

## TOTALLY NEW IMPREZA – AN ICON REBORN

**Totally new Impreza with roomier five-door body plus multi-link rear suspension for outstanding ride and refinement**

**All models boast improved fuel economy, torquier, more flexible 'boxer' engines and enhanced customer appeal**

**Iconic Impreza handling dynamics remain – now available to a wider audience**

**Naturally-aspirated Impreza 1.5R and 2.0R and RX on sale from September '07**

**Limited supply of 2.5 WRX turbo in November**

**Range-topping WRX STI turbo due in spring '08**

**All-wheel drive range starts from an incredible £12,495 on-the-road**

**Unbeatable standard equipment includes: AWD with dual-range low-ratio transfer 'box, alloy wheels, climate-control air-conditioning, radio/CD player, height and reach steering wheel adjustment, foglamps, front and rear electric windows, driver, passenger, side and curtain airbags plus vehicle information display**

Subaru's eagerly-awaited new Impreza goes on sale in September, offering all its traditional strengths of outstanding handling and active safety thanks to symmetrical all-wheel drive but in a new, more practical package.

And while performance fans will still be catered for early next year when the range-topping, turbocharged WRX STI arrives, the initial emphasis is on the new 1.5 and 2.0 litre models aimed at a much wider audience.

Both enjoy enhanced fuel economy and driveability thanks to improved 'boxer' engines which – having their cylinders horizontally-opposed – give the car a lower centre of gravity for improved grip, reduced body roll and more agile steering response.

This is further aided by the engine and transmission now being placed almost 0.5 ins (10 mm) lower in the platform.

Most models are lighter than their predecessors and enjoy improved aerodynamics – down from 0.36 to 0.34 for the 1.5R, for example.

All new Imprezas share a five-door body which is shorter and wider than the previous Sport Wagon and offers substantially improved interior space thanks – in part – to a 3.7 ins (95 mm) longer wheelbase.

Interior width is around 2 ins (45 mm) greater, while a compact new multi-link rear suspension allows boot space to grow by a substantial 6 cu. ft to 19 cu.ft (538 litres) with the rear seat upright.

Subaru's aim is to compete more directly in the European market with rivals such as the Honda Civic, VW Golf and Mazda 3 while offering the added safety and traction advantage of symmetrical all-wheel drive.

And in Japan – where the new five-door Impreza was recently introduced – sales were a staggering 3,829 units in the first week alone. This represents 150 per cent of the planned MONTHLY sales target.

The new Impreza's elegant, restrained design gives it a sporty stance with wide tracks, broad shoulder lines and subtle side body creases for a quality look.

Premium touches include a gas strut-assisted bonnet, LED (light-emitting diode) tail lamps, a flowing Tribeca-like fascia design, double-stitched seat cloth, metallic interior decoration and padded armrest cushions.

The instruments are also sporty thanks to their clear design and subtle lighting while the extensive vehicle information display includes a fuel consumption indicator highlighting the new Impreza's much improved efficiency.

**Affordable, Attractive Range**

The UK range goes on sale in September with the practical **Impreza 1.5R** costing an incredibly affordable **£12,495** On-The-Road. An automatic version is available for £1,000 more. The previous Impreza 1.5R – introduced for the first time towards the end of last year – proved such a success that stocks quickly ran out.

Standard equipment on the new 1.5R includes: AWD with dual-range, low ratio transfer 'box, 15 ins alloy wheels, climate-control air-conditioning, four-speaker radio/CD player, front and rear electric windows, reach and rake-adjustable steering wheel, front fog lamps plus driver, passenger, side and curtain airbags and a vehicle information display (trip computer).

Equally outstanding value is the new **Impreza 2.0R** – also available from September – priced at **£14,995** On-The-Road. Compared to the 1.5R, the 2.0 litre model adds: larger 16 ins alloy wheels, Subaru Vehicle Dynamics Control, windscreen-wiper de-icer, xenon headlamps and heated door mirrors. An automatic version is available for another £1,000.

