

EFRA LARGE SCALE I.C. TRACK RULES 2003

1. RACE FORMAT

- 1.1 There will be two annual events called European Championships to determine the European Champion in
 - a.) 1:4 Scale GT/ Saloon, Formula 1
 - b.) 1:5 Scale Touring Cars
- 1.2 The results of the EFRA-GP's combined with that of the European Championship will give the EFRA ranking list. Points are scored in accordance to the EFRA-Rules (General Rules 3.3.6)
- 1.3 Participants must have an EFRA International Drivers Licence to participate at the EC or to participate in a race outside of their own country.
- 1.4 Entry and sanction fees as written in the General rules 3.5.7.

2. RACE PROCEDURE

- 2.1. Duration of the races:
 - Free practice max.8 minutes
 - Heats: 10 minutes (plus the last lap and time of the last lap)
 - Sub-finals: max. 20 minutes up from the 1/32 final (plus the last lap and time of the last lap)
 - Final: 30 minutes (plus the last lap and time of the last lap)
 - Final Formula1: 35 minutes (plus the last lap and time of the last lap)
- 2.2.
 - a) The EFRA Christmas Tree will be used.
 - b) The best 4 drivers from the heats will qualify directly into the final.
 - c) All other drivers are allowed to race a sub-final.
 - d) Sub-Finals: The first 3 drivers from each sub-final progress up to the next final.
 - Semi-final: The first 2 drivers from each semi-final progress up to the final together with the next 2 drivers with the best times from the 2 semi-finals combined.
 - e) In the event of different weather conditions existing during the semi-finals (one dry, one wet, or both wet) then the first 3 drivers from each semi-final will progress to the final.
 - f.) It is not allowed to drive a model car on any other place than the track and the marked track pit lane.
- 2.3 Number of drivers:
 - Heat: 10 to 15 drivers (only 1:5), track and facilities permitting.
 - Sub-finals and finals: Maximum 10 drivers
 - Final F1: Maximum 20 driversThe race format will be notified in the event information and invitation material.

2.4 TIME SCHEDULE for EC

(Wednesday and Thursday only for 1:5)

Wednesday	14:00 - 18:00	Registration/Technical inspection (not compulsory)
Thursday	9:00 - 12:00	Free practice (Ticketsystem) Registration/Technical Inspection
	13:00 - 18:00	Timed practice in provisional heat order / reseeding after practice results (by using information's about the driver, the driving performance and common sense)
Friday	9:00 - 13:00	1st round of qualifying
	14:00 - 18:00	2nd round of qualifying
Saturday	9:00 - 13:00	3rd round of qualifying
	14:00 - 18:00	4th round of qualifying
Sunday	9:00 - 17:00	sub-finals and final. (Top Qualifying drivers to must have 10 minutes practice before semi-finals.)

2.5 STARTS

(see also General Race Procedures Chapter 8, page 70 -76).

The arrangements of the heats and the numbering is left to the discretion of the organiser. The drivers must stand adjacent to their numbers on the rostrum, the mechanics must remain in their boxes along the pit lane. For all finals, drivers with the lowest starting numbers may choose their position on the rostrum and the mechanics must stand under the driver where this is possible.

