

COMMODORE 64-128



Contents

Revs - the only true motor racing simulation on the Commodore 64. The only game to put you into the cockpit of a Formula Three racing car and take you out onto the legendary tarmac of Brands Hatch and Silverstone, following in the tyre tracks of names such as Jackie Stewart, Graham Hill and Nikki Lauda. The thrills, the excitement, the concentration, the heartbreak and more.

When originally released for the 64 back in early '86, Revs was greeted with acclaim from the press and public alike. Author Geoff Crammond (later to go on to write the mind blowing Firebird release Sentinel) had brought true high performance racing into the living rooms of the nation. Naturally, it immediately became a best seller. One year on, Firebird Software very proudly presents Revs Plus.

Revs Plus is the result of a year's worth of listening to Revs enthusiasts around the country as they wrote in to Firebird - and as such offers something new for beginners and experts alike. First of all, we found out that Commodore users wanted to use their ordinary switched joysticks to play Revs. We fixed it, so now you can - and by a careful piece of programming, still retain tight control over your car. Beginners wanted the game to play a little easier, while they were getting used to the feel of a high performance racing car and learning their way around a new track. We put in a new feature - assisted steering - which makes those tricky corners that much easier to handle. Experts, having mastered both Silverstone and Brands Hatch, wanted more of a challenge. We've now included an extra four tracks to the package - enough to satisfy the most hardened Revs buff. Three of the tracks will be familiar to any follower of British motor sport; Donnington Park with the fearsome Coppice Corner, Snetterton, deceptively simple infuriatingly hard to master and then the demanding contours of Oulton Park. The fourth track - the world famous Grand Prix circuit of the Nurburg Ring - acknowledged as the most challenging drive in Europe, the ultimate test. All these new features make Revs Plus much more than a sequel. It's an essential upgrade for the expert, opening up a whole new world of racing. For the beginner, we've made it accessible, while retaining the essential realism. Whatever end of the spectrum you lie, load it up, rev that engine and wait for the start lights to change from red to green. Is that the heat from the engine? The smell of burning rubber? The roar of the crowd?

And this is only the beginning.

REVS
For the Commodore 64/128

Programme by Geoffrey J. Crammond

Special thanks to David Hunt, Formula 3 racing driver, for technical consultancy.

Logo design by Simon Roberts and original cover illustration by Phillip Castle,
Artwork by Andy Farmer and Rob Stone.

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The Controls

Driving

You can drive using either: Computer Keys C=/F1

Computer Keys with steering paddle C=/F3

Switched joystick with steering paddle C=/F5

Use joystick up/down to accelerate/brake. Up and Fire to change gears up, otherwise, Fire changes gears down.

Or if you have one, an analogue joystick as explained in the diagram.

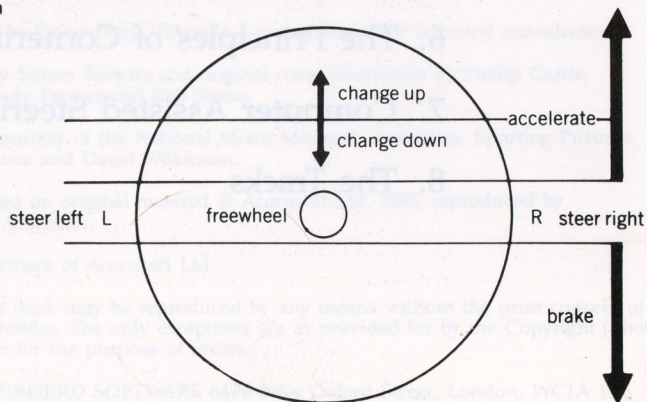
Note

When using a paddle or analogue joystick for the steering you can select either:-

A linear response (Shift Lock Down) which responds most like a real steering wheel. Or a non-linear response (Shift Lock Up) which makes it less sensitive when driving straight.

Steering

Steering using the joystick is outlined in the accompanying diagram. Key control is achieved by pressing (or) holding both the keys down at the same time stops the rotation, thus maintaining the current lock. Releasing both keys is like letting go of the steering wheel, and the steering will self-centre according to the speed of the car. Use the Space Bar to amplify the effect of keys (/) of joystick left/right.



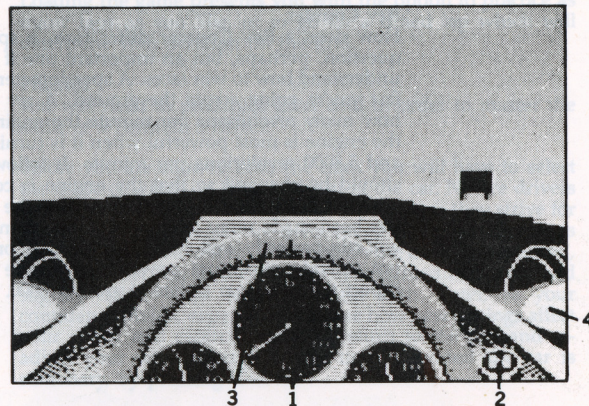
Joystick controls

Throttle and Brake

Throttle is applied by depressing S on the keyboard or pushing forward on the joystick.

