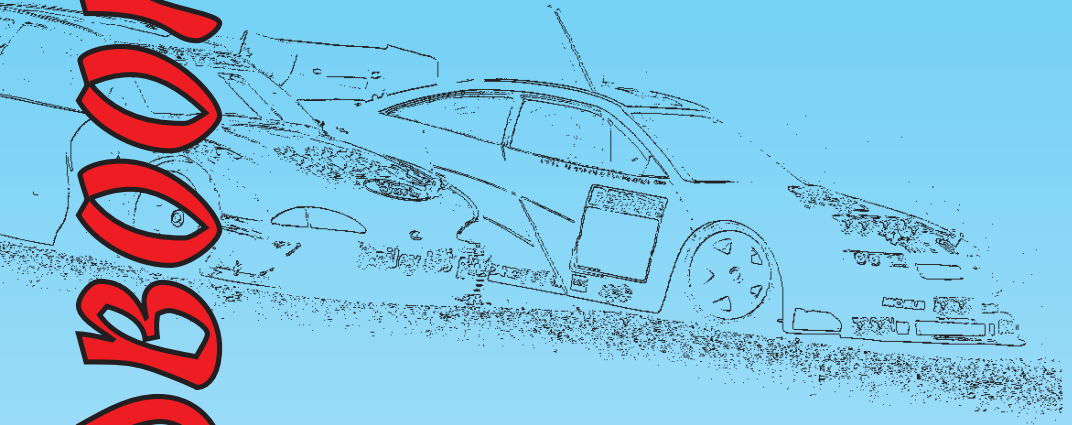


HANDBOOK 2008



*European Federation of
Radio-Operated
Model Automobiles*

5. GENERAL REQUIREMENTS EFRA EVENTS

5.1. GENERAL REQUIREMENTS TRACK

- 5.1.1. Access: approach by car must be possible to within at least 100 mtr. of the pits.
- 5.1.2. Parking: parking for competitors must be available within 100 mtr. of the pits.
- 5.1.3. Spectators area barriers must separate spectators from the track and the pit area.
- 5.1.4. Public conveniences: water and toilets for both competitors and spectators must be provided.
- 5.1.5. Refreshments: a place should be provided for this purpose.
- 5.1.6. Electricity: 230 V must be available in the drivers area for charging batteries and using solder iron. The organiser can allow the use of other electric equipment if power supply is sufficient.
- 5.1.7. Hotel and camping: sufficient and reasonably priced hotel and camping facilities within 20 minutes of the track must be available. Wherever possible, it is preferable that camping should be at trackside. Any charges must be fixed before arrival of competitors and mentioned in the invitations.
- 5.1.8. Track requirements are specified per appendices.

5.2. ACCOMMODATION REQUIREMENTS

- 5.2.1. Drivers area must accommodate all drivers and be equipped with tables and protection against bad weather (outdoor racing). The drivers rostrum must be accessible from the drivers area.
- 5.2.2. The drivers rostrum must accommodate 10 drivers with minimum 80cm space for each driver
Width of the rostrum must be minimum 1.25 mtr.
Height of the rostrum - floor to be:-

Standard	Between 2 and 3 mtrs
1:12 Electric Track Section	Between 1 and 3 mtrs
1:10 Electric Off Road Section	Between 1.5 and 3 mtrs

Access to the rostrum must be by a solid stair, with a minimum width of 1.20 mtr. A strong parapet is mandatory. The rostrum must be protected or capable of being protected against bad weather.
- 5.2.3. The drivers rostrum must be placed in a position that provides equal view of the track to each of the drivers at any place on the rostrum, during practice and racing.
The view may not be obstructed by any object (pillar, flagpole, other drivers etc.).
The distance from the front of the rostrum to the nearest part of the track must be between 2 and 4 mtr.
- 5.2.4. The transmitter impound must be close or if possible on the rostrum. Transmitters must be protected against bad weather and stored in a safe way.
- 5.2.5. Timing and lap counting area must be located at a slow part of the track, with a good view of the track for all lap counting officials. The number of the car must be readable for at least 2 seconds from that area.
Car numbers for 1:8 I.C. must be min. 40mm height, on a white surface of 55x55mm or 55mmØ. Car numbers for Large scale must be min. 80mm height, on a white surface of 70x98mm. Car numbers for all other scales, excluding 1/12, must be minimum 40mm in height, black, on white background of 55mm

square or diameter. The numbers should be printed on a matt, not high glossy surface.

No other text is allowed inside the measured white area.

Proper fonts and samples could be downloaded from the EFRA webpage: www.efra.se Those will be compulsory from 2008.

Car numbers must be used as provided by the Organisers

Adequate length must be provided for the lap counting officials

The area must be protected against bad weather. Interruption of lap counting officials by drivers must be prevented.

- 5.2.6. Timing and lap counting area must not be accessible to competitors or spectators.
- 5.2.7. A scoreboard must be positioned at a convenient place not far from the timing and lap counting area and accessible to all competitors. The scoreboard must be protected against rain and wind.
- 5.2.8. A frequency control board must be available during practice. It should be positioned near the transmitter impound or the drivers rostrum.

5.3. SAFETY

- 5.3.1. The safety of the spectators is of prime importance and must be considered when laying out track and spectators area.
- 5.3.2. The safety of officials, helpers, competitors and accompanying people is of equal importance, but it is assumed that they are more aware of any potential danger.
- 5.3.3. Spectators, competitors and officials must be efficiently protected against the cars by adequate barriers.
- 5.3.4. When dots are used as barriers to prevent shortcutting of corners, they must be placed in a way that cars cannot "fly" into the public when they hit the dot at full speed.
- 5.3.5. Technical inspection must always include the bumpers (no sharp edges allowed), or other protruding parts of the cars. They may never be placed or designed in such a way as may cause serious injuries in case of an accident.
- 5.3.6. First-aid supplies: The minimum should be available in case of necessity. It is recommended that there also is equipment to clean eyes in case of accident with splashing glue, methanol, petrol etc.
- 5.3.7. First-aid: a first-aid officer should be present during events to which large crowds will be attracted.
- 5.3.8. Police and ambulance services must have easy access to all areas both public and restricted.
- 5.3.9. A public liability insurance, against accidents, and legal liability is compulsory for all events. The cover must be applicable to all competitors and officials, irrespective of their nationality or sporting status.
A copy of the insurance certificate should be presented to the Section Chairman prior to the event.
- 5.3.10 Mobile phones are not allowed to be used on the rostrum, pitlane or on the track.
Other transmitting devices, except those who are needed for the organiser, are not allowed to be used.
With the exception of the drivers radio equipment
- 5.3.11 In the case of a race which is interrupted for more than 60 minutes for reasons beyond the control of the organisers (bad weather conditions with safety risks

for all persons at the meeting), the referees together with the Race-director will decide whether to cancel or continue the meeting.

