

**THE HO RACING LEAGUE**  
**RULES AND PROCEDURES SEPTEMBER 2019**  
**REVISION 1.03 – PUBLISHED 30 AUG 2019**

**REVISION 1.04 – PUBLISHED 20 SEPT 2019. CLARIFICATION OF PRACTICE SESSION, REMOVAL OF QUALIFICATION BEFORE HEATS. HEAT TIMES AMENDED.**

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**ANNEX A – LMP BODY MODS**

**THE RULES WITHIN THIS DOCUMENT OUTLINE THE STANDARDS AT A THORL ORGANISED RACE EVENT. ANYTHING NOT COVERED WITHIN THE SCOPE OF THE RULES MUST BE TAKEN AS NOT BEING PERMISSIBLE. ALL DECISIONS WILL BE BY RACE CONTROL, AND WILL BE FINAL.**

**1. FEES**

- 1. Adults pay £6 for both sessions, or £3 for one
- 2. Juniors (9-16 years old or still in full-time education) pay £2.50 for both sessions, or £1.25 for one
- 3. All racers under 9 years of age participate for free.

**2. FORMAT**

- 1. Venue is open at 9:00 am. Meetings start at 10:00am with the morning session comprising of an organised practice session, Heats and Finals. The 'afternoon' sessions will start 30-60 mins after the end of the morning session, unless unusual circumstances intervene.

2. You must book in to race at least 10 minutes before racing commences. If you are unable to do so in person you must text race control at least 15 minutes before hand. (Contact details will be made available before race day)
3. The racing will be made up of a series of classes as defined within these rules. The order in which these take place will be determined by Race Control.
4. Drivers may take part in all classes during the day.
5. Drivers are not permitted to leave the driver station area and return, either during racing or during the rotation period (segmented lane to lane races), other than to move their car to the next lane and change lane stickers/markings. Therefore all tools that competitors will require for maintaining their cars should be on their person or placed on a pit tray. Any competitor leaving the area in violation of this rule may have 5 laps deducted from their next score.
6. Practice before heats will be at race controls discretion. Race control will announce how much practice is permissible at the beginning of the session. The break between the Morning and Afternoon sessions will be available as a free practice before the Afternoon session(s) commence.
7. Competitors are allowed to bring a maximum of two cars to the driver's station during heats, and finals. They may only use cars brought to the driver's station. Drivers may not leave the area to change cars during heats or finals. They may only change from one car to the other if the first one has mechanical problems, and they will not be allowed to switch back again.
8. Race control may ask for cars to be presented for scrutineering at any point during the race meeting. This typically will be before racing commences. If during heats racing a car is deemed to be illegal, it will be asked to be replaced or rectified. If between heats and finals, the racer will be placed in the lowest final and will be able to step up. If during segmented races, a car is deemed to be illegal, the score tally until that point will be zeroed. If after finals or segmented races, a car is deemed to be illegal, race points for that race will be removed.
9. Races where 3 cars (5 for a six-lane track) de-slot in a mutual accident within the first lap may be re-started at race control's discretion. Those drivers able to continue should do so at racing speed until race control makes a judgement. Marshals should continue to re-slot cars as normal.
10. Winners of all classes will receive a medal or trophy.
11. If a competitor is unable to participate in the final they have qualified for, everyone else will move up one qualifying position. The absent competitor will be classified as in last place with 'did not start' as their score. They will still score points in F1, but not in any of the closed wheel classes, should this occur.
12. The Champion may be declared at the end of each season, and will be the competitor with the most points after dropping of scores. In the case of a tie, the competitor with the most 1st place finishes will be declared the champion. In the case of further ties, lower finish positions will be taken into account, starting with 2nd place.

### **3. CLASSES**

AM: Mega G

PM: Wizzard.

1. No class will take place unless there are at least three competitors.
2. Competitors may take part in all classes.

### **4. TRACK**

1. Tracks will be made from Tomy AFX track pieces, Lupico 18" curves, Autoworld track pieces, BSTS pieces and Bowman routed sections. Use of any other manufacturer's pieces will only be allowed by special dispensation from THORL. Three inch Tomy hairpins must not be used. Tracks should be at least 4 lane with lap timing and counting on each lane. Power supplied should be typically 18v (12-15v for GT Jet Class) providing at least 1.0Amp per lane (typically 1.2-1.5Amp). Power control may be Mains controlled or via lap counting interfaces. Start lines may be 'Dead' or 'Live'. Where live starts are used, a penalty will be given to those who 'Jump' the start. The penalty amount will be announced before racing commences. Tracks should be 'bordered' to prevent cars leaving the tracks mounting surface.

