





Inc.



Regulations 2019 - FINAL

1. SPORTING REGULATIONS – General

1.1 Title and Jurisdiction:

The Porsche Club Championship (the Championship) is organised and administered by the Porsche Club Great Britain (PCGB) in accordance with the General Regulations of the Royal Automobile Club Motor Sports Association (incorporating the provisions of the International Sporting Code of the FIA) and these Championship Regulations.

MSA Championship Permit No: CH2019 / R107 Race Status: National 'B'

MSA Championship Grade: 'C'

1.1.2 The Organisers reserve the right to carry out necessary or required changes to these regulations which are due to 'force majeure' or for safety reasons, or if requested by the authorities including the FIA, by means of Official Bulletins. The Organisers further reserve the right to cancel events if necessary due to exceptional unforeseeable conditions and are not liable for any damages so incurred as a result D11.1.3.

1.2 Officials:

1.2.1 Co-Ordinator: Steve Kevlin Porsche Club GB - 01608 652917

1.2.2 The Technical Regulations will be enforced by the Championship's MSA Eligibility Scrutineer, Terry Cox and/or his deputies.

1.2.3 Championship Stewards: Richard Culverhouse

Dale Wells

Paul Grainger PCGB

1.2.4 At any appeal hearing called under Section 4 of these Regulations the Appeal Panel will consist of 3 Stewards drawn from those listed under Regulation 1.2.3.

1.3 Competitor Eligibility:

Entry into the 2019 Porsche Club Championship will be by invitation of the Porsche Club GB - the Organisers.

- 1.3.1 Entrants must:
 - a. be fully paid up valid membership card holding members of the Porsche Club GB, and
 - b. be Registered for the Championship and
 - c. be in possession of a valid MSA Entrants Licences.
- 1.3.2 Drivers and Entrant/Drivers must:
 - a. be current members of the Porsche Club GB and
 - b. be Registered for the Championship and
 - c. be in possession of valid Competition (Racing) National 'B' or higher status Licence as a minimum. A licence of no higher grade than National 'A' status will be allowed within the Classic Restoracing Championship.
- 1.3.3 All necessary documentation must be presented for checking when signing on.

Note: Any driver who holds / has held an International Race licence, has previous professional or 'pro-am' racing experience, or is a paid performance driving instructor or coach will be subject to a weight penalty of 30kg on top of the minimum vehicle weight shown in Appendix ii. The organisers reserve the right to revise this additional weight according to overall performance in each round.

1.4 Registration:

1.4.1 All drivers must register as competitors for the Championship by returning the Registration Form (COMPLETED IN FULL) along with the Registration Fee to the Championship Co-Ordinator at least seven days prior to the date of the first round being entered. The Championship is open to invited competitors and registration will only be complete when written acceptance has been issued by the Organisers. Incomplete (in any way at all) or unsigned forms will be rejected.

1.4.2 The Registration Fee is £600 (inc. VAT) Payable to:- Porsche Club GB Motorsport Ltd.

- 1.4.3 Registrations will be accepted from publication of these regulations. The total number accepted may be restricted at the discretion of the Organisers.
- 1.4.4 Permanent Competition numbers for the Championship will be issued by the Organisers.

- 1.4.5 The Registration Form provided will form the basis of a vehicle 'log book'. **The form must be completed fully and accurately** as otherwise it may invalidate the vehicle eligibility. During the season any additions/alterations or any accident damage must be notified by the competitor in writing and appended to the completed 'log book', to be held by the Championship Co-ordinator.
- 1.4.6 Accepted registrations will apply only in respect of that competitor in a specified car. It will not permit the specified competitor to compete in a different car. The Organisers may accept a registration from a driver for a car already registered and raced in the 2019 Championship with another driver. Only one registration will be accepted per competitor at any one time.
- 1.4.7 Registrations will be accepted for two drivers to share a car. Only one Registration Fee will be payable
- 1.4.8 The 'seven day' rule for registration (Reg. 1.4.1) may be waived by the organisers in the event of 'Force Majeur'.
- 1.4.9 Registrations will not be accepted which allow a competitor to compete in just the final round of the championship.

1.5 Championship Rounds:

1.5.11 The Porsche Club Championship will be run at National B status and contested over 7 rounds as follows (All rounds will include a minimum of 2-races). Events marked (+) will include the 'Classic Restoracing Championship', either as an invitation class or as standalone races.

Date	Venue	Club	Race Format
April 20	Donington Dark	AMOC .	Destarcains concrete reces
April 20	Donington Park	AMOC +	Restoracing - separate races
May 4	Brands Hatch GP	MSVR +	Restoracing – combined
June 15	Silverstone GP	MGCC +	Restoracing – combined
July 7	Brands Hatch Indy	MSVR +	Restoracing – separate races
July 27	Snetterton 300	MSVR	No Restoracing class
Aug. 31	Oulton Park International	MGCC +	Restoracing – separate races
Sept. 28	Donington Park	MSVR	No Restoracing class
Nov. 23	Hilton Puckrup Hall Hote	·I	Motorsport Award Dinner

The Organisers reserve the right to amend the published list of dates, in which case all registered competitors will be informed of any amendment by official bulletins, in accordance with MSA Regulation D11.1.3.

In the event of a race meeting being abandoned for reasons outside the Championship Organiser's control, the abandoned round may not be rescheduled.

1.6 Scoring:

1.6.1 Place points will be awarded to Competitors listed as classified finishers in the Final Results as follows:-

1st 25, 2nd 21, 3rd 18, 4th 16, 5th 15, 6th 14, 7th 13, 8th 12, 9th 11, 10th 10, 11th 9 12th 8, 13th 7, 14th 6, 15th 5, 16th 4, 17th 3, 18th 2, 19th 1, 20th on 0.

- 1.6.1.i In addition points will be awarded to all competitors who practice and come under starters orders, i.e. actually get to the grid (including race starts which are subsequently stopped and re-started). Points will be awarded even where cars that took the original start, fail to take the re-start and/or do not appear on the final results sheet Also, see Regulation 3.7.1 Case A) as follows:-
- i Class Pole position = 1 point in the event of a Multi Header format, to be awarded in each race.
- ii Class Fastest lap = 1 point In the event of a Multi Header format, to be awarded in each race.
- iii Joint fastest laps each score 1 point.
- iv Entry form received and paid before the closing date = 1 point
- v Added to each individual competitor's place points will be a bonus equal to the number of starters in the Class, but not exceeding a maximum of 10, ie, 10 starters or more 10 bonus points (per competitor), 9 starters 9 bonus points, 8 starters 8 bonus points, etc.
- vi A further point will be awarded to each competitor who, at the time of starting the meeting, displays no damage to his/her car. This fact will be determined by the championship scrutineer or his appointed deputy. The only exceptions will be where the competitor has advised the scrutineer in writing in advance of damage which cannot be repaired in time. This point will be awarded only once in the meeting.
- vii Competitors in Class 4 will score full points subject to at least 3 starters in the class otherwise half points will be awarded.
- viii Competitors sharing cars will count only points scored by them, towards the championship. Points will not be shared or accumulated excepting Class 3 Classic Restoracing Championship, where the car will score the points with Registered Drivers only.

- 1.6.1.iii In the event of a Multi-Race format, full place, bonus points and fastest lap will be awarded for each race. The point for entry before closing date and for 'no damage' will be awarded for the first race started.
- 1.6.2 To determine the final Championship points total a driver will count his/her total number of points scored from a maximum of 12 races.
- To determine the final Championship points for the Classic Restoracing Championship, a driver will count all five rounds / ten eligible races. Points scored in other rounds will count towards the overall Championship but not the Classic Restoracing Championship.
- 1.6.2.i Points scored by a competitor in different classes will be totalled separately towards final placings. A change of car within a class will be permitted only with the prior consent of the Organisers see Reg. 1.4.6. Accumulation of points where a driver changes car will be automatic for the same model but may be totalled separately for a different model.
- 1.6.3 Ties will be resolved using the formula in W1.3.4 in the 2019 MSA Yearbook.
- 1.7 Awards:
- 1.7.1 All awards are to be provided by PCGB.
- 1.7.2 Per round, trophies will be issued to 1st, 2nd and 3rd in each class. In the event of a Multi Header format, trophies will be issued to 1st. 2nd and 3rd in each class for each race.
- 1.7.3 Championship Overall trophies will be issued to lst, 2nd and 3rd in each class. In addition the Overall Championship will be awarded to the holder of the greatest number of qualifying points in Class 1 or Class 2.
- 1.7.4 An additional trophy will also be awarded for the 'Restoracing Championship for Boxster S models competing in Class 3.
- 1.7.5 Where possible trophies will be provided for presentation at the end of each race and/or at an end of the meeting presentation ceremony. At the end of each race, Overall race and Class winners may be required for a podium presentation, this prior to any scrutineering procedures. Attendance at such award ceremonies is mandatory, failure to attend will result in loss of points from that meeting unless previously agreed with the Organisers. See Reg. 3.10 ii.
- 1.7.6 Entertainment Tax Liability:

In accordance with current government legislation, the Porsche Club is legally obliged to withold tax at the basic rate on all payments to non-UK resident sportsmen/women and account to HMRC using form FEU1, the quarterly return of payments made to non-resident entertainers and sportsmen/women.

That is, those persons who do not have a normal permanent residence in the UK. The UK does not include the Isle of Man, Channel Islands or Eire. This means that as the organiser, the Porsche Club is required to deduct tax at the current rate applicable from any such payments they may make to non-UK residents. Under certain circumstances, it may be possible for competitors to enter into an agreement with the Inland Revenue to limit the tax witheld. Any application for such an arrangement must be made in writing and not later than 30 days before the payment is due.