- 5.3.12 In the interest of safety any battery pack carried on a modelcar must be able to be disconnected quickly in an emergency.

Note: Direct soldering of battery packs is not acceptable.

5.4. LAPCOUNTING AND TIME KEEPING AND COMPUTER REQUIREMENTS

- 5.4.1. Independent systems must be used simultaneously at EFRA Sanctioned events.

- 5.4.2. For European Championships only, EFRA will check both systems.

- 5.4.3. These systems must satisfy the requirements of EFRA and therefore must be proposed and explained in the application.

- 5.4.4. Both systems will be operated by the organising club.

- 5.4.5. The first system must produce a record of all the individual lap times of all cars and the number of laps and final times after finishing.

- 5.4.6. The second system will be used as a back up system and must produce a record of all individual lap times and the number of laps and final times after finishing. The second system maybe manual or electronic.

- 5.4.7. Lap times and final times must be recorded in hours, minutes, seconds and 1/100th of seconds. At least 1 (one) Lap Recording System must be capable of this.

- 5.4.8. Electronic systems are used, printouts must be kept with the record sheet, on which the final result is written down.

- 5.4.9. The results from the first and second system are compared and in case of differences, the time-keeping official should examine the data produced and in particular the lap time-sheets. The final decision on the result is the responsibility of the Timekeeper.

- 5.4.10. Race director and/or lapcounting at EC's must have a suitable working personal computer with proper, race proven programs to sort the lap times, print results from heats, final positions after each series of races within 15 minutes.

- 5.4.11. The time-keeping official is responsible for publication of the final results. He must store all the data produced by the 2 systems until the end of the meeting. They can be used in case of protest against the result.

- 5.4.12. Electronic systems must be connected to a reliable power source (not a generator). Connecting plugs must be firm and not easy to disconnect. When 2 electronic systems are run simultaneously, they should not be connected to the same power source.

- 5.4.13. For timekeeping accommodation requirements, see 5.2.5. and 5.2.6.

- 5.4.14. The official result sheets containing results of all heats, semis and finals, must be sent to the EFRA Section it concerns within 10 days of the race.

5.5 CLASSIFICATION OF DRIVERS

- 5.5.1. Qualification for finals will be based upon each drivers best single score achieved during the qualifying heats.

- 5.5.2. In the case of more than one driver recording identical best results at the end of qualifications, the next best result is taken.

- 5.5.3. In the case of more than one driver recording identical best results in a final the driver starting with the highest number is classified as the fastest.

(e.g. if numbers 5 & 2 are equal then 5 is deemed as the highest final placing)

- 5.5.4. In the case of more than one driver recording identical best results in a final and having used all possibilities to sort them out without success, the qualification order will decide.

6. ORGANISATION OF EFRA EVENTS

6.1. RACE ORGANISATION REQUIREMENTS

6.1.1. Preliminary Checks:

Before requesting an EFRA sanctioned event, the club must:

- a) have the confidence they can offer foreign competitors a race that is worth all the travelling and expense in all respects;
- b) have the track available from at least Friday-morning prior to the race (09.00 till 18.00 hours minimum), unless stated differently per appendix;
- c) be sure the track and accommodation are according to the rules as described in chapter 5 and per appendix;
- d) have enough experienced volunteers to organise the race, and set up a committee to do this, for lapcounting and timekeeping, for technical inspection, to prepare the track and accommodation, to marshall and to arrange hotel accommodation;
- e) have the necessary authorisation to hold the race, i.e. from the owner of the track or property, with regard to noise, spectators, refreshments, chargeable entries etc.
- f) have the right insurance for an international event.

6.1.2. Request for EFRA Grand Prix and European Championship (see chap.3)

The organising club must request the race through its National Association, who will forward this request to EFRA as described in paragraph 3.2.2. and 3.3.3.

The National Association may reject such a request even before sending it to EFRA, they being in the first instance responsible for such a race.

6.1.3. Request for EFRA Sanction or other major international meetings are made in the same way. Such requests can be made to EFRA at any time of the year.

6.2. INVITATIONS AND FORMS FOR EUROPEAN CHAMPIONSHIPS

6.2.1. The host Federation shall provide copies of the sufficient necessary information to the EFRA Section Chairman not less then 120 days before the event. The information shall include an program to be approved by the section Chairman, a plan of the track, how to get to the track, hotel accommodation etc. must be received by all EFRA contact addresses at the latest 90 days before the event. There must be a hotel list with hotel class, addresses and prices.

The invitation must state whether the race is to be run in a clockwise or anticlockwise direction.

The EFRA Section Chairman is responsible to distribute this information together with the entry forms, and should be published on the EFRA website; www.efra.se

6.2.2. For European Championships the National Federation is responsible for sending the entry-forms of their national team to the EFRA Section Chairman, at the latest 60 days before the event. They may send in entry-forms for up to 4 drivers additional to their country allocation for reallocation purposes. Those extra entry-forms must be marked clearly "FOR REALLOCATION".

A list of the team members, mentioning their EFRA DRIVERS LICENCE numbers, must be send to the EFRA Section Chairman at the same time. Family Names must be written in Block letters. eg: MARTIN Angus.

6.2.3. 55 Days before the event the places not taken up will be re-allocated by Section Chairman, place by place and in the order established at the AGM. The re-allocation will be published to all the participating countries 40 days before the

event at the latest. If the re-allocated places do not fill the entire series of heats, the host country may provide the remaining drivers. The entry fee for such will be the normal allocation fee.

- 6.2.4. Only drivers with an international EFRA licence are allowed to participate in a European Championship.
- 6.2.5. Organisers must confirm the entries of all competitors participating in the race, 30 days before the event at the latest, to both the National contact address and each competitor.

6.3. INVITATION AND ENTRY FORMS FOR EFRA GRAND PRIX ETC.

- 6.3.1. Invitations, Entry forms and time tables with additional information must be published on, or linked from, the EFRA web site at least 60 days before the event.
- 6.3.2. The National Association distribute the entry forms to the interested drivers, Filling in the form and sending it to the organising Club is the responsibility of the individual driver.
Closing date for the entries must be marked on the entry form but should not be later than 7 days before the event.
- 6.3.3. The maximum number of entries at an EFRA Grand Prix may not exceed 120.
- 6.3.4. Drivers who cannot take part because of over-subscription should be notified by the organisers.