The **Impreza 2.0RX** adds not only extra equipment but also body styling enhancements such as front and rear spoilers, side skirts, a chrome exhaust end-cap and a rear bumper diffuser. The alloy wheels are larger at 17 ins and interior upgrades include 'Smart Entry' with an engine push-start button and satellite-navigation.

Also standard is a leather-covered steering wheel and gear knob, cruise-control and a 10-speaker radio/single-disc CD system. The Impreza 2.0RX costs **£17,495 OTR** with an automatic version available for £1,000 more.

Meanwhile, sure to delight performance fans is a limited quantity of turbocharged **Impreza 2.5 WRX** models expected to become available during November. Prices will be announced nearer the time.

Standard equipment on the **Impreza 2.5 WRX** includes 17 ins alloy wheels, front and rear spoilers, side skirts, a rear bumper diffuser, leather-covered steering wheel and gear knob, a rear limited-slip differential with Subaru Vehicle Dynamics Control, 10-speaker, six-disc radio/CD player and xenon headlamps.

However the ultimate model will be the **Impreza 2.5 WRX STI** – due in spring 2008 when power, performance, pricing and equipment levels will be announced. This model will be visually more aggressive than the rest of the five-door Impreza range and will form the basis for the 2008 Subaru World Rally Championship entry.

### **New 1.5 Litre Engine In Detail**

Subaru has built an enviable reputation for reliability, long engine life and accessible performance through the design of its horizontally-opposed, all aluminium 'boxer' engines. This 'flat-four' layout gives a lower centre-of-gravity for enhanced cornering grip.

It is also ideal when mated to Subaru's standard symmetrical all-wheel drive system because of the engine's compactness, light weight and ability to connect with the AWD transmission in a straight line.

Now, the new 1.5 litre 'boxer' engine has been designed to offer strong low to mid-range pulling power, known as torque, while also having the ability to rev to high speeds for brisk overtaking.

So despite being the least powerful Subaru, the new Impreza 1.5R makes the most of its power and torque, providing comparable performance to most similar-engined lower-medium hatchbacks.

For example, top speed is 109 mph for the manual, with a 0-60 mph time of 13.7 seconds. Fuel economy is also respectable with 29.4 mpg on the Urban Cycle, 44.8 mpg on the Extra Urban Cycle and 37.7 mpg Combined – 2 mpg better than before. Exhaust emissions are also competitive at 176 g/km.

Power is now 107 PS (2 PS more) at 6,000 rpm and torque is 104.7 lb.ft at a low 3,200 rpm while the compression ratio is 10.1:1. However, the torque is greater at lower engine speeds than with the previous model, improving throttle response and flexibility.

As with all Impreza engines, the new 1.5 litre features twin overhead camshafts per cylinder bank

(DOHC) plus an Active Valve Control System (AVCS) which is a form of variable valve timing. This enhances both low-speed pulling power and high-rev response.

Also shared is an electronic throttle for more responsive acceleration plus centrally-located spark plugs, pent-roof combustion chambers and multi-point fuel-injection with an ignition coil for each cylinder.

Of special interest is the 1.5 litre's bore and stroke dimensions, selected to optimise combustion efficiency for low emissions and fuel consumption while providing strong power and torque. In fact, the new 1.5 litre shares its 79 mm stroke with Subaru's four-cylinder 2.5 litre turbo engine. Naturally, its bore dimension is a much narrower 77.7 mm.

Other efficiency measures include low-friction, lighter valve springs and a 4-2-1 equal length, 'constant-pulsation' exhaust system which avoids gas flow interference and speeds up the warm-up of the catalytic converter.

### **Ten-Speed Transmission/Symmetrical All-Wheel Drive**

As with the new Impreza 2.0R and RX, the 1.5R has a five-speed manual gearbox with a low-ratio, dual-range transfer 'box, effectively providing 10 speeds. Owners find this particularly useful when towing or covering difficult road surfaces as it provides extra engine-braking for greater control.

For the new model, the Impreza 1.5R has revised, slightly higher 2<sup>nd</sup>, 3<sup>rd</sup>, 4<sup>th</sup> and 5<sup>th</sup> ratios for improved high-speed refinement and enhanced fuel economy.