- 1 There must be a 3 min. gap between the end of one heat and the start of the next heat. Also a minimum of 2 minutes must be allowed between the issuance of the transmitters and the start of the heat.
- 2 An audible warning will be given at 1 minute and again at 30 seconds prior to the official start, in English and other languages as appropriate.
- 3 From 30 seconds till 3 seconds the cars must be hold at the starting boxes. If a car is not at the starting box at 3 seconds due to unforeseen problems the car may start from the pitlane after other cars have officially started. The race director and referees will monitor for the abuse of this facility.
- 4 From 10 seconds until 3 seconds prior to the start a second by second count-down will be made in English.
- 5 During Formula 1 Grid Starts at 5 seconds prior to the start, the Starter will lower the starting flag and at 3 seconds the flag will be fully down. The cars must remain in the boxes, no part of the car touching the starting line. For sub-finals and final the "Formula 1" grid start must be used. The starting order for the qualifying heats will be predetermined by the best results during the organised, timed practice. When using the "Formula 1" grid start procedure, a one lap trial start must be made (to check all transponders). Following this trial lap, the start will be within 5 seconds after the last car is stationery on his correct grid position. No mechanics are allowed on the track. Any car missing from the starting grid, must start from out of the pits lane after the last car on the grid has passed.
- 6 From 3 seconds the verbal count down stops and the actual start-signal will be given by the Starter after a period of between 0 and 5 seconds has elapsed. If the grid is not to the satisfaction of the Starter, he may require a re-start, re-commencing the count down from 30 seconds.
- 7 The official start signal will be audible by means of a hooter, operated by the Starter. This signal will also start the Timing Systems.
- 8 Early starts (i.e. any part of the car touching the starting line), will be penalised. (10 sec. up to 1lap) This penalty is issued by the Starting Official or the Time- keeping official and must be announced immediately after the start. The penalty will be marked on the result sheet.
- 9 Under no circumstances will the race be stopped due to a jump start.
- 10 The Starter may only interrupt the race and make a re-start in the event that he considers the starting procedure or the start was not carried out correctly.
- 11 Delayed start. As long as the starter has not called the cars to the start line, any participant of the semi-finals and final may request a delay of 10 minutes to carry out repairs on his car. This delay can be granted only once for each semi final and final. - the track is closed, if the delay is requested as a result of frequency or radio problems - the track is open, if the delay is requested for mechanical repairs or problems. (Read also General Rules, page 58, 4.5.4). If a driver is asking for a delay on frequency problems, the mechanics are only allowed to turn off engine and receiver. They are not allowed to make any repairs including change of tyres.
- 12 When the starter calls the main final to the start line, the mechanics are not allowed to refuel the cars.
- 13 The driver asking for the delay for what ever reason, except an error in frequencies of the race control, must start from the pit lane.

2.5.1 STARTING PROCEDURE OF HEATS

For qualifying heats no stop between practice time (warming up) and start of the heat. Just start the clock when practice time is over. (Flying start.)

- 1 Starting for qualifying heats will be in the following order:
 - Round 1: 1,2,3,4,5,6,7,8,9,10
 - Round 2: 4,5,6,7,8,9,10,1,2,3
 - Round 3: 7,8,9,10,1,2,3,4,5,6
 - Round 4: 10,9,8,7,6,5,4,3,2,1

Starting for Sub Finals and Final will be on a Formula 1 grid depending on the track layout, with the faster Qualifier starting in front of the slower.

2.5.2.

- 1 When the time is over, an audible signal is given. A car finishes when it passes the finish line after the finish-signal is given. The car must immediately return to the pits and may not hinder other cars still racing.

- 2 In case of doubt (on the finish-line when time is over), a car may race one more lap and finish. Whether he finishes or not when time was completed, is up to the Time-keepers and cannot be disputed.
- 3 After returning to the pits, the engine must be stopped immediately and the transmitter turned off and impounded.

2.5.3. Qualification Order and Finals.

- 1 After all series have been completed the Qualification order is established, by taking the best result of each driver.
- 2 In case of more than one driver recording identical best results of qualifications the next best result is taken
- 3 In the case of more than one driver recording identical results in a final, the driver starting with the higher start number is classified as the faster, e.g. if number 5 and 2 have equal times, 5 is deemed to have higher final placing.
- 4 The sub-finals and final are run according to the schedule printed in the official race program, which may only be changed by team managers majority vote.

2.6. RAIN SITUATION

In case of different weather conditions during subfinals 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.

2.7. RACE INTERRUPTIONS

- 1 In the case of a race which is interrupted for more than 60 minutes for reasons beyond the control of the organisers, 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.

2.8.1. 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, the Race Director may decide to offer an extra heat to those drivers who did not have a chance to drive a heat dry (i.e. when most drivers had 2 resp. 3 dry runs, a 2nd. resp. 3rd. run may be offered to those who had only 1 resp. 2 dry runs).
- 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 (2.7.-1.)