6.4. PROMOTION AND SPONSORING

- 6.4.1. EFRA events must be organised in such a way that the sport is well represented to both the spectators and the competitors. Enough advertising must be made in the area to draw spectators and to interested the Press in the EFRA event.
- 6.4.2. When sponsors are attracted, they may only be offered advertising space on cars or drivers (shirts or jackets), when the sponsors name does not conflict with any manufacturer of cars, radio equipment, engines (related to the model car sport), present or represented in the race.
Sponsors may not demand from the organisers the exclusive use of their name or their product by all competitors during the event.

6.5. CONVENIENCE AND SECURITY

- 6.5.1. For European Championships, public convenience and refreshments must be available to all competitors from at least Wednesday onwards.
- 6.5.2. For EFRA Grand Prix, public convenience and refreshments must be available to all competitors from Friday onwards.
- 6.5.3. All possible action must be taken to avoid any danger for public or competitors (see 5.3.).The police must be advised of the meeting.
- 6.5.4. The Pit area must be secure. All possible care must be made to safeguard both the drivers and their equipment.

7. RACE OFFICIALS

7.1. REFEREES

List see chapter 1

- 7.1.1. The main task of Referees is to observe the racing and in particular good sportsmanship during racing.

He will ensure that the current EFRA rules are observed by everybody.

The referee for a Championship should be nominated at least 60 days previous to the event.

- 7.1.2. Referees are part of the International Jury when a meeting is called by the Race Director. The Referees will settle any dispute regarding interpretation of the rules.

- 7.1.3 Two EFRA referees, (see approved list) appointed by the section chairman after consultation with the national federation, are required for all EFRA EC's with allocated places. At least one of them must be from abroad and will be head referee. The hosting federation must provide suitably qualified substitute(s) to assist and stand in.

For GP's and open EC's one EFRA referee will suffice (see approved list). A second referee, known by name and approved by the national federation but not necessarily on the approved list may be accepted. The hosting club must provide a suitable qualified substitute to assist and stand in. EFRA does not pay any referee expenses for GP's or sanctioned International races.

- 7.1.4. EFRA referees are appointed by EFRA for a period of two (2) years after being proposed by their National Federation. The EFRA Referee form must be used and the registration year will be indicated on the Referee list, chapter 1.

EFRA referees must be experienced and unbiased people with a good knowledge of the English language and EFRA rules. They must have acted as Referee at least at National level in that class before being proposed by their National Federation.

Each Section will prepared a list of approved Referees from those proposed together with an indication of their experience level.

EFRA Referees are divided in 3 categories

Grade C: Grand Prix or International Meetings

Grade B: European Championships

Grade A: World Championships

Grade A and B EFRA Referees must, after proposed by National Federation, receive the sanction of the appropriate Section Chairman.

Appointment to be made by the EFRA Executive Committee.

- 7.1.5. Efra should pay the travelling costs (agreed in advance) of one non-national referee appointed to European Championships with allocated places at the AGM. Other costs to be supported by the organiser.

Referees are entitled to claim a maximum of 92 € (or equivalent) for lodging, sundries and meals per 24H period from the organising club. Higher costs will be the responsibility of the referee or to be arranged in advance with organiser. All claimed costs, as far as possible, must be duly documented (e.g. bills, tickets, receipts etc.) However it may be assumed that the organiser reserves decent hotel accommodation and provides comfort at tracksite (Lunches, refreshments, dinner-party etc.)

7.1.6. REFEREES DUTIES

At EFRA events at all times during the qualifying heats, both referees in turn will watch and observe the racing from start to finish.

During the finals both referees must observe the racing from start to finish. The host Federation must provide suitably qualified substitutes to stand in for these referees should they be called away from their duties. The expenses of these substitutes must be clarified in advance between host Federation and the organising club.

7.1.7. Both referees always work together, they take decisions and issue warnings and instructions.

The referees may take action after an initial warning, but in all cases a maximum of 3 warnings means automatic disqualification.

7.1.7 a The Referees will agree on any time or other penalties to be awarded following consultation with the Race Director taking into account the likely advantages to be gained by Jump Starts etc. on individual tracks. They will also decide the practical limits for numbers of pit lane mechanics. This will normally be limited to:

a) 1 mechanic plus Team Manager during qualification

b) 2 mechanics plus Team Manager during finals.

If space permits these numbers can be adjusted upwards.

7.1.8. POINTS OF OBSERVATION

7.1.8a. Bad sportsmanship during racing, i.e. impeding the progress of other participants, deliberate slowing down or waiting for another car, deliberate crashing into another car, deliberate cutting of corners and reckless driving in general.

7.1.8.b Team driving, conduct unbecoming or interfering with the fair outcome of a race (refer to rule 4.5 UNSPORTSMANSLIKE BEHAVIOUR)

7.1.9. Unsporting behaviour of drivers and mechanics involved in the racing.

7.1.10. Incorrect use of the entry and exit to the pits.

7.1.11. Repairs and refuelling outside the pit area.

7.1.12. Cars that do not conform to the regulations before the start is given or during the racing (i.e. loss of the bodyshell, exceeding the noise-rules due to loss or damage of the silencer).

7.1.13. Cars that are in an undriveable or dangerous condition due to damage or malfunctioning of the car.

7.1.14. Starting procedure, i.e. writing down start line infringements and if necessary reporting these to the time-keeper.

7.1.15. It is not the duty or the responsibility of the referee to check that the cars conform to the technical rules.

This is always the responsibility of the Technical Inspector.

The referee checks the method used for technical inspection.

7.1.16. REFEREES AUTHORITY

7.1.16a. The referee issues warnings in the event of infringements of any of the points as described under 7.1.8.-11 and ultimately may even issue a black-flag (disqualification) when his warnings are not effective.

7.1.17. Warnings and instructions are announced by the referee himself and he keeps a record of the warnings and instructions issued (referee-notes).

3 Successive warnings lead to disqualification (black flag).

Instructions issued by the referee must be observed immediately.

7.1.18. Warnings for bad sportsmanship (7.1.8.-7.1.9.) are announced with the words: **“FIRST WARNING TO CAR NO.....FOR BAD DRIVING”**.

