



# Recommended Rules for IR 1/8 electric 8-11 September HAMM (Germany)

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## 1. CATEGORIES

International Race is open for two categories in 1/8 electric:

MODIFIED	STOCK
1/8th electric 4wd cars with suspension 1/8th electric 2wd cars with suspension	1/8th electric 4wd without independent suspension 1/8th electric 2wd with rear solid axle as a 1/12th cars (pancars, flats, classics...)

## 2. RACE FORMAT FOR EFRA INTERNATIONAL RACE

1. Free practice for an IR is allowed from the Monday preceding the Race.
2. 5 Rounds of Qualifying will be run, irrespective of the number of drivers. Qualifying is 5 minutes + last lap. The starting procedure used will be **FLYING START**.
3. A point system will be used to establish the qualifying result.
4. The number of Rounds to count is as follows:
  - 1 Qualifying Round completed -- 1 by laps and total time.
  - 2 Qualifying Rounds completed -- 1 best by laps and total time.
  - 3 Qualifying Rounds completed -- 2 best point scores to count.
  - 4 Qualifying Rounds completed -- 2 best point scores to count.
  - 5 Qualifying Rounds completed -- 3 best point scores to count.

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 etc.

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 (e.g. 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.



**Rain procedure:** Only rounds ran under the same conditions will count. Same conditions means: no differences in average lap time by more than 20%. The Race director together with the referee will make the final decision.

6. Time schedule: The time schedule should not be rigid but adapted to the number of entrants. As a guideline:

**Monday-Wednesday:** Free practice.

**Thursday-Friday :** 2 rounds Control Time Practice + 5 rounds qualifying

**Saturday:** Finals

7. The time schedule and the number of heats can be adjusted by the race director with agreement from the EFRA representative due to weather and unforeseen conditions and the number of total drivers at the event. The heats shall contain a maximum of 10 drivers. Controlled Timed Practice heat and qualification will be of 5 minutes duration. The ranking from controlled timed practice will be used to make the heats for the qualification heats. The arrangements of the Qualifying heats and the numbering will be defined with the best result of 3 consecutive laps of the Driver, made during controlled timed practice runs.

8. General format for FINALS:

8.1. The qualifying results will determine the composition for all finals with the top 10 proceeding to the "A" main final and so on down.

8.2. There will be 10 drivers in each final where possible. Finals will be organized for all competitors. The winner determined from the combined A finals will be the champion.

8.3. All finals will be run in three legs from slow to fast.

8.4. The winner in the final get 1 point, second 2 points and so on up to 10 points for 10th driver.

8.5. In the event of a tied position the driver with the single highest finishing position in either of the best 2 finals that counted will be awarded the tie. In the event of a continuing tie then the laps and times from the highest finishing position will be compared. The driver with the fastest laps and time total will be awarded the tie. In the case of a continuing tie, then the times from the second best position will be compared.



### 3. TECHNICAL RULES FOR EFRA INTERNATIONAL RACE

#### 1/8 Electric

MODIFIED	STOCK
1/8th electric 4wd cars with suspension 1/8th electric 2wd cars with suspension	1/8th electric 4wd without independent suspension 1/8th electric 2wd with rear solid axle as a 1/12th cars (pancars, flats, classics...)

#### 1. Motors

MODIFIED	STOCK
Commercially available motors. No further limits.	Commercially available motors. No further limits.

#### 2. Batteries

MODIFIED	STOCK
Max. 6S hardcase* only. If a battery consists of more than one Pack (2x3S e.g) has to be in a hardcase. The maximum permitted voltage of the cells when cheked at anytime must not exceed 4,20v per cell. (totally 25,20v)	Max. 4S (14,8v) in hardcase* boxes. If a battery consists fo more than one Pack (2x2S e.g.) has to be in a hardcase. The maximum permitted voltage of the cells when cheked at anytime must not exceed 4,20v per cell (totally 16,80v).
<b>Always require pre-check before enter in the pit to avoid over charging</b>	<b>Always require pre-check before enter in the pit to avoid over charging</b>

\* **Battery packs must have a hard and protective case that completely envelops the cell(s). The case should be made form ABS or a similar material. The minimum thickness of the hardcase will be 1,5mm. Te hardcase has to be as big as the battery itself. The battery has to be fixed with a tape or Velcro strap.**

#### 3. Speed controller

MODIFIED	STOCK
Commercially available speed controller setup: only foward/brake. No further limits.	Commercially available speed controller setup: only foward/brake. No further limits.



