EFRA ANNUAL SECTION MEETING

1-3rd. of November 2024

Van der Valk Hotel, Brussels, Belgium

Minutes ELECTRIC SECTIONS – GENERAL.

SATURDAY 2nd. of November 2024.

1. CHAIRMAN'S WELCOME

Mr's. **Chris Hardisty & Paul Worsley**

The Electric Chairmen opened the meeting at 13:27

2. APOLOGIES FOR ABSENCE – ELECTRIC GENERAL

Apologies have been received from: Hans Motsharg (Estonia), Vesa Sarja (Finland), Colin Whelan (Ireland)

Member Countries present. Section subscription.

COUNTRY	PRESENT	2024 SUBSCR
AUSTRIA	Tristan Hackl	Y
BELGIUM	Marc Joosens	Y
BULGARIA	-	Y
CROATIA	-	
CZECH REP.	-	Y
DENMARK	Ulrich Rasmussen	Y
ESTONIA	-	Y
FINLAND	-	Y
FRANCE	Claude Tranvouez	Y
GERMANY	Thomas Kohmann	Y
GREAT BRITAIN	Peter Winton	Y
GREECE	-	Y
HUNGARY	-	Y
IRELAND	-	Y
ITALY	-	Y
LUXEMBOURG	Luka Jovicic	Y
MONACO	-	
NETHERLANDS	Raymond Houtman	Y
NORWAY	Anna Sojnesand	Y
POLAND	-	Y
PORTUGAL	-	Y
ROMANIA	-	Y
SLOVAK REP.	-	Y
SLOVENIA	-	
SPAIN	-	Y
SWEDEN	Marcus von Elling	Y
SWITZERLAND	Andy Fratteroli	Y
TURKEY	-	Y
UKRAINE	-	Y
TOTAL	**11**	

Maximum votes for Elec. Sections = 26. Number of Federations represented to vote = 11

Other persons present:

3. MINUTES OF 2023 SECTION MEETING

AGM November 2023

Matters arising from the minutes: None

The minutes were checked and accepted as written at the AGM 2023 Peter Winton

The following person was elected to check the minutes of this year: Marcus von Elling

4. CORRESPONDENCE RECEIVED

All correspondence is normally dealt with in the individual Off-Road and Track Sections of this meeting.

But, as the first part of the meeting deals with Motor and Battery rules, Paul W can report on correspondence in these areas.
Total emails (received & sent) during the year, dealing with homologation and general technical queries have been :- Motors – 767. Batteries – 565.
Some of these include dealing with IFMAR Motor Homologation which Paul W. also does.

5. RULE PROPOSALS (Does / May affect all Electric Sections)

Note: The EFRA Committee has studied all received proposals and has come to an opinion over each one, The EFRA Section Chairman will inform the floor of such positions.

Current Rule

A

APPENDIX 3
ELECTRIC CARS
GENERAL

Suggestion

Remove reference to LiFe batteries throughout appendix 3 , these batteries are not used at competition levels .

Proposed by: SRCCA, Frattaroli Andres

Proposal Status: All references to LiFe dealt with together

Seconded by: Austria
The proposal: Rejected with 3 for, 8 against and 0 abstentions.

The rule is new

9.

RACING FORMAT EFRA EUROPEAN CHAMPIONSHIPS AND GRAND PRIX

Proposal

9 . 1 . 5 There will always be a fire extinguisher in the pits to combat a flammable battery . The fire extinguisher should be special for such cases . Buckets of sand are also a good means of fighting such fires . These things should be accessible to all .

Remarks

After 12th scale European Championship in Sicily would this be obvious to have such a rule .

Proposed by: RCMS, Bultynck Krist

Proposal Status:

Seconded by: Raymond Houtman

The proposal: Passed Unanimously

Note : To Must, Suitable, all areas

Current Rule

9.4.1.

1/12 Track:- The Qualifying Heats and Finals will be 8 minutes and the last lap plus the time to complete this last lap up to a max of 40 seconds. The Round by Round point system will be used. This system awards points to all drivers based on their finish position against all others for each round individually.
All cars must be cleared by technical inspection before any result can be used for seeding.
When the "Round by Round" qualifying method is used, the number of Qualifying Rounds to count are as follows :-

Number of Rounds completed	1	2	3	4	5	6
To count - 1/12	Void	1	2	2	2	3

If less than two Rounds are completed the event is declared null and void.
Any Qualifying Round has to be completed for any Heats in that Round to be awarded points that count.
Fastest competitor (based on laps & time) in each Round will score zero (0) points, second place 2 points, third place 3 points, fourth place 4 points and so on. If two (or more) competitors achieve an equal time in any Round they will be awarded equal points. The next competitor not included in the tie will be awarded points corresponding to his position in the particular Round. (NOTE: drivers not recording a time or having a time disqualified in any Round score points for last place in that Round).
Overall Qualifying positions are decided by each drivers "best" (lowest) points being added together, based on the number of Rounds to count as shown in above table. In the event of a tied position the driver with the single highest finishing position in either of the best Rounds that counted will be awarded the tie (eg. 1+3 = 4 beats 2+2 = 4). In the event of a continuing tie then the laps and times from the best points Round will be compared. The driver with the fastest laps and time will be awarded the tie. In the case of a continuing tie, then the times from the second best scores will be compared.
Only counting Rounds will be used to decide Qualifying positions (or ties), all other Qualifying Round scores and times will be discarded.
If the intended maximum number of Rounds cannot be completed, due to weather or unforeseen circumstances, the number of Rounds to count will follow the same format as the table above.

Proposal

1/12 Track:- The Qualifying Heats and Finals will be 8 minutes and the last lap plus the time to complete this last lap up to a max of 40 seconds.
1/10 Off-Road:- The Qualifying Heats and Finals will be 5 minutes and the last lap plus the time to complete this last lap up to a max of 40 seconds.
1/10th On-Road:- The Qualifying Heats and Finals will be 5 minutes and the last lap plus the time to complete this last lap up to a max of 40 seconds.
The Round by Round point system will be used. This system awards points to all drivers based on their finish position against all others for each round individually.
All cars must be cleared by technical inspection before any result can be used for seeding.
When the "Round by Round" qualifying method is used, the number of Qualifying Rounds to count are as follows :-

Number of Rounds completed	1	2	3	4	5	6
To count - 1/12	Void	1	2	2	2	3

If less than two Rounds are completed the event is declared null and void.
Any Qualifying Round has to be completed for any Heats in that Round to be awarded points that count.
Fastest competitor (based on laps & time) in each Round will score zero (0) points, second place 2 points, third place 3 points, fourth place 4 points and so on. If two (or more) competitors achieve an equal time in any Round they will be awarded equal points. The next competitor not included in the tie will be awarded points corresponding to his position in the particular Round. (NOTE: drivers not recording a time or having a time disqualified in any Round score points for last place in that Round).
Overall Qualifying positions are decided by each drivers "best" (lowest) points being added together, based on the number of Rounds to count as shown in above table. In the event of a tied position the driver with the single highest finishing position in either of the best Rounds that counted will be awarded the tie (eg. 1+3 = 4 beats 2+2 = 4). In the event of a continuing tie then the laps and times from the best points Round will be compared. The driver with the fastest laps and time will be awarded the tie. In the case of a continuing tie, then the times from the second best scores will be compared.
Only counting Rounds will be used to decide Qualifying positions (or ties), all other Qualifying Round scores and times will be discarded.
If the intended maximum number of Rounds cannot be completed, due to weather or unforeseen circumstances, the number of Rounds to count will follow the same format as the table above.

Remarks

Amalgamate rules 9.4.1 to 9.4.3. Essentially all classes are the same except for the times of the race itself. Consider moving first 3 sentences to rule 7 where the principle parameters for each class are stipulated.

Proposed by: RCMS, Hardisty Chris

Proposal Status: Amended to lengthen last lap, change to 40 seconds maybe extended.

Seconded by: Peter Winton

The proposal: o Passed Unanimously, Amended to exclude typos highlighted

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Current Rule

9.4.3.

1/10 Touring Cars, Formula 1 and TC FWD:- The Qualifying Heats and Finals will be 5 minutes and the last lap plus the time to complete this last lap up to a max of 40 seconds.
All cars must be cleared by technical inspection before any result can be used for seeding.
At the start of the event at Team Managers Meeting (on Friday morning) it will be decided if the Qualification Rounds will be declared dry or wet based on the weather conditions.

Proposal

1/10 Touring Cars, Formula 1 and TC FWD:- The Qualifying Heats and Finals will be 5 minutes and the last lap plus the time to complete this last lap up to a max of 40 seconds.
All cars must be cleared by technical inspection before any result can be used for seeding.

Remarks

Delete "At the start of the event at Team Managers Meeting (on Friday morning) it will be decided if the Qualification Rounds will be declared dry or wet based on the weather conditions. ". This was left in the Handbook accidentally. This was passed in 2023.

Proposed by: RCMS, Hardisty Chris

Proposal Status:

Seconded by: Marcus von Elling

The proposal: Passed Unanimously

Rule to be deleted

9.4.3.b.

If weather conditions mean that the qualifying is run in wet and dry conditions then each competitors 2 fastest times will be added together to decide the Final Qualifying order .
Any Qualifying Round has to be completed for the times of any Heats in that Round to be used .
If it is impossible to complete all qualifying heats under the same weather conditions , (wet , semi wet or total dry) the following rule will become effective : -
See diagram overleaf .
Before the start of every heat the race director has to announce if it will be a dry heat or a wet heat .
The Race Director is also allowed to declare during a Heat , that the Heat is "now running under wet conditions" .
After a Heat has been completed , the Race Director can declare that the specific Heat was run under wet conditions if he/she decides the average lap times during the heat (or part if the Heat) were more than 20% slower .
If every Heat (Group) has at least one dry race in the Qualifying Rounds completed , then the 2 fastest times from all completed Rounds will be used . If any Heat (Group) does not have a dry race , then only the 2 fastest times from the wet Rounds will be used to decide the Final Qualifying order .

Remarks

Round by round only eliminates the requirement for this rule .

Proposed by: RCMS, Hardisty Chris

Proposal Status:

Seconded by: Thomas Kohmann

The proposal: o Passed Unanimously

Current Rule

9.4.7.

During the first round of qualifying, heat-starting order will be determined by the driver's performance in seeding rounds based on the drivers 2/3 best consecutive laps. During further rounds, heat-starting order will be by the fastest time of drivers in the heat from any previous rounds results used for qualifying positions.

Proposal

A re-seed of all drivers will be done, based on drivers best 2/3 consecutive laps from specified Practice Rounds. If Controlled Practice(s) are run, heat starting order in Controlled Practice will be based on the re-seeded order (1 - 10) in each heat. In the first Round of Qualifying, heat start order will be by each drivers fastest overall time in any rounds of Controlled Practice. During further Rounds of Qualifying, heat start order will be by the fastest overall time of drivers in each heat from any previous Rounds results used for Qualifying positions.

Remarks

The new rule adopted at 2023 AGM makes no sense. All Electric Sections do a re-seed usually based on a few consecutive laps. Then Controlled Practice is run in the new heat order. First Round of Qualifying should have a start order based on each drivers full race time in Controlled Practice, given there are different drivers in the heats after re-seed and this is how they will be running during Qualifying.

Proposed by: RCMS, Worsley Paul

Proposal Status:

Seconded by: Marcus Amended by
The proposal: Passed Unanimously, Amended

For Off Road only…
A re-seed of all drivers will be done, based on drivers best 2/3 consecutive laps from specified Practice Rounds. If Controlled Practice(s) are run, heat starting order in Controlled Practice will be based on the re-seeded order (1 - 10) in each heat. In the first Round of Qualifying, heat start order will be by each drivers fastest 2/3 consecutive laps in any rounds of Controlled Practice. During further Rounds of Qualifying, heat start order will be by best 2/3 consecutive laps of drivers in each heat from any previous Rounds results used for Qualifying positions.

Current Rule

11.1.

All cars may be called for technical inspection at any time but must always be presented for scrutinizing. (11.4 remains in force).

Proposal

All cars may be called for technical inspection at any time but must always be presented for scrutinizing. (11.4 remains in force). Technical inspection must be done before the start not after the run.

