



RULEBOOK 2004

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Definitions

The **ISRA World Championships** (ISRA WC) is defined as the whole event including practice sessions, meetings and four races.

A **race** is defined as a competition measured from the beginning of the technical inspection until the end of the final stage of that competition. The ISRA WC consists of four races.

A **class** is defined as a technically specified car to be used. A race always runs one class only.

Qualifying, heats, semifinals and the final are seen as **stages** of a race.

Group/groups are used as the division of a stage following the results of qualifying or earlier stages of the race.

A **segment** is defined as one of eight time periods of driving in a group.

An **entrant** is a person who has enrolled, paid the entry fee and ISRA license, and is participating in any of the ISRA WC races and their practice sessions.

A **driver** is an entrant who has had her/his car passed in the technical inspection at the beginning of a race.

The **Race direction** is the responsible body for the ISRA WC from start to end. The race direction relies on the **Race Jury** for rule interpretation. Only the Race direction can enforce penalties (section 1.8). Penalties can only be given to entrants.

An ISRA **delegate** is the representative of a country that has entrants, or has had entrants in an ISRA WC during the last 3 years. The delegates are obliged to participate in the ISRA delegates meeting and if elected be part of the Race Jury (section 1.1).

1. General principles

Every ISRA World Championships event must be organised and staged under the authority of the association of ISRA world delegates. Those countries wishing to stage the ISRA World Championship must submit a written proposal to the acting ISRA chairman. The sites for the Championships will be announced at least two years in advance. Only those persons who are licensed by ISRA may take part in these events. Any sanctioned ISRA non-world championship event must meet with prior approval by the association of ISRA world delegates. Those persons who are not licensed will be able to receive a driver license number prior to any ISRA event by simple verbal or written application to either the ISRA chairman or the ISRA host nation delegate of an upcoming event. The total number of licenses granted worldwide is unrestricted.

1.1 The ISRA delegates meeting (a, b and c takes effect 2005.)

At the ISRA World Championships an official ISRA delegates meeting shall be held in the evening on the open practice day (Sunday). During the meeting shall the following issues be decided upon:

- a/ ISRA chairman for the period until next ISRA Championship.
- b/ ISRA secretary for the period until next ISRA Championship.
- c/ ISRA technical officer for the preparation of approval of bodies and chassis for the period until next ISRA Championship.
- d/ A Race Jury for the event according to section 1.2 of the rulebook. The race jury acts as election committee between delegates meetings and has as a responsibility to provide a proposal of a chairman, a secretary, a technical officer, and a race jury to be elected on the next delegates meeting. Their proposal has to be filed at the latest 30 days prior to the meeting.
- e/ Changes to the ISRA rulebook for the following years event.
- f/ Coming events.
- g/ Incoming proposals.

Proposal and suggestions must arrive to the organiser no later than 30 days prior to the meeting. The organiser is responsible for that all incoming proposals are sent to the delegates as soon as possible

after the final date, but no later than 15 days prior to the meeting. It is the delegate's responsibility to provide the organiser with a valid e-mail address. Proposal can be sent as e-mails or via post. They have to be signed by a specific country's delegate.

The ISRA delegates can decide that a question brought up at the official meeting shall be decided through an e-mail vote between the delegates. The chairman always conducts such a procedure.

The organiser of an ISRA World Championship shall always conduct an evaluation among the drivers during the championships. The results of the evaluation will be discussed on an evaluation meeting on the last day of the ISRA WC, and before the official closing of the championships.

The minutes from both these meetings will be published on the organiser's website.

1.2 The Race Jury

At the ISRA World Championships, the Race Jury will consist of the Race Director, the ISRA Chairman (or acting chairman) and 3 Stewards chosen from the ISRA delegates. The jury will handle and solve all issues with regard to rule interpretation, disqualification, lap counter or track failures, etc.

1.3 Participation

An "Olympic rule" is used which means that all member countries are welcome to participate with entrants.

1.4 Amount of entries

There is no restriction concerning the amount of entries in an ISRA Worlds event. However, the organiser has to plan for a minimum number of 32 teams in the production team race, and 64 drivers in the sprint races.

Due to concerns of the race duration the race direction may, together with the race jury, decide to alter the driving times following section 5.2.

1.5 Registration

An official 30-day pre-registration date will state the group of entrants to the ISRA WC event. The registration must be done via mail, e-mail or facsimile. The organiser must keep an up to date listing (website or e-mail) of entrants so that enrolled persons can get a confirmation of their registration.

1.6 Race direction

A race direction must consist of a Race Director controlling the event (as a whole), a Race Controller running the races, a Technical Director responsible for the inspections and the pit-area, and a Result Manager running the result services. These four officials cannot be drivers at any stage of the event. If any of them is enrolled as a participant in a class, then, in that class, a non-racing deputy official must be appointed. The persons filling these positions must be presented on the official website 60 days prior to the event.

Added to this there must be appointed staff responsible for the track maintenance and other specific areas.

1.7 Time frame

The event must follow the official time schedule.

1.8 Penalties - Summarised

- a) Illegal track call: 2 laps. (Section 5.2 and 6.2)
- b) Missing marshalling duties in practice: Loss of the next practice session. (Section 3.1)
- c) Missing last marshalling duty in practice: Loss of the best qualifying time. (Section 3.1)
- d) Missing marshalling duty in Production team race: 5 laps. (Section 6.2)
- e) Accidental crash on the straight in front of the drivers, caused by a driver's hand or a car in hand: 5 laps. (Section 5.2 and 6.2)
- f) A car returned to the enclosed park after the closing of technical inspection: 10 laps. (Section 3.3)
- g) Missing marshalling in race: 10 laps. (Section 5.2)

- h) Unsportsmanlike conduct: For first infraction - warning, for second infraction - 10 laps, for third infraction - disqualification. (Section 1.9, 5.2 and 6.2)
- i) Use of illegal parts: Disqualification. (Section 3.3)
- j) Driving with an illegal car according to section 5.2 and 6.2: 3 laps.
- k) A repaired car that is not put on the track at the designated pit area: 3 laps. (Section 5.2 and 6.2)
- l) Use of illegal chemical substance: 10 laps (Section 7.1.5, 7.2.5, 7.3.5 and 7.4.5)

1.9 Unsportsmanlike conduct

Practising on another entrant's turn or driving another drivers' car during racing is considered unsportsmanlike conduct.

