

**CHALLENGE**  
**2005**

SPONSORED BY  
HPI HUDY HRAY  
MIRAGE AC ENTERPRISES  
RACI MAGAZINE  
MITSUBISHI MOTORS UK

*THE OFFICIAL RACE SERIES FOR HPI RACING AND HRAY IN THE UNITED KINGDOM*

**INFORMATION**  
**PACK**

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## INTRODUCTION

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Welcome to the 6<sup>th</sup> year running of the Challenge UK.

The HPI Challenge started in 1998 and has continued to grow across the World and is regarded as one of the strongest, without doubt one of the fastest and most competitive 'cost controlled' manufacturer race series in the world. For 2005 we add the very strong XRAY brand to the Challenge races, thus the name change to simply "The Challenge"!

The UK Series is organised and sponsored by **Mirage RC Enterprises (UK Distributors of - HPI, XRAY, Hudy, Team Orion, Nosram, Hot Bodies and 3-Racing)** and with additional support from **Mitsubishi Motors UK**, the **BRCA** and **Radio Race Car International** RC magazine – You can see we have the complete package to organise the best and most fun race series in the UK...

Anyway, loads of you have raced in the Challenge series before and it's always good to see so many familiar faces coming back to race again, as well as the new starters we see every year. I'm sure you'll agree, that once you get to know us, we're a friendly bunch who always seem to enjoy ourselves – that's our aim anyway...

This year's **5 Round Series** will finish with a **2-day UK Final** at the superb **Halifax Circuit** in **Yorkshire**.

### A little bit of "HPI Challenge" History for you...

The HPI Challenge started sometime after a meeting during September of 1998. Jason Dearden, HPI Europe's General Manager decided that we required a 'cost controlled' race series that could cater for all racers from first-time racers to seasoned Pro's.

In the beginning the following classes and rules were created:

- RS4 Electric Mini
- RS4 Electric Sport
- RS4 Electric Pro
- RS4 Nitro Stock
- RS4 Nitro Modified
- RS4 Super Nitro Modified

As well as creating these simple rules and classes for you, our drivers, we have tried to improve general race standards and expectations of modern race meetings. We already realised that many racers were fed up with paying for expensive motors, batteries and especially tyres that wear-out after a few runs, so we created rules and classes where we can control these issues. In the 'Sport' classes we even control the motors used, so the cars run pretty much the same speed as each other (which also makes duration problems a thing of the past even with 'street spec' type batteries).

HPI and Mirage RC Enterprises created these National, European and World Championships to find the best drivers, not the drivers with the largest budgets!!

The Challenge is run by racers, for racers - we hope you enjoy the series.

Are you ready for the Challenge, we certainly are...

Please have a read of the following information pack, and we'll see you around the race tracks soon.

Yours truly,

Frank McKinney,  
Mirage RC Enterprises  
Tel – 01283 226570 Ext 234  
Fax – 01283 229401  
Email – [frankm@mirageracing.com](mailto:frankm@mirageracing.com)

# THE CHALLENGE 2005 UK SERIES – INFO PACK

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## UK SERIES – GENERAL

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The Challenge is a National Series that will take you to the very best On-Road radio controlled racing circuits in the UK. We are organising 5 Rounds this year (plus the UK Finals) at some of your favourite tracks. Hopefully you'll be familiar with at least some of the circuits chosen for this years 'Challenge'...

These are the venues for this years Challenge.

- |                   |            |  |
|-------------------|------------|--|
| • Round 1         | Ashby      | 10 <sup>th</sup> April                       |
| • Round 2         | Brooklands | 8 <sup>th</sup> May                          |
| • Round 3         | Tibshelf   | 12 <sup>th</sup> June                        |
| • Round 4         | Wrexham    | 3 <sup>rd</sup> July                         |
| • Round 5         | Aldershot  | 14 <sup>th</sup> August                      |
| • UK Finals       | Halifax    | 3 <sup>rd</sup> / 4 <sup>th</sup> September  |
| • European Finals | Holland    | 23 <sup>rd</sup> -25 <sup>th</sup> September |

At the end of season we hold a special 2-day 'UK Final', this year that race will be held at the incredible Halifax Circuit in Yorkshire – where we held the HPI World Finals in 2004.