Proposed by: RCMS, Bultynck Krist

Proposal Status:

Seconded by: Marc J

The proposal: o Passed Unanimously

APPENDIX 4
RACE PROCEDURES FOR 1/12th AND 1/10th ELECTRIC CLASS & HOMOLOGATION BATTERIES AND MOTORS

Suggestion

Remove all reference to LiFe batteries , since they are not used at all at competition level .

Proposed by: SRCCA, Frattaroli Andres

Proposal Status: Withdrawn

PW: NOTES ON FOLLOWING 4 PROPOSALS
On reading the following proposals for amending Battery Charge maximum voltage, I was horrified that anyone should want to compromise the safety and fairness that has been in place since 2017.

Within a few hours of the EFRA proposals being published, the IFMAR President and ROAR Electric Chairman contacted me stating :- "THIS CANNOT AND MUST NOT HAPPEN".
This has already been discussed within ROAR and they have decided the max. voltage must remain at 4.20v per. cell in the interests of safety and fairness of racing.
IFMAR will also remain at maximum 4.20v.

The proposer states that the "Hi" cells are safer. This cannot be substantiated, as the current 3.7v and 3.8v use the same basic chemistry. So there is no evidence that the 3.8v cells are any safer.
From manufacturer testing, we know that if batteries are charged to the maximum voltage (as given by a manufacturer), they become less stable after less number of charges.
The fact that we limit all LiPo to 4.20v per. cell is the most likely reason of why we have few 'fires' in recent years.

One of the following amendments requires that all batteries of the higher nominal voltage must have LiHV on the label.
HV effectively means nothing. The cells that have been submitted since 2017 have a 2.7% increase for nominal voltage which as a comparison cannot be considered as 'HIGH'. Higher certainly, but not high.
Only the nominal voltage which is already a requirement on the label can indicate the maximum charge voltage that the manufacturer considers acceptable. And who knows when we will see cells that have a further increase in nominal voltage, resulting in a further maximum charge voltage ??

To allow different voltages to be used will be a huge job for Tech. Officers to control. Every battery would need to be checked for the nominal voltage. The label details are often obscured when the battery is in the car, which would require many batteries to be removed before checking.
Whilst the work that Tech. Officers do is fully appreciated, I have concern that every battery would be checked correctly and this could lead to safety issues that we currently do not have.

Allowing higher charge voltage for certain batteries could result in further issues. I mainly deal with original manufacturers and recognised 'assembly companies'. But many batteries that are submitted come from within the trade that can only realistically be considered as 'label printers'. These companies can print any values they choose on the labels. Stating an incorrect higher nominal voltage could be advantageous for sales.
Last year, I suspected that I found one battery during the homologation process that had an incorrect nominal voltage stated on the label. Not easy to check accurately by recorded voltage, but on opening the pack I could identify the cells used from the original manufacturer. It was failed.
This could be an extremely dangerous situation. Our current charge voltage limits control this.

One of our well-known battery 'names' has been supplying the 'higher' voltage batteries since they were first introduced. But the operating instructions included with the battery 'strongly advise' that charging voltage should be restricted to 4.20v per cell. DO WE IGNORE THEIR ADVICE ?????
Already this year, I have batteries submitted that clearly state on the label – HV LiPo 7.6v. But the product specification document supplied for each battery clearly states -- 'Charge Limited Voltage 4.20v (per. cell)'.
If we allowed these "HV" batteries to be charged to a higher voltage then it would be against manufacturer instructions which would possibly leave us vulnerable if any financial claims were submitted.

In some Classes, many drivers prefer to use batteries of the "non-HV" construction, simply because they can give a better race time. The non-HV are considered to give better performance in the latter part of the race.
Of the total number of batteries that were submitted for EFRA homologation last year -- 38% of the 1S and 2S batteries were "NON HV" types. It is likely to be similar this year.

So controlling which batteries can have which charge voltage at Tech., would be an onerous task.

Our current ruling (which is mirrored by other major organisations) that limits charge voltage at 4.20v per. cell was adopted primarily for safety reasons but also to give fair racing with all drivers limited to the same maximum initial voltage.
This practice has made it easy for Tech. Officers to control in an easy manner without any errors and helped to give fair racing. By not allowing the full maximum charge voltage for the 'higher' voltage cells, has helped to maintain the stability of this type of cell and the small number of 'fire' incidents in recent years would suggest it is the correct action.
The current cars already have speeds that many drivers find difficult to exercise 100% control all the time, so why do they need additional voltage which would increase initial speeds.

To allow a higher charging voltage for some batteries is not needed . It will cause bigger problems for Tech. Officers to control with absolute accuracy for each battery, given that some 'HV' batteries are not designated to use the higher charge voltage. It is likely to result in more failures which would certainly compromise our current safety record.
IT SHOULD NOT BE ALLOWED.

Current Rule

APPENDIX 4
RACE PROCEDURES FOR 1/12th AND 1/10th ELECTRIC CLASS & HOMOLOGATION BATTERIES AND MOTORS

Proposal

Remarks

EFRA approved LiPo Battery Lists (1S, 2S, 4S), information on the battery list to be adjusted: - Remove LiFe since these are not used on competition level - Statement in the Battery List (example for 4S list) should be adapted from "It is strictly NOT ALLOWED, to charge 4S LiPo Batteries to give an output voltage exceeding 16.80 V" to "The output of 4S LiPo Batteries must NOT exceed 16.80 V. The output of 4S LiHV Batteries must NOT exceed 17.40 V. The allowance of the higher output voltage is at the discretion of the rules of each class." - The above adaptation should be done for all battery lists

Proposed by: SRCCA, Frattaroli Andres

Proposal Status:

Seconded by: Marcus V

The proposal:
Rejected with 1 for, 10 against and 0 abstentions.

Current Rule

1.4.

Individual cells used in the construction of the battery pack shall be rated with a nominal voltage of no more than (LiPo 3.8v & LiFe 3.3v). Individual cells may be wired in parallel.
For 4S Packs:- the maximum connection "In Series" is four, to give a maximum pack nominal voltage of - LiPo 15.2v & LiFe 13.2v. For 2S Packs:- the maximum connection "In Series" is two, to give a maximum pack nominal voltage of - LiPo 7.6v & LiFe 6.6v.
For 1S Packs, cells can only be connected in parallel to give a maximum pack nominal voltage of -LiPo 3.8v & LiFe 3.3v.
NOTE: Cells with a nominal voltage of 3.8v have been allowed at EFRA events since 1st. April 2017. All previously approved cells with a nominal voltage of no more than 3.7v maintain their approval.
The maximum charging cut-off will remain at 4.20v per cell.

Proposal

Individual cells used in the construction of the battery pack shall be rated with a nominal voltage of no more than (LiPo 3.8v & LiFe 3.3v). Individual cells may be wired in parallel.
For 4S Packs:- the maximum connection "In Series" is four, to give a maximum pack nominal voltage of - LiPo 15.2v & LiFe 13.2v. For 2S Packs:- the maximum connection "In Series" is two, to give a maximum pack nominal voltage of - LiPo 7.6v & LiFe 6.6v.
For 1S Packs, cells can only be connected in parallel to give a maximum pack nominal voltage of -LiPo 3.8v &

LiFe 3.3v.
NOTE: Cells with a nominal voltage of 3.8v have been allowed at EFRA events since 1st. April 2017. All previously approved cells with a nominal voltage of no more than 3.7v maintain their approval.
The maximum charging cut-off is at 4.20v per cell for cells with nominal voltage of 3.7V and 4.35V for cells with nominal voltage of 3.8V.

Remarks

Allow the use of HV-LiPo technology. No need to keep charging cut-off at low 4.20 V per cell since the HV-technology is safer anyway than the old technology that needed to limit charging cut-off to 4.20 V per cell. It helps more the safety to push racers to use the safer HV-technology.

Proposed by: SRCCA, Frattaroli Andres

Proposal Status: See above

Current Rule

1.6.

The case must have the original suppliers label intact, stating:- the Part #, the rated nominal voltage and the chemistry (Lipo/LiFe), the rated energy capacity of the pack in Wh. and the 'C' rating of the pack. The Brand name/logo shall be easily readable.
NOTE: For 2017 onwards, Saddle Pack batteries that are hard wired together can state the nominal voltage of the combined number of batteries, BUT Saddle Pack batteries supplied as individual batteries (not hard wired together), MUST show the correct nominal battery voltage for each individual battery on the labels, not the combined voltage.

Proposal

The case must have the original suppliers label intact, stating:- the Part #, the rated nominal voltage and the chemistry (Lipo/LiHV/LiFe), the rated energy capacity of the pack in Wh. and the 'C' rating of the pack. The Brand name/logo shall be easily readable.
NOTE: For 2017 onwards, Saddle Pack batteries that are hard wired together can state the nominal voltage of the combined number of batteries, BUT Saddle Pack batteries supplied as individual batteries (not hard wired together), MUST show the correct nominal battery voltage for each individual battery on the labels, not the combined voltage.

Remarks

Add the LiHV "chemistry" as a must information on the labels to make the identification easy for everyone.

Proposed by: SRCCA, Frattaroli Andres

Proposal Status: Withdrawn

Current Rule

2.5.

The use of any additional heating of any type, to heat a LiPo/LiFe Battery is not allowed. The use of any cooling devices or 'freeze' sprays of any type to cool a LiPo/LiFe battery is not allowed.

Proposal

The use of any additional heating of any type, to heat a LiPo/LiFe Battery is not allowed. The use of any cooling devices or 'freeze' sprays of any type to cool a LiPo/LiFe battery is not allowed. Except when Lithium Batteries are discharged during a race , using high discharge rates to significantly increase the temperature of the battery prior to charging is also covered by this rule.

Remarks

Any procedures that are outside the manufacturers guide-lines should not be allowed

Proposed by: RCMS, Worsley Paul

Proposal Status:

Seconded by: Marcus V

The proposal:
Rejected with 2 for, 7against and 2 abstentions.

Current Rule

2.7.

4S LiPo/LiFe Batteries: may be charged to a maximum of 16.80v (LiPo) resp. 14.80v (LiFe).
2S LiPo/LiFe Batteries: may be charged to a maximum of 8.40v (LiPo) resp. 7.40v (LiFe).
1S LiPo/LiFe Batteries: may be charged to a maximum of 4.20v (LiPo) resp. 3.70v (LiFe).
Overcharging is a serious safety hazard and will not be tolerated.

Proposal

4S LiPo/LiFe Batteries: may be charged to a maximum of 16.80v (LiPo) , 17.40v (LiHV) resp. 14.80v (LiFe).
2S LiPo/LiFe Batteries: may be charged to a maximum of 8.40v (LiPo) , 8.70v (LiHV) resp. 7.40v (LiFe).
1S LiPo/LiFe Batteries: may be charged to a maximum of 4.20v (LiPo) , 4.35v (LiHV) resp. 3.70v (LiFe).
Overcharging is a serious safety hazard and will not be tolerated.

Remarks

Make use of the actual and modern battery technology. If for specific classes the higher cut-off voltage should not be allowed, this can be stated in the respective rules of the individual class.

Proposed by: SRCCA, Frattaroli Andres

Proposal Status: Withdrawn

Current Rule

2.7.

4S LiPo/LiFe Batteries: may be charged to a maximum of 16.80v (LiPo) resp. 14.80v (LiFe).
2S LiPo/LiFe Batteries: may be charged to a maximum of 8.40v (LiPo) resp. 7.40v (LiFe).
1S LiPo/LiFe Batteries: may be charged to a maximum of 4.20v (LiPo) resp. 3.70v (LiFe).
Overcharging is a serious safety hazard and will not be tolerated.

Proposal

4S LiPo/LiFe Batteries: may be charged to a maximum of 16.80v (LiPo) resp. 14.80v (LiFe).
2S LiPo/LiFe Batteries: may be charged to a maximum of 8.40v (LiPo) resp. 7.40v (LiFe).
1S LiPo/LiFe Batteries: may be charged to a maximum of 4.20v (LiPo) resp. 3.70v (LiFe).
Overcharging is a serious safety hazard and will not be tolerated. The maximum charge rate allowed for any Lithium based battery will be as detailed in the Battery Homologation Lists , which details parameters given by the 'actual' cell/battery manufacturer and shown in the "Manufacturer supplied data" column. Batteries homologated prior to 2017 that do not have this detail shown, must be restricted to a maximum of 2C charge rate.

