

Driver:  
Nationality:  
ISRA rank:

# Driver's handbook

**ISRA WORLDS 2011**

**Sao Paulo - Brazil**



## Driver's handbook - ISRA WORLDS 2011 - SP - Brazil

This handbook is a resource for you as driver. It presents different practical issues to which you have to attend during the event here in Sao Paulo. We hope it provides helpful as to enhance your racing experience not having to run into unnecessary practical problems.

The official ISRA rulebook always overrules this handbook in case of an interpretational conflict.

Have fun on the track

The Race direction

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## **Social activities at the track**

During the event most of us spend a lot of time at the venue. Carla and Gugu have prepared well for meeting our needs.

### ***The Info Counter***

Many of the things that we need during the event are clearly announced how they are met, but there are always some things that are more personal to us each and everyone. In these cases please refer to the people at The Info Counter in the venue. They cannot solve all problems, but for sure they can hint a way for you to handle it on your own.

### ***Food and beverages at the venue***

All through the event meals, snacks and beverages are possible to purchase in the bar.

The venue is private and it is accepted to drink alcohol on the premises. However, beware that you are there together with many others to compete with slot cars. People that are clearly intoxicated or badly hangover will not be permitted to drive in practice or competition. This follows the rule of sportsmanship in the ISRA rulebook. No refunds on the registration fees in case of withdrawal.

### ***Transports to and from the track***

Transits to and from the venue is best done by Taxi. The Info Counter helps you order a Taxi for your transport. The parking space for private cars is limited.

### ***Massage***

It is a special feature at the RedFox Raceway that the neighbor is a massage therapist. He will be outside the venue if the weather allows giving shoulder massages at a good rate.

## **Practical things before the races**

As always there are small things of a practical nature that have to be completed before the fun begins. Below are some that we have thought of.

### ***Registration at arrival and race badge***

As soon as you arrive at the venue the first time you need to register. If you have not yet paid your fees, this is the time for it. As you have registered you receive a personal Race badge to carry at all times when at the venue. You also receive a printed version of this handbook personalised to you and a dedicated service area (see below).

Your registration fees are: ISRA license fee BRA Real 25, starting fees per class BRA Real 80, and share of hand-out parts if entering the team race BRA Real 125. Driving all classes adds up to BRA Real 390. If you only take part in the team race the hand out parts are charged with full retail prices.

### ***Your service area***

As a registered entrant you receive a personal service area for the event. If you only participate in selected classes you cannot expect to have the service space during the other classes. However, as organiser we try our best to provide you with a service area for the full event. Your service area is 700 wide and 600 mm deep. There are power outlets for Euro and US plugs providing 110 Volts (and in limited numbers 230 Volts).

### ***Ticketed practice***

There will be non-scheduled practice on Thursday and Friday before the event. The Friday is for non-host country entrants only. A fee of EUR 20 per day is connected to Thursday session. To make sure that as many as possible have access to the track a ticketed system is used. It runs as follows:

Each turn of practice is 1 lane of 4 minutes followed by 4 minutes of marshalling duty. To register for a heat you sign in at the "Practice office" where the officer enters your name to a group and a specific lane. You may choose. It is necessary that you show your Race badge. The scheme is visible to everyone including the Race control at all times. It is only possible to register for one practice heat at the time, and not until after you have fulfilled your marshalling duties, except for your first heat, of course.

There might be more ticketed practice during the event if the program allows for it. This is announced in due time.

### **Practical things during the races**

There are many small things necessary to know to be able to relax during an ISRA Worlds event. Below we present some very important ones. Read thoroughly.

### ***Scheduled practice***

Each class has a designated time for scheduled practice. It means that every entrant/team have the same amount of practice following a heat distribution based on the ISRA ranking and equal time on each lane. In the team race (Production 1/24) each team has 16 x 4 minutes, and in the sprint classes each entrant has 8 x 4 minutes.

The practice schedule is published well in advance of the start of practice. An entrant is responsible for being on time. There are no announcements for missing drivers. However, there are announcements for missing marshals. A missed marshalling duty renders a penalty of a/ missing next practice heat or b/ best qualifying time if you miss your last marshalling duty after your final practicing turn.

The scheduled practice is run in 2 or more groups and 2 lanes per turn making the rotation quicker and your wait less.

### ***Handout of parts for the team race***

The handout of the parts for the team race is Saturday morning, i.e. the first race day. Your team receives the following; 2 bodies, 1 interior, 1 motor and 2 pairs of tires. They are all sealed/marked and must not be tampered with. The handout procedure is based on a draw. One body is for practicing and the other is for the race. There is a sample body on display to aid you in cutting your body (at tech table and on Internet). Your race body may not be cut lower than that sample. The hand-out interior must be used (see sample). The handout parts have to last the race.