Brakes are applied by depressing A on the keyboard or pulling back on the joystick.

1. Rev counter
2. Gear indicator
3. Steering position indicator
4. Wing mirrors



Gears and Clutch

In your Ralt RT3, the Q key is used to change up a gear and the CTRL key change down. Holding down Q/CTRL will cause power to be transmitted to the drive wheels, provided of course that you have supplied some throttle. If the car is moving slowly or is stationary then the simulator will slip the clutch for you such that the revs are held constant until a certain speed has been achieved. It is therefore important when doing a racing start that you obtain optimum revs when Q/CTRL is released (see the Start).

The Fire button on the joystick has a similar effect to Q/CTRL and the position of the joystick determined whether a higher or a lower gear is selected.

Starting the Engine

Before putting your driving skill to the test you must of course start the engine. Press T when the car is in neutral, or the clutch is drawn in (Q/CTRL or Fire button depressed) until the engine starts.

Wing Settings

It is suggested that, to get going, you adopt Wing Settings of 40 rear and 32 front. To make full use of the Wing Settings to achieve the fastest lap times, read the chapter on the aerodynamics of the car.

Rev Counter

How does a Rev Counter differ from a speedometer? Silly question, perhaps, but an important one if you are going to understand how to win races. A speedometer will tell you how fast you're going across the ground. A rev counter tells you how many revolutions per minute the engine is turning and the engine is most powerful when it is turning between 5,000 and 5,800 revolutions per minute. It follows that the gears should be changed so that the engine is constantly turning within this rev band. To avoid frustration the simulated engine has been made more tolerant of abuse than a real engine. It will run perfectly well at 2000, 3000, 4000, or at 7000, but will not provide maximum power. So, change up at 5800 and expect the new gear to bite at around 5000.

Practice Laps and Qualifying Times

Loading the game presents you with the option to practice as many laps as you like, or to go for a timed lap which will determine your position on the grid.

Practice

You will need to practice a great deal in order to master the skills of a Formula 3 driver.

Before you are allowed onto the track you will have to select the angle of wings on front and rear of the car. Novice drivers will require maximum control over their cars as they strive for a workable line at bends; for them speed along the straights is a secondary consideration to staying on the track. It is advised, therefore, that you look for a heavily weighted rear wing and slightly lighter front wing to begin with. Later, as your confidence builds, experiment and see how new settings affect your speed and control. You may return to the pits and re-adjust your wing settings at any time, provided the car is stationary, by pressing C=←.

On commencing practice or qualifying laps, you are some way before the starting flag. Your time does not begin until you have made it past the starting flag, which can be seen on the left of the track.

Don't be too ambitious at first. Crawl around the track in low gear, searching for the ideal lines at corners, getting a feel of what the car is all about.

Coming off the track - how to handle it

Revs are lost when you hang one wheel over the grass verge. Once completely onto the grass, it is like driving on ice. So, remain in high gear, reduce throttle but don't brake, and make only very slight manoeuvres.

If in a slide, try opposite lock, using the Space Bar to amplify its effect.

If in a spin, try using the brake.

Having stalled on the grass, get into 3rd or 4th gear and with the clutch drawn in start the engine. Pulling away in these gears will help to prevent a spin developing on the slippery surface.

When you are consistently within the 1.40 time, press C=/INST and opt for Competition.

Competition

Having elected to enter a competition, you will be offered a choice of three classes of race:-

Novice
Amateur
Professional

There are graduation times for Amateur and Professional Classes. You will not be allowed to compete in a particular class unless you show yourself capable of the minimum qualifying time. If you fail to get a qualifying time, you will only be able to enter the Novice Class and you will be at the back of the grid.

Anyone is allowed into the Novice Class. The reason for this is that unlike Professional or Amateur Class races, Novice class races cater for even the worst pile-ups. There are special emergency crews to take Novice Class cars, which have careered off the track following a mishap, and replace them in position. However, do not expect your car always to have escaped unscathed, and remember that you will never start your car while it's in gear.

You will be asked how long you wish the qualifying period to last. This allows you to ensure that there is sufficient time for you to attain a qualifying period by pressing C=/7.

Having decided how long you wish the qualifying period to be, you will be asked to log the name of the driver - Press RETURN and you will find yourself back in the pits to set the car's wings for the qualifying lap(s).

Multi-player racing

Points system

Points	9	6	4	3	2	1
Position	1	2	3	4	5	6

1 point is awarded for the fastest lap time.

It is perfectly possible and great fun to take turns with your friends to make qualifying times, and then all of you can enter a race. The way this works is for each driver to achieve a qualifying time and then one by one to drive in a race. The computer learns each player's skill from the qualifying round and simulates the other players performance when each player races. The ingenious application of points ensures a fair result. The points system is modified so that a player's actual race accounts for half of the total points that the player can attain.

After a race, three score cards will show you the finishing positions and points, the best lap times and accumulated tournament points. You then have the option of pressing RETURN to see the score cards again or pressing the Space Bar to continue with the tournament.

When To Brake

The precise timing of the brake/gear change on the approach is of crucial importance. Make the most of speed built up on the straight, by easing up at the very last moment.

