



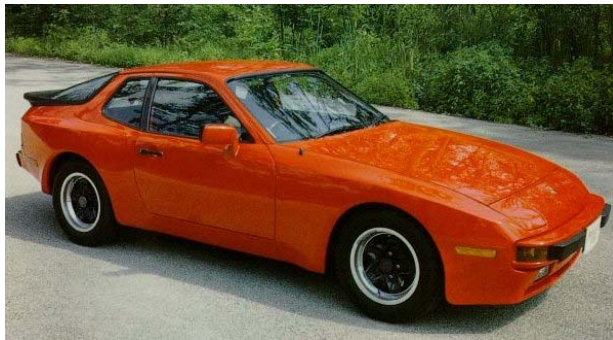
# Porsche Car Club NSW

[www.porscheclub.org.au](http://www.porscheclub.org.au)

## Competing in club events

*A guide for beginners*

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## 1 Summary

Club competition is all about enjoying your Porsche in safety. It lets you explore the limits of the car and yourself in an environment where you can go at your own pace. You will also find new friends and plenty of help.

The club runs two types of competitions:

- Motorkhanas - driving tests run on large open spaces
- Sprints – laps of a racing circuit

The Club doesn't run races. All events are sanctioned by the national motor sport body (CAMS).

You can enter a Motorkhana with just a roadworthy car, and for Sprints you need only minor safety equipment. The events are organised into classes and groups so that you will be running with people who are going at roughly your pace. It's smart to start gently and find your own level.

To get started, read this guide and contact any member of the Competition Committee with your questions, or ask a current competitor. Then come along to an event. You will be very welcome.

## 2 Introduction

This is a guide for anyone who is interested in entering competition events run by the Porsche Club of NSW. It is mainly for those who have not competed before.

This isn't the last word; it's an attempt at passing on some know-how. The definitive rules are those of CAMS (Confederation of Australian Motor Sport) and the NSW Porsche Club ([www.porscheclub.org.au](http://www.porscheclub.org.au)).

If you have any suggestions for improvement please contact Mike Barrett or any member of the Competition Committee.

### *Acknowledgements*

Thanks to:

- The 2002 Competition Committee for encouragement, abuse etc
- Ray Fowler for the Scrutineering Checklist
- Steve Pearce for the 2001 Supersprint checklist
- Denis O'Dell and Mike Barrett for the photographs, plus Craig Drury at the web site
- Mark Williamson for the Eastern Creek driving tips

### 3 Is it safe?

You are probably concerned about safety. That's good! No one wants to hurt themselves, the car, or other people.

Of course there is some risk involved, but Porsche Club competition events are all about enjoying your Porsche in safety. There isn't any racing. You can drive as gently or as hard as you are comfortable with, and there is plenty of experienced help at hand. Motorkhanas are safer than driving on the road: plenty of space, all in first gear and one car at a time. Sprints are faster and on a circuit, but have a session of driver training first. Fast laps are run in groups so you are with people going at the same kind of pace. Cars are also spread out round the track to minimise overtaking. For those who really want to trundle round at the back there is even the Old F\*\*\*s Club category! If you have any concerns about safety, speak to a Competition Committee member or an official at the event.

### 4 Frequently asked questions

#### *Where can I find out more?*

Talk to any member of the Competition Committee (contact details in *Porsche Power*) or ask around at a club meeting. They can also put you in touch with trusted workshops and suppliers.

Web sites:

Porsche Club NSW      [www.porscheclub.org.au](http://www.porscheclub.org.au)  
CAMS                      [www.cams.com.au](http://www.cams.com.au)

#### *Can I join in without competing?*

Sure. Either come along and watch, or better still help out as an official. Helpers are always needed, and as a bonus you get a close look at the action. You will need to sign on as an official. Make sure you say hello to the other officials and club members.

#### *How do I get started?*

If you're new to motor sport, try a Motorkhana or a driver training day. Rest assured that at every club event there are always a few people who haven't done one before.

#### *How will I know what to do on the day?*

The easiest thing is to arrange for a 'buddy' who will show you the ropes. Ask any member of the Competition Committee.

#### *What do I need to do to the car?*

Assuming it's in generally good condition, then:

- for Motorkhanas, nothing.
- for Sprints, minor safety equipment – nothing permanent. See Appendix B.

***Will I need a medical?***

You have to make a detailed medical declaration as part of the competition licence application. CAMS may ask for further information or tests. For obvious reasons you shouldn't compete unless you're medically fit.

***Will my insurance cover me?***

Usually not: check your policy wording. Track insurance is available.

***Where are the venues ?***

Various locations within reach of Sydney; the furthest away is at Goulburn. See Appendix D.

## **5 What's available**

The Club runs two types of events:

- Motorkhanas
- Sprints

There are separate club championships for both, and an overall championship for all events combined.

There are classes for Porsches of any type or age, or any other type of car in the Associates class. You don't have to modify your car other than minor safety equipment for sprints, and this is easily removed.

### **5.1 Motorkhanas**

*A race around the witches' hats.*

Motorkhanas consist of a short blast round a course laid out on an open area of tarmac. The course is marked out with witches' hats and is both tight and very twisty – so it's all in first gear. You start from a garage (marked out with cones again) and have to stop in another garage. Fastest wins, but there are penalties for touching cones or going the wrong way (which is easy to do). Good times come by being neat and controlled, whereas power slides just cost time.

**Figure 1** Motorkhana competitors

Motorkhanas are a great way of starting out because no special preparation is needed and (as far as I know) no-one has ever damaged their car. There is damaged pride of course ... especially when you go the wrong way in front of the onlookers! But that's part of the fun. They are fairly informal affairs with plenty of time to watch how your peers tackle it and to chat with other competitors. A few wives and/or kids come along to try their hand too – everyone is welcome. Events are usually over by early afternoon so they don't intrude too much into the weekend.

See section 6 for a run-down on competing in Motorkhanas.

## 5.2 Sprints

*Having a go on a circuit without going racing.*

Sprints (also known as Supersprints) are your opportunity to drive fast without worrying about speed limits, radars, oncoming traffic or unexpected road conditions. You have the chance to practice the circuit with or without an instructor. You are also on a track which is designed for racing and hence has run-off areas, safety fences etc. Only minor safety equipment is required – no special modifications - but your car must be in sound condition to be allowed on the track.

