

RULES OF THE 'SCALEXTRIC' 24 HOURS OF BRUSSELS 2019

1 GENERAL

- 1.1 The BRUSSELS SCALEX CLUB, in collaboration with the CENTRE COMMUNAUTAIRE DE JOLI-BOIS, organises an endurance race for electric cars (1/32nd) called: "LES 24 HEURES 'SCALEXTRIC' DE BRUXELLES".
- 1.2 This race takes place on Friday the 15th, Saturday the 16th and Sunday the 17th of November, 2019 in the hall of the Centre Communautaire de Joli-Bois, drève des Shetlands, 15 (near avenue des Grands Prix), 1150 Brussels (BELGIUM).
- 1.3 The total duration of the race is 24 hours. It will start at 15:00 on Saturday.
- 1.4 Only cars fully corresponding to the technical rules attached to these rules will be allowed to the race.
- 1.5 The rules and regulations must be observed by all participants. Anything that is not specifically allowed is forbidden.
- 1.6 In the case of a dispute, the French version of the rules and regulations will be binding.
- 1.7 The Race Direction will be the final arbitrator. Its decisions are final.

2 THE CIRCUIT

- 2.1 The circuit will consist of two or three symmetric tracks of 8 lanes each, the length of which is 51,14 meters.
- 2.2 The tracks of the circuit will be identified by colors and by numbers in the following order: white (1) – green (2) – mauve (3) – red (4) – yellow (5) – blue (6) – orange (7) – black (8). The track A includes the lanes 1 (white) to 8 (black). The track B includes the lanes 9 (black) to 16 (white) and the track C includes the lanes 17 (white) to 24 (black).
- 2.3 The succession order of the lanes is the following: 1 – 3 – 5 – ... 21 – 23 – 24 – 22 – 20 ... – 6 – 4 – 2 – 1.
- 2.4 If we reach 27 teams, the "bye" heats will be between lane 7 and 9, between lane 23 and 24 and between lane 10 and 8.
- 2.5 If we reach 26 teams, the "bye" heats will be between lane 2 and 1 and between lane 23 and 24.
- 2.6 If we reach 25 teams, the "bye" heat will be between lane 23 and 24.
- 2.7 The competitors may not modify the tracks in any way, nor try to improve the quality of the metal rails or the adherence of the plastic surface. Only the Technical Team may have access to the tracks.
- 2.8 If one or more teams are missing, an equal number of lanes won't be used. The succession order of the lanes will be adapted. The choice of the unused lanes is made by the organisation.

3 DURATION OF THE RACE

- 3.1 The race will last for 24 hours. It will be divided into the same number of heats as enlisted teams to allow each team to race on every lane.
- 3.2 There will be a 8 minute break between each period. Some breaks could be longer than those 8 minutes.

The break periods will be used only:
 - 1) to change the cars from one lane to another and replace the coloured sticker;
 - 2) to allow the drivers to change positions
 - 3) to allow the driver changes.
- 3.3 A night session will take place between 23:00 and 07:00. During this night session, the lighting of the hall is strongly decreased.

4 TEAM & CATEGORIES

- 4.1 Each team must be composed of a minimum of 4 drivers and a maximum of 7 drivers. Only one driver less than 16 years but more than 14 years is allowed. If, for any reason, the team does not bring 4 drivers, the organisation will nominate the driver(s) to complete the team.
- 4.2 Categories: There are two categories:
 - “PRO”: category by default for all the teams.
 - “SPORT”: this category groups together the other teams of the Brussels Scalex Club and some teams invited by the organizers to compete in this category.The ranking of the race, displayed on the screens will allow to distinguish clearly the categories.

5 FREE PRACTICE

- 5.1 A total duration of 4 hours of free practice is foreseen on Friday. The number of periods will be equal to the number of teams registered for the race.
- 5.2 Each team goes successively on each lane by following the normal succession order and starts on the lane corresponding to his team's number. Each team can only drive on its assigned lane. A team can only drive if one pilot of the team is marshalling. If this is not observed, the team will first be given a warning, followed by a penalty of 3 laps. At the third warning, the car will be penalised by 10 laps. Laps are subtracted during the first period of the 24 hours.

