

Track Day Basic Guide

Introduction

Welcome to a Porsche Club Ireland Track Day!

We hope that you leave our Track Day with a better understanding of precision driving skills, a more intimate knowledge of your Porsche and the desire to continue testing your driving ability at our other Track Day events.

If this is your first time at a PCI Track Day, we have some advice: join the camaraderie! You'll learn more and will have a lot more fun if you get to know the other people at the track. There are many different people attending, from those who have been doing track days for more than 20 years, to newcomers such as yourself. There are people who discuss the finer points of gear tooth profiles, and others who read their car's manual to figure out how to check the oil level. Some drive the latest models with PDK transmissions and traction and stability controls, while others drive 40-year-old classics with barely four speeds. There are two things that all these people have in common: they hold a full EU or UK Driving Licence and they are interested in improving their driving skills.

Equipment

Helmet

The only special item of safety equipment you need in addition to that already in your Porsche is a helmet with an ECE certification, which any helmet sold in Europe should have. There are also Snell, SFI, FIA, CMR and DOT standards which your helmet may also meet, but the ECE standard is the only required certification. Full face helmets offer greater protection than open face helmets, but both are acceptable for Track Days. Special helmets designed for road racing are available, but they are not required for Track Days, and they are substantially more expensive. Consider one if you think you might start road racing.

Clothing

On the track, you must wear long-sleeved shirts and long pants. Preferably made of natural fibres (*e.g.*, cotton, wool or linen). These materials are comfortable and are less flammable than synthetics. Don't wear clothing that is too tight—you need unrestricted movement to react quickly.

Driving footwear should also be made of natural fibres (*e.g.*, leather or canvas), must be closed toe and the soles should be flat (no heavy hiking boots or fancy running shoes). Plain trainers or leather driving shoes are ideal

Driving licence

All drivers will be required to show their driving licence when signing on before the event. This is not to check how many points you have, but to ensure you are able to drive a car legally. Regrettably, no licence—no track time, and no refund.

Preparing Your Car

Cars (and their drivers) can encounter higher stresses than would ordinarily be encountered on the road (excepting the most aggressive of road drivers). For this reason, it is important that drivers be satisfied that their car is up to the task. Unless the car has been serviced very recently, it is advisable to get it checked by a qualified mechanic before taking it on a Track Day. If the mechanic also has motorsport experience that would be a plus.

Before the Track Day

Noise

Circuits are coming under increasing pressure from nearby residents and various environmental groups to reduce noise. Some circuits have more difficulties than others and therefore are required to operate to differing noise limits. Most of the circuits that the Club uses, including Mondello Park, Kirkistown Racing Circuit, Oulton Park and Goodwood, operate to a noise limit of 105 dB. Sunday at Kirkistown has a lower 98 dB limit that cars with non-standard exhaust systems are likely to fail. Unmodified Porsches will almost certainly not be too loud at any Club track days.

Seat Belts

Factory 3-point lap/shoulder belts should be checked for proper operation and excessive wear or damage. The factory seat belt mounting position of early 911s and 912s will fit better if lowered.

Six-point harnesses should only be installed if they will always be used with a head and neck (HANS) device and a proper race seat that has guides for the shoulder belts and a seat cut-out for the sub-belts. The Schroth ASM 4-point harness should be used without a HANS device but can be an aid to driving on track.

Clutch Pedal(if applicable)

No binding or unusual play, the pedal/clutch should operate smoothly.

Brake Pedal Feel

Firm, with engine off and does not drop/bleed under hard steady pressure. Free play of over 50% of the total travel is cause for repair. Brake lights must work.

Brake Fluid, Pads and Discs

The brake fluid reservoir should be full of fluid that is not more than two years old, as recommended by Porsche. New brake fluid every year is recommended. Regardless of age, the fluid should be no darker than medium yellow and transparent. Front and rear pads/shoes should be at least 50% of the new thickness. Brake discs should have no visible cracks extending to the edge of the disc or cracks that connect two holes in a cross-drilled disc.

Hard driving takes its toll on brake components which are among the most important safety devices of your car. Most newer cars have an indicator light that warns when the brake pads are getting thin, but if your car doesn't have one, you should examine the brake pads yourself. If you don't know how to do that, ask someone to help you—teaching and learning are the most fun parts of track events! Note: if the brake pedal ever starts to feel 'soft' or 'spongy' whilst on track, pit in immediately. A soft pedal happens about two turns before the pedal goes straight to the floor without any resistance and little braking effect—not a fun experience. This happens when your brake fluid in your car's brake callipers boils creating an air bubble. 'Bleeding' a bit of fluid from the brakes will generally get the bubbles out and give you a firm brake pedal again. This is a simple process that most people at the track can help you perform if the equipment is at hand.