Equally, braking too late can be suicidal. Braking pulls the weight of the car onto its front, and as you turn into a bend the car pivots around the front wheels.

Use markers for brake and gear points, turning points, and practical apexes. Use anything that you can lay eyes on.

There are three markers at intervals of 100 meters before each bend, and one on the apex.

The Start

On the grid you will be presented with:

1. Your position in the field, which of course changes as you overtake cars or are yourself overtaken.

2. The number of laps to go, which will be equal to the number of laps you have pre-selected.

3. Information as to which driver is behind you and which driver is in the position immediately in front of yours. If you are at the back of the field, the driver in pole position will be recorded as the driver behind you; if you are in pole position the driver in front of you will be recorded as the driver in 20th position.

Racing involves more consummate skills than qualifying.

Having opted to start a race, the standard or class of race will be confirmed and then you will move to a table of grid positions which has been determined by each driver's lap time.

You will then be left to choose the duration in laps (5, 10, 20) that you would like the race to be, and the name of the driver.

Next it is off to the pits for the wing settings, and then to the starting grid.

Along the top of your screen you will be given important information, which will change as the race proceeds.

Turn your engine over. Do not attempt to move or your engine will stall. Look at the starting lights; as your engine turns over they'll light up blue. Rev the engine to required revs, move into first, holding down the clutch, let out the clutch (Q or Firing Button).

Wheel-Spin Start

As many a racing driver knows, there is a point (near the 5,000 revs mark) at which the tyres will spin momentarily to maximise forward momentum. Letting the clutch out in 1st with your revs at this exact point will get you away as fast as your car can manage. You'll know when you've found the balance by the sound of the tyres screaming across the tarmac.

The Aerodynamics of the Car

The chief purpose of the RT3's aerodynamic design is not simply to let the air slip by in as unimpeded a fashion as possible, but to increase dramatically the car's grip and road holding capability.

Wing Adjustment

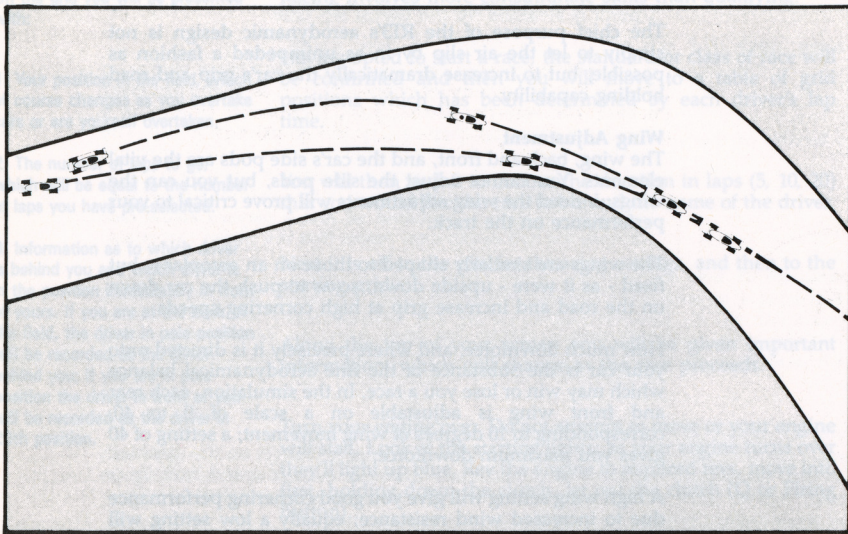
The wing, back and front, and the car's side pods are the vital elements. You cannot adjust the side pods, but you can the wings; indeed the wing adjustments will prove critical to your performance on the track.

The wings are similarly shaped to those on an aeroplane, but fixed - as it were - upside down, so as to push the car down on the road and increase grip at high cornering speeds.

How much downforce, and where precisely it is directed onto your car is the substance of the fine aerodynamical balance which may win or lose you a race. In the simulation, each rear and front wing is adjustable on a scale of 0 to 40, corresponding to 10 degrees of wing movement; a setting of 40 gives you maximum downforce.

A high wing setting will give you good cornering performance due to increased wind resistance; equally a low setting will give you good straight line speed but poorer cornering performance. A lap is made up of a series of straights and bends and to obtain a fast lap time, find a compromise between optimum straight line speed and optimum cornering performance when selecting wing settings.

The Art of Overtaking



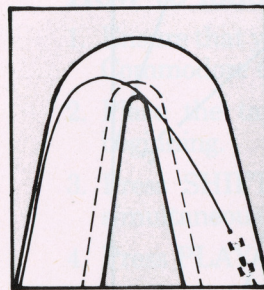
Overtaking is easiest at the start of a race, when a driver's art will depend to a great extent in his ability to think fast and judge.

Overtaking is done largely into corners. You come out of the previous exit a little faster than the car in front, and close up on him down the straight; try and get alongside him before the brake area; then dive down the inside, and onto the corner. If you brake too late you'll go wide on the exit.