Importantly, there is no racing. Anyone who tries the wheel-to-wheel stuff will be thrown out. (If you want to do that, there are plenty of racing events elsewhere.) Drivers going at similar speeds are grouped together to minimise overtaking. That means you can drive as gently or as hard as you like. You are only competing with yourself, and your lap time is whatever you are happy to do safely.

Supersprints are a great way to explore how your Porsche behaves when driven with spirit – which is what it was built for!

**Figure 2** A Sprint competitor

## 6 The three golden rules

Most people do club motor sport just for fun. These rules will serve you well:

- Don't crash the car
- Have fun
- Don't come last (though someone has to)

## 7 Pre-requisites

For any club competition event you will need:

- A valid driving licence.
- Paid-up membership of Porsche Club NSW.
- A competition licence.

Competition licences are issued by the Confederation of Australian Motor Sport (CAMS). For PCCNSW events you will need a level 2S licence. See the CAMS web site or get a form at registration. At the time of writing the fee was \$89, and be prepared to answer a long list of medical questions.

You will be required to show your club membership and competition licence at each event.

You should also read the Club's competition rules (available on the web site). Among other things, this will tell you which class your car will be in. There are classes for everything from standard 356's to Porsche Cup racers. Completely standard cars are in different classes to modified ones. Note that even small, performance-related modifications will take you out of the standard classes.

## **8 Competing in Motorkhanas**

### **8.1 Before the day**

Obviously, your car should be in good order. If there are any small problems with the steering, braking, suspension, tyres etc then get them fixed. Check all fluid levels: oil, water, brake, clutch, windscreen washer.

Most people find it's useful to put some extra air in the tyres as the tyres do get a hard time.

### **8.2 What to bring**

Note that at our usual venue (Nirimba) there are no facilities of any kind. None, really!  
Bring:

- Money/pen/snacks/drinks/lunch
- Sun/rain/wind protection
- Masking tape
- Rug or folding chair
- Cash or cheque for the entry fee

Special clothing and helmets are not required.

### **8.3 On arrival**

- Empty the car  
Take out anything loose inside (including over mats and anything under the seats) and any baggage like spare wheel, tools etc. Make sure nothing will move under hard cornering.
- Sign on  
Make yourself known at the sign-on table, fill in an entry form and present it with your club membership card, competition licence and entry fee. You will be given a printed competition number and the diagrams of the tests.
- Apply number  
Stick your competition number on the correct side of the car (timekeeper's side for the first test), eg with masking tape inside a window.
- Briefing  
Attend the drivers' briefing, when the organisers will run through the procedure for the day, scoring, penalties etc. Ask any questions you have.

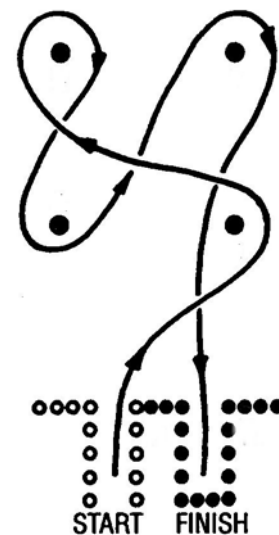
**Figure 3 Drivers' briefing, and a run in progress**

### 8.4 During the event

The day usually consists of 4 tests with a practice test to start with. The organisers will confirm which tests are being used before the first run. If a practice test is included then it will not count towards the scores.

Each test is run as follows:

- Walk through  
Everyone walks the course as a group. This is to fix the route in your mind.
- Runs  
One at a time, each car takes up position in the start garage. When given the 'thumbs up' from the timekeeper, you drive the course and stop in the finish garage (you must come to a complete stop). The electronic timing starts when you exit the start garage and stops when you enter the finish garage. When you have stopped, the next car will be called forward to the start garage. You will do 2 runs on each test.

**Figure 4 Motorkhana test 'Crazy Square'**

**Figure 5 Bolting for the finish garage**

Your score is the time (in seconds) you took for both runs plus any penalties. The lowest cumulative score is the winner. At the time of writing the penalties were as follows.

**Figure 6 Motorkhana penalties**

<b><i>Error</i></b>	<b><i>Penalty</i></b>
Touching a cone	+ 5 sec per cone
Failure to stop entirely within the finish garage (whether or not you touch a cone) / failure to come to a complete halt in the finish garage	+ 5 sec
Wrong route / failure to complete a test / stopping wholly outside finish garage	Time for this run = time for your other run + 10 sec
Wrong route twice on the same test	Time for both runs = slowest time for a correct run in your class
Not attempting all runs	Exclusion from the results
Hitting the timing gear	Pay for repairs
Hitting the timekeeper's car	Slow & painful death

Since most runs take about 30 sec, you can see that you will score much better by being a little slow and error-free rather than fast and error-prone.

## **8.5 Key officials**

Clerk of the Course – the boss. Ultimately responsible for running the event.

Secretary – handle entries, signing on etc.

Timekeeper – acts as starter and records the times.

Stewards – represent CAMS.

Marshals – control the start and finish garages. Also ‘judges of fact’ on whether you did the course correctly and hit any cones.

Caterers/bar staff – we wish.

## 8.6 Tips

- Check your car over *before* the day of the event.
- On the day, keep well back from the start garage while waiting your turn.
- You don’t have to drop the clutch the instant the timekeeper gives the start signal – timing starts when you leave the garage.
- Make sure you take the right route – easier said than done!
- If you do go wrong you are allowed to back up and resume the correct route.
- When spectating, stand well clear of the course, and always stay well away from the finish garage.
- Please take a turn at marshalling in between your runs.

Figure 7 Smokin’



## 9 Competing in Sprints

### 9.1 Before the day

Obviously, your car should be in good order as you are going to be using it harder than usual! If there are any small problems with the steering, braking, suspension, tyres etc then get them fixed. Check all fluid levels: oil, water, brake, clutch, windscreen washer. Check the brake lights.

Before you can run on the track your car will be 'scrutineered'. This is a check for apparent faults, and the car must pass on all counts. If it doesn't, you won't be allowed to run. See Appendix B - Scrutineering Check List for the requirements. For a standard road car you will need to attend to at least:

- Bonnet tie-down
- Fire extinguisher
- Competition numbers
- Blue triangle
- Helmet

A roll cage and full harness seat belts are not required.

NB It is your responsibility to make sure that you and the car are prepared to go out on the track. The scrutineering check is just that – a check – and is no guarantee that the car is safe.