2.9. ACCIDENTS/CRASHES

- a) A yellow flag situation will be announced, if an accident occurs. (This must be a yellow flashlight 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) Mechanics are allowed to enter the track to save the car of their driver. The mechanic may restart the engine (3x) 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 sort of penalties given.)
- If served by a spectator then this car should remain stationary until touched by the mechanic to save a penalty given. The duration of a stop and go penalty given must be always as long as decided by the Referees and announced during the Team Managers meeting prior to the race-meeting. It is not allowed for any of the race officials to change the time of the stop and go penalties during the race meeting.
- Three stop and go penalties for one car during one race will lead to disqualification (black flag).

3. TECHNICAL INSPECTION

Before the start of official racing the Technical Inspector has to examine the mechanical state of the car, homologation of bodies, scale dimensions of the type of car, minimum/maximum weight, radio equipment etc. before the driver is allowed to participate in the race. Under all circumstances it is the responsibility of the driver, that his car is within the EFRA rules during a race meeting. If a car is found illegal during heats, semi finals or final, it's 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.

- 3.1 The start numbers must be placed according to the drawing (and the corresponding picture) . For Formula cars the side pots had to be used to fit the starting number. About the design of the Car numbers see 5. General Requirements EFRA Events 5.2.5

3.2 FUEL

Only fuel admitted will be petrol normally available at street petrol stations. The fuel must be bought at fuel Stations within the vicinity of the event. Special fuel's like Avgas, race fuel etc. are strictly forbidden. The only additive allowed is mass production two stroke oil. Technical inspection may ask for a sealed bottle of that oil, to check it.

If a fuel is found suspect, the driver will be asked to mix his fuel at technical inspection, so it can be verified.

If an organiser is able to provide 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. If a fuel is found illegal, the driver will be disqualified from the particular event, he may lose his EFRA licence for up to ten years. The fuel tester must be available to the competitors during the event. If a driver wants to protest that decision, he has to make a written protest to EFRA with a deposit of 500.- €.

4. MARSHALS

Marshals are not allowed. Mechanics will act as Marshals out from the pit lane.

5. TRACKS

- 5.1.1 Tracks for Large Scale racing will be inspected by EFRA Officials with regard to safety provisions for drivers, mechanics, race officials and spectators. EFRA Officials have the authority to ask for improvements to be carried out before racing starts.

- 5.1.2 A monitor must be placed in the pit area or under the rostrum during all international races.
(WC/EC/GP)

6. EXHAUST/NOISE REDUCTION

- 6.1 Maximum noise level is 81dB (A) measured at 10 metres, 1 metre above the track.
The race director has the authority to decide a different method of measuring (using the EFRA noise trap) as long, as the result will be the same. If a car produces a noise level much in excess of the other cars, it is the Race Director's decision on whether this car is allowed to race.
Exhausts have to be of minimum three chamber type. No open exhausts or pipes are allowed.
The total exhaust have to be inside the body, with the exception of the tail end of the pipe, which may protrude the body not more than 10 mm.
The body may be cut out at that point max. 20 mm more than the tail end diameter. Max. inside diameter tail end 13 mm.
- 6.2 All cars to be equipped with an air - box to reduce the intake noise of the carburettor and a second muffler (in case, that a two chamber exhaust is used) or a three chamber type muffler. All three chambers must be designed that way, that the exhaust fumes will pass it and then have to change direction twice to get the max. possible noise reduction. The design of that additional silencer is free, but with both systems together, the max. noise level must not be over 81 dB (A).
- 6.3 No refuelling allowed during racing for all cars.

7. TECHNICAL SPECIFICATIONS 1:4 Scale

A 1:4 scale car must be to genuine 1:4 scale, and based on an existing 1:1 scale car.

7.1 GENERAL REQUIREMENTS:

The car must comply with the following dimensions:

Width (GT/Saloon) Maximum 530 mm

Height Maximum 400 mm

Tyre width - front maximum 90 mm

Tyre width - rear maximum 120 mm

Tyre width is the overall width of the tire at any time during the race. It is not the width of the rims.

