

NIGEL MANSELL'S

GRAND PRIX



A) INTRODUCTION

Apart from trying to capture the speed, excitement and adrenalin pumping danger of the World's greatest sporting spectacle, *Nigel Mansell's Grand Prix* aims to be the first racing simulation to reflect some of the enormous advances in car design and technology that have taken place recently. The cockpit, for example, with its sophisticated computer telemetry and digital display gives the driver all the information he requires about the condition of his multi-million pound speed machine and its position in the race. There is also a communications and computer link to the pits to allow further vital race information to be given. As in real life, there is much more to this machine than the smell of burning rubber, a speedo and a rev counter.

And yet, this game still offers simplicity of game play and an excellent opportunity for even the most inexperienced novice to blast around the track at excessive speeds, with the turbo on maximum boost and not a care in the world for fuel consumption, tyre wear or racing line. However, for those who know, or want to know a little more, there is an opportunity to race a selection of the World's greatest circuits in the quest for valuable championship points.

To win a Grand Prix will be no easy matter. To become World Champion will be a real achievement.

B) GETTING STARTED

Follow normal loading instructions. Refer to the printed label on the cassette or disk for any additional information.

If your game copy is VIZAR protected, follow carefully the instructions shown on the enclosed VIZAR leaflet.

Once the game is loaded, select PRACTICE.

On some computers, due to memory restrictions, the data for different race circuits may have to be loaded separately from the cassette or disk whenever it is required. If this is the case, a message displayed on the screen will tell you when and how to do this.

IMPORTANT

Look carefully at the cassette label to make sure you are loading the correct side.

There are 16 Grand Prix Race Circuits. Section H shows a diagram of each circuit, together with some important information. The order from 1 to 16 was the race order for the 1987 Formula One World Championship. On a cassette, where an extra data load is required, the date for these circuits will be stored on the tape in this order also. Australia, for example, will be found towards the end of the tape. Press 'I' then ENTER to select Brazil.

IMPORTANT

Nigel Mansell's Grand Prix computer game is a sophisticated Formula One racing car simulation. We suggest you read the following instructions carefully before attempting to drive.

C) ACCURACY AND GAMEPLAY

(Technical consultants, Nigel Mansell, Peter Windsor, Williams Grand Prix Engineering Ltd.)

Every care has been taken to make your experience in the cockpit of the fabulous Williams Formula One racing car as accurate as possible. Careful research of the information that is available to the driver during a race has resulted in the sophisticated display panel shown at the bottom of the screen. The actual fascia display in the Williams is a little simpler than this, but all of the information shown on this panel is available to the pit crew by way of a car to pit computer link. During a Grand Prix this information is also available to the driver at any time by way of his two-way radio link to the pits and hence it was felt vital to incorporate this panel into the main fascia display.

During driving, your Williams will behave just like the real thing. To get the best out of your car, therefore, you have to get to know it, and know it well. A Formula One driver spends far more time in practice than competing in Grand Prix. If you are to have any hope of becoming World Champion, practising is essential. The difference between winning and coming nowhere may be counted in less than 1/10th of a second every lap. There is little margin for error. Your racing car is a tremendously sophisticated and powerful machine. In the wrong hands, it's highly dangerous, but driven correctly, it is capable of bringing you the World Championship crown. Getting the best from your car, therefore, is a compromise between pushing it to the very limits of its performance, whilst at the same time, looking after it so that it lasts the race distance. It is who crosses the finishing line first that counts. If you push the car too hard, you may open up a lead, but you may also have mechanical or fuel problems during the race. Again, you must get to know your car and find out what it can and cannot do.

Similarly, you must learn to appreciate your own driving abilities and work on improving them. Correct racing line, for example, can shave valuable seconds off your lap times. Try to drive smoothly, straightening out the bends. When you first play the game there is little doubt that the Williams will spend a fair amount of its time off the track. As you become familiar with a circuit you will learn to anticipate bends and set the car up in the correct position at the correct speed. Knowing when to accelerate and when to brake and when to change gear are obviously vital. A simple rule of thumb is:

- 1) Accelerate until you need to brake for a bend.
- 2) Brake to the correct speed to take a bend.
- 3) Accelerate through the bend.
- 4) Whilst doing 1) to 3) above, change gear to keep your revs in the POWER BAND.