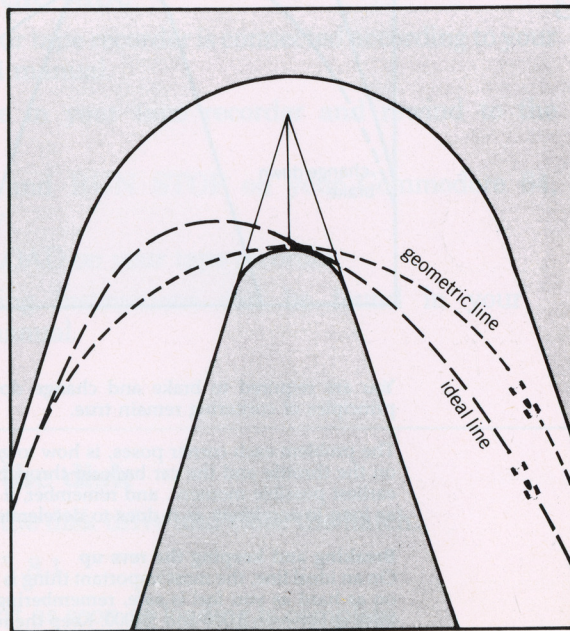
The Principles of Cornering

In the hands of the novice, every corner is a deathtrap and appears to demand foot off the throttle, brake and gear change down within split seconds.

First decide the best line to follow. There's a big difference between the line you might choose on the road - 'the granny line', as it's known - and the line you must attack to take a bend on a racetrack at speed often in excess of 100 mph.

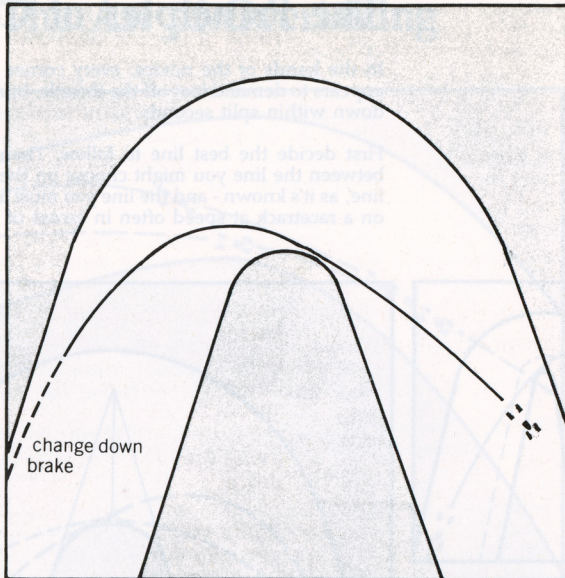


The 'granny line' may suit the road but is very much slower than the wider arc of the ideal racing line.



Between inner and outer lines is the geometric line, drawn with a compass. But none of these is ideal.

In tight corners, the timing of the brake-gear change scenario is crucial and should be completed comfortably before turning in.



You are required to brake and change down, the essential principles of cornering remain true.

The problem each corner poses, is how to get your foot down on the throttle and the car back-up through the gears, at the earliest possible moment, and remember, it takes about twice as long to accelerate as it does to decelerate.

Breaking and keeping the revs up

On an ideal line, the most important thing is to keep the power on as hard as you feel is safe, remembering always, your car bites at between 5,000 and 5,800. Keep the revs between these figures.

Revs +

for the Commodore 64/128

Author: Geoffrey J. Crammond

Contents

REVS

How to load the tape



1. Ensure that your tape recorder is connected according to your Commodore 64 manual.
2. Place the tape in your tape recorder and rewind to the beginning.
3. Press SHIFT and RUN STOP on your Commodore 64, simultaneously.
4. Press PLAY/LOAD on your tape recorder

Note: Full loading instructions can be found in your Commodore 64 manual.