Weight GT/Saloon: Minimum 12 kg

Fuel tank - capacity Maximum 1000 cm³ with the air cleaner, fuel pipe and without any removable piece inside.

7.2 ENGINE

The engine must be 1 cylinder, pull start, 2 or 4 stroke with a maximum capacity of 25 cm³, magneto ignition. Turbocharging or compressor are not allowed.

7.3 CAR

The car must have a functioning brake, which must be capable of keeping the car stationary whilst the engine is running. A mechanical failsafe must be fitted to the carburettor which returns the throttle to a closed position in case of radio- interference or breakage of the throttle linkage. Gear ratio during driving must be fixed. No form of variable ratio transmission such as gearboxes, variomatic or cvt is allowed. Only 2WD cars are allowed. No other function than steering and throttle/brake are allowed to operate with radio control by the driver. Any other electronic systems are not allowed in the car, with the acceptance of electronic failsave to stop the car.

7.4 BODY

The car must have a Saloon or GT, derived from existing 1:1 Scale cars either used in motorsports, tuned up road versions or historic cars. It must be properly fixed to the chassis. Saloon and GT bodies must cover the top of the wheels at the centre of the axle when viewed from the top. The bodies must be made 1:4 scale with a tolerance of 10% in all dimensions and must be carefully adapted from a 1:1 scale existing car. Open bodies (including Formula Cars) must carry a minimum of driver arms, shoulders and helmet (in scale) in the place where the driver normally is located. It is not allowed to cut out the windshield, but a maximum size hole of 6 cm² is allowed for the antenna or fuel bottle if necessary.

No major parts of the body may be lost during racing. Damage must be repaired in the pits immediately if so directed by the Race Director. It is not allowed to cut holes into the body. If there are holes shown on the 1:1 scale body for either intake or output of air then it is allowed to cut them out. Only bodies that are approved by EFRA will be allowed to race in EFRA GP and EC events. The body must have a EFRA Registration Number moulded in. The cut outs for Group "C" must follow the following definition:

Side windows and rear windscreen may be removed. It is not allowed to bend windows to the outside - all parts of the vehicle must be covered, except:

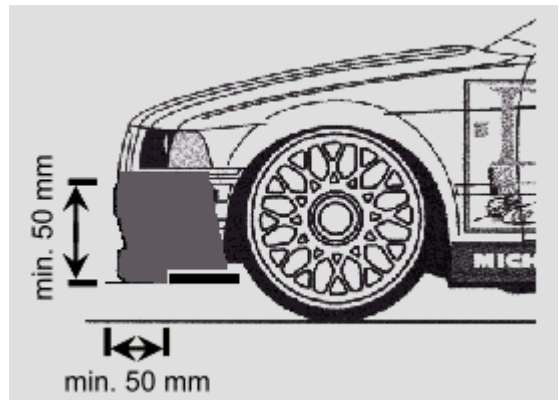
- a) cooling head of engine
- b) air filter
- c) aerial (max. 10 mm)
- d) outlet pipe of muffler
- e) fuel filler cap
- f) roll-over bar

Only if these parts are extending the body. Cut outs for above mentioned parts are to have no more than 10 mm clearance. In addition to this, the following holes are allowed:

- g) for muffler outlet
- h) for fuel filler cap (50 mm when viewed from above)
- i) for radio switch (max. 10 mm)
- j) for spark plug, spark shoe (max. 20 mm)
- k) fuel mixture valve (max 15 mm)

7.5 BUMPER

- a) A bumper must be fitted to the car chassis.
- b) Bumpers must be designed in a way that they fill the front part of a car body completely. The material used must be flexible like PURIM or other foams that are used in car construction to absorb energy. PURIM type foam min 50 mm height and minimum 50 mm overhang on any solid or semi-solid type flat plate or skid at the front of the car.



7.6 TYRES

Tyres have to be models of real ones, round, black in colour, the design of the profile is free. The treatment of tyres with any preparation other than electric tyre warmers is forbidden.