The use of obscene and course language at any occasion is considered unsportsmanlike conduct.

Unsportsmanlike behaviour is subject to a warning by the race direction. A repeated violation will result in a 10-lap penalty. A third violation will result in disqualification from that class.

1.10 ISRA points

The ISRA points are awarded on a falling scale as:

50-45-40-36-32-29-26-24-22-20-18-16-14-12-11-10-9-8-7-6-5-4-3-2 (for the first 24 drivers). The 25th will receive 1 point, the 26th 0.99, 27th 0.98 and so on. The top 4 qualifiers in the individual races receive bonus ISRA ranking points on a falling scale (4, 3, 2, 1) to be added to their total from the race.

1.11 Trophies

Prizes are given to all finalists in the sprint races, and to all drivers in the top 8 teams in the production team race.

1.12 Entry fees

The maximum entry fee is Euro 35 per class. The cost of the handout parts in the team race must not be higher than the parts' normal retail prices.

1.13 ISRA driver's licenses

The ISRA driver's license fee is Euro 10 per year.

2 Tracks and speed controllers

2.1 Track

Each ISRA race must be run on a professionally built wooden track with 8 lanes, installed in a reasonable, comfortable and accessible place. Safety arrangements, in the form of track sidewalls, must be used to prevent crash damages. A track must be 35 - 50 meters long (115 - 164 feet) and the distance between lanes must be a minimum of 104mm (4.1 inches). The distance between sidewalls and the outside lane must be a minimum of 150mm (6 inches). The banking angle at any point of the track must be less than 5 degrees. Slot width must be 3-4mm and slot depth at least 9mm. Lanes must be signed with colours or numbers.

2.2 Lap counter

An electronic lap counter system accurate to within 1/1000 of a second must be used. The track has to be divided into 100 equal sections that are easy readable.

2.3 Speed controllers

Speed controllers are unrestricted, but they must not raise or store voltage. The controllers' connection to the track must be done with 4mm banana plugs or alligator clips. National sockets are optional.

2.4 Pre-ISRA WC practice

The racetrack shall be closed for practice and competition four weeks prior to the Worlds event. Only the host club racers or raceway customers are allowed to practice.

2.5 Track wiring and power

The track wiring and the power supply must be capable of feeding continuous power of 150W per lane. The cross section of track braid or rail must be 2,5mm² (AWG13) or more. The distance between supply cable points must not exceed 12m (40ft) (i.e. on a 45 meter track there must be at least 4 supply points on each lane). The cross section of supply cables must be 6mm² (AWG10) or more. All track braid joints must be secured with additional clamping (braid-braid butt contact is not sufficient).

When power supplies are used, the following limits shall be obliged: The track power supply must have a regulated output to keep the voltage equal during all segments of a race (practice, qualifying, heats and semifinals of a class). If the track has a power supply for each lane, the devices must be identical. The capacity of the power supplies must be at least 125A. The track voltage must always be 12.5 - 13.0V DC (unloaded) and have an indicator showing the voltage, accessible to all racers.

When batteries are used, the following limits shall be obliged: At least two sets of batteries with a capacity of at least 500 Ah must be available. A charger of a minimum of 100A must be available. The batteries must not be charged while in use for racing. Track voltage must always be 12.0 - 13.5V DC (unloaded) and have an indicator showing the voltage accessible to all racers. Track voltage must be equal during all segments of a race (practice, qualifying, heats and semi-finals of a class).

3 Event procedure

3.1 Open practicing

Before the races, the organiser must provide two days of regulated open practice for the entrants. The first of the two days will be open practice for the non-host nation entrants and for all of the classes. The second day will be for all entrants and for all of the classes. The length of each practice session will be of maximum duration possible as based on the number of entries. Each class will practice separated from the others, no exceptions. Further practice sessions, immediately preceding each class, are included in the course of the event. These practice sessions will be scheduled, based on the ISRA Driver Ranking. These sessions are for all the entrants. Practice is regulated, so that every entrant will have the same amount of practice time. Every entrant must have at least one practice session on each lane in each class.

If the number of entries is too large, the same number of practice sessions, of shortened duration, must be given to each entrant. It is recommended that, whenever possible, a warm-up session be granted before the start of qualifying. That warm-up session will consist of a period of time on any one of the 8 lanes as chosen randomly by race direction (a warm up session may occur on any one of the eight lanes).

Race direction will provide a practice schedule. The order in which entrants post their practice sessions will be based on a randomly sorted listing. "Practice session" represents the minimum amount of practice (minimum two minutes) that can be taken by one entrant at one time on a single lane. At the end of each practice session, that entrant must marshal the following practice session. Missed marshalling duties will result in the loss of a practice session per infraction. Missing the last marshalling duty will result in missing the best qualifying time.

3.2 Track conditioning

The track must be cleaned and spray glued by race direction before the start of open practice. Entrants or drivers cannot alter the track surface condition in any way, only the track braid/strip may be cleaned. Only the race direction may modify the track condition, upon the authorisation of the Race Jury. Drivers may clean only the braid/strip on their own lane before qualifying or the beginning of a stage. Car braid cleaning/conditioning liquids can never be used on the track at any time but by the Track maintenance manager on instructions from the Race direction.

3.3 Enclosed park and technical inspection.

The pit area (parc fermé) must be enclosed from everyone except the officials responsible for its function. Drivers and the public must not at any time have access to the area. The organisers are responsible for the security of the area.

Cars must remain in the Enclosed Park after the technical inspection, during the qualifying session and during every stage of the racing. The enclosed park must be a restricted area with the provision of safe storage for the cars in order to avoid any possible damage to them.

For qualifying, all cars must be brought to the technical inspection impound during the announced open period of time for each class. A technical inspection of the cars based on all eligible rules will begin at the start of that period. All legal cars will be marked by the technical inspectors (engraving on chassis and stamp on body) and be ready to qualify. All non-legal cars will be returned to the entrant. These entrants will be given to the end of the period to make their cars legal. Cars deemed illegal by the end of that period will be technically inspected during race time and if passed the entrant becomes a driver.