Battery

Mounted securely, any fill caps tight, positive terminal covered and no fluid leakage. No corrosion of the battery tray. Check the fuel lines under the battery tray on 914s for corrosion.

Engine Compartment

Hoses and wiring securely fastened, proper routing of lines and hoses and no excessive leaking of fluids. Belts in good condition and properly tensioned.

Fuel Cap

Tightly closed and no leakage.

Wheels and Tyres

Wheels should have no cracks. No missing wheel studs or nuts. Nuts should be steel and engage threads on studs by at least the stud diameter. Tyres should have no sidewall cuts or dry rot cracks. Front tyres same size; rear tyres same size. It is recommended that tyres be not more than five years old. If you need help locating and reading the date code on your tyres, ask someone to help you—teaching and learning are the most fun parts of track events!

On the Track Day

Tyre Wear and Pressure

Check your tyres after every stint for nicks, punctures or worn areas. Uneven tyre wear is a sign that you should consider swapping tyres (switch lefts and rights unless the tyres are marked to the contrary). Check tyre pressure throughout the day. Tyre pressure typically increase more than ½ BAR or 7 PSI during track sessions. Check ‘hot’ tyre pressures immediately following each stint as soon as you return to the paddock.

Oil Level and Consumption

Check the oil level before every stint and add oil as needed. Get in the habit on the track (*only* on the straightaways) of checking the oil pressure and temperature gauges and monitor oil temperature. Generally, 120° C. is considered the maximum allowable oil temperature for non-synthetic oils. Synthetic oils offer adequate lubrication at somewhat higher temperatures. Bringing an extra litre of oil is never a bad idea—if you have it there may be less chance you will need it.

Coolant Temperature (if applicable)

As with oil, monitor your coolant temperature regularly while on the track (again, *only* on the straightaways). If you get a reading in the red zone or no reading (too little coolant), you should end your stint early and let your car cool.

Fuel Level

You’ll be surprised at how quickly you can go through fuel. It’s less expensive to fill up before you arrive at the track. If you’re not sure whether you have enough to make it through an entire stint, get more. You don’t want to take up everybody’s track time getting towed off the track, and running out of fuel whilst driving will do your engine no good.

What to Expect at the Track

Park and Sign On

Park in the paddock in a spot identified for your use or adjacent to other members. For events where signing-on has not been done online beforehand, complete the necessary paperwork for the venue.

Prepare Your Car for Driving

Clear Your View.

Remove all items that may obstruct your view (*e.g.*, fuzzy dice hanging from the centre mirror, unnecessary stickers, and items on the rear window ledge).

·Protect Yourself from Flying Objects

Remove all objects that may come loose, including floor mats (front and rear) that are not securely attached, mobile phones, drink bottles under the seats, and items in the map pockets.

Check Tyre Pressure

Check your tyre pressure on the day of the event. Typically, “hot” tyre pressures should be a little higher than what is recommended in the owner’s manual or the placard on your car. If you’re not

sure where to start, ask someone with a similar car. Remember that as tyres warm, the pressure increases, so take this into account when filling your “cold” tyres with air.

Attend the Drivers’ Briefing

If not already conducted online, all participants are required to attend the Drivers’ Briefing.

Parts of the Race Facility

Pit

The pit is the area just outside of the actual track, where cars enter and leave the track (‘pit out’ and ‘pit in’, respectively). There is sometimes another area within the pit where cars can line up to pit out (called the false grid). Even though speeds in the pit are to be kept to a minimum, it is a hazardous place to stand unprotected and care must be given to moving vehicles. Drive slowly in the pit lane and watch for pedestrians crossing from the pit wall.

Paddock/Garages

The paddock or garages are where you park your car between stints. The speed limit in the paddock is a walking pace. That is purposely slow because there are many pedestrians about and moving vehicles are not restricted to identified lanes. If the track has garages, they may be assigned or taken on a first-come, first-served basis and space is always very limited. The organiser of the event will inform you whether you may use a garage. Otherwise, pay attention to the area in which you park—not too close to another car.

Pit-In/Pit-Out

The pit area is just outside the track course and is used to allow cars out on the track in a safe fashion (observe the blend line all the way to the first turn even though it is not marked that way), and to allow cars in at the end of a stint. Drivers who are on the track should pay particular attention to cars pitting in and pitting out. When driving your out lap and in lap be very conscious of faster traffic and indicate for them to pass. Your in lap should be a cool down lap.