7.7 LARGE SCALE FORMULA

Only Formula one cars following the FIA 2000/1 Formula One Regulations are allowed.

All cut-outs must exist also in the full size car. Cuttings for engine and fuel tank are allowed in the area of the tank seal, starting device and adjusting screws for carburettor i.e. choke, neutral gear etc. The engine cut out button must be located behind the air intake box and in front of the rear wing and clearly labelled on the body for others to see easily, with the same sign use in 1:5.

7.7.1 TECHNICAL SPECIFICATIONS

Minimum weight dry 10.000 g

Width Formula maximum 450 mm (incl. tyres)

Height maximum 250 mm

Wheelbase 620 mm +/-15 mm

Tyres front diameter 142 mm +/- 5% = 134,9-149,1mm

Tyres rear diameter 142 mm +/- 5% = 134,9-149,1mm (front and rear tyres must have the same diameter)

Tyre width front minimum 60 mm, max. 75mm

Tyre width rear maximum 85 mm, rear wheels must be min. 5 mm wider than the front wheels

Rims outside diameter 80mm +/-5mm, indicators must be the same on tyres and rims.

No mixture of +/- allowed

7.7.2 TYRES

Tyres must be semi-pneumatic rubber grooved type (4 grooves) Min. depth 1 mm before the start. In case of rain the use of rain tyre can be allowed by the race director.

Only 2 complete sets of tyres are allowed for the heats and will be marked by technical inspection with the registration number of the driver.

Only one engine allowed. The race director may decide an engine replacement of the same type in case of catastrophic failure. The replaced engine will be kept in race control till the end of the event. The chemical treatment of tyres by adding any tyre traction moistures or other chemicals/additives is not allowed. Tyre cleaners are not allowed.

7.7.3 ENGINE

Only one marked engine allowed. The race director may decide an engine replacement of the same type or repair in case of failure. The replaced engine will be kept in race control till the end of the event. Drivers asking for engine replacement will be placed at the end of the grid at his first final.

7.7.4 FRONT SPOILER

Max width 375 mm max. cord 120 mm, /No part of the front wing may exceed the centreline of the front wheels. The front spoiler must be fixed at the chassis, so that it can bend up or down in case of an accident.

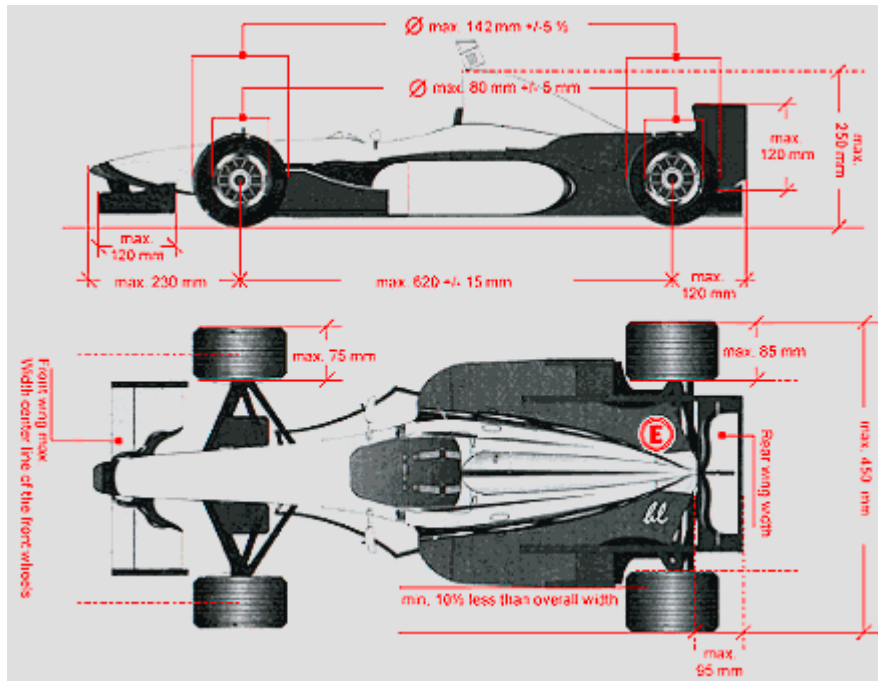
7.7.5 REAR WING

The rear wing must fit into a side profile box of 95x120 mm. The number of added wings inside is free.

