

924

1976 - 1988



The 924 was a classic shape capable of further development. The car was subtly developed over time and the 944 recognisably followed on from this crisp, balanced and thrusting coupé.

Introduction

This seminal Porsche was the very first water-cooled Porsche model. It was conceived as the entry-level Porsche, with the 911 as the air-cooled standard bearer and the water-cooled and 4.5 litre 928 as the flagship model destined to replace the 911. It didn't.

The 924 was a tremendous foundation on which to build and it was steadily improved, paving the way for the 944 and then the 968. At that point the 968 and 928 were stopped and Porsche had just one model, the 993. It was successful, leading on to the water-cooled Boxster and present-day 996 variant of the 911. The

924 proved that Porsches could be water-cooled and affordable and still have that Porsche charisma. It used a water-cooled VW engine, located in the front with the gearbox to the rear, plus other VW components reflecting its origination as a joint Porsche-VW-Audi Group (VAG) initiative. Many of the mechanical components came from the VAG stock list.

In the event, VAG backed out and only Porsche sold it; very successfully; over 100,000 had been bought by the end of 1981. Although air-cooled Porsche die-hards proffered the view that the only real Porsche was an air-cooled one, 924 owners have had the last word; now every Porsche is water-cooled.

For many people the 924 is one of the prettiest Porsches and it became the best selling Porsche of its time. In fact, the 924 formed 60 per cent of Porsche's production volume in 1979.

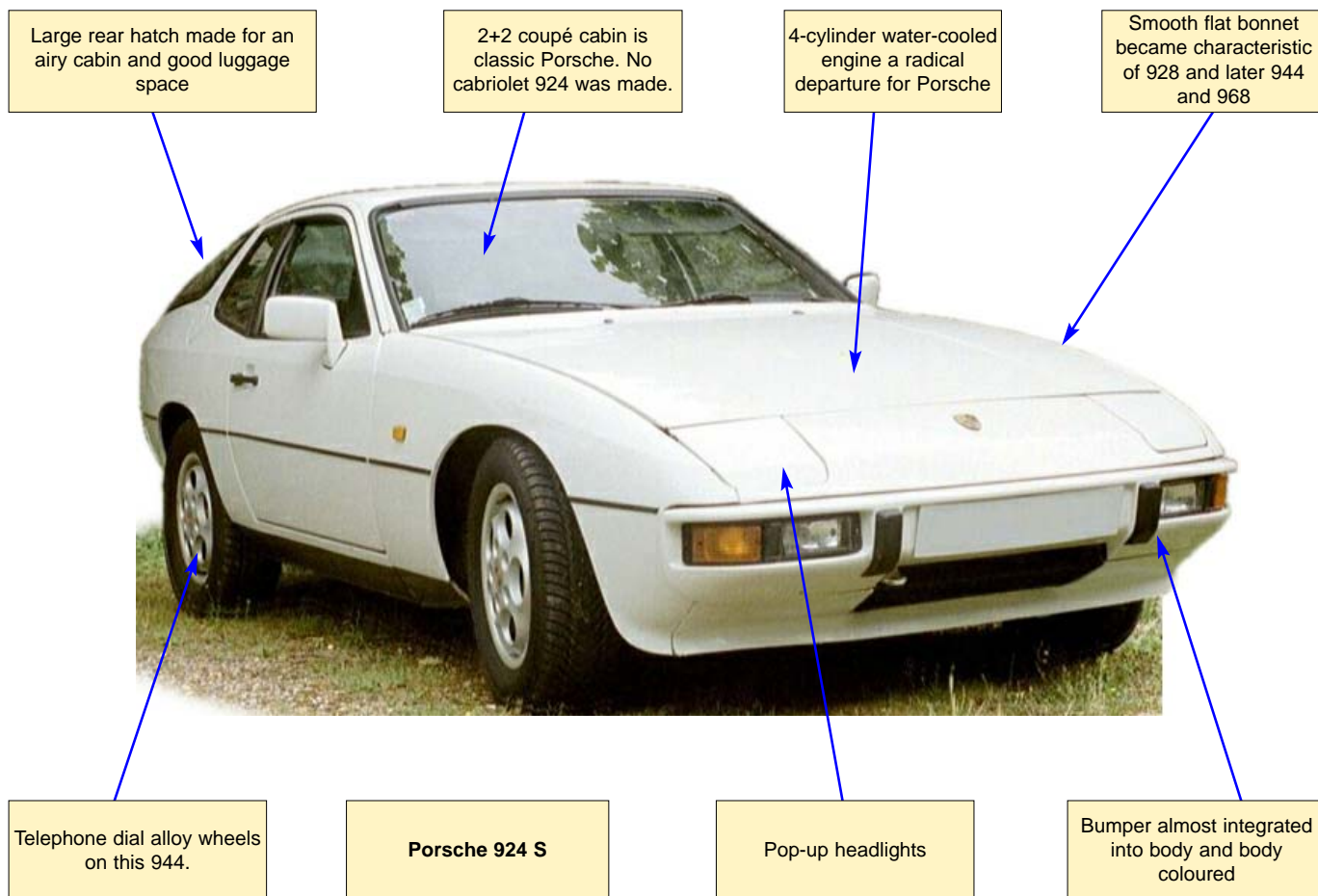
It is an understated but a very satisfyingly-styled coupe (compare it to the much less elegant Ford Capri) and was a lower cost car for Porsche because it used the VAG engine. Watch them going round the circuits in 924 championship races and you can see that people have a huge amount of fun with them.

The Turbo version countered a perception that the basic 924 was slow - for a Porsche. Some 12,000 were built. The 924 Carrera GT was the best performing 924 model. Its flared wheel arches presaged the coming 944.

Porsche or VW Engine?

The 924's engine was based on an original 1.871 litre Audi 100 saloon engine using pushrods to operate the valves. VW developed it for the LT van range, changing it to an overhead camshaft belt-driven design and enlarging it to nearly 2 litres.

Porsche's input resulted in a forged rather than cast crankshaft. Porsche also designed the cylinder head and added fuel injection. To enable the low and flat bonnet the engine was canted over at 40° to the right. This resulted in a need for a new sump and a finned aluminium design was used. The 924 was announced in 1975 and sold well. In 1986 it was given the Porsche 2.5 litre engine from the 944 and became the 924S.