This advice may not be perfect, but it will help to get you started.

When driven correctly you will be able to achieve lap times close to those shown by the circuit diagrams in Section H. Those of you who are already familiar with basic car racing techniques, should soon be returning acceptable lap times. For everybody, the rule is practice, practice, then more practice.

D) THE COCKPIT DISPLAY

Find the following on the display panel:

- 1) REV COUNTER (REVS x 1000)

The rev counter is the most important part of the cockpit display. It tells the driver how fast the engine is going (not the speed of the car on the track). For example, if the needle is on the '12', the engine is doing 12,000 revolutions per minute (rpm). That's 200 revolutions every second!

The rev counter helps the driver use his engine efficiently and gain the most power from it. It also helps prevent him from mistreating his engine and possibly damaging it.

If the revs are too low, the engine labours and loses power. Its acceleration at low revs, therefore, is very poor.

If the revs are too high, the engine is going too fast. It will eventually overheat and may even be permanently damaged. You will also waste fuel.

The region between revs which are too low and revs which are too high is called the POWER BAND. Inside the power band the engine is providing the most power to the wheels and the car's acceleration is at its greatest. The power band varies slightly from car to car but is usually somewhere between 9,000 and 12,000 rpm.

When accelerating, therefore, change up a gear when the needle reaches 12,000 rpm. You can go a little beyond this if you wish, to say 12,500 rpm. There will be some increase in power, but there will also be a fuel penalty. Such decisions depend on your circumstances. If you are overtaking and have conserved your fuel, it may be good tactics to do this. Such tactical decisions are best handled from experience.

When braking, change down gears to keep the revs within the power band.

Again, practice and experience will help here.

- 2) FUEL

Standard fuel gauge.

- 3) OIL TEMP.

This indicates the temperature of the oil in the sump. Overheating can result in mechanical problems.

- 4) OIL PRESSURE

This shows the pressure of oil pumped into moving parts of the engine. This falls as the oil temperature increases and the oil gets thinner.

- 5) WATER TEMP.

This indicates the temperature of the engine coolant water. Overheating can result in mechanical problems.

- 6) TURBO TEMP.

This shows the temperature of the turbo-charger unit, which will increase with revs and boost level. A turbo charger is a device which boosts the pressure of the fuel/air mixture which is forced into the inlet manifold of the engine. In simple terms, a small fan (or turbine) in the exhaust manifold is rotated by the hot exhaust gases, and drives a small fan in the inlet manifold system, which sucks extra air into the engine, boosting the pressure in the inlet manifold to increase engine power.

- 7) TURBO BOOST

This indicates the boost pressure of the fuel/air mixture forced into the inlet manifold system by the turbo. Maximum boost is four atmospheres (this is limited by the pop-off valve: 'over' light indicates the operation of the pop-off valve). The turbo boost allows you to get a tremendous increase in power from your engine.

However, the more you use the turbo, the greater your fuel consumption. Yet again, it's a compromise situation between acceleration and fuel consumption and only practice and experience will show you how to use the turbo to its best advantage. The turbo has four settings, from minimum to maximum.

- 8) GEARS (bottom right of panel)

There are six forward gears. A red dot indicates the current gear selection. If the car is in neutral, the red dot appears between gears 1 and 2.

- 9) WING MIRRORS (top right and top left of panel)

These show a view of the road and any cars behind you.

- 10) ON BOARD COMPUTER AND TELEMETRY DATA FROM PITS' COMPUTER

This panel gives you the latest information on the status of your car and its race performance.

Speed - in miles per hour

Lap time - time for last lap completed (in seconds)

Av. speed - for last lap completed (in mph)

Best speed - fastest lap time completed by you (in seconds)

Fuel reserve - very accurate fuel gauge (litres). A Grand Prix car is allowed 195 litres of high octane fuel to cover a race distance of approximately 190 miles (300 kilometres).

Consumption - current fuel consumption rate (litres per minute).

Range on fuel - distance you could go on fuel reserve at average fuel consumption rate for last lap completed (km).

Km to finish - distance to finishing line (km) - updated each time a lap is completed.

Lap times, average speed, range, etc. are calculated each time the start/finish line is crossed.

- 11) RADIO LINK (bottom of panel)

The pit crew are able to communicate with you and vice versa via a radio link. Important race information and messages will be displayed in this panel.