### **5. CONTROLLERS**

1. Controllers must terminate with a 3-pin, 2 amp plug, brake wire connected to the top pin, unless a hosting club provides additional alternative connection methods, in which case adaptors may be used.
2. THORL tracks are wired to the worldwide HO standard, with +ve left rail.
3. Due to the 18v track power, Controllers should not be used without consultation with the manufacturer, in all events racers use such controllers entirely at their own risk and THORL accepts no responsibility for any damage caused.
4. Controllers should be wired up Positively (+VE) as per BSCRA Standards.

### **6. MARSHALLING**

1. Each competitor is to make themselves PROMPTLY available to marshal or run race control whenever requested to do so by the organisers.
2. Drivers are to marshal immediately after the heat/race in which they took part in.
3. When heats are conducted in blocks, marshals must stay in their location for all heats in that block, and during the rotation period. Any marshal leaving their location in violation of this rule may have 5 laps deducted from their best score.
4. Track calls to pause racing will be used at some race meets. Track calls can be made by Marshals, Drivers or Race control, with an audible call of 'TRACK' or 'RIDER'. Race Control has the overriding decision to uphold a track call.
5. Track calls, where used, will be used as follows:
  - A car is 'riding' or has 'crashed' on another lane and / or cannot be retrieved. The power will be turned on as soon as the obstruction has been removed.
  - The track or its constituent parts is broken and needs repairing.

- A power issue on one or more lanes prevents a driver from competing competitively for any length of time. Any calls for adjustment to laps due to track power issues made after the heat/race will be dismissed.
- A car has crashed in such a position that a marshal post will be unmanned during its retrieval.

## **7. CONDUCT**

1. No food or drink should be brought near the track, both hands should be free at all times. Tablets, phones etc should not be used. Cameras may only be used when it does not interfere with marshalling duties. Race control will designate 'photographers'.
  2. Personal listening devices such as walkmans, mp3 players etc are not to be used during marshalling duties. If used during racing, they must not disturb other racers.
  3. Swearing, shouting and poor conduct will not be tolerated. Any racer caught doing so will be warned of their behaviour, and may be asked to leave if their behaviour is sufficiently serious or they ignore repeated warnings.
  4. Any unacceptable behaviour must be reported to the race controller immediately.
  5. Should an individual wish to complain against poor conduct, they must contact the race organiser as soon as possible so that the correct action may be taken
  6. Children remain the responsibility of parents / carers and should be supervised at all times.
  7. THORL will not be held responsible for any damage or loss to any equipment or persons.
  8. Tyres may only be cleaned with tape or by washing in water.
  9. NO spray oils/lubricants or cleaners to be used indoors. Use of Lighter fluid or any form of tyre treatments are not allowed. The organisers reserve the right to request competitors to use less lubricants if they feel it interferes with others or the condition of the track.
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## **8. MEGA G CLASS**

1. **The MEGA G class is open to the following chassis:**  
**AFX Mega G 1.5 & 1.7 (Mk1 and 2) and AFX Mega G+ 1.5 & 1.7.**
2. **RACE FORMAT**
  1. Formal practice for cars competing in the morning class only, Qualifying heats will typically be of 3 minute duration, and finals 3 minutes unless race control should decide otherwise.

2. Formal practice will be 2 or 3 minutes long, with all drivers running on all lanes. At the end of a practice session, the next session will automatically start after a brief pause. Only cars eligible for the Mega G class may partake in the practice session.
3. There will be four heats per session (six when a six lane track is used), with the best three (five when a six lane track is used) counting as each competitors qualifying score. Heats will be followed by step up finals, the winner of the previous final will take the step-up. When a six lane track is used the competitors finishing first and second in the previous final will take the step ups.
4. All drivers will receive at least 1 lap practice before heats. There will be no practice during finals (unless declared otherwise at the start of the Final session).
5. Cars may be worked on between heats, but must not interfere with marshal duties.
6. Cars taking part in finals must have been used in qualifying heats.
7. On completion of a heat, the competitors finish position will be recorded by Race Control, or by the race control system. Cars should remain on track until all positions have been recorded.
8. In the case of a tie with the heats 3 scores, the competitors dropped scores will be taken into account, with the driver with the Highest dropped score being deemed the leader. Fastest lap will determine the position if there is still a tie.