The rear wing must not be wider than the space between the rear tyres.

The front part of the car should not overhang the centre of the front wheel by more than 230 mm. The rear wing and a the diffuser should not overhang the car by more than 120 mm.

The width of the side-pods must be min. 10% less than the overall width. They should not be higher than the tyres.



7.7.6 TANK SIZE, ENGINE RULES, AIR BOX, MUFFLER ETC.

Air box and muffler have to follow the EFRA noise reduction rules (see 6.1, 6.2).

Tank size, engine rules, etc have to follow 1:5 scale. 8.2.2, 8.2.3, 8.2.7.

Exhaust outlet pipes must exit within the body shell side pods and point down to the track

7.7.7 SPECIAL REGULATIONS

3 rounds of timed practice

Qualification heats:

6 heats 10 minutes. Fastest lap counts. Rolling starts

Lower Finals 20 minutes

Half finals 30 minutes

Final EC 35 minutes

7.7.8 F1 WINGS

Front and rear wing are part of the bodyshell of a F1 car and must be repaired immediately if they get damaged or come off the car.

8. 1:5 Scale TOURING CARS

8.1.1 RACE FORMAT

The number of drivers in one race meeting is limited to 120. The number can only be raised up under certain circumstances by the section meeting during the AGM.

8.1.2 There is one series to recognise in accordance to the 1:1 scale series namely the Touring Car Championship Series, following FIA Super Touring Car, FIA Group N and Touring Cars Super 2000.

8.2. TECHNICAL SPECIFICATIONS

8.2.1 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 (wheelbase-, length, - //wheelbase+, length+). Mixtures of car design's are not allowed.

The minimum length of a Super Touring Car is 4.200 mm that gives a minimum length of 798 mm in scale including max.-tolerance.

A list of cars in use in Europe racing is printed in appendix 9 of the handbook and will be actualised in EFRA's news letters and every year at the AGM. No model car can be used in EFRA-racing longer than 2 years after the real 1:1 car was replaced by a new type, or has retired from the Championship racing. Only bodyshells that are approved by EFRA will be allowed to race in EFRA sanctioned events. The EFRA-homologation number have to be permanently engraved or moulded in within the space normally used for car-registration numbers at the rear end of the model.

8.2.2 GENERAL SPECIFICATIONS

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

Length: within scale +/- 5%

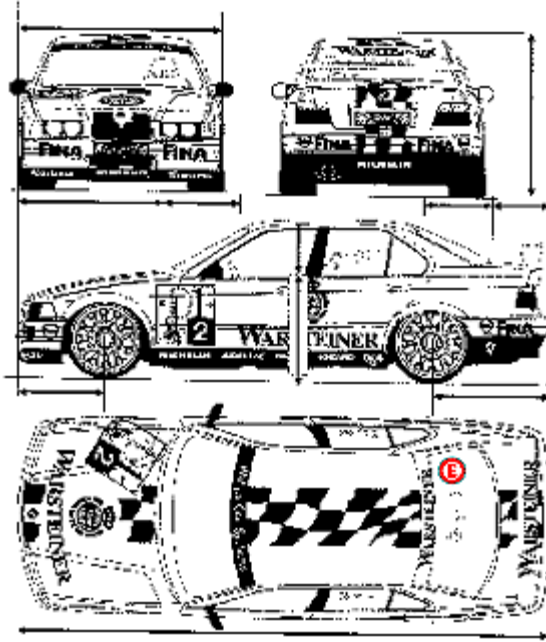
Width: max. 395 mm measured at the widest point of the bodyshell

Height: within scale +/- 5%

Tank capacity: 700 cm³

Minimum weight, without fuel: 9.500 g from 2004 on 10.000 g

Maximum weight, without fuel: 12.000 g



8.2.3 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 acceptance of electronic failsafe to stop the car in case of radio failure and the hydraulic brake system. The use of an electronic failsafe system is highly recommended. The position of the ignition kill switch must be marked with an E (size 20mm) with a red outline on the body shell. The ignition kill switch must be located within the rear window, away from hot or moving parts.



