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by Gary Anderson

driving tips

# Sit Up Straight

## Using The Correct Driving Position

How you sit and how you hold the steering wheel can cut seconds off your lap time and make you safer on the street.

Last week I spent a day at Thunderhill Race Track in northern California as one of the coaches for the Big Mini Day organized by the Mini Owners of Mountain View. During my day in the passenger seat with a variety of drivers, the one issue I commented on more than any other was regarding steering position: how the seat and steering wheel were positioned, how the driver was sitting, and how the driver held his or her hands on the steering wheel on the straights and in the corners.

Not only does the steering position affect how well you can drive on the track, it is perhaps even more important in your everyday driving. How you sit, and how you hold your hands, is critical in determining how fast and how effectively you respond to unexpected traffic situations when they arise.

### Sit Properly Before You Start

Before you ever start put the key in the slot, you need to set the driver's seat and steering wheel properly. With your butt firmly pushed back into the angle of the seat, move the seat forward or back until your left foot is comfortably positioned flat on the foot rest (racers call it a "dead pedal") on the left side of the foot well. This is where your left foot should rest whenever you aren't pressing the clutch pedal. With your left foot on the dead pedal and your back firmly against the back of the seat, you can brace yourself against sideways "G" forces in tight direction changes.

Now move the seat up or down using the other adjustment handle (did you know most compact cars don't even offer this kind of adjustment). The seat height should be adjusted so that your eyes are even with a point midway up the windshield.

Next adjust the steering wheel up or down so that you can see the entire dial of the tachometer without the wheel rim obstructing your view. Finally, using the seat back adjustment on the inner edge of the seat bolster, move the seat back up or back until the steering wheel rim is at least fourteen inches from your chest, but only far enough back so that your elbows are comfortably bent.

This distance between you and the wheel is important because if you're too close, should the airbag go off, it will hit your chest before

it is fully expanded, and the blow is literally ten times as intense as the blow of a prize fighter's fist. If you're at least 14 inches from the wheel, the bag will expand fully before you come in contact with it. On the other hand, if you're too far away from the wheel, you don't have good leverage to turn the wheel easily.

Now you can adjust your mirrors so that your center mirror shows you the entire rear window, and your side mirrors are extended out so that their field of view barely overlaps your field of view in the central mirror. Now you can start the car. Be assured, after a few times, these adjustments will all happen automatically, and take only a minute or two.



## Hand Position for Street Driving

For all normal driving on the street, your hands should be positioned at the four o'clock and eight o'clock positions (thinking of the steering wheel as a clock) as shown in the picture on the left-hand page. Now I know that this is not what you were taught in driver's ed, and it isn't what your racing buddy told you.

The driver's ed instructors all seem to have learned what they know before the invention of air bags, and racers don't have airbags. The reason for this four and eight position is that it gives you good control of the wheel under all driving situations, but keeps your arms below the point where they would be hit when the air bag explodes out of the steering wheel hub.

If you had your hands in the old ten and two position that many instructors still teach, or nine and three position that we will tell you to use for track and autocross events, the air bag will throw your left arm through the side window and your right arm into the passenger's face, significantly increasing the possibility for injury in front collision.

## What about Track Driving?

For track driving and autocross, you should put your hands at nine and three, as shown in the top picture at right, and you should leave them there at all times. I'll repeat that, since I must have said it fifty times last week. Your hands should be positioned at nine and three *at all times*. The only time your right hand leaves the three position on the wheel is for the split second it takes to shift gears (or on the road to wave to oncoming MINI drivers), and the only time your left hand leaves the nine position on the wheel is to wave faster drivers by.

Otherwise, every turn that needs to be made on a autocross course or racetrack can be made without ever taking your hands off the wheels, as shown in the middle picture at right. Granted this will feel awkward at first, but as you get used to it, you'll discover it has three advantages. First, you have full control of the wheel at all times. Second, you can make changes in direction, both planned and unplanned, in the quickest manner possible. Third, because your hands never leave their positions on the wheel, you will always know when the car is pointed forward, which is important in coping with skids, and in holding the car in a drifting position through a fast corner.

Okay, so there are two exceptions to this rule, but they only happen on road circuits where corners are very tight or the car has to be held in a tight turn for a long period of time. Those who rode with us a few weeks ago on the northern California tour out of Sausalito, and those who have driven the Dragon will know what I'm talking about.

The fact is that the Mini, like any production automobile, is designed for the average driver, so it does not have as quick a steering ratio as a real race car. Where a car built for the track can go "lock to lock" from full right to full left with only one full turn of the wheel, our Mini is more like 2.5 turns lock to lock. If it wasn't it would be simply too responsive to steering input and would be much too fatiguing to drive on long trips.

So when you do get to one of those 180 degree switchbacks in the California backroads, or the North Carolina hills, or climbing the Stelvio Pass above Monte Carlo, occasionally, you'll have to move your hands. However, even in these circumstances, you never want to have your hands near one another as they hold the steering wheel rim, or worse, off the wheel for any period of time.

Instead, what you'll do is go from the position in the middle picture to the position in the bottom picture by moving the lower hand up to grip the rim at a new "nine" position, while holding the wheel with the stronger upper hand, and then move the upper hand down to the new "three" position for as long as it takes to complete the tight turn. This way you have full control of the wheel at all times.

So get out there, adjust your seating position, sit up straight, lightly grip the wheel at nine and three and practice until this all seems exactly right and it becomes second nature to you. We guarantee you'll be a safer, faster, (and did we mention safer?) driver for it.