The symmetrical all-wheel drive system features a nominal 50/50 front to rear torque split. However, a centre viscous-coupling senses which axle has the best grip and varies this ratio in milliseconds according to the road surface.

This maximises tyre grip and handling accuracy, instilling confidence in the driver – especially on rain-soaked motorways or snowy country lanes.

### **New 2.0 Litre Engine In Detail**

The new Impreza 2.0R and RX enjoy substantial revisions to their 2.0 litre 'boxer' engines which result in stronger low and mid-range pulling power, enhanced flexibility and improved fuel economy with lower exhaust emissions.

And while power drops from 160 to 150 PS at the same 6,400 rpm, torque is 7.4 lb ft (10 Nm) greater, recording 144.6 lb ft at 3,200 rpm.

The result is an improvement of more than 2 mpg on the Combined cycle with the manual now recording 33.6 mpg and the automatic even better at 34.4 mpg. Urban and Extra Urban figures are 25.4 and 40.9 mpg for the manual and 25.4 and 43.5 mpg for the automatic.

Exhaust emissions are also down, now standing at 199 g/km for the manual (was 214 g/km) and 194 for the automatic (was 207 g/km).

The 0-60 mph time for the manual is 9.2 seconds while the automatic records 11.3 seconds. Maximum speeds have yet to be confirmed.

Common to all new Impreza engines are twin overhead camshafts per bank (DOHC), four valves per cylinder and an Active Valve Control System (AVCS) which is a form of variable valve timing. This enhances low-speed pulling power and high-rev power.

For the new Impreza 2.0R and RX, the combustion chambers have been redesigned for increased tumble gas flow, enhanced tow-speed torque and reduced fuel consumption. Also for improved efficiency are a revised intake system, cooling system and catalytic converters.

The new 2.0 litre four-cam 'boxer' engine retains the same 92 mm bore and 75 mm stroke as before but with a lower 10.2:1 compression ratio.

### **New 2.5 Litre (WRX) Turbo Engine In Detail**

The renowned 2.5 litre turbocharged 'boxer' engine fitted to the new Impreza WRX receives

meaningful revisions to improve efficiency and provide much gutsier throttle response in 'real world' driving conditions.

Maximum power for the standard WRX is an identical 230 PS to the previous model but now at a lower 5,200 rpm instead of 5,600 rpm.

Torque (pulling power) is also the same as before at 236 lb ft but now at a more accessible 2,800 rpm instead of 3,600 rpm.

Significantly, torque at 2,000 rpm is now 221 lb ft instead of around 150 lb ft. This translates into much livelier acceleration from low engine speeds and an effortless seam of power in everyday driving. Power is also considerably greater from idle until 3,500 rpm.

These major improvements have been achieved thanks to a new turbocharger and intercooler with the oil pump, sparking plugs and tumble generating valve all being revised for greater efficiency.

On the transmission front, 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> gears have been revised and despite the lower overall gearing – top now pulls 22.6 mph at 1,000 rpm instead of 23.5 mph – fuel economy is unharmed.

The new Impreza WRX also enjoys a 30 kg weight saving and lower drag coefficient of 0.35 Cd instead of 0.37.

It has an identical 0-60 mph time as the old model at 5.4 seconds. Maximum speed has yet to be confirmed.

Fuel economy is now 19.8/34.4 and 27.2 mpg on the Urban/Extra Urban and Combined cycles while the CO<sub>2</sub> emissions are 246 g/km.

### **Improved, Slicker-Shifting Transmissions**

All new Imprezas receive slicker-shifting five-speed manual transmissions, while the optional four-speed automatic gearbox is more fuel-efficient and offers the driver the opportunity to change gear manually during sportier driving.

The Impreza 1.5R now has a double-cone synchroniser for second gear giving a lighter change while a hydraulic clutch replaces the cable arrangement for smoother, quieter operation. In addition, the 1.5R has revised 2<sup>nd</sup>, 3<sup>rd</sup>, 4<sup>th</sup> and 5<