

# Audi: A History of Inspired Technological Innovation.

## The 1984 Model Range



# Audi: Innovators in Engineering Since 1909

To drive one of today's Audi models is to experience the results of one of the world's most technologically advanced and inventive motor companies.

It is to experience standards of performance, economy, comfort and safety that will take other manufacturers several years to emulate.

Yet for Audi, building cars which incorporate the most advanced technology has been a way of life since the Company's formation in 1909.

sholds of automobile design and construction is an accepted standard of Audi's pedigree.

By actually designing the new 100 in the wind tunnel, Audi have succeeded in styling a car with a drag co-efficient of only 0.30, which means in plain English, 30% more aerodynamic than the average saloon car. As the most aerodynamic production car in the world, the new Audi 100 confirms the spectacular advances Audi engineers are making in aerodynamic

out impairing performance, yet maintaining the same standards of safety. Audi engineers tackled the problem in their own innovative manner – and were alone in creating engines which could give six cylinder performance with four cylinder economy, without



The new Audi 100. The most aerodynamic production car in the world.

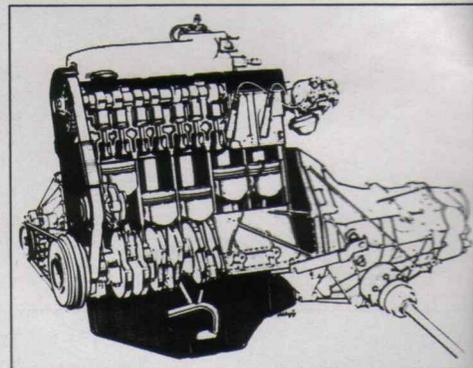
In fact one of our earliest developments was front-wheel drive. It may not seem much today, but we first produced front-wheel drive cars 50 years ago. Like so many of the best ideas it was so simple that few people recognised it. And yet today it is an engineering principle adopted by major motor manufacturers throughout the world.

Now, in the 1980s, Audi stand alone in perfecting the application of a permanent four wheel drive system in high performance cars – The Quattro and 80 Quattro.

But establishing new three-

design, styling a range of vehicles so aerodynamically efficient that they will establish new drag co-efficient thresholds and dramatically influence the shape of styling to come.

But wind cheating aerodynamics is but one of those fundamental elements determining performance and low fuel consumption. With petrol prices continuing their upward spiral – in December 1973 a gallon of four-star petrol cost a mere 42p, 10 years later and that price has quadrupled – the problem presented to each car manufacturer was how to achieve maximum fuel economy with-



The powerful 5 cylinder 2.2 litre fuel-injected engine.

reducing car size and passenger comfort. Audi technology created the remarkable five cylinder engine.

Not resting on their laurels, Audi engineers then researched the most fuel efficient means of extracting even greater performance from their unique engine: Turbo-charging. The turbo-charged cars manufactured by Audi today convincingly demonstrate that the days when increased performance could only be achieved at the expense of greater cubic capacity or more cylinders have long since gone.

Lightweight body construction is another element crucial to the performance – economy equation. Years ago Audi recognised the need to discard the out-dated heavyweight approach and developed vehicles with substantially improved power to weight ratios. Under no circumstances did this more efficient distribution of weight involve cutting corners on materials or reducing the car's integral strength. On the contrary, it merely reflected Audi's search for an even greater appreciation of the interrelationship of design technology to gain a more profound understanding of the selective and economic deployment of materials.

This research has enabled Audi to build cars with safety-conscious structural designs which allow kinetic energy to be transformed into potential deformation energy in the