#### **4. Overall dimensions (common rule in MODIFIED and STOCK)**

Wheel base: 270.0 - 330.0 mm, overall width max. 267.0 mm. Overall width of the body max.: 267.0 mm, measured on top of the wing and on top of the sides and the lower front side. The lower sides between the two front and rear wheel arches will not be taken into account for technical inspection as long as they are not wider than 277 mm. If the body is wider than 277 mm on the lower sides the technical inspection has the right to take action with a warning for the first occurrence but disqualification from the race result for any further occurrences. For all finals: bodies must first pass technical inspection for verification and a first warning is not applicable. **Same like IC cars.**

#### **5. Front of the car (common rule in MODIFIED and STOCK)**

The front of the vehicle must be equipped with a bumper in such a manner, that it will minimize an injury if it makes contact with other participants or members of the public. The bumper must be made from a flexible material with all corners and sharp edges radiused. The contour of the bumper will follow the contour of the body with which it is being used. At no point may the bumper protrude more than 5.0 mm in front and 13.0 mm on the sides of the body. **Same like IC cars.**

#### **6. Rear Bumper (common rule in MODIFIED and STOCK)**

If a rear bumper is fitted it must finish not more than 50.0 mm behind the rear axle. **Same like IC cars.**

#### **7. Bodies (common rule in MODIFIED and STOCK)**

7.1 All EFRA sanctioned events will be raced with open/closed cockpit prototypes/ sportscars/ can-am type/ GT-P's/Group-C or similar cars. All lists of approved equipment, (i.e. Bodies, mufflers and batteries) must be available on EFRA's website from the 1st of March every year. These are the final lists for the year and no changes will be made before the next year. Equipment homologated/registered during the year will not be put on the list until 1st of March next year.

7.2 A realistic driver figure (minimum 3 colours) made to 1/8 scale must be fixed in the correct position in open cock-pit cars. The windscreen and windows must be translucent (i.e. Not completely painted-in).

7.3 All bodies must have the front and rear wheel arches cut out if the original was so designed

7.4 The body and spoiler must be made of a flexible material and be painted properly. All windows must remain clear or be semi-transparent. When initially entered in a meeting the body must be neatly finished.

**Same like IC cars**



### 8. Cut outs (common rule in MODIFIED and STOCK)

One cut out for cooling of motor / esc with max. 20x30mm (or 6.0 sq.cm). Any part of the body cannot be folded outwards to get more air to the motor.

### 9. Winds and Spoilers (common rule in MODIFIED and STOCK)

Separate wings and spoilers are not allowed. Only a Gurney Strip mounted on the rear of the body is allowed. The 'Gurney' should not be higher than 5mm with a 90 degrees angle (**same like IC cars**). Maximum height for the body, side and rear wing is 170mm with the chassis raised on 20 mm blocs. This maximum height with the Gurney Strip is 180 mm on a 20 mm spacer. The maximum overhang is 100 mm measured from the rear axle centre point. See drawing.

Maximum dimensions (same like IC cars):

Max. width: 267 mm

Max. height: 170 mm (on 20 mm blocs)

Overall, maximum height including a Gurney strip 180 mm.(on 20 mm blocs).

### 10. Aerial (common rule in MODIFIED and STOCK)

The aerial must be flexible. Carbon, metal, etc. is not allowed.

### 11. Weight limit:

MODIFIED	STOCK
1/8th electric 4wd with independent suspension: minimum <b>2550gr</b>	1/8th electric 4wd without independent suspension (pancars): minimum <b>2200gr</b>
1/8th electric 2wd with independent suspension: minium <b>2400gr.</b>	1/8th electric 2wd without independent suspension (pancars, flat cars, classics): minium <b>2200gr.</b>

### 12. Electronic parts (common rule in MODIFIED and STOCK)

The use of traction control devices, active suspension devices and any steering control aided by gyroscopes/'G'-Force sensor is strictly forbidden. The use of on board data recording sensor or data transmission devices is not permitted.



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## 4. CONTROL TYRE

### 1. General rules

1.1 Control tyre will be mandatory for the event.

1.2. Any kind of additive with the aim to get more traction is not allowed during the whole meeting, included free practice and controlled timed practice.

1.3. Official tyre for the meeting will be SHEPHERD TIRES.

### 2. Control tyre procedure during the meeting

2.1 Reused tyres during the meeting is allowed.

2.2 Drivers must order quantity of tyres for whole meeting. Those tyres must be in controlled area in the track in a personal box with driver's name and entry number. Drivers, if need it, can order additional tyres during the meeting to complete the event. Maximum set tyres for whole IR in a controlled area:

MODIFIED	STOCK
<b>Final number of sets will be fixed in driver meeting after free practice and before Control Time practice.</b>	<b>Final number of sets will be fixed in driver meeting after free practice and before Control Time practice.</b>

2.3 For free practice, drivers have free choice of tyres used, but no treatment is allowed. From the start of controlled timed practice (used for seeding), drivers have to use the Hand-Out tyres.

2.4 Rain:- In case of rain (decided by the Race director after consultation with the Section Chairman), any alternative tyre can be used which has not been treated in any way, with the aim to get more or less traction.

2.5 Tyres must be used as they are supplied (no modification to the rims, except the axle hole and no shore meters can be used to select tyres) and will be given out and fitted in the controlled area. Drivers must only use tyres which they have in their respective box in the controlled area.

2.6 When race is over and/or after technical inspection, drivers must leave tyres in their respective box in the controlled area and they must leave the pit lane without tyres. If any tyre leave the controlled area, they will not be used anymore during the whole event.

2.7 Drivers who have finished their participation in the IR, they can collect their tyres for the controlled area.



## 5. OTHER ITEMS

1. Any other important point which could be important for the IR and they are not in this rules must be followed with this order:
  - HANDBOOK 2016
  - Decision made in the team managers meeting or drivers meeting with simple majority of votes.