E) DRIVING THE WILLIAMS

- 1) CONTROLS

Control	Joystick	Keyboard
Accelerate	↑	A
Change up a gear	↑ plus FIRE	A plus SPACE
Brake	↓	Z
Change down a gear	↓ plus FIRE (or FIRE only)	Z plus SPACE (or SPACE only)
Turn left	←	O
Turn right	→	P
Turbo (min. to max.)		1, 2, 3, 4
Hold game	H again or any control movement to re-start)	H

- 2) READY TO GO

Push the joystick forward without touching the fire button. The engine revs. Note what happens to the rest of the panel. Ready to go? Bring the revs to 12,000 rpm, with the joystick forward and press FIRE. Now you're moving. Continue to accelerate then change up to second, and so on.

All you need now is lots of practice!

F) THE FORMULA ONE DRIVER'S WORLD CHAMPIONSHIP

The racing driver's championship is decided over the sixteen Grand Prix circuits shown in Section H.

Points are awarded as follows:

1st	9 points	3rd	4 points	5th	2 points
2nd	6 points	4th	3 points	6th	1 point

The driver with the most points at the end of the season is the World Champion. To start a new World Championship select "NEW GRAND PRIX".

To complete a season you must race all sixteen circuits in the order shown. At the end of each Grand Prix you will be given the option of saving the current situation to tape or disk. The season can then be continued later by selecting "CONTINUE GRAND PRIX".

At the beginning of a new season you can name all of the drivers and their cars. In NIGEL MANSELL'S GRAND PRIX there are at least eight other top drivers competing with you for the World Championship crown.

Unlike real life, you can also select the number of laps you wish each Grand Prix to race over (bearing in mind each lap takes at least one minute and a typical Grand Prix may be sixty laps or more, we felt we ought to include this option!)

The choices are 5, 10, 20 or, for the real enthusiasts, the full race distance as shown in Section H.

Once selected, the option is fixed for the sixteen Grand Prix of that particular season.

G) RACE DAY

- a) PRACTICE

Before a Grand Prix, you are given a PRACTICE SESSION of three laps and a 'warm-up' lap, starting from the pits.

This gives you a final chance to familiarise yourself with the circuit before the race itself. But watch out for other cars on their warm-up or practice laps.

It is also of vital importance to achieve as fast a lap time as possible since your fastest practice lap decides your position on the starting grid. If your fastest lap time is the best, you will gain front position on the grid or pole position (Nigel Mansell achieved pole position an incredible eight times during the 1987 season).

- b) THE RACE

The big moment has arrived. The thirty second hooter has just sounded. Watch the panel in the top left of the screen. When the red light comes on, there are literally only a few seconds to go. IT'S GREEN - you're away!

GOOD LUCK

- c) PIT-STOP

When you wish to make a pit-stop (to change your tyres, etc.), simply drive off the main track and onto the access road, reducing your speed as you do so. You will then enter an automatic pit-stop sequence, during which your tyres will be changed. When the work has been completed, you will be given the signal to go. It is then up to you to accelerate out of the pits and back onto the main track, watching out for other cars as you pull out and accelerate up to race speed again.

You can make as many pit-stops as you like, but obviously you lose valuable time during each stop, so do not stop unnecessarily. On the other hand, attempting to complete the race on one set of tyres may result in reduced grip in the later laps of the race. You might even suffer a tyre blow-out, which would cost you the race.

LOAD PROBLEMS

We are constantly seeking to improve the quality of our products, and we maintain the highest possible standards of quality control in manufacturing our product range.

However, should you experience any difficulties in loading this product, having checked your hardware *thoroughly* we will gladly replace the cassette or disk for you.

Before you send your cassette back for replacement, please check the azimuth head alignment, and attempt to load the game from both sides of the cassette. You may wish to consult your local software retailer.

If, after these checks have failed, you do write to us, you should state the following -

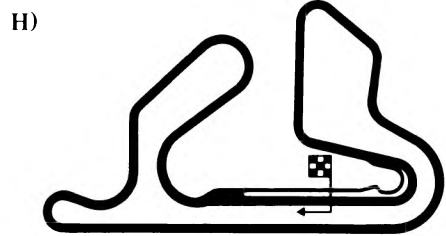
- * Your name and address
- * The name of the product
- * Whether it is cassette or disk
- * Which computer
- * Which joysticks and peripherals (if any)
- * Where and when you purchased the product
- * A full description of the problem you experience
- * You should not enclose the box and packaging with cassettes.