The service breaks between the heats and the semifinals, and between the semifinals and the final, have the duration of 20 minutes. All legal cars will be deemed ready to continue racing. All non-legal cars will be returned to the drivers. These drivers will be given to the end of that service break to make their cars legal.

A driver who hand her/his car in too late after a service break will receive a 10-lap penalty enforced at their following stage of racing.

A car that has been found faulty in the technical inspection may be repaired during the warm up. The car must be re-checked after the repair during the warm-up or after the start, but before making any race laps. A technical inspector must be available at the starting line for the car(s) to be checked as quickly as possible. While the repairing of a faulty car must not delay the start of the race, the inspection may be fulfilled during the start process.

Cars may be randomly checked during the middle of a race heat. Any part of the car that deviates from the dimensional rule limits must be repaired during actual race time. Those dimensions are; (a) wheel width and (b) overall car width. The use of illegal parts at any point will result in disqualification.

In the production team race all cars will be re-inspected after their heat. The following points are checked: a/ blueprint on motor (the motor may be opened); b/ the stamp on the body; c/ the blueprint and rubber of the tires; d/ the engraving of and eventual changes made to the chassis (e.g. filing in a Champion chassis to make greater movement of wing-plate). Any tampering found results in the disqualification of the drivers of the team regardless of if the car has passed an earlier inspection during the race.

Cars that have had their body or gear changed during racing shall always have its dimensions (widths) checked in the first lane change following the repairs. The technical check shall not inflict on the drivers lane change time. If the width is illegal it has to be repaired immediately, but in racing time.

The tools that are used during the technical inspections shall be available to drivers during other times than inspection periods.

4 Product eligibility

4.1 Bodies

Any manufacturer that wishes to propose their body for use in an ISRA event must have 3 copies of the body forwarded to the acting ISRA Chairman. Information regarding availability, cost and production quantities must accompany the submission. A person that is appointed by the ISRA delegates meeting prepares the decisions to add new bodies to the current body list. That person also communicate with the producers concerning if their body fulfils the specified requirements for approval. A body for approval can not be sent in any later than on the day 30 days prior to the ISRA delegates meeting. After this time no other bodies may be submitted. The ISRA delegates' meeting makes the final decision. Bodies initially not approved by the delegates may be resubmitted with revisions as suggested. Bodies approved will only be legal at the ISRA World Championships one year after the approval.

The manufacturer of any approved body must send at least one copy of its body to the organiser of the ISRA WC. Bodies that have not been sent to the organiser in advance will not be accepted in the technical inspection.

4.2 Production chassis

Any manufacturer that wishes to propose their chassis for use in an ISRA event must have 3 copies of the chassis forwarded to the acting ISRA Chairman. Information regarding availability, cost and production quantities must accompany the submission. A person that is appointed by the ISRA delegates meeting prepares the decisions to add new bodies to the current body list. That person also communicate with the manufacturer concerning if their chassis fulfils the specified requirements for approval. A chassis for approval can not be sent in any later than on the day 30 days prior to the ISRA delegates meeting. After this time no other chassis may be submitted. The ISRA delegates' meeting makes the final decision. Chassis initially not approved by the delegates may be resubmitted with

revisions as suggested. Chassis approved will only be legal at the ISRA World Championships one year after the approval.

The manufacturer of any approved chassis must send at least one copy of its chassis to the organiser of the ISRA WC. Chassis that have not been sent to the organiser will not be accepted in the technical inspection.

5 Sprint race procedure

Sprint races are conducted in the following classes: Formula 1 1/32; Eurosport 1/32; and Eurosport 1/24.

All sprint races consist of four stages; qualifying, heats, semifinals and a final.

5.1 Stage 1: Qualifying

Qualifying is the first stage of a race. It will be for one minute per driver, on a qualifying lane as chosen by the race direction. For two drivers having matching lap times, their second best time will break the tie. Overall ranking will be determined by the best single lap time as attained by each driver. Qualifying order will be based on the ISRA Drivers ranking. In all sprint classes, the highest ranked drivers will qualify last. Every driver, who misses his or her qualifying time, will be classed in the last position.

The best 4 qualified drivers will be placed directly into stage 3, i.e. the top 4 semifinal places (all in semi A). The remaining drivers will be placed into stage 2, i.e. the heats sorted by their qualifying result.

5.2 Stage 2 - 4: Racing

Stage 2, heats: The racers qualified at positions 5-12 will race in the last heat, drivers qualified at positions 13-20 in the next to last heat, and so on. If possible, the number of drivers in each heat shall be equal. If not, the number of drivers can be one less in the first few heats.

Stage 3, semifinals: The best 20 drivers (by lap total) from stage 2 will be placed into 3 semifinals (A, B and C). The top 4 will be placed into semi A. The next eight will be placed into semi B and the remaining 8 into semi C.

Stage 4, final: The best 8 drivers (by lap total) from stage 3 will be placed into the final.

Starting lanes will be chosen by race direction in all stages except stage 4, where the starting lanes will be selected by the racers in an

order determined by the results from stage 3. Best result gets first choice.

Stages will have the following length: Stage 2, heats, are 3 minutes per lane, stage 3, semifinals, are 4 minutes per lane, and stage 4, the final, is 5 minutes per lane. Depending on the number of drivers, the length of the stages may change to fit reasonable race duration, as determined by race direction.

Drivers, at the end of their group, must be the corner marshals for the next group. A penalty of 10 laps will be given for missed marshalling duties. The number of marshals must be the same during each stage of the race. In the first group of a stage the drivers of the last group will be marshalling. Drivers from the first group will be the marshals for the next group, and so on.

Unsportsmanlike behaviour is subject to a warning by the race direction. A repeated violation will result in a 10-lap penalty. A third violation will result in disqualification from that class. There must be only one driver per car and one car per driver during the race.