- 7.1.19. Warnings for mis-use of the pit are (7.1.10 and 7.1.11) are announced with the words:
“FIRST (SECOND) WARNING TO CAR NO.....FOR MIS-USE OF THE PIT AREA”.
- 7.1.20. Instructions for repairs (7.1.12 and 7.1.13.) are announced with the words:
“CAR NO.....REPAIR BODY, SILENCER, CAR ETC”.
- 7.1.21. The warnings and instructions issued by the referee are indisputable and final and may not be interfered with by anyone.
 Under no circumstance may a warning or an instruction from the referee lead to the interruption of the whole race.
- 7.1.22. Appeals against the decisions of the referee must be addressed to EFRA General Secretary, after the meeting and in writing.
 EFRA is not obliged to act on such a complaint, but will seriously study it and answer.
- 7.1.23. REFEREES FACILITIES**
 Referees must be offered a place from where they can observe the track from the view as seen by the drivers. At an EFRA EC must this place be on the rostrum. The place must be separated from the drivers area, to assure a quiet and undisturbed working environment. Protection must be given against bad weather (walls, roof etc).
- 7.1.24. The place must be equipped with 2 chairs, a table, a microphone and a monitor to watch the race order. With the microphone the Referee must be able to announce his warnings or instructions at any time during the race. A system of preference for the Referees microphone over the announcers microphone must be provided by organisers.
- 7.1.24a Referees should be able to communicate verbally with each other, the Race Director and Lap Counting Supervisor.
- 7.1.25. It may be assumed that the referees comfort is provided for by the organisers (lunch, refreshments, dinner-party etc.).
- 7.1.26. REFEREES REPORT (EFRA REF: REFEREE 92-1/7)**
- 7.1.26a. Both referees make up their official EFRA report directly after the race, hand over a copy to the Race Director, collect the final race results from him and send copies of all these documents to the Section Chairman and General Secretary. The report should contain general information about the organisation, accommodation and races.
 Referee notes with issued warnings etc should to be included.
- 7.2. TIME KEEPING SUPERVISOR AT EUROPEAN CHAMPIONSHIPS**
- 7.2.1. For all European Championships, EFRA will approve a Time-keeping Supervisor to check the systems provided and operated by the organising club.
- 7.2.2. EFRA will not be responsible for the costs.
- 7.2.3. EFRA approves the equipment of both Time-keeping systems.
- 7.2.4. The organising club must provide experienced lapcounters and a suitable accommodation for the Time-keeping Supervisor.
- 7.2.5. The Time-keeping Supervisor is responsible for recording all the individual laptimes and total laps plus finishing time of all drivers during all heats, semi-finals and finals.
 He is not responsible for the classification of the results, nor for the selection of drivers for semi-finals and finals.
- 7.2.6. After the finish of any heat, semi-final or final, the results of the first and second time-keeping system are compared by the Time- keeping Supervisor and in

case of differences between the 2 systems, the Time-keeping Supervisor investigates both results and takes the decision on the final result. Only the results approved by the Time-keeping Supervisor may be published to the competitors and are official.

- 7.2.7. In case of protests against results, the Time-keeping Supervisor together with the Race-Director will check on the questioned result and will take the decision.
- 7.2.8. All results, in writing, printing or otherwise, in their original condition are property of EFRA and kept by the EFRA Time-keeping Supervisor until the end of the event (see 7.2.1.). After the event all relevant data will be stored in EFRA files. Copies of the original data are left with the organisers.

7.3. RACE OFFICIALS

7.3.1. Mandatory Officials.

In EFRA Sanctioned races it is mandatory to have the following Official positions held by different persons:

- a. Race-Director
- b. Time-keeper
- c. Technical Inspector

Other Officials have to deal with:

- d. registration of entrants, checking licences, collection of fees;
- e. supervise transmitter impound;
- f. giving start and finish signals;
- g. lap-counting and time-keeping;
- h. recording and publishing results;
- i. separation of public/drivers area and track
- j. supervising the marshalling around the track;
- k. track marshalling.

7.3.2. Qualification of Officials.

All Officials must be properly trained and experienced persons, with the main positions held by persons with international experience and a good knowledge of the rules and the English language.

7.3.3. Selection of the Officials.

For EFRA Sanctioned races, the organising club may select all the Officials. The Race-Director must be approved by the National Association.

For European Championships the Race-Director must be known and approved by EFRA as well.

7.3.4. All Officials, except Referees and the Time-keeping Supervisors, are subordinate to the Race-Director, who issues detailed instructions for all jobs.

7.3.5. No Official is allowed to take part in a race.

7.3.6. Officials should be clearly distinguished from competitors and spectators by wearing a band or otherwise.

7.3.7. No Race Official is empowered to make interpretations of any EFRA Constructional or Procedural Rule either during technical inspection or racing without full approval of the International Jury.

During the meeting of the International Jury which is convened for the purpose of approving any such interpretations, it is the duty of the Referees to provide authoritative guidance on the interpretation of any rule in question.

7.4. INTERNATIONAL JURY

7.4.1. The international jury consists of the section chairman (no voting authority) if present all Team-Managers or their deputy of the countries present, the Race-

Director and the 2 EFRA Referees. All decisions are taken by simple majority, one vote per person and no proxy votes. In case of parity of votes, the Race-Director has to deciding vote. A written statement is made giving. The result of each decision must be published.

- 7.4.2. At Championships, Team-Managers preferably do not take part in the race. They must speak English.
- 7.4.3. Responsibilities of the International Jury:
 - a. to adjudicate in unforeseen situations.
 - b. to adjudicate in the case of protests if needed.
 - c. to amend the schedule.
 - d. to check that the race is run according to the official EFRA rules.
- 7.4.4. When necessary, the Race-Director calls an International Jury meeting. The Referees may also call an International Jury meeting to settle disputes or protests against unforeseen situations. A written agreement of a minimum of 3 Team Managers have the power to call an International Jury meeting. The Race-Director must provide a room or other place for the international jury to meet in seclusion.
- 7.4.5. The international jury is not responsible for the organisation and the well running of the race.
- 7.4.6. The International Jury may only adjudicate in the interpretation of the officials rules. It may not either alter or ignore the rules and may not instigate it's own rules.