6 DRIVERS BRIEFING AND WARM UP

- 6.1 The briefing will take place on Saturday morning at 11:30. The presence at the briefing is mandatory for all the teams.
- 6.2 We will ask the teams to mention us the name of the driver that will take the start of the race.
- 6.3 The teams will start the Warm Up and the race on the lane attributed by the Race direction.
- 6.4 2 Warm Up of 10 minutes are organised before the race. The first Warm Up for the teams that will start on the uneven lane numbers + the teams that will start as a “bye” (they start on lane 8 and 24). The second Warm Up for the teams that will start on the even lane numbers + the “bye” team that will start the race on lane 9.
- 6.5 During the Warm Up, all the rules valid for the race about the drivers and the marshals are applicable. For the interventions on the car, see article 14.2.

7 THE RACE

- 7.1 The total running time of the race is equal to the number of tracks used multiplied by the duration of each segment.
- 7.2 The driving time of each pilot must be included between the total running time of the race (7.1) divided by the numbers of drivers in the team, plus 50 minutes and minus 50 minutes. A explanatory sheet will be posted at the race management desk.
- 7.3 The penalties for non-respect of the minimum and maximum driving times are as follows:
5 laps per each 5 minutes period over the maximum or under the minimum
e.g., 1 driver of team of 5 = 5 hours 43 minutes (+13') = 3 x 5 minutes → 15 laps
1 driver of team of 7 = 1 hour 53 minutes (-17') = 4 x 5 minutes → 20 laps
- 7.4 The relays are at the team's discretion.
- 7.5 Only one person from each team may be present on the drivers' platform. When changing drivers, the new driver must give his name to the Race Direction and the change must take place within **2 minutes**. During the change, the car must be stopped in the straight line in front of the driver.
- 7.6 Each team must provide a driver and the number of marshals indicated on the marshalling timetable at all times. The marshals must be drivers of the team excepted for short time standing in. If the marshal isn't present, a penalty of 10 laps per started minute of absence will be imposed.
- 7.7 The marshal(s) must occupy the place(s) indicated on the document given to the team on arrival.

If several cars leave their lanes, the marshal will replace the first car to leave the track, then the second, and so on.
- 7.8 If a car knocks another car off the track or out of its lane, priority will be given to the car that is the victim of its rival's accident. Marshals are requested to be as impartial and fair-minded as possible.
- 7.9 The marshal must stay attentive permanently. Only one marshal by place. No drinks, no food. The use of a mobile is forbidden. The Race Direction will be empowered to take action against a team whose marshal don't observe this or demonstrates clear bad will. The marshal's team will first be given a warning, followed by a penalty of 5 laps. At the third warning, the car will be penalised by 20 laps.
- 7.10 Except for the race directors, the track commissioners and the marshals having to retrieve a car, it is forbidden to cross over the track and to walk between the circuits. During the whole weekend of the race, the surroundings of the circuits are only accessible to the marshals, the race directors and the track commissioners. If this is not observed, the team will first be given a warning, followed by a penalty of 5 laps. At the third warning, the car will be penalised by 20 laps.
- 7.11 The Race Direction will be empowered to take action against a team whose one of the drivers has an inappropriate or disturbing behaviour. The driver's team will first be given a warning, followed by a penalty of 5 laps. At the third warning, the team is penalised by 50 laps.
- 7.12 Any driver, team member, with an unappropriated, violent or aggressive (verbal and or physical) behaviour can be excluded immediately. The team will be penalised with 100 laps and any other penalties due to driving times (see point 7.3)
- 7.13 The paddock zone includes the driver's platforms and the whole area behind the driver's platforms. By team, only two drivers can be present in the paddock zone, either to change of driver or to talk briefly to the driver on the platform. Non respect: penalty of 5 laps.
- 7.14 Each team will drive 12 consecutive heats with one car (Ferrari or Ford) and the other 12 heats with the other car.
- 7.15 The choice of the starting car is made in function of the teams ranking. The ranking is made by the organisation. The ranking will be available on the site of our club.
- 7.16 The choice of the car which you will start the race must be established on Friday night (until 21h30).
- 7.17 Once we have reached 14 cars of the same type (Ford or Ferrari), the other teams will have to start the race with the car-type.

8 RESULTS & PRIZES

- 8.1 Teams will be classed in function of the number of laps accomplished by the team, taking into account any penalties incurred. In the case of an equal number of laps, the position at the last lap will be taken into account.
- 8.2 Results will be published at the end of each period.
- 8.3 Any claims must be made to the Race Direction within 15 minutes of the official publication of the results.
- 8.4 Trophies will be given to all drivers of the three first teams of the overall ranking and to all drivers of the team winning the ranking of the category SPORT.
- 8.5 The « Most beautiful car » prize will be given to the team which drives with the car with the decoration that will be judged the most beautiful and with the best finishing.
- 8.6 The « Fair-play » prize will be given to the team who will particularly stand out by his fairness, his sympathy and his availability.