924 Coupé

This car began life as the EA425, a joint project with VAG in 1970. Design engineering was done by a 50:50 owned VAG-Porsche operation. After personnel changes at the top, VAG abandoned the project and Porsche bought it in house and christened it the 924. It was first announced in Europe in 1975 for the 1976 model year. The cars reached the USA in April 1976.

TECHNICAL DETAILS - ENGINE

The car came with a front-mounted water-cooled slant 4 cylinder 1.984 litre cast-iron engine getting power to the rear wheels via a hollow torque tube and rear-mounted gearbox or transaxle (transmission/axle). This made for a pretty near perfect 52:48 per cent weight distribution. The cylinder head is light alloy, the crankshaft forged steel and the pistons cast light alloy. The compression ratio is 9.3:1. Lubrication is via a wet sump system.

The European car's performance numbers:-

Power	Torque	0-60mph	Top Speed
125 bhp	121 lbs-ft	8.2 secs	115mph
@5800 rpm	@3,500 rpm		

It took 23.4 seconds to reach 100 mph and the engine peaked at 6,500 rpm. Naturally the US version was de-rated (8:1 compression ratio compared to Europe's 9.3:1) to meet emission requirements. Fuel flow was controlled by the popular Bosch K-Jetronic mechanical fuel injection system.

The US version used breakerless ignition whereas Europe had a conventional distributor/rotor arm set-up. US engines had exhaust gas recirculation for lower emissions. California spec' cars had air injection; the other 49 US States cars got catalytic converters.

Fuel Injection System

Bosch K-Jetronic is a CIS, or continuous injection system, relying on a mechanical sensor to vary the amount of fuel injected. Incoming air passes through an airflow meter and lifts a sensor plate higher the more air there is. The plate moves a pneumatic arm which operates the fuel metering unit. This moves plungers in the bores of the injector unit, one bore per cylinder, and thus varies the fuel flow. The bores are designed to provide different fuel:air mixtures at different engine speeds and maximise performance and economy. It is known to be a reliable system.



A 1983 924 Lux. The first 924s did not have the spoiler liping the bottom of the rear screen. This is a classic very clean and neat rear end with the integrated rear bumper. The side profile of the rear hatch balances the rear quarter light's outline in a nicely satisfying way. (Thanks to John Wallin.)

US performance numbers (manual):-

Power	Torque	0-60mph	Top Speed
105 bhp	c115 lbs-ft	8.2 secs	c110mph

This version took a slightly longer 26 seconds or so to reach 100 mph.

TRANSMISSION

There is a 4-speed Audi manual transmission.

CHASSIS AND BODY

Porsche's Harm Lagaay designed the car as a monocoque hatchback coupé. The design, like Porsche's 911 design, proved one capable of being developed and the 944 and 968 were based on it. As in those cars, the transaxle, torque tube and engine provide a rigid core on which the body and wheels rest. The 924's pressed steel body had its floor and wheel arches galvanised.

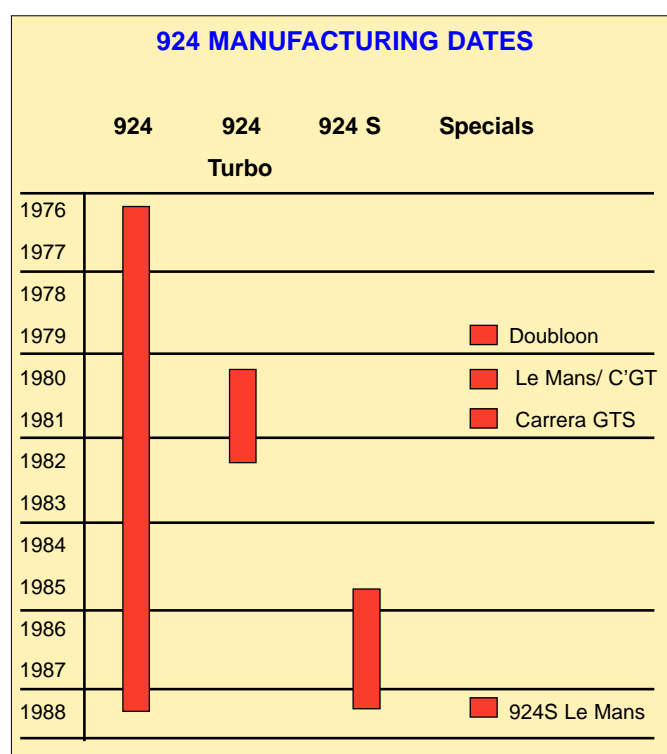


The original knurled edge petrol filler cap was replaced in 1979 by a cap underneath a neater looking smooth flap.



Like the 928 it had retractable headlamps but the 924's were covered when retracted.

The bonnet was a very clean and flat design with no ridged wings and fairly well integrated resin bumpers. The design featured a stylish rear glass hatch with a fair amount of luggage space inside it. The petrol filler cap was an exposed black knurled disk in a recess [cont' p7]



Buying Tips

This car can be self-maintained and many owners may have chosen that route resulting in an incomplete or missing service history. These cars may also have suffered accident damage and, as the early ones were only partially galvanised, could well have paintwork problems bubbling away under the surface. You may well find some pretty poor condition cars as well as the very good ones. A pre-purchase inspection, preferably up on the ramp, is desirable but the car's price may not justify it. In that case be prepared for remedial work.