You should also put in your entry well in advance. Entry forms are normally available on the club's web site.

### 9.2 What to bring

Circuits usually have roofed car ports for shelter, and a café with hot food (if you can cope with high cholesterol cuisine). Don't bring valuables – there is no security.

Bring:

- Helmet and suitable clothing. Clothes must be non-flammable (meaning cotton or wool – no synthetics) and completely cover you from neck to wrists and feet. Shoes to be non-flammable too. Note that nearly all joggers have synthetic inserts.
- Enough petrol (more than half a tank). Fuel consumption on the track is heavy and you can't buy petrol at the track
- Money/pen/snacks/drinks/lunch
- Sun/rain/wind protection
- Accurate tyre gauge and air pump
- Race tape (gaffa tape)
- Tools for minor adjustments

- Box or bag to store all the junk you take out of the car

### **9.3 On arrival**

- Register  
Find the registration desk and confirm your entry (you entered well beforehand didn't you?). Present your club membership card and competition licence for checking. Once registered you will be given a scrutineering form – put this under a front windscreen wiper – and a speed group to run in (explained below).
- Prepare the car  
Empty everything out that isn't bolted on. Don't forget to check under the seats. Make sure you have done everything on the scrutineering check list – headlamps covered, numbers on etc. Have your helmet on the passenger seat along with any race clothing that you're going to wear.  
When everything is ready to go on the track, drive to scrutineering.
- Scrutineering  
A scrutineer will check your car and, assuming all is well, sign off your car as “no apparent fault found” (NAFF). You will be given a scrutineering sticker for the windscreen. Move your car back to the paddock.
- Driver's briefing & sign on  
To be able to run you MUST attend the driver's briefing and you MUST sign on at the end of the briefing. This is usually held at 9am near registration. The briefing will cover the track procedure for the day, flag signals, rescue procedure etc. This is the time to ask if you're not sure of anything.

### **9.4 During the event**

#### Training/sprinting format

The usual format is to have driver training in the morning, and sprinting in the afternoon. Driver training is un-timed. For example, groups of six cars might go out on the track for 15 minutes at a time. Instructors are available – just ask one who is free to come out with you. Sprinting is the competitive part. It consists of timed laps, again in groups. You might do a part lap to warm up, 3 timed laps, and a part lap back to the pits. The arrangements for the day will be explained at the drivers' briefing.

#### Groups

Speed groups are used so that you will be running with people who drive at about your pace. This minimises overtaking and baulking. You may be grouped with people in different cars and/or classes. (Note that your speed group is not related to your class.)

#### Lining up

The first group will be called to line up ready to take to the track as soon as the driver's briefing is finished. The next group should make ready at the same time. Further groups will then be called in order. Access to the track is strictly controlled by the pit lane marshals. While you are lining up, check your belts and helmet strap and have the driver's window down (for hand signals). Do not go until you are flagged away, and give way to other cars when you join the track.

### Etiquette/rules of the road

**IMPORTANT** – you may not overtake just anywhere. You will be told where you can overtake at the driver's briefing. It will always be on straights. Drivers wanting to overtake must wait for an approved overtaking spot – if that slows you down, so be it. Drivers being overtaken should pull to one side, ease up slightly, and point obviously to the side you want the passing car to go. Do not use indicators for this.

### Figure 8 Sprint overtaking signals\*\*\*

\*\*\*overtaking signals\*\*\*

### Scoring

Your score is the time of the fastest lap you do during any of your timed runs.

### Safety – flags, rescue

Take note of the flag signals and rescue instructions given at the driver's briefing – your safety may depend on them. There will be several flag points around the track. Principal flag signals are shown below.

### Figure 9 Sprint flag signals

<i>Flag</i>	<i>Meaning</i>
Chequered black & white	Session finished – return to the pits.
Yellow	Hazard – continue with care. Be prepared to take avoiding action. No overtaking.
Waved yellow	Major hazard (eg car stopped on circuit) – slow down and be prepared to stop if necessary. No overtaking.
Red	Danger, session stopped, track may be blocked – slow right down and return to the pits. No overtaking.
Blue	Give way - you are about to be overtaken.
Black (and marshal pointing at you)	Return to the pits on your next lap.

If you do come off and can't continue, get out of the car and go somewhere safe (eg behind a crash barrier). Getting out also shows that you're OK. Signal the nearest marshal for the help you need.

### Figure 10 Sprint rescue signals\*\*\*

\*\*\*help hand signals\*\*\*

## 9.5 Key officials

Clerk of the Course – the boss. Ultimately responsible for running the event.

Secretary – handle entries, signing on etc.

Scrutineers – will check your car for apparent faults. Must be satisfied with the safety of your car.

Timekeepers – record the times. Don't bother them as they are busy! They will print intermediate results during the day.

Stewards – represent CAMS.

Marshals – control the waiting area, pit lane and track.

Rescue/First Aid – there to help you if needed.

## 9.6 Tips

- Check your car against the scrutineering list *before* the day of the event.
- Buy a decent helmet. Most of us have only one head and it's worth protecting.
- Arrive at the track well before closing time for sign-on and scrutineering. Preferably allow an hour to find a garage, clear the car and present for sign on and scrutineering.
- If using road tyres you will need higher tyre pressures than on the road. As a suggestion only, you might try 5 psi above normal. eg If your handbook says 26F/33R, try 31F/38R. Take it easy until you have the feel of the handling!
- Have the car and yourself completely ready before you turn up at scrutineering. If you don't you may have to go away and re-join at the back of the queue.
- During the sessions, keep an eye on which group is being called and get ready when the group before yours is called. Lots of track time can be lost if people are slow turning up.
- Take it steadily on your first outing at a new track. Drive at a speed you're comfortable with and work up from there.
- Listen to the instructors. Doing a couple of laps as a passenger to an instructor is educational too.
- Don't crowd the person in front if you're waiting to overtake – it usually makes them go slower as part of their attention is on what you're doing.
- When you are leaving the track after your laps, keep your seat belt and helmet done up until you stop in the paddock. Pit lane is part of the race track and full safety requirements apply.
- Drive slowly (20 Kph) in the paddock at all times. There are people wandering everywhere.
- When spectating, don't stand immediately behind (or on!) the barrier at the edge of the track. It's dangerous.
- Consider carefully before allowing anyone else to drive your car on the track.
- No alcohol is allowed.
- Be wary of doing "just one more run". You will be tired at the end of the day and that's when you make mistakes.
- Back at home keep your helmet, licence, club card, any race clothing etc together in one bag. This makes it much easier to find everything next time.