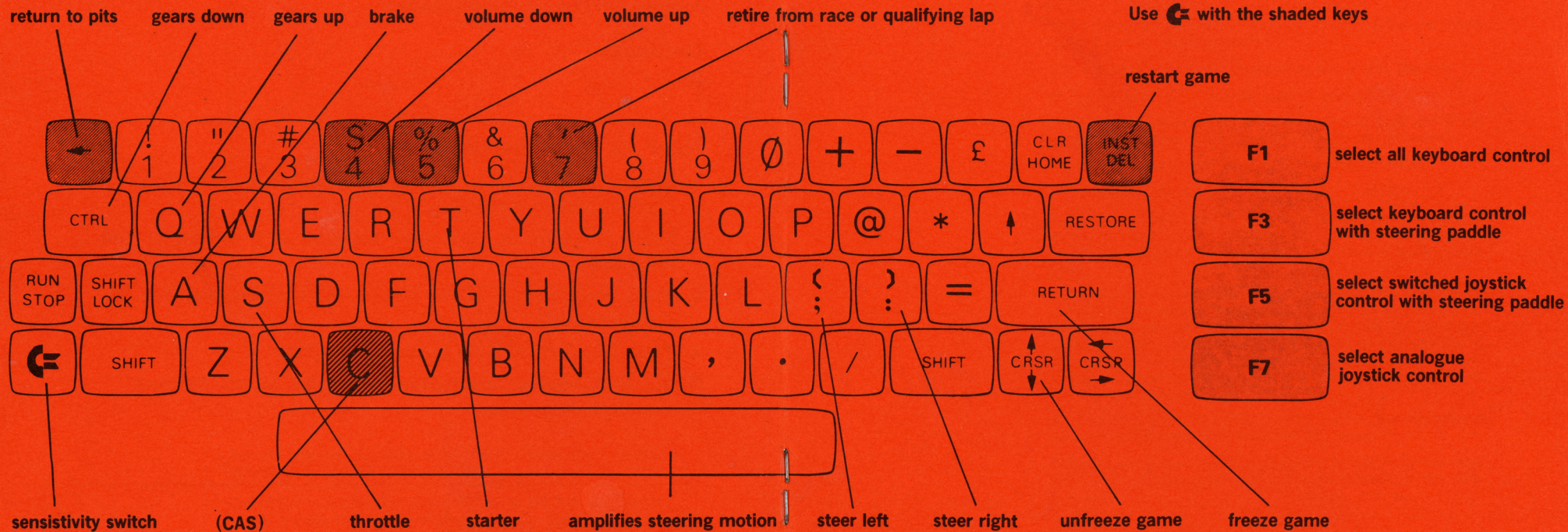
How to load the disk



Place the disk in the disk drive and close the hatch.

Type: LOAD "*",8,1

The game will start as soon as loading is complete.



Computer Assisted Steering (CAS)

This feature is designed to improve control of the car when using keys or a digital joystick.

It is switched on and off by pressing C= and C together.

A symbol appears on the rev counter when CAS is on.

If CAS is not selected then steering modes f1, f3, f5 and f7 are unaffected. CAS is only selectable with f1 and f5 modes.

Keyboard control with CAS requires f1 mode.

Digital joystick with CAS requires f5 mode.

CAS does not alter the characteristics of the simulator, but is merely a 'hand' on the steering wheel. So it's still up to you to get your speed and position correct as you approach each bend.

CAS provides steering demands to the simulator in response to your key or joystick movements and fills in the detail that you cannot provide very easily except with an analogue joystick. It does this by taking into account the severity of oncoming bends and the position of the car relative to the side of the track and basically tries to get round the bend without coming off the track.

If no steering keys are pressed or the joystick is in the central position the steering will return to the centre.

If the car spins and is pointing backwards relative to the track then CAS will disengage until the car is pointing in the right direction.

EXAMPLE: Right Hand Bend

Get the car on the left hand side of the road as you approach the bend. When you want to turn, press the right hand key or move the joystick right and HOLD that position until the bend is complete. Then release the key or centralise the joystick and the car will continue straight.

If you crash then you are probably going too fast!

Brands Hatch

Paddock Bend

Approached in 5th gear, braking is difficult because you need to stay on the left of the circuit and make a straight line so that you maintain the balance of the car for an accurate turn in. The turn-in point itself must be determined by practice and experiment because you cannot see the apex or exit of the corner. Change down to 4th gear while braking, and then get back on the power quickly to get a good exit speed up the hill towards the hairpin at Druids. If you can exit Paddock with 5,5000 rpm or more in 4th gear you are doing well.

Druids

Another difficult one which requires a lot of practice. Points to remember are that the corner is blind, exit speed is more important than entry speed, and letting your revs drop too low in mid-corner will ruin your exit speed. You will approach in 4th gear at nearly 6,000 rpm - don't brake too late, and get down to 2nd quickly and cleanly. Power steering has been built into the 'Revs' joystick for this corner, so you will also need to get used to the different amount of lock required to negotiate the bend. Try to maintain momentum by virtually free wheeling into and around the first half of the corner, then start to apply gentle throttle from the apex marker onwards, increasing to full throttle from the apex onwards, increasing to full throttle just before you have straightened up for the exit. Keep turning right as you exit so that you are prepared for the entry to the next left hander at Graham Hill Bend.

Graham Hill Bend

This corner is quite straightforward in an F3 car and can be taken flat out easily if you stick to the right line. Use 3rd gear, or perhaps 4th if you have a really good exit from Druids. Get into the bend early and make use of the ample amount of road on the exit to minimise the drain on revs that cornering generates. Get up to 5th if you can before braking for the next left hander.

Surtees

Another difficult bend for late braking because the road is curving (similar to Paddock), so try to make a straight line on which to apply the brakes very smoothly. Use 3rd gear and turn in very late applying the power gently and smoothly to

ensure a fast exit because this bend is followed by a long straight for which you want as much speed as possible. Aim to be pulling about 6,000 rpm in 3rd at the exit kerb. Then take 4th and 5th and proceed along the straight making it as short a distance as possible, but take the opportunity to relax slightly before Hawthorns Bend.

Hawthorns Bend

A demanding corner, but if your car is set up correctly it should be flat out in 5th gear (use 4th while learning the circuit). Turn in quite late because the exit appears as soon as you have rounded the apex of the corner.

Westfield

A relatively simple-looking 4th gear bend, but one which is difficult to get absolutely right. Brake gently and change to 4th, and make a wide arc into a late apex, staying hard on the gas pedal - if done correctly you will be taking 5th almost as soon as you have completed the bend.