PAPERWORK

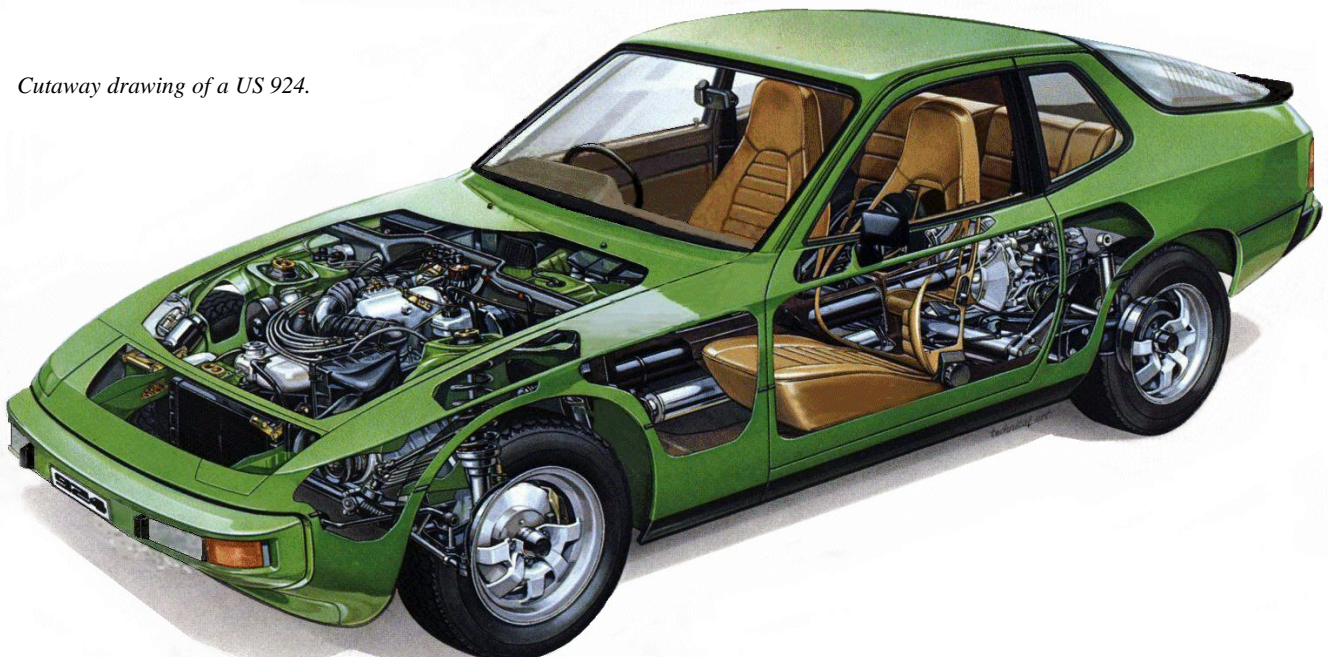
- The service book should be original or a Porsche- authorised duplicate. If the spiral plastic binding is broken then check the service history very carefully. It might be forged.
- Prefer a car with a full service history. A full Porsche dealer service history is even better but a rare event.
- Verify that MOT certificate mileage totals tally with the service book and garage bills. If they don't suspect a doubtful mileage total.

MECHANICALS

- Expect 924 gearboxes to be clonky when cold. Check automatic boxes carefully
- Check the upper door hinge on 1977 to early 1979 cars. They have been known to crack with the door falling off.

- The dashboard plastic may have cracked. Check the price of a replacement dash and its fitting before buying the car.
- Don't expect a 924 engine to run as smoothly as a 944; the 924, apart from the 924 S, doesn't have the 944's vibration-removing balancer shafts.
- Watch out for previous owners who have changed the car's badges, etc. A 924 looks like a 924S so don't take a 924S for granted.
- Check that the 924S has the proper engine with 'PORSCHE' in large raised letters on the cylinder head cover.
- Check for oil cooler seal leaks in the 924S. This car has an oil and water heat exchanger. Older seals can deteriorate and start to leak oil into the cooling system. Look for brown froth inside the oil filler cap or on the dipstick.
- Check that the timing belt has been changed at 48,000 mile intervals. Owners who have changed them at 36,000 miles are careful ones. Note that the 2.0 litre engine doesn't have a design where non-synchronised valves and pistons can hit each other and write off the engine. The 2.5 litre engine does and timing belt failure can cause massive internal damage and a wallet-emptying repair bill.
- The engine mounts should all be the same thickness. If they have different thicknesses then expect the thinner ones to need replacing.
- All engine exhaust manifold studs should be

Cutaway drawing of a US 924.



Buying Tips Continued

present. If they are not then an expensive repair is necessary.

- Check over rubber hose and fuel line condition in the engine compartment. Cracked ones will need replacing.
- Smoking engines when warm signal much engine wear.
- At around the 100,000 mile mark check the clutch and transmission carefully for wear. Expect big item bills from now on as major items wear out.
- Check the exhaust pipe for corrosion where the chromed extension at the end joins the main pipe. If you see it then a replacement exhaust is going to be due soon.

ELECTRICS

- Turn on the ignition and check that the warning lights appear. If they don't, find out why not. They should go out when the engine is started. If they don't then suspect a fault.
- Check electric window operation, ditto electric sunroof opening/closing, door locks and headlight raising/lowering.
- Check the wiring loom condition by the alternator and exhaust manifold inside the bonnet. If the insulation is in poor condition then think about replacing it. A fire might start if its condition worsens.

BODY AND CABIN

- Check for cabin footwell leaks on the battery side. Battery acid may leak, dissolve the battery tray, then drip onto the footwell metal and eventually make holes in it so allowing water to enter. This can be expensive to fix.
- Check for water entry due to sunroof seal or drain channel failure. The sunroof might be electric or manual. Look for dampness under the cabin carpets.
- Check for water entry due to rear hatch seal or drain channel failure.
- Check the bodywork looking for uneven panel gaps and paint overspray in the bonnet and rear hatch shut ledges. Peel back window edge rubber looking for paint respray lines. If you find them then it means a respray and probable accident damage. If the details are not in the service history then consider walking away.
- Check for swirls and ridges and hazing and uneven paint shades by looking across the body work. Any of these indicate accident repair. This is not bad in itself - only it should not be detectable if it has been done properly.
- In high mileage cars look for road grit chipping to the lower front bodywork and in the lower trailing edges of the wheel arches. If you find some then factor their repair into your price negotiations.

- Look carefully for evidence of rust. This may be clearly visible. A tell tale sign is paint bubbling. Look around the rear number plate lights, the rear hatch fixing wells, rear edges of the sills and the door bottoms. Run a small magnet over the body looking for filler. This might be found by the door handles if the car has been broken into. Factor bodywork repair into the price negotiations.
- Cabin trim and carpets and mats should be intact and seams should be tight. The



Buying Tips Continued

seats should be in good condition. Seat seam splits can be repaired.