For further information contact: HMRC Personal Tax International, Foreign Entertainers Unit, St John's House, Merton Road, Liverpool L75 1BB. Tel: 0151 472 6488 Fax: 0151 472 6483.

- 1.7.7 In the event of any Provisional Results or Championship Tables being revised after any provisional presentations and such revisions affect the distribution of any awards the Competitors concerned must return such trophies to the Porsche Club GB in good condition within 7 days.
- 1.7.8 A 'Team Award' will be presented at the Motorsport Award Dinner, to the 'Team' whose nominated competitors (Best two of a Maximum of 4 nominated competitors) cumulatively score the most points over the course of the season (including scores dropped by competitors in their qualifying championship total). Competitors must be nominated by the Team at the start of the season, using an official nomination form that is part of these Regulations. Changes of nominated competitors will only be allowed following written agreement of the organisers. Note: MSA Reg. D7.1.12 applies.
- 2. Sporting Regulations Judicial Procedures.

2.1 Rounds: These will be In accordance with Section C of the 2019 MSA Yearbook and Section 2 and 4 of these

Regulations.

2.2 Championship: These will be In accordance with Section C of the 2019 MSA Yearbook and Sections 2 and 4 of

these Regulations.

2.3 Sporting Disputes

- 2.3.1 Disputes of the Sporting Regulations and their application by the Championship Co-ordinator which arise during the season will be settled by the Championship Stewards in accordance with MSA Regulations, these Regulations and any Official Bulletins that have been issued. The case for any dispute must initially be submitted to the Championship Co-ordinator in writing together with the appropriate MSA legislated protest or appeal fee. The Stewards judgment will be subject only to the Right of Appeal to the MSA.
- 2.3.2 The encouragement of high standards of racing with appropriate respect for other competitors and their cars will be considered paramount and in that respect
 - i. Breaches of driving standards will be firmly dealt with. If it appears from official video recordings or any other evidence that there may have been a breach of driving standards or behaviour, on or off the track, in a manner considered to be inappropriate or unacceptable for the standards set by the Championship, the Championship Co-ordinator will be entitled to request that the Championship Stewards consider the inception of an enquiry into the matter, notwithstanding that the Clerk of the Course or the Stewards of the event may or may not have already investigated the incident. Penalties may include individual race bans, loss of points, awards, and/or end of season awards or exclusion from the 2019 Porsche Club Championship.

The following will be the guidelines by which racing will be conducted:

- 74. During a race or practice, if a car is approached from behind by a second car which is either temporarily or consistently faster, the first Driver shall immediately give the other vehicle the right of way.
- 75. Manoeuvres liable to hinder other Drivers, such as premature direction changes on a straight, crowding of cars towards the inside or outside of a curve, or any other abnormal change of direction are strictly prohibited and will be subject to penalties ranging from a fine to exclusion from the race. The repetition of such driving even though involuntary, may result in exclusion.
- 76. Any driver appearing not to make adequate use of his rear-view mirror or driving even unintentionally in a manner which appears consistently to hinder or discourage another Driver seeking to pass, may be halted by display of the Black flag or otherwise penalised.

Any rule clarifications necessary during the year will be notified in writing to all registered competitors in an Official Bulletin.

- 3. **Sporting Regulations -** Championship Race Meetings & Race Procedures.
- 3.1 Entries:
- 3.1.1 Competitors are responsible for sending in correct and complete entries with the correct entry fees prior to the entry closing dates which shall be as stated on the relevant entry form.
- 3.1.2 Incorrect or incomplete entries (including Driver to be Nominated Entries) are to be held in abeyance until they are complete and correct and the date of receipt for acceptance of entry purposes shall be the date on which the Secretary of the Meeting receives missing or corrected information or fee.
- 3.1.3 Any withdrawal of Entry or Driver/Car changes made after acceptance of any entry must be notified to the Secretary of the Meeting in writing. If Driver/Vehicle changes are made after publication of Entry lists with Final Instructions the Competitor concerned must apply for approval of acceptance by the Stewards of the Meeting BEFORE Signing-On.
- 3.1.4 The Maximum Entry Fee for each round shall be as set out on the Entry Form for the race being entered.
- 3.1.5 In the event of any rounds being oversubscribed the Organising Clubs, in liaison with the Porsche Club GB, may at their discretion run two races. In such circumstances the entry for each individual race will be determined by the class structure.

Where races are combined with another series the number of entries allocated to Porsche Club Championship competitors will be at least 50% of the available grid. Priority will be given, based on:

- I Date of receipt of completed entry.
- li Championship position at time entry received.
- lii Number of events entered up to that point.
- 3.1.6 Reserves are to be nominated on the Final list of Entries published with Final Instructions or Amendment Sheet Bulletins. All reserves will practice and replace withdrawn or retired entries in Reserve Number Order irrespective of Class. If Reserves are given Grid places prior to issue of the first Grid Sheets for any round, the times set in Practice shall determine their grid positions. If Reserves are given places after publication of the grid sheet and prior to cars being collected in the Official 'Assembly Areas' they will be placed at the rear of the Grid and be started without any time delay. Otherwise, they will be held in the Pitlane and be released to start the race

after the last car to start the GREEN FLAG LAP or last car to take the start has passed the startline or pitlane exit, whichever is the later. Such approval to start MUST be obtained from the Clerk of the Course.

3.2 Briefings:

Organisers will notify Competitors of the times and locations for all briefings in the Final Instructions for the meetings. Competitors must attend all briefings.

3.3 Practice:

The minimum period of practice scheduled to be provided is to be 15 minutes. Should any practice session be disrupted the Clerk of the Course shall not be obliged to resume the session or re-run sessions to achieve the Championship criteria and the decision of the Clerk of the Course shall be final.

Following practice all cars must go direct to the designated Parc Ferme or circuit weighbridge upon leaving the track. Competitors leaving the track prior to the end of practice should go direct to the designated Parc Ferme or circuit weighbridge. Failure to do so, or stopping 'en route', or non-presentation of car/driver combination when required, will lead to cancellation of qualifying times. Note. As both driver and car are considered to be under Parc Ferme conditions no other person or persons will be allowed into the area designated Parc Ferme.

3.4 Qualification:

Each driver should complete a minimum of 3 laps practice in the car to be raced and in the correct session in order to qualify for selection and order of precedence as set out in the MSA Regulation Q4.5. The Clerk of the Course and/or the Stewards of the Meeting shall have the right to exclude any driver whose practice times or driving are considered to be unsatisfactory as per MSA Regulation Q4.5.

3.5 Races:

The standard minimum scheduled race distance shall be 15 laps or 30 miles or 20 minutes whenever practicable but should any race distance be reduced at the discretion of the Clerk of the Course or Stewards of the Meeting it shall still count as a full points scoring race.

3.6 Starts:

Two by two grids (subject to track licence stipulations) and standing starts will be used for all Championship rounds.

- 3.6.1 All race start countdowns are to have a minimum elapsed period of 3 minutes from the time all cars are released to form up on the grid to the start of the Green Flag lap(s) in the formation as specified on the Track Licence for each circuit.
- 3.6.2 The minimum countdown procedures/audible warnings sequence shall be: 1 Minute to start of Green flag/Pace lap Start engines/Clear grid. 30 Seconds Visible and audible warning for start of Green Flag/Pace lap.
- 3.6.3 The use of tyre heating/heat retention devices, tyre treatments and compounds is prohibited.
- 3.6.4 Any cars removed from the grid after the 1-minute stage or driven into the pits on the Green Flag lap shall be held in the pitlane and may start the race after the last car to take the start from the grid has passed the startline or pitlane exit, whichever is the later.
- 3.6.5 Any drivers unable to start the Green Flag/Pace lap or start are required to indicate their situation as per MSA Regulation Q12.13.2 and any drivers unable to maintain grid positions on the Green Flag lap to the extent that ALL other cars are ahead of them, may complete the Green Flag lap but MUST remain at the rear of the last row of the grid but ahead of any cars to be started with a time delay.
- 3.6.6 Excessive weaving to warm up tyres using more than 50% of the track width, falling back in order to accelerate and/or practice starts, is prohibited.
- 3.6.7 A five second board will be used to indicate that the grid is complete. The red lights will be switched on five seconds after the board is withdrawn. In the event of any starting lights failure the Starter will revert to use of the National Flag.

- 3.6.8 In respect of rounds with multi-race formats, grid positions will be determined as follows:-
 - The grid for Race 1 will be determined by qualifying/practice times (as Regulation 3.4). The grid for Race 1 will be based on the competitor's best time achieved in any or all sessions (subject to Regulation 3.4).
 - The grid for Race 2 will be determined by qualifying/practice times (as Regulation 3.4) The grid for Race 2 will be based on the competitor's second-best time achieved in any or all sessions (subject to Regulation 3.4).

3.7 Race Stops:

Should the need arise to stop any race or practice, RED LIGHTS will be switched on at the startline and RED FLAGS will be displayed at the Startline and at all marshals Signaling Points around the circuit. This is the signal for all drivers to cease circulating at racing speeds, to slow to a safe and reasonable pace and to return to the starting grid area which will automatically become a Parc Ferme area.

Cars may not enter the Pits unless directed to do so. Work on cars already in the Pits must cease when the race is stopped.