Dingle Dell Corner

You need a gentle brake application while slotting down to 4th, and an early turn-in to use the large amount of road available on exit. It sounds easy but it is not because you cannot see any of the corner before you get to it! Keep turning right after the exit to prepare for Stirlings, but stay in 4th gear.

Stirlings

Brake quite hard and drop down to 3rd gear, turn in positively and get back onto the loud pedal with a firm squeeze as early as you can. A good run will give you about 5,700 rpm at the exit.

Clearways

Smoothness is very important here to ensure a good run past the start/finish line, so try to keep momentum up by not braking too hard while you change down to 4th gear. Turn in early and do not miss your apex point otherwise you will definitely run out of road on the exit. Aim for about 5,8000 rpm at the exit kerb in 4th gear, and then take 5th for the run back to Paddock Bend.

A Lap of Silverstone with David Hunt

I must do three or four laps to warm up the engine and slick tyres before we start my first 'hot' lap in anger.

Copse

I exit the chicane and select 5th gear looking right to glimpse my pit signalling board. Via the pit board my mechanics will tell me my previous lap time during testing, and in a race my position and the laps left to run, among other sundry bits of information. I reach about 5,600 rpm in 5th gear (134 mph) on the approach to the first bend - Copse Corner - which will be taken in 4th gear. I go past the 100 metre board on the left-hand side of the track, and a split second later brake and change down to 4th as quickly as possible. Then I turn in and get back onto the accelerator as hard as I can, as soon as the car has changed direction. From beginning to brake to accelerating again I am very busy, all the above having to be done in a very short space of time, and the entry speed to the corner being quite high (about 122 mph). My turn-in must be confident and aggressive, a certain amount of courage being required to keep the entry speed high.

This point is very much the key to the corner. Having got the power on correctly, the car will slide past the apex and continue to slide out to the corner exit. I will make the corner as 'straight' as possible by allowing the car to ride out over the high exit kerb, which presents no problem if one ensures that one hits the kerb squarely and not at an angle. In wet weather this kerb becomes very slippery due to its painted surface, and it must be treated with the greatest respect because of the difference in grip available from the painted kerb and the normal track surface.

As I ride over this kerb I have about 5,400 rpm showing on the rev counter, in 4th gear (116 mph). The power in a F3 car is at its most prolific between 5,000 and 5,600 rpm, although it is still useable up to 6,000 rpm, and it is therefore pointless running the engine at revs other than those in this narrow range. Additionally, because we must use 4-star petrol in a race-tuned engine (the rules say we must), if I put my foot

down hard at any revs below 5,000 rpm (and therefore put too much load on the engine), it will detonate (called pinking) and blow up. So it is essential always for both these reasons to keep the revs between 5-6,000, hence the importance of correct gear ratios.

Maggotts

I accelerate up to 5,800 rpm in 4th gear and change to 5th gear. The next bend, Maggotts, is a left-hand kink which is easily taken flat out in any conditions. However, I still use some semblance of racing line so that I do not make the car corner too hard and scrub off speed. At the same time, I do not use the entire width of the circuit at this point, because I would be driving a longer distance than necessary, and spoiling my all-important lap time.

Becketts

It is now a short run down to Becketts, the slowest but perhaps the most important bend on the circuit. I have to keep reminding myself of this because it is, not as difficult as the other bends; it is a 3rd gear, 105 mph bend with no particular hazards to negotiate.

I approach Becketts at about 5,700 rpm in 5th gear (137 mph), keeping to the left of the circuit, braking hard at about 60 yards away from the turn-in point, and shifting down from 5th to 4th to 3rd rapidly. The reason why Becketts is important, is that it is followed by the longest straight on the Silverstone track, a 'straight' which could go on to the last corner of the circuit - the chicane. Therefore, any time I can gain here will be with me for the rest of the lap; equally any time lost will never be regained.

It is extremely important to turn in here very accurately, and not make the car slide and scrub off too much speed. Then it's back onto the loud pedal as hard as possible, as early as possible, keeping the car as tidy and neat as possible, and using every inch of road and kerb (often a bit of grass as well), feeling and searching throughout for revs.

Chapel

I am now on the very left (outside) of the circuit pulling about 5,700 rpm in third gear (108 mph), and I steer back to the centre of the track, taking 4th gear and then swinging left through Chapel flat out (the same principles that applied to Maggotts apply here), and arriving at Hangar Straight on the right-hand

side of the circuit. I now point the car down the hill towards the spot where I can pick out my turn-in point for Stowe Corner in the distance on the left of the circuit. Thus I am driving diagonally down the straight, again ensuring that I make each lap as short a distance as possible.

I take 5th gear after a few yards on Hangar Straight, and then take the opportunity of checking my instruments to ensure that oil and water temperatures and pressures are all running within their tolerances.

Stowe

Just before Stowe Corner, the downhill section bottoms out and the road starts to climb again very gradually, but this reversal of gradient is not sufficiently close to the entry point of the bend to upset the balance of the car. However, at this stage my mind is on other things, for Stowe can be a real test of courage, being a corner that can - if car and conditions are right - just be taken flat out in 5th gear, but only just. More often the bend is taken with a slight lift from the 'go' pedal.