These UK Finals ultimately decides which drivers represent the UK Teams at the HPI and XRAY European Finals that follow.

These 2x European events are run separately from each other for their respective different manufacturer's products.

During the season, each driver must attend at least **3** rounds of the series **AND** attend the UK Finals to qualify for the UK Team attending the European Finals. Obviously you need to be doing well in the UK Championship to stand a chance to be selected for the UK Team.

- There will be 5 races plus the UK Finals in the UK Series.
- Your best **3** race results **plus** your UK Finals result count toward your final Championship points and position this year.
- NOTE - The UK Final (points) **MUST** count toward your Championship total.

## THE CHALLENGE – UK FINALS (Saturday / Sunday)

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The UK Finals will be held at the Halifax Model Car Club over the weekend of the 3<sup>rd</sup> / 4<sup>th</sup> September 2005.

- **Halifax Model Car Club** (Yorkshire)
- 3<sup>rd</sup> / 4<sup>th</sup> September
- Special 2 day UK Finals
- Mirage RC Enterprises Staff will be present
- Prize giving and European Qualification Ceremony

All results will be posted onto the Mirage RC Enterprises Web Sites ASAP after the event.

For more information check – [www.mirageracing.com](http://www.mirageracing.com)

# THE CHALLENGE 2005 UK SERIES – INFO PACK

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## ENTRY DETAILS

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For all the rounds you wish to enter this year, send a completed entry form, SAE **and** money direct to the host (RC) club – See list and addresses below.

- Send **Individual** Entry forms to the tracks / contacts listed below.
- Entry fees are £8.00 per class, per meeting (Remember - send your entry fees **with** your entry form and SAE).
- Make all cheques payable to – Mirage RC Enterprises Ltd.
- If you cannot attend a round that you have entered, you must give at least 7-days warning for a full refund. **If you fail to turn up and notice has not been given, your entries may be cancelled for the remaining rounds without notice or refund.**

### ROUND 1

**ASHBY – 10<sup>th</sup> April**

Send entries to:

**JOAN GOLDER**

14 Birch Avenue  
Newhall  
Swadlincote  
Derbyshire  
DE11 0NQ

Tel – 01283 218 193

Camping fees: £5 per tent/caravan

### ROUND 2

**Brooklands Circuit (KENT) – 8<sup>th</sup> May**

**NOTE – this event will be run concurrently with the Kent IC Club day, club members will run their separate races between Challenge races**

Send entries to:

**BRIAN ADAMS**

171 Princes Road,  
Dartford,  
Kent,  
DA1 3HP

Tel – 01322 291 538

Camping fees: £-8 per tent/caravan

### ROUND 3

**TIBSHELF – 12<sup>th</sup> June**

Send entries to:

**DAVE NORTH**

2, Stamford Avenue,  
Castleford,  
West Yorkshire,  
WF10 5NX.

Tel - 01977 554 625 (between 7-9:30 PM only please)

Camping fees: £5 per tent/caravan

### ROUND 4

**WREXHAM – 3<sup>rd</sup> July**

Send entries to:

**EDWIN JONES**

28, Wyndham Drive,  
Cefn-y-bedd,  
Wrexham,  
LL12 9YD

Tel – 01978 760 886

Camping fees: £5 per tent/caravan

### ROUND 5

**ALDERSHOT – 14<sup>th</sup> August**

**NOTE – no cars to be run before 9:30 AM**

Send entries to:

**NIGEL MOSS**

25 Shackelford Road  
Woking  
Surrey  
GU22 9DE

Tel – 01483 715 453 (between 7-9:30 PM only please)

Camping fees: £5 per tent/caravan

### UK FINALS

**HALIFAX – 3<sup>rd</sup> / 4<sup>th</sup> September**

Send entries to:

**MURIEL / JOHN RUSSELL**

17, Mill Grove,  
Brighouse,  
West Yorkshire,  
HD6 2FA

Tel – 01484 711 298

Camping fees: £5 per tent/caravan

## CAMPING TRACKSIDE – GROUND RULES

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At the clubs that do allow on-site camping, we ask that you respect the campsite, the local club rules regarding camping and also the club's local residents as many RC clubs already have noise regulation problems.

