

# Austrian Grand Prix 

 Österreichring

THE 3.674 MILE Osterreichring circuit in Austria offers an enormous challenge. It's not too difficult to go fast, but to go really quick there requires great finese with the brakes and accelerator. You will be sliding the car through some very fast, long sweeping turns and need to be able to steer with the pedals to maintain a constant high speed without running into the armco. Even though there is little run-off room, the track is still quite forgiving. You can get the rear out really far and still get it back under you without an incident. Likewise if you understeer into a turn, there is sufficient road to regain control. The one drawback to the track is that it is extremely difficult to overtake. Even if you are several seconds per lap faster you can't risk getting too close because if the car ahead makes a mistake it could easily take you out with it. The end of the front straight presents the only real overtaking opportunity, as there is a short braking zone beforehand and a straight approach. The corners definitely make this circuit a driver's circuit, along the lines of Zandvoort, where driver skill can make up for a lot. However because of the three very long straights, high end power can
 provide an edge, even if the corners are not taken perfectly. Thus the Lotus and Eagle have an advantage of about one second a lap here. So go for the challenge and don't use them!

## CAR SETUP:

You'll do a lot of trail-braking here, as there is only one heavy braking zone. So start by getting a good brake balance. Set a slightly high front end bias, around 60 and then try to work it back a little if you are locking the fronts excessively into Tiroch. However, if you are always spinning under light braking at the other turns, you probably need to add a little more bias towards the front.
Gear ratios are probably the next place to look at. Being able to steer the car significantly in second and third will help a lot through the Tiroch and Bosch. I have second set so that I am almost at redline through Bosch in second gear. This allows me to steer the rear of the car quite easily with the power and also gives me a great audio clue as to how much more I can push the car in terms of speed. Second gear lets me do about 105 mph , which is just a little faster than I take Bosch, so if I'm near redline I must be going almost as fast as possible through the turn. I find it a much better reference than pushing until I start to slide out of control. Fifth gear should take you to about 180 mph just as you get to the end of the front straight. The rest of the gears can be spaced evenly between second and fifth. (Except first, which is obviously below second :-)
Most of the turns are medium speed corners of around 100-120 mph, once you get into them. However they all have fast entrances where you have to gradually lose speed. Trail braking will help you achieve this, as well as trailing throttle. So set the anti-roll bars up to give you a good balance coming into the corners. A slight prefence towards understeer will help keep the car neutral as you trail-brake into the turns. If you are constantly getting out of shape on the entry to corners, try adjusting the anti-roll bars to solve the problem. Of course, this is after you have anaylzed how you are driving and have determined that you can't solve the problem by adjusting what your feet are doing.
Mid-corner through the exit of the corner is where the shocks come into play. As you start to put the power down you don't want to be understeering off the track or fighting to keep the tail behind you. Being very smooth as you add power out of all the turns is part of this; but if you're still not getting a straight exit, try adjusting the shocks to compensate a little.
The bump and rebound settings, as well as the wheel ratio and tyre temps should be set to complement your driving style.

## GOALS:

You should aim for a qualifying lap of about $1: 44.00$ to $1: 45.00$. That should put you pretty far up the grid.
During the race you should aim for 1:44.50 to 1:46.00, depending on fuel loads, for your lap times if you don't encounter traffic.

## THE RACE:

A good race at the Osterreichring is about being smooth and consistent. Don't push too hard and you'll do well. If you can get into a rythym where you are sliding the car a little all the time you'll do really well. Remember that it is really hard to pass here. So don't worry too much about a car behind. The end of the front straight is the only real overtaking opportunity, therefore a pass must be set up at the Schikane. Get a good line out of that to put you right on the gearbox of the car ahead. Then brake a little earlier than normal into Rindt Kurve. You want to drop back a little early in the turn so that you can be up to full power just slightly before the other car. This will allow you to exit a car length behind them but going slightly faster and then draft them down the straight. If you are right on their tail during mid-corner, you'll never have the necessary speed to get by down the following straight as your exit speed will be dictated by their exit speed. Lapped ttraffic should not be a problem as there are several 'straights' where a slower car can let a faster car by.