## Appendix A - Document control

Ver	Date	Content	Author
1.0	5/2/02	First release – still some loose ends	Mike Barrett & contributors
1.1	19/2/02	(App B & C) Club's requirements for competition numbers (App D) directions to Wakefield Park	Mike Barrett
1.2		Minor re-wording	Mike Barrett
1.3	28/8/02	(9.3) Register on arrival at sprints. (Fig 4) Motorkhana test diagram added.	Mike Barrett
1.4	31/10/02	(App D) Numbering fixed (App E) 'Resources' moved to here (various) Re-wording..	Mike Barrett

## Appendix B - Scrutineering Checklist

This checklist applies to Supersprints. The only requirement for Motorkhanas is that your car is in good, roadworthy condition.

The role of Scrutineering is to complete a last minute check on your car, your driving clothes and you, prior to your setting off on a track. In the excitement of the day it's easy to overlook an item that may be the difference between you having a great day or you having a headache and a broken car. It's all a question of care and safety.

Note that you must present at scrutineering ready to go onto the track. The following points will be checked (see the checklist at the end of this section).



**Figure 11 Race suit, driving boots and helmet**

### CLOTHING

For Supersprints you must be dressed in non-flammable clothing (cotton or wool) from neck to toes to wrists. Don't turn up in your T shirt and shorts! That includes shoes – trainers are usually out because of synthetic inserts.

If you expect to compete in Supersprints on a regular basis, then consider buying approved driving apparel – fire resistant shoes, socks, gloves and suit (see photo). If you do have proper race wear, each item will be inspected for condition. (There is not much point in wearing a fire proof suit if the stitching is undone.)

### HELMET

Buy a good quality helmet which is a close, but not tight, fit. The market is full of brand names, each with a range of models. The required standard is Australian Standard AS 1698 or an international equivalent. Make sure the helmet has an approval sticker – it will be checked at scrutineering.

<i>Standard</i>	<i>Country</i>
AS1698	Australia
Snell SA90, M90, SA95	USA
SFI Spec 31.1, 31.2	USA
SIS 88.24.11 (2)	Sweden
DS 2124.1	Denmark
SFS 3653	Finland
ONS/OMK	Germany
NF S 72 305	France

E22 9 (with 02,03 or 04 amendments)	Europe
BS 6658-85 Type A and A/FR	Britain

**Figure 12** Helmet standards

Good helmet shops should be able to show you a range of acceptable helmets. No amateur painting or stickers are allowed. No damaged hats are acceptable – so look after your helmet with a suitable bag. Don't let fuel/oil/solvents onto or into your helmet. Your helmet must be less than 10 years old.

### **BATTERY**

Must be firmly attached to the car.

### **BATTERY MARKER**

A blue stick-on triangle (150mm each side) placed on the outside of the car to show where the battery is. (Available for purchase at sign-on.)



**Figure 13** Battery marker and competition number

### **COMPETITION NUMBERS**

Numbers on both sides of the car, must be approved size and style – see Appendix C. Don't put numbers on the windows as the timekeepers can't see them. The Club usually has stick-on numbers available for purchase at sign-on, or you can buy them at speed shops.

### **BONNET TIE DOWN**

An additional tie-down must be fitted to the front bonnet to prevent it from lifting under wind pressure if the bonnet catch fails. Tie downs can be made from rope, leather, nylon webbing or woven wire, but nothing elastic. The tie may allow the bonnet to open to about 200mm and is usually made with a quick release to allow the bonnet to be fully opened.



**Top strap**



**Bottom strap with quick release**

**Figure 14** One solution for a bonnet tie-down

### **A BARE CAR**

Everything loose removed: spare wheel, tool kit, car jack, floor mats, the groceries, the play pen – anything and everything must be out! Remember to do this before you present at scrutineering.

### **SEAT BELTS**

Must be in good condition: no frayed webbing or non standard fixings. For Supersprints you do not need a race type harness.

### **SEATS**

Checked for secure attachments and general condition

### **STEERING**

Checked for excessive play

### **WHEELS**

Excess bearing play (and maybe steering joint condition) will be checked. The nuts holding the wheels should project through the nut – or have at least a thread engagement of the equivalent of one bolt diameter (a particular issue if you're using spacers). For enclosed nuts such as the aluminium nuts used on Porsche, your ever friendly scrutineer is entitled to ask you to remove the nuts to verify the situation.

### **TYRES**

The general condition will be examined. All valve caps must be on. Use metal valve caps as plastic caps are easily cross threaded and may fall off. The caps keep the valve clean - there is nothing worse than putting air into the tyre and finding dirt has got in and is now jamming the valve seat - and your tyre is slowly leaking. You may go out and find that you give yourself a big fright as the tyre pressure drops to dangerous levels.

### **TYRE PRESSURE**

This is up to you. Most people use a few more lb/sq in than normal.

### **CLUB MEMBERSHIP / CAMS LICENCE**

Please have all this paperwork ready for checking against your entry at sign-on.

### **NO OIL / COOLANT / WATER LEAKS**

Any sign of dropping liquid will mean that you go away and unless you can prove that you have fixed the problem, you will not be allowed to compete.

### **STOP LIGHTS**

Your stop lights must be working.

### **HEADLIGHTS etc**

All forward facing lights which are not shatterproof must be fully protected with tape or similar. Note that criss-cross tape is not sufficient, the lights must be 100% covered. Late model Porsches have plastic headlight lenses which are acceptable as they are (but you might want to protect them anyway).

### **TOW HOOKS**

For Supersprints you are to have a tow hook at either the front or rear of the car. A sign

saying 'TOW' and the hook painted red, are worthy extras. The internal diameter of a tow hook should be 40mm. - but the standard Porsche hook is acceptable.

### THROTTLE RETURN SPRINGS

All vehicles are to have at least two throttle return springs. These are preferably fitted where they can be seen by the scrutineer to prevent arguments



**Figure 15** Fire extinguisher fitted to the rear tunnel of a 911

### FIRE EXTINGUISHER

You are to have a 0.9kg extinguisher fitted inside the car, securely attached with a metal bracket. Plastic brackets are forbidden (not much use in a fire). The extinguisher must be fitted where you can easily reach it while strapped in, and you should know how to use it. Don't present at scrutineering with the extinguisher taped up to some part of the car!