Many RC clubs also have a 'Shut-Down / Stop Running' time, generally around 8pm. Please check with each club for clarity, but again please show some respect to locals and your neighbours and keep the noise down (particularly with nitro cars).

On-site camping will be available for a limited number of racers on a first-come, first-served basis. Ask race organizers where the camping area is when you arrive, or follow the signs at the racetrack. Please be aware that cars and tents must not be driven or placed on football pitches under any circumstances! Campers are responsible for their own camping fees, payable to the track supervisor.

We have agreed to enforce the following rules for on-site camping and parental supervision of minors:

# THE CHALLENGE 2005 UK SERIES – INFO PACK

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- We must ask for a “quiet time” between 10pm and 8am, with all campers taking particular care to be considerate of their fellow racers and campers.
- Generators WILL be turned off at 11pm.
- Parents are advised that they are responsible for their children, may be liable for damages caused, and in extreme circumstances will be asked to leave the site immediately.

Activities such as fireworks, loud music, loud parties, revving car engines, general pranks, causing damages to the track or any property, etc., especially when people are trying to rest are not appreciated and will impact the club, racers, and the sponsors. These situations may result with immediate exclusion from the Challenge Series / Finals!

## GENERAL RULES

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Mirage RC Enterprises Ltd reserve the right to adjust the rules (in the interest) of The Challenge at any time.

**Confirmations of rules** can be attained and / or confirmed by Frank McKinney (The Challenge Co-ordinator).

**If you have a dispute during or concerning The Challenge contact Frank McKinney only.**

Serious breaches of the Challenge Rules / Aggressive or Threatening behaviour during the day could result in a competitor being disqualified and asked to leave the meeting **immediately**. In these serious circumstances, the meeting will be stopped until the competitor has left the circuit premises.

- HPI, Hot Bodies and XRAY cars run together in the 2005 (UK) Challenge. The XRAY drivers are qualifying for a separate XRAY European Championship (details TBC) and qualifying drivers will be separated out at the end of the year – as will the HPI European Championship qualifying drivers.
- The official language of the Challenge is English, this includes at European / World Finals.
- No sponsored or supported “Team” drivers in the Electric GTi, Electric Sport and the Nitro Stock Classes.
- Factory Sponsored Drivers will not be allowed to race on/in the Challenge UK / European or World Finals.
- Competitors are welcomed to enter up to 2 Classes in the Challenge.
- No Electronic Gyro’s allowed at any time.
- All cars will be weighed and measured immediately after racing. Cars will be measured at the wheels for width and weighed on a digital scale for accuracy. Any driver not returning their car to the scrutineering area after their race will forfeit their result from that race.
- **ALL** Nitro Cars **MUST BE** fitted with a **FAIL-SAFE unit** (throttle servo re-centralising system).
- Accurate Crystal Information is VERY IMPORTANT. This year if you change crystals or supply the WRONG crystals you may be subjected to a £1.00 fine, which is donated to the host club. If in doubt phone to confirm your crystals before you turn up. This has caused many problems in the Challenge and is simple to inform the race organisers if you need to change crystals!!!
- Only one pit crew member (for refuelling/repairs) is allowed in the pit area per car. This is for the safety of all racers and pit crew members. This is a standard BRCA rule! Pit crew bibs will be provide and must be worn.
- Bad driving can result in time penalties or warnings from race control or the Race Referee. If bad driving is repeated a 10-second penalty followed by the loss of your FTD will be issued.
- Coaching of drivers (during races) is not allowed.
- Mobile phones are not allowed on the rostrum or to be used during marshalling.
- The Host Club will provide commentary for all Finals if possible.
- Swearing is not allowed at any time.
- The race director of each track will explain to the drivers and pit crew members the pit/refueling area, corner marshal positions, etc. – it is the responsibility of each driver to make sure they and their pit crew member understand and follow these instructions!

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- **IMPORTANT** - All Drivers must have adequate personnel insurance for running radio controlled model cars / or be a BRCA Member which provides such insurance cover included in its membership fee - see [www.brca.org](http://www.brca.org) for details on how to join the BRCA.