## HELLA KURVE:

Entrance speed: approximately 180 mph [290 kph]
Speed through the corner: approximately 116 mph [187 kph]
Arrival time at the corner: 6.56 seconds
Time to negotiate the corner: 5.60 seconds
Exit time of the corner: 12.16 seconds


This is a great corner with which to start the lap. It has a blind entrance and is fairly fast. It also offers the only real overtaking opportunity as, unlike almost every other corner on the track, you do have to brake moderately for it and the approach is actually in a straight line. One note on the racing groove on this track: ignore it. It follows an okay line, but isn't that fast.

You'll be in top gear going flat out as you approach the turn. The key to this turn is getting the turn-in point right. What makes it difficult is that you need to start turning in slightly before you can see the corner. If you wait much longer you'll miss the apex and possibly go wide on the exit. However, there are these awful poles right on the curbing that will ruin your day if you turn in too early.

Line the car up on the left side of the track, right next to the grass. You need to use all of the road for this turn. This can be tricky because there is a slight curb running round the entire track which is about an inch higher than the track. Getting caught on this can throw your car out of control for a moment. Anyway, get as close to the left as possible. The approach is uphill, which works to your
 advantage as you can start braking later. Use the final Ford sign on your left as a reference marker. Just after passing this, brake moderately hard and downshift one gear. As you get to the crest of the hill ease off the brakes and downshift another gear. At this point you are just about at your turn-in point. Easing off the brakes and downshifting will help to turn the car in faster. Right at the crest of the hill turn into the corner slightly. Don't turn too much as you are probably beginning to slide. This slide will help to scrub off some speed without using the brakes and will also put you in a good exit line. You'll know fairly soon if you turned too soon. If so, you need to try and slow down a bit more to get away from the curb. Riding the curbs at this track is not a good idea.


Try to add a little more power as you approach the apex. This will help maintain a constant speed as well as pushing the car away from the curb a little. If all has gone well you'll be taking a mid apex. You can't really do much to change your apex at this point as that was all determined when you started sliding the car at the turn-in point.

You'll have to wait a while before getting back to full power. As the track begins to straighten out carefully add some power. Be very smooth as you want to drift right out to the edge of the track here. You should be able to reach full power before you get to the left side of the track. If you run out of road, which isn't that hard to do, just back off and drive straight, then slowly move back onto the track. Any quick movements to rejoin the track will most likely spin you out right across the track.

## DR TIROCH KURVE:

Entrance speed: approximately 175 mph [282 kph]
Speed through the corner: approximately 90 mph [145 kph]
Arrival time at the corner: 23.63 seconds
Time to negotiate the corner: 10.08 seconds
Exit time of the corner: 33.71 seconds


This turn is quite long and has a very fast entrance. If you slow down too soon coming into the corner you'll be losing lots of time. It is slightly banked in your favor at the beginning and the end, which will allow for a fast entrance and exit. But, be aware that this banking dissappears at mid corner. This change can, however, be used to your advantage to rotate the car into a good exit line.

You'll be in top gear once again, at almost top speed, as you approach the corner. Take the slight left hand bend just preceeding the turn right at the left side of the track. This will put you on a good line. The track is going downhill at this point. When it starts to transition to the uphill climb, begin to turn into the corner. Do this smoothly and gradually. You don't need much steering input as you want to get to the middle of the track and not all the way to the right. Stay on maximum power until just before the Champion sign on your left. At this point brake gently and shift down to fourth gear. You'll have to unwind the wheel as the car will be getting loose. Getting a slight slide going now is a good goal. You can the carry this through to the exit of the corner and just vary the angle of the slide. If you wait too long before letting the rear slide out, it will be much harder to handle when it does go. So try to start a small slide and carry that through the entire corner.


As you lose speed shift down again to third gear. Shifting down too quickly will cause the rear to snap out on you, so, again, be smooth with your shifts. Once in third get off the brakes. Maintain a trailing thottle as you go by the scaffolding on the left. There is a small hill that you crest after the scaffolding. Shift down to second and add some more power. This will rotate the car into a good exit line. The extra power will help to stabalize the rear as the car rotates.