- Seat fabric tears or burns may mean new seat covers. Factor repairs into price negotiations.
- Seat adjustment should work properly. The seat arm rest hinge should work properly.
- The seatbelts should be in good condition.
- The gaiter covering the gear lever should be in good condition and not split.
- If the steering wheel is in bad condition then repair may be £100-150.
- Check the operation of all instruments, switches and handles, including door handles and the heated rear screen. Sticking or non-operational items will need repair.
- The door open limit straps should be present.
- Look out for cracked window seals.
- Flaking paint on the upper inside of the glass hatch can be easily repaired with black enamel paint.

BONNET AND BOOT

- Check that the lids open readily and are held on their support struts.
- Check for battery acid leakage. If the battery tray is holed then water can get into the fuse box underneath it.
- Check for paint stickers and factory information stickers in the boot and bonnet. If they are not there then it indicates paint respray which indicates accident damage. Check the service history for the paper trail.
- Have the steering wheel wiggled vigorously and check for play in the steering joint inside the bonnet. It's expensive to get this repaired.
- Look at the boot floor condition and spare wheel well condition by lifting the carpets. If there is ridging here then suspect a rear end collision.
- The spare wheel, jacking tools and wheel brace should be present in the boot.
- The towing eye should be present.
- If a space saver spare wheel is fitted then a compressor, a working compressor, is needed.
- The luggage cover should be present and correct.

WHEELS

- Uneven tyre wear, particularly at the front, indicates wheel alignment problems.
- Check that the brakes are not binding and that brake discs do not have a lip. Negotiate a replacement cost if they do.
- Check the condition of the wheels. If they have been extensively kerbed then they will need replacing.
- If locking wheel nuts are fitted verify that the key is present (and that you get it if you buy the car).

TEST DRIVE

These cars can be quite old and there can be lots of odd noises encountered during a test drive. It's a good idea to have a 924 owner along with you if you are new to the car and then 'ordinary' noises can be better discounted. Cars approaching or past 100,000 miles can be expected to have failing components. It's best to detect these as some, like a torque tube replacement, can head towards a thousand pounds.

- If the engine vibrates quite heavily when idling but the vibration goes away as the revs rise then suspect failing engine mounts.
- If you find it hard to change gear on a 924 S and the car 'kangaroos' after a change then suspect that the rubber centre of the clutch is failing.
- A whine from the rear of either an automatic or manual car could indicate a replacement torque tube is needed.
- If you hear 'clonks' when turning corners suspect suspension problems.
- Pulling to one side during braking indicates brake problems.
- Start the car when cold. Do it again when warm. Early cars up to 1981 had a warm start problem due to fuel vaporisation. A non-return valve can be retrofitted and there are other fixes possible.
- Check for steering system play and wheel wandering. The front wheels shouldn't move without the steering wheel moving too.
- If test driving a turbo then see how the seller deals with the engine shut down after the test run. (Clue: it should be left idling for a few minutes to cool the turbo unit down.)

[Cont' from page 3] below the C-pillar. There is no grille at the front, just an integrated bumper with an air inlet below it.

US cars had aluminium energy-absorbing bumpers and side lights on the front wings. European cars were free of these additions.

SUSPENSION AND STEERING

Suspension is by McPherson coil spring strut (explanation and picture on page 13) and A-type arms. It is fully independent at the front. At the rear there are transverse torsion bars springing independent semi-trailing arms. (A lifting rear wheel attempts to twist the torsion bar which is fixed at the end opposite to the wheel.)

Steering is by rack and pinion.

WHEELS AND BRAKES

Brakes are power-assisted single caliper disks at the front and drums at the rear. Tyres were 185/70 HR 14 Dunlops on 6Jx14 rims, The wheels were 8-slot, 4-stud steel ones and the car weighed 2,380 lb.

CABIN

Since the clutch and 4-speed synchromesh transmission were at the rear, the cabin was divided in two by the transmission tunnel housing the torque tube which, in turn, housed the prop shaft. The rear seats fold flat for increased luggage space. The dashboard contains recessed tachometer, speedo and fuel/water temperature dials fitted with curved conical glass covers - quite distinctive. A centre console added oil pressure and temperature dials, and a clock. The steering wheel was slightly oval and mounted low down. Options included a sunroof, alloy wheels, air-conditioning, anti-roll bars and Touring packages.

DEVELOPMENTS

- A 3-speed automatic (Porsche's first, but actually a VAG unit) was offered from late 1976 for the 1977 model year in Europe and from March 1977 in the USA. This US automatic 924 got an 8.5:1 compression ratio and produced 115 bhp. A 5-speed dogleg (1st down and to the left) manual transmission option made driving more economical, lively and flexible.
- The US manual got its compression hike to 8.5:1 in

924 Championship Martini

A 1977 special edition commemorating Porsche's win of the World Championship of Makes. The body was painted white with a long triangular decal of red, white and blue stripes edging a central white area (Martini livery). There were white 8-hole alloy wheels, red cord seats piped in blue, red carpeting and a leather covered steering wheel. It was a vigorous distinctive design.

US Martini limited edition 924. Spot the added side indicator lights.



February 1977 and output went up to around 110 bhp. All US cars had catalytic converters and the California air injection arrangement was now no longer needed.

- In October 1978 4-stud alloy wheels became standard on all 924s plus cloth trim on the doors and better instrumentation. A 5-speed option was also announced. Road noise was reduced through suspension improvements. With these early cars Porsche was constantly working with the rear axle drive ratios to fine tune performance and economy. Porsche UK announced its Lux package (alloy wheels, headlamp washers, rear wiper, tinted glass).
- The 5-speed became standard equipment in the 1979 model year. A space saver tyre was used except in the UK. Standard equipment now included alloy wheels, tinted glass, vanity mirror and stereo speakers. The petrol filler cap was covered over giving the car a smoother look.
- In 1980 the 5-speed box changed from a dogleg design to the normal H-shape layout with 5th out and up to the right. US 924s got more power (c115 bhp, 10.5 secs to 60 mph) via altered cams, ignition timing and lower ratios on the final drive of the manual box. There were also Sport option packs in the USA with ventilated disk brakes, spider web

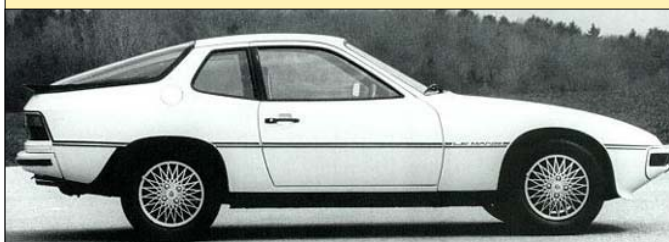
924 Doubloon

A 1979 50-car limited edition of pale gold metallic paint cars with shiny black alloy wheels and pinstripe tan cloth interior.