Note that extinguishers have a month and year stamped onto the bottom of the bottle. Anything three years and over at the date of inspection, is unacceptable. When you buy the extinguisher make sure you are getting fresh stock. If you have your extinguisher refilled, make sure the refiller company adds a tag to the extinguisher (not the bracket) to verify the date of the refill. (Though refills usually cost about the same as a new one.)

### BRAKES

The brake pedal must be firm. Out on the track you will be subjecting the brakes to loads rarely used in normal traffic and the story on the condition of your braking system may be very different.

Fresh, high quality brake fluid is essential (minimum standard is DOT4). If you want you can change to racing type fluid which resists brake fade better. Your pads should also have plenty of available wear – if the pads are down to three or four millimeters then put in new ones. For your own sake check that all brake lines, joints and hoses are free of any sign of leakage.



SCRUTINEERING CHECKLIST

EVENT

DATE

DRIVER

CAR NO.

REGO NO

STEERING AND SUSPENSION

- Wheel bearing movements
- Steering wheel free play
- Shock absorber operation

BRAKES

- Brake pedal travel
- Visual check for leakage at master cylinder/wheels

INTERIOR CHECKS

- Helmet to Australian standard
- Non-flammable clothing
- Seat belts in good condition
- Drivers seat secure
- Fire extinguisher charged and secure
- Cabin free from loose objects

WHEELS AND TYRES

- Tyre condition and clearance from bodywork
- Wheel condition and valve stems ok
- Wheel nuts

ENGINE BAY

- Engine breather intact
- Fluid leaks
- Oil leaks
- Throttle return springs
- Battery secure

BODYWORK

- Bonnet secured by additional restraint
- Loose panels, fittings etc.

BRAKE

- LIGHTS/MIRRORS/BATTERY TRIANGLE
- Brake lights working ok
- Mirrors ok
- Blue Triangle fitted

CHECKED NAFF

BY.....

## **Appendix C – Competition Numbers**

For Motorkhanas you will be given a printed number to tape to each side of the car (masking tape works fine).

For Club Sprints you will need regulation numbers on both doors: 280mm high x 190mm wide x 50mm line width, black, and Helvetica Bold or Arial Bold font. The Club usually has numbers for sale at registration. If contrast is a problem, use a white background panel (sticky or magnetic).

If you have a car with 2 drivers then the usual practice is to use (say) competition numbers 17 and 171. When running as 17 you blank out the trailing 1. However, you must either blank it out completely or remove it – a ‘strikethrough’ with tape is not acceptable.

Note that CAMS specifications are more stringent – numbers as above plus a regulation background. So for external events you may need a different setup.

## Appendix D - Venues

### D.1 Nirimba Education Precinct – motorkhana venue

#### Nirimba location

Eastern Road, Quakers Hill  
Gregory's 213, E-12

Roughly 35Km NW of the Sydney CBD, West of Parklea Markets. If approaching from Parklea, turn right off Quakers Hill Rd at the large blue Nirimba Education Precinct sign.

Enter past the boom gate and go to the far (North) side of the campus: across numerous speed bumps and mini roundabouts, turn right when you reach a T junction, and cross the car park.

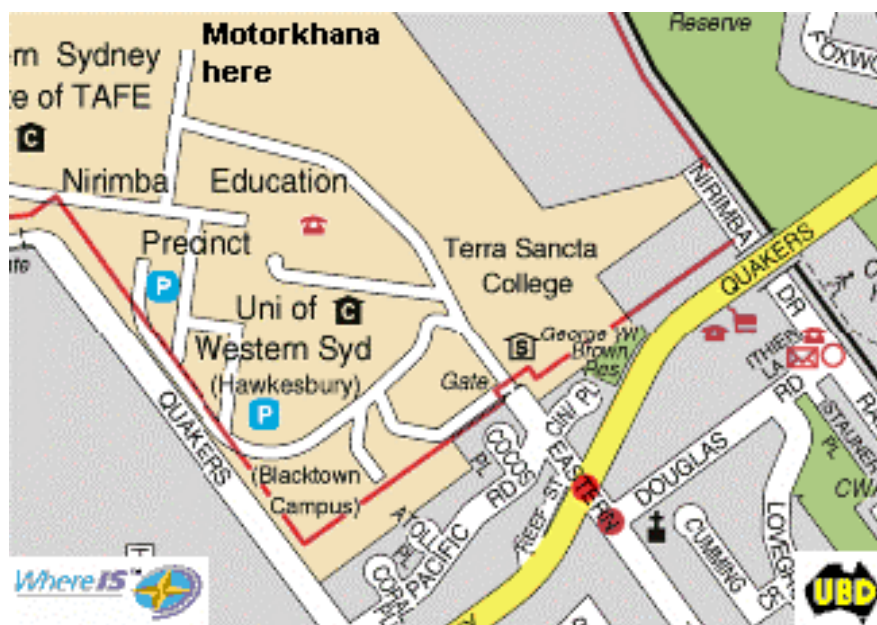


Figure 16 Nirimba Education Precinct - location map

Be warned: **there are no facilities** available at Nirimba, so be prepared to be entirely self contained. There are petrol stations and food (well, a Macdonalds anyway) a few Km east along Quakers Hill Rd.

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## D.2 Oran Park racing circuit

[www.oranpark.com](http://www.oranpark.com)

### Oran Park location

Cobbitty Rd, Oran Park, NSW. Near Camden.  
Gregory's 448, D-12

Oran Park is about 45km south west of Sydney. From Sydney you can get there via the F4 Freeway (turn left and head south along the Northern Road) or via the M5 Motorway (turn right onto Camden Valley Way and turn right onto Cobbitty Road). The entrance to the circuit is on the right.

On arrival, follow the road over the hill (keeping the track to your left) which brings you to the back of the paddock by the old garages. Keep the old garages to your right and scrutineering and sign-on are straight ahead (don't go to the new pits on the left just yet).