Parts that are not meeting the requirements, i.e. a new but bent rim or a non-used motor with a bad bearing, may be exchanged. Parts that have been mistreated by the entrant may be changed at the charge equal to the market price (motors only if they have not been soldered into a car). A motor that shows particular bad characteristics (being slow) and are not tampered with in any way may be considered for a change by the race direction.

### *Technical inspection and tech sheets*

Every race starts with a technical inspection. As soon as your car has passed the technical inspection you become a racer. From this point you may only use your approved race car on the track.

The technical inspection is a thorough check of your car according to the rules. It is following a "Tech sheet" which you have to fill in before the submission of your car. In this sheet you make your own control first. At a designated area you find some official tech tools to check your measurements. Use them! It is of no use to argue that a personal caliper or other tools measures different. The official tools "talk". By doing your own check first many mistakes can be fixed before submission.

The timing of your technical inspection is based on the practice group you are in. Final submission is always 20 minutes past your last practice session. At that time your car has to be in technical control, not in the line, but on the table sitting on its tech sheet. Beyond that time you may not get your car back to repair it if found illegal on any point, but the car has to be repaired during warm-up or racing time and re-checked before it is placed on the track. To avoid this situation you may have your car technically inspected earlier. The inspection opens 1 hour before the first group reaches its limit. If found faulty you may repair it and have the car re-checked, however never beyond the set time as described above.

### *Enclosed park (parc fermé)*

A car that has passed the technical inspection is placed in the enclosed park for the full duration of the race. Only the people in charge of the enclosed park, the race director and the race controller have access to the cars.

### *Technical inspections on the fly*

Observe that you are responsible for your car and that it is in line with the rules during the complete race. If your car is found faulty in an inspection on the fly it has to be fixed during race time irrespective if the car was passed through the technical inspection earlier. The normal on the fly inspections are measuring rear tire width, overall width and rear height. However, there are a few considerations to be noticed which both are covered by the unsportsmanlike conduct rule. An example; your Production 24 car passed inspection, but at an inspection on the fly it is found with a hollow rear axle. That is not legal and you are disqualified. Another example; you are found to add/have added chemicals on your rear tires. That is not legal and renders disqualification. A third example; you have had your car checked with the body positioned correctly and covering the complete chassis incl. tires and guide in one unforced position as stated in the rulebook, but at an inspection on the fly the mounting is changed so that there is no position where the body covers it all. Then you have to correct it and you receive a warning. However, if a problem is obviously caused by a racing incident dinging the body to show part of a pan or slightly show the front of the guide it will not require immediate repair. Observe that you are not allowed to rip or cut parts of the body that are original details to make it work better. If you need to do that, then it is time to repair your body instead, or in the sprint races, change to your second body having one been submitted.

There is available service space close to the part of the track assigned as pit zone. Observe that you may only work on your car while the track is on green light. In lane changes and during track calls your car has to be held up in the air visible to race control. You are allowed to change lane sticker, straighten braids and push in body pins during the lane change.

Race control may require that you fix your car immediately (within 3 laps) if for example it is dragging, a major part of the body is missing or your car is a direct hazard to the rest of the cars. Front wheels are a special task. In Eurosport classes they need not to be replaced if lost during racing but before a next stage, whilst in Formula they have to be replaced immediately, and in Production 24 within the 3 laps.

If you change rear tires or gear your car must be re-checked for width of the tire and the rear overall width. This is done in the following lane change. If found to wide it has to be corrected immediately but during race time. The same procedure is followed if you change to your second body.

In the Production team race all cars are re-inspected after the heat. If the blueprints of your motor, tires or body are tampered with, or your chassis has been structurally changed, your team is disqualified.

### ***Race procedure***

All ISRA Worlds competitions are run as segmented races over 8 lanes.

Production 24 is a team race with two drivers per team driving equal amount of time. Each team runs 1 minute lap count qualifying divided by the two drivers. The starting position is granted by ISRA ranking and the team carries the number of the best ranked driver. The best teams qualify last. After the qualifying the teams are divided into groups based on their results. The best 8 run in group A, the next 8 in group B and so on. The heats are run 8 x 7,5 minutes. The final result is the sum of the qualifying and heat results.