924 Le Mans

The 924 Le Mans limited edition of 100 cars was announced in September 1980. It featured 'spider web' alloy wheels, white body paint, a Le Mans side decal, black seats with white piping, Koni dampers and anti-roll bars, sunroof, Turbo 924 steering wheel and a chin spoiler plus rear spoiler. There were only 15 right-hand drive versions.

924 Le Mans with spider web wheels..



alloys and stiffer suspension components.

- European cars got an improved braking option; all-round disc brakes could be selected. The discs came from the 911 SC. This option entailed the car having 5-bolt wheels instead of the normal 4-bolt versions.
- August 1981 brought in improved trim and ventilation. Also all-round disk brakes became standard. There were halogen headlights and rear seat belts. In 1981 the 100,000th 924 was made.
- The optional rear spoiler became standard in 1983.

The 924 continued in production for 14 years in total, until 1988 when it was terminated. Before then two developments were announced: firstly the turbo; secondly the 924 S.

924 Turbo

The 924 Turbo was announced in October 1979 for the 1980 model year. It had stronger suspension and chassis, a rear miniature (compared to 911) polyurethane ducktail spoiler, front chin spoiler and ventilated disc brakes (Europe) or front disk/rear drum brakes (USA), unique spider web-spoked 5-stud alloy wheels and a dog-leg racing style layout Getrag gear box which was strengthened and given revised ratios.

The 2 litre engine had a new aluminium cylinder head to cope with higher temperatures and a KKK turbo-charger. A US Sport package had all-round disk brakes.

The body featured 4 air intakes above the front bumper giving the body a purposeful look, rear gravel

Driving Experience

Driving the 924 at the limit revealed a more forgiving car than either the 911 (rear engine/rear transmission) or the 914 (mid-mount engine/transmission). Once the 911's tail went, all that rear weight kept it going unless the driver was supremely quick in responding to the oversteer/spin transition.

The 914 was akin to a spinning top or skater in which the weight is concentrated near the centre of gravity of the spin and the driver again needs to be very, very sensitive to spin onset to control it. The 924 (and subsequent 928, 944 and 968) were more forgiving as the c50:50 fore-aft weight balance meant that spin onset was much more gradual.

Reviewers found the 924's road noise a bit high, also the engine was loud after 4,000 rpm. They thought top (4th) gear acceleration was a little slow. Economy was good at 25.5mpg overall. They liked the gear change, steering and handling but the ride could be rough.

guards, a 'Turbo' decal on the rear panel and a NACA air inlet duct (see box on page 12) on the engine lid (for cooling excess heat and so preventing turbo damage). In the cabin the steering wheel, gear knob and lever were leather-covered. The tyres were larger at 205/55 VR 15 Pirellis in the UK on 6Jx15 rims. The rest of the world had 185/70 VR 15 Pirellis. The car weighed 2,380 lbs.

European performance numbers (manual):-

Power	Torque	0-60mph	Top Speed
170 bhp	180 lbs-ft	7.3 secs	140 mph

Zero to 100 mph took just 17.9 secs. US performance numbers:-

Power	Torque	0-60mph	Top Speed
c143 bhp	147 lbs-ft	c8 secs	c130 mph

Zero to 100 mph took around 20 secs. The first 600 sent to the US had black and white op-art checkerboard Pascha seat covering. Reviewers loved its performance but thought that the 924 Turbo featured pronounced turbo lag and limited low end torque. You had to rev it fast to keep it charging.



Porsche 924 Lux cabin showing op-art Pascha upholstery and the prominent transmission tunnel.

- Disk brakes were standard in the 1981 model year. A revised turbo unit smoothed turbo onset, started it earlier and added more power. The breakerless ignition was replaced by a Siemens-Hartig digital set-up. Indicator repeater lights were added to the front wings. Performance:-

Power	Torque	0-60mph	Top Speed
177 bhp	184 lbs-ft	7 secs	143 mph
(c154bhp US)			

Zero to 100 mph took about 17.5 secs. There was a limited edition Turbo in the USA in 1981 which featured 7-slot flat face alloy wheels and vertical slots either side of the central air inlet below the front bumper. There was also a thin side rubbing strip applied to the body.

Manufacture ceased in mid-1982 after c12,000 sales.

924 S

In September 1985, the 924 S model was announced (for the 1986 model year) with a new 2.5 litre 150 bhp

engine derived from the 944, and 944 suspension, brakes, drive train and electrical system. It featured a 5-speed manual or 3-speed automatic transmission, disc brakes all round, telephone dial alloy wheels and different cabin decor. The automatic had power-assisted steering as standard. European numbers:-