Remarks

In some Electric Classes, some competitors use very high charge rates which could contribute to batteries becoming unstable. Nearly all cell/battery original manufacturers state that charging rates should be restricted to 1C (or sometimes less) for optimum lifespan of the battery. They also state a maximum charge rate that should not be exceeded.

Proposed by: RCMS, Worsley Paul

Proposal Status:

Seconded by: Andi F

The proposal: Failed with for, 6 against and 2 abstentions.

The rule is new:

LITHIUM BATTERIES - RACE PROCEDURES :

EFRA will publish approved Battery Lists each year , showing all the batteries that have been homologated and are eligible for use at EFRA sanctioned events . This includes any batteries that are included on any 'official archive' lists . Only batteries shown on the official EFRA website will be legal for use at EFRA sanctioned events . All Lithium Batteries must comply with the published data shown on the EFRA Approved Battery Lists . Batteries that are not compliant with the dimensional rules or published weights will not be allowed .

Proposal

2.9 It is only allowed to charge the batteries at maximum 12A and discharge at maximum 20A . This is a matter of safety . If , during a control , someone is caught violating this rule , he will be asked to leave the accommodation immediately . Result for this person is DQ for the whole event .

Remarks

It is a matter of security . I refer to what happened at the EC 1/12th in Sicily . Not meaning that the cause of this was due to battery charging or discharging . But the safety of those next to you is very important not to mention the efforts of an organiser who rents a sports hall and due to an unknown risk the hall would burn down .

Proposed by: RCMS, Bultynck Krist

Proposal Status:

Seconded by: Denmark
The proposal: o Passed Unanimously

Amendment
2.9 It is only allowed to charge the batteries at maximum 12A or the maximum charge rate as stated by the manufacturer as stated on the homologation lists, discharge at maximum 20A . This is a matter of safety . If , during a control , someone is caught violating this rule , he will be asked to leave the accommodation immediately . Result for this person is DQ for the whole event .

Current Rule

3.3.

Each individual battery sample must be supplied with : (a) Lithium based batteries must be covered by their safety test certification in accordance with UN Manual of Test and Criteria ST/SG/AC.10/11/Rev.5, Part 3, Sub-Section 38.3, Tests T1 to T8.
(b) Technical Spec. sheet detailing; the recommended maximum charging rate, the maximum voltage when charging, case material, case wall thickness and method of sealing the case, the battery weight (max tolerance +/- 4%).
(c) Name and contact details of a minimum of two appointed distributors for the batteries in EFRA member countries.

Proposal

Each individual battery sample must be supplied with : (a) Lithium based batteries must be covered by their safety test certification in accordance with UN Manual of Test and Criteria ST/SG/AC.10/11/Rev. 8 (or Rev.7/Amend.1), Part 3, Sub-Section 38.3, Tests T1 to T8.
(b) Technical Spec. sheet detailing; the recommended maximum charging rate, the maximum voltage when charging, case material, case wall thickness and method of sealing the case, the battery weight (max tolerance +/- 4%).
(c) Name and contact details of a minimum of two appointed distributors for the batteries in EFRA member countries.

Remarks

Update rules to show latest UN38.3 Revisions.

Proposed by: RCMS, Worsley Paul

Proposal Status:

Seconded by: Anna S

The proposal: Passed Unanimously

Current Rule

4.8.

Can/Casing design requirements to allow verification of stator sizes , design and construction .
Rule has been updated many times to accommodate various manufacturer design changes : -
a) Before 2012 , motors were not required to have any holes or slots for stator verification . Stators did not have to be removable .
b) From 2012 , if the stator cannot be easily removed from the assembled motor , the Can/Casing was required to have holes or slots to allow measurement of the stator and visual appraisal of the laminates . Then from 01 . 03 . 18 a minimum two pairs slots or holes (each exposing 3mm of stator ends minimum) , in line with the centre-line of the stator , that will allow measurement of the stator length . And slots or holes to allow visual appraisal of the laminates .
c) Starting 01 . 03 . 21 , any new motor submitted for homologation must have a minimum of one full length slot in the motor casing , parallel to the centreline of the stator , to allow all laminates to be viewed . This slot(s) must have length and width dimensions sufficient to allow stator length measurement using conventional measuring tools .
Older approved motors without all the above features retain their homologation status.

Proposal

4.8.1 From 01 01.25. Whilst the design of the Can/Casing or separate End-Caps is not restricted, these items must be of a circular design with areas of the outer circumference unbroken for a minimum of 85% to allow direct measurement of the outer diameter at several points with conventional instruments .

PW: Amend wording to:-
4.8.1 From 01.01.25. Whilst the design of the Can/Casing or separate End-Caps is not restricted, these items must be of a circular design with the outer circumference unbroken in area's diametrically opposite, to allow direct measurement of the outer diameter at several points with conventional instruments.

Remarks

We are aware of some new designs of stator shape that if used , could result in other items of the complete assembled motor not being basically circular and therefore difficult to measure without a specific gauge .

Proposed by: RCMS, Worsley Paul

Proposal Status:

Seconded by: Marcus V

The proposal: Passed Unanimously

Current Rule

4.9.

Stator: The stator must be continuous laminations having the same overall shape, being one after the other without anything in between. The laminations must be of one homogeneous material without cut-outs, holes or hollow sections other than for the three slots of copper coil wires and (if needed) the three grooves for the screws used to hold the entire assembly together.
Stator minimum length 19.30mm, maximum 21.00mm measured across the metal surfaces of the laminates and not including any coatings. The faces of the end laminates of the stator must be free of any coatings or mouldings for minimum 1mm from the outer circumference to allow direct measurement across the metal faces of the stator ends (to be applied to any new motor range submitted from 01.03.18). The outer circumference edges of the end laminates must be complete with no material removed, to allow accurate measurement. The thickness of the stator laminations is 0.35 +/- 0.05mm. All laminations must be of the same material.
NOTE : Whilst all laminates in the stator must have the ???same overall shape/design???, removal of sharp edges is allowed in the winding area on the end laminates (only) to offset damage to wire coatings. This is clarified as follows:- The top and bottom laminate in the stator stack of Brushless Motors covered by these rules

may be deburred or chamfered only on the wire winding web/leg, so long as the overall thickness of these end laminates is the same as other laminates in the stator and so long as the overall measured width of the wire winding web/leg of these end laminates is the same as other laminates in the stator. This requirement effectively restricts any deburring or chamfering to only the top and bottom laminates in the stator.

Proposal

Stator: The stator must be continuous laminations having the same overall shape, being one after the other without anything in between. The laminations must be of one homogeneous material without cut-outs, holes or hollow sections other than for the three slots of copper coil wires and (if needed) the three grooves or holes for the screws used to hold the entire assembly together.
If the motor design comprises of a stator assembly with separate End-Caps directly clamped flush to the stator end laminates, it is allowed for the stator laminates to have maximum three (3) slots or grooves at maximum width of 5.0mm. in the stator outer circumference, to locate the End-Caps concentric with the stator. These location slots or grooves can be incorporated in the area used for clamping screws, or in an area of the circumference separate from the grooves or holes used for clamping screws. All laminates must include any slots or grooves used. No other slots in the stator outer circumference are allowed. Stator minimum length 19.30mm, maximum 21.00mm measured across the metal surfaces of the laminates and not including any coatings. The faces of the end laminates of the stator must be free of any coatings or mouldings for minimum 1mm from the outer circumference to allow direct measurement across the metal faces of the stator ends (to be applied to any new motor range submitted from 01.03.18). The outer circumference edges of the end laminates must be complete with no material removed, to allow accurate measurement. The thickness of the stator laminations is 0.35 +/- 0.05mm. All laminations must be of the same material.
NOTE : Whilst all laminates in the stator must have the ???same overall shape/design???, removal of sharp edges is allowed in the winding area on the end laminates (only) to offset damage to wire coatings. This is clarified as follows:- The top and bottom laminate in the stator stack of Brushless Motors covered by these rules may be deburred or chamfered only on the wire winding web/leg, so long as the overall thickness of these end laminates is the same as other laminates in the stator and so long as the overall measured width of the wire winding web/leg of these end laminates is the same as other laminates in the stator. This requirement effectively restricts any deburring or chamfering to only the top and bottom laminates in the stator.

Remarks

The detail in the rule covering stator design, dates back to the introduction of Brushless Motors, when all motors had a one-piece Can or Sleeve. Modern motor designs are are often totally different, so the rule needs updating to cover what is allowed.

Proposed by: RCMS, Worsley Paul

Proposal Status:

Seconded by: Andi F

The proposal: Passed Unanimously

6. ITEMS FOR GENERAL DISCUSSION.

The Section Chairmen thanked all participants for a constructive meeting, and being no further business the meeting was closed at

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MEETING TO CONTINUE WITH ELECTRIC OFF-ROAD SECTION MEETING.

EFRA ANNUAL SECTION MEETING

1-3rd. of November 2024

Van der Valk Hotel, Brussels, Belgium

Minutes ELECTRIC - OFF-ROAD.

1. CHAIRMAN'S WELCOME — Mr Paul Worsley

The Electric Off-Road Chairman opened the meeting at 15:34

2. APOLOGIES FOR ABSENCE

Apologies have been received from: Hans Motsharg (Estonia). Vesa Sarja (Finland). Colin Whelan (Ireland)

COUNTRY	PRESENT	2024 SUBSCR	REQUESTED:				
			EC	EC	WC	WC	Max33%
			Buggy 2wd	Buggy 4wd	Buggy 2wd	Buggy 4wd	%
AUSTRIA	Tristan Hackl #'s Email Rene 30.10.24	Y	15	15	3	3	
BELGIUM	Marc Joosens	Y	4	4	-	-	
BULGARIA							
CROATIA							
CZECH REP.		Y					
DENMARK	Ulrich Rassmussen. #'s Email 15.10.24 Steen Jeffers	Y	4	4	1	1	
ESTONIA	#'s Email 27.10.24 Hans Motsharg	Y	5	5			
FINLAND	#'s Email 29.10.24 Vesa Sarja	Y	4	4	1	1	
FRANCE	Claude Tranvouez	Y	7	7	1	1	
GERMANY	Thomas Kohmann	Y	8	8	5	5	
GREAT BRITAIN	Peter Winton #'s Email 28.10.24 Martin Owen	Y	20	20	5	5	
GREECE		Y					
HUNGARY		Y					
IRELAND	#'s Email Colin 30.10.24	Y			1	1	
ITALY		Y					
LUXEMBOURG							
MONACO							
NETHERLANDS	Raymond Houtman	Y	3	3	1	1	
NORWAY	Anna Sojnesand	Y	8	8	4	4	
POLAND		Y					
PORTUGAL		Y					
ROMANIA							
SLOVAK REP.		Y					
SLOVENIA							
SPAIN		Y					
SWEDEN	Marcus von Elling	Y	9	9	1	1	
SWITZERLAND	Andy Fratteroli	Y	0	0	4	4	
TURKEY		Y	3	3	2	2	
UKRAINE		Y					
		TOTALS	90	90	29	29	

Allocations can be changed till January 21st. 2025.

Maximum votes for Off-Road Section = 23 . Number of Federations represented to vote =

Other persons present:

3. MINUTES OF 2023 SECTION MEETING

AGM November 2023

Matters arising from the minutes: None

The minutes were accepted as written at the AGM 2023. **Seconded by Andi F**

The following person was elected to check the minutes of this year: Marcus von Elling

4. CORRESPONDENCE RECEIVED

Apart from the usual queries regarding possible dates and venues for events in future years, the major correspondence is dealing with the EC event. This year a total of 930 emails (received or sent). All answered.

5. CHAIRMAN'S REPORT

A full report of the Season is presented by the Section Chairman:

As in recent years, the on-line entry system worked well, with the usual reminders to ensure all Federations confirmed all their entries. We still get many competitors that do not update or complete their individual 'profiles' to give us the details (PT #, DOB etc.) that we require, resulting in extra mails to get the details required.
Late entries and especially cancellations close to the event date and no-shows at the event are still a problem. This increases the burden for the Section Chairman and the organisers, often resulting in continuous changes to the schedules and entry/heat lists. Federations and their drivers should respect the deadlines.