### **3. BODIES**

#### **Bodies permitted:**

**AFX 1.7: AFX Audi R18, Audi R10, Peugeot 908, Mustang, Camaro, AFX Nascar, AFX Ford GT.**

**AFX 1.5: Any SWB Group C body released by AFX (inc Tomy).**

1. Cars must start all races with the body securely attached, four wheels and tyres and all the chassis constituent parts. There must be no sharp edges on the cars. Race control reserve the right to ignore any laps completed by cars that do not comply.
2. All bodies must be stock and be the bodies which were supplied with the chassis type (except AFX Tomy Group C bodies which also can be used).
3. Bodies may have minimum material removed to improve body rock and clearance around moving parts.
4. AFX LMP bodies must remain unmodified to fit on the 1.7 (long) chassis, the exception is of the permitted mods, as per Annex A to allow earlier fitment (MG) LMP Bodies to fit to the Mega G+ chassis.
5. Any SWB Group C body released by AFX (inc Tomy) may be used on the 1.5 (Short) chassis. The body tabs and / or any type of body clip may be modified to

allow the body to sit lower. Body clips are not considered chassis components. These may therefore be glued to bodies, but must not be glued to chassis. SWB bodies may be modified by lightening, and original vent details may be opened up, but not past the original moulding lines. No other holes may be added. Bodies must be fitted with a wing.

6. Bodies may be ballasted, but ballast must be glued firmly in place with permanent glue. Chassis may not be ballasted.
7. Bodies must not be glued or bonded to the chassis, although the use of booger glue is permitted.
8. Wings (including posts, and endplates where present) must be intact at the start of all races.
9. Bodies must feature an accurate or at least prototypical race car colour schemes (race numbers, sponsors etc). 'Fantasy' repaints and re-decorations are permitted.

#### **4. CHASSIS and ELECTRICAL**

1. All entered cars chassis must fit through a THORL metal 34mm width gauge and be 17mm from centreline to side.
2. Only parts which are, or have been commercially available may be used as replacement items on cars. Items must be available through suppliers, and listed. One off and/or specially produced items are not permitted, unless supplied by Race Control.
3. Any make of plain motor bush may be used. Rolling-element (ball) bearings are not permitted.
4. Any make of pick-up shoe, shoe hangar and spring is permitted. Shunts are not permitted. Parts may be reshaped but no material may be added or removed.
5. Dust guards and axle retainers may be removed.
6. Any make of gear boss and axle spacers are permitted. Spacers must solely perform a genuine spacing function that restricts the travel of the axle. Spacers must have parallel sides, and these must be acted on by the components they are spacing. Spacers of any width and diameter can be used where they are made from non-metallic materials. Metallic washers (2 per axle) may be used up to a maximum diameter of 4mm and each 1mm width.
7. Tyres must be single compound. Sidewall writing and detailing based on real tyres is permitted (must be class-correct and body-correct). Front tyres must be Black or Clear in colour.
8. Black or Clear 'thinnies', or Black O-Rings may be used as front tyres. All permitted tyre types may be re-shaped or reduced in diameter and width.
9. Any make of single piece wheel(s) and solid, constant diameter axle are permitted as replacements to stock items. Independent Front ends are not permitted. No sharp edges will be permitted.

10. No parts may be added to the chassis or any of its components, which were not part of its original makeup, unless specifically permitted. Chassis must not be ballasted.
11. All 4 tyres must touch the track.
12. Wheels may be built up with tape to aid tyre retention.
13. No part of the chassis may be cut, sanded, drilled or otherwise interfered with. All wear must be by natural means only. No components other than pinions, gear bosses and crown gears may be glued in place.
14. All magnets fitted must be stock AFX items, no material added or taken away, and fitted in the stock position. Regular shaped traction magnets may be turned over in the chassis so long as they do not sit lower as a result. All chassis must only use 2 Traction Magnets and 2 Motor Magnets.
15. AFX Mega G and Mega G+ must use Stock guide Pin.
16. AFX Mega G must use 24 tooth crown, but no material must be removed to allow fitment. Mega G+ may use 23 tooth Crown (recommend Viper Scale Racing part). Pinions must be stock items.