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80 CL:	1595 cc, 4 cylinder carburettor engine, 75 bhp	100:	1781 cc, 4 cylinder carburettor engine, 90 bhp
80 GL:	1781 cc, 4 cylinder carburettor engine, 90 bhp	100 CC:	2144 cc, 5 cylinder Fuel Injected engine, 136 bhp
80 CD:	1994 cc, 5 cylinder Fuel Injected engine, 115 bhp	100 Turbo Diesel:	1986 cc, 5 cylinder turbo-charged diesel engine, 87 bhp
80 Turbo Diesel:	1588 cc, 4 cylinder turbo-charged diesel engine, 70 bhp	100 Avant CC:	1781 cc, 4 cylinder carburettor engine, 90 bhp
80 Sport:	1781 cc, 4 cylinder Fuel Injected engine, 112 bhp	100 Avant CD:	2144 cc, 5 cylinder Fuel Injected engine, 136 bhp
80 Quattro:	2144 cc, 5 cylinder Fuel Injected engine, 136 bhp with permanent four wheel drive.	100 Avant Turbo Diesel:	1986 cc, 5 cylinder turbo-charged diesel engine, 87 bhp
Coupe GT	1994 cc, 5 cylinder Fuel Injected engine, 115 bhp	200:	2144 cc, 5 cylinder Fuel Injected engine, 136 bhp
Coupe GT	2144 cc, 5 cylinder Fuel Injected engine, 130 bhp	200 Turbo:	2144 cc, 5 cylinder Fuel Injected turbo-charged engine with inter-cooler, 182 bhp
		Quattro:	2144 cc, 5 cylinder Fuel Injected turbo-charged engine with inter-cooler, 200 bhp with permanent four wheel drive

event of a collision.

Our development engineers at Ingolstadt were the first to apply computerised techniques in the calculation of weight-optimised structural designs. This has made many profound discoveries in the search for a more favourable distribution of

tation, the springing on each car is correctly harmonised between front and rear axles to prevent pitching. The result is a safer, more balanced drive with the car remaining in full control of the driver.

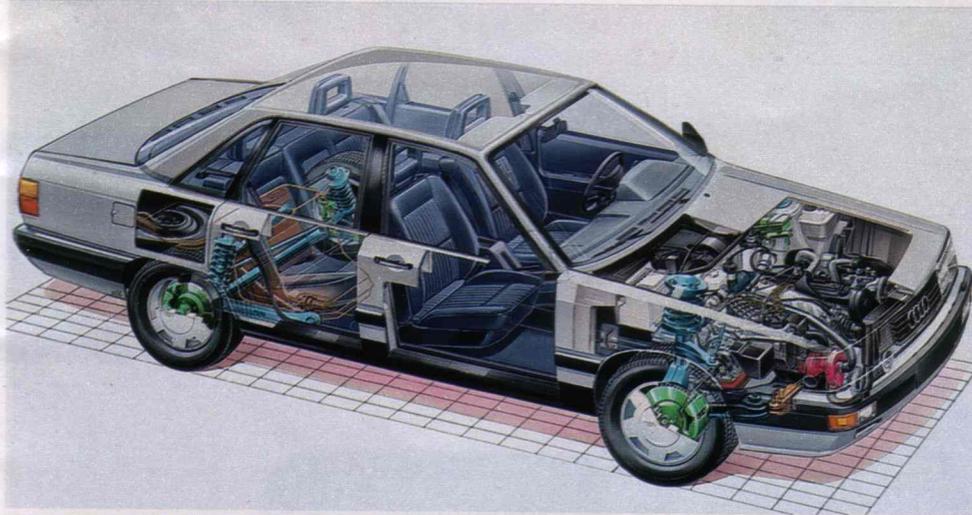
Audi engineers have always been obsessed with safety, and all cars

up in a straight line when a tyre bursts. Also, all Audis are equipped with a diagonally linked dual-circuit braking system.

In the highly unlikely event of one circuit failing, the braking pressure is evenly distributed between the diagonally opposite wheels. However, should the worst happen and an accident occurs, every Audi incorporates passive safety features designed to withstand and absorb impact energy. The passenger compartment is surrounded by a rigid steel safety cell, and the front and rear of the car are designed to collapse progressively in a collision, thus absorbing impact energy.

The entire interior of the passenger compartment is designed with safety uppermost, and the steering column has a flexible mesh element so that it collapses under impact.

Audi then, possess a unique pedigree of automotive firsts. The engineers, not content to rest on their laurels, are now incorporating 1990s technology into standard production cars today, and the computerised digital display instrumentation on the Quattro's dashboard is but further evidence of their inspired innovative thinking.



The remarkable chassis and suspension design ensures that the new 200 runs smoothly, quietly and safely.

weight. These discoveries are incorporated in each and every Audi built today.