Only during the actual race time or qualifying, are drivers and/or their pit crew permitted to work on their cars. During lane changes, drivers and/or their pit crews may straighten the braids on the car and push in body pins. A specific part of the track will be designated as the pit zone by race direction before the race starts. A driver whose car is put back on the track anywhere else than in that zone will receive a penalty of 3 laps. A driver is allowed to replace her/his car in front of her/him if the car was picked up from there or else it has to be placed in the pit zone.

Lane rotation is fixed as follows: 1 - 3 - 5 - 7 - 8 - 6 - 4 - 2 (Red - Green -Blue -Purple -Black -Yellow -Orange -White). Lane change is the driver's responsibility. No compensation can be given for incorrect changing of lanes.

Race direction can temporarily stop the race only if a marshal calls for a stop due to a car; (a) in a non-marshalable position (i.e.: in the middle of the straight in front of the drivers) (b) under a bridge or on the floor in an area indirectly accessible (e.g. under the track) (c) becoming a rider on another lane. The race direction must before the race begins point out which areas of the track that are considered under a and b.

Drivers can call for a stop by no other word than "Track!" and only in situations and areas pointed out by the race direction before

the race. For every illegal call, made by a driver, there will be a 2 lap penalty assessed.

5.3 Classifications

At each stage, a driver's finishing position will be a result of the sum of the laps completed and the last lap sections. At an eventual tie the last stage shall decide. Direct advancement from qualification to stage 3 is regarded as better than stage 2 results. The number of laps made can only be the result of the lap counter. No lap correction is made for missed counting due to the car's braids, nor lane jumping (rider) unless caused by a turn marshal placing the car on the wrong lane. Race direction must check the lap counting system if there is a sustained problem. If a problem occurs with the lap counter, then upon its correction, the race direction must re-run the current segment. Drivers will have their cars back to change wheels and braids only.

6 Production Race Procedure (1/24 Production)

6.1 Team/Driver Seeding

The production race is a 2-person team race, with each team member driving equal amounts. The race shall run as two stages; qualifying and groups.

The ranking of the teams is based on the ISRA drivers' ranking. Teams having no ISRA points will be sorted randomly and will qualify at the beginning of the qualifying stage.

6.2 Racing

Qualifying is run over 1 minute where the team with the longest distance covered wins. Each member of a team must drive 30 seconds. A 15 seconds stop for driver change is provided.

Each group will consist of 8 segments. Each segment will be 7,5 minutes. If possible, the number of teams in each group should be equal. If not, the number of teams can be one less in the first few groups. Drivers, at the end of their group, must be the corner marshals in the next group.

A penalty of 5 laps will be given for missing marshalling. The number of marshals must be the same during the whole race. In the first group that is run, marshalling will be done by the drivers of group A. Drivers from the first group will be the marshals for the next group, and so on.

Unsportsmanlike behaviour is subject to a first warning by race direction. A repeated violation will result in a 10-lap penalty. A third violation will result in disqualification from that class. There must be only one team per car and one car per team during the race.

Only during the actual race time or qualifying, are drivers and/or their pit crew permitted to work on their cars. During lane changes, drivers and/or their pit crews may straighten the braids on the car and push in body pins. A specific part of the track will be designated as the pit zone by race direction before the race starts. A driver whose car is put back on the track anywhere else than in that zone will receive a penalty of 3 laps. The driver is allowed to replace her/his

car in front of her/him if the car was picked up from there or else it has to be placed in the pit zone. Any car damage that would make the car illegal, such as the loss of a major part of the body or a car dragging the track surface, must be immediately repaired and only during actual race time. The driver may continue a maximum of 3 laps before stopping to repair the car. Each extra lap made with an illegal car will result in a 3-lap penalty.

Lane rotation is fixed as follows: 1 - 3 - 5 - 7 - 8 - 6 - 4 - 2 (Red - Green -Blue -Purple -Black -Yellow -Orange -White). Lane change is the driver's responsibility. No compensation can be given for incorrect changing of lanes. Race direction can temporarily stop the race only if a marshal calls for a stop due to a car; (a) in a non-marshalled position (i.e.: in the middle of the straight in front of the drivers) (b) under a bridge or on the floor in an area indirectly accessible (e.g. under the track) (c) becoming a rider on another lane. The race direction must before the race begins point out which areas of the track that are considered under a and b.

Drivers can call for a stop by no other word than "Track!" and only in situations and areas pointed out by the race direction before the race. For every illegal call, made by a driver will, there will be a 2-lap penalty assessed.

6.3 Classifications

After each group, a driver's finishing position will be a result of the sum of the laps completed, the last lap sections and the result from qualifying. At an eventual tie the number of race laps shall decide. The number of laps made can only be the result of the lap counter. No lap correction is made for missed counting due to the car's braids, nor lane jumping (rider) unless caused by a turn marshal placing the car on the wrong lane. Race direction must check the lap counting system if there is a sustained problem. If a problem with the lap counter occurs, then upon its correction, the race direction must re-run the current segment. Drivers will have their cars back only to change wheels and braids.

7 Technical Specifications

7.1 1/24 Production.

7.1.1 Chassis

Approved chassis are: (See also section 4.2).

CHAMPION (USA)

420 Turbo Flex Chassis (No substitute pans or wings allowed)

JK PRODUCTS (USA)

2501 Cheetah Chassis (No substitute pans or wings allowed)

PARMA (USA)

595 Flexi 2 Chassis (No substitute pans or wings allowed)

RJR (USA)

792 Storm Chassis (No substitute pans or wings allowed)

MOSSETTI RACING (Canada)

300 Titan (No substitute pans or wings allowed)

Only these ISRA approved chassis are permitted. Aluminium replacement pans are not permitted. Ball bearings are not permitted. Rear axles must be minimum diameter of 2.36 mm (.093 inches). Front axles must be a minimum diameter of 1.0 mm (.039 inches). It must be straight and pass through the original hole as intended by the manufacturer. The chassis cannot be cut and cannot be bent from its original shape. The distance from the top of the rear axle to the bottom of the chassis must be a minimum of 8,6 mm (.338 inches).

Only one guide flag device per car is allowed.