## RACE FORMAT

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Note that the race format in the UK series will be different from the rules used in the HPI European Championship Finals and the XRAY European Championship Finals.

These differences will be noted in the individual information packs / entry forms.

- **Electric Class** drivers will have 3 Rounds of Qualifying and 2 (Leg) Finals at each event.
- In the event of a tie on points after those 2 Finals, the highest placed QUALIFIER wins.
- Electric Finals will be 5 minutes long.
  
- **Nitro Classes** will have 1 (one) 10-minute final - not 2 finals like Electric classes.
- Nitro cars **MUST** make at least 1 (one) pit stop for fuel in the finals.

The following Staggered Starts will be used in:

- Round 1                                      Numbers 1 – 10
- Round 2 / 3                                  Fastest Time of the Day
- Finals    Grid Start, Numbered 1 – 10

## SCRUTINEERING

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Every car will be scrutinised after Round 1 of qualifying. Individual cars will be selected and checked throughout the day also.

If a car fails scrutineering, you will lose the qualifying time from *that* round only and the relevant changes **MUST** be made before being allowed to qualify again.

## MARSHALLING

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Drivers **MUST** marshal the Heat / Final immediately after your race.

If you do not marshal you **WILL** lose your FTD.

Do not leave your marshal post until you've been relieved.

Marshals must wear the (orange) Marshal Bibs – this is for your own safety, and so we can see if you are marshalling.

## OPTION PARTS

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The following 'Other Manufactures Parts / Option Parts' may be used in **ANY of the CLASSES** in the Challenge as we understand that they do not make any difference to the performance of our cars.

All parts used **MUST** be commercially available.

General-purpose parts such as

- Spur Gears and Pinion (although the number of teeth **MUST** be clearly marked / indented)
- Turnbuckles, Hinge Pins, Screws and Ball Studs
- Motor Heatsinks (Clip on type Motor Heatsink / Electric Classes only)
- Fuel Pipes, Fuel Filters and Air Filters for Nitro cars only.

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- Screws, Lock-nuts and Washers
- HPI Gear Diff Adjustment Spring Set (Pt No. 72215)
- Ariel Tubes and Ariel Mounts
- Battery Pack Retaining Straps (i.e. Velcro straps)
- Body Pins and Transponder Holders
- Shock Spacers (to adjust ride height)

**Hot Bodies / Nosram / XRAY** option parts and bodysHELLS for HPI Cars may be used in the UK Challenge. **See individual Class Rules for details.**

Other items apart from what's listed above will be judged legal or illegal by the race organizer on the day.

## NITRO ENGINE RULING

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You can run *any* HPI, Team Orion, Hot Bodies or Nosram .12, .15, .16 or .18 size engines in the Nitro Modified class in the Challenge. Please note that in the Nitro Stock class, only the standard HPI 15FE and T15 or Hot Bodies .16 engines may be used!

HPI, Hot Bodies, Team Orion or Meilke exhausts and manifolds can be used.

All engines must remain standard/original in their internal and external structure - See individual 'Nitro Classes' for specific rules were applicable.

## CHAMPIONSHIP POINTS

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No points are awarded from qualifying.

Points will be awarded for finishing position from finals in every Class / Final

If you choose not to run in your final, you will be awarded 'Last Place Position' in that Final.

If there is a tie on points, the highest qualifier wins.

Points will be awarded as follows:-

1<sup>st</sup> = 100 Points.

2<sup>nd</sup> = 99 Points

11<sup>th</sup> = 90 Points

12<sup>th</sup> = 89 Points

and so on...

## PRIZES

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There will be a free raffle at every race meeting.

The Results / Prizes will be handed out ASAP after the finals finish.

At the end of the year each HPI Challenge Class Winner receives:

- A "Challenge Trophy"
- A £200 cash donation (toward his / her travel arrangements to the HPI European Finals (must attend this event to receive donation)
- A brand-new kit

There will be 5 (HPI) Class Winners / Qualifiers and 3 (XRAY) Class Winners / Qualifiers at the end of the year.