Straights (Straightaways)

Straightaways are what they sound like—straight parts of the track where you pick up speed before turning into a corner. Most tracks have a front straight (in front of the pits or at the start/finish line) and often a back straight. Straights are where you take a quick breather, check your fluid levels and temperatures and loosen your grip on the steering wheel.

Corners or Turns

Corners are the most fun part of the track—where you get to use the steering wheel and brakes. You’ll learn later about increasing and decreasing radius turns and the theory behind apexes. Corners are where you learn what your Porsche, your tyres and you were made to do.

Marshals/Marshal Posts

Marshal Posts are set up at intervals along the track (not necessarily at corners, though) so that the Marshals can collectively see the entire track. The Marshals are there to communicate to drivers and can summon help in an emergency. If you should encounter an issue that requires a Marshal’s help, whatever the Marshal tells you is always to be obeyed. Marshals know whether there is other danger on the track and what help is on the way. In nearly all situations, you should remain in your car and not get out. The *only* exception to this rule is if you know that your car is on fire in which case you must get out quickly.

Communication

Flags and your car's indicators are the main source of communication on track. Not all the flags described below will be used at a track day, but you should know what they mean in case you see one when on track.

Flags indicate unsafe situations (YELLOW, RED, WHITE and BLACK flags), situations where courtesy is indicated (BLUE flag), and the end of the session (the famous black and white CHEQUERED flag). The colours correspond to the colours you find on the street: GREEN means go, YELLOW means slow, RED means stop and BLACK is trouble.

Green

- Track is clear
- Session underway



Standing Yellow

- Danger
- Slow down
- NO OVERTAKING

Waving Yellow

- **Great danger**
- Slow down considerably
- Prepare to change line or stop
- NO OVERTAKING



Yellow with Red Stripes

- Oil or debris on track



Solid Blue or Blue with Yellow Stripe

- Faster traffic behind you
- Signal and allow to pass when appropriate



White



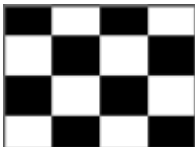
- Emergency or slow vehicle on track
- Slow down, use caution



Black

- Something is wrong with your driving or your car
- Acknowledge to Marshal



<ul style="list-style-type: none"> • Safely return to pits and meet with Marshal 	
Black with Orange Meatball <ul style="list-style-type: none"> • Something is wrong with your car • Acknowledge to Marshal • Safely return to pits and meet with steward 	
Red <ul style="list-style-type: none"> • Session halted • Slow down immediately (check mirrors to be sure others are also), and prepare to stop if need be • Safely return to pits; track may be blocked • NO OVERTAKING 	
Chequered <ul style="list-style-type: none"> • End of session • Acknowledge to Marshal • Commence cool down lap 	

Communication between drivers on the track is accomplished solely using indicators. On track at Mondello Park and Kirkistown Racing Circuit you will indicate RIGHT and move slightly right to signal that an overtaking car may pass you on your LEFT. When approaching Pit In you will indicate RIGHT to signal that you are pitting in.

The most critical rule for which the consequences of failure to follow is most severe, is in two parts:

Part One: you may only pass a car on a straightaway if (i) the driver of the overtaken car indicates RIGHT and moves to the RIGHT and (ii) you can complete the pass on the LEFT whilst still on the straightaway thereby completing the pass before the braking zone and the next turn.

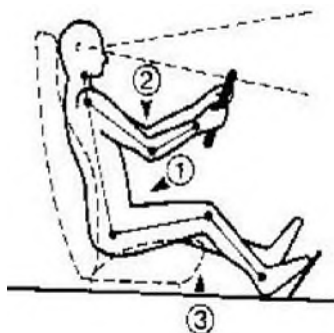
Part Two: the driver of the overtaken car who indicates RIGHT to allow a pass must cooperate with the driver of the overtaking car by not accelerating, lifting off the throttle or even braking lightly to allow the pass to be completed before the braking zone.

Every pass is a contract between the two drivers to effect the pass safely, and each driver must fulfil the contract.

In the Car

Seating

Seating is surprisingly important because it allows you to maximize the amount of feedback you receive from the car and provides you with a stable 'office' in which to work. If you're seated properly, you'll feel the vibrations in the steering wheel, brake pedal and the throttle. You'll also feel the movement of the car through the seat itself and will optimize your visual field by setting up the seat correctly.



The first time you REALLY try to sit appropriately in your car will take some time—it's a matter of trial and error. Seating for performance driving is typically further forward than you'll sit while driving on the street.

Start by sitting IN the seat—really push your butt down and wiggle around so that the small of your back is pushed into the seat. That's how you maximize the surface area through which you'll feel the vibrations. While driving, you'll use your left foot on the wheel well or 'dead pedal' to help push your body back into the seat to maintain this stability.