Nothing may be added to the chassis if not mentioned in the list below (see sections 1.8 i) and 3.3). Nothing may be added on the bottom of the chassis except the guide flag with its additional parts.

Allowable modifications are:

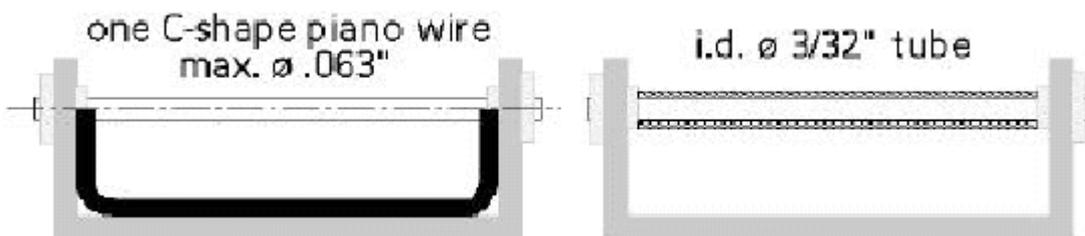
Lead may be taped or glued to the top of the chassis. Tape may be added. Front wheel retainers may be soldered to the axle. Pintubes may be added, in the original body mounting holes, and can be either floating or fixed to the chassis. The front axle may be soldered to the chassis. Rear oilites may be soldered to the chassis. The motor may be soldered to the chassis (screws are optional).

The motor may be braced to the chassis with one of the following methods:

- (a) a single round metal tube or rod may be used to help solder the motor to the chassis. The maximum diameter is 2.5 mm (.100 inches) by a maximum length of 10 mm (.400 inches) or;
- (b) a "Z" shaped piece of piano wire with a maximum diameter of 1.6 mm (.063 inches) up to a maximum size of 10 mm by 15 mm (.39 by .59 inches).

Rear axle uprights may be braced with one of the following methods:

- (a) a 2.36 mm (.093 inches) I.D. tube on the axle between the bushings or;
- (b) a "C" shaped piece of piano wire fitting between the rear uprights of the chassis, with a maximum diameter of 1.6 mm (.063 inches). The piece must not extend past the adjacent sides of the rear axle bushings and must not extend beyond any edge of the chassis. Drawings show mentioned reinforcing.



7.1.2 Body

The body for production 24 is decided by the organiser and presented and accepted at the ISRA delegates meeting the year before. The body is listed under section 8 at the end of this rulebook.

Only the ISRA approved body is permitted and is handed out to the teams painted and stamped, and together with an approved and painted (not detailed) three-dimensional interior.

The maximum height of the car is 35 mm measured over the rear wing. The minimum height at the bottom of the windscreen is 23 mm. The maximum height of the opening below the rear bumper is 12.7 mm (0.5") and a 1 mm vertical edge must remain on the front. These dimensions will be measured with the car sitting on tech block.

The body must cover the whole chassis, including the rear axle and the guide flag. It can be fixed to the chassis with only pins or sellotape. Body decoration is unrestricted, but must be made in at least 2 different colours. The body must be completely opaque. Windows must be left clear and all four wheels must be completely visible when viewed from the side. Pin striping and/or bodyline detailing is mandatory. The higher ranked driver's licence number must be displayed in at least 3 different positions. All cars must contain a painted and scaled three-dimensional interior with driver's helmet, shoulders, arms and steering wheel mounted in the original cockpit position. No portion of the chassis must be seen through the interior area when viewed from above.

Body cutting must maintain every detail of the real car (i.e. lights, wheel position, etc.). The body must not deviate from its form as produced by the manufacturer (see sections 1.8 i) and 3.3).

7.1.3 Motor

The motor used will be handout Group 12 motors; provided to the drivers at a minimal cost by ISRA as part of the entry fees. Motors will be sealed to prevent tampering. Opening of the motor, by removal of the can screws is not permitted. (see sections 1.8 i) and 3.3).

The motor shaft may be shortened and the can may be trimmed to provide axle clearance only. A team may receive a single substitute motor if Race Direction decides the original is of substantially lesser performance than a typical one. This must be brought to the attention of Race Direction prior to the start of the third scheduled Production practice session after the handing out of the motors.

The motor used at the race must be presented at the latest 3 months before the championships. The announcement is made under section 8 of this rulebook and at the official website.

An entrant is able to purchase one or more extra motors from the same batch as the race motors if ordered before the final date of registration to the race. These are to be handed to the racers earliest the Friday before the race. The extra motors shall be blueprinted in a different way to the race motors.

7.1.4 Front wheels

The front wheels must have a minimum diameter of 12.7 mm (.500") and a minimum width of 0.8 mm (.032"). The wheels must be located in the position as intended by the manufacturer. The minimum front wheel track must be 72 mm (2.83"). They must turn on their centre at 90 degrees to the track surface and have a black rubber/ plastic perimeter. The loss of the front wheel(s) during the course of racing will not be considered an infraction, however they must be repaired/replaced before the start of each stage of the race.

7.1.5 Rear tires

Handout tires only (two pairs per team); provided to the drivers at a minimal cost by ISRA as part of the entry fees. Additional tires will be available for purchase. Tires will have a maximum width of 20.7 mm (.815") Tires will be marked to prevent tampering (see sections 1.8 i) and 3.3). The tire brand and type will be announced during the period up to and including the day 3 months prior to the upcoming ISRA World championships. The announcement is made under section 8 of this rulebook and on the official website.

The use of Metylsalicylat (Oil of Winter Green) or any comparable chemical to improve the tire compound renders the driver a penalty of 10 laps in the ongoing stage, or, if found in a technical inspection, the following stage.

7.1.6 Dimensions.

The car must have a maximum overall width of 83 mm (3.268 inches) excluding the body fixing system (pins or sellotape). Ground clearance must be a minimum of 0.8 mm (.032 inches) at the start of each stage of the racing. The clearance is measured between the rear tires and under the rear axle. There is no minimum clearance required at the front of the chassis.