In the sprint races qualifying is by lap time. You have one minute to perform your time. The qualifying order is based on ISRA ranking and the best ranked driver run last. Beyond qualifying all drivers are divided into heats that run 8 x 3 minutes. The top 24 by lap total continues to the next stage, semi-finals that run 8 x 4 minutes. The top 8 by lap total then continue to the next stage, the final that run 8 x 5 minutes. There is a service break of 30 minutes for those participating in the next stage. The cars have to pass a new technical inspection. During the break the track is open for testing, however only your race car is allowed on the track.

When you have driven you have to marshal the next group. If you are in group A you must marshal the first group to run. Marshalling is a personal duty and you may not ask someone else to stand in for you during the race.

### ***DO NOTs and penalties***

There are many ways of getting penalized. There are 3 types of penalties; warning, lap deduction, and disqualification. Disqualification is based on the idea of unsportsmanlike conduct and ranges from repeated infractions of minor incidents to first infraction of cheating.

Please take some time and read the section on penalties thoroughly. It is posted at the technical inspection area. If you are unsure ask the race director. There is no joy in handing out penalties, but the race direction will not hesitate doing so if needed.

### ***Protests, race direction and the Race jury***

Within 5 minutes from the end of the race, that is the turn off of power of the final group of the final stage of a race, you may file a protest concerning the results to the race direction. When filing a protest you have to deposit EUR 100. If the protest is upheld you get your deposit back, if not your deposit stays with ISRA. A protest is always handled by the Race jury as presented by the race director. This is done as soon as possible, but of course in a way that the argument of the protest can be thoroughly considered.

If you have issues regarding the racing please do not hesitate discussing it with the race director, Lars Harrysson. If he finds it necessary to further the discussion to the race jury he does so. Most questions are usually possible to sort out in a direct conversation.

## Technical info and tech sheets

In all classes tech sheets are used to present your car at the technical inspection. The actual sheets are given to you at the registration, but here you find the issues checked at the inspection. We suggest that you test your own car prior to submitting it for technical inspection.

The tech sheet also requires you to present some things about your car setup. This is mainly for the presentation of the results after the race - a tech chart.

### *The tech sheet - an example*

Tech sheet - ISRA Worlds 2011						
Class:				ISRA rank:		
Name/Names:				Nationality:		
<b>Tech chart:</b>	Chassis	Set-up	Armature	Magnets	Tires / Rims	Gears/ratio
<b>To be inspected</b>			Prod 24	Euro 32	F1 32	Euro 24
Chassis homologated and original structure			X			
Body cut to example (handout) (blueprint)			X			
Body homologated and cut to rules				X	X	X
Body detailed to rules					X	
Body opaque (except for windows)			X	X	X	X
Body covering the entire car in one position			X	X	X	X
All four wheels completely visible from side			X	X	X	X
Front wheels position to body				X		X
Interior 3-d, painted (handout) (blueprint)			X			
Interior 3-d, painted				X	X	X
ISRA ranking number in 3 visible places			X	X	X	X
Lead and tape position on chassis			X			
Oilites			X			
Motor mount, axle bracket reinforcement			X			
Solid steel rear axle			X			
Front axle straight			X			
Motor (blueprint)			X			
Wheels (blueprint)			X			

<b>Measurements (in mm)</b>				
Height at rear wing	max 35	max 32,5	max 30	max 35
Car width (excl. body pins and tape)	max 83	max 64	max 68	max 83
Distance between track surface to bumper	max 12,7			
Height at bottom of windscreen	Handout			
Vertical edge at front	Handout	min 1	min 1	min 1
Ground clearance	min 0,8	min 0,8	min 0,8	min 0,8
Rear tire width	max 20,7	max 16	max 16	max 20,7
Rear tire diameter		15	15	15
Rear tire rubber color		Black	Black	Black
Chemicals on tires? (strictly forbidden)	X	X	X	X
Rear axle diameter	min 2,36			
Distance top of rear axle to bottom chassis	min 8,6			
Front wheel diameter	min 12,7	min 12,7	min 12,7	min 12,7
Front wheel width	min 0,8	min 0,8	4 - 10	min 0,8
Front axle diameter	min 1			
Front wheel track	min 72	min 56	min 62	min 72
Front wheel surface/material/color	black	black	black rubber	black
Clearance under front wheel support/axle			min 0,8	
Distance pivot hole to center rear axle		max 105	max 110	max 125
Wing endplate			min 12	
Width chassis pan section between pans			max 52	
Length of pans			max 68	
Width in front of pans			max 34	
Width behind pans			max 34	
Motor mount in-line			X	
Front wheels angle to track surface	90 degr	90 degr	90 degr	90 degr

# GOOD LUCK!