The 2024 EFRA calendar for the 1/10 Off-Road Section consisted of :-
International Race at Kampenhout, Belgium.
EC at Malmo, Sweden (Indoors on carpet).

Int. Race - Kampenhout (Belgium):
A well-established event that has taken place for many years and always attracts good entry numbers. Not sure when this event first started, but Belgium secretary has recently given a list of winners going back to 1989 (36 years). The event was an EFRA GP for many years, then changed to an EFRA International Race since 2013.

The event date was early July and the three-day format accommodated 2WD and 4WD 1/10 Off-Road Classes.
The Kampenhout event is always popular and the 2024 event attracted entries from many different EFRA countries, with several 'top' international drivers.
Entry numbers for the event were similar to last year, (for 2023, 2WD = 68 & 4WD = 49).
2WD had 69 competing. The winner was Wesley van HELMOND (NL).
4WD had 46 competing. The winner was Wesley van HELMOND (NL).

EC. – Malmo (Sweden): 23rd to 28th September 2024:
For the first time in the history of the 1/10th. Off-Road EC, the event this year was held on Carpet Indoors.

Initial allocation numbers for both Classes were high, with 2WD 150+ and 4WD 147.
But with the date of the event being in school term for most countries, many allocations were not used and final numbers attending the event was -- 2WD had 124 entries. 4WD had 116 entries.
The dates need consideration for future years.

The Section Chairman (Paul W.), reported that he was unable to attend this event due to physical injury.
A particular disappointment, as the 2024 Malmo event would have been 30 years of attending this EC, not missing any year.

So, in the days leading to the event, long-term friend and EFRA colleague Chris. Hardisty was 'drafted-in' to officiate as the EFRA representative.

Report presented by Chris. Hardisty:-
This was in a sports Arena and appeared to be well supported by the staff at the facility. A carpet track with a suitable barrier system. The grip was consistent despite the carpet surface being made up off new and used. Relatively small jumps in my limited experience. The track held up well with a few repairs made across the 6 days. Pits were away from the track, spacious and light, a good PA system was used. The rostrum was a good size and gave a good view of all the track. It did have dedicated stairs for up and down. A little shaky when drivers were moving to and from, but this did adversely affect the racing.
Race control and Tech was well staffed with not only FRCK volunteers but Spanish and Norwegian officials. All knowledgeable and, overall, performed their tasks well.

There was one blip. A re-run after a protest was upheld. The start order in Q3 was incorrect. My opinion is that an incorrect start order is not a valid reason for this. All drivers are running against the clock and not each other and the referees were competent enough to manage the traffic.

In 2wd the winner was Michal Orlowski (Poland) who took the first 2 legs of the A final. The 4wd winner was Bruno Coelho (Portugal) also winning the first 2 legs. Marcus Kaerup (Denmark) won the Junior title in both classes. The entry contained an impressive 27 Juniors and overall, there were 70 new entrants to an EFRA EC.

The event was well received, run on time and both classes completed.

Race Director was Edu AMEIJIDE and the Time-keeper was Javier LLOBREGAT, both from Spain. The EFRA Referee was Frans HEINSBROEK and the National Referee was Kim LINDGREN.

The 2WD 2024 European Champion is Michal ORLOWSKI (PL). The U17 medal won by Marcus KAERUP (DK).
The 4WD 2024 European Champion is Bruno COELHO (PT). The U17 medal won by Marcus KAERUP (DK).

Whilst the 1/10 Off-Road Section does not officially give awards for +40 drivers, the Organisers did so. Highest place +40 driver in 2WD & 4WD was Hupo HONIGL, a past winner of these events on several occasions.
Highest placed Female driver in both 2WD and 4WD was Jessica Palsson.

Having 70 drivers attending the event that have never competed at this EC before is impressive, even if many were from the host country. This is the largest number of new drivers attending in the last 14 years.
My records show that in the last 20 years, a total of 972 different names have actually attended the 1/10 Off-Road EC events.

My thanks to all involved with the Malmo event, but especially Chris Hardisty for taking my place at Malmo.

6. EC AND GP'S 2025-2026

The section has reviewed the applications to host coming EFRA events:

Year/Date	Alt. Date	Status	Country	Venue
2025		IR	Belgium	Kampenhout
2026		EC	Spain	Silla
2026		EC	Estonia	Rakvere
2026		EC	Slovakia	Trencin Carpet Indoor
2026		EC	~~Austria~~	~~Fehring~~
2026		EC	Austria	Steyregg

Final Race calendar 2025 1/10th Off Road

Year/Date	Status	Country	Venue
27-29 June 2025	IPR	Belgium	Kampenhout
July 28-Aug 02 2025	EC	Slovakia	Trencin Dirt Indoor
29 Sept -6th Oct 2025	WC	Australia	Sydney

Future Race Calendar Championships

Year/Date	Status	Country	Venue
2026	EC	Austria	Steyregg

Nominated Tyres for the 1/10th. Off-Road EC 2025:

Allocations were made to each country as printed in the table form under item 2 on the agenda.
All Federations MUST confirm their FINAL Allocation Numbers for each event to the relevant Section Chairman by 21st. January 2025 LATEST.

7. RULE PROPOSALS.

Note: The EFRA Committee has studied all received proposals and has come to an opinion over each one, The EFRA Section Chairman will inform the floor of such positions.

Current Rule

2.

MEASUREMENTS AND WEIGHTS:
Maximum overall length: 460 mm
Maximum overall width:250 mm (At any point of suspension travel)
Maximum overall height: 200 mm (to be measured with the suspension fully compressed)
Minimum weight 2WD cars: 1.474 gram
Minimum weight 4WD cars:1.588 gram
A maximum of two (2) wings can be used, one at the front and one at the rear of the car:
Maximum size of Front Wing: 127mm wide with chord 63.5 mm.max.
Maximum size of Rear Wing:177.8 mm wide with chord 76.2 mm max.
Maximum size of Wing side-dam: Height 50 mm, length 100 mm.
Maximum overall diameter of wheel & tyre: 90mm
Wheel sizes:
Min bead mounting diameter: 41,28 mm
Max bead mounting diameter: 55,88 mm
Bead mounting dimensions are measured at the point where the internal tyre bead meets the wheel.
Max wheel diameter: 61,47 mm
Max wheel width: 38,10 mm
Wheel width is measured at the circumference of the wheel where the tyre is retained, the centre of the wheel maybe outside this dimension.
"Venting" holes in the internal rim of the wheel are allowed - maximum of two (2) holes, of maximum 6.0 mm diameter.

Measuring equipment for width, length and height should be constructed preferably from metal or alternatively high quality board. The materials will be of suitable thickness to eliminate any distortion.
Design of the equipment to allow all points of the car to be measured.
Vertical "fins" included or attached within the wing area, must be no higher (or lower) than any side-plates. If no side-plates are used, any vertical "fins" within the wing area must not exceed 50mm maximum overall (top to bottom). Front or Rear bi-level wings are not permitted. See diagram.

Proposal

MEASUREMENTS AND WEIGHTS:
Maximum overall length: 460 mm
Maximum overall width:250 mm (At any point of suspension travel)
Maximum overall height: 200 mm (to be measured with the suspension fully compressed)
Minimum weight 2WD cars: 1.474 gram
Minimum weight 4WD cars:1.588 gram
A maximum of two (2) wings can be used, one at the front and one at the rear of the car:
Maximum size of Front Wing: 127mm wide with chord 63.5 mm.max.
Maximum size of Rear Wing:177.8 mm wide with chord 76.2 mm max.
Maximum size of Wing side-dam: Height 50 mm, length 100 mm.
Maximum overall diameter of wheel & tyre: 90mm
Wheel sizes:
Min bead mounting diameter: 41,28 mm
Max bead mounting diameter: 55,88 mm
Bead mounting dimensions are measured at the point where the internal tyre bead meets the wheel.
Max wheel diameter: 61,47 mm
Max wheel width: 38,10 mm
Wheel width is measured at the circumference of the wheel where the tyre is retained, the centre of the wheel maybe outside this dimension.
"Venting" holes in the internal rim of the wheel are allowed - maximum of two (2) holes, of maximum 6.0 mm diameter.
It is not allowed to alter the shape or design of the original wheel by removing or adding material, other than creating the allowed maximum of two vent holes of maximum 6mm. diameter.
Measuring equipment for width, length and height should be constructed preferably from metal or alternatively high quality board. The materials will be of suitable thickness to eliminate any distortion.
Design of the equipment to allow all points of the car to be measured.
Vertical "fins" included or attached within the wing area, must be no higher (or lower) than any side-plates. If no side-plates are used, any vertical "fins" within the wing area must not exceed 50mm maximum overall (top to bottom). Front or Rear bi-level wings are not permitted. See diagram.

Remarks

It has been noticed recently, that some competitors are significantly modifying wheels to allow tyres to be mounted in a totally different manner to what the wheel was designed for. Even pre-event machining. This procedure can be difficult for all drivers to accomplish and is 'outside the spirit' of the sport.

Proposed by: RCMS, Worsley Paul

Proposal Status:

Seconded by: Andi F

The proposal: Passed with 8 for, 1 against and 1 abstentions.

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8. ELECTION OF SECTION CHAIRMAN.

Vice Section Chairman: Nuno Casal Ribeiro (FEPRA)

The EFRA Board have advised that Nuno Casal Ribeiro is not really a suitable candidate as there has been no involvement during the year. He did not commit to attending the EC Malmo, when it was realised the Chairman could not fly. Nuno did not attend the EC Malmo.

Paul. W. contacted Greger Landen (Sweden) a few weeks ago and had discussions on zoom with the view to Greger being the Vice for 1/10 Off-Road.
Greger is an experienced person in the Off-Road Section and has attended five Off-Road EC's in recent years as well as the 2019 WC. Greger is also the 1/10 Off-Road Section chairman within SBF (Sweden).
Greger accepted the request to work with me as Section Vice Chairman, but due to work travel cannot be with us this week-end.
An experienced person with a good understanding of how events should be organised. Has been SBF Team Manager on several occasions.

Proposed for:- Vice Chairman 1/10 Off-Road by Paul Worsley.
Seconded by: Raymond Houtman

The meeting accepted Greger Landen as the Vice Chairman unanimously

9. ANY OTHER BUSINESS.

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10. ITEMS FOR GENERAL DISCUSSION.

The Section Chairman thanked all participants for a constructive meeting, and being no further business the meeting was closed at – 16.48

MEETING TO CONTINUE WITH ELECTRIC TRACK SECTION MEETING.

EFRA ANNUAL SECTION MEETING

1-3rd. of November 2024

Van der Valk Hotel, Brussels, Belgium

Agenda ELECTRIC - TRACK.

1. CHAIRMAN'S WELCOME — Mr Chris Hardisty

The Electric Track Chairman opened the meeting at

2. APOLOGIES FOR ABSENCE

Apologies have been received from: Hans Motsharg (Estonia). Vesa Sarja (Finland)

Member Countries presents, section subscription, allocations etc:

COUNTRY	PRESENT	2024 SUBSC	WC 1/12 Mod	WC 1/12 Spec	EC 1/12 Mod	EC 1/12 Spec	EC 1/10 Mod	EC 1/10 Spec
AUSTRIA		Y						
BELGIUM	Marc Joossens	Y						
BULGARIA		Y						
CROATIA								
CZECH REP.		Y						
DENMARK	Ulrich Rasmussen. #'s 15.10 S. Jeffers	Y					2	5 + 5FWD
ESTONIA								
FINLAND		Y	4	7				
FRANCE	Claude Tranvouez	Y						
GERMANY		Y						
GREAT BRITAIN	Peter Winton	Y						
GREECE		Y						
HUNGARY		Y						
IRELAND								
ITALY		Y						
LUXEMBOURG	Luka Jovicic	Y						
MONACO								
NETHERLANDS	Raymand Houtman Peter Jongeling	Y						
NORWAY	Henning Stavnhaugen	Y						
POLAND		Y						
PORTUGAL		Y						
ROMANIA		Y						
SLOVAK REP.		Y						
SLOVENIA								
SPAIN		Y						
SWEDEN	Marcus von Elling	Y						
SWITZERLAND	Andy Fratteroli	Y						
TURKEY								
UKRAINE		Y						
TOTAL								

Allocations can be changed till January 21st. 2025.
Maximum votes for Track Section = 23. Number of Federations represented to vote =

Other persons present:

3. MINUTES OF 2023 SECTION MEETING

AGM November 2023

Matters arising from the minutes:

The minutes were checked and accepted as written at the AGM 2023.