7.5. TEAM MANAGER

- 7.5.1. The Team Manager or a nominated deputy, approved by the Race Director should be present during all official racing and is a member of the International Jury. The Team Manager is appointed by his national association.
- 7.5.2. Responsibilities of the Team Manager are:
 - a. To register on behalf of his team providing the organisers with all driver's EFRA licences and frequencies.
 - b. Be present at the technical control. either before, during or after the end of the race, in which team members participate.
 - c. Look after the welfare and behaviour of his team and take care they receive proper accommodation in the pits area.
 - d. He must attend the Team managers meeting(s) prior to the start of the race.
 - e. He is the link between his team and the race direction by receiving all information referring to.
 - time table changes
 - frequency changes
 - results after every qualification round, sub finals, semi-finals and finals
 - other information referring to the race.
 - f. He is allowed to stay in the pit area when a race of one of his team members is in progress.
 - g. He will receive a list with frequencies from Race Control for his drivers before the official race (timed practice) starts, so he can check that there are no discrepancies
- 7.5.3. Voting by Team Managers

During a meeting of the International Jury, at least 2/3 of all countries must be present at the meeting. The Team Manager or his deputy must be present. No proxy votes.

8. GENERAL RACE PROCEDURE

8.1. PRACTICE AT EUROPEAN CHAMPIONSHIPS

- 8.1.1. At European Championships, at least 1 series of organised practice in heats per class is compulsory.
It is compulsory to run the organised practice with official starting, official time keeping with the results published, as in official racing.
- 8.1.2. Results scored during organised practice could determine the start order (when using delayed start) in Round 1 of the qualifying heats.
- 8.1.3. Organised practice must be seen as a last rehearsal and test for both the organisers and the drivers and therefore all EFRA rules have to be followed seriously.
- 8.1.4. Free practice for all drivers CAN be allowed prior to the organised practice. During free practice a frequency board must be in use. In order to give every driver the same free practice and organised practice time a ticket system may be used under the control of the Race Director.
Whether it is free, organised or timed practice, the identity of each driver must be carefully checked upon arrival on the rostrum.
- 8.1.5. Free practice on the day of racing may be allowed by the organisers till 30 minutes before the start of the first heat. This is not compulsory.
- 8.1.6. Free practice may only be allowed between the start of the first heat and the finish of the main final at the discretion of the organiser. Free practice is not mandatory. If free practice is planned it must be well known to everybody fairly in time.
- 8.1.7. A driver, not taking part in the organised practice, may not complain later to the organiser in case of radio-interference etc.

8.2. PRACTICE AT OTHER EFRA SANCTIONED RACES

- 8.2.1. At least one day of free practice for all drivers who wish to take part is recommended; normally Friday.
- 8.2.2. During the free practice the frequency board must be in use.
- 8.2.3. An organised practice of only one series of only one class is optional. This organised practice should be used as a last rehearsal and test and must include official time-keeping (see 8.1.1.).
- 8.2.4. Free practice on the race-days may be allowed till 30 minutes before the start of the first heat and after the prize-ceremony, but is not compulsory.
- 8.2.5. If the organizer has started organized practise, all drivers must respect the time schedule and the heats set. If a driver is caught cheating, for instance taking part in two different practise heats. This driver will be disqualified from the race

8.3. ARRANGEMENT OF THE HEATS

- 8.3.1. For arranging the heats the organiser has to consider the skill of each driver. If the section has a grading system for licences, only drivers with the same grading may compete in the same heats.
- 8.3.2. Under no circumstances is it allowed to mix non-licenced drivers with licensed drivers.
- 8.3.3. The separation of non-licensed and licensed drivers is for the qualification heats during ECs only except for series.
- 8.3.4. One arrangement of heats may be used for one class only and must be different for following classes, with the purpose of finding different opponents.
- 8.3.5. Organisers may only change the composition of a heat when there is a serious and obvious problem that cannot be solved otherwise.

8.3.6 Prior to commencement of Qualifying Rounds, drivers should be re-grouped for qualifying heats taking into account controlled practice results and/or upon the Race Officials observations.

8.4. REGISTRATION

8.4.1. At European Championships drivers registration must take place on the day prior to the race. Registration will be done by the National Team Manager. During registration the drivers licence is checked. The licence numbers will be registered by the race organiser.

8.4.2. At EFRA Grand Prix and other EFRA sanctioned races, drivers registration may take place up till 30 minutes before the start of the first heat.

8.4.3. Drivers registration must involve:
 - paying the entry fee (G.P.'s only);
 - checking the international drivers licence;
 - receiving a list with the heat arrangement/timetable, including the frequencies used;
 - receiving other necessary information.

8.4.4. At every EFRA event, pre-registration may be requested by the organisers. Limit date for pre-registration must be 72 hours before the official limit time for registration. Pre-registration must involve:

- Name of driver
- Country
- EFRA Licence number
- At least two (2) frequencies

8.5. FREQUENCIES AND FREQUENCY CHANGES

8.5.1. Frequencies authorised by the competent body of the country concerned will be used.

Other frequencies may only be used with the approval of the organisers, who take then responsibility.

Organisers may refuse non-authorized frequencies, providing competitors have been notified in the Race Invitations.

8.5.2. In case of more than one driver using the same frequency during practice, the time for each driver must be divided equally.

8.5.3. In case of 2 drivers using the same frequency who qualify for the same semi-final or final, the faster qualified driver will keep his frequency and the other must change.

8.5.4. When a frequency change is required, up to 10 minutes time must be allowed following notification to carry out the change.

8.5.5. Slower qualifying drivers, who cannot or will not change their frequency, will not take part in the semi-final or final for which they have qualified.

8.5.6. If a driver must change his frequency before the start of a semi-final or final due to an error of the organisers, he will be allowed up to 10 minutes time to carry out the change.

8.5.7. If a driver finds his radio-equipment defective or has made an error in the selection of his crystals, the race will not be delayed beyond the schedule (see Racing Formats).

8.5.8. All frequencies and frequency changes must, at all times, be authorised, in writing, by the respective countries team manager and designated Official before the frequency is approved or the change is made.

8.5.9. No frequencies will be published on heat sheets and other public information. The frequencies used by the drivers will only be known to the race-officials.

8.5.10 A minimum of 10 kHz between frequencies must be used. A Frequency spacing of 20kHz between the competitors is recommended.