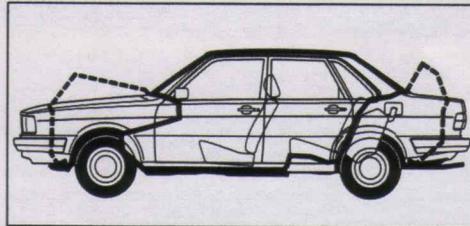
Over the last 50 years Audi have developed and improved their front wheel drive system to the point where it is now acknowledged as one of the finest systems in the world. On the road, Audis convincingly demonstrate that the directional stability of a car powered by the front wheels is far superior to one powered by its rear wheels. The Audi FWD system makes the car less susceptible to side winds and, indeed, among single axle drive systems, makes it almost unbeatable on wet surfaces.

As the engine is mounted over the drive axle, its weight gives maximum front wheel drive adhesion and ensures that each Audi delivers optimum fore and aft stability in straight line driving, and superb road holding when cornering.

Unlike many, we at Audi believe that constant innovation is the only approach to designing and building cars, and the new 100 is a supreme example.

By building our cars around a long wheelbase and wide track, drive stability is assured. And, as a result of extensive Audi experimen-

incorporate active and passive safety features which together combine to make an Audi one of the safest cars on



The rigid steel safety passenger compartment.

the road. Built into each car is a feature – negative roll radius – specifically designed to help keep the car in control in the event of a tyre blow-out. This is due to the steering and suspension geometry which, coupled with front wheel drive, helps the driver pull



The Audi Quattro. World Rally Champion 1982.

The Audi 80: from turbo-diesel engine,  
to permanent four wheel drive



When it was launched, the Audi 80 was voted Car of the Year in six countries. Since then, it has become Audi's best selling car and one of the most advanced diesels in the world.

Its combination of performance and economy has finally put paid to the commonly held belief that impressive fuel consumption can only result from mediocre performance. Like every model in the successful 80 range, the Turbo Diesel offers the expected standard of Audi comfort, with a sumptuous interior giving plenty

of space for heads, legs and luggage. Audi's innovative engineering has also cut fuel costs on petrol engines. The 80 GL, for example, is equipped with a revolutionary stop/start system. Put this with the new 1.8 litre, 4 cylinder engine which offers improved torque characteristics and enhanced all round performance (over 50 mpg at 56 mph), add a 5 speed economy gearbox, electric windows and central locking and you have an economy car with indulgent overtones.

But if the GL is considered too economy conscious, there's an 80 mean on creature comforts... and performance. The Audi 80 Sport. Although fitted with the same engine as the GL, this time it's fuel injected, and that extra power is delivered to the wheels via a 5 speed sports gearbox, to take the 80 Sport away from the competition.

But if absolute luxury is of necessity, the lavishly equipped fuel injected, 115 bhp, 5 cylinder 80 CD provides the answer. Power assisted steering, steel

sunroof, electric windows... the full specification is totally comprehensive.

Finally, for those looking for out of the ordinary performance, there's the sensational 80 Quattro: the most advanced four wheel drive saloon car in the world.

The 80s hold a great deal more for you than you may know, that's why it's become our best selling car.



# Audi 80 Sport: a car to celebrate Audi's success in motorsport



The name Audi Sport has become synonymous with a rally programme which in 1982 was exceptional with the remarkable four wheel drive Quattro clinching the World Championship of Makes for Audi.

When one considers that the same engineers that developed the Quattro for rallying are responsible for designing each Audi model built today, the cars are, understandably, quite outstanding!

The Audi 80 Sport from the successful Ingolstadt stable is rather special, it's rather individual, and yet it's both practical and economical. Powered by a well-proven,

1.8 litre fuel injected 4 cylinder engine, the 80 Sport offers fine saloon car accommodation, with four doors plus a huge boot. Despite its ability to comfortably carry five adults, its overall performance and handling are quite superb.

The Audi 80 Sport's top speed is 115 mph. The five speed close ratio gearbox takes it up to 50 mph in a mere 6.3 secs, with 60 mph only another 2.9 secs away. Yet this performance doesn't incur fuel consumption penalties. A cruising speed of 75 mph can return nearly 36 mpg, whilst over 45 mpg can be expected while touring at 56 mph.