3.7.2 Case A – Less than two laps completed by the Race leader.

The Race will be null and void. The race will restart from the original grid positions. Competitors unable to take the restart may be replaced by reserves who will start from the back of the grid in reserve order. Gaps on the grid should not be closed up. The length of the restarted race will be determined by the Clerk of the Course.

3.7.3 Case B – More than two laps completed by the Race Leader but less than 75%.

The race will restart from a grid set out by the finishing order of part one (as per Q5.4.2). The result of the race will be the finishing order at the end of part 2. The length of the restarted race will be determined by the Clerk of the Course.

3.7.4 If the leader has completed more than 75% of the race distance or duration it shall not be restarted and the results will be declared in accordance with MSA Regulation Q5.4.3. unless the Clerk of the Course, in consultation with the Stewards deem it appropriate to restart the race.

3.8 Re-Scrutiny:

All vehicles reported involved in contact incidents during races or practice must be re-presented to the Scrutineers before continuing in the races or practice.

3.9 Pits & Pitlane Safety:

- 3.9.1 Pits. Entrants must ensure that the MSA Circuit Management and Organising Club Safety Regulations are complied with at all times.
- 3.9.2 Pitlane. The outer lane or lanes are to be kept unobstructed to allow safe passage of cars at all times. The onus shall be on all drivers to take all due care and drive at minimum speed in pitlanes.
- 3.9.3 Refuelling. May only be carried out in accordance with the MSA Q13 Regulations, Circuit management regulations and the SR's or Final Instructions issued for each Circuit/Meeting.

3.10 Race Finishes:

- i. After taking the Chequered Flag drivers are required to progressively and safely slow down, remain behind any competitors ahead of them, return to the Pitlane Entrance/Paddock entrance as instructed, comply with any directions given by Marshals or Officials and to keep their helmet on and harnesses done up while on the circuit or in the pitlane.
- ii. The first 3 finishers in each class must go direct to the circuit weighbridge/parc ferme immediately on leaving the track or following the end of the podium presentation. Drivers must remain with their cars until weighing procedures are complete, unless required for podium presentations, in which case they must return to/proceed with their cars to parc ferme immediately after such presentation. Failure to comply with this Regulation may lead to exclusion from the results.

3.11 Results:

3.11.1 All practice Timesheets, Grids, Race results are to be deemed PROVISIONAL until all vehicles are released by Scrutineer after Post Practice/Race Scrutineering and/or after completion of any Judicial or Technical Procedures including for any subsequent examination or test at any other specified location as permitted by these Regulations.

3.12 Timing Modules:

3.12.1 All competitors will be required to install Electronic Self Identification Timing Modules – see Appendix iv for contact details of supplier.

3.14. Operation of Safety Car:

3.14.1 The Safety Car will be brought into operation and run in accordance with Section Q. Appendix 2 of the MSA General regulations.

4. Championship Race Penalties.

- 4.1 Infringements of Technical Regulations:
- 4.1.1 Arising from post practice Scrutineering or Judicial Action: Minimum Penalty: The provisions of MSA Regulations C3.3.
- 4.1.2 Arising from post race Scrutineering or Judicial Action: Minimum penalty: The provisions of MSA Regulations C3.5.1.(a) and (b). For infringements deemed to be of a more serious nature the Clerk of the Course and/or Stewards of the Meeting are to invoke the provisions of Regulation C3.5.1.(c).
- 4.1.3 i. In the event of any breach of these Regulations the Championship Co-ordinator may refer the matter to the Championship Stewards who may impose such penalties as they see fit. Incl.:
 - a) Removal from a competitor of all or any Championship points claimed by such competitor.
 - b) Exclusion of a car and/or competitor from taking part in the Championship.
 - ii. Failure to make a car available for scrutineering or to permit its retention or to present it for examination after sealing as required by Regulation 5.17 shall be a breach of Regulations.
 - Unauthorised breaking of any seals put in place under the provisions of the Regulations 5.17 or for any other purpose shall be a breach of these Regulations.
- 4.1.4 i. Any competitor wishing to appeal against a decision relating to the Championship Regulations, be it Technical or Regulatory, shall serve notice in writing to this effect upon the Championship Co-ordinator within seven days of such decision being published. Such notice shall be in accordance with MSA Yearbook 2019, Article 13 (£420) payable to the MSA.

Any appeal made in accordance with paragraph 4.1.4.i above shall be determined by the Championship Stewards.

- ii. A competitor may appeal against the decision of the Championship Stewards in accordance with the MSA Reg. C71.
- 4.2 Infringements of non-technical MSA Regulations and the Sporting Regulations issued for the Championship: As per 2019 MSA Judicial Procedure Regulations, plus:
 - i. In the event of the competitor having points applied to his/her licence by a Clerk of Course at any meeting, the same number of points will be deducted from the competitors championship score.
 - ii. In the event of further instances of points being applied to the licence, the points deduction will be multiplied by the number of times points are applied, e.g. for a second occasion the deduction is points applied x 2, for a third occasion points applied x 3, etc.

5. TECHNICAL REGULATIONS:

5.1 Introduction

The following Technical Regulations are set out in accordance with the MSA specified format and it should be clearly understood that if the following texts do not clearly specify that you can do it you should work on the principle that you cannot. If in doubt – ASK

5.2 General Description

The Porsche Club Championship is for Competitors participating in Porsche vehicles in the classes as specified in Appendix i.

A high standard of presentation for competing cars will be considered of paramount importance. The judges in this matter will be the Championship Co-ordinator and the Championship Scrutineer. In considering whether to permit any car to participate the Organisers reserve the right to take into account, at any point during the season, its appearance and the standard of its presentation (including its interior) and may exclude any car the appearance of which they consider may prejudice the reputation of the Championship or is otherwise not acceptable – See Regulation 1.6.1.i.vi.

At the Organisers discretion, cars for physically disadvantaged drivers shall be allowed to compete with whatsoever equipment the Organisers deem appropriate for the sole purpose of giving the driver full and adequate control. Competitors will thereafter be personally and solely responsible for ensuring that any and/or all such equipment fitted shall be acceptable at inspection by the Chief Scrutineer of any meeting attended.

5.3 Safety Requirements

References in these regulations to the MSA Technical Regulations are to those issued for 2019.

- 5.3.1 Vehicles must comply with sections J1, Section J Technical & Q Technical Regulations except Q19.9.1 (in so far as they relate to rearengine vehicles).
- 5.3..2 The design and fixation of the roll cage is free within the passenger compartment insofar as it must comply with the minimum requirements as shown in Section K drawings 5 and 6 for left or right hand drive cars as appropriate, except for the following:
 - i. Additional door bars are mandatory as per MSA Regulation K1.3.5(b).
 - ii. Cars competing in Class 1 and Class 2 may have their roll-cage extend through the bulkhead area to the suspension towers front and rear (previously this applied to Boxster and Cayman models only). No part of the cage may extend past the upper suspension mounts.
 - iii. In the case of front engine cars no part of the roll cage nor its attachment points to the chassis/body may be rearward of the rear transverse chassis rail nor the position of the rear seat hinge (except with the express permission of the Organisers).
- 5.3.3 All roll cages not having certified approval prior to 01.01.95 must seek such certification via an MSA approved source and such certificate must be available for inspection at scrutineering.
- 5.3.4 Fire extinguishers, to Section K Appendix 7, Table 3 securely mounted to the cockpit floor with a minimum of 2 x 6mm diameter bolts with quick release brackets, must be fitted. Safety pins must be removed whilst competing or practising (including post practice/race scrutiny).
- 5.3.5 A Safety Harness to K2.1.2. K2.1.3 or K2.1.4 must be fitted. Note MSA regulation Q19.14.2.
- 5.3.6 A Crash Helmet to current MSA approved standard and clean fire resistant overalls, balaclava, socks, gloves and boots as per K9 must be worn whilst competing or practising and available for inspection at pre-practice scrutiny.
- 5.3.7 The use of an approved FHR Device (HANS) will be mandatory see MSA Reg. K10.4

5.4 General Technical Requirements & Exceptions

5.4.1 Interpretation

For the purposes of interpretation, the term 'Organisers' shall refer throughout these Regulations to the Porsche Club GB, unless specified otherwise. In these regulations 'standard' shall mean in accordance in all respects (whether as to shape, size, material, manner of construction or otherwise) with the manufacturer's recognised U.K specification for the model or item in respect of which the expression is used.

Where a car is Registered to compete in the Championship, if it did not start as the model Registered, it must be a faithful replica in all material respects, that includes, engine type (full mechanical and electronic specification), transmission in all respects including gear ratios, Engine management system and control units / harnesses and braking system. Any changes from standard must be declared on the Championship Registration Form and must have written approval of the organisers.

The organisers will take steps to seal components on all cars at the first meeting at which the car competes. Such sealing may include, Engine, Transmission, Electronic Control Units, or any other components deemed appropriate by the organisers. Where sealed, the seals must remain intact all season long and may only be removed or broken with the express permission of the Championship Scrutineer. The organisers will advise the organisers of any race meeting which cars are competing with seals installed.

Optional manufacturer (Porsche) power upgrades are NOT allowed to be used, e.g. X51 engine kits.

- 5.4.2 The Organisers or their representatives shall establish the manufacturer's recognised U.K specification by reference to information provided by the manufacturers or by comparison with the items or components which the Organisers consider accord with such specification or in another manner which the Organisers shall consider appropriate.
- 5.4.3 The Organisers or their appointed representative shall be the sole arbiters and any finding of the Organiser as to whether or not any item or component is 'standard' or 'relevant' for the purpose of these regulations shall be a finding of fact.
- 5.4.4 Competitors, shall on registering for the series, be deemed to have full knowledge of these regulations and to have accepted same in full.