REMEMBER TO ALLOW CASSETTES TO RUN THEIR FULL LENGTH AS SPEED LOADS FREQUENTLY CAUSE THE SCREEN TO GO BLANK FOR A PERIOD OF TIME.

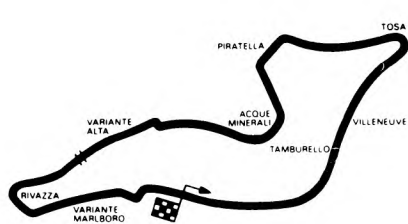
Programme by D. J. L. Software

(Technical Consultants -
Nigel Mansell, Peter Windsor, Williams Grand Prix Engineering Ltd.)

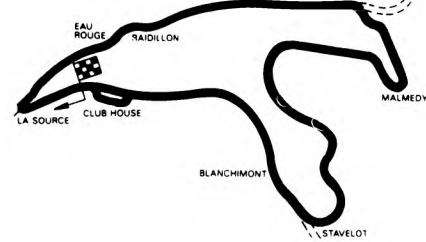
© Martech Games 1987.



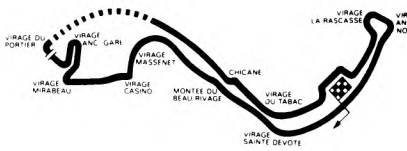
1
Jacarapagua, Rio de Janeiro – BRAZIL
Lap distance: 3.126 miles/5.031 km
Race: 61 laps 190.686 miles/306.891 km
Lap record: 1 min 33.546 secs (120.305 mph/193.612 kmh)



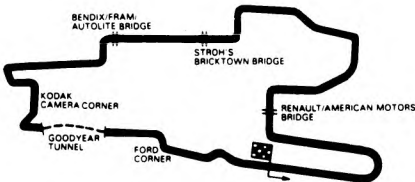
2
Imola – ITALY (San Marino)
Lap distance: 3.132 miles/5.040 km
Race: 60 laps 187.920 miles/302.400 km
Lap record: 1 min 28.667 secs (127.152 mph/204.631 kmh)



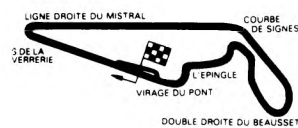
3
Spa – Francorchamps – BELGIUM
Lap distance: 4.312 miles/6.940 km
Race: 43 laps 185.416 miles/298.42 km
Lap record: 1 min 59.282 secs (130.148 mph/209.453 kmh)



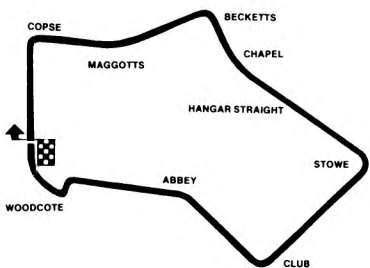
4
MONACO
Lap distance: 2.068 miles/3.328 km
Race: 78 laps 161.304 miles/259.584 km
Lap record: 1 min 26.607 secs (83.658 mph/134.634 kmh)



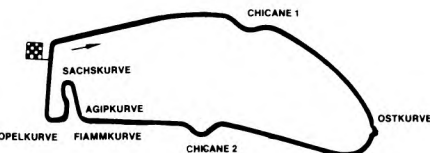
5
Detroit – USA
Lap distance: 2.5 miles/4.023 km
Race: 63 laps 157.500 miles/253.449 km
Lap record: 1 min 41.233 secs (88.904 mph/143.077 kmh)



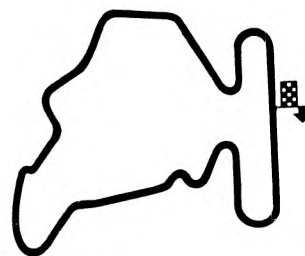
6
Le Castellet – FRANCE
Lap distance: 2.369 miles/3.813 km
Race: 80 laps 189.520 miles/305.040 km
Lap record: 1 min 9.993 secs (121.861 mph/196.117 kmh)