I have about 5,800 rpm in 5th gear (139 mph) when I reach the entry point for Stowe, and I have to concentrate hard to convince myself to keep my foot absolutely flat down for as long as possible into the corner. I may find I have to ease back off the throttle a small amount about a third of the way through the turn, and then squeeze back on as soon as the sliding and attitude of the car allows. Furthermore, it is important here to get across to the inside kerb quite early in the bend and hug it for a while, rather than take the ideal racing line. There is a 'groove' around this corner, and if I don't stay in it I'll find myself off the road and into the hedge very quickly, and at this speed it'll be quite a bump! Stowe is critical because it joins the two longest sections of flat-out motoring. I'm doing myself a big favour if I can scramble through here, flat out.

Club

I obviously use the entire exit kerb on the way out of Stowe, scrabbling back onto the circuit with 5,200 rpm on the clock (125 mph). I stay on the left-hand side of the track to Club Corner and arrive with 5,700 rpm (137 mph), staying relaxed as I work up the courage to turn into and through this 5th-gear bend, staying absolutely on full noise throughout. The exit kerb is wide, and although not always necessary, it is very relieving to have it there in reserve when a slide takes you slightly wide.

Abbey

Out of Club I set off towards Abbey Curve on a slight uphill gradient with 5,500 rpm (132 mph). Abbey is easily taken flat out in 5th gear and, as with Maggotts and Chapel, it is not necessary to use absolutely all the width of the circuit.

Woodcote

I take another chance to inspect the gauges and with the engine pulling 5,800 rpm (139 mph) I line up the car on the left of the track ready for the chicane. I throw out the anchors as late as I dare, change down to 4th, throw the car right, and press go again as quickly as I can; I then flick left and right before appearing on the pit straight again with 5,500 rpm in 4th gear (117 mph).

The chicane may sound quite straightforward, but it can only be so if my initial turn-in angle was correct - any mistake here and the severity of that mistake gets magnified each time I have to change direction thereafter. A good lap can be ruined by a lot of rushed salvage work and corrections at this point. The high kerbs must also be treated with respect, but if I have got the first section of the chicane right I can flick through the next left and right sections with just the merest kiss on each kerb - a super feeling when you get it absolutely right.

Passing my pit my mechanics will click their stopwatches to record my lap time, hoping that I have driven an error-free and quick lap. If I have encountered any difficulties with the handling of the car then I will confirm my findings on the next lap, try and make a diagnosis, and stop at my pit at the end of that lap to discuss the problem with my engineer. We'll rectify them if possible, and then run another few laps to prove that the changes made to the car have improved my lap times - and that is the only proof, a racing team's entire life and work always being ruled by the stopwatch, with major improvements being quantified in 10th of seconds.

I hope you have enjoyed hearing from the 'nut behind the wheel' some of what goes on in a racing car during a lap of the Silverstone Circuit. However, please bear in mind that I can never describe exactly what it feels like to be on the track - to experience this you will either have to go motor racing yourself, or play the new Acornsoft racing game; it's exactly like the real thing, only you have the option of a softer armchair to sit in!

Snetterton

Riches

Riches is approached in 5th gear and (depending on wing settings) can be taken flat out or nearly so. It is a double apex corner and it is therefore important to make a good first apex, after which the remainder of the turn should flow easily. 5,400 rpm should be a good target for the exit.

Sear

Hard breaking is required and a change down to 2nd gear for this right-angled bend onto an important straight. Don't let your revs die too much in mid-corner, and aim to have about 5,700 rpm at the exit in 2nd gear.

The Esses

There are two different approaches to the first part of the Esses, and it seems to be a matter of personal preference amongst drivers as to which one is best. The first method is to brake and change down to 3rd staying on the right side of the track and then power across on a normal racing line to an apex on the left, staying on the left of the track for the turn in to the second section. The alternative is to approach on the right as normal, and then go diagonally left across the track on the brakes aiming directly for the apex while using the gearbox (down to 2nd in this instance) to help slow you down, then from the apex give the car a quick squirt before braking gently for the second section. Experiment with both techniques to see which is quicker on the stopwatch and, as a second consideration, which is more comfortable.

The second part of the Esses, taken in 2nd gear, is the most important bend on the circuit because you will have a long flat-out section of nearly a mile after it, so every rev gained here will stay with you for half of the circuit and your lap time will be correspondingly quicker. Make sure you are smooth and get the power on early through the bend, and don't let your revs die at any point otherwise a good lap time goes out of the window. 5,500 rpm would be a good exit speed.

The Bomb Hole

A really fun corner which should be flat out in 3rd gear. Turn in hard and get yo your apex and it should not prove too difficult.

Coram

A long flat-out right-hander during which you should try to take 5th gear as soon as your revs in 4th will allow. It's not difficult to take flat, but a good smooth line is essential to ensure that you do not scrub off any hard-earned revs - a lot of tyre screeching is a sure sign that you are not being smooth enough!