- 5.4.5 Each car must be registered as a specified model (including year of manufacture) and must at all times and in all respects be standard for such a model except for any modifications expressly permitted by these regulations.
- 5.4.6 Unless specifically authorised in these Regulations the use, substitution of, and/or addition of any parts, material, processes or adjustments incompatible with those appearing in the manufacturer's recognised U.K specification is prohibited. Similarly only welding or repairing material or the fitting of the manufacturer's standard replacement parts for the sole purpose in every respect of restoring the vehicle to the manufacturer's recognised U.K specification or to comply with MSA obligatory safety requirements is permitted.
- 5.4.7 The Organisers reserve the right to re-inspect vehicles during the course of the season should there have been a Regulation infringement or circuit incident.
- 5.4.8 Competitors will be personally and solely responsible for ensuring that their cars comply with their registration details and with these regulations for each event at which they are entered. Failure to comply in either respect will be a breach of these regulations. Queries concerning eligibility should be referred in writing to the Organisers at least 7 days prior to an event entered to permit a ruling in advance of any meeting at which it is intended to compete.
- 5.4.9 Tests to establish the power output of any car may be carried out by the scrutineer. Such power testing will be carried out using the rolling road equipment or engine dynamometer equipment as detailed in Appendix iii. No further tolerance will be allowed above the figures stated in Appendix i. 'Rounding' of calculations will be effected on the total power figure. For purposes of presentation other figures may be rounded, but it is the total figure only which is relevant. The test will be carried out according to the procedures stated in Appendix ii of these regulations.
- 5.4.10 All competitors may be required to install fittings, as stipulated by the organisers and prior to any round in which it is planned to compete, to allow the use of a data-logger system.
- 5.4.11 The Organisers in the form of the scrutineer, reserve the right to strip any engine or transmission or other component of a registered car to establish its eligibility. The cost of such dismantling and any subsequent re-assembly will be at the cost of the competitor. In the event of any part being found to be in contravention of any of these regulations the cost of such work will be met by the competitor. The Organisers reserve the right to hold cars until such fees are paid. Failure to comply with this in all respects will mean exclusion from the Championship of the competitor concerned.
- 5.4.12 Where a vehicle is found to be in contravention of Championship Regulation 5.4.9 and/or 5.4.11 the competitor may be required to make a financial contribution towards the costs of any testing carried out. Failure to comply with any reasonable request for such contribution will result in the competitor's registration for the Championship being rescinded.
- 5.4.13 Cars may be put into Parc Ferme at any time during a Championship race meeting at the request of the scrutineer.
- 5.4.14 Repairs or any other work (including seam welding, brazing and plating) to any part of the car which the Organisers consider would improve it (whether as to strength, rigidity or otherwise) beyond the standard part or item is prohibited. Any structural repair to the vehicle must be itemised in full on the Registration form.

5.5 Chassis

- 5.5.1 The body style of the registered vehicle must have been produced as that specific body style, eg, a vehicle registered as a coupe must have originally been a coupe and not a Targa or Cabriolet. The inclusion of body/chassis parts which are not appropriate to the registered body style is expressly forbidden.
- 5.5.2 Each car's Vehicle Identification Number (Chassis) plate shall be clearly visible on the main body of the car and identifiable by a red painted surrounding border. Any vehicle not carrying a 'stamped-in' original chassis number must have one allocated and applied by the Organisers. The VIN number must be correct for the model type as registered. See Reg. 5.4.1.
- 5.5.4 The Organisers may (but shall not be obligated to) waive chassis regulations.

5.6 Bodywork

- 5.6.1 Modifications Permitted
- 5.6.1.1. Taping of bodywork gaps, spoilers or any profiles is prohibited and all lights, body aperture caps and rubber seals must be in place. The removal of spot/auxiliary driving lamps is permitted (subject to Reg. 5.10.1), provided that apertures are covered with a mesh grille (or blanking panel) and provided that installation and finish of such is to a high standard.

5.6.1.2. Interior

Interior trim including carpets may be removed. Standard dashboards or standard pattern (and centre console in 4-cylinder models) must be retained. Vertical trim panels must be fitted. 911 models may fit RS pattern door panels, all models may fit carbon fibre or standard panels. Bare aluminium panels will not be acceptable.

- 2.2 Replacement of driver's seat by a suitably affixed racing seat to FIA standard is permitted. Competitors should pay close attention to the strength and integrity of any seat(s) fitted and the mounting thereof, in particular it is suggested that aluminium seat mountings constructed from welded sections are to be avoided. Fixed mountings supplied by the seat manufacturer are strongly recommended. Where sliding seat runners must be used, attention should be paid to the quality of manufacture and strength. All mountings should be securely attached to the vehicle using bolts and washers of suitable dimensions and/or steel plates to spread the loads where bolted through the floor (Note. standard 'captive nuts' may not be sufficiently secure). See MSA Reg. K2.2.
- 2.3 Passenger seats may be removed, but where they are fitted must be of a design and type appropriate and safe for normal use.
- 2.4 Substitute steering wheels are permitted subject to MSA Regulations J5.7. The fitting of plates to pedals is permitted.

5.6.1.3 Exterior

Air scoops for brake and/or oil cooling may be fitted within the plan of the standard body panels but not so as to be visible at an angle of 45 degrees from the outer edge of any of the bodywork of the car – see Regulation 5.11.vi. If using flexible deflectors as fitted by Porsche as standard / option – these may encroach in the minimum rife-height area – Reg. 5.6.1.5..

Sunroofs must comply with Q19.14.6.

Bodywork must be standard for the registered model (including materials) save that composite front wing and bonnet for all models are permitted. All models may remove the headlamps (and 968 / 944S2 / 944 / 928 models may remove the headlamp operating mechanisms), subject to Regulation 5(2) - standard headlamps are not required as a result but suitable driving lamps must be fitted, fully operable and not blocked out, ie can be used as headlamps. (See Reg. 5.10.1). Where headlamps are removed they must be fitted with suitable and acceptable cover panels.

All models may be fitted with fibreglass front and rear PU bumper panels and doors, subject to them being of sufficiently high quality and weight (similar to the original).

Boxster models may compete with the hardtop fitted - this may be produced in lighter than standard materials but must be faithful to the original external appearance - or with no top at all. If racing with no roof, the side windows should be removed completely. If the roof is fitted, the side windows must also be fitted, but may be constructed of Lexan type material.

- 3.1 Only spoilers standard to the registered model may be fitted.
 - i 964, 993, 996, 997, Class 1 Boxster models and Class 2 Boxster models may only use the standard rear spoiler, but if raised, its position must be fixed in the standard raised position.
 - 3.2 All side and rear windows may be replaced by Lexan type material.
- 3.10 Towing eyes must comply with MSA Regulation Q19.1.3. this stipulates they must be substantial, securely fixed to the main structure of the vehicle (front and rear) and be within the confines of the body (must not protrude beyond the plan view). They are to enable the vehicle to be moved in the event it requires retrieval especially from gravel traps or towing. They should be painted a contrasting bright colour. Poorly constructed or insecure towing eyes may lead to considerable damage to the towed vehicle, difficulty in retrieving the stranded vehicle, or injury to support personnel in the event of a breakage.

Note: Standard 'screw in' towing eyes will not be acceptable if they project beyond the bumper line in plan view.

3.11 Only recognised Porsche pattern or accepted exterior door mirrors may be fitted.

5.6.1.4. Silhouette

i. Save for permitted alternative spoilers listed in these Regulations, the silhouette must remain standard for the registered model.

5.6.1.5. Ground clearance

Minimum ground clearance is 65mm - MSA Regulation Q19.1.2.

5.7 Engine

- 5.7.1 Permitted modifications Engines and their components, power output (as stated in Appendix i) and ancillaries must be standard for the registered model.
 - ii. Devices limiting engine speed may be adjusted or rendered inoperative
 - iii. Drive belts of engine driven pumps may be disconnected. Air injection pumps may be removed.
 - iv. The ignition timing is free.
 - v. Carbon fibre clutches are not permitted.
 - iii. The flywheel must be approximately the same weight as that fitted to the standard model, save that models fitted standard with a Dual-Mass flywheel may substitute a solid flywheel. Where available this must be a Porsche production part, but non-Porsche parts must not be specifically designed as a weight saving exercise, i.e should not be lighter than a standard single-mass flywheel if available for that model. The clutch lining is free, the pressure plate should be a production Porsche part, subject to 5(7).1.v.
 - iv. Air-conditioning equipment may be removed.
 - v. Specific exceptions / allowed modifications for Boxster, Cayman, 996 and 997 models (excluding Class 3 Restoracing Boxsters):
 - i All models may replace the 'early style' oil separator, with the 'later' version, or 'motorsport' version.
 - li All models may install a spacer between the crankcase and the sump plate or an extended sump to increase oil capacity, in which case the pickup pipe may be extended accordingly.
 - iii Oil sump baffles may be modified.
 - An oil accumulator may be used, to supply oil under pressure when cornering. If fitted on a 996 model, it may be installed at the rear of the passenger compartment, but must be fully 'boxed-in' using appropriate metal panelling.
 - v An adapter may be fitted replacing the standard oil filter housing to allow for the use of a 'spin-on' oil filter.
 - vi The crankshaft pulley may be replaced by one of a smaller diameter. All other pulleys must remain standard.
 - Vii The cylinder liners may be replaced by liners of a different material, but bore and deck height dimensions must remain standard.