A late apex is what you want for the exit. Just before the first big Goodyear sign on the left is when you
 can start getting back to full power. Try to bring the car right over to the curb as you exit the turn. The apex is almost where the curb ends. The track crests a hill just after the exit, making the rear very light. Also it continues to bend slightly to the right. If you are too far to the left exiting the corner there is a good chance you'll run wide or spin trying to stay on the track. Shift up to third just before the apex and then let the car drift slowly towards the middle of the track. You'll end up at the left side of the track after the hill because of the slight bend mentioned above. There are several bumps in the track here which may cause the engine to hit redline as you go over them. During qualifying I'd let it hit red line, but in the race I'd shift up to help save the engine.

## BOSCH KURVE:

Entrance speed: approximately 180 mph [290 kph]
Speed through the corner: approximately 85 mph [137 kph]
Arrival time at the corner: 45.45 seconds
Time to negotiate the corner: 12.39 seconds
Exit time of the corner: 57.84 seconds


In order to make the most of the long right hander you need to be going as quickly as possible through the middle section. Therefore you should try for an entrance that lets you transition smoothly and quickly from the entrance of the turn into the mid part of the turn. If you are locking everything up trying to slow down, or come into the turn slowly, you'll lose a lot of time.

You'll be in top gear going almost flat out as you approach the turn. There is a slight left hand bend just
 before the track drops downhill into the corner. Line the car up so that you take a late apex at this bend. Then as you get to the top of the hill, ease off the power a fraction and begin to move towards the middle of the track. There isn't really a good reference point for braking here. When you are past the start of the hill and near the middle of the track start to brake as hard as possible and downshift to third gear. Once in third, stay on the brakes hard for a moment and then ease off a little. This will help to turn you into the corner.

You need to downshift again into second gear. Do this before reaching the Champion sign on your left. Once at that sign you should be completely off the brakes. If you time the downshift properly the car will rotate at just the right time to let you start getting back on the power and into the middle of the turn. If you start rotating too soon or too late, then you'll have to gather the car back up again before attacking the next part of the turn.


After passing the Champion sign try to maintain a steady throttle until you pass the scaffolding on the left. Now gradually increase the power. Being in second gear should help to rotate the car into the corner as you add more power. If you start to oversteer too much, then ease off a little. The goal is now to try to put down just enough power to keep a slight power slide going through the rest of the turn.


As you pass the Kendall sign on your right you will need to start thinking about the exit. You have to bring the car over to the right side of the track as you exit or you'll never make the following turn properly. If you have to back off a little to do this, then back off a bit. Whatever you do, however, you need to be back to full power somewhere between the last two Champion sign on the right. As you are probably really close to red line now, shift up to third and continue under full power as you apex right next to the curb as you pass the final Champion sign.

## TURN FOUR:

Entrance speed: approximately 122 mph [197 kph]
Speed through the corner: approximately 80 mph [129 kph]
Arrival time at the corner: 1 minute 0.60 seconds
Time to negotiate the corner: 7.56 seconds
Exit time of the corner: 1 minute 8.16 seconds


This is the first left hander on the track and follows immediately from the previous right hander. The corner slopes progressively more and more downhill as you go through it. This makes the exit tricky, but doesn't prevent you from carrying a lot of speed into the turn. Keep the car over to the right and in third gear as you exit the previous turn. Then as the racing groove darkens start to bring the car over to the left, while maintaing full power.

You want to keep the car on the left half of the track throughout most of this turn. Stay at full throttle as long as possible. Then once you are no longer able to keep the car on the left back off a bit. This should help point the car back towards the left. Then get back on the power again. Continue to do this until the revs start to get too low. You should be about half way through the turn now. Downshift to second and add some more power. The higher revs will help turn the car faster. As you approach the white tent on the left you need to start to think about the exit. There is a slight straight after this
 turn so a good, smooth, fast exit will pay off.

Get the car right against the left side of the track as you pass the tent. Then begin to add power, letting the car drift away to the right slightly. Continue under full acceleration and shift up to third as you aim for the right side of the track. You don't want to get all the way to the edge of the track as you exit as that makes the following turn a little more difficult than it needs to be.