## THE CHALLENGE 2005 UK SERIES – INFO PACK

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The following drivers/positions will be available for UK drivers at the **HPI European Finals**. These spaces will be offered on individual Championship finishing Positions in each Class.

- 3 Electric GTi
- 3 Electric Sport
- 6 Electric Pro
- 3 Nitro Stock
- 3 Nitro Modified
- 3 Super Nitro Modified

Please note that this number may change nearer the Finals as we may receive the option of taking extra 'reserve' entries at short notice.

- **HPI Europe will provide qualifiers for the HPI European Finals all details needed to help you plan your trip to attend.**

### **CONCOURSE DE 'ELEGANCE – Supported by Mitsubishi Motors UK**

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We are proud to announce the Concourse Competition is being supported by Mitsubishi Motors UK whom will provide some superb prizes at every round of the Challenge 2004.

The Concourse de 'Elegance competition will be held between Qualifying and Finals.

All competitors are encouraged to enter their cars. Prizes will be given out to winning models.

A winning body may only win the Concourse once!!

### **THE CHALLENGE - NEW RULES (PRE-WARNING)**

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Due to various manufacturing reasons we often have to make changes to the rules that we use in the Challenge UK, European and World Series. As you can see this year we have added the XRAY cars into the Electric GTi / Mini, Electric Sport and Electric Pro Classes, we hope this proves a great addition to the UK Challenge Series!!

If any other changes (such as new products or new/updated cars) occur or are required during the year, we will try to inform you with as much notice as possible to be fair to all competitors.

**Please note the individual class rules for details of the 2005 Challenge.**

# **CHALLENGE** **2005**

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## **RACING CLASS** **RULES**

## **ELECTRIC GTI**

### **QUALIFYING and FINALS**

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Minimum of 3 rounds of qualifying.  
2 leg finals for everyone.  
FTD qualifying / stagger starts.  
5 minute races.

### **CAR**

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HPI Sprint GTi and XRAY T1M cars only

Max Width = 200mm  
Minimum Weight Limit = 1500g

- Stock (kit-supplied) springs must be used on ALL cars.
- Ball bearings are allowed as direct replacement for standard bushings.
- Universal dogbones are allowed for the Sprint. Part No. 86043
- Adjustable turnbuckles may be used.
- 6-cell batteries may be used, saddle pack configuration is allowed.
- Ball differentials may be installed in the Sprint GTi. Part No. 86040
- No other modifications or structural changes are allowed in this Class.

### **BODYSHELLS**

---

Any HPI GTI and XRAY T1M BodysHELLS are allowed.  
HPI Wing Sets (Pt No. 7115 & 85197) or standard wings may be used.  
All bodysHELLS and wings must be cut out and mounted as standard, unless otherwise agreed.

### **TYRES**

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B15-40 Racing Belted Slick. Part No. 4435  
Belt may not be removed from tyre.  
Any foam inserts can be used.  
Only HPI, Team Orion, XRAY and Hot Bodies wheels may be used.

### **MOTORS**

---

HPI Saturn 20T control motor only Part No. 1136

- You cannot modify the motors in any way (internally or externally).
- You cannot 'cut', 'shape' or 'drill' the brushes.
- You cannot tune or bend the brush springs.
- Motors can be cleaned or serviced / oil can be used.

Motors will be checked by the scrutineers trackside.

### **PLEASE NOTE**

At any time a 'Saturn Control Motor' may be exchanged (only by the Challenge Co-ordinator request), stripped and checked by a Challenge Scrutineer!! If this unlikely situation occurs a replacement motor will be supplied "free of charge" - unless that motor has been purposefully tampered with to gain performance. In this case no exchange motor will be given, a 1-off warning issued to the driver and the motor will need to be replaced at the driver's expense!! You have been warned!!!

### **BATTERIES**

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Any batteries that are BRCA legal may be used.

## ***ELECTRIC SPORT***

### **QUALIFYING and FINALS**

---

Minimum of 3 rounds of qualifying.  
2 leg finals for everyone.  
FTD qualifying / stagger starts.  
5 minute races.