5.7.2 Prohibited Modifications

Note – Porsche X51 engines are not permitted. The additional oil scavenge pump which is part of that upgrade is allowed, but not the performance enhancements.

Save for balancing to the extent mentioned below, no other modifications are permitted. It is strictly forbidden to perform any work other than normal service to any part of the vehicle. Normal repair or replacement is permitted but only to the standards as specified in the manufacturer's service schedules and using parts identical to the part requiring replacement. Decoking of cylinder heads using burrs or wire brushes is likely to make the condition of inlet and exhaust ports unacceptable. Polishing of any components is strictly prohibited. Casting marks and sharp edges must been seen as the manufacturer originally produced the item. **IF IN DOUBT, ASK!** Minimum removal of metal from moving components solely for the purpose of balancing in the course of engine assembly shall not of itself constitute a breach of these Regulations but if in the opinion of the Organisers (whose decision shall be final) such removal is excessive, unusual or irregular or may result in other improvements or benefits the work shall be considered a breach of these Regulations.

. Camshafts must be standard and camshaft timing must be set and remain within manufacturers standard settings.

- ii. Any standard variable camshaft timing elements may not be modified to alter the camshaft timing or phasing beyond the original manufacturer settings and must be operational at all times.
- iii. Where standard, balance shaft belts and balance shafts must be installed, connected and fully operational at all times.
- 5.7.3 The engine location must remain standard for the registered model. Engine mountings may be modified or non-standard, but must use the original mounting points and locations.
- 5.7.4 Oil / water cooling
 - i. Provision for engine and/or gearbox oil cooling within permitted body panels is free. However ram air supply pipes which increase under-bonnet air intake pressure or flow, or fuel cooling are prohibited.
 - ii. Cooling for engine / oil systems will not be permitted to pass through the passenger compartment see Reg. 5.7.1.iv.

5.7.5 Induction systems

ii. Standard air filter elements **MUST** be retained. Filter boxes and inlet trunking must be complete as manufactured and intact. The opening of additional apertures by removal of air cleaner elements is not permitted. **All** hoses and components must be fitted and fully functioning.

5.7.6 Exhaust systems

- i. An exhaust system (including effective silencer boxes with standard outlets, but for which internals are free) of standard diameter and routing for the registered model must be used. Silencing must be within MSA Technical Regulations, J5.16.5 J5.17.
- ii. Exhaust manifolds must be standard for the model, save that 987 Cayman and Boxster models may use manifolds which have the 'close-coupled' catalytic converters removed.
- iii. Cars manufactured after 31.12.1999 must have a functioning Catalytic Converter fitted.

5.7.7 Ignition systems

- i Save for exceptions allowed in 5.7.1 iv ignition systems must be standard.
- ii Regulation 5.71.iv will mean that for vehicles with electronic engine management systems the software on the EPROM chip may be modified to allow for the alteration of the ignition or fuel settings on the chip. Save that the adjustments must not include any additional 'hard-wired' components and may only allow for one operating programme on the 'chip'. All other mechanical components must be standard.

5.7.8 Fuel delivery systems

i. The fuel system components must remain standard for the registered model and must be installed as designed for that model. No additional components or functions may be installed.

5.8 Suspension

- 1. Permitted modifications
- i. Standard suspension units, joints and bushes in unmodified form must be retained, save that all models may use plastic or composite bushes to replace standard 'rubber' bushes. Metal bushes and spherical joints may not be used unless specifically allowed in a separate Bulletin..
- ii. Adjustment within the scope of the standard design is permitted see Reg. 5.8.2.
- iii. Shock absorbers are unrestricted subject to their fitting on the original mounting points and not incorporating any non-standard or additional suspension facility (e.g. coil spring assistance or rose joint fittings) not provided by the original item. Save that 924S, 944 and 968 models may use coil-over dampers to the rear axle, with coil spring assistance.
- iv. Springs (including torsion bars) are free. Original equipment adjustable spring plates may be fitted to all 911 models.
- v. Any Porsche production anti-roll bar, including adjustable versions, may be fitted provided it can replace the standard item using all mountings as originally intended by the manufacturer. **Modified production anti-roll bars are not allowed**.
- vi. Boxster and Cayman models may use 'after-market' rear ant-roll bars providing they can be installed using the original mounting points on the vehicle.
- A supplementary tie-bar of not more than 1.6" diameter or 5" total circumference at its maximum cross-section dimension may be fitted between and immediately adjacent to the upper front strut mountings in the front compartment of the car. This bar must be attached at each of the two location points on the car with a maximum welded surface area of 2 sq. ins. on each side and must not be in contact with any other part of the car, engine or other component.
- viii. Boxster, Cayman and 996 / 997 models may use lower suspension arms from the GT3 model. Control arms must be fitted to the correct side motorsport GT3 parts are not permitted. Track rod and track rod end ball-joints must remain standard in all respects, without spacers or alternative fittings.
- ix. Where suspension dampers have canisters within the passenger compartment containing oil / gas under pressure these must be securely 'boxed-in' using metal panelling.
- x. Rear track control arms (996, 997 Boxster, Cayman) may use inner bushes modified to allow for correct suspension settings within the standard / unmodified suspension arm.

- 2. Top Suspension Mounts
- i. Replacement front top suspension mounts are permitted
- ii. Original suspension mount fixing points must be utilised, no modification to the mounting / fixing points are permitted.
- Prohibited modifications
- i Use of non-ferrous metals is prohibited in relation to springs.
- Wheelbase/Track
- i. Wheelbase must remain standard. Track must remain standard subject to modifications allowed under Regulation 5.12.

5.9 Transmissions

- i. Modifications are strictly prohibited to the transmission and/or final drive.
- ii Transmission and final drive must be standard for the registered model
- iii. All ratios (including crown wheel and pinion) must be standard for the registered model. Torque biasing differentials of any manufacture are permitted.

5.10 Electrics

- 1. A lighting system, including rear lights, starter and **both** windscreen wipers to be fully operational and headlights must be operational. All models may remove headlamp operating mechanisms but standard forward facing and operating driving lights must be retained. (see Reg. 5.6.1.3)
- 2. At least one rear Fog-Lamp must be fitted and be operational as per MSA K5.
- 3. A High-Level brake light must be fitted and be operational at all times. Where appropriate this should be a factory original item.
- 4. An external circuit breaker (battery cut-off) to K8 must be fitted.
- 5. No additional or non-standard electronic control systems may be fitted or used, eg. traction control, boost control etc. Where fitted as factory standard or option traction control may be used but only in standard form, with standard control software.
- 6. Non essential wiring may be removed from the standard wiring harness. Bespoke harnesses may not be constructed.
- 7. Electric drive motors for sunroof, windows, mirrors and rear wipers may be removed. Note: Whilst drive motors may be removed, the driver's window must remain functional and fully operational.
- 8. The Alternator must be operational, providing an electrical output to the battery at all times.

5.11 Brakes

- 1. Brakes must be standard for the registered model save that:
- i. Fluid and linings are free.
- ii. Deforming or removal of the brake backing plates to aid cooling is permitted.
- iii. Cooling hoses may be fitted within permitted body panels.
- iv. Flexible hydraulic brake hoses are free.
- v. The removal of driving lamps and use of openings of same for brake cooling ducts will be permitted subject to Regs. 5.6.1.3 and 5.10.1.
- vi. 968 models may use M030 'Sport Chassis' and may use solid (non-cross drilled) discs of standard M030 option dimensions.
- vii. All 944 model types (inc. 944 S2) must fit standard brakes (excluding manufacturer's options).

5.12 Wheels / Steering

Wheels may be of any make. Subject to width limits set out below, offsets and spacers within the standard bodywork are free (but must comply with MSA Reg. J5.8.2. unless supplied by the manufacturer as an option or original equipment item. Rim widths and diameters must be as specified below.

All four wheels fitted to the car must be of the same diameter.

968CS will only be permitted to run with maximum wheel/tyre sizes of 8x17 (225/625.17) front and 9x17 (245/620.17) rear

944S2 will be permitted to run with maximum wheel/tyre sizes of 8x17 (225.625.17) front and 9x17 (245/620.17) rear - Class 2.

Boxster 2.5ltr and 2.7ltr models may use maximum wheel/tyre sizes of 8x17 (225/625.17) front and 9x17 (245/620.17) rear, or 8.5×18 (235/645.18) front and 10×18 (265/645.18) rear.

Boxster S, Cayman S, 964 C2, 993 C2, 996 C2 and 997 C2S models will use 8.5×18 (235/645.18) front and 10 x 18 (265/645.18) rear as a maximum. No wider wheel or tyre may be used.

Wheel/tyre sizes for other models will be specified if and when a different model is registered for the championship.

5.13 Tyres

5.13.1 All competitors (Except Class 3 and 4) will be required to compete on Pirelli slick tyres, as designated below and according to the maximum sizes shown in Regulation 5.12. A version of this tyre is available for use in wet conditions. The slick and wet tyres (plus the approved List 1B tyre for Class 3 and 4) will be the only tyres that can be used in the championship.

235/645.18 265/645.18

Class 3 and Class 4 competitors will be required to compete on Pirelli P Zero Trofeo R tyres in specified sizes.

Tyre fitting and technical advice will be provided by Protyre Motorsport at each round. Order and Technical advice contact and details can be found in Appendix vi of these regulations – Porsche Tyre Order Sheet and Pirelli Technical Bulletin. All tyres **MUST** be sourced through Protyre Motorsport – the nominated supplier.