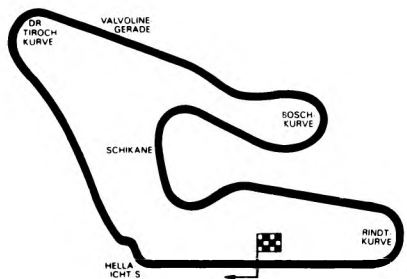
7
Silverstone – GREAT BRITAIN
Lap distance: 2.932 miles/4.719 km
Race: 65 laps 190.58 miles/308.735 km
Lap record: 1 min 9.886 secs (151.035 mph/243.067 kmh)



8
Hockenheim – W. GERMANY
Lap distance: 4.223 miles/6.797 km
Race: 44 laps 185.812 miles/299.068 km
Lap record: 1 min 46.604 secs (142.626 mph/229.534 kmh)



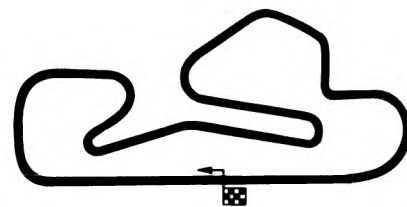
9
Hungaroring, Budapest – HUNGARY
Lap distance: 2.494 miles/4.14 km
Race: 76 laps 189.544 miles/305.064 km
Lap record: 1 min 31.001 secs (98.670 mph/158.794 kmh)



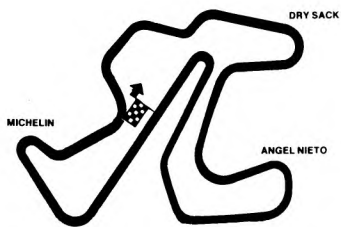
10
Österreichring – AUSTRIA
Lap distance: 3.692 miles/5.942 km
Race: 52 laps 191.984 miles/308.984 km
Lap record: 1 min 29.241 secs (148.943 mph/239.701 kmh)



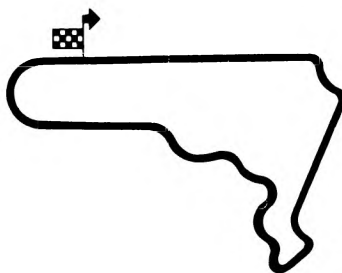
11
Monza – ITALY
Lap distance: 3.604 miles/5.800 km
Race: 51 laps 183.804 miles/295.800 km
Lap record: 1 min 28.099 secs (147.269 mph/237.006 kmh)



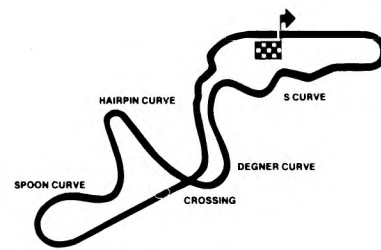
12
Estoril – PORTUGAL
Lap distance: 2.703 miles/4.350 km
Race: 70 laps 189.210 miles/304.500 km
Lap record: 1 min 20.943 secs (120.216 mph/193.469 kmh)



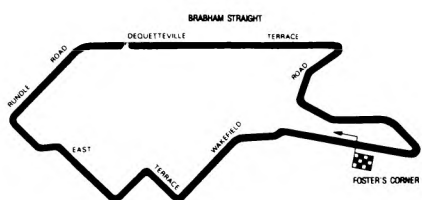
13
Jerez – SPAIN
Lap distance: 2.621 miles/4.218 km
Race: 72 laps 188.712 miles/303.696 km
Lap record: 1 min 27.176 secs (108.234 mph/174.186 kmh)



14
Ricardo Rodriguez – MEXICO
Lap distance: 2.747 miles/4.421 km
Race: 68 laps 186.796 miles/300.628 km
Lap record: 1 min 19.360 secs (124.615 mph/200.549 kmh)



15
Suzuka – JAPAN
Lap distance: 3.499 miles/5.613 km
Race: 53 laps 185.45 miles/313.39 km
Lap record: 1 min 54.378 secs (110.11 mph/186.08 kmh)



16
Adelaide – AUSTRALIA
Lap distance: 2.348 miles/3.779 km
Race: 82 laps 192.536 miles/309.878 km
Lap record: 1 min 20.787 secs (104.638 mph/168.398 kmh)