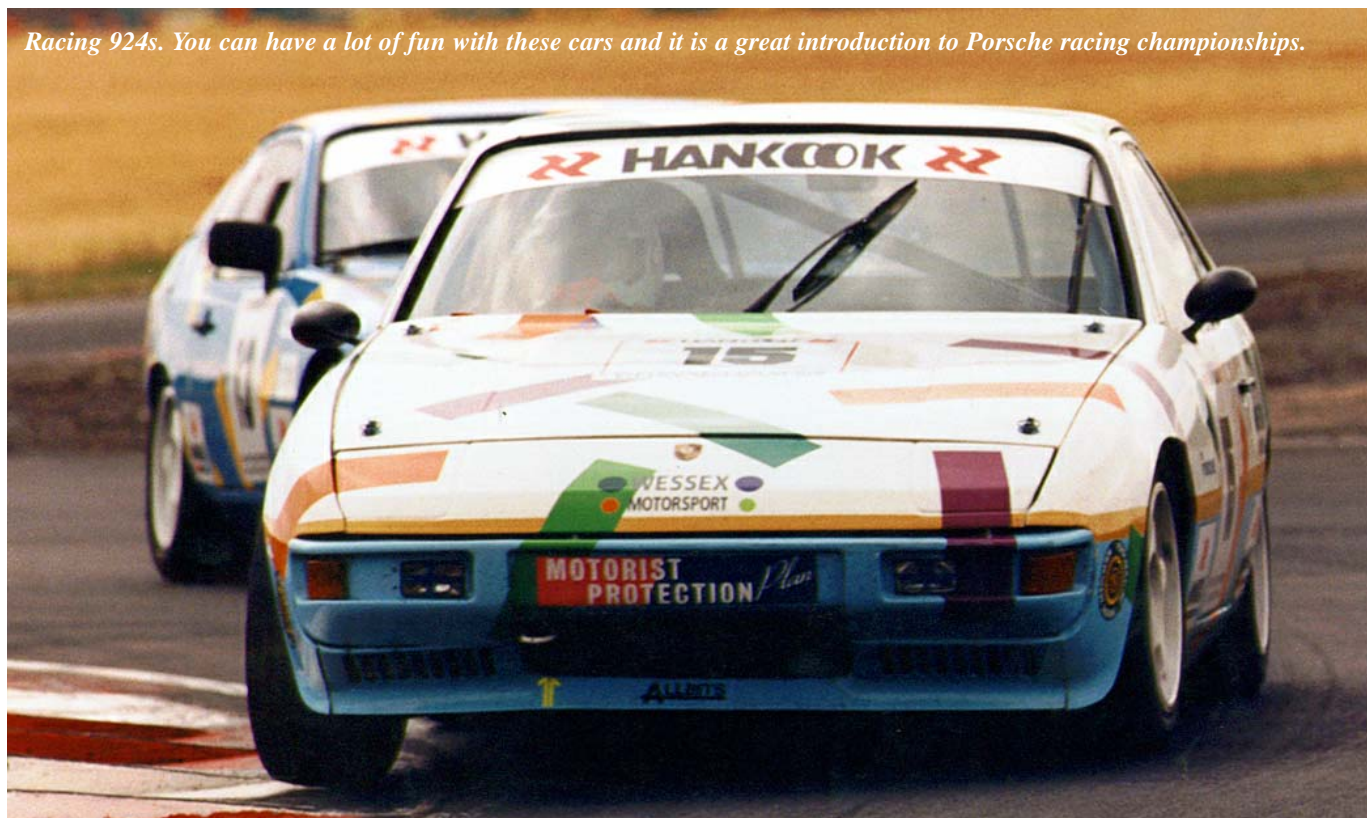
Power	Torque	0-60mph	Top Speed
150 bhp	c155 lbs-ft	7.4 secs	137 mph

Zero to 100 mph took 20.1 sec. This was quicker than the base 944! (That's partly because the 924 was aerodynamically more efficient.) The US engine though was less powerful:-

Power	Torque	0-60mph	Top Speed
147 bhp	c145 lbs-ft	8.3 secs	134 mph

Zero to 100 mph took about 23 secs. This 924 featured Bosch DME engine management instead of the K-Jetronic fuel injection. It had air-conditioning, electric mirrors, power steering and windows, and optional items like a limited slip differential, automatic transmission and electric sunroof.

Racing 924s. You can have a lot of fun with these cars and it is a great introduction to Porsche racing championships.



DEVELOPMENTS

- Minor 1987 model year changes: electric heated mirrors and electric aerial for other 924s. The 924S arrived in the USA in this year.
- The US 924S engine received a catalytic converter and gained 11 bhp.

Power	Torque	0-60mph	Top Speed
c158 bhp	155 lbs-ft	8.0 secs	137 mph

924 S Le Man Special Edition

A limited edition of 500 cars featuring special paint jobs and optional items included in the package. It was built in the, final, 1988 model year as an 'end of life sales kicker'.

Zero to 100 mph took around 21 secs.

Production stopped at the end of 1988 as Porsche sales slumped due to economic conditions.