With a 15 gallon fuel tank on board, a driving range in excess of 680 miles is feasible — incredible for a performance car.

Externally the Audi 80 Sport has clean lines, devoid of side mouldings and chrome trimmings. Its four special paint finishes — metallic black, metallic silver, white and red — being offset by black window frames and a full width boot spoiler. Six inch alloy wheels shod with low profile tyres, coupled to precise rack and pinion steering, combine to provide positive response and precise feel on the road.

The design of the interior compartment strikingly comple-

ments the external treatment, with door panels and seats upholstered in a black cloth with distinctive silver stripes. Auxiliary instrumentation — an oil pressure gauge, oil temperature gauge, and voltmeter — together with a 4 spoke steering wheel provide the necessary information at a glance, and a reassuring grip for rapid driving.

The addition of the 80 Sport to the model range reflects Audi's long term commitment to motorsport, which has traditionally been used as the test-bed for the innovative design and engineering incorporated as standard in every Audi built today.



# Audi Coupe GT: 2.0 and 2.2 fuel injection. Fast or very fast but with saloon car comfort.



Coupe. The word implies elegant styling and spectacular performance. Also, by definition, it suggests a cramped interior, limited luggage carrying capacity and prohibitive running costs. But not so in this case. For all its sleek lines, the Audi Coupe is a full 5 seater that has very little in common with the 2 + 2 concept.

Five full grown adults can travel inside with the comfort they'd

enjoy in a large saloon. The back seats are real seats, with more than enough leg room, shoulder room and headroom. There's a 15½ cu. ft. boot to accommodate all their luggage and both models – the new 2.0 GT and the 2.2 litre – are remarkably fuel efficient, achieving for example 46.3 and 38.2 mpg respectively at a steady 56 mph.

In every other way, though, the Audi Coupe retains the tradi-

tional sports car attributes. The 115 bhp with the new fuel injected 2.0 litre engine can reach 60 mph from rest in 9.9 secs, and has a top speed of 116 mph. The 2.2 litre model is more potent. Powered by a 130 bhp, 5 cylinder, fuel injected engine it goes from 0–60 mph in 9.1 secs and accelerates on to 122 mph.

Like all Audis the Coupe is front wheel drive, equipped with the most advanced and sophisti-

cated safety features, such as a stabilised steering and braking system with negative roll radius. Refinements too, are not forgotten. Electric windows, power assisted steering, central locking are all standard. And on the 2.2 litre model there's even a steel sunroof.

Audi's philosophy is that you should enjoy the Coupe in every conceivable way. All five of you.



# Audi 100. Car of the Year 1983.



By actually designing the new 100 in the wind tunnel, Audi have succeeded in styling a car with a drag co-efficient of only 0.30, which means in plain English, 30% more aerodynamic than the average saloon car. But not only is the new Audi 100 the most aerodynamic production car in the world, it is one of the most strikingly original and elegantly styled seen for years. With such streamlined styling, it achieves remarkable savings in fuel consumption, making it the most economical car in its class. Such

fuel efficient performance makes the new Audi 100 the ideal car for long distance motoring. Its effective driving range is particularly attractive – in excess of 625 miles on one full tank – providing, of course, that your driving is not too spirited. Three extremely economical engines are at the heart of the matter: the 90 bhp, 1.8 litre unit for the Audi 100, the 136 bhp, 2.2 litre engine in the Audi 100 CC and finally, the 87 bhp 2.0 turbo-charged diesel option. All versions of Audi's well-proven and

reliable family of engines. And yet the incredible savings achieved in fuel consumption are not to the exclusion of performance. The 136 bhp engine takes the CC from a standing start to 60 mph in a mere 10.3 seconds, and on to a top speed of 125 mph. Audi, then, have achieved the unique distinction of producing a car which effectively combines the elements of sheer power and fuel economy. And this in a vehicle which offers outstanding space and seating comfort, un-

matched by any other competitive vehicle. Like the Quattro before it, the new 100 challenges the conventional standards of automobile design and construction, establishing new thresholds of all round performance within the luxury car segment. And the fact that it has been acclaimed as Car of the Year 1983 merely confirms Audi's position as the industry's pioneer of innovative engineering.