8.2.4 BODY

Bodies have to follow the description in point 7.2.1. 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 trimm lines or to widen it by heating it or parts of it.

Only allowed for manufactures:

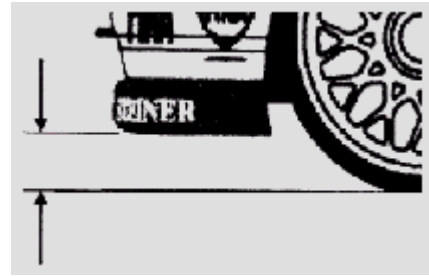
Aerodynamic modifications at the front, the sides and the rear below the wheel hub centre are free subject to the requirements for ground clearance, overall length and overall width.

The modifications have to correspond to the original. The materials have to be the same as that of the bodyshell. The homologation number has to be engraved. A photo of the modification 1:1/1:5 have to be sent to the responsible Homologation Officer.



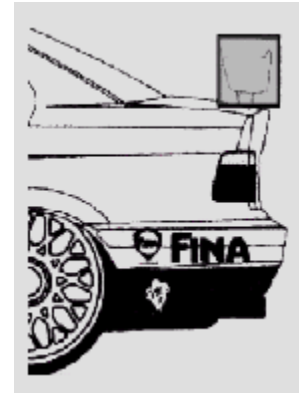
8.2.4.1 GROUND CLEARANCE

The measurement of the body shell height will be made with 6mm ground clearance.



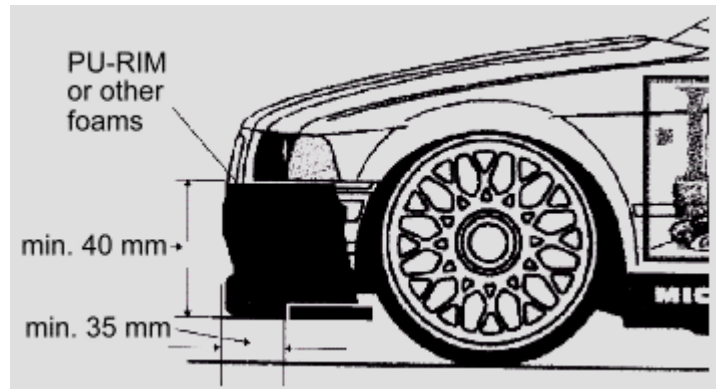
8.2.4.2 WING/SPOILER

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



8.2.5 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. 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 bodyshell mounting protrude from the body more than 10mm.



8.2.6 TYRES

Rim Diameter max.: 107 mm

Rim and fitted tyre Diameter: max.: 136 mm

Rim and fitted tyre width - front max.: 75 mm

Rim and fitted tyre width - rear max.: 80 mm

Tyres have to be black and only semi pneumatic rubber. The design of the tyre profile is free. Foam tyres are not allowed. The chemical treatment of tyres by adding any tyre traction moistures or other chemicals/additives is not allowed. Tyre cleaners are not allowed.

8.2.7. ENGINE and FUEL

1. The engine to be a single cylinder, 2 or 4 stroke, maximum 23 cm³, pull starter.
2. No Turbo charging, Fuel injection, Supercharging, Wankel or rotary valve/distribution engines are allowed.
3. All ignition timing must be mechanically fixed, 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.
5. Only open deck admission ports are allowed. The side walls must be parallel without change of distance.

6. The Cylinder block must be of a single casting. no independent liners or slipping liners are allowed.
7. The maximum numbers of admission ports is limited to 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. Each driver is only allowed to use a maximum of 2 engines per event.
11. The maximum venturi diameter of the carburettor is limited to 13mm.