9 INTERRUPTIONS

- 9.1 Other than the official breaks, the organiser may need to interrupt the race for various reasons. These interruptions will be indicated by the use of a luminous SAFETY CAR sign.
- 9.2 The Race Director will be the only person empowered to interrupt the race.
- 9.3 No time due to interruptions will be deducted from the duration of the race. The Teams "bye" during this segment will start the following segment after the break time of the previous segment.
- 9.4 What to do:
 - 1) The car stops or loses power:
 - a) inform the Race Director who will start the stop-watch;
 - b) check that the hand controller is functioning (change it)
 - 2) Go to the Technical area, where the car will be checked

First possibility: If the car functions correctly on the mini-circuit, the track is faulty. The Race Director will cut the electric current and show the PACE CAR sign. The stop-watch will also be stopped. While the Technical Unit tries to solve the problem as quickly as possible, a number of laps, calculated using the average speed of the car during the current period, will be added to the score. No work may be done on any car, except for those that were already at their stands when the race was interrupted.

Second possibility: The car does not function on the mini-circuit. The problem is not due to the track. The current is not cut off, the stop-watch is stopped and the car must be taken to the technical table to be repaired.

3) In all other cases, the Race Committee will decide on any action to be taken. Their decisions will be final and binding.

10 THE CIRCUIT - TECHNICAL FEATURES

- 10.1 The voltage used, for both test drives and the race, is adjusted round 12 volts.
- 10.2 Power is supplied with brake. Regulation on positive voltage.

11 TECHNICAL CONTROL

- 11.1 Technical control will be carried out by a group of controllers appointed by the race direction of the BSC. In case of doubt about the conformity of a car, the race direction of the BSC will decide. In order to achieve the technical control within the foreseen schedule, we ask to the teams to observe carefully the two following articles, and consequently to organise well themselves.
- 11.2 **First phase of the technical control: Technical control of the open car.** Each team involved in the free practice of Friday enters in "Parc Fermé" both open car without motor, transmission, axle and rear tires and all the spare parts on Friday 21:30 at the latest. If a team does not participate to the free practice of Friday, this team can enter in Parc Fermé both cars and the spare parts on Saturday before 10:30. Penalties if a team is too late: 10 laps by started half-hour late.
- The cars and the spare parts are checked on Friday evening by the group of controllers (one representative by team may be present) and the results of the technical control are communicated by the race direction around 23:45 by SMS. The refused cars are given back to the concerned teams on Saturday at the opening of the Parc Fermé at 08:45. They must be set in compliance and enter in Parc Fermé on Saturday before 09:30. Penalties if a team is too late : 10 laps by started half-hour late.
- If, at the second control with the car open, the car(s) (are) is again not accepted, a penalty of 20 laps is given to the team and the car(s) must be set in compliance before to join the race. The group of controllers cannot ensure to be able to control the car(s) before the start of the race.
- 11.3 **Second phase of the technical control: Assembly of the car and technical control of the closed car.** The teams are divided in 3 groups. The Race Direction will communicate during the briefing the number of the group to each team. The timetable indicates for each group when the technician of the team must come with his tools. Only one member by team may be present at the technical table and may work. The technician takes place at the table and receives the box of the team containing the cars, the spare parts and the sets of tyres. He chooses at random 2 motors. After this a chronometer is started and the present technician has maximum 25 minutes to place the motors and the tyres, to connect the lighting system and to close the cars. Oiling and greasing are allowed. No product is allowed on the tyres. When the technician has finished, the controller checks the lighting and the correct direction of rotation, then the technician switches the lighting system of the cars off and places his tools in the box of the team.
- Penalties for overflow of the delay of 25 minutes for the assembly of the car: 1 lap by started minute of overflow. If the technician has not achieved the assembly of the car after 30 minutes, he must stop.
- The technician leaves the table but waits on site the result of the technical control of the closed cars. The controller controls the closed cars. If the cars are not accepted, the technician of the team is called at another table and will have maximum 10 minutes to set the cars in compliance. If, at the second control with the cars closed, the car(s) (are) is again not accepted, a penalty of 20 laps is given to the team and the car(s) must be set in compliance before to join the race. The group of controllers cannot ensure to be able to control the car(s) before the start of the race.
- 11.4 Cars and spare parts will be weighed and measured and the installation and origin of parts will be checked at the technical control. The lighting system will be tested. Only controlled parts which come from the box of the team may be used until the end of the race.
- The team's name must be written on the chassis and the motor chassis. Only those marked parts may be used until the end of the race.
- 11.5 A team submitting at the technical control a car or both cars who doesn't meet at least criteria of the technical rules will be penalised by 20 laps.
- 11.6 Upon completion of the technical control, the cars, the spare parts, the spare tyres and the tools will be placed in Parc Fermé until the Warm Up. Only the track commissioners and the race director may touch the cars in order to place them on the starting grid.
- 11.7 Only a car accepted at the technical control may start the Warm Up and the race.