The most versatile Audi ever.



Avant — a new model from Audi again challenging conventions in estate car design. The evolution of the traditional estate car has led to square backed load carriers, familiar for commercial and recreational use.

The new Avant begins where traditional styling ends; its unique rear end shape helps to give it a drag coefficient of 0.34, an efficiency shared with the advanced Audi 100.

A new rear suspension has been designed to combine excellent ride comfort and good road holding even with a full load. Front

wheel drive and carefully chosen front suspension rates with the benefit of Audi's long proven negative roll radius steering system, give the Avant exceptional stability in ordinary driving.

Versatility is an Avant byword; its 28.7 sq.ft. load area and 74.9 cu.ft. volume add up to one of the largest carrying capacities available. A tailgate opening down to the back bumper and a maximum loading width of 3'10 ins make large cumbersome items easy to load. For even more flexibility the rear load area can be converted to a

number of passenger/load combinations, by folding down the split rear seat.

Engine choice is wide; the well equipped CC with 66 Kw, (90bhp) 1.8 litre four cylinder, has both performance 0—60 mph; 12.8 secs, yet amazing economy, 50.4 mpg at 56 mph and a top speed of 108 mph.

The Avant is also available with the highly efficient 5 cylinder, 64 Kw (87 bhp) turbo-charged diesel engine, almost as fast as a petrol equivalent, with a 0—60 mph of 13.6 secs, and a top speed of 105 mph. Fuel consumption is

a phenomenal 38.7 mpg at 75 mph and 55 mpg at 56 mph.

For power and luxury the CD says it all; the familiar 100 Kw (136 bhp) five cylinder fuel injected engine gives a top speed of 122 mph. The CD boasts self-leveling suspension, electric sunroof and windows, power operated mirrors and metallic paint as standard.

With power steering and central locking on all models the Avant range is the most advanced and radical multi-purpose vehicle now on the market.



Audi 200: technology, luxury  
and performance.  
Fuel injected or turbo-charged.



The Audi 100 won the award "Car of the Year 1983", its powerful and luxurious sister (introduction Sept. 1983) the Audi 200 Turbo has already been labelled as one of the fastest production saloons in the world.

Built to combine exceptional comfort, performance and an advanced specification, the Audi 200 Turbo succeeds in making fuel savings of up to 15% at 75 mph, and as much as 20% at 94 mph while cruising. These advances are due to the 0.33 drag co-efficient of the body shape which is common with the Audi 100.

There are two versions of the Audi 200 — both with powerful

5 cylinder engines. The first is a second-generation 2.2, turbo engine of 135 Kw (182 bhp) and is responsible for the 143 mph top speed. Improvements to the engine are directly attributable to the Quattro style intercooler and the electronically controlled ignition. This increased power with the superior aerodynamics give the 200 Turbo its spectacular performance. It manages 0-60 mph in 8.2 seconds and yet returns 40.9 mpg at a steady 56 mph. More realistically, the 200 is likely to be driven nearer 75 mph, even then it is still good for 31.7 mpg.

Both 200 Turbo and the 200 with the familiar 100 Kw (136 bhp)

engine share an enviable specification. Power steering, hydraulically boosted 4 wheel disc-brakes and alloy wheels, make a superior package for rapid driving.