7.2 Formula 1 1/32

7.2.1 Chassis

Chassis are unrestricted except for the following limitations:

The motor must be mounted in the chassis in the "in-line" position (i.e. in a 90-degree angle to the rear axle). The chassis must have a maximum length of 110 mm (4.330 inches) as measured from the centre of the guide pivot to the centre of the rear axle. The chassis portion of the car must have a maximum width of 52 mm (2.047 inches). This portion (the "pans"), must have a maximum length of 68 mm (2.677 inches). The part of the chassis ahead of the pans must have a maximum width of 34 mm (1.340 inches), excluding the front axle and its support(s). The part of the chassis to the rear of the pans, including the supports for the rear axle, must also have a maximum width of 34 mm (1.340 inches).

Only one guide flag device per car is allowed.

7.2.2 Body

Legal bodies are: (See also section 4.1)

BETTA (England)

All Formula 1 cars raced from 1991 - 2001, inclusive.

BPA (Czech Republic)

Ferrari (040)

Jordan 199 (031)

Williams WF23/BMW (039)

Mclaren MP 4-17 (045)

Jaguar R 4 (048)

BAR (056)

RED FOX (BRAZIL)

F1/GP Mclaren (2003)

Only these ISRA approved bodies are permitted. Bodies must be accurate copies of the samples sent to ISRA for homologation (see

section 4.1). The body must not deviate from its form as produced by the manufacturer.

The paint scheme must represent an actual F1-team's car during the last 10 years. The major engine cover and sidepod sponsors logo/name must be present.

The body must cover the entire chassis including the guide flag but excluding the axles, wheels and the support(s) for the front axle. The body must be completely opaque. The additional exception is the rearward portion of the chassis pans not covered by the body. The chassis portion in this area must be painted black.

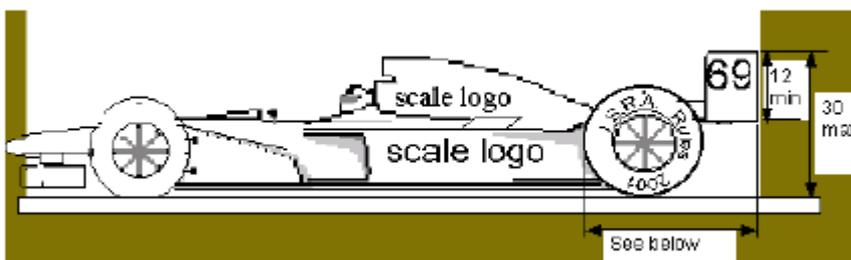
The driver's ISRA license number must be displayed in at least 3 different positions.

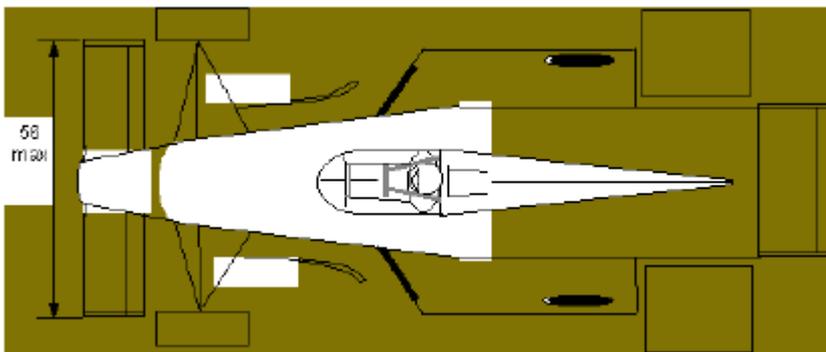
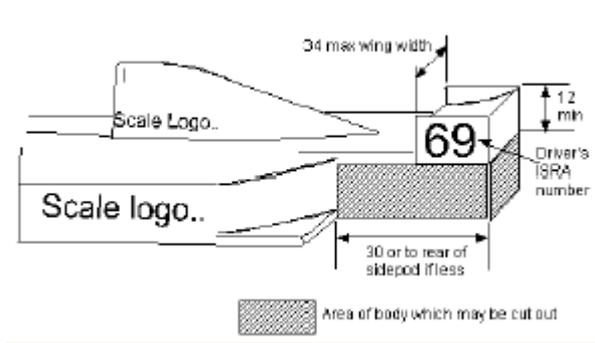
All cars must contain a painted and scaled three-dimensional interior with driver's helmet, shoulders, arms and steering wheel mounted in the original cockpit position. No portion of the chassis must be seen through the driver area when viewed from above.

Body cutting must maintain every detail of the real car (i.e. lights, wheel position, etc.). Pin striping and/or bodyline detailing is mandatory.

Two identical bodies per car are permitted, provided that they are also trimmed and mounted identically.

Below are two drawings illustrating the maximum front and rear wing dimensions allowed, and where the scale logo and driver's ISRA license number at the rear must be positioned.





7.2.3 Motor

No restrictions.

7.2.4 Front wheels

The front wheels must have a minimum diameter of 14 mm (.550") and a minimum width of 4 mm (.157") to a maximum width of 10 mm (.400"). The minimum front wheel track must be 62mm. They must turn on their centre at 90 degrees to the track surface and have a black rubber/plastic perimeter. The loss of a front wheel during the course of racing will be considered an infraction and must be repaired/replaced immediately. (See section 6.2 paragraph 5 for limitations)

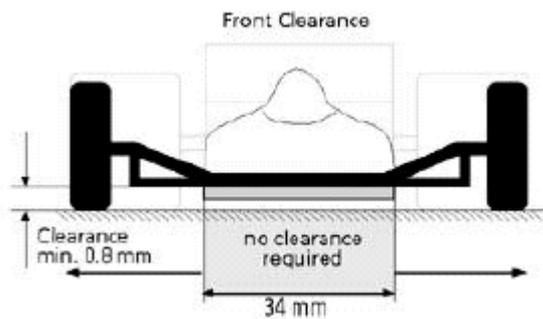
7.2.5 Rear tires

The rear wheels must have a minimum diameter of 15 mm (.590") and a maximum width of 16 mm (.630"). The rubber portion of the tire contacting the track surface must be black.

The use of Metylsalicylat (Oil of Winter Green) or any comparable chemical to improve the tire compound renders the driver a penalty of 10 laps in the ongoing stage, or, if found in a technical inspection, the following stage.