- 5.13.2 Competitors in Class 3 and Class 4 will be limited to a maximum of two sets of tyres (4 front and 4 rear) during a season. Additional tyres may only be allowed at the discretion of the organisers in the event of Force Majeur, following a written request from the competitor.
- 5.13.4 Competitors in Class 2 will be limited to a maximum of one set of new tyres every second meeting. Therefore, all tyres must last for at least two qualifying sessions and four races. (See Appendix vi) A new set of tyres will be permitted just for the final Championship round.
- 5.13.5 All competitors in Class 1 will be limited to a maximum of one set of new tyres every race meeting i.e, tyres must last for at least one qualifying session and 2 races.

Additional tyres may only be allowed at the discretion of the organisers in the event of Force Majeur. READ Appendix vii

5.14 Weights

All cars must comply with the minimum weight limits specified in Appendix i to these Regulations. These weights are for the car as presented at post race or post practice scrutineering and include the weight of the driver. Subject to all other Regulations weight distribution is free. Class 3 – Restoracong Boxsters – see Regulation 1.3.3

Except where expressly approved otherwise by the Championship Organisers, where ballast is required this shall be added only within the confines of the passenger footwell of the car and must be sealed and fixed in accordance with MSA requirements and in such a manner as to prevent it from becoming a safety hazard in racing conditions. All models may carry a maximum 30kg. ballast within the front luggage compartment, subject to the above fixing constraints. If weight is fitted in the front luggage compartment, the spare wheel will be classed as ballast.

The Organisers will review the performance of vehicles in the Championship through the season. This may result in the minimum weight being altered for any registered model which appears to have a particular advantage. Such changes will be notified to all competitors by official bulletin to be viewed in conjunction with Regulation 1.3.3.

- iv. Any weighbridge or 'pad' scales used by the Race Organisers at a circuit, which may include that held by the Championship Organisers, will be considered definitive and the weight of a car established on such a weighbridge will be a finding of fact in accordance with the MSA Regulations E4.1.
- iii. A conversion factor of 0.454 kilos/pound rounded up to the nearest kilo or pound will be used. No other tolerance will be allowed.

5.15 Fuel Tank / Fuel

- i. The fuel tank must be standard for the registered model save that 'all pre '74 911 may fit K. Jetronic type fuel tank (85 litre). The fuel tank must be in the standard location.
- ii. Only pump fuel as defined in the MSA Technical Regulations on sale to the general public at a retail filling station may be used. Fuel additives to increase octane are prohibited.

5.16 Silencing

i. Silencing must be in accordance with MSA J5.17. The method of measurement will be as follows. The test will be conducted at 2m from the centre line of the vehicle at 90 degrees to the centre line of the vehicle, with the microphone 1.2 metres above the ground. The maximum permitted level for this method of measurement will be 93 dB(A) with the engine running at 75% maximum rpm. Furthermore conditions for measurement in terms of the space in which the test is conducted, ie background noise etc., will be as J5.18.

5.17 Numbers & Championship Decals

i. The Organisers will provide Championship number panels and numbers to be displayed at all times to be eligible to compete in the Championship, to include a 'race number' to be applied to the windscreen. A charge will be made for additional decal sets..

Competitors must make available space on their vehicle for Sponsors logos as may be specified from time to time. Competitors should ensure that the number plate, in front and rear locations, is fixed in a vertical position and be of standard size such that it may be required to carry supplied sponsor's logos. Competitors must ensure that the screen header is available for Championship sponsor's logo.

- ii. Class identification will be by use of an indicator applied to the side windows, this to be carried at all times in unadulterated form and thus must not be trimmed or modified.
- v. Each car may carry on the windscreen the surname of competing driver in white lettering.
- vi. Each competitor may be required to wear Championship sponsor's decals / badges on his/her race suit, this is a precondition of qualifying for Championship points.
- vi. Failure to comply with any elements of Regulation 5.17 WILL result in a loss of Championship points.

5.18 Examination of Vehicles

The Organisers (in addition to any other powers they may have under these rules) reserve the right before or after any race in the Series to designate any one or more of the competing cars for special eligibility scrutineering. Upon such election being made the competitor shall immediately place the car under the control of the Organisers and be deemed to have permitted all such scrutineering, examination and testing as the Organisers may reasonably require to undertake. The Organisers shall have the right:-

i. To examine the car at the circuit for such period as they may reasonably require and take fuel samples and/or To retain the car for detailed examination at premises chosen by the Organisers. If the Organisers elect to retain the car they shall make it available for collection by the competitor at least two days prior to the next race in the Championship (unless the car is found to be in breach of these Regulations) and/or

To seal the car and its components in such a manner as they may choose and require the competitor at his own expense to present the car at any other premises chosen by the Organisers for detailed examination within a specified period and/or remove the car by transporter at no expense to the competitor to an appointed location. The competitor will be advised in writing of the time, date and location of subsequent testing or eligibility examination.

In the course of any examination pursuant to paragraphs 5.17. i, ii and iii of this Regulation to oversee the stripping by the competitor's nominated mechanic/technician of the engine and any other components of the car. If the engine and components are found to be in compliance of these Regulations the Organisers may (but shall not be obliged to) make a contribution towards the costs of re-assembly.

6. Commercial Undertakings

The following Commercial regulations are contractual between the Entrant and/or Driver and the Organisers and/or promoters and are not considered by MSA. Accordingly the application of these Commercial Regulations by the Organisers and/or promoters will not be subject to the Judicial processes of either the Championship Stewards and/or MSA/MSC.

- i. Entry into the Championship is conditional upon a competitor accepting without reservation or recourse the surrender of his/her rights (if any) for TV filming and broadcast of footage collated during the series which may be used at the Championship Organiser's and sponsor's discretion.
- ii. Competitors are advised that, unless requested otherwise, their information will be stored in a computer retrieval system and may be used for relevant publicity purposes.
- iii. The Championship title and associated logo styles may only be used with the prior written approval of the Porsche Club Great Britain .
- iv. The overall race and class winning drivers must attend, as required, for interview and award presentation immediately after each Championship race at the podium. Championship Sponsor's caps must be worn, along with any other Championship sponsor clothing as may be advised in a supplementary bulletin. Prizegivings will take place at the Championship Race Centre approximately 30 minutes after publication of provisional results, the first three in each Class will be required to attend. Attendance at such award ceremonies is mandatory, failure to attend may result in loss of points or awards from the meeting.

6.1 Registration Form

The separate Championship Registration form is part of these Regulations.

6.2 Team drivers

The separate Team Drivers Nomination Form is part of the Regulations.

6.3 Regulation Queries

A separate form is part of the Regulations to allow competitors / preparers to submit questions or queries about the Regulations.

Appendix i

This element of the regulations relates only to Boxster S models in the Classic Restoracing Championship, Class 3 of the Porsche Club Championship for 2019 season. The following regulations and restrictions relate specifically to the Classic Restoracing Championship class. All other aspects of the Porsche Club Championship regulations apply.

Chassis

The Chassis must remain standard. Both the removal and addition of any material except that specified in Appendix i is prohibited.

Seam welding is not permitted. Where chassis repairs are necessary after accident damage the standard spot welding may be replaced by stitch welding. Welds must be no longer than 50 mm with a gap of 50mm between welds.

The specified roll cage as per Championship Regulation 4.3.7 must be fitted in accordance with the manufacturer's instructions and must not be subjected to any additions, deletions, drilling, additional welding or any other modification.

Note: For cars being built from scratch a suitable roll-cage is available from Custom-Cages – ref: PB/06C or EMC Motorsport, ref: BOX9867EMCCM

Strengthening and relocation of jacking points is prohibited. The fitting of on-board jacking systems is prohibited.

The removal of metal from the standard body shell by cutting is prohibited.

All underseal, rust-proofing and sound deadening materials may be removed.

Bodywork

5.6.1 A Porsche OEM 986 hardtop roof must be used. It must have the lining removed and the OEM glass must remain. The folding roof mechanism must be rendered inoperative or be removed.

5.6.2 Modifications Permitted

Must remain as standard except for the following:;

Interior

The steering wheel is free.

The driver's seat must be replaced by an FIA homologated race seat from a recognised manufacturer. Seat and mountings must comply with K.2.2 (a)-(f). Passenger seat may be removed.

All carpets must be removed. All other trim must remain in place including rubber door, bonnet and boot seals. The standard dashboard must be retained. Minimal trimming / cutting of the dashboard is permitted, to allow for roll cage fitment only.

Windscreen washers and handbrake must be retained and in working order

Door cards (Right and Left) must be removed and replaced with a flat panel of either GRP, Alloy or Carbon Fibre.

Dashboard instrumentation must remain standard.

The OEM gear change lever and pedal box must be retained. OEM "Shortshift" gear levers are permitted.

Material may be added to the face of the pedal(s) only.

A false floor may be fitted to the drivers' foot well to provide a level support for the drivers' feet.

All safety airbags and their triggering mechanisms must be removed.

The standard windscreen and side windows must be retained in the original position – use of plastic / Lexan side windows is permitted and recommended, in which case the window winding mechanisms and any other internal door components that are attached with removable fixtures may be removed. It is permitted to use a heated windscreen.

The heating system must be installed and operable at all times.

All parts of the air conditioning system may be removed.

The central locking system must be removed or rendered inoperative.

Spare wheel and toolkit must be removed.

Standard engine inspection covers must remain securely fitted at all times.

Exterior

Number plate mounting brackets must be removed.

