



## Ferrari 360 Modena Buyer's Guide



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## Model Information

The 360 Modena was launched at the Geneva Motor Show in March 1999 as a replacement of the highly acclaimed F355. To meet this challenge, Ferrari opted for revolution over evolution. The 360 Modena was the first Ferrari road car to sport both an aluminum body and aluminum space frame. The result of this almost total use of aluminum is a 28% reduction in weight vs the F355 while providing over 40% increase in structural stiffness. To achieve this engineering feat, Ferrari set up a partnership with Alcoa Aluminum to develop the new technology and processes.

The 360 Modena also marks a significant shift in styling from the F355 towards a single minded focus on aerodynamics. The smooth flowing lines of the 360 hide the fact that it is a significantly larger car than the F355. It is the first Ferrari to drop the classic nose mounted radiator grill, with the twin radiators now mounted

in the wheel arches. The radical redesign allows for the inclusion of a large luggage space in the front while delivering a unique visual impression. The focus on aerodynamics delivers high speed downforce more than four times greater than generated by the F355, giving the 360 both great control and maneuverability. While the radical redesign did improve the car's performance, it did result in what was termed a un-Ferrari-like flamboyant design. Many journalist criticized Pininfarina when the car debuted and a number of people still feel the same today.

The 360 also received a larger, completely revised engine. The Tipo F131B with capacity increased to 3586 cc. Power was up to 400bhp with improvements in both mid and low range torque. That is an incredible 112 bhp per liter. The engine revisions included larger valves, variable phase timing for the exhaust valves, and improvements in the combustion chambers. However, the most significant change was the incor-

poration of a new variable geometry system which independently manages both cylinder banks. This magnificent engine is displayed beautifully beneath a glass cover on the rear deck.

What kind of numbers did this wonderful new engine produce? For starters a 0-60 mph time of 4.2 seconds with the F1 gearbox. The manual gearbox is not noticeably slower and clocks in at 4.4 seconds for the same jump to speed. The 360 will top out at 186 mph at 8500 rpms. Hopefully you will get a chance to experience this on the track or autobahn.

One year after the 360 Modena launch, the 360 series was extended with the introduction of the 360 Spider. The 360 Spider was part of the original design brief and it maintains the clean rounded curves of the Berlinetta. The impact on downforce generation is minimal and the Spider only weights 60 kg more than its closed top sibling. As per the Modena, the glass engine cover is retained on the Spider.

Above: Rosso Dino (left) and Rosso Corsa (right) at Infineon Raceway. Opposite Page: A Nero 360 Challenge Stradale (left) a Giallo Modena Hamann (top right) and a Rosso Corsa tuned in Japan (bottom right). Photos taken at Ferrari Brunch in Japan by Ferrari Forum.

The Spider was followed by the 360 Challenge in 2000. The 360 Challenge is a completely stripped down race variant of the base 360 Modena. Everything that could be removed in the quest for lightness was stripped out. In its place an upgraded suspension and larger Brembo brakes were added. The gearbox software was remapped to provide even quicker changes and a heavier duty clutch added.

In 2003, the 360 Challenge was joined by the 360 Challenge Stradale in the line up which has the striking and unmistakable hand painted stripe down the center (photo this page). The Challenge Stradale incorporates a large number of mechanical and aerodynamic improvements which make it both a quicker and more livable car than the Challenge. It is truly a race car that can be used on the

road.

The 360 line was of course offered with the F1 transmission (the F355 was the first road car to offer it) and the majority of 360s shipped with this configuration. That however, does not mean the classic six speed gated shifter is not available but it will be harder to find as the number of manuals are somewhere around 10% - 20% of the cars produced. With these



transmissions comes the classic age old question of which one to get. The answer is simple: there are just as many advocates for the manual that would say it is the best option as there are advocates proclaiming the same about the F1. This boils down to driving both and choosing the one that fits you best.