12 THE HAND CONTROLLERS

- 12.1 The hand controllers with ordinary resistance and the electronic hand controllers enabling only the adjustment of the sensitivity, the acceleration and the brake are allowed on condition that they conform to the articles 12.2. There is no limit on the number of hand controllers.
- 12.2 **Are forbidden**, the systems who give extra voltage when speeding up (by example return of voltage stored in a condenser) or negative voltage when braking.

13 THE CARS

- 13.1 List of authorised cars: FERRARI P4 from POLICAR and the FORD GT40 or MK2 from Slot.it.
- 13.2 All the cars will be equipped with the SLOT.IT MX16M V12/4 23000RPM motor. **The motors will be provided by the organisation.**
- 13.3 All cars must correspond to the technical rules attached to these rules.
- 13.4 Several cars may be used during practice as long as they are in accordance with the technical rules.
- 13.5 **The tyres will be provided by the organisation.** 12 rounds of the new PT1207 Slot.it tyres will be provided.
- 13.6 **The organisation will provide the motors mounted with 12 teeth brass pinion.** Two motors are given and must be immediately placed in the cars at the technical table. All other motors are hold by the organisation.
The motor can not be opened. No manipulation on the motor can be done apart from lubricate the output(s) of the motor axle.
Injection of product in the motor is forbidden. The use and even the possession in the hall of a magnetization device is forbidden. Penalties for what is written before: see article 13.11.
During the Warm Up or during the race, if a team wants to change the motor, she asks a second motor to the organisation, changes the motor and gives back the first motor to the organisation.
If necessary during the race, a team can ask a third motor.
The motor installed in the car at the end of the race can be retained by the team.
- 13.7 At the start of the race, the cars shall be equipped with the wheels inserts and with all his accessories, except for side mirrors that **must** be removed, wipers, antennas, brake disks and other parts indicated in the technical rules that are optional. During the race, the small parts lost (see technical rules) should not be obligatorily fastened again. We advise to glue the small parts and the wheels inserts with a **minimum** quantity of glue. A surplus of glue will be refused.
The windscreen, cockpit, entire driver, interior and possible airfoils must be in place during the whole race. These parts, lost during the race must be fastened during the race within the 5 minutes. After this delay, the car will be stopped.
- 13.8 All the cars must be equipped during the entire race with a lighting system of permanent type. The lighting system must be disconnected before the start of the race and may be disconnected after the night session but must be working permanently (details: see technical rules) during all the night session. Thus the lighting system must be connected mandatory before the end of the period before the night session.
One front light and one backlight must work during the whole night session. If this isn't the case, a penalty of **10 laps** per remaining night period (including the running night period) will be given to the team.
- 13.9 Cars must be decorated, **but the front part of the body and the two sides will be reserved for the official number given by the organisers during the technical control.** Painting the front light screens is prohibited.
- 13.10 The screws attaching the body and the motor mount must be on the car at all times. If a screw is missing or lost on the track, the team will receive a 20 laps penalty.
If a screw's hole is broken, it must be glued within the half hour, excepted if the impossibility of repair is certified by the race direction.
- 13.11 Any fraud detected before, during or after the race will be penalised by 200 laps. Moreover, the car must immediately be made to conform to the technical rules and to this rule.
- 13.12 In case of contradiction between this rule and the technical rules, the technical rules will apply for all that relates with the conformity of the car and the race rules will apply for all that relates with the course of the race.
As a last resort, it is the race direction who decides.