## **5. MOTOR**

1. Armatures must be stock, as supplied with the chassis type and therefore not be 'worked up' in any way (examples: commutator tied-off, windings or comm epoxied, windings removed, commutator cut or diamond-trued, solder on tabs beyond factory-applied).
2. Armatures with balance marks or material removed from rotors by any means are not permitted. Armature timing may not be altered.
3. The MG+ motor must remain unmodified and sealed. The circuit board must remain attached, connected and unmodified. The wire (1) from the board to the motor body may be disconnected / removed.
4. For chassis with barrel brush systems, any make of brush and brush spring is permitted in all chassis. Barrels however must be stock and unaltered.
5. Any make of plain motor bearing (bush) may be used with the AFX Mega G chassis.

## **9. PM Class September 2019**

### **1. The PM Class will be running Hand-Out Wizzard Storm Extreme Chassis:**

#### **2. RACE FORMAT**

1. The class will be typically of 3 minute duration, or a lap count (eg 30 laps, unless race control should decide otherwise).

2. There will be four heats per session (six when a six lane track is used), with the total of all scores determining the competitors finishing order. In the event of a tie, fastest lap will determine positions.
3. There will be no practice once the race session has commenced.
4. There will be no working on cars other than by race control.
5. Lane changes are to be carried out by either a marshal, or race control
6. On completion of a heat, the competitors finish position will be recorded by Race Control, or by the race control system. Cars should remain on track until all positions have been recorded.

### **3. Cars**

1. THORL will provide a number of Wizzard Storm Extreme cars complete with bodies.
2. Cars will be placed on lanes and shall remain on the lane for the duration of the race.
3. No work shall be carried out to any of the cars, other than by race control.
4. A spare car and body may be provided to replace a car which cannot compete due to failure of its parts.

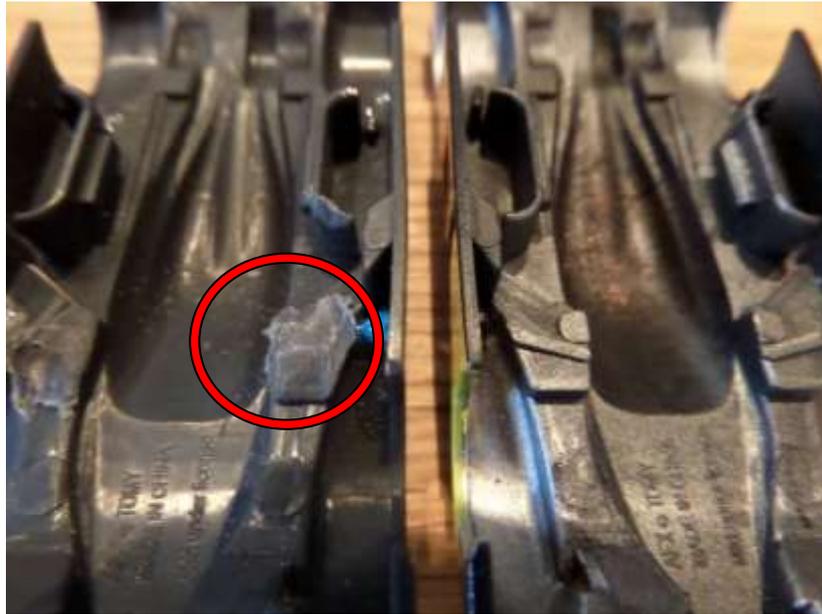
#### **Annex A – Permissible body modification to the AFX Audi and Peugeot to allow fitment to the AFX Mega G+ 1.7 Long Chassis.**

The AFX Racemasters Audi and Peugeot LMP cars supplied with earlier AFX Mega G Chassis, will not fit the Mega G+ without modification to the body.

The Peugeot is the easier to modify, and less risk to affect the outward appearance of the body.

The Peugeot may have the areas as circled in the pictures below to aid fitment to the MG+ Chassis.

The 'nubs' may be removed using any method, but a 'dremel' type tool is recommended. Avoid breaking through to the outer bodywork. Repair and re-paint where possible any areas where too much material is removed.



The Audi may have the areas as circled in the pictures below to aid fitment to the MG+ Chassis.

Excess material may be removed using any method, but a 'dremel' type tool is recommended.

Material should be removed only from the drivers helmet rearwards (Yellow Line).

Breakthrough to the outer bodywork is permissible, but should be kept to a minimum.

The central bar between the cockpits should remain.

The example pictured does have too much material ahead of the drivers helmet removed.