However, a few pros and cons of the two. The F1 shifts are blazing fast at a startling 150 milliseconds, a human just cannot come close. In addition to speed of shifting, control of the steering wheel is greater with the F1 as both hands never leave the wheel even when

shifting. This is a huge plus when the car is rocketing through a tight turn and a downshift followed by and upshift to exit the turn is needed while maintaining control. The manual has the classic Ferrari feeling and the gated shifter is a timeless Ferrari icon. Using a clutch and shifting through gears is fun, pulling paddles can get monotonous.

#### Market Data

The 360 Modena has seen the largest production run of any Ferrari with approximately 15,000

units being built. Having said that, this car is guaranteed to depreciate considerably for a Ferrari in the coming years. With the recent release of the F430 it will not be long before the market softens. However, it will be a good 10 - 15 years for the serious 30% - 40% drop from the sticker price.

With this in mind be patient and look for a car that is priced lower than average. As of Feb 2005 the high is around \$180,00 and the low \$110,000. Of course the Spider will be priced just a bit higher than these numbers.

### 360 Specifications

Number Made	N/A
Engine Type	V8
Engine Displacement	3586 cc
Bore & Stroke	85mm x 77mm
Engine Description	Mid-engine, longitudinal 90 degree V8, light alloy cylinder block and head
Power	400 bhp
Torque	275 lbs/ft
Transmission	Dry single-plate clutch, 6-speed gearbox + reverse, hydraulic self adjusting bearings
Chassis	All aluminum materials, including body and chassis
Front Suspension	Double wishbones, hydro-pneumatic electronically controlled variable settings
Rear Suspension	Double wishbones, hydro-pneumatic electronically controlled variable settings
Brakes	Ventilated discs, 4-pot callipers, dual high-press vacuum servo with ABS
Length	4477 mm (176.26 in)
Width	1925 mm (75.79 in)
Height	1215 mm (47.83 in)
Wheelbase	2600 mm (102.36 in)
Acceleration	0-60 mph 4.1 sec
Top Speed	295 km/h
Weight	1470 kg (3240 lbs)

### 360 Spider Specifications

Number Made	N/A
Height	1235 (48.62 in)
Weight	1520 kg (3350)
Acceleration	0-60 mph 4.3 sec

### 360 Challenge Stradale Specs

Number Made	N/A
Power	409
Weight	1360 kg (3000 lbs)
Acceleration	0-60 mph 3.8 sec



## Driving Impressions

The first thing you notice when opening the door of the 360 is how big it is. It is really wider than the F355 or the 550 Maranello. But still it is tricky to get in because the door is hinged very much forward and the best way is to stretch in your left foot into the foot well and ease your bum on to the seat and then swing your right leg. I am of course describing a RHD car.

Once in, the cabin looks very spacious, much more spacious than earlier models and the seats are very comfortable. There are three choices of seats – standard electric seat, Daytona electric seats and racing seats. The racing seats sit lower than the other two types. It is also harder but it cups your body beautifully and even on long distance drive the seats are perfect, not discomforting even after four hours of driving!

Ferrari started to equip its cars with the paddle shift F1 gearbox as a preference starting from the 360. The right paddle is for up and the left for down. To go into neutral, pull both paddles at the same time. A little window situated at the top of the speedometer will indicate the gear you are in. To engage reverse, there is a tiny T-shaped lever at the centre console which you have to lift and pull backwards. The little beeping sound will indicate that reverse has been engaged. The steering is adjustable for both fore and aft and up and down so the driver has a multitude of positions to adapt to his driving comfort. The steering is locked by means of a lever below the steering column. There are two main round analogue meters in the dashboard face directly at the driver. The bigger dial is that of the rev counter that incorporate two windows, one for the gear position indicator and the lower one for other "warnings". The smaller

dial houses the speedometer. The other meters housed to the left of the binnacle show oil pressure, oil temperature, water temperature. There are two stalks on either side of the steering column, the one on the right controls the light and the one on the left controls the wiper.

Insert the key and press the "alarm" button on the key fob to disengage the alarm/immobiliser. Turn the key clockwise and the V8 roars into life. The 360 sounds more "baritone" to the F355's "tenor". Pull the right lever and the 1st gear is engaged. Squeeze the throttle and the car pulls off. This "take-off" takes a little getting used to, because if there is little gas the car will not move, yet when the throttle is depressed too much the car will leap forward. Literally leap, leaving you a bit startled. In slow crawling traffic, you learn to understand the gearbox and adapt to "squeezing" the throttle just enough.

Pull out into the clear road and the first thing that impresses a driver about the 360 is the power. While it is only about 40bhp more than the F355 the difference is quite tangible. The revs build very rapidly and you will have to mind the rev counter because it is so easy hitting the limiter in the first 3 gears. Take it to the limit on each gear and you will be rewarded with the brutal power delivery and the glorious exhaust notes that accompanies it. By the 4th gear the car has reached 200kph and by the 5th gear the car is still accelerating. There is no drop in the pulling power of the engine. It's marvelous. 6th is reached in no time, in fact 6th is a "security & comfort" gear because at 5th the acceleration is intoxicating, urging the driver to press on into the "I don't know what came over me Officer" area of the speedometer.

It's when the speed reaches 260 kph upwards that we see the

stark difference between the F355 and the 360. At those speeds the F355 front becomes light. As you press on, it gets even lighter and your senses have to be on the alert as you grab at the steering tighter. Perhaps it is the over assist of the steering in the F355 as much as the lack of negative lift that contribute to this feel. The F355 is steady, but for the average driver, it does not impart the same sort of confidence at very high speeds as the 360. Compared to a Nissan R34 Skyline GT-R and a Porsche GT3, that were both very comfortable at 270kph the 360 shames both of them. That can be attributed to how well the aero designers at Ferrari have made the 360. At 290kph the car feels stable and comfortable and the real challenge is to try and push it to 300kph. The 360 tops out at this speed.

The 360 really shows its mettle when driving along country roads. The steering is so direct and the assist is just enough for the driver to feel the car. In the F355 the steering is over-assisted and its lightness can be discomforting when pushing the car towards its limits. Gear changing with the paddle shifters makes life easy. It is on these types of winding roads that the driver realizes how good the paddle change is. Pull right for up and pull left for down, your hands never have to leave the steering. But the 360 is sprung tight and it feels the bumps and cracks on the road. The best compromise would be the F355 suspension setting with the 360 sharp and direct handling. The brakes are about the same as that of the F355 and stopping power is enormous! Even when pushed hard there is no brake fade and on a good windy road you will want to push the 360.

Take it to the track and the 360 becomes another animal altogether. Turning on the sports mode makes the car become “edgy” and vastly enhances the experience. An early heavy foot on the throttle after a bend will light up the ASR warning and if you ignore it in the next bend the car will just spin itself. The limit of

adhesion is very high but the warning it gives the driver is very short. Tight corners are a challenge, however long fast corners are a delight because the mid engine gives the car a good balance and feel. Hard driving tends to show the 360’s other weakness. The standard brakes will begin to fade on the 360 after 4 to 5 laps, the Stradale

however holds on longer (as it should with the larger brakes). It is therefore prudent to come in to the pits and cool the brakes before another set of 4 to 5 laps.

If you really want to take it to the next level in a 360 I highly recommend the Challenge Stradale, it is a beast!



## Pros & Cons

### Pros

- Breakthrough Design, likely to hold value in the long term
- Great drivers car and about the most comfortable Maranello product to date
- Very Reliable, great track car
- Limited edition Challenge Stradale likely to have significant appreciation potential
- Great performance, and highly responsive
- Even has reasonable trunk space

### Cons

- All maintenance done by the dealer, costs are significant
- Wide footprint can be a challenge on narrow country roads
- Still depreciating and likely to accelerate with the launch of the 430
- Low front end clearance and speed bumps can eat it alive
- Alarm system can be temperamental

## General Buying Tips

1. Demand to see the service book and Maintenance History file. Make sure you have solid answers to any holes in the history. If not, move on.
2. Get the car inspected by a Ferrari trained mechanic. He will find things you miss.
3. If the asking price is very low, there is a reason for it.
4. Never buy the first car you see, look and test drive several.
5. Make sure the car has all the original Books, Tools, and Records.
6. Talk to other owners, join the Ferrari Forum.
7. Talk to the Mechanics that have historically serviced the car.

## Maintenance & Reliability

Common issues for the 360 Modenas are few and the car is solid. Here is a list of a few possible problems that occur:

Clutches can wear very rapidly on the F1's  
 Transmission ECU on pre 2001 F1 models needs upgrading  
 F1 shift from 1st to 2nd can be rough, indicating clutch wear  
 Camshaft variator on early models were subject to recall

Other potential issues include:

Motor mounts on early cars are know to crack  
 Gasket leaks  
 Alarm system malfunctions causing rapid battery wear.



In general, if you adhere to the factory recommended maintenance schedule, the 360 is the most reliable Ferrari to date. On the negative side, almost no maintenance can be done by the owner due to the large amount of electronics in the car. Diagnosis needs to be done by the dealer's computer and very few independents have the necessary equipment.

### Average Parts and Service Cost

Fluid	Quantity	Price
Oil (10w30)	11 liters (12 quarts)	
Gearbox	4 liters	
Brake Fluid	1.6 liters	
Antifreeze	20 liters	

Details of Service	Price
Annual Service 6,000 miles	\$1,000
Major Service 18,000 miles	\$1,800
Cambelts 4 years	\$700
Valve Guides	\$900
Clutches	\$1,600

## Ownership Expectations

When you purchase a Ferrari, you are not buying a car but rather a work of engineering art and a piece of history. A Ferrari has a soul and character unique in the automotive world. A Ferrari comes filled with Italian passion, for both better and occasionally worse. Driving a Ferrari is never boring. It is engaging. You are always involved and interacting with the car across a multitude of senses. While driving, this includes the constantly changing sound track as the engine moves through the rpm range, the heavy but exact clutch, and the metallic click with every gear change. There really is nothing else on the road that sounds like a Ferrari. Until you have driven one, it is impossible to appreciate the totality of the experience. It is this emotional link between car and owner that sets Ferrari's apart from other sports cars

Two other cars that many first time Ferrari owners consider are Lamborghini and Porsche. Lamborghini has similar roots in the Modena area . It however does not have the racing heritage or, for the majority of its life, the single minded guidance of a brilliant

owner. Lamborghini's ownership history has included everyone from Chrysler, an Indonesian Conglomerate, to Audi. This is reflected in the history of the models. Lamborghinis tend to be overly flamboyant, difficult to drive, and highly temperamental. Porsche, on the other hand, is efficient, reliable, and an engineering masterpiece. It is also highly predictable and after a time, can be construed as boring. A Porsche does everything with extreme competence, to the extent that you begin to wonder if you, the driver, are really needed.

The fact is Ferrari's are expensive to maintain and less reliable than many other cars. This is simply a small part of the deal that comes with being a member of the small and special club of Ferrari owners. The Porsche is a cold rationale machine, a Lamborghini is pure emotion, and a Ferrari gives you both.

## Quotes From Owners

The 360 is the best and the most successful Ferrari ever built. It doesn't get to be that if there were too many complaints. Drive the car like a hooligan and it will still stand up to the abuse. It's a fantas-

tic car.

If you're going for long distances then choose the 550 because there's nothing better in cross-country travelling than a 550. The 550 is heavy but very comfortable over long distances. But if your usage is more of short distances, then the 360 Modena is better. It's light and more nimble and easier to handle. It's ideal if you're going to do the occasional track day outing.

The SL has a manual sequential gear box that can be switched on when needed.. What a disappointment! Not only are the shifts very slow but they are activated by two very small buttons on the back of the steering wheel that are almost impossible to find especially when turning (Its really easy to loose their relative position as they are fixed to the wheel not the steering column) This system is really unusable for track use which explains why you will not see many of these cars out on the track in anything other then a straight line drag race. In contrast my 360 is amazing to drive using the F1 mode but a pain to use in the auto mode (I personally never use the auto setting).



## Purchasing Options

In general most Ferrari Buyers purchase their cars at one of four channels:

- Official Ferrari Dealers
- Independent Specialist Dealers
- Private Sellers
- Auctions

Each has its own strengths and weaknesses. In summary:

### Official Ferrari Dealers

Purchasing through an official dealer will provide the most peace of mind when making the rather considerable investment in a Prancing Horse badged automobile. In almost all cases the car will come with some sort of warranty, a comprehensive service history, and a clean bill of health. All of this comes with a cost and you will likely pay a 10-20% premium vs. other options. One other limitation is that dealers normally only stock the current, plus 1-2 generations of prior models. As a result, dealers are really only an option for the modern (1990's -) model enthusiast.

### Independent Specialist

Independent Specialist can provide both outstanding service and a wide range of models to choose from, covering all price ranges. Reputation is critical and so is doing your research on an Independent Specialist before writing out a check. Information and insights on different Specialists can be obtained both through your local Ferrari Owners Club members and via posts on the Ferrari Forum. Like official dealers, many specialist can provide warranties (via 3rd parties) and on-going maintenance facilities. The quality of the maintenance for modern models can be on par with the official dealers as many independents employ Ferrari trained mechanics. For modern models though it is critical

to confirm that the service center has the necessary diagnostic equipment and software (SD1 or SD2) for your model. For Classic and Vintage Ferrari's, independents may be your only, or best (for more recent models) option. Prices at Independent's should be 5-20% less than Official Dealers.

In most countries, purchasing from either an Official Ferrari Dealer or an Independent Specialist will provide you with the strongest legal rights should anything go wrong.

### Private Sellers

Caveat Emptor. Buying from a private seller is both the lowest cost and highest risk option. In all Ferrari purchases, a Pre Purchase Inspection (PPI) by a specialist is recommended, in the case of a private purchase, it is critical. Purchasing well privately is both a matter of form and substance. First the form which is mostly related to general appearance and presentation:

- check the condition of the interior, is the leather conditioned and cleaned
- pull up the mats, check the condition of the under carpet
- spray water on the car, make sure it beads up immediately
- look in the engine bay
- is the owner a member of the local Ferrari Owner's Club

Positives on the above are an initial indication of a careful owner, but could also be the result of a pre-sale clean up. Then move onto the substance:

- review the service records, a comprehensive file is always a good sign
- check the history of the car, make sure it has always been well cared for
- always check that the mileage on the odometer matches the other records
- confirm that the seller is the car's owner and that the title is clear
- spend time both test driving the car and talking to the owner. No car is perfect, does the owner point out both

the good points of the car and the issues needing attention?

Buying from a private seller will provide both the lowest cost of acquisition and the highest risk should any major undisclosed issue emerge post purchase. Doing your homework properly is critical and in many cases it is a rewarding and enjoyable experience for both parties.

### Auctions

As a very broad guideline, cars that appear at auction are either very high value recent models (example - Enzo) or models no longer carried in the Official Dealer network. As per purchasing from a private seller, it is critical to do your homework ahead of time. All auction houses provide for pre-sale viewing but it is very unlikely that a PPI or test drive will be permitted. Both need to be included in the buyers purchase risk consideration. Auction Houses act as agents on behalf of the sellers so your legal protection in many countries is not much greater than in the case of a private sale. On the positive side, auctions provide both the opportunity to acquire very rare, unique cars with important histories and other models at a potentially outstanding value. Many Independent Specialist attend auctions, it is critical that a private buyer understand the environment that he is competing in. Fee schedules differ significantly between the auction houses, so it is strongly advised that these be reviewed ahead of time. Currently the most famous Ferrari Auction is Bonhams December Auction in Gstaad, Switzerland. Other well known auction houses include: Christies, R&M (North America), Barlett Jackson (North America), Barons (UK), H&H (UK), Coys (UK), and Artcurial (France).

## Ferrari Forum's Buyer's Guides are available for the following models:

<i>Dino 246</i>	<i>365/512 Boxer</i>	<i>348</i>	<i>Testarossa</i>	<i>550/575 Coming Soon !</i>
<i>F355</i>	<i>360</i>	<i>456 GT</i>	<i>Mondial</i>	<i>308/328 Coming Soon !</i>