8.6. TRANSMITTER AND TRANSMITTER IMPOUND

There can be 2 different kind of transmitters;

- a) Transmitters with a crystal that can be changed. See rules 8.6.1 / 8.6.2 / 8.6.3
 - b) Transmitters on an ultra high frequency using a software decoding system that seeks for a free channel . Anybody using these kind of transmitters cannot ask for a delay for radio interference.
- 8.6.1. Transmitters must be constructed in such a manner, that the crystal can be changed. All competitors must have at least one alternative frequency available. Voltage supply to the transmitter must not exceed the manufacturer's type approval or National authority recommendations. Any driver found to be using external or additional battery packs must have proof that it conforms to the radio manufacturer's specifications. No changes or additions are allowed on the antenna unless authorised by the original manufacturer.
- 8.6.2. At European Championships transmitter must be checked by using a frequency-counter and a spectrum-analyser, operated by a qualified official. EFRA will provide equipment if available for use at technical inspection.
- 8.6.3. Spare transmitters must have the crystals removed and if possible must be kept out of the pits.
- 8.6.4. The organisers must provide protected and secure storage for impounded transmitter, preferably adjacent to the drivers rostrum.
- 8.6.5. Transmitters are impounded immediately after a request by the Race Director or other Official. When impounded for the first time, transmitters are marked with heat-number or with identification number of the driver and are stored accordingly.
- 8.6.6. Transmitters must be impounded at all times whilst the race is in progress.
- 8.6.7. Transmitters are only released for the next race after all the transmitters used in the previous race are impounded by the Officials. Transmitter-impound must take place immediately after the driver has completed his race or has finished driving and is leaving the drivers rostrum.
- 8.6.8. Transmitters will be under the control of the Race Organisers.
- 8.6.9. Transmitters may never be taken onto the track during the racing.
- 8.6.10. It is not allowed to use any form of telemetry with active transmission. Clarification: It is not allowed for any wireless signals to be transmitted from the car to an external source during the race that is judged to give the driver a competitive advantage during that particular race!

8.7. TECHNICAL INSPECTION

- 8.7.1. Admission Inspection must always take place in an area protected from intrusion and before the start of the first heat. Cars must be presented for inspection at requested by the Officials any time during the meeting. Random checks on technical specifications can be done during the whole race. During Technical Inspection only the Driver or Mechanic and the Team manager are entitled to be present in addition to Race Officials. 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, sub-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.

- 8.7.2. At European Championships admission inspection must take place before the timed practice.
- 8.7.3. Technical inspection must include a thorough check-out of the car, weight limit, motor, muffler, tank, batteries, tyres, homologation of bodies, spoiler and overall dimensions. At European Championships, also of the transmitter (see 8.6.2.).
Any tank found illegal after a heat or final shall be removed from the car and inspected for a second time after an initial "cool down period" of app. 15 minutes. This period of 15 minutes is only necessary in case the temperatures are above 20° C. Only EFRA approved equipment for measuring are allowed.
- 8.7.4. Only one car per driver per class will be accepted. When transmitters are checked, spare-transmitters may also be presented for inspection.
- 8.7.5. When a car or a transmitter does not comply with the rules, changes may be carried out before presenting it for final admission.
- 8.7.6. Cars which have passed Technical Inspection must be marked with the drivers identification number, consisting the registration Entry number. This number must be applied, indelibly, inside the chassis plate.
- 8.7.7. For each competitor the race has officially started after technical inspection and admission of his car.
- 8.7.9. At European Championships, all cars of finalists go into a "Parc Fermé", immediately after the finish of the final and are inspected. Cars must remain with the Officials, untouched by drivers or mechanics. Any race distortion must be ignored. Inspection must be at least on:
- engine (motor)
 - tank capacity (batteries)
 - battery-pack and weight
 - chassis (dimensions)
- 8.7.10. Point 8.7.9. may be applied at EFRA Grand Prix or other EFRA sanctioned races, but is not compulsory.
- 8.7.11. The marked part of the car, normally the main chassis, may be changed. This would be subject to any technical criteria detailed within each Section. The original marked part must be left with the organisers until racing has finished (unless officials decides otherwise).
- 8.7.12. If a car is found to exceed the limits of dimensions on checking immediately after a race positive proof of race damage may prevent disqualification.
When a car failure to pass the technical inspection, the driver is only disqualified from the heat. In a final, or sub-final, it will mean last position of that final.
- 8.7.13. The car shall be measured for width, length and height using equipment as detailed in each Sections Technical rules. The equipment should be constructed preferably from metal, or alternatively from high quality board suitably stiffened to prevent distortion.
The car must freely fit such equipment with any steer able wheels set in the straight ahead position, and comply with any maximum dimensions due to suspension movement that may exist in the Section rules.
The measurement of the wheelbase may be made by simple measurement of axle centre distances with suspension in any position but Race Directors should be prepared to make more exact checks in cases of doubt or protest. If is suggested that the wheels are removed and the wheel spindles are firmly placed on the blocks whilst accurate measurements are made.

8.7.14. The equipment used for technical inspection by the organiser must be made available to competitor's at all reasonable times.

8.7.15. All lists of approved equipment, (i.e. Bodies, mufflers and batteries) must be available on EFRA's webpage from the 1st of March every year. This is the finale lists for this year and no changes will be made before the next year. Equipment homologated during the year will not be put on the list until 1st of March next year

8.8. TEAM MANAGER MEETING

8.8.1. A Team Managers Meeting must be held prior to each race and per class. It must be held in English.

The Race Director must call the meeting, Team-managers, Referees and other Officials must be present.

8.8.2. Team Manager meeting have to be completed at least 1 hour before the start of the first timed practice and the following points must be covered as a pre-race briefing:

- security and safety items;
- starting procedure, explanation;
- disciplinary questions;
- other items concerning the contestants;
- changes in the organisation or procedures;
- presentation of the main Officials and Referees.
- details of the penalties that may be awarded and the circumstances that they will be awarded under.
- details of the number of mechanics etc. authorised to enter the pit lane during racing.

Team managers are links to distribute this info to their respective drivers

8.9. FLAGS

8.9.1. The use of the following flags is compulsory:

Starting flag: the national flag of the country where the race is held.

Finish flag: chequered flag.

Black flag: the car in question must immediately stop in the pit to receive instructions.

8.9.2. The use of the black flag by the Referee (see 7.1.8.-9.):

- drivers who impede the progress of other participants;
- unsporting behaviour;
- participants driving in a manner deemed to be dangerous.

8.9.3. The use of the black flag by either the Referee or the Race Director (see 7.1.12.-13.):

- Vehicles judged to be in an undriveable or dangerous condition; after repairs have been carried out and after the Race Director or the Referee have approved the repair, they may continue their race;
- Vehicles which loose their bodies or other parts must immediately stop and carry out the necessary repairs after which they may re-start.

8.9.4. The black flag is operated by the Flagman (Starter), who receives his instructions to do so from either the Race Director or the Referee.

Under no circumstance may he use the black flag on his own authority.