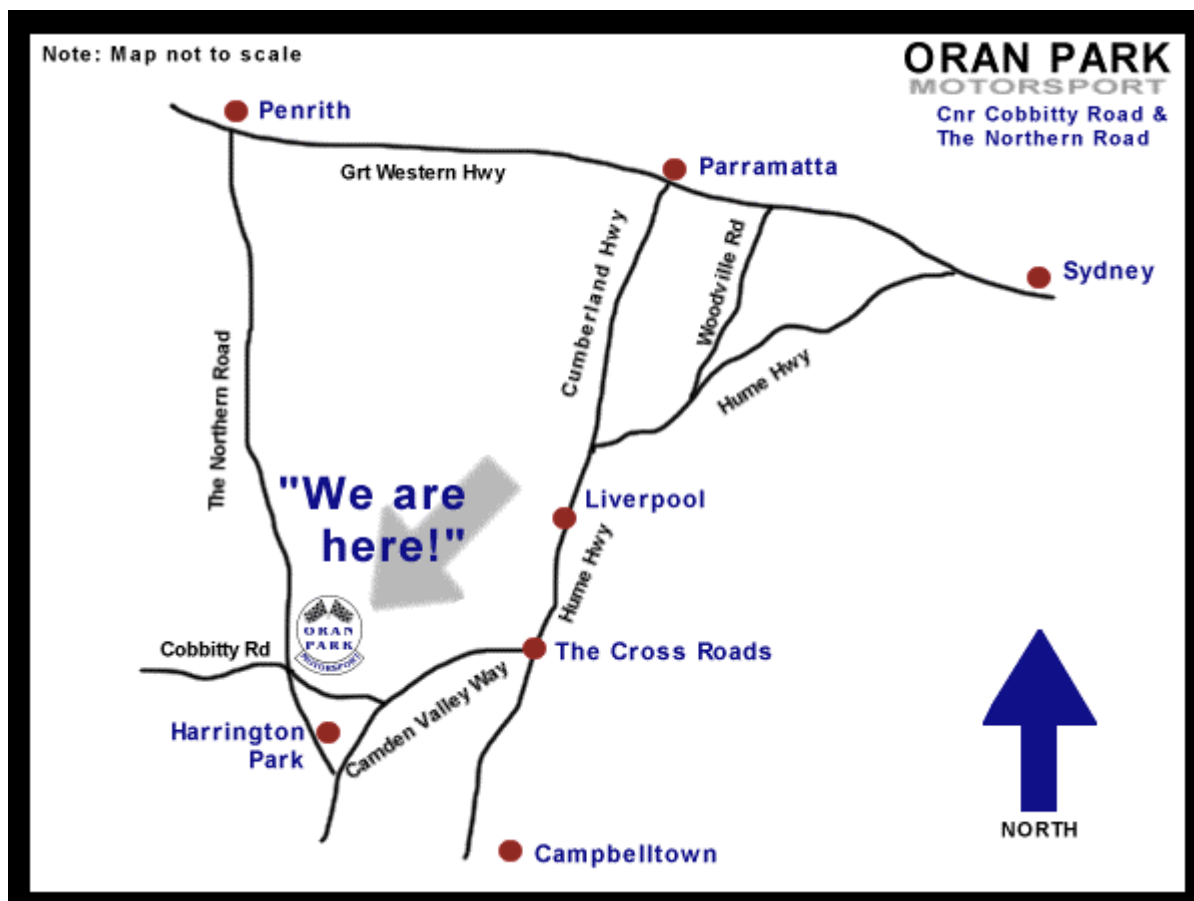


Figure 17 Oran Park – location map

### D.3 Eastern Creek Raceway

<http://members.ozemail.com.au/~ardcec/eastern.htm>

#### Eastern Creek location

Eastern Creek Raceway, Brabham Drive, Eastern Creek, Sydney  
Gregory's 273, C-16

From Sydney, take the F4 Western Motorway to the Reservoir Rd exit, turn right onto Reservoir Road, go under the motorway, then left onto the Great Western Highway. Go a few Km then left again into Brabham Drive. Go under the motorway and turn right at the roundabout in front of the raceway stands. Follow Ferrier's Road all the way round to the back of the circuit, and the competitors' entrance is on the left. Go through the tunnel under the track and turn right into the paddock. The scrutineering bay is at the far end. (The police are keen on speed traps anywhere near the raceway.)

#### Eastern Creek circuit

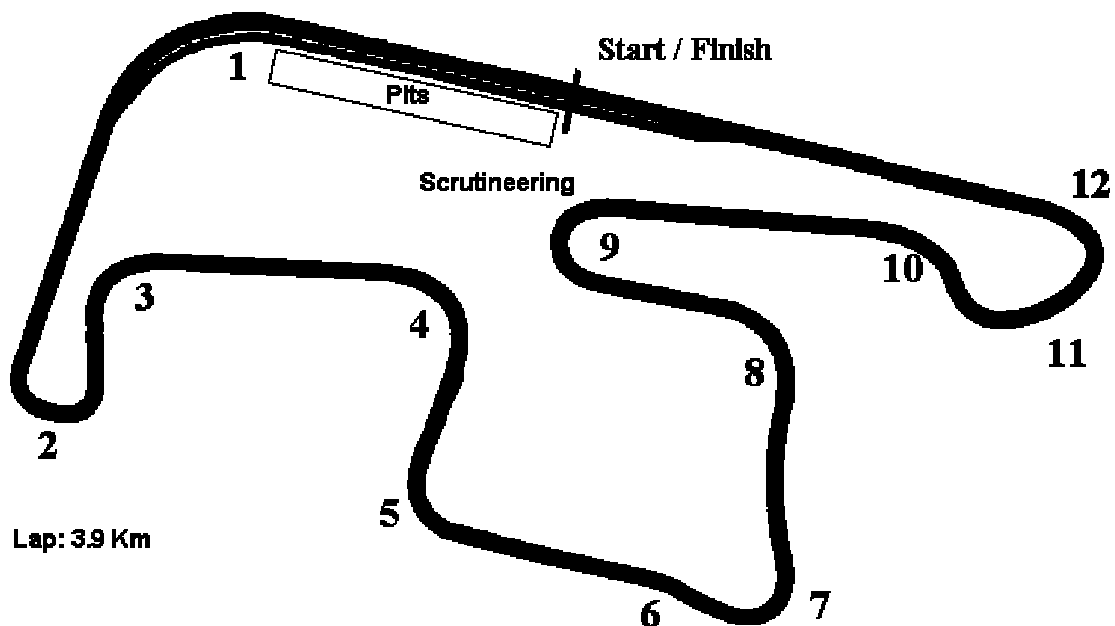


Figure 18 Eastern Creek Raceway – circuit layout

#### Eastern Creek driving tips

These tips are for people intent on going quickly. They are edited from a series of articles written by Mark Williamson for Burrows drive days (PO Box 625 Harbord 2096, 0418 88 22 64, no connection with Porsche Club). Mark races in the GT Production series – so he's serious! Note that there are references to special arrangements made on those days.