### **CAR**

---

HPI Sprint, Sprint 2, XRAY T1R (moulded chassis only) cars only

Max Width = 200mm

Minimum Weight Limit = 1500g

- Stock (kit-supplied) springs must be used on ALL cars.
- Ball bearings are allowed as direct replacement for standard bushings.
- Universal dogbones are allowed for the Sprint. Part No. 86043
- Adjustable turnbuckles may be used.
- Ball differentials may be installed in the Sprint cars. Part No. 86040
- Saddle pack batteries may be used without structural modification.
- No other modifications or structural changes are allowed in this Class.

### **BODYSHELLS**

---

Any 190mm or 200mm HPI bodysHELLS are allowed (Note - Dodge Stratus / Suzuki Pikes Peak bodies are not allowed).

HPI Wing Sets (Pt No. 7115 & 85197) or standard wings may be used.

All bodysHELLS and wings must be cut out and mounted as standard, unless otherwise agreed.

### **TYRES**

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B15-40 Racing Belted Slick. Part No. 4435

Belt may not be removed from tyre.

Any foam inserts can be used.

Only HPI, Team Orion, XRAY and Hot Bodies wheels may be used.

### **MOTORS**

---

HPI Saturn 20T control motor only Part No. 1136

- You cannot modify the motors in any way (internally or externally).
- You cannot 'cut', 'shape' or 'drill' the brushes.
- You cannot tune or bend the brush springs.
- Motors can be cleaned or serviced / oil can be used.

Motors will be checked by the scrutineers trackside.

### **PLEASE NOTE**

At any time a 'Saturn Control Motor' may be exchanged (only by the Challenge Co-ordinator request), stripped and checked by a Challenge Scrutineer!! If this unlikely situation occurs a replacement motor will be supplied "free of charge" - unless that motor has been purposefully tampered with to gain performance. In this case no exchange motor will be given, a 1-off warning issued to the driver and the motor will need to be replaced at the driver's expense!! You have been warned!!!

### **BATTERIES**

---

Any batteries that are BRCA legal may be used.

# ***ELECTRIC PRO***

## **QUALIFYING and FINALS**

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Minimum of 3 rounds of qualifying.  
2 leg finals for everyone.  
FTD qualifying / stagger starts.  
5 minute Races.

## **CAR**

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HPI Sprint, Sprint 2, RS4 Pro 3, RS4 Pro 4, XRAY T1R, T1FK and T1FK'05 cars only

Max width = 190mm

Minimum Weight Limit = 1500g

Any HPI, Hot Bodies, XRAY, Team Orion and Nosram option parts are allowed.  
No structural changes allowed.

## **BODYSHELLS**

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Any 190mm / 200mm wide HPI bodysHELLS are allowed.

HPI Wing Sets (Pt No. 7115 & 85197) or standard wings may be used.

All bodysHELLS and wings must be cut out and mounted as standard, unless otherwise stated.

## **TYRES**

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B15-40 Racing Belted Slick.

Part No. 4435

Belt may not be removed from tyre.

Any foam inserts can be used.

Only HPI, Team Orion, XRAY and Hot Bodies wheels may be used.

## **MOTORS**

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Any BRCA legal Team Orion / Nosram Modified Motor is allowed

There is no limit on the number of turns on the motor.

Motors will be checked by the scrutineers trackside.

## **BATTERIES**

---

Any batteries that are BRCA legal may be used.

## NITRO STOCK

### QUALIFYING and FINALS

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Minimum of 3 rounds of qualifying.  
10 minute finals for everyone.  
FTD qualifying / stagger starts.  
5 minute qualifying.

### CAR

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RS4 Nitro 3, Nitro 3 Evo and Hot Bodies cars only

Max Width = 200mm

Minimum Weight Limit = 1700g

- HPI black progressive springs only. Part No. 6836
- Ball bearings are allowed as direct replacements for standard bushings.
- 2 speed gearboxes may be used in the Nitro Stock Class.
- HPI fibre brake disk can be installed. Part No. A844
- Optional engine mounts may be used to suit.
- Hardened differential outdrives may be used.
- No other modifications apart from those listed below in these rules.
- **All Nitro Cars MUST BE fitted with a FAIL-SAFE unit.**

### BODYSHELLS

---

Any 200mm HPI bodysHELLS are allowed (Note - Dodge Stratus / Suzuki Pikes Peak bodies are not allowed).