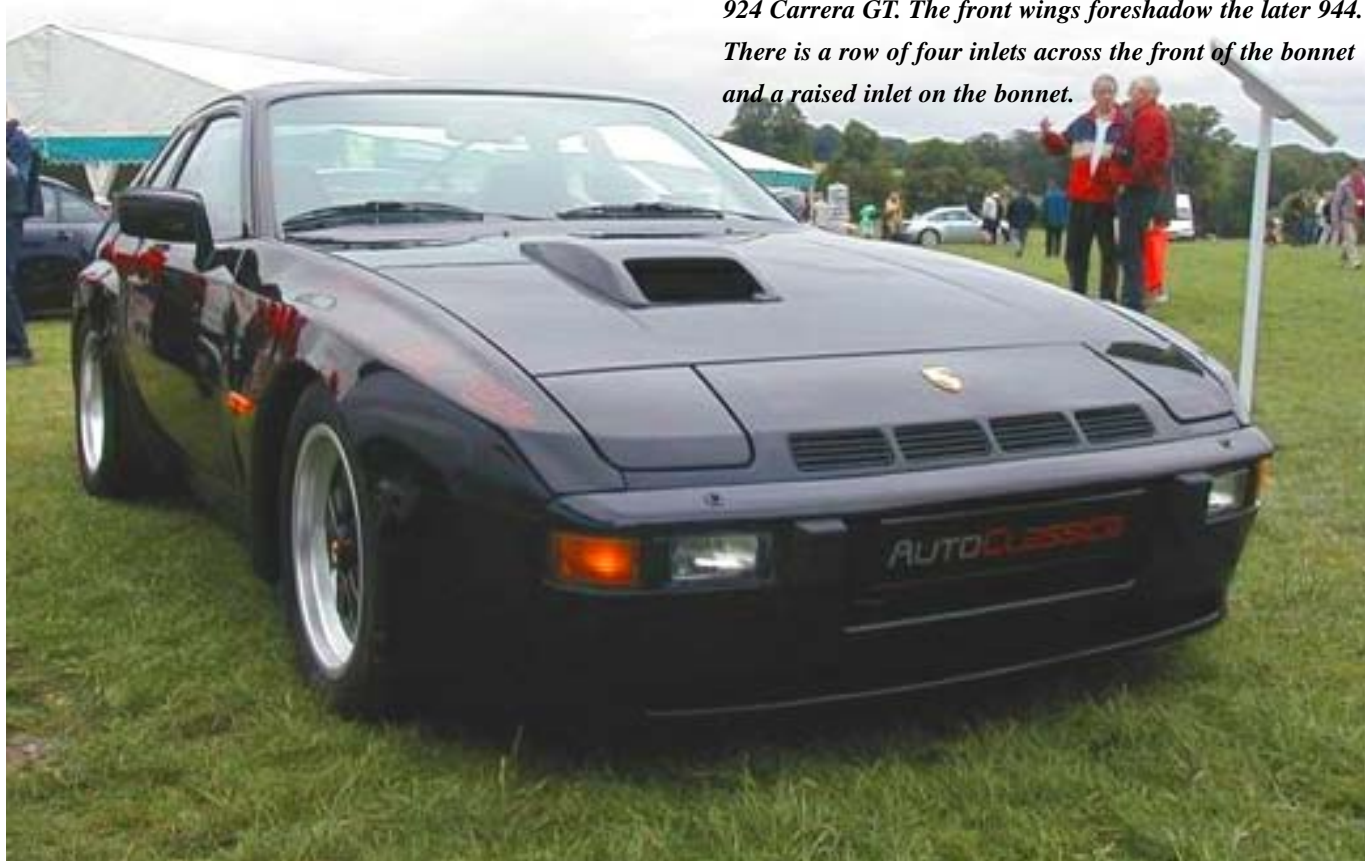
Which 924

One way of viewing the 924 range is as three cars. The basic 2.0 litre 924 is a lovely affordable Porsche which can cruise at high speeds yet is simple to maintain. The Turbo is a faster, more exciting car. The 2.5 924 S litre is the smoother mid-range car and preferred by many.

- The automatic 1977 924 accelerates fairly slowly.
- The 1977 to early 1979 cars (excluding Turbos) only had a partly galvanised body. The bonnet, [cont' p12]

A US 924 Turbo showing the four inlet vents above the bumper, the pair of side grilles below the side lights and the NACA engine air cooling duct at the top left of the bonnet.





924 Carrera GT. The front wings foreshadow the later 944. There is a row of four inlets across the front of the bonnet and a raised inlet on the bonnet.

924 Carrera Specials

924 CARRERA GT OR 924 TURBO CARRERA

The Turbo Carrera GT limited edition was available in 1980 with a better Turbo spec. The forerunner of the 944, featuring extended bolt-on rear plastic wing flares and front wing flares. About 400 were made, c75 for the UK. It was built as a homologation requirement.

There was a raised air inlet on the bonnet lid replacing the Turbo's inset NACA duct and an intercooler was added to the turbo unit. Wheels were 7Jx15 fitted with 215/60 VR 15 tyres. The car weighed 2,602lb. Performance details:-

Power	Torque	0-60mph	Top Speed
210 bhp	206 lbs-ft	6.5 secs	150mph

It took 16.7 seconds to reach 100 mph.

924 CARRERA GTS

Only some 60 examples of this 1981 special edition model were made. Wheels were 7Jx16 front with 295/55 YR 16 tyres and 8Jx16 rear with 225/50 VR 16 tyres. The car weighed 2,472lb, lighter than the Carrera GT. There was also a Club Sport version. Performance details:-

Power	Torque	0-60mph	Top Speed
245 bhp	c240 lbs-ft	c5.5 secs	155mph

(The Club Sport version took 5 sees to 60 mph and topped out at 160 mph.)