8.9.5. Not response to the black flag within 2 laps will lead to disqualification of the concerned participant

8.10. PENALTY CAUSES

Time penalties should be awarded as stop and go penalties where possible. The Referee and/or Race Director should inform the driver, should be announced

through the sound system, and the driver should bring the car into the pit lane in the immediate next 3 laps where it will stay the amount of time that the race organiser have decided depending on track layout. The time should be announced at the Team Managers Meeting. It will not be allowed any repair or refuelling during the penalty being served.

In the case that there is no possibility to call a driver for a stop and go penalty, the Referee and or Race Director will announce a time penalty of 10 seconds(Large scale: 1 lap).

8.10.A Penalties in time, laps or even disqualification issued by EFRA Referee:

- 8.10.1. Unsporting behaviour (see 7.4.);
- 8.10.2. Deliberate corner-cutting;
- 8.10.3. When a car is re-entering the race other than from the point at which it left the track (not in case the engine has stopped and has to be re-started. Then the car re-enters the race from the pits);
- 8.10.4. When repairs are made to the car other than in the pit area off the track;
- 8.10.5. If the car is pushed over the finish-line (must finish under its own power);
- 8.10.6. Not returning to the pits after finishing a race;
- 8.10.7. Driving in the opposite direction of the race direction at any time.

8.10.B Penalties in time, laps or even disqualification, issued by the Race Director:

- 8.10.8. If orders of Race Officials are not obeyed;
- 8.10.9. If acting contrary to the EFRA Rules;
- 8.10.10. If a driver changes his complete car for whatever the reason;
- 8.10.11. If a driver changes his frequency without permission of the Race Director;
- 8.10.12. If a driver does not return his transmitter to the transmitter impound immediately after the finish of the race;
- 8.10.13. Fixed penalties in time or laps may be issued by the time-keeping Official in case of early starts (see starting procedures);
- 8.10.14. The bad behaviour and deportment of any competitor or assistant person to a competitor during the whole event, which could injure the image of the sport, may become subject to National or International (EFRA) sanction;
- 8.10.15. All Warnings and penalties must be noted on the result sheet and on the result board for the drivers (preferably in red).

8.10.C Drugs

- 8.10.16. If drugs or alcoholic impacts a competitor, competitor mechanics or an Official, the penalties for a competitor will be immediate disqualification. An official and competitors mechanics will immediately be taken out of service.
- 8.10.17. EFRA is given the authority to investigate and sign the WADA (World Anti-Doping Agency) Anti-Doping Code, and report back to the next AGM. All members of EFRA and all drivers participating in any EFRA-sanctioned race, are under those rules. It's the members and drivers own duty to know the rules.

8.11. PROTESTS

- 8.11.1. Only drivers participating in the race may enter a protest.
- 8.11.2. At European Championships a protest can only be made through the Team Manager.
- 8.11.3. Protests may concern:
 - the Organisation (act against the rules);
 - Officials (act against the rules);
 - Results (only when proof can be presented showing the result is wrong);
 - Other competitors (acting contrary to the rules to the disadvantage of the one entering the protest or the one the Team Manager is representing).

- 8.11.4. Only written protests, handed over to the Race Director within 20 minutes after the publication of results of the heat or occasion to which it concerns, will be considered.
- 8.11.5. 100 € or equivalent in the host countries currency has to be paid to the Race Director, on behalf of EFRA, who will only then accept the protest.
The time of receipt of the protest must be recorded.
- 8.11.6. The protest must contain relevant information for the Race Director to be able to discuss the protest and decide.
- 8.11.7. The Race Director together with either the Referee(s), the Timekeeping Supervisor or the International Jury, will deal with the protest and decide.
- 8.11.8. The decision must be made within 30 minutes after the acceptance of the protest. Only for important reasons and when the International Jury has to meet, may the decision be delayed to 60 minutes max.
- 8.11.9. When a protest concerns semi- or finalist, either the decision must be taken 10 minutes before the start the latest, or the start must be delayed until 10 minutes after the decision.
- 8.11.10. After the final race, there will be a “protest period” of 10 minutes after the provisional results have been published in writing on the score-board.
For this purpose, the publishing time of the provisional results must be noted down on the result-sheet.
During these 10 minutes, protests against the results may be presented to the Race Director who will then act according 8.11.7 and 8.11.8.
If no protests are presented within the 10 minutes “protest period”, the provisional results become official and final and may be announced.
- 8.11.11. Appeals to EFRA against the decisions of the International Jury may only be made if submitted to the Race Director in writing with a further appeal fee of 500 € (or equivalent) before the end of the event.
Appeals are only allowed against decisions of rule interpretation or of decisions made by the international jury after protest and not the fact of rules (see rule 7.4.6).
In cases where the international jury has adjudicated in cases of protest the decision of the jury is maintained until the appeal is considered.
In cases where the international Jury has made an interpretation of the rules the decision is suspended pending consideration of the appeal.
Appeals against the decision of referees shall also be made in writing to EFRA (see rule 7.1.22) and will not alter or interfere with the race in progress and will not suspend any decision of the referees.
Appeals to EFRA must be considered at the next Executive committee meeting or before the next AGM and are always to be considered as final.
- 8.11.12. If protest is upheld, the protest-fee of 100 EUR must be remitted immediately.
- 8.11.13. The Race Director may, without a protest being made, correct results which he may deem necessary, after consultation with his organising staff and referees.
- 8.11.14. Protests against the decisions of the Referee, concerning the racing, are not possible. The Referees decisions are indisputable (see 7.1.21 and 22).

8.12. LAP COUNTING PROCEDURE

- 8.12.1. During EFRA sanctioned events the lap counting is to be done automatically by means of an automatic lap counting system and transponders fitted inside the cars bodyshell.
The transponders must be available from the organisers free of charge.
If the transponders are delivered by the organiser for the whole event (eg:

Personal transponders types) a deposit of maximum 80 Euro may be required by the organiser.

If a driver owns a transponder which is compatible with the lap counting equipments and Race management software he may be entitled to use it by the organiser.

- 8.12.2. The hand-out transponders are released by the organisers at least one heat before the respective heat.
- 8.12.3. The fitting of the transponders inside the cars bodyshells remain the responsibility of the driver.
- 8.12.4. If a driver loses the transponder during the race, or if a transponder is not working, the lap counting supervisor must try to counts the laps manually.
- 8.12.5. If a driver forgets to fit the transponder during the race, the Race Director and the lapcounting supervisor will decide whether the laps are counted or not. There is no appeal against their decision.
- 8.12.6. Transponders must be moved to a better position in the car on the race-directors instruction, if lapcounting problems occur. Failure to comply may result in lost laps.
- 8.12.7. It is the responsibility of each competitor to ensure that no parts of his racing equipment generates any form of signal that in any way interferes with the automatic lap counting system. If it is proven, that interference is being caused, the Race Director must instruct the driver to modify the offending item and if this does not prove possible, the driver will be excluded from the racing.
- 8.12.8. The result of a heat, subfinal or final should consist of the number of laps and the time of the last finish line passing in minute, seconds and 100 of seconds.