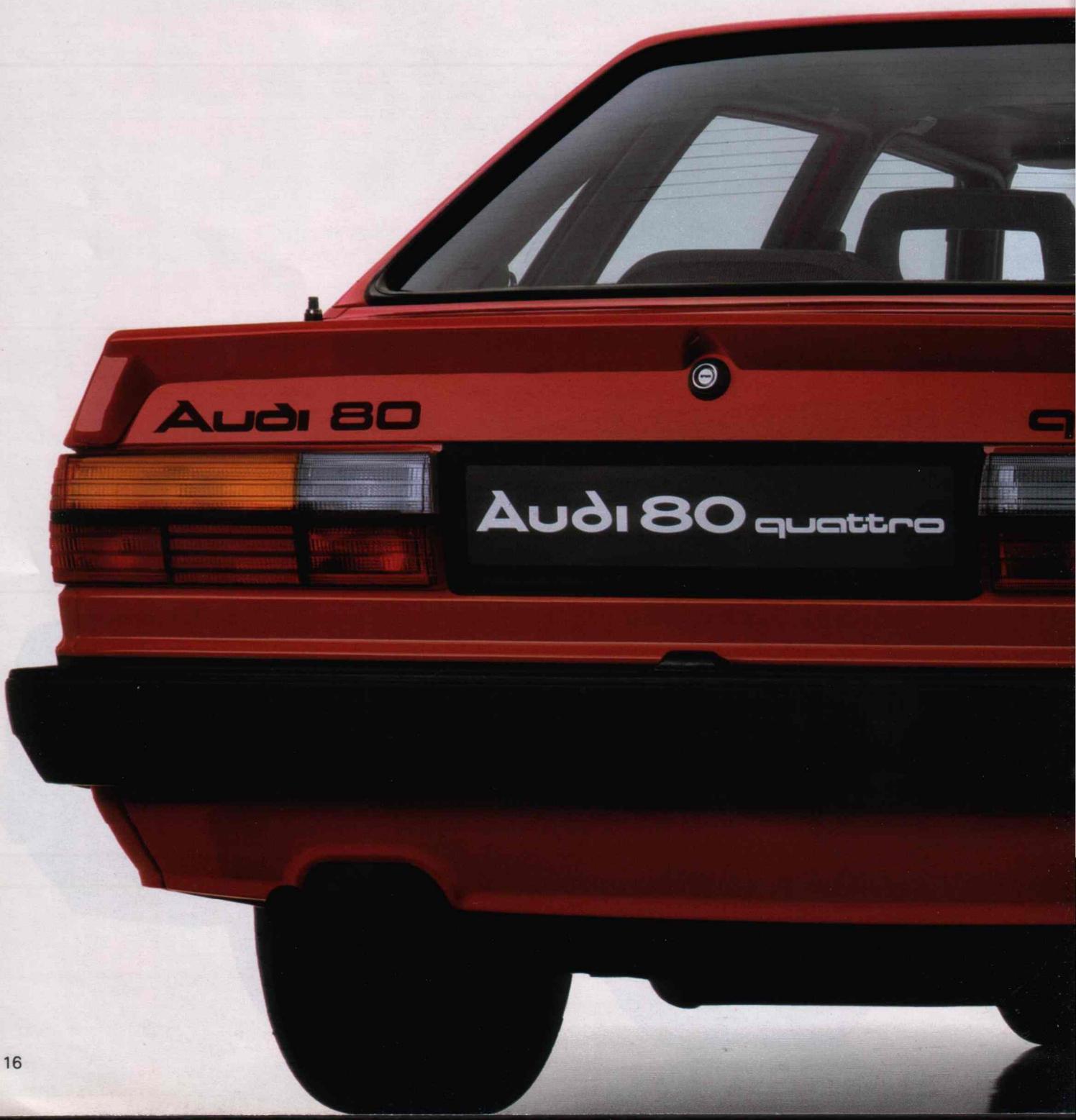
External elegance is the confirmed theme for the interior, which is trimmed in limousine-style velour. Notable luxury equipment for both versions includes tinted glass, power operated windows and electrically operated mirrors and sun-roof. Turbo models have the latest Audi designed automatic air conditioning and an anti-lock braking system as standard in their specification.

As flagship for Audi, the 200

range provides one of the most complete and technically innovative cars available. Designed for considerable performance and natural comfort whilst forfeiting little for a car of large dimensions. One motoring writer has summed up his thoughts on the 200 in direct terms. "If you want some advanced technology parked in your garage, and a car that will make you happy every time you turn the key, Audi is the place to put your order. It is not often that a car will put you a whole generation out in front of everybody else".