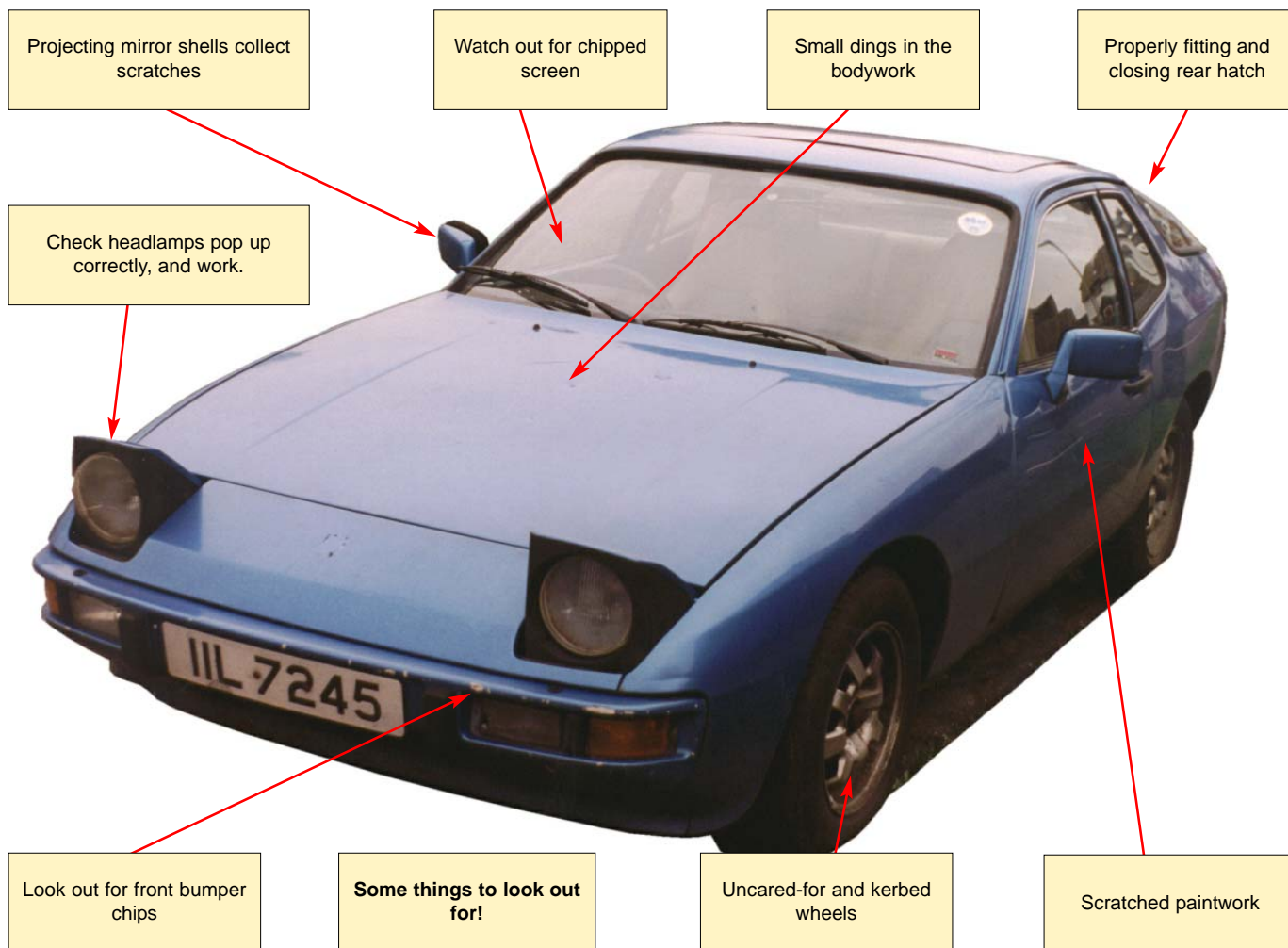
924 CARRERA GTR

Another very limited, limited 1980 edition, pictured below, with ventilated and cross-drilled disk brake rotors. It weighed just 2,084lb. The output was huge:



Power	Torque	0-60mph	Top Speed
375 bhp!	299 lbs-ft	<5 secs	180mph

The 100 mph mark was reached in less than 14 secs.



[cont' from p10] doors and wings were not galvanised.

- Beware with older sub £3,000 924s as the price of genuine Porsche parts can often be half the value of the car or more. Be prepared to source parts from alternative suppliers.
- Prefer a 5-speed over a 4-speed transmission. The

NACA Duct

NACA stands for National Advisory Committee for Aeronautics and is one of the predecessors of NASA. It defined ducts, amongst other things, in terms of airflow. The purpose of the duct is to increase the flow rate of air through it while disturbing the aerodynamic boundary layer around the opening as little as possible. If you increase the cross-sectional flow area of the duct, you decrease the static pressure and make the duct into a kind of vacuum cleaner, but without the drag effects of a plain scoop. This is the reason why the duct is very narrow at first, then suddenly widens in a graceful arc. It increases the cross-sectional area, but not so quickly that the airflow separates and causes turbulence and drag.

early 4-speed box has a cruder change.

- The 924 Turbo is a more desirable and powerful 924. The 1981 Turbo is smoother, more reliable and marginally more powerful than the earlier version. Prefer a car with a new turbo unit fitted within the previous 20,000 miles. (Also let it idle for a few minutes after turbo use so that it can cool under engine fan power.)
- The 924 Carrera GT looks different and is more desirable still.

Expect electrical relay problems as the cars age. Common ones are the fuel pump relay (car won't start) and cold start relay (... car won't start).

Prices

Coupés can be found in good condition for around £1500 from the early 80s. You won't get much car for this. In general buy as late a model 924 as you can afford. Lux models will be a couple of hundred pounds more with the gap increasing as the cars become less old.

Early Turbos will be around £2,500 but expect them to

have been driven hard. The 2.5S is similar at £2,000 and upwards. It is best to spend more to get a better car as you can then expect to save more on maintenance. Specials will cost a lot more with rare special editions treated as collectors' items and priced substantially higher.

Recent advertised cars and prices :-

- 1983 924 coupé, Gold, beautiful condition, new tyres and exhaust, huge sunroof, no expense spared, fun to drive, 73,000 miles £2,500
- 1984 924 Lux Le Mans, White, alloy wheels, momo gearknob, Momo steering wheel, Sony CD player, gearbox replaced recently, great condition, 102,000 miles £2,650
- 1980 924 Turbo, original Apline White, Guards Red skirt, 3rd owner, recon turbo cyl head, eng. mounts, clutch, brakes, exhaust, etc. MOT, 68,000 miles £4,600
- 1986 924 S, Guards Red, only 10k miles in past 6 years by lady owner, full history, 12 months MOT, excellent condition, esr, almost new tyres, 90,000 miles £2,950
- 1988 (E) 924 S, Maroon, beige interior, 3 owners, service history, new Continental tyres, belts, MOT, original tool kit, compressor, sunroof, bag, service & hand books, many new parts £3,250
- 1988 (E) 924 S Le Mans, 1 of only 37 produced in Black in RHD, lowered, sports suspension and seats, 6" rims front and 7" rear, esr/w/m/, rad/cassette, FSH, all bills, current owner ten years, featured in Peter Morgan's book, 146,000 miles £4,995
- 1981 924 Carrera GT, Guards Red, one of 75 RHD built, original condition, loads of history, offers, 48,000 miles £13,750

McPherson Strut



In this suspension design, pictured above, a wheel is fixed in position by a lateral control arm or wishbone and by a suspension strut and an additional tie rod. The McPherson strut connects the wheel hub to the car's body and has several functions: wheel suspension; limit wheel bump and rebound; attenuate vibration; and form a flexible link at the attachment point on the car body. Struts function in a manner similar to shock absorbers to improve the ride quality of the car. Technically a strut is a specific type of shock absorber. The advantages of this design include low weight and a space efficiency. It is named after its inventor, Earl S. McPherson, who invented this suspension system in the 1940s, and has been continually developed to become a standard layout for a large number of cars.

Porsche script running along the lower body of a 924 Lux.





Notes

1.) The information contained in this guide has been prepared to the best of our knowledge at the time of publication. As such it is provided in good faith but you should carefully consider any car purchase decision and we will not be responsible for any loss or damage you suffer having acted upon information contained herein.

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