14 MAINTENANCE

- 14.1 During the practice time, the interventions on the car around the track are forbidden in order to not disturb the other drivers.
- 14.2 A Warm Up of 10 minutes takes place before the start of the race. During the Warm Up, any intervention on the car must be made at the technical table. The tuning of the car and the maintenance with the products putted at disposal are allowed. No other piece than the motor (see article 13.7) can be changed during the Warm Up.
At the end of the Warm Up, all works on the cars must be suspended until the start of the race. The cars on the track at the end of the Warm Up are placed on the starting grid.
- 14.3 During the race, all repairs, addition of products, cleaning of tyres or braids, etc. must be mandatory and exclusively done at the technical table.
- 14.4 Each team's spares must be in the box allocated on the technical table from the end of the technical control until the end of the race. The spare tyres (not used) must stay in their original packing (if provided).
- 14.5 Only products and rags supplied by the organisers can be used. The products are: oil, grease, petrol for cleaning and adhesive paper. To improve the grip of the tyres, according to the circumstances of adherence, the race direction will decide to authorise or not the use of oil WD40.
- 14.6 No work may be done on the cars during the breaks.
- 14.7 The car may only be removed for maintenance in the pit stop area and must be put back in the same place afterwards.
- 14.8 If the car breaks down, it may be removed from the track at the point of break-down. It must be replaced on the track at the pit stop.
- 14.9 In case of no-respect to one of the articles 14.1 to 14.8, the race direction will give penalties in function of the seriousness of the offence (10 laps, 20 laps, 50 laps, 200 laps).

15 RACE ENTRY

- 15.1 The selection procedure is communicated to all the teams and is available on the website of the BSC. The list of the selected teams is published on the website of the Brussels Scalex Club.
- 15.2 The selected teams must send by November 1, 2019 at the latest the driver's photos **in passport format** (with clear identification of the drivers "SURNAME-Firstname.jpg").

16 REMINDER : Table of PENALTIES

Article 5.2	Free practice: Drive without marshall or on another lane	Warning, then 3 laps, then 10 laps
Article 7.6	Driving time not respected	5 laps by 5 minutes over or under
Article 7.8	Incorrect change of driver	5 laps
Article 7.10	Marshall absent	10 laps by started minute
Article 7.13	Violence and/or aggressivity	Disqualification of the driver + 100 laps + article 7.6
Article 7.14	Incorrect behaviour marshal	Warning, then 5 laps, then 20 laps
Article 7.15	Cross over the track or walk between the circuits	Warning, then 5 laps, then 20 laps
Article 7.16	Incorrect behavior driver	Warning, then 5 laps, then 50 laps, then disqualification
Article 7.17	More than 2 drivers or 2 drivers too many time in the paddock area	5 laps
Article 11.3	Car(s) or spare parts entered too late in Parc Fermé	10 laps by started half-hour delay
Article 11.3	Car(s) not compliant after the second control	20 laps
Article 11.4	Exceeding time for the assembly of the car(s)	1 lap by started minute delay
Article 11.4	Car(s) not compliant after the second control	20 laps
Article 11.6	Car(s) not in accordance on 5 points	20 laps
Article 12.2	Hand controller not endorsed	100 laps
Articles 13.7 and 13.8	No-respect of the stop of the car within the 5 minutes	Car stopped
Article 13.8	Going back on the track with defective lighting	10 laps by remaining night period, inclusive current period
Article 13.10	Screw missing or lost	20 tours
Article 13.11	Technical fraud detected	200 tours
Article 14.9	Fraud about maintenance	Following seriousness: stop & go, 10 laps, 20 laps, 50 laps, 200 laps

17 TIMETABLE FOR THE COMPETITORS

Friday 15th November 2019

Doors open and welcome of the competitors	16:00
Technical Control of the hand controllers	16:30 – 21:00
Free practice	17:00 – 21:00
Closure of the Parc Fermé	21:30
Technical Control:open car	21:30 – 23:30
Technical Control:communication of results by SMS	23:45
Hall closed	23:50

Saturday 16th November 2019

Doors open	07:30
Opening of the Parc Fermé (to take back the refused cars)	08:45
Assembly of the car 1 st group and TC closed car	09:15 – 09:40
Assembly of the car 2 nd group and TC closed car	09:45 – 10:10
Assembly of the car 3 rd group and TC closed car	10:15 – 10:40
 Briefing drivers	 11:30 – 12:00
 Drivers and marshals ready and cars placed on the track	 14:05
Warm Up 24 hours (uneven cars + bye)	14:15 – 14:25
Warm Up 24 hours other cars	14:30 – 14:40
Start of the 24 hours	15:00
End of the first period	15:46
Start of the second period	15:53
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Night session (car's lighting mandatory)	23:00 – 07:00

Sunday 17th November 2019

End of the race	15:00
Prizes ceremony	15:15 – 15:45
Hall closed	17:00