Non-visible external trim such as the wheel arch linings may be removed.

A single hole may be made in each bumper panel (front and rear) to allow for a non-standard towing eye to be fitted. (the inner alloy bumper must be retained). It must be no larger than is reasonably necessary and serve no other function than allowing fitment of the towing eye. In accordance with MSA Regulations.

Standard bonnet and boot catches must be removed and replaced with safety locking pins or clips

Modifications Prohibited

Other than those modifications permitted above, all bodywork must be as produced by the manufacturer in all respects as to material, thickness & contour. For the avoidance of doubt, this includes the wings, doors, bonnet, boot-lid, and all other body panels.

The opening or use of additional apertures other than modifications permitted by these regulations or the taping of normal bodywork gaps, spoilers or any profiles is prohibited.

The silhouette and plan must remain as standard except as modifications permitted above.

The minimum ride height is 65mm with the driver in the car.

Engines

5.7.1 Permitted Modifications

The engine and its components MUST be as standard for the model except as detailed in this section.

The use of the deeper / baffled X51 engine sump (996 107 988 00) and oil pipe (996 107 984 02) may be used.

Remanufacture of the standard crankshaft to facilitate regrinding of bearing surfaces, and the fitting of non- standard bearing shells is permitted, provided that no material is removed from the crankshaft other than from the bearing surfaces.

5.7.2 Engine Power Output – 1999 - 2004 3.2 producing a maximum of 260hp at the flywheel – 168kW at rear wheels

The organisers may require engines to be sealed and the vehicle submitted for power testing. The maximum power output permitted at the rear wheels and flywheel is that of the engine type declared at registration.

The tests will be in accordance with Championship Regulations Appendix iv

The designated power test location is as Appendix iii

Prohibited Modifications

Standard variable camshaft timing elements may not be modified to alter the camshaft timing or phasing beyond the original manufacturer settings and must be operational at all times.

The engine must remain in its original position. Engine mounts must be standard.

Cooling System

The standard radiators must be retained.

Induction System

The standard unmodified air filter box and filter including the primary inlet pipe must be used.

An unmodified air filter element must be fitted in the standard location. An aftermarket replacement filter element may be used providing it fits the OEM filter box without modification.

Fuel Delivery System

The fuel delivery system must remain as standard.

Fuel systems must be standard except that pipework may be changed to stainless steel braided hose or other robust type. Fuel pipes may be passed through the passenger compartment provided that compliance with MSA regulation [J 5.13] is maintained

Exhaust System

The standard complete exhaust system and catalytic converters must be retained. The final outlet of the exhaust system must be in the standard location.

Silencing to MSA Regulations [J 5.17] & [J 5.18] must be maintained.

5.7.9 Ignition System

The standard Engine Control Unit (ECU) for the model may not be modified in any way, either by the changing of components or reprogramming (re-mapping) of the standard Porsche DME (Digital Motor Electronics).

The ECU must be located in the standard position and must be the only system controlling the engine operation. It is not permitted to modify the operation of the ECU by the fitment of components or software either internally or externally.

Standard Traction Control systems if fitted may be disabled.

The championship organisers reserve the right to require the fitment of a data/power logger to any or all competing vehicles.

Spark plugs are free.

5.8 Suspension

All cars will be required to be fitted with a specified set of springs / dampers provided by Porsche – Reference: RS1 - and manufactured by JRZ. The following parts will also be allowed to be used:

996 GT3 Front anti-roll bar	996 343 701 90
Anti-roll bar bearing bracket	996 343 792 16
996 GT3 Front coffin arm (L)	996 341 122 90
996 GT3 Front coffin arm (R)	996 341 121 90
Bearing flange wishbone	996 341 441 90
Shim (1mm)	996 341 543 90
Shim (2mm)	996 341 543 91
Shim (3mm)	996 341 543 92
Shim (7mm)	996 341 543 93
Wheel space kit (5mm)	445 00 09

- 5.8.2 Wheelbase and track are to remain as standard.
- 5.8.3 Front and Rear standard OEM anti-roll bars must be retained, excepting allowed changes...
- 5.8.4 All bushes must be standard Porsche parts. No rose-jointed, spherical bearings or polyurethane bushes are permitted.
- 5.8.5 A front strut brace is not permitted.

5.9 Transmission

- 5.9.1 Manual standard fitment gearboxes only may be used. Gear ratios and final drive ratio must remain as standard for the type of gearbox used. Torque biasing differential units of any specification / country of origin are prohibited.
- 5.9.3 The clutch unit must remain as standard.
- 5.9.4 Gearbox mounts must be standard.

5.10 Electrics

- 5.10.1 The standard ignition switch must be retained.
- 5.10.2 All exterior lights must be as standard, be fitted correctly and be fully operational. Opaque headlamp covers are prohibited. A rear warning lamp (rain light) to MSA Regulation [K5] is mandatory.
- 5.10.3 Battery type is free. The location of the battery must remain as per OEM.
- 5.10.4 The alternator must be of the original type and the pulleys must remain standard and working at all times. No device to change the standard output of the alternator is permitted.
- 5.10.5 The standard wiring harness must be retained. The standard immobiliser system, all fault diagnosis connections and fault recording systems must remain fitted and fully functional. Any other non-essential wiring may be removed.
- 5.10.6 If a data logging system is fitted it must be used for the monitoring and display of information only. All data obtained must be made available to the eligibility scrutineer upon request.

5.11 Brakes

- 5.11.1 All brake components must be either Original Equipment Manufacturer (OEM) specified parts or identical in specification to OEM specified parts, with the exception of flexible hoses and brake pads.
- 5.11.2 Ceramic composite brakes are not permitted.
- 5.11.3 Brake fluid hoses may be replaced with stainless steel braided hose. Brake pipes may be passed through the passenger compartment provided that compliance with MSA Regulation [J 5.12.1] is maintained.
- 5.11.5 Deforming / removal of brake backing plates is permitted. Additional brake cooling may be fitted. Routing of ducting is free.
- 5.11.6 Standard ABS, ABD (Active Braking Differential) and ESP (Electronic Stability Program) as fitted, to the manufacturer's original specification, must be fitted and fully operational at all times.
- 5.11.7 Any blanking of the rear brake hydraulic circuit is prohibited.

5.12 Wheels and Steering

- 5.12.1 Front and rear wheels must be 18" diameter. Part numbers as follows:
- 5.12.2 Wheel spacers of any type are not permitted except the spacer referred to in Reg, 5.8.
- 5.12.3 Standard wheel retaining bolts may be replaced by studs and wheel nuts.
- 5.12.4 The steering rack must be standard for the model. Power steering system must remain fitted. The OEM power steering pulley must be retained. Additional cooling of the power steering system is permitted.
- 5.12.5 The steering lock must be made inoperative unless the vehicle is used on the highway.
- 5.13 Tyres
- 5.13.1 The mandatory control tyre for the Championship is the Pirelli P Zero Trofeo R. The following sizes must be used.

18" Wheels

Front: 225/40 ZR18 (88Y) Rear: 265/35 ZR18 (93Y)

Tyres will be limited to 2 sets for the Porsche Classic Restoracing Championship (4 front & 4 rear) for the championship season.

Any further tyres must be approved by the Championship Scrutineer and must be purchased from the nominated distributor and will be nominated and recorded for each race meeting – see Championship Regulation Appendix vi.

The nominated tyre distributor is Protyre Motorsport.

- 5.13.2 The use of any heating/heat retention devices is prohibited.
- 5.13.3 The use of tyre softening treatments is prohibited.
- 5.14.1 Minimum weight See Appendix ii
- 5.15(B) Fuel Tank and Fuel
- 5.15.1 The standard fuel tank must be retained and fitted in the standard location.

All cars in this class will display a Porsche Classic screen-header decal and Pirelli number plates.

Competitors must display in unaltered form on the outside of their cars such championship sponsors and organisers' decals and / or stickers as the organiser may supply. Pirelli and Glasurit sponsorship logos must be present on the car – see separate size and position guide.

Appendix ii - Eligible vehicles, Classes, Weights, Power.

	Max. Allowed . Rear Wheel	Nominal. Power	Min.	
Model	Power – (kW) *	(Guide hp +)	Wt (kg)	
Class 1	Α	В	С	
3.4 Cayman S 2005>08	193	217 (295)	1290	
3.6 Carrera C2 (993)	179	200 (272)	1250	
3.4 Carrera C2 (996) >2000	197	221 (300)	1315	
3.6 Carrera C2 (996) 2001 >	209	232 (320)	1385	
3.8 Carrera S C2 (997) 2004 >	08 238	261 (355)	1500	
928 GTS	238	257 (350)	1485	
Class 2				
2.7 Cayman 2007>09	172	195 (265)	1300	
Boxster S 3.2 2005>07	184	206 (280)	1480	
Boxster S 3.2 1999>2002	162	185 (252)	1350	
Boxster S 3.2 2003>04	168	191 (260)	1370	
3.6 Carrera C2 (964)	159	184 (250)	1200	
Class 3 – Restoracing Boxsto	er 3.2 on Pirelli P Zero	Tropheo R tyres		
Boxster S 3.2 1999>2004	168	185 (260)	1350	
Class 4				
Boxster 2.7 > 2002	138	162 (220)	1330	
Boxster 2.7 2003 > 04	144	168 (228)	1370	
Boxster 2.5	125	150 (204)	1210	
968CS	152	176 (240)	1265	
944S2	130	155 (211)	1165	
		. ,		

Note:

- 1. **Column C** Vehicle weights include allowance for driver.
- 2. Column A kW figures (*) include all testing tolerances NO FURTHER TOLERANCE WILL BE ALLOWED
- 3. kW figures are either as published in Porsche Technical Specifications, or are based on Porsche stated hp figures calculated at / 1.364.
- 4. **Column B** Guide hp figures (+) are shown for information purposes only. Power test results (Regulation 5.4.9) will be compared with kW figures in Column A only **Figures in BOLD above**. Please note point 2 above **no further tolerance will be allowed**.
- 5. All models listed will be with manual transmission, i.e. no PDK or Tiptronic except where Regulation 5.2 is applied.