The following person was elected to check the minutes of this year:

4. CORRESPONDENCE RECEIVED

Any correspondences from the 2024 season……

5. CHAIRMAN'S REPORT

A full report of the Season is presented by Section Chairmen.

Report from Krist Bultynck:
1/12th. Scale European Championship - Messina, Sicily. 12-14 April 2024
Fantastic accommodation, with a large hall resulting in plenty of space for pitting and track.
Plenty of parking spaces around the hall. Accessibility is very good.
There were slight 'language barrier' problems from Italian to English and vice versa but everything was managed by a translator who was continuously at my disposal.
Qualifying went well. No peculiarities, no complaints.
There was an incident in the pits between Final 1 and 2 when a LiPo battery ignited. Fortunately, there were no casualties and no one was injured. The Organiser had all necessary safety measures in place. Surely, it is clear to take a moment to reflect on this and think about the overall safety of everyone.
Everyone present were already a Champion in my opinion, but in the end it's all about First Place:
In Modified:- Michal Orlowski from Poland became European Champion followed by Marc Rheinard from Germany and third place for Alexander Hagberg from Sweden.
In the Stock Class:- Simon Lauter from Germany was crowned the new European Champion, third place was for Jan Ratheisky from Germany. Second place was dropped in the results due to an irregularity with the driver's motor. Apparently, the driver himself had nothing to do with this and the motor was marketed that way by the manufacturer. As a result of this being found, the specific motor type was therefore dropped from the EFRA Homologation List.
The official statement from the EFRA Homologation Officer regarding the 2nd. place motor was:-
"One of the three "Spec." motors from the 2024 1/12 Spec. European Championship was found not to comply with current EFRA rules for Brushless Spec. Motors, or the sample submitted for EFRA homologation".
The driver was briefed regarding the determinations.
As always, Javier Garcia acts as a fantastic referee with at his side Vito Geraci.
Also, Vito Geraci as organiser did a splendid job.

Still, I would like to mention that it is easy to criticise an organiser of such an event, but these are usually people who have never participated in such organisation previously. Those that criticize Organisers should think twice before making statements that only degrade our hobby, because this is still a hobby.
That is also why it is difficult to convince clubs, organisations or people to set up such an event.

6. EC AND GP'S 2025/ 2026

The section has received the following applications to host coming EFRA events. These proposals have reached us in time, no other proposal will be accepted after distribution of the agenda.

Year/Date	Alt. Date	Status	Country	Venue
2026		EC 1/12	Italy	Venetico
2026		EC 1/10	Italy	Venetico
2026		EC 1/10	Netherlands	Utrecht
2026		EC 1/10	Sweden	Lidköping
2026		EC 1/10	Luxembourg	Luxembourg

Final Race calendar 2025 1/10 and 1/12 Electric

Year/Date	Alt. Date	Status	Country	Venue
2025		EC 1/12	Belgium	Zwevegem
2025		EC 1/10	Netherlands?	Utrecht?

Future Race calendar 2026 Championships

Year/ Date	Alt. Date	Status	Country	Venue
2026		EC 1/12		
2026		EC 1/10		
2026		WC 1/12	FEMCA bloc	China
2026		WC	FEMCA Bloc	China

Tyres for the 1/10th Touring Car EC 2025: See Rules.

Allocations were made to each country as printed in the table form under item 2 on the agenda

7. ALLOCATIONS

Allocations were made to each country as printed in the table form under item 2 on the agenda.
All Federations MUST confirm their FINAL Allocation Numbers for each event to the relevant Section Chairman by 21st. January 2025 LATEST

8. RULE PROPOSALS

Note: The EFRA Committee has studied all received proposals and has come to an opinion over each one, The EFRA Section Chairman will inform the floor of such positions.

Current Rule

1.2

Up to a maximum of two chassis may be submitted to Technical inspection, either of these chassis may be used at any time during the event. The second chassis may be approved after the event has started.

Proposal

One chassis must be submitted , inspected and marked. When wet conditions are declared any chassis , marked or otherwise, may be used .

Remarks

The original intent was always to allow one dry and one wet chassis.

Proposed by: RCMS, Hardisty Chris

Proposal Status:

Seconded by: ..... o Not Seconded

The proposal: o Passed Unanimously o Passed with .... for, ... against and .... abstentions.
o Rejected with .... for, ... against and .... abstentions. o Amended

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The rule is new

2.

BODIES :

Proposal

2.7 A
1/10th Touring Car bodyshell for the Modified and Stock Spec classes completely ready to compete will have a minimum weight of 60 grams . The bodyshell must not be modified in any way to get more weight , only anti-tuck body stiffeners are allowed .

Remarks

Bodyshells are getting lighter and weaker but costing more and more .

Proposed by: RCMS, Bultynck Krist

Proposal Status:

Seconded by: ..... o Not Seconded

The proposal: o Passed Unanimously o Passed with .... for, ... against and .... abstentions.
o Rejected with .... for, ... against and .... abstentions. o Amended

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Rule to be deleted

3.

ROLL-OVER MASTS:

Proposal

ROLL-OVER MASTS: Roll-over masts are not allowed.

Remarks

This rule is rarely applied exactly. Probably redundant today.

Proposed by: RCMS, Hardisty Chris

Proposal Status:

Seconded by: ..... o Not Seconded

The proposal: o Passed Unanimously o Passed with .... for, ... against and .... abstentions.
o Rejected with .... for, ... against and .... abstentions. o Amended

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Rule to be deleted

3.1.

A rollover mast may be fitted . If so , it must have a blunt end for safety reasons , terminate in a closed loop at least 4 . 75 mm O . D . or a ball or button not less than 8 mm in diameter .

Proposed by: RCMS, Hardisty Chris

Proposal Status:

Seconded by: ..... o Not Seconded

The proposal: o Passed Unanimously o Passed with .... for, ... against and .... abstentions.
o Rejected with .... for, ... against and .... abstentions. o Amended

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The rule is new

6.1.

BODIES :

Proposal

EFRA 1/12 LMH Bodyshell Specification - v1 . 0 The essence of the sport of Radio-controlled car racing is competition between representative models of racing automobiles. Body shells will be representations of the shape and features of cars racing in the World Endurance Championship (WEC) Le Mans Hypercar (LMH) car class, and in the Le Mans Daytona h (LMDh) class of the IMSA SportsCar Championship . Features of the LMH body shells must appear on one of these cars. As well as compliance with these rules, approval will also depend on them being a reasonable representation, as a whole, of an existing LMH/LMDh car racing in these events . Features on the body shell designed only to circumvent or exploit these rules are not allowed . Approvals will be carried out by a panel appointed by EFRA. All decisions are final.
Cartesian coordinate system The three-dimensional cartesian coordinate system, with origin O being on the reference surface at vertical position of front axle centre and axis lines X, Y and Z, oriented as shown by the arrows must be used. The X direction is in the reference plane backward, the Y direction is toward the right, the Z direction is toward the top. LMH bodyshells must be submitted to the EFRA Body shell Homologation Officer for approval. A list of homologated bodies must be available on the EFRA website.
The following is the specification for approval of 1/12 LMH body shells. They should be used by the Homologation officer to enable clear and consistent application of standards for future approvals. Lower body cut line is to be used as the reference plane for all height dimensions.
Dimension Minimum (mm) Maximum (mm) Overall Width 168 176
Overall Length 370 (340) (allows more realism)
Wheelbase (to be specified by manufacturer) 190 206 (new dimension)
Front Overhang (from front axle centreline) 80 (70) (allows more realism)
Rear Overhang (from rear axle centreline) 90 (70) (allows more realism)

Sidepod Width across the body 150 (new dimension)
Front Wheelarch Height (measured at a point 30mm (15mm) from edge of body, on the front axle centreline) 40 (46)
Rear Wheelarch Height (measured at a point 40mm (10mm) from edge of body , on the rear axle centreline) 44 (50)
Side Dam Height 70 (72) (reduce aero, more realism)
Rear Wing/Spoiler Height 60 (65) (reduce aero, more realism)
Cockpit Width (measured at the onset of any fillet into the sidepod) 70
Cockpit Height (measured at a point at least 65mm behind the front axle centreline. This is the minimum value at the maximum cockpit height) 55 (excluding any scoops , inlets or features not extending the full width of the cockpit)
Fin Height 55 Fin Width 2 5
Front axle height 15mm above the reference plane
Bodyshell Visibility Criteria ‘As viewed from above, the front bodyshell corners must have a minimum radius of 5mm. (intent - slightly more rounded noses/splitters) “As viewed from the front and above, the bodyshell must completely cover the wheels above the Reference Plane. (intent - bodywork must fully enclose the wheels/tyres)” No part of the bodyshell outer surface may be visible from the underside. (intent - prevents undercuts at the front and sides by essentially defining a floor edge)” In the area situated within the perimeter of the bodyshell and more than 5mm above the reference plane, all parts of the bodyshell visible in plain view must be above the front axle centreline. (intent - lifts the nose of the bodyshell and prevents super-low side pods)
Feature Intersections “The side dam must blend fully (disappear) into the main body shape within 20mm of the rear axle centreline. (110mm from rear edge) (intent - more realistic side dam sizes and a reduction in overall grip/stability)
The cockpit must blend fully (disappear) into the main body shape within the front and rear axle lines of the bodyshell . (intent - to prevent forward cockpit bodies) The rear wheelarch must blend fully (disappear) into the main body shape within 70mm of the rear axle centreline. (intent - to outlaw side dams that are an extension of the wheelarch) The front wheelarch must blend fully (disappear) into the main body shape within 70mm of the front axle centreline . (intent - to outlaw side dams that are an extension of the wheelarch)
Feature Shapes “With the exception of its blend into the main body shape, the curvature of any section of the cockpit must be in a single direction and have a minimum radius of curvature no less than 10mm". (intent - that sharp corners and concave features are prohibited)” All major features of the body shell (including but not limited to the front profile, cabin front and side profiles, fin shape and connection points, sidepod shape and profile, front wheel arches) must be correspond to shapes and profiles of a full size LMH/LMDh car. Photographic evidence shall be submitted with the application for inclusion on the list. Additional Features “ A flat sided fin must be moulded into the bodyshell, to be positioned on the centreline, connect the rear spoiler to the cockpit and satisfy the dimensional requirements outlined in the table above. (intent - that we mandate the "shark fins" that are a requirement on all full sized LMH/LMDh cars) Notes:”No minimum sidepod height (controlled by above front axle centreline rule) Wings and spoilers “A wing is an additional item that is attached to the chassis or body shell.“ A Spoiler is moulded in to the body shell.” Only one (1) rear wing or one (1) spoiler may be used with the body shell A spoiler must be moulded in to the original body shell as part of the continuous material used for the body shell This is defined as the part of the body shell, from the centre of the rear axle line extended rearwards, which sweeps upward from the horizontal. A wing may be attached directly to the body shell or chassis by separate supports. In this case the part of body shell from the centre of the rear axle line extending rearwards must be horizontal, or swept downward from the horizontal. A gurney flap may be fitted to a wing or a spoiler , but must never exceed the maximum height allowed of 60mm from the reference plane.