7.2.6 Dimensions

The car must have a maximum overall width of 68 mm (2.677"). Rear ground clearance must be a minimum of 0.8 mm (.032") at the start of qualifying and at the start of each stage of the racing, the clearance is measured between the rear tires and under the rear axle. The clearance under the front axle and its support(s) must be a minimum of 0.8 mm (.032"). This is the area between the front wheels and the sides of the front of the chassis. There is no minimum clearance required at the front of the chassis (the portion of the chassis ahead of the pans). (See section 6.2 paragraph 5 for limitations.)



7.3 Eurosport 1/32

7.3.1 Chassis

Chassis are unrestricted except for the following limitations:

The chassis must have a maximum length of 105 mm (4.134") as measured from the centre of the guide pivot to the centre of the rear axle. The motor may be mounted at any angle to the rear axle.

Only one guide flag device per car is allowed.

7.3.2 Body

Legal bodies are: (See also section 4.1)

Cat (UK)

Audi R8

Betta (UK)

Porsche GT1

Dome judd

JK (US)

Lola B2 (7037)

Cadillac (7032)

Only these ISRA approved bodies are permitted. Bodies must be accurate copies of the samples sent to ISRA for homologation (see section 4.1). The body must not deviate from its form as produced by the manufacturer.

The body must cover the entire chassis, including the rear axle and guide flag. It can be fixed to the chassis with pins or sellotape only.

Body decoration is unrestricted, but must be made in at least two different colours. The body must be completely opaque. Windows must be left clear and all four wheels must be completely visible when viewed from the side. Pin striping and/or bodyline detailing is mandatory.

The driver's licence number must be displayed in at least 3 different positions.

All cars must contain a painted and scaled three-dimensional interior with the driver's helmet, shoulders, arms and the steering wheel mounted in the original cockpit position. No portion of the chassis must be seen through the cockpit area when viewed from above. Body cutting must maintain every detail of the real car (i.e. lights, wheel position, etc.).

Two identical bodies per car are permitted, provided that they are trimmed and mounted identically.

The maximum height of the car is 32.5 mm. The minimum height of the front fenders is 16 mm. These dimensions will be measured with the car sitting on tech block. The body must retain a minimum front vertical edge of 1 mm (.039 inches).

7.3.3 Motor

No restrictions.

7.3.4 Front wheels

The front wheels must have a minimum diameter of 12.7 mm (.500") and a minimum width of 0.8 mm (.032"). The minimum front wheel track must be 56 mm. They must turn on their centre at 90 degrees angle to the track surface and have a black rubber/plastic perimeter.

The loss of a front wheel during the course of racing will not be considered an infraction, however they must be replaced before the start of the next stage of the race.

7.3.5 Rear tires

The rear tires must have a minimum diameter of 15 mm (.590") and maximum width of 16 mm (.630"). The rubber portion of the tire contacting the track surface must be black.

The use of Metylsalicylat (Oil of Winter Green) or any comparable chemical to improve the tire compound renders the driver a penalty of 10 laps in the ongoing stage, or, if found in a technical inspection, the following stage.

7.3.6 Dimensions

The car must have a maximum overall width of 64 mm (2.519") excluding the body fixing system (pins or sellotape). Ground clearance must be a minimum of 0.8 mm (.032") at the start of qualifying and at the start of each stage of the racing. The clearance is measured between the rear tires and under the rear axle. There is no minimum clearance required at the front of the chassis. (See section 6.2 paragraph 5 for limitations.)

7.4 Eurosport 1/24

7.4.1 Chassis

Chassis are unrestricted except for the following limitations:

The chassis must have a maximum length of 125 mm (4.921") as measured from the centre of the guide pivot to the centre of the rear axle. The motor may be mounted at any angle to the rear axle.

Only one guide flag device per car is allowed.

7.4.2 Body

Legal bodies are: (See also section 4.1)

Betta (UK)

Porsche GT1

Ultima GTR

JK (US)

Bentley (7197)

Reynard (7193)

Audi R8C (7182)

Parma (US)

MG Lola (1083)

K8 (941)

Only these ISRA approved bodies are permitted. Bodies must be accurate copies of the samples sent to ISRA for homologation (see section 4.1). The body must not deviate from its form as produced by the manufacturer.

The body must cover the entire chassis, including the rear axle and guide flag. It can be fixed to the chassis with only pins or sellotape.

Body decoration is unrestricted, but must be made in at least two different colours. The body must be completely opaque. Windows must be left clear and all four wheels must be completely visible when

viewed from the side. Pin striping and/or bodyline detailing is mandatory.

The driver's licence number must be displayed in at least 3 different positions.

All cars must contain a painted and scaled three-dimensional interior with driver's helmet, shoulders, arms and steering wheel mounted in the original cockpit position. No portion of the chassis must be seen through the cockpit area when viewed from above. Body cutting must maintain every detail of the real car (i.e. lights, wheel position, etc.).

Two identical bodies per car are permitted, provided that they are trimmed and mounted identically.

The maximum height of the car is 35mm. The minimum height of the front fenders is 18 mm. These dimensions will be measured with the car sitting on tech block. The body must retain a minimum front vertical edge of 1mm (.039").

7.4.3 Motor

No restrictions.

7.4.4 Front wheels

The front wheels must have a minimum diameter of 12.7 mm (.500") and a minimum width of 0.8 mm (.032"). The minimum front wheel track must be 72 mm. They must turn on their centre at 90 degrees angle to the track surface and have a black rubber/plastic perimeter.

The loss of a front wheel during the course of racing will not be considered an infraction, however they must be replaced before the start of the next stage of the race.

7.4.5 Rear tires

The rear tires must have a minimum diameter of 15 mm (.590") and a maximum width of 20.7 mm (.815"). The rubber portion of the tire contacting the track surface must be black.

The use of Metylsalicylat (Oil of Winter Green) or any comparable chemical to improve the tire compound renders the driver a penalty of 10 laps in the ongoing stage, or, if found in a technical inspection, the following stage.