8.13. PRIZES AND PRIZE CEREMONY

- 8.13.1. Immediately after the finish of the race and before the drivers leave the drivers rostrum, the unofficial winner must be declared for the public and a symbolic first place award is presented. This award must be returned to the organisers immediately after the unofficial ceremony.
- 8.13.2. Immediately after the official result is published, the prize-ceremony must be held.
- 8.13.3. Winners are not entitled to claim prizes by right.
- 8.13.4. Prizes must be announced in the race-program. The actual prizes must correspond with the prizes as announced.
They must be of a reasonable value according to the standard of the race.
- 8.13.5. Cash prizes or any other means of payment (paper tickets or coins of an obvious exchangeable value) are strictly forbidden.
- 8.13.6. Gifts not exceeding the price of a one-eighth scale car kit may be given.
- 8.13.7. EFRA will award the first three drivers of each official European Championship with a golden (first), silver(second) and bronze (third) medal.
- 8.13.8. The best driver under 17 years will also receive EFRA awards.

8.14 Events organised by associated members

- 8.14.1. Events organised by associated members under endorsement of EFRA may not be subject to prize money or to starting premiums.
- 8.14.2. Applications for such events should be sent to both the President and the Secretary of EFRA at least 6 months before the start of the event
- 8.14.3. Such events may not have the title nor be referred to as Grand-prix, European or National Championships.
- 8.14.4. At least one official EFRA representative must be present. Efra does not pay any expenses and all costs are to be supported by the organising associate member.

This EFRA representative will be integrated in the officials listing and have the right to be present at all meetings and have access to all parts of the premises as an observer and auditor.

- 8.14.5 The relationship between the associated member and EFRA shall be that of independent identities for all purposes, and in no event shall persons employed by either party be held or construed to be representatives of the other.
- 8.14.6 Racing formats and classes may be different from those described in the Efra handbook The parts of the EFRA rules that will be applied should be clearly stated as well as the deviations on technical rulings. However the parts in the EFRA handbook referring to Legal liability, safety, security, conveniences, frequencies and drugs can under no circumstances be waived as being part of the rules fully in force
- 8.14.7 The organizer accepts full responsibility for all necessary authorizations and to comply with local laws and regulations. The Associate organiser at its sole cost and expense shall procure and maintain during the term of this event with insurers of recognized responsibility for all insurances needed policies with adequate coverings.
- 8.14.8 Whenever prizes in merchandise are given they must be spread over at least 15 participants and have to be comparatively within reasonable proportion to each other
- 8.14.9 The Associated member will defend, indemnify and hold EFRA harmless from and against any and all liabilities, damages, losses, claims, fines, penalties, assessments, demands, actions, suits and judgments, including all fees, costs and expenses incidental thereto, that may be charged to, asserted against or incurred by EFRA by reason of any loss, damage or injury of any kind or nature whatsoever in any manner or to any extent resulting from or arising out of the articles or services covered by the endorsed event except to the extent resulting solely and directly from Efra's gross negligence or wilful misconduct.
- 8.14.10 EFRA licensed drivers are allowed to participate to events organised by associated members but their EFRA membership may be withdrawn if attending non endorsed international races organised by non associated organisations.

EFRA licensed drivers are allowed to participate at events organised by EFRA Associated Members, but their EFRA International licence may be withdrawn if they participate at International events not recognised by EFRA.

Note: The valid EFRA Section Chairman is the only person that has the right to determine events not recognised. His decision is final and cannot be protested

8.15. MARSHALLING

If a host club is not able to provide marshals the following rules take effect:

- 8.15.1 Only drivers taking part in the competition may and must marshal the heat following their own, (subject to 8.15.4). The first heat will be marshalled by the drivers of the last heat.
- 8.15.2 Failure to marshal or provide a competent substitute will result in the loss of the driver's best qualifying time if qualifying by fastest time is in operation. The loss of the best points score will be the result if qualifying is by the round by round system
A substitute marshal is only allowed if the driver is physically disabled and must be notified to the Race Director.
- 8.15.3 The organisation of drivers marshalling for the finals will be the responsibility of the organiser. Only drivers taking part in the competition may and must

marshal finals unless a substitute is allowed by the Race director due to physical disability.

- 8.15.4 The organiser must provide a marshal for any unfilled position i.e. previous heat had less drivers or marshals missing.
- 8.15.5 It is the Team Manager's responsibility to ensure drivers marshal finals. Country allocations will be reduced pro-rata.
- 8.15.6 For large scale racing Marshals are not allowed. Mechanics will act as Marshals out from the pit lane. This rule can not overrule national insurance regulations.
- 8.15.7 Marshalling must be from marked points about the track, if safety equipment is provided (e.g. tabards) it is the marshals responsibility to use it and it must be properly secured.

9. STARTING PROCEDURES

- 9.1. Purpose of the EFRA qualifying system is to create more equal chances for the drivers.
- 9.2. Starting procedure for qualifying
It can be either:
 - a. Staggered Start: All cars are released one by one by the starter at an interval of approx. 1 second (track lay-out depending). Missing the starting procedure means that the car has to start his race from the pits after the last car has started from the designated starting area.
 - b. Flying Start: Cars will be driven at the track from the moment the track is declared "Open" for practice or warm-up, there will be no call for starting procedure. The Race Director will give a 2 minutes warning to the start, this will be announced through the sound system, you will also get the time "1 minute to the start", "30 seconds to the start" and "10 seconds to the start". An audible signal and the mention "clock is running" will indicate that the heat has started. During this procedure timing cant be adjusted.
Common conditions: Each car will have its own timing. The total time will be the one designed in each class appendix and will start when the car pass for the first time over the starting line.
- 9.3. Timing/counting starts for each car separately the first time that car passes the start-line. Actual start therefore has to be a few meters before the start-line.
- 9.1.4. The antenna of the timekeeping computer has to be installed in the track before the entrance of the pits.

10. RULING

10.1 PRECEDENCE

- 10.1.1 As long as appendix rules concerning specifications and race procedure do not clash with EFRA's spirit regarding fair racing they take precedence over the general rule governing the same item.