## Driving tips by Mark Williamson

### Turns 1, 2, and 3

You are heading down the main straight, across the start/finish line, and Turn 1 is looming up. This has the potential to be very fast and hence the potential to go horribly wrong, horribly quickly. Many Porsches will reach speeds of more than 200 kph down the main straight, and at these speeds any misjudgement is magnified dramatically. It is vital that you brake in a straight line and slow the car to a speed that you are happy with before turning in. How fast should that be? Of course, this depends on your car and your skill, but this is no place for heroics. It is a corner that you should build up to, and always be conservative in terms of speed.

I believe that the most important part of any turn is from the turn-in point to the apex, and the faster the corner the more crucial this becomes. Once you have turned in you must be back on the throttle in order to balance the car. This doesn't mean jump aggressively on the gas, it means squeeze the throttle and maintain your entry speed to the apex.

Balance is a word you will hear me mention frequently. By balancing the throttle to the apex you are keeping the weight of the car distributed correctly, that is with the rear of the car squatting. This is critical in a Porsche or any mid-engined car. It helps to minimise body roll and gives you more control over the momentum of the car.

Once you are at the apex of Turn 1, you should be squeezing the throttle down and powering out of the corner. This should result in an exit out near the ripple strip on the right. If you are off line or the car is feeling unbalanced, the first thing you will want to do is take your foot off the gas. Don't! At this point, if you jump off the gas abruptly the car will probably spin and you will have a huge problem on your hands. If you find yourself in this situation, EASE off the gas and don't do anything sudden. Of course, if you do spin, JUMP on the brakes to stop the car asap.

You are now approaching T2 and it's one of the trickiest corners I have driven. This corner is usually taken in 2<sup>nd</sup> or 3<sup>rd</sup> gear. Again you need to slow the car in a straight line and heel and toe down shift into the correct gear. T2 is basically a hairpin that tightens up on itself, and is slightly uphill on entry. You will notice that race cars take a much different line here to road cars, simply because they have that much more grip. They tend to brake diagonally straight into the first ripple strip, then understeer into the middle of the corner, which done correctly, will position them to exit quickly having carried more speed in. If you try this in a road car on road tyres you will be off the road at the exit. Once you have reached the turn in point, smoothly turn the wheel and remember to look around the corner. You need to gradually bring the car around to the apex again marked by a cone at the end of the second ripple strip, all the time balancing the gas as previously described. It seems like forever but you can't really start to accelerate until you are at the apex cone.

This should position you correctly for the entry to T3, this is quite a long corner, you will probably have changed up to 3<sup>rd</sup> on exit of T2 and you will then drive straight into the bend, hugging the white line on the right hand side of the road, keeping the power on smoothly all the way through, then gradually unwinding the lock to allow the car to flow to the left hand side of the road. Be careful not to unwind too soon as you can find yourself on the grass on the

exit, which will result in a fast spin with two concrete walls on either side of you (not recommended).

### **Turns 4,5 and 6.**

*Caution: if it's wet, take great care not to go off at turn 4. You will scoot across the wet grass and hit the wall.*

As you exit T3 you should be on the left hand side of the track, the circuit rises up slightly and then drops away on the run down to T4, at this point you will pick up additional speed as the gradient on the road in is quite steep. T4 is a very important turn in terms of lap time as it is the start of a sequence of corners that are linked in terms of flow. Most cars will take T4 in 3<sup>rd</sup> or 4<sup>th</sup> gear, the turn in point is critical and you should turn in from the extreme left hand side of the track. It is very easy to turn in early here as the corner rushes up fast. The consequences of turning early and apexing early can be disastrous as the track changes camber and tightens to the right on exit, if you are in early you will find the car understeering and be forced to lift off the gas, at this point if you lift off quickly you will cause a sudden transfer of weight to the front causing the back to step out.

At this point you will probably feel like the car will just spin to the grass on the left. But what occurs is that the back will spin to the left and continue to rotate causing the car to exit to the grass on the right hand side and straight into the concrete wall. This is a real black spot at Eastern Creek that most people don't realise exists. Have a look at the skid marks on the road and the damage on the wall; I've seen many badly damaged cars at this point.

The correct turn in point will be marked by a cone and the apex is 2/3 of the way around the kerb on the right. As usual you should balance the throttle on the way to apex. Once you are at the apex, ease on the gas. Be aware that the camber changes and the road tightens to the right, you should exit turn 4 about three quarters of the way across the circuit.

You then need to bring the car back to the right to line up for T5. Again this is a very important turn and the turn in to this corner is unusual as it is quite early. You must turn in from right on the edge of the track on the right to optimise the line. You will usually be in the same gear as T4 and you will need to brake gently before turning in. The apex is before the half way point on the kerb on your left, at this point you should be easing the gas on and unwinding the lock to exit right on the right hand side of the track. There is an additional concrete strip on your right which can be used but be careful not to drop a wheel of the edge of this!! If you aren't exiting on the edge of the track you are turning in too late, so turn in a little earlier next lap.

As you exit up towards T6 you should place the car in the middle of the track. As you brake for T6 you should aim to drive across the top of the concrete patch on your right, most cars will be down to third gear at this point, continue to brake past the concrete patch and then turn left into T7. The apex is pretty much at the end of the kerb on your left; you should then ease the power on to exit on the right hand side of the circuit. A common mistake at T6/7 is to head diagonally from the first flat concrete patch (on the right) straight to the apex on the kerb (on the left). This will cause you to apex early, run wide, and possibly make the car understeer off the edge of the track as you exit T7.

### **Turns 7, 8 and 9.**

As you exit turn 7 you will notice that the track tightens up, it is quite easy to find yourself running out of room at this point. If the car starts to understeer as you exit turn 7, just ease the gas off, don't jump off the gas as the understeer will probably turn into oversteer.