Remarks

Pictures and other references to be provided at the AGM. This tool does not accept a cut and paste from original document. Rationale from Peter Winton, BRCA. Should this be passed at the AGM, then we need to get the diagrams done, a jig made, and the manufacturer's advised on the change. We continue to be happy to help, and would take your guidance on how you want that to be done. Please note the following that is contained in this more detailed standard, and the start date suggested for the AGM proposal wording: An introduction date of 1 May 2026. This is after the EFRA Euros of 2026, giving time for manufacturers to prepare, and time for drivers to practice with the new bodies before the next winter season '26/'27 and EFRA Euros of 2027. Wording has been changed to say representation, not realistic, as the old phrase is actually impossible. In addition to the dimensions, the judging will include that they are a reasonable representation of an LMH/LMDh car, in order to avoid pure 'aero' bodies. It is suggested that EFRA appoint a panel to approve bodies. It seems unfair that one person in EFRA takes the flak for every decision, and more opinions on a 'realistic representation' will be needed in order to give manufacturer feedback. It is suggested that all decisions are final. The only way to change a decision is to resubmit the shell with the changes made that are decided by the panel. Each of the dimensions are hown with their previous values. The intent is to have criteria more than dimensions, so it is clear what we intend and gives a simple way to exclude those trying to get simple 'aero-only' shapes. A definition of a wing and a spoiler is included so manufacturers can choose to have either on their body shells. (I borrowed this from the IFMAR Rules.) In future, one or the other may be preferred, though it is hoped both might work and give some variety to the bodies raced. It is suggested that the cars be a bit higher in the cockpit and lower in the spoilers/wings to reduce aero. In order to help restore some aero, we suggest that the bodies can be a bit longer . This mimics the full-size cars.

Proposed by: RCMS, Hardisty Chris

Proposal Status:

Seconded by: ..... o Not Seconded

The proposal: o Passed Unanimously o Passed with .... for, ... against and .... abstentions.
o Rejected with .... for, ... against and .... abstentions. o Amended

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The rule is new

6.1.

BODIES :

Proposal

6.1.6 A
1/12th LMP bodyshell for the Modified and Stock Spec classes completely ready to compete will have a minimum weight of 38 grams . The bodyshell must not be modified in any way to get more weight , only anti-tuck body stiffeners are allowed .

Proposed by: RCMS, Bultynck Krist

Proposal Status:

Seconded by: ..... o Not Seconded
The proposal: o Passed Unanimously o Passed with .... for, ... against and .... abstentions.
o Rejected with .... for, ... against and .... abstentions. o Amended

---

The rule is new

6.2.

MEASUREMENTS AND WEIGHTS

Proposal

6.2.4 The LMP bodyshell measured before the start of the race attached to the 1/12th car the rear spoiler may have a maximum height of 78mm . The rear sidedams may have a maximum height of 85mm .

Remarks

Because the maximum dimensions at the drawings in the Efra rulebook are only for bodyshell homologation and are dimensions from the cutline, not from the ground .

Proposed by: RCMS, Bultynck Krist

Proposal Status:

Seconded by: ..... o Not Seconded

The proposal: o Passed Unanimously o Passed with .... for, ... against and .... abstentions.
o Rejected with .... for, ... against and .... abstentions. o Amended

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The rule is new

6.3.

TYRES

Proposal

A controlled tyre and rim decided by the Organizer must be used . The type of tyres and rims are decided by EFRA together with the race organizer . The organiser must announce the choice of handout tyre 4 months before the event , being type and manufacturing number . The complete tyre handling is the duty of the organizer and his supplier . Only sponge or closed cell foam tyres are allowed . Tyres must be black , excepting sidewall detailing , and be of a composition that will not damage the racing surface . -It is allowed to glue the sidewalls of

the tyres to counteract rolling Tyre and rim dimensions are as follows; Front width - Max 26 . 00mm Rear width - Max 38 . 00mm Wheel rim diameter - min 29 . 00mm , max 38 . 00mm

Remarks

We have now so much tire compounds . . . The average racer is totally confused . With the result that races from the UK who run on Old Lindau primafloor carpet not going to Euros who are running on ETS carpet which is used at central Europe It is also more fair because there will not be anymore supersecret compound in use anymore . And it makes the travel way more easy when people get the tires at the race and don't have to bring tons of tires to the event. Electric Offroad and TC runs on Handout tires since decades and it works fantastic .

Proposed by: RCMS, Bultynck Krist

Proposal Status:

Seconded by: ..... o Not Seconded

The proposal: o Passed Unanimously o Passed with .... for, ... against and .... abstentions.
o Rejected with .... for, ... against and .... abstentions. o Amended

---

Rule to be deleted

7.6

TRANSMISSION AND SUSPENSION
The use of multiple-speed transmissions (gearboxes) and slipper clutches is not allowed .
All cars must have independent suspension operating on all four wheels (no PRO 10 cars allowed) .
Only a fixed single ratio transmission is allowed and it may not include a mechanical device/s between the drive motor output and the gearbox input for the purposes of controlling torque (e . g . slipper clutches) .

Remarks

Repetition of 7 . 3 - not required .

Proposed by: RCMS, Hardisty Chris

Proposal Status:

Seconded by: ..... o Not Seconded

The proposal: o Passed Unanimously o Passed with .... for, ... against and .... abstentions.
o Rejected with .... for, ... against and .... abstentions. o Amended

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9. ELECTION OF SECTION CHAIRMAN.

The 1/10 Electric Track Chairman Mr Chris Hardisty is willing to re-stand

.

10. ANY OTHER BUSINESS

.

11. ITEMS FOR GENERAL DISCUSSION.

The Section Chairman thanked all participants for a constructive meeting, and being no further business the meeting was closed at

MEETING TO CONTINUE WITH ELECTRIC TRACK SECTION MEETING.

Minutes ELECTRIC - TRACK.

1. CHAIRMAN'S WELCOME — Mr Chris Hardisty

The Electric Track Chairman opened the meeting at 17:04

2. APOLOGIES FOR ABSENCE

Apologies have been received from:

Member Countries presents, section subscription, allocations etc:

COUNTRY	PRESENT	2024 SUBSC	WC 1/12 Mod	WC 1/12 Spec	EC 1/12 Mod	EC 1/12 Spec	EC 1/10 Mod	EC 1/10 Spec	EC 1/10 FWD
AUSTRIA	Tristan Hackl								
BELGIUM	Marc Joosens					22		10	2
BULGARIA	-						1	2	
CROATIA	-								
CZECH REP.	-								
DENMARK	Ulrich Rasmussen						2	5	5
ESTONIA	-								
FINLAND	-				4	7			
FRANCE	Claude TRANVOUEZ				2	2	4	6	2
GERMANY	Thomas Kohmann				8	15	8	15	5
GREAT BRITAIN	Peter Winton								
GREECE	-								
HUNGARY	-								
IRELAND	-								
ITALY	-						2	3	
LUXEMBOURG	Luka Jovicic				1	1			1
MONACO	-								
NETHERLANDS	Raymond Houtman				3	5	10	20	20
NORWAY	Marte Gjemble					5	2	3	
POLAND	-								
PORTUGAL	-								
ROMANIA	-								
SLOVAK REP.	-								
SLOVENIA	-								
SPAIN	-								
SWEDEN	Marcus von Elling				4	4	3	2	2
SWITZERLAND	Andi Frateroli				2		2	3	1
TURKEY	-								
UKRAINE	-								
TOTAL	**11**				**25**	**63**	**32**	**66**	**38**

Allocations can be changed till January 21st. 2025.
Maximum votes for Track Section =. Number of Federations represented to vote = 11

Other persons present:

3. MINUTES OF 2023 SECTION MEETING

AGM November 2023

Matters arising from the minutes: None

The minutes were checked and accepted as written at the AGM 2023. Andi Fratoli

The following person was elected to check the minutes of this year: Marcus von Elling

4. CORRESPONDENCE RECEIVED

Outside the usual requests for places one letter of complaint from Mark Stiles (BRCA). Attached to minutes.

5. CHAIRMAN'S REPORT

12th scale European Championship report (Messina Sicily) 12-14 april 2024

Fantastic accommodation, large hall with plenty of space for the pit and track.
Plenty of parking around the hall. Accessibility is pretty good.
There was a slight language barrier from Italian to English and vice versa but everything was managed by a translator who was completely at my disposal.
Qualifying went well. No peculiarities, no comments.
We had an incident in the pits between final 1 and 2 when a lipo battery ignited. Fortunately, there were no casualties and no one was injured. However all necessary safety measures were in place. Surely, it is clear to take a moment to reflect on this and think about the overall safety of everyone.
Everyone present is already a champion for me but in the end it's all about first place:
In Modified Michal Orlowski from Poland became European Champion followed by Marc Reinhard from Germany and third place for Alexander Hagberg from Sweden.
In Stock class Simon Lauter from Germany crowned himself to the new European Champion, third place was for Jan Rhatheisky from Germany. Second place was dropped in the results due to an irregularity on the driver's motor. Apparently, the driver himself had nothing to do with this and the motor was marketed that way by the manufacturer. The motor was therefore dropped from the Efra list.
This is the official statement of the Efra homologation officer regarding the motor: One of the three "Spec." motors from the 2024 1/12 Spec European Championship was found not to comply current EFRA rules for Brushless Spec. Motors, or the sample submitted for EFRA homologation.
The driver was briefed regarding the determinations.
As always, Javier Garcia acts as a fantastic referee with at his side Vito Geraci.
Also Vito Geraci as organizer did a splendid job.
Still, I would like to mention that it is easy to criticise an organiser of such an event, but these are usually people who have never participated in such an organisation themselves. These people should think twice before making statements that only degrade our hobby, because this is still a hobby.
That is also why it is difficult to convince clubs, organisations or people to set up such an event.

10th Electric Track – Roeselare, Belgium.

This was a well organised, well-staffed event run overall by a knowledgeable Race Director. Officials being drawn from 2 clubs one being the host of next year's 12th EC.
One notable feature in the run up to this race was that I had to consider the maximum entry! At one point we had only 4 spaces left. The final figures that showed being 121 in total.
With the Sun out the smooth tarmac track provided adequate grip allowing most drivers to get their best runs in. Then it rained and being round by round this made for some interesting qualifying. Some drivers elected not to run in the wet.
Finals were run in dry conditions, but the previous days damper conditions challenged the skills of most. The meeting ran on schedule and was completed.
The Modified Champion is Marc Rheinard (Germany), the Stock Champion is Simon Lauter (Germany) and the FWD Champion is Frederik Hovgaard (Denmark).
The Junior Champions were Modified it was Matyas Knopp (Czech Rep) and in Stock it was Benjamin Elbisser (France). Sadly, we had no juniors in FWD.

6. EC AND GP'S 2025/ 2026

The section has received the following applications to host coming EFRA events. These proposals have reached us in time, no other proposal will be accepted after distribution of the agenda.

Year/Date	Alt. Date	Status	Country	Venue
2026		EC 1/12	Italy	Venetico
2026		EC 1/10	Italy	Venetico
2026		EC 1/10	~~Netherlands~~	~~Utrecht~~
2026		EC 1/10	Sweden	Lidköping
2026		EC 1/10	Luxembourg	Luxembourg

Final Race calendar 2025 1/10 and 1/12 Electric

Year/Date	Alt. Date	Status	Country	Venue
2025	28-30 March	EC 1/12	Belgium	Zwevegem
2025	22-24 August	EC 1/10	Netherlands	Utrecht

Future Race calendar 2026 Championships

Year/ Date	Alt. Date	Status	Country	Venue
2026		EC 1/12	Italy	
2026		EC 1/10	Luxembourg	
2026		WC 1/12	FEMCA bloc	China
2026		WC	FEMCA Bloc	China

Tyres for the 1/10th Touring Car EC 2025: See Rules.

Allocations were made to each country as printed in the table form under item 2 on the agenda

7. ALLOCATIONS

Allocations were made to each country as printed in the table form under item 2 on the agenda.
All Federations MUST confirm their FINAL Allocation Numbers for each event to the relevant Section Chairman by 21st. January 2025 LATEST

8. RULE PROPOSALS

Note: The EFRA Committee has studied all received proposals and has come to an opinion over each one, The EFRA Section Chairman will inform the floor of such positions.

Current Rule

1.2

Up to a maximum of two chassis may be submitted to Technical inspection, either of these chassis may be used at any time during the event. The second chassis may be approved after the event has started.

Proposal

One chassis must be submitted , inspected and marked. When wet conditions are declared any chassis , marked or otherwise, may be used .

Remarks

The original intent was always to allow one dry and one wet chassis.

Proposed by: RCMS, Hardisty Chris

Proposal Status:

Seconded by: Thomas

The proposal: Passed Unanimously

The rule is new

2.

BODIES :

Proposal

2.7 A
1/10th Touring Car bodyshell for the Modified and Stock Spec classes completely ready to compete will have a minimum weight of 60 grams . The bodyshell must not be modified in any way to get more weight , only anti-tuck body stiffeners are allowed .

Remarks

Bodyshells are getting lighter and weaker but costing more and more .

Proposed by: RCMS, Bultynck Krist

Proposal Status:

Seconded by: Marcus von Elling

The proposal: Passed Unanimously
Amended

Weight amended to 65 grams - only body stiffeners and anti-tuck are allowed, Second by Marc

---

Rule to be deleted

3.

ROLL-OVER MASTS:

Proposal

ROLL-OVER MASTS: Roll-over masts are not allowed.

Remarks

This rule is rarely applied exactly. Probably redundant today.

Proposed by: RCMS, Hardisty Chris

Proposal Status:

Seconded by: Peter W

The proposal: o Passed Unanimously

Rule to be deleted

3.1.

A rollover mast may be fitted . If so , it must have a blunt end for safety reasons , terminate in a closed loop at least 4 . 75 mm O . D . or a ball or button not less than 8 mm in diameter .

Proposed by: RCMS, Hardisty Chris

Proposal Status:

Seconded by: ..... o Not Seconded

The proposal: o Passed Unanimously

The rule is new

6.1.

BODIES :

Proposal

EFRA 1/12 LMH Bodyshell Specification - v1 . 0 The essence of the sport of Radio-controlled car racing is competition between representative models of racing automobiles. Body shells will be representations of the shape and features of cars racing in the World Endurance Championship (WEC) Le Mans Hypercar (LMH) car class, and in the Le Mans Daytona h (LMDh) class of the IMSA SportsCar Championship . Features of the LMH body shells must appear on one of these cars. As well as compliance with these rules, approval will also depend on them being a reasonable representation, as a whole, of an existing LMH/LMDh car racing in these events . Features on the body shell designed only to circumvent or exploit these rules are not allowed . Approvals will be carried out by a panel appointed by EFRA. All decisions are final.
Cartesian coordinate system The three-dimensional cartesian coordinate system, with origin O being on the reference surface at vertical position of front axle centre and axis lines X, Y and Z, oriented as shown by the arrows must be used. The X direction is in the reference plane backward, the Y direction is toward the right, the Z direction is toward the top. LMH bodyshells must be submitted to the EFRA Body shell Homologation Officer for approval. A list of homologated bodies must be available on the EFRA website.
The following is the specification for approval of 1/12 LMH body shells. They should be used by the Homologation officer to enable clear and consistent application of standards for future approvals. Lower body cut line is to be used as the reference plane for all height dimensions.
Dimension Minimum (mm) Maximum (mm) Overall Width 168 176
Overall Length 370 (340) (allows more realism)
Wheelbase (to be specified by manufacturer) 190 206 (new dimension)
Front Overhang (from front axle centreline) 80 (70) (allows more realism)
Rear Overhang (from rear axle centreline) 90 (70) (allows more realism)
Sidepod Width across the body 150 (new dimension)
Front Wheelarch Height (measured at a point 30mm (15mm) from edge of body, on the front axle centreline) 40 (46)
Rear Wheelarch Height (measured at a point 40mm (10mm) from edge of body , on the rear axle centreline) 44 (50)
Side Dam Height 70 (72) (reduce aero, more realism)
Rear Wing/Spoiler Height 60 (65) (reduce aero, more realism)
Cockpit Width (measured at the onset of any fillet into the sidepod) 70
Cockpit Height (measured at a point at least 65mm behind the front axle centreline. This is the minimum value at the maximum cockpit height) 55 (excluding any scoops , inlets or features not extending the full width of the cockpit)
Fin Height 55 Fin Width 2 5
Front axle height 15mm above the reference plane
Bodyshell Visibility Criteria ‘As viewed from above, the front bodyshell corners must have a minimum radius of 5mm. (intent - slightly more rounded noses/splitters) “As viewed from the front and above, the bodyshell must completely cover the wheels above the Reference Plane. (intent - bodywork must fully enclose the wheels/tyres)” No part of the bodyshell outer surface may be visible from the underside. (intent - prevents undercuts at the front and sides by essentially defining a floor edge)” In the area situated within the perimeter of the bodyshell and more than 5mm above the reference plane, all parts of the bodyshell visible in plain view must be above the front axle centreline. (intent - lifts the nose of the bodyshell and prevents super-low side pods)
Feature Intersections “The side dam must blend fully (disappear) into the main body shape within 20mm of the rear axle centreline. (110mm from rear edge) (intent - more realistic side dam sizes and a reduction in overall grip/stability)
The cockpit must blend fully (disappear) into the main body shape within the front and rear axle lines of the bodyshell . (intent - to prevent forward cockpit bodies) The rear wheelarch must blend fully (disappear) into the main body shape within 70mm of the rear axle centreline. (intent - to outlaw side dams that are an extension of the wheelarch) The front wheelarch must blend fully (disappear) into the main body shape within 70mm of the front axle centreline . (intent - to outlaw side dams that are an extension of the wheelarch)
Feature Shapes “With the exception of its blend into the main body shape, the curvature of any section of the cockpit must be in a single direction and have a minimum radius of curvature no less than 10mm". (intent - that sharp corners and concave features are prohibited)” All major features of the body shell (including but not limited to the front profile, cabin front and side profiles, fin shape and connection points, sidepod shape and profile, front wheel arches) must be correspond to shapes and profiles of a full size LMH/LMDh car. Photographic evidence shall be submitted with the application for inclusion on the list. Additional Features “ A flat sided fin must be moulded into the bodyshell, to be positioned on the centreline, connect the rear spoiler to the cockpit and satisfy the dimensional requirements outlined in the table above. (intent - that we mandate the "shark fins" that are a

requirement on all full sized LMH/LMDh cars) Notes:”No minimum sidepod height (controlled by above front axle centreline rule) Wings and spoilers “A wing is an additional item that is attached to the chassis or body shell.“ A Spoiler is moulded in to the body shell.” Only one (1) rear wing or one (1) spoiler may be used with the body shell A spoiler must be moulded in to the original body shell as part of the continuous material used for the body shell This is defined as the part of the body shell, from the centre of the rear axle line extended rearwards, which sweeps upward from the horizontal. A wing may be attached directly to the body shell or chassis by separate supports. In this case the part of body shell from the centre of the rear axle line extending rearwards must be horizontal, or swept downward from the horizontal. A gurney flap may be fitted to a wing or a spoiler , but must never exceed the maximum height allowed of 60mm from the reference plane.

Remarks

Pictures and other references to be provided at the AGM. This tool does not accept a cut and paste from original document. Rationale from Peter Winton, BRCA. Should this be passed at the AGM, then we need to get the diagrams done, a jig made, and the manufacturer's advised on the change. We continue to be happy to help, and would take your guidance on how you want that to be done. Please note the following that is contained in this more detailed standard, and the start date suggested for the AGM proposal wording: An introduction date of 1 May 2026. This is after the EFRA Euros of 2026, giving time for manufacturers to prepare, and time for drivers to practice with the new bodies before the next winter season '26/'27 and EFRA Euros of 2027. Wording has been changed to say representation, not realistic, as the old phrase is actually impossible. In addition to the dimensions, the judging will include that they are a reasonable representation of an LMH/LMDh car, in order to avoid pure 'aero' bodies. It is suggested that EFRA appoint a panel to approve bodies. It seems unfair that one person in EFRA takes the flak for every decision, and more opinions on a 'realistic representation' will be needed in order to give manufacturer feedback. It is suggested that all decisions are final. The only way to change a decision is to resubmit the shell with the changes made that are decided by the panel. Each of the dimensions are hown with their previous values. The intent is to have criteria more than dimensions, so it is clear what we intend and gives a simple way to exclude those trying to get simple 'aero-only' shapes. A definition of a wing and a spoiler is included so manufacturers can choose to have either on their body shells. (I borrowed this from the IFMAR Rules.) In future, one or the other may be preferred, though it is hoped both might work and give some variety to the bodies raced. It is suggested that the cars be a bit higher in the cockpit and lower in the spoilers/wings to reduce aero. In order to help restore some aero, we suggest that the bodies can be a bit longer . This mimics the full-size cars.

Proposed by: BRCA, Peter Winton

Proposal Status:

Seconded by: Andi Fratoli

The proposal: Passed Unanimously

The rule is new

6.1.

BODIES :

Proposal

6.1.6 A
1/12th LMP bodyshell for the Modified and Stock Spec classes completely ready to compete will have a minimum weight of 38 grams . The bodyshell must not be modified in any way to get more weight , only anti-tuck body stiffeners are allowed .

Proposed by: RCMS, Bultynck Krist

Proposal Status:

Seconded by: Andi Fratoli
The proposal: Passed Unanimously From April 1st 2024

The rule is new

6.2.

MEASUREMENTS AND WEIGHTS

Proposal

6.2.4 The LMP bodyshell measured before the start of the race attached to the 1/12th car the rear spoiler may have a maximum height of 80mm, from the ground ready to run.. The rear sidedams may have a maximum height of 85mm .

Remarks

Because the maximum dimensions at the drawings in the Efra rulebook are only for bodyshell homologation and are dimensions from the cutline, not from the ground.

Proposed by: RCMS, Bultynck Krist

Proposal Status:

Seconded by: Marte Gjemble

The proposal: Passed Unanimously Steal IFMAR rule

The rule is new

6.3.

TYRES

Proposal

A controlled tyre and rim decided by the Organizer must be used . The type of tyres and rims are decided by EFRA together with the race organizer . The organiser must announce the choice of handout tyre 4 months before the event , being type and manufacturing number . The complete tyre handling is the duty of the organizer and his supplier . Only sponge or closed cell foam tyres are allowed . Tyres must be black , excepting sidewall detailing , and be of a composition that will not damage the racing surface . -It is allowed to glue the sidewalls of the tyres to counteract rolling Tyre and rim dimensions are as follows; Front width - Max 26 . 00mm Rear width - Max 38 . 00mm Wheel rim diameter - min 29 . 00mm , max 38 . 00mm

Remarks

We have now so much tire compounds . . . The average racer is totally confused . With the result that races from the UK who run on Old Lindau primafloor carpet not going to Euros who are running on ETS carpet which is used at central Europe It is also more fair because there will not be anymore supersecret compound in use anymore . And it makes the travel way more easy when people get the tires at the race and don't have to bring tons of tires to the event. Electric Offroad and TC runs on Handout tires since decades and it works fantastic .

Proposed by: RCMS, Bultynck Krist

Proposal Status:

Seconded by: Netherlands

The proposal:.
o Rejected with .1... for, ..7.. against.

Rule to be deleted

7.6

TRANSMISSION AND SUSPENSION
The use of multiple-speed transmissions (gearboxes) and slipper clutches is not allowed .
All cars must have independent suspension operating on all four wheels (no PRO 10 cars allowed) .
Only a fixed single ratio transmission is allowed and it may not include a mechanical device/s between the drive motor output and the gearbox input for the purposes of controlling torque (e . g . slipper clutches) .

Remarks

Repetition of 7 . 3 – delete the repetition.

Proposed by: RCMS, Hardisty Chris

Proposal Status:

Seconded by: Andi Fratoli

The proposal: o Passed Unanimously

9. ELECTION OF SECTION CHAIRMAN.

The 1/10 Electric Track Chairman Mr Chris Hardisty is willing to re-stand

Seconded.

10. ANY OTHER BUSINESS

Motor-speed limiting Electronic Speed Controllers – Federation feedback

Archiving rules we don't use – GT12 – keep them available on the website for anyone to download.

11. ITEMS FOR GENERAL DISCUSSION.

The Section Chairman thanked all participants for a constructive meeting, and being no further business the meeting was closed at 19;24

Dear EFRA Electric Track,

We are writing to complain about the experience of the British Team at the EFRA 1/12 Electric Circuit European Championships in Sicily, April 2024.

There are several aspects for consideration that relate to the organisation, track, safety, and general execution of what should be regarded as the most prestigious event on the European Calendar for 1/12 Electric Circuit. Moreover, there were instances where EFRA's own General and Section Rules were not followed, which we feel calls the credibility of the organisation into question.

According to EFRA General Rule 3.2.3, the host club must have successfully organised one major EFRA Sanctioned event in the 4 years prior to the application, preferentially on the proposed track. The rule does go on to state that this requirement can be waived by the EFRA Section Chairman or EFRA Board if it is considered that the organising Club and the National association has the required experience and organising skills. To our knowledge, an EFRA sanctioned event was not organised on the proposed track prior to the EFRA EC and the organising club had never run an international level 1/12 Electric Circuit event.

EFRA Electric Section Rule 1.2.1 states that indoor track surfaces must be needle carpet with smooth joints properly attached to the floor. Rule 1.2.2 specifies that for on-road racing, only smooth surfaces will be allowed. The track surface in Sicily was anything but smooth due to the underlying floor being of very poor quality; the flooring was of the interconnected laminate type and was laid perpendicularly to the general racing direction of the circuit. It had expanded and subsequently become rippled. Coupled with an old, worn out and frankly unsuitable carpet this meant that simply driving around the track was a frustrating and sub- standard experience, let alone racing on it. The accompanying images indicate the extent of the issue by showing the floor onto which the track was laid, the futile attempts that were made to flatten some areas of the track, and a car with its wheels visibly off the ground. Aside from the floor issues, it was observed that several rolls of brand-new carpet were stored at the side of the track. Why was this carpet not used for a European Championship event? The situation was summarised by several respected and highly experienced drivers, the first of whom said, "this track has nothing to do with 1/12 scale racing". Another stated, "it's hard to race in these conditions; we are driving on a washboard", whilst a third remarked "this is a bumpy track and sketchy conditions".

Technical Inspection at the event was not as stringent as should be expected at a sanctioned European Championship. For example, entrants in the 13.5 spec category were required to submit their motors to technical inspection to be "checked" and marked prior to use on track. The checks carried out amounted to no more than an external visual inspection and confirmation that the motor was on the EFRA homologation list. No controlled resistance/inductance test was conducted so it would have been possible for a motor of any number of turns to be submitted and passed if it was visually compliant and had "13.5" etched onto the stator. Whilst the rotor part number was checked against the homologation list, the "seal" subsequently applied to the motor did not connect the can to the sensor end plate. It would therefore have been possible to return to the pits, dismantle the motor, fit a different rotor, and even replace the bearings before using the motor for racing. Not once did my car return from post-race technical inspection with the pinion gear removed, so it would not have been possible for the rotor part number to have been checked. It cannot therefore be concluded that anybody outside of the A-Final top-3 finishers overall were using a motor compliant with the rules, and even those podium finishers only had the motors they used in leg 3 of the A- Final stripped after the event.

EFRA General Rules cover the safety of officials, helpers, competitors, and accompanying people and acknowledges that their safety is of equal importance to that of spectators. It should therefore be the joint responsibility of EFRA and the organising club to ensure that suitable and effective safety measures and procedures are in place for the duration of the sanctioned event. It was widely communicated that a Lithium battery fire occurred in the pit area during the event when a competitors battery charger malfunctioned and caused a LiPo battery to catch fire. As a witnessing bystander I found the length of time it took to fully contain and extinguish the fire somewhat alarming. A competitor was seen to pour bottled water on the fire before a member of the British Team intervened to disconnect the battery from its charging equipment. It was only after then, some 2 minutes later, that a club official arrived with a bucket containing what looked more like dust and gravel from the venue car park than sand. It is only with the benefit of hindsight that I don't recall seeing any sand filled containers in or around the pit area and nor were competitors notified of the existence of any during the Driver's Briefing. It is the opinion of those from the British Team either involved or witness to the incident that our safety at the event was not adequately considered.

In a more general sense about the overall organisation and experience of the event, The British Team do not feel that the minimum expectations were met. The organising club, whilst very welcoming and accommodating and in no way short of enthusiasm, were obviously lacking in the experience and technical expertise required to run an event of this stature. The responsibility for this lies at the feet of EFRA and its officials whom in our opinion did not provide the necessary instruction and support both before and during the event. It is worthy of note that the BRCA has on countless occasions offered people, their time and knowledge to help with the organisation and running of European and World level 1/12 Electric Circuit events outside of the UK. Not once has this offer ever been taken up despite there being a clear need for it to be by many national federations and organising clubs.

It has been noted that Paradise RC Arena is the sole applicant to host the EFRA 1/12 Electric Circuit European Championships once again in 2026. Considering the 2024 event this is somewhat concerning and many competitors would be nervous about incurring considerable cost in attending such an event for fear of it being a repeat of what they experienced in 2024. As a bare minimum it should be expected that the venue flooring is properly fixed or a flat sub-floor installed, a brand-new carpet laid for the beginning of the event, and the technical inspection and safety shortfalls described above addressed satisfactorily. Put simply, if a bid to host an

EFRA European Championship is not submitted by a suitably experienced and properly equipped track and club, and the club cannot be given the necessary support and instruction by EFRA to run the event properly, then the event should not be run.

The BRCA requests it to be minuted that the 2024 1/12 Electric Circuit EC wasn't a 'successful event' due to the shortfalls described in this letter, and this should preclude any further EFRA events, by that organiser at that venue, until a successful event has been held.

Yours Sincerely,

Mark Stiles (BRCA 1/12 Electric Circuit Secretary) & Peter Winton (BRCA 1/12 Electric Circuit Chairman) On behalf of the BRCA 1/12 Electric Circuit Section and British Team

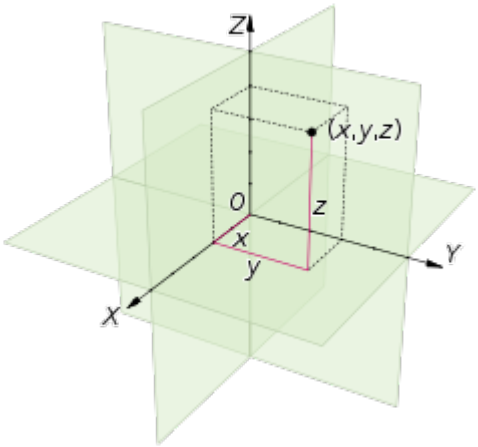
EFRA 1/12 LMH Bodyshell Specification – v1.0

The essence of the sport of Radio-controlled car racing is competition between representative models of racing automobiles.

Body shells will be representations of the shape and features of cars racing in the World Endurance Championship (WEC) Le Mans Hypercar (LMH) car class, and in the Le Mans Daytona h (LMDh) class of the IMSA SportsCar Championship. Features of the LMH body shells must appear on one of these cars. As well as compliance with these rules, approval will also depend on them being a reasonable representation, as a whole, of an existing LMH/LMDh car racing in these events.

Features on the body shell designed only to circumvent or exploit these rules are not allowed. Approvals will be carried out by a panel appointed by EFRA. All decisions are final.

Cartesian coordinate system
The three-dimensional cartesian coordinate system, with origin O being on the reference surface at vertical position of front axle centre and axis lines X, Y and Z, oriented as shown by the arrows must be used. The X direction is in the reference plane backward, the Y direction is toward the right, the Z direction is toward the top.



LMH bodyshells must be submitted to the EFRA Body shell Homologation Officer for approval. A list of homologated bodies must be available on the EFRA website.

The following is the specification for approval of 1/12 LMH body shells. They should be used by the Homologation officer to enable clear and consistent application of standards for future approvals.

Lower body cut line is to be used as the reference plane for all height dimensions.

Dimension	Minimum (mm)	Maximum (mm)
Overall Width	168	176
Overall Length		370 *(340) (allows more realism)*
Wheelbase (to be specified by manufacturer)	190	206 *(new dimension)*
Front Overhang (from front axle centreline)		80 *(70) (allows more realism)*
Rear Overhang (from rear axle centreline)		90 *(70) (allows more realism)*
Sidepod Width across the body	150 *(new dimension)*	
Front Wheelarch Height (measured at a point 30mm *(15mm)* from edge of body, on the front axle centreline)	40 *(46)*	
Rear Wheelarch Height (measured at a point 40mm *(10mm)* from edge of body, on the rear axle centreline)	44 *(50)*	

Side Dam Height		70 *(72) (reduce aero, more realism)*
Rear Wing/Spoiler Height		60 *(65) (reduce aero, more realism)*
Cockpit Width (measured at the onset of any fillet into the sidepod)	70	
Cockpit Height (measured at a point at least 65mm behind the front axle centreline. This is the minimum value at the maximum cockpit height)	55 *(excluding any scoops, inlets or features not extending the full width of the cockpit)*	
Fin Height	55	
Fin Width	2	5
Front axle height	15mm above the reference plane	

Bodyshell Visibility Criteria

- As viewed from above, the front bodyshell corners must have a minimum radius of 5mm. *(intent – slightly more rounded noses/splitters)*
- As viewed from the front and above, the bodyshell must completely cover the wheels above the Reference Plane. *(intent – bodywork must fully enclose the wheels/tyres)*
- No part of the bodyshell outer surface may be visible from the underside. *(intent – prevents undercuts at the front and sides by essentially defining a floor edge)*
- In the area situated within the perimeter of the bodyshell and more than 5mm above the reference plane, all parts of the bodyshell visible in plan view must be above the front axle centreline. *(intent – lifts the nose of the bodyshell and prevents super-low side pods)*

Feature Intersections

- The side dam must blend fully (disappear) into the main body shape within 20mm of the rear axle centreline. *(110mm from rear edge) (intent – more realistic side dam sizes and a reduction in overall grip/stability)*
- The cockpit must blend fully (disappear) into the main body shape within the front and rear axle lines of the bodyshell. *(intent – to prevent forward cockpit bodies)*
- The rear wheelarch must blend fully (disappear) into the main body shape within 70mm of the rear axle centreline. *(intent – to outlaw side dams that are an extension of the wheelarch)*
- The front wheelarch must blend fully (disappear) into the main body shape within 70mm of the front axle centreline. *(intent – to outlaw side dams that are an extension of the wheelarch)*

Feature Shapes

- With the exception of its blend into the main body shape, the curvature of any section of the cockpit must be in a single direction and have a minimum radius of curvature no less than 10mm. *(intent – that sharp corners and concave features are prohibited)*
- All major features of the body shell (including but not limited to the front profile, cabin front and side profiles, fin shape and connection points, sidepod shape and profile, front wheel arches) must be correspond to shapes and profiles of a full size LMH/LMDh car. Photographic evidence shall be submitted with the application for inclusion on the list.

Additional Features

- A flat sided fin must be moulded into the bodyshell, to be positioned on the centreline, connect the rear spoiler to the cockpit and satisfy the dimensional requirements outlined in the table above. *(intent – that we mandate the "shark fins" that are a requirement on all full sized LMH/LMDh cars)*

Notes

- No minimum sidepod height (controlled by above front axle centreline rule)

Wings and spoilers

- A wing is an additional item that is attached to the chassis or body shell.

- A Spoiler is moulded in to the body shell.
- Only one (1) rear wing or one (1) spoiler may be used with the body shell.
- A spoiler must be moulded in to the original body shell as part of the continuous material used for the body shell This is defined as the part of the body shell, from the centre of the rear axle line extended rearwards, which sweeps upward from the horizontal.
- A wing may be attached directly to the body shell or chassis by separate supports. In this case the part of body shell from the centre of the rear axle line extending rearwards must be horizontal, or swept downward from the horizontal.
- A gurney flap may be fitted to a wing or a spoiler, but must never exceed the maximum height allowed of 60mm from the reference plane.

Minimum cockpit width to be increased to 70mm. Cockpit width profile to mimic a real car.

Minimum cabin height to be increased to 55mm

Furthest point forward must be above axle line. (Axle line set 15mm above reference plane)

When moulding a spoiler, the side dam must fully disappear into the body 20mm in front of the rear axle line.

Cab length starts at front axle and extends in line with a full-size car's cabin silhouette. Cabin line to mimic a full-size car.

When moulding for a rear wing, body line must horizontal or swept down from horizontal behind the rear axle line