Russell

One of the most challenging corners anywhere in terms of bottle! It is approached downhill with revs picking up quickly in 5th, and it is essential to get through here flat. You will need the car well balanced on the wings, and try not to make jerky movements on the steering - smoothness is everything here, and good revs to see as you cross the start/finish line are a genuine 5,500.

Donington Park

Redgate

Approached in the 5th gear, you will need to brake and downshift to 3rd (maybe 2nd while learning the track) for the turn-in, which should start you on a smooth rounded arc past the apex and out to the exit kerb with 5,600 on the clock. It looks straightforward, but it is remarkably difficult to do well enough to be satisfied.

Craner Curves

Easily taken flat out in 4th and 5th gears, but you will need to choose a smooth economical line and make sure you are well positioned for the braking area for the Old Hairpin.

The Old Hairpin

Not a hairpin at all, but a bloodcurdling 4th or even 5th gear bend which is approached downhill and bottoms out at the apex. This is the quickest bend on the circuit and very important to get right.

Braking must be short-lived but smooth and gentle - no sharp stabs, and a quick downchange to 4th. Be careful of positioning because the road bends inwards around the turn-in point.

Get on the power really early and hard, and attack the apex, keeping the car turning right so you don't run out of road on the exit. 5,900 rpm on the clock in 4th or 5,000 in 5th and you're doing very well. The swoops that follow are easily flat, but make sure you are correctly positioned to approach Macleans.

Macleans

Brake, change down to 3rd and turn in using a gentle arc keeping the power on hard - expect to see 5,900 rpm if you get it right.

Coppice

Very difficult because it's not possible to see anything of the corner until you turn in, and therefore you have to learn by experience when to turn and by what degree. However, you do not need to brake heavily and it can be taken in 4th gear when you are fully confident; make use of all the road on the exit.

Park Chicane

The chicane is 2nd gear and quite straightforward if you remember the 'slow in, fast out' rule. It also pays to cut the apex kerbs a little here, although beware of overdoing this because they can throw you off the track or into a spin. If you get the whole thing right you will leave the exit kerbs with 6,000 rpm. Bear in mind that this is another section where you are using the 'Revs' power-steering.

Oulton Park

Old Hall

This corner is quite quick in 4th gear despite the fact that it looks slower because of its wide entry and narrow exit, and there is no particular trick to it apart from ensuring that you do not brake too hard - a quick dab will do as you snick down to 4th from 5th, and then get back on the power as soon as you can, hoping to see about 5,700 rpm in 4th at the exit.

Cascades

Make sure, as you approach the right-hand downhill sweep at the end of The Avenue, that you go through it from left to right so that you are well positioned on the right-hand side of the track for the entry to Cascades, which can be taken in 5th gear (but only just) but 4th will do for learning. After that small amount of braking run in quite late but quite hard and keep as much power on as you can, ensuring that you keep to a good solid apex. If you do the corner well you should see 6,000 in 4th or 5,000 in top before you set off for the hairpin.

Island Hairpin

Brake late and get down through the 'box to 1st gear quickly. Allow your momentum to turn you in and take you round the first part of the turn, and then apply power as you begin to come out. Be careful not to put too much power on too soon or you will understeer off the outside of the circuit. You should take 2nd gear almost as soon as you straighten up on exit, and bear in mind that the 'Revs' power-steering is in use for this corner.

Knickerbrook

You will be in 5th gear when you approach the very fast and blind right-hander which should be taken flat out. It is important to make a good apex or you will run out of road on the exit, at which point you should see about 5,500 rpm on a good lap.

Druids

Approach Druids on the left side of the track and a quick brush on the brakes is all you need before you turn in quite hard in 5th gear. Get back on the power and make your first

apex (this is a double apex corner) early, then let the car slide out towards the middle of the track before you make your second apex which should see you over the brow and on the exit kerbing strip with about 5,400 rpm on the tacho.

Lodge

This is taken in 3rd gear after heavy braking, and remember that the corner is tighter than a right angle, so turn in quite late, make a good apex on the blind brow and accelerate over the exit kerbing with 5,400 rpm showing before you come back onto the start/finish straight.

Neuburgring

The Nurburgring is renowned amongst racing drivers as probably the greatest challenge available.

With its long fast straights, followed by tight bends and vicious hairpins it's sure to send a thrill through even the most race-hardened REVS addict.

And just to add to the excitement, we've decided to leave you on your own for this one; no help, no directions. Instead you're going to have to learn the track as a driver would - inch by inch, heartbeat by heartbeat.

Island Hairpin

Brake late and get down through the box to 1st gear quickly. Allow your momentum to turn you in and take you round the first part of the turn, and then apply power as you begin to come out. Be careful not to put too much power on too soon or you will understeer off the outside of the circuit. You should take 2nd gear almost as soon as you straighten up on exit, and bear in mind that the 'kove' post-race-stand is in use for this corner.

Knickerbrook

You will be in 5th gear when you approach the very fast and blind right-hander which should be taken flat out. It is important to make a good apex or you will run out of road on the exit, at which point you should see about 5,500 rpm on a good lap.

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