The road then heads uphill to T8. This is usually referred to as Corporate Hill. As you approach this turn you should be positioned on the right hand side of the track. Most road cars should have to brake as they head under the bridge and should be in 4<sup>th</sup> gear. As you go under the bridge, the track actually curves to the right. It is best to follow the edge of the road as it curves right to the turn-in cone. If you don't follow the edge as it curves right, you can find yourself turning in to early to T8. This can cause big problems!

If you turn in early at this point and are going quickly, you will apex early and start to run out of road on the exit. If this begins to happen, ease of the gas and try to get the front to tuck into the corner. Don't jump off the gas as you can find the back stepping out on you.

T8 is one of the black spots at Eastern Creek as the road falls away on entry and is slightly off camber. It is probably easier in a race car as you have a lot more grip. Most road cars feel nervous here. The conclusion of a spin at this turn can result in the car spinning sideways into the gravel trap on the right and possibly rolling over, or spinning right around and crunching the wall on the left. You only need to look at the skid marks here and the paint on the wall to understand my point.

The apex to T8 is near the end of the ripple strip on the left. As you hit the apex you should ease on more gas and let the car flow to approximately the middle of the track, as you will need to position the car back onto the left hand side as you approach T9.

T9 is usually taken in 2<sup>nd</sup> gear and is a relatively easy corner. The road is nicely cambered and this is one corner where there are actually several lines that can be taken, resulting in similar exit speeds and not impacting on lap times. An ideal line is to turn into the corner from the edge of the road. At this point it is really important to look through the corner. In most cars you should find yourself actually looking past the A pillar to the apex. As you exit the corner ease the gas on more. It is easy to find the back stepping out at this point if you are driving a powerful rear wheel drive car. Be careful not to drop a left rear off the road as you exit.

The mistake most commonly made is to brake too late into T9 resulting in a very late turn in to the corner and a slow lap time. Like any slow corner you should remember that a quick exit speed is what's required. There is not a lot of time to be made in the turn.

### **Turns 10, 11, and 12**

As you exit turn 9 your car should be placed on the left hand side of the track for the run down to T10. T10 is really no more than a bend however the placement of the car is important as it leads to T11 and 12 and then down 1 kilometre of the main straight. Therefore if you are off line or unbalanced, the result can be a significantly lower lap time.

Most cars will be in 4<sup>th</sup> gear on the approach to T10. There will be a cone on the left hand side of the track that indicates where you should begin a gentle turn into the apex that is marked by another cone. Most cars won't need to brake for T10 but you will need to have a lift of the gas

prior to turning in. It is important to be back on the gas as you turn, in order to balance the car on the approach to T11.

T10 flows immediately in to T11. Once you have apexed T10 you should be on the brakes and shifting down to 3<sup>rd</sup> gear. Don't head from the apex of T10 straight to the apex of T11, as this will compromise your line and speed through T11. You need to keep the car slightly to the right after apexing T10, then commence the turn in to T11 from approximately the middle of the track. This allows you to hit the apex (which is towards the end of the ripple strip on the left) with a minimum of steering lock and will see the car placed in a much better position to head up the short straight to T12.

At the apex of T11 you should be back on the gas and heading to T12. Don't make the mistake of making the T11/12 complex a big hairpin, holding a bit of left steering lock on all the way through. This will result in you overloading the right front tyre and usually turning in way to early for T12. Once you have apexed T11 the car should flow to the edge of the track on the right. At this point you should straighten the wheel and follow the concrete strip. It's best not to drive on this strip, but it is there to use if you run wide on the exit of T11. Remember that there is a concrete wall on the left between T11 and 12. If you exit T11 incorrectly or too fast and end up on the grass on the right hand side, you can find that the car will swap ends very quickly and shoot back across the track and into the wall on the left (don't laugh I've seen this happen).

The turn in to T12 should be made from the end of the concrete strip on the right. At this point it is very important to turn your head to look through the corner, as T12 is quite long. Most cars will need to have a lift or a gentle brake on the turn in to T12. This isn't so much to slow the car, but to transfer weight onto the front of the car in order to assist with a positive turn in. Most cars will carry 3<sup>rd</sup> gear through T12. You should be back on the throttle after turning in, holding a balanced throttle until you reach the apex that is at the end of the ripple strip on the left. As you exit T12 you should be unwinding the wheel to allow the car to flow to the edge of the track on the right hand side.

You are now on the run down to T1 - of course keeping the car on the right hand side of the track all the way down the straight. Be careful not to drop a wheel off the edge here.

So you have completed a perfect lap of Eastern Creek - that's the good news. Now you have to do it another 6, 12 or 50 laps depending on how long you are out!

#### **D.4 Wakefield Park racing circuit**

[www.wakefieldpark.com](http://www.wakefieldpark.com)

There are no trees or natural obstacles near the track. Safety is paramount and ripple strips, tyre walls and gravel traps have been positioned so as to make Wakefield a very safe circuit.

#### **Wakefield Park location**

Braidwood Rd, Goulburn, NSW 2580

The circuit is about 2.5 hours drive from Sydney. It is in Turraville, 10km south of Goulburn. Coming from Sydney, take the first Goulburn exit from the highway, go into

Goulburn and turn left at the first traffic lights (blue sign Wakefield Park). After 2.6Km turn left over the railway bridge (blue sign again), then the circuit is 9.2Km on your left. Go in the gates and find a vacant garage on your left. The scrutineering bay is also on the left, behind the garages (nearest the road).

### Wakefield Park circuit



Figure 19 Wakefield Park – aerial view

## Appendix E – Resources

Big time disclaimer: this section is far from complete and it is not a recommendation. It's just stuff you might find useful.

### Porsche workshops

Hamilton's, Dee Why (independent)

Porsche Centre, Sydney South (dealer)

PR Technology, Brookvale (independent)

Scuderia Veloce, Willoughby (dealer)

### Web sites

Porsche Club NSW  
(has links to other States' clubs)

[www.porscheclub.org.au](http://www.porscheclub.org.au)

CAMS

[www.cams.com.au](http://www.cams.com.au)

Motor sport links

[www.westco.com.au/m\\_sport.htm](http://www.westco.com.au/m_sport.htm)

Pelican Parts (USA)

[www.pelicanparts.com/index.htm](http://www.pelicanparts.com/index.htm)

Ross Bentley's Speed Driving Tips

[www.speed-secrets.com/tips.html](http://www.speed-secrets.com/tips.html)

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