# Audi 80 Quattro: The most advanced four wheel drive saloon car in the world



Audi currently stand alone in perfecting the application of a permanent four wheel drive system in a high performance car. Not only did the Quattro represent a technological masterpiece offering a totally unique driving experience, but it has proven to be one of the most significant developments in automobile design and engineering in the past decade. Whilst a simple enough engineering concept and one which helped clinch the 1982 World Rally Championship for Audi, 4WD has always proved difficult to put into practice in exclusive high performance cars and volume production models. To date, the Audi Quattro has remained the only vehicle so incredibly advanced. Now, with

the arrival of the 80 Quattro, Audi's position as the industry's pioneer of innovative design and engineering has been further enhanced, confirming they alone have the technical expertise to incorporate 4WD technology into a standard production car. Despite the extra weight of its transmission components the Audi 80 Quattro still weighs only 2623 lbs — reflecting the significant weight saving measures incorporated in the standard Audi 80 during its initial design stage. This lightweight construction, together with the power delivered by the fuel injected 2.2 litre 5 cylinder engine are the key factors determining the 80 Quattro's impressive power to weight ratio. And this power, efficiently trans-

mitted to a permanent 4WD system through a 5 speed sports gearbox, ensures that the 80 Quattro maintains the same exceptional performance standards so successfully established by its turbo-charged predecessor. Even with a top speed of 120 mph and acceleration from rest to 60 mph in just 9.1 seconds, the 80 Quattro is still amazingly fuel efficient: 34.0 mpg at 56 mph and 20.6 mpg around town — clearly illustrating the additional cost-saving benefits afforded by 4WD. But it is when road conditions are at their absolute worst, that the 80 Quattro's 4WD imparts outstanding standards of acceleration and road-holding. The same applies when tackling even more treacherous condi-

tions — climbing snowbound hills for example. With 2 stage differential locks permitting first the rigid connection of both front and rear axles and secondly the coupling of the rear wheels, power is effectively transmitted to the road surface. The Audi 80 Quattro will simply climb straight up, with minimal loss of traction and directional stability. With the 80 Quattro, Audi have skilfully engineered the marriage of an innovative drive train with a powerful, responsive engine — within the bodyshell of one of the most successful medium cars on the market today.



Audi Quattro. "... a marvel  
that re-writes the motoring rule books"  
(Car Magazine).



In 1980, the Audi Quattro was presented to the world's motoring press at the Geneva Motor Show. As the world's first and only four wheel drive, turbo-charged motor car its arrival caused something of a stir, stunning competitive manufacturers with its unique combination of roadholding, traction, handling and performance. Yet, Audi's philosophy has always been one of innovative design and engineering and the revolutionary Quattro merely confirms how progressive is their outlook and the measure of their ability. A four wheel drive transmission in a high performance car holds

several inescapable advantages: exceptional grip, balance and stability when either accelerating or braking, and cornering power which is almost beyond belief. When confronted with mud covered, wet or greasy surfaces, 4 WD imparts the same standards of acceleration and roadholding as conventional drive systems would on dry roads. The same equally applies when coping with even more treacherous conditions — climbing snowbound hills for example — as centre and rear differential locks can be set for even greater traction. Driving this unique transmission

is the familiar 2.2 litre fuel injected, 5 cylinder engine, but in this case turbo-charged and with an intercooled induction system. Developing 200 bhp, it powers the Quattro from 0–60 mph in a mere 7.1 seconds, and on to a maximum speed of 137 mph, firmly establishing the arrival of the Quattro within the supercar league. And yet, as with every Audi, the power delivered is not at the expense of fuel consumption: a creditable 34.9 mpg is achieved at 56 mph, and 27.4 mpg at 75 mph. This economy, together with a 20 gallon fuel tank, gives the Quattro a very substantial

driving range. In accord with the Quattro's advanced image it is the first of the Audi range to be fitted with new instrument technology. Replacing the conventional instruments, the new electronic digital instrument pack incorporates a computer and an audio check system. New switches, dashboard and binnacle are exclusive to the Quattro for 1984. In the words of AUTOCAR: "Getting back into an ordinary car feels like stepping back into the past".



Vehicles depicted in this brochure are European specification, left hand drive models. All vehicles supplied in the UK are right hand drive.

Due to a continuous process of modification by the manufacturer, some changes in specification may occur after the publication of this brochure. Kindly confirm specification with your authorised Audi dealer at the time of placing your order.