Now, slide the seat back and forth until your feet can depress the pedals easily. A good test is to see whether your right foot can cross over to depress the clutch all the way in. If you have to point your toe to depress the clutch all the way, pull your seat forward. If your leg is more than slightly bent when you press the clutch in, push your seat back. Next, set the seat-back so that your wrists fall directly over the top of the steering wheel. This should allow you to turn the wheel easily and retain a good grip on it. Try to keep the seat back as vertical as possible.

Adjusting Mirrors

Mirrors are very useful tools, but only when adjusted properly. After ensuring the side mirrors convey the optimum information (*i.e.*, with your car's bodywork just barely visible as a reference point), adjust your centre-mounted rear-view mirror to view somewhat to the left of centre. This way you may see in a direct line behind you and cut down on the blind spot to your left rear corner. A coach riding with you may ask that the passenger-side be tilted all the way out to allow the coach a view of traffic behind you.

Steering Wheel Positioning

To maintain control of your car and judge the position of the steering wheel without looking, you need to have your hands positioned properly. Use both hands! Place them at the 3 and 9 o'clock positions. Hook your thumbs over the spokes if the wheel allows it. This allows you to use your thumbs to pull the steering wheel down to the left or right as opposed to pushing it. Don't grip tightly! You should steer more with your fingers than the palms of your hand. To make small corrections, use your wrists instead of moving your arms.

To turn more than 180° you'll need to move your hands from their original positions. This can be done either by 'shuffling' your hands around the wheel or by sliding the first hand over to the other, letting the second hand then travel 180° away from the first hand. Shuffling is generally only needed when moving about the paddock—not whilst on the track.



Just in Case

There is variability among drivers in their reaction times—the time it takes a driver to respond or react to a given situation—of from one-half to a whole second. At 160 kph, you travel 45 metres every second, so drivers with the fastest reaction times can do nothing about the next 22 metres. In other words, at 160 kph, your concentration needs to be at least 25 to 45 metres in front of you, because anything closer has already happened. Cars also have reaction times depending on the type of input, and although Porsches excel at this, it is up to you to take advantage of it. Even drivers with short reaction times run into problems occasionally, and in these cases, they rely on a few 'tricks' to save themselves.

In a Spin

You'll know when you're in a spin. The world seems to slow down and you're a little puzzled by the fact that everything seems to be moving around you. But there's only one thing you must remember: in a spin, both feet in.

Both feet, by the way, means the brake and the clutch pedals. If you have a PDK or Tiptronic, push in the brake and the dead pedal (the 'footrest' to the left of the brake pedal). You'll come to a quick stop. Take a breather, look for the nearest Marshal and if you're okay, give the Marshal a 'thumbs up' signal. When the Marshal signals you to go back on track, look to make sure the track is clear and drive in the direction of the traffic toward the pit entrance. Remember that you may be bringing slippery mud and debris onto the track surface, so proceed slowly OFF the regular line around to the pit entrance. Flashers or a constant pit in signal are appropriate to caution the high-speed traffic that will be approaching behind you.

Skid Control

If you skid during straight-line braking, slowly let up on the brake pressure to release a locked wheel. You may immediately resume heavy brake pressure just below the lock-up level.

If you skid through a corner, it usually involves the rear end breaking loose and sliding around toward the front. But the rotation can be caught and corrected if done smoothly and carefully. Don't panic—skids happen to everyone.

When you skid, just gently turn the steering wheel INTO the direction that you want to go. Very often, you'll overcorrect, and the car will fishtail, or counter-skid. Simply turn the wheel in the other direction, but make sure you do it gently. The car will settle out and you can continue.

If you try correcting and it just doesn't work, the skid may turn into a spin, so BOTH FEET IN!

Etiquette

There is a wide range of skills among drivers, so be aware of this fact and be polite about it. If you're uneasy about being on the track, go slowly. Concentrate on learning 'the line,' and steering and braking smoothly. Look in your mirrors regularly and give passing signals as often as is appropriate. If a car appears behind you that wasn't in your mirrors the last time you looked, that car deserves a passing signal.

If you're a more experienced driver in your group, don't intimidate slower drivers by driving right up on their bumpers. Stay a respectful distance behind and wait for a passing signal but make sure that you are visible to the driver by filling their mirrors. Anyone who passes without a signal will be pulled off the track.

In the pit areas, be aware that it is often difficult for people to reverse. Leave extra room for people manoeuvring their cars and offer to direct them safely into their spots.

If someone offers to lend you a tool to fix your car, return it to them IMMEDIATELY after you're finished. Many people have lost expensive tools by lending them to people who have forgotten to return them.