Appendix iii

The nominated power test facility for the Porsche Club Championship and the rolling road on which all official power tests will be carried out, is:

Superchips Limited Buckingham Industrial Park Buckingham MK18 1XJ

Tel: 01280 816781

Appendix iv

Power test procedure to be used at the championship nominated Rolling Road facility.

Before any testing will commence, the competitor will be required to sign a notice, indemnifying the Porsche Club, its representatives and the test machinery operative from any claim in the event of the vehicle incurring damage during the test.

- 1. The power test will be carried out in accordance with the procedures laid down by the manufacturer of the rolling road equipment, except as stated below.
- 2. The rolling road equipment will be used to calculate the final power at the rear wheels (Rear Wheel kW). A conversion factor will be applied to this figure (see point 3 below).
- 3. The intake air temperature will be measured by placing a temperature probe into the aperture where the air is drawn into the intake airfilter housing. These will be used to correct the Rear Wheel kW figure to 'standard'.
- 4. Prior to the test being run, the following will apply:

The engine will be run for 15 minutes, to ensure it is to 'normal working temperature', determined either by the vehicle's own temperature gauge or a separate temperature probe.

For at least 10 minutes of this 'warming procedure', the vehicle will be 'driven' on the rollers to warm the transmission and the tyres on the driving wheels.

The vehicle will be 'strapped down' to the minimum level necessary to avoid wheel spin during the testing process, as determined by the tester and scrutineer.

Prior to the first test run, the rear tyre pressures will be checked and will be at least 29lbs/inch. If at a lower pressure, they will be increased to this figure.

- 5. The engine power test results will be measured in kiloWatt.
- 6. The engine will be tested to a speed at least equal to that at which the maximum power is stated by Porsche as being produced. If at this speed, power has not 'peaked', the engine speed will be increased until such speed as the power starts to reduce, i.e. it has obviously 'peaked'.
- 7. Power test runs will be conducted with the engine cover open for front engine models and closed for rear engine cars.
- 8. Power test runs will be carried out in the transmission gear which is closest to direct drive, or 1:1 ratio.
- 9. Two power test runs will be carried out, with 10 minutes between each test. During this 10 minute 'rest', any cooling fans will be switched off to avoid inappropriate or uneven cooling of engine components.
- 10. The highest power figure measured from the two test runs, will be recorded as the maximum power produced. In the event that the measured power exceeds the maximum allowed within the championship regulations (see figures listed in Appendix i), the highest of the two test runs will be that which is reported.

Note: The Porsche Club Championship Regulations do not stipulate or require that power figures obtained, should be measured to any specific standard. The procedures stated above will be used to determine the engine power for any given model. The test is not carried out in accordance with DIN standard 70020.

Note: Any competitor wishing to check the power output of his/her car, is advised to have the car checked on the nominated rolling road, using the procedures outlined above.

Appendix v

The necessary timing modules (transponder) can be purchased from:

Timing Solutions Limited Unit 2 Ninian Park Ninian Way Tamworth Staffs. B77 5ES

Tel: 01827 285666 Fax: 01827 282932

Appendix vi

All tyres to be used in the championship must be obtained through the officially appointed tyre support, as below:

Protyre Motorsport
Unit 1 Elswick Road
Fenton Industrial Estate
Fenton, Stoke on Trent ST4 2SB

Tel: 01782 411001 Fax: 01782 411024

Mobile: Shaun Chetwyn (Motorsport Manager) 07968 307584 Jason Buckley (Asst. Motorsport Manager) 07973 446063

Appendix vii

Tyres - recording use

In accordance with Championship Regulations, cars competing in the championship are limited in the number of tyres permissible during the season. Below are guidelines on how the regulations will be applied.

Reg. 5.13.2 - Competitors in Class 3 and Class 4 will be limited to a maximum of two sets of tyres (8 in total) during a season. Additional tyres may be allowed at the discretion of the organisers in the event of Force Majeur, following a written request from the competitor

Reg.5.13.3 – All competitors in Class 2 will be limited to a maximum of one set of new tyres every second race meeting – i.e, tyres must last for at least two (2) qualifying sessions and four (4) races. Additional tyres may be allowed at the discretion of the organisers in the event of Force Majeur.

Reg. 5.13.3 - All competitors in Class 1 will be limited to a maximum of one set of new tyres every race meeting – i.e, tyres must last for at least one qualifying session and 2 races. Additional tyres may be allowed at the discretion of the organisers in the event of Force Majeur.

Competitors will be required to complete a Tyre Record Form (to be made available at the first round at which they compete). This will record the 'Bar code' for each of the four tyres being nominated for that meeting.

- 1. At the beginning of each race weekend, the competitor will be responsible for submitting to the Championship Scrutineer a completed Tyre Record Form.
- 2. This Tyre Record Form should list the tyres being nominated for use at that meeting.
- 3. No more than four new tyres may be used within a meeting.
- 4. If tyres are damaged beyond safe use e.g. flat-spots or puncture, the permission of the scrutineer must be sought and his permission given for alternatives to be used. **Do not dispose of any tyres until inspected and agreed by the scrutineer.**
- 5. The alternative tyres (point 4 above) must be tyres that have previously been nominated by that competitor during this season (with the exception of the first round at which that competitor competes).
- 6. If a competitor is continuing to compete on the same tyres as used at a previous meeting, a Tyre Record Form must still be submitted for each round and the tyre 'Bar Code' numbers noted. This applies specifically to Class 3 competitors who are allowed to use no more than 2 sets (8 tyres) in the season.
- The only tyres permissible are (all to be supplied only through Protyre Motorsport):
 Class 1& 2 Pirelli slick tyres DH compound / Pirelli Wet tyres WH compound.
 Class 3 Pirelli P Zero Trofeo R

- 8. The Class 1&2 slicks and the Class 3 tyres are limited according to Reg. 5.13.2 / 5.13.3 as above. Class 1&2 Wet tyres are not limited in number
- 9. No control is placed on the number of tyres used in 'out of competition' testing.
- 10. Nominated tyres cannot be swapped between other cars in the same team unless they have satisfied the use requirements above i.e. well used tyres can be 'passed on'.
- 11. Tyres referred to in Reg. 10 above, cannot be passed from cars in Class 2 to Class 1, irrespective of usage.

Note: Where new slick tyres are allowed and nominated for a meeting but are not used due to weather conditions (wet tyres used instead), the nominated slick tyres may be carried forward to the next meeting. If that meeting only allows the use of wet tyres the slicks may be carried forward to the next meeting. It will not be permissible to simply nominate further new sets of slick tyres to be accumulated for use later in the season, or to 'stockpile' new unused slick tyres.

The purpose of these regulations is to limit tyre usage and therefore costs for all competitors and will be applied accordingly.

Changes from 2018 Regulations: - Highlighted in Yellow

Reg. 1	.2.3	_	Deletion of James McNaughton as Championship Steward.
Reg. 1		_	Note: Increased minimum weight for Class 3 drivers with pro / semi-pro experience.
Reg. 1	.4.2	_	Registration Fee - £600.
Reg. 1	.6.vii	_	Restoracing cars with multiple drivers will accumulate points against the car.
Reg. 1	.6.3	-	All five nominated rounds count towards Restoracing Competition.
Reg. 5	5.7.2.i	-	Camshafts (all models) must be standard.
Reg. 5	5.7.6.ii	-	Removal of close-coupled Catalytic Converters permitted for 987 Cayman / Boxster models.
Reg. 5	i.8.ix	-	Aftermarket, adjustable rear ant-roll bars permitted for Cayman and Class 2 Boxster models.
Reg. 5	5.8.x	-	Deletion of reference to Weltmeister tie-bar for early 911's.
Reg. 5	5.13.2	-	Class 3 Restoracing Boxsters allowed 2 sets of tyres (8 tyres) for the season.
Reg. 5	5.14	-	Reference to increased Class 3 Boxster weight in Reg. 1.3.3
Reg. 5	5.17.vi	-	Highlighted – loss of points for not carrying sponsor decals.
Reg. 5	5.8	-	Delete reference to specific allowed suspension components for 924/944/968 models
Appen	dix I	_	Additional regulations relating specifically to the Restoracing Boxster S models in Class 3.
Reg. 5	5.6.2	-	When Lexan / Perspex side windows are fitted, window mechanisms may be removed.
Reg. 5	5.7.1	-	Engines MUST be standard - X51 Engine oil sump and oil pipe may be used.
Reg. 5		-	New suspension stipulated for Restoracing Boxsters – Reference – RS1

Appendix vii - Class 3 & 4 cars allowed two sets of tyres for the season.

Championship co-ordinator: Steve Kevlin

Porsche Club GB Motorsport Limited Cornbury House, Cotswold Business Village Moreton in Marsh, Glos. GL56 0JQ

Tel: 01608 652917,

E-mail: motorsport@porscheclubgb.com

Porsche Club Motorsport is supported by:























