

# 1 Is it the right car for you?

– marriage guidance



This is strictly a selfish two-seater with no boot/trunk, although the Convertible will accommodate at least three soft bags beneath the folded top and the Coupe will carry much more. At almost 14ft long and exactly 6ft wide, the car will fit into a 16ft x 8ft garage – outdoor parking is not an option.

The 1963-67 Corvette interior is spacious, but anyone over 6ft 4in needs to sit in the car before setting their heart on one. The seat is effectively up against the chassis kick-up in its rearmost position, so no extra legroom is available.

The standard clutch is light and, together with the four-speed shifter and steering ratio, can be set to fast or slow mode from the steering arms. Parking can be hard work if the quick setting is used but power steering is easily retrofitted.

Running costs are low due to stout design to resist American neglect. Only five litres of oil is needed for the 3000-mile oil change. Any small block can be persuaded to top 20mpg – a big block won't better 16mpg. The increased drag of top-down driving attracts a worthwhile penalty of up to 2mpg. All parts are easily available, and these Corvettes qualify for cheap limited-mileage insurance. The car is entirely happy in modern traffic; heating and air-conditioning are excellent, being derived from much larger Chevrolet passenger cars.

The big minus point has to be the LHD, not so much a problem for the driver but sometimes unnerving for passengers. RHD conversion is possible, but very expensive.

The direct alternative choice is an early E-type Jaguar; better handling perhaps but with a much less durable steel body.



**The 1966 427in<sup>3</sup> big block car has a spacious cabin, but is strictly just for two.**

## 7 Fifteen minute evaluation

– walk away or stay?



It's hard not to be overwhelmed by the sheer beauty of the Sting Ray: however determined you might have been to just have a look, to offer a lower price, or not to buy one till next year, the subtle curves and intersecting planes of the fibreglass body, and the seductive racing-style cockpit may melt your heart before you have exercised sound judgment.

It's important to look at the most fundamental aspects of the car first, and that won't be the engine, transmission, or interior. The most expensive mistake you can make is to buy a Corvette with a badly rusted chassis frame. In the UK, this problem is usually picked up by the annual MoT roadworthiness test, but a badly rusted chassis can still be disguised. It's easy to test using a big old screwdriver and a heavy hammer to hit the side of chassis where it kicks up ahead of the rear wheels. Ask first, and if the owner refuses this fundamental test, walk away. Chassis replacement will cost about ●x10,000 once all the associated pipes, hoses, bushes, and mounts are replaced. And if the chassis is badly rusted, it's possible that rust will also have spread into the steel birdcage that frames the fibreglass body. A clue to this unlikely affliction will be looseness in the door hinges where they mount into the A-pillars.

Harder to spot and equally serious, if not worse, is a twisted chassis or body – it could cost half the purchase price of the car to put right. So, the first priority is to get the car onto a flat piece of concrete; if you are buying the car in a suburb or city then head off to a filling station or supermarket to find some. Rotate the headlights up. Stand back – ten to twenty feet away – and use a ruler or the spine of a magazine to eyeball the car across the tops of the headlight housings to the top of the front wings, the base of the windscreen, the top of the screen, and the tops of the rear wings if the car is a Convertible. Front bumpers can be ignored because they are fully adjustable. Then repeat from the rear. All the lines should, of course, be parallel, if not, further investigation will be needed, or walk away if it looks serious.

Next, use a ten-foot metal tape to measure the wheelbase. The car is built on a 98in wheelbase, so, with the steering straight ahead, have an assistant help measure between the centres of the front and rear wheels – it's easiest to measure from the centre rear of each rim. The wheels should be 98in apart on each side of the car. A total of up to ½in difference between the sides of



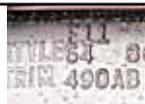
**See if you will be comfortable in the cockpit; 1965-67 cars, like this one, have thicker seat cushions.**



**If air-conditioning is fitted, there is no excuse for it not to work.**

## 8 Key points

– where to look for problems



The vital VIN tag; spot-welded on the bar below the glovebox on this 1964 car.



The cast number on the back upper left hand of the engine block. 3782870, seen here, was used in almost all small block Corvettes from 1963-1965.



The Trim tag shows information about body colours and date, seen here riveted in a 1964 car.



On a 1964 car, 4114411 was the VIN derivative stamped at the St Louis assembly plant, while FO311 RD was stamped at the Flint MI engine plant. Flint usually used capital letter 'I' to represent the figure '1,' and RD denotes 327-300hp assembled with a manual transmission.



Trim and VIN tags both retained by rose-head rivets in 1965-1967 cars.



Cracking in the body at the headlight opening is a badge of honour; indicating a Sting Ray that has been driven, not stored.



**1963 gauges used cranked needles and deep conical silver faces.**



**1964 gauges are still conical, but with black centres. Air-conditioned cars have an extra vent and control knobs above the clock.**

or both of the drive gears in the distributor, or the cable, has failed. If the cable is disconnected at the lower end, the inner drive can be spun between the fingers and should move the needle up to about 1200rpm.

Odometer failure, with a working speedometer but no trip or total mileage, is common, and an expensive specialist job to put right. Many classic car limited-mileage insurers require an annual mileage report and, without an odometer, this will be impossible, and could even jeopardise a claim in the event of an accident. Be sure to check this on the test drive.

The fuel gauge can be checked by comparing the gauge reading to the easily visible level in the tank, though this is harder on the Coupe. The fuel needle should visibly move when cornering hard. The water temperature gauge needle should rise to working temperature within minutes; the most likely cause of no reading is bad wiring to the sender unit, or the sender itself.

The oil pressure gauge is not electrical, but operates via a thin copper pipe from the engine high pressure gallery. Slow needle response will be due to internal blockage of the gauge or pipe, but low oil pressure is a cause for concern. Look for leaks from the pipe, check the carpet; failure of the pipe is sudden and messy.

American specialists do a superb job of fully refurbishing the whole cluster, not only rebuilding all the gauges but refinishing the faces and the cluster body, too.



**The back of an original Borg time clock, showing the date ink-stamped as 'Feb 63.'**



**The 1963-only glovebox door emblem was encased in clear plastic.**



**The 1964-1967 glovebox lid was all metal with a separate emblem.**

springs front and rear since 1984, and a version to replace the steel multi-leaf has been proven for more than fifteen years. This is a highly desirable option if fitted.

### Test drive (not less than 15 minutes)

4 3 2 1

The seller will probably want to drive the first part of any test drive if only for the practical reasons of pulling out of a tight parking area or private drive. Similarly, he should have tested that the car will start before your visit as a courtesy – to prevent a wasted journey – so you are unlikely to experience a true cold start. This won't matter because there is a strong case for disabling the cold start choke on any Sting Ray, unless you live in the Arctic Circle. All carburettors have accelerator pumps that should be used to start the car by pressing the pedal a few times before and while cranking. The damage done to bores by rich fuel mixtures, and, worse, the permanent dilution of the engine oils far exceeds any convenience chokes bestow.

The engine should reach working temperature within five miles, and the gauge and heater will prove this, too. The oil pressure should also drop as the engine warms.

If you are able to drive, your prime duty in an unfamiliar car is to other road users and the owner of the car. If you crash it – you have bought it! Car dealers know that inexperienced buyers are less likely to notice faults if they drive. So you will probably learn more by watching the seller as he drives; asking him to demonstrate heavy braking while you watch to see if he corrects the steering, or hard acceleration in top gear that will show a slipping clutch. Listen for whining noises from the rear axle or the transmission – both should be quiet. The Powerglide two-speed automatic should be quiet in top gear; in low or neutral they are rarely silent. The steering should feel direct and satisfyingly responsive if the car has modern radial tyres; on crossply or belted tyres it will feel dead. Take a good look at the gauges as the car is



driving and look for any anomalies.

A ramp check is highly recommended, and some exhaust/tyre centres will let you put a car on a ramp for five minutes or so if asked. Better still, surprise the seller by prearranging it. This will give the chance to look at all the points previously mentioned but mainly the chassis frame, and to look for previous accident damage.

**The classic 1963 Split-window makes an irresistible purchase, but must still be carefully checked before doing so.**