## TURN FIVE:

Entrance speed: approximately 127 mph [205 kph]
Speed through the corner: approximately 70 mph [113 kph]
Arrival time at the corner: 1 minute 10.93 seconds
Time to negotiate the corner: 6.11 seconds
Exit time of the corner: 1 minute 17.04 seconds


This is quite a slow corner and you need patience to get through it well. If you try to push too hard in the second half of the turn you'll end up understeering way out to the right side of the track, or worse, which will make the following corner very difficult. The Schikane is a right hander, which can be taken flat with a good exit line out of this turn. So don't rush the exit.

You'll be in third gear near the middle of the track as you approach the turn. Continue under full acceleration until you reach the GT-1 sign on your left. This makes an excellent braking refernce point. Just as it goes out of view, brake hard and downshift to second gear. After a moment of hard braking, ease off the brakes a little. You don't want to lose too much speed too early. As the turn begins, gently ease the rest of the way off the brakes. Add a slight amount of power to steady the car. Let the front wheels scrub off a little more speed for you as you go through the turn.


The exit of the turn is far sharper than the entrance, so you need to wait until you are just about to leave the turn before accelerating again. There isn't really a good reference marker to use for when to begin accelerating, so you'll need a few laps to figure out when to start doing so. Gradually feed the power on as you leave the turn. Get back to full power just after the track starightens out again. You want to exit with the car on the left half of the track.

## SCHIKANE:

Entrance speed: approximately 105* mph [169 kph]
Speed through the corner: approximately $120 * * \mathrm{mph}$ [193 kph]
Arrival time at the corner: 1 minute 19.10 seconds
Time to negotiate the corner: 4.23 seconds
Exit time of the corner: 1 minute 23.33 seconds


This right hander is fairly easy and can be taken without lifting. The exit is a little more tricky than the entrance. You want to use all the road, but it is quite easy to go just a little too far and put your left side wheels on the grass. This usually means you end up being conservative and end up a few feet from the edge of the track. If you can use all the track, then you'll gain a tenth of a second.

You'll be in second gear as you approach this turn. Bring the car over towards the left side of the track. Be careful not to get right next to the edge as the track bends slightly to the left just before this corner. Position your car so that you arrive at the edge of the track when the bend begins. Then start to turn in. You'll probably have to shift up to third fairly soon as well. Aim for the apex near the
 middle of the turn. It will look like you are hitting the apex really early if you get it right. Continue under full acceleration and shift up another gear as you let the car drift out to the left. The exit is not quite as tight as the entrance, so after the apex make sure you let the car drift out to the left. Don't hold it in to the right, as you'll lose some speed.
*Speed at the turn-in point.
** Speed at the apex.

## RINDT KURVE:

Entrance speed: approximately 163 mph [263 kph]
Speed through the corner: approximately 100 mph [161 kph]
Arrival time at the corner: 1 minute 28.50 seconds
Time to negotiate the corner: 12.96 seconds
Exit time of the corner: 1 minute 41.46 seconds


This turn brings you back onto the front straight, and therefore a great exit is the goal. The front straight is quite long and offers the best overtaking opportunity. Remember that in order to make the best attempt at passing someone you want to be a few car lengths behind them in the middle of the turn, so that you can exit the turn about a car length behind, going slightly faster.

You'll be in top gear under full acceleration as you approach this turn. Line the car up on the left side of the track. The first group of people you see on your left make a great braking refernce point. It's a good thing the spectators never move. As you get to this group of people start to turn in gently and brake moderately. Downshift to fourth gear, and then third and ease off the brakes slightly as you do so. You may need to add some power to keep the car from getting too loose here.
Try to keep the car near the middle of the track. If you have to favor one side, then go for the right as that will make the middle of the corner easier than being on the left side. You should be completely off the brakes before reaching the Bosch sign. Try to maintain a steady amount of power through the middle of the turn. If you start sliding out to the left, then back off a little. If you are unwinding
 the wheel, then add some more power.


As you near the exit, the Champion sign on the left is a great reference point. Just before you reach it begin to increase your power and start bringing the car in towards the right side of the track. Once you get to the sign you should be back to maximum acceleration. Try not to back off for anything now. Bring the car right into the curbs, but be careful not to run over them as they'll upset the car's balance. You'll probably get a decent drift in mid-exit, so go with it as you want to go left anyway. Let the car go right out to the left side of the track, shifting up when you need to. You should reach the edge of the track about the time you reach the grandstands.