HPI Wing Sets (Pt No. 7115 & 85197) or standard wings may be used.

All bodysHELLS and Wings must be cut out and mounted as standard, unless otherwise stated.

### AIR HOLES

---

A 50mm hole is allowed in the front window (same size as a BRCA number sticker!).

Side and rear windows may be cut as required, other holes may be cut to allow engine heatsinks, large air filters and access to the fuel tank/glow plug only. All holes must be of reasonable size (we will follow BRCA rules where necessary – please be sensible).

### TYRES

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B15-40 Racing Belted Slick.

Part No. 4435

Belt may not be removed from tyre, any foam inserts can be used.

HPI, Team Orion, XRAY and Hot Bodies wheels only may be used.

### ENGINE

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Standard HPI 15FE and T15 or Hot Bodies .16 engines may be used – the HPI 18SS engine is NOT allowed in this class!

- HPI or Hot Bodies optional engine heatsinks may be used.
- Optional clutch shoe and spring components may be fitted.
- All other components within the engine (including exhaust) must remain standard. No engine/carb/crank boring, grinding, removing parts, etc.
- The engine pull start or Roto-Start/Jumpstart must work at all times.

**Mirage RC Enterprises** hold the right to inspect any engine at any time. The engine may be inspected by Mirage RC Enterprises Technicians and returned within 7 days with a ruling.

### GEAR RATIOS

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2 Speed Gearbox are allowed.

### FUEL

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Drivers will provide their own fuel, maximum 30% nitro content.

HPI fuel tanks must be used (75cc maximum size), fuel pipes/tubing must not be longer than 20cm in length.

## **NITRO MODIFIED**

### **QUALIFYING and FINALS**

---

Minimum of 3 rounds of qualifying.  
10 minute finals for everyone.  
FTD qualifying / stagger starts.  
5 minute qualifying.

### **CAR**

---

RS4 Nitro 3, Nitro 3 SS, RS4 Nitro 3 Evo, R40 and Hot Bodies Tornado cars

Max Width = 200mm

Minimum Weight Limit = 1700g

- Any HPI, Hot Bodies and Team Orion option parts are allowed.
- No structural changes allowed.
- **All nitro cars MUST BE fitted with a FAIL-SAFE unit.**

### **BODYSHELLS**

---

Any 200mm HPI Bodyshells are legal.

HPI Wing Sets (Pt No. 7115 & 85197) or standard wings may be used.

All bodyshells and Wings must be cut out and mounted as standard, unless otherwise stated.

### **AIR HOLES**

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A 50mm hole is allowed in the front window (same size as a BRCA number sticker!).

Side and rear windows may be cut as required, other holes may be cut to allow engine heatsinks, large air filters and access to the fuel tank/glow plug only. All holes must be of reasonable size (we will follow BRCA rules where necessary – please be sensible).

### **TYRES**

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HPI or Team Orion pre-mounted foam tyres only (B15-40's may be used if it is wet weather).

- 26mm front tyres / 30mm rear tyres only.
- Any tyre compound in the range may be used.
- HPI B15-40's may be used in the wet. Only HPI, Team Orion, XRAY and Hot Bodies wheels may be used if B15-40's are used.
- Tyre additive / tyre warmers are not allowed.

### **ENGINE**

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You can run any HPI, Hot Bodies, Team Orion or Nosram .12, .15, .16 or .18 size engines.

HPI, Hot Bodies, Team Orion or Meilke exhausts and manifolds can be used.

All components within the engine (including exhaust) must remain intact and as standard. No engine/carb/crank boring, grinding, removing parts, etc. **Mirage RC Enterprises** hold the right to inspect any engine at any time. The engine may be inspected by the technical staff and returned within 7 days with a ruling.

### **GEAR RATIOS**

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2 Speed Gearbox are allowed.

### **FUEL**

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Drivers will provide their own fuel, maximum 30% nitro content.

HPI fuel tanks must be used (75cc maximum size), fuel pipes/tubing must not be longer than 20cm in length.