be mounted by means of a screw to avoid it comes off.

Whenever one set is referred to, this means 2 front and 2 rear tires = 1 set.

The general measurements and hardness for 1/8th GT IC Track tires:

**The maximum tire width is 45 mm.**

**The rims must have a minimum 75 mm and maximum 85 mm diameter.**

**The minimum diameter of a tire must have at any point in the race will be 85mm and maximum is 110mm.**

Final measurements and shore after consultation with the organizer, changes are possible due to very high traction facilities

The final values are made by the FAMAR IC Executive in consultation with the organizer and can depend on the track surface.

Before official racing starts the tires will be checked by FAMAR Official or the organizer to make sure equal tires will be handed out.

Tires will be handed out in the controlled staging area.

It will not be allowed to check tires with a shore meter and refuse them. You get one set and you put them on your car. Only in case you chunk a tire in the warm-up you can get another tire from an official.

Every driver will need a maximum of 4 sets of tires (4 sets for Qualifying, timed practice and 1 set for the Main final you are in). Extra sets for those that move up due to the Christmas tree Main final must be paid extra to the manufacturer/organizer; this can be done by means of a ticketing system.

For the main final (max 40 minutes) you can use maximum 2 sets of tires.

Tires needed for the practice, these can be ordered on the entry form.

All the "race" tires must be paid in advance.

In case of rain or a wet track the race director together with FAMAR officials can allow the use of another tire as the controlled tire. In that occasion the following rule will apply. The

use of tire treatment is forbidden. This means that it is forbidden to put any product on your tire with the aim to change the “grip” of the tire. FAMAR has the right to employ any testing methods and or procedures it sees fit to test for treatments. Suspect tires will be confiscated, but approved replacements may be used.

The start of a heat or final will not be delayed due to additional inspection of tires.

Confiscated tires may be held for future testing. IFMAR’s decision for inspecting tires is final. If upon further independent lab testing tires are found to contain illegal treatments further action may be taken.

Choosing the brand of tire will be done by Organizer and FAMAR, who will send out a tender to various tire manufacturers. The choice will be determined by different values, including price,

#### 6.15 BODY:

The bodies must be type “Gran Turismo – GT” is permitted, commercially available on the market and fit the definition of vehicles in GT racing categories. The prototype bodies is not allowed.”... a car that has no more than a door on each side and at least two seats located on either side of the longitudinal centerline of the vehicle, capable of being used in a perfectly legal on the tracks and adapted to competition, in closed circuit or street “(is be seen as a car in real life, could be driven on the street with a passenger).

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. Rear of the body may not be cut away higher than 70.00 mm measured with a 30.00mm spacer under the chassis plate. Details of all front and rear lights, grills, air intakes and windows must be clearly contrasted from the surrounding paintwork.

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.

Others:

Roll Bar (roll over bars) must to be keep under the body.

None parts of the car, except the exhaust outlet may project laterally outside the body line.

Under body/chassi aerodynamics aids of any nature is not allowed.

The front bumper must follow the body contour and must be constructed so as to minimize injury that may result from being hit by a car. The bumper must be made from foam rubber or a flexible plastic material.

Holes:

Only one cooling hole may be cut into the front windscreen (not exceeding the window frames), with a maximum dimension in any direction of 60 mm.

An opening with a maximum diameter of 35mm is allowed just above the cooling head for easy glow plug access and cannot be combined with any other hole.

An additional hole for refueling that may have a maximum diameter of 50mm. The distance of this extra hole with respect to the windshield, shall not be less than 5mm.

The single front opening combined ventilation and refueling, the same may not exceed 70mm, and the diameter shall be the windshield and the other on the roof

Also can be made small holes for: exhaust, regulating needle valve carburetor, radio antenna. Other holes are not permitted.

Both front side windows and the rear window can be cut completely for ventilation, except the rear side windows which must remain intact.

#### 6.15 Wing

Only a rear wing is allowed

The wing shall be molded in one piece (without the brackets and side covers) and may be replaced by one not original. Folded from a flat piece or biplanes are not allowed.

The wing must not extend the full width of the body  
The wing must be mounted in the same place provided by the manufacturer of the body