7.4.6 Dimensions

The car must have a maximum overall width of 83 mm (3.268") excluding the body fixing system (pins or sellotape). Ground clearance must be a minimum of 0.8 mm (.032") at the start of qualifying and at the start of each stage of the racing. The clearance is measured between the rear tires and under the rear axle. There is no minimum clearance required at the front of the chassis. (See section 6.2 paragraph 5 for limitations.)

8 Local rules 2004

8.1 Production race handouts

The body for the production race is BPA Honda Accord (050) made in .007 Lexan. Painted and stamped bodies will be handed out. Extra bodies from the same batch will be available to purchase. BPA has agents for its products in most countries. However, if you are not able to obtain bodies you can always contact the organiser info@isra2004.com who will sell you the requested amount.

The motors will be provided by Pro-Slot
The tires will be provided by Mossetti Racing

8.2 Race direction

The race direction will consist of the following persons:

Race director: Lars Harrysson (SWE)

Race controller: Andy Wasserman (USA).

Technical director: Lars Bertil Persson (SWE)

Results and website manager: Mia Ekman (SWE)

Track maintenance manager: Björn Rydin (SWE)

Sponsor host: Beverley Embrey (SWE)

Venue CEO: Torbjörn Larsson (SWE)

8.3 Race control and marshalling in the practice session

A local race controller runs the practice sessions before the start of the races, i.e. Saturday and Sunday. The organiser fulfils the marshalling duties during these two days by the help of local club members.

8.4 Food and beverages

The venue runs a bar/restaurant with full rights to sell alcohol and meals. Due to governmental regulations alcohol other than purchased

in the venue is strictly forbidden. Due to an agreement with the venue it is not allowed to bring cooked food into the venue. Snacks and lollies are allowed. The restaurant will offer every entrant and their companions special deals on food and drinks during the championships.

8.5 Conduct

Due to the fact that the race will be held in a public place we will pay extra attention to the behaviour of the racers. No unnecessary shouting or unsportsmanlike conduct will be tolerated.

Smoking is prohibited in the race venue. However, smoking is allowed in the bar/restaurant, and outside in the garden.

Alcohol is restricted to appointed places and the bar/restaurant. Alcohol is at no times allowed in the track area.

All forms of advertising of alcohol or tobacco, direct or indirect, is by law prohibited in Sweden.

9 Specifications for manufacturers of bodies and chassis

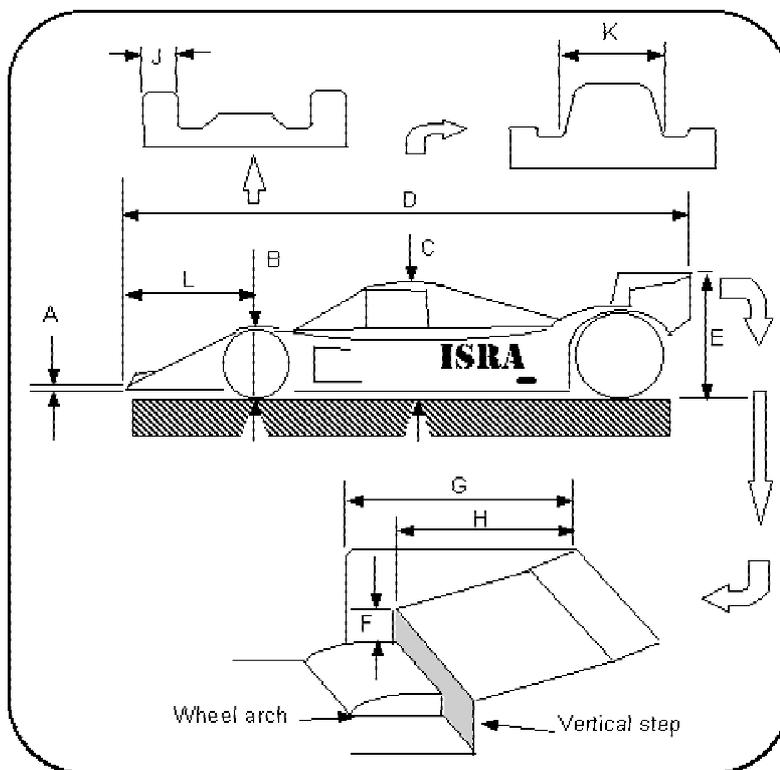
These dimensions are the basis of acceptance for ISRA racing. Even if a body complies with these dimensions, it cannot automatically be accepted but requires also subjective scrutineering. These dimensions will not be used in car inspection.

No changes may be done to the body shape after ISRA homologation. Such modifications will automatically make the altered body illegal. Such a modified body is treated as a different body, and should accordingly have a different name/ product number.

9.1 Formula 1 bodies for 1/32 F1

Bodies for this class are to be approved on a subjective basis only. Entries must closely follow the shape and proportions of the actual car.

9.2 WSC and Sports Racing Prototype Bodies



9.2.1 1/32 Eurosport

- A** 1
- B** 13.5 MIN 17.5 MAX
- C** 24 MIN MEASURED AT ROLL HOOP OR ABOVE WINDOW, EXCLUDES AIR INTAKE.
- D** 142 MAX
- E** 30 MAX
- F** 1.5 MIN
- G** 22 MAX
- H** 20 MAX
- J** 15 MIN
- K** 30 MIN MEASURED AT COCKPIT OPENING OR BASE OF WINDOWS
- L** 37 MAX

All measurements in mm.

All body height dimensions shall be measured when attached to the rest of the car. They will be taken from a plain and level surface. A minimum 1 mm front vertical edge must be maintained.

9.2.2 1/24 Eurosport

- A** 1
- B** 15MIN 18MAX
- C** 26MIN MEASURED AT ROLL HOOP OR ABOVE WINDOW, EXCLUDES AIR INTAKE.
- D** 165MAX
- E** 35MAX
- F** 2.5MIN
- G** 30MAX
- H** 25MAX
- J** 20MIN
- K** 40MIN MEASURED AT COCKPIT OPENING OR BASE OF WINDOWS
- L** 45MAX

All measurements in mm.

All body height dimensions shall be measured when attached to the rest of the car. They will be taken from a plain and level surface. A minimum 1 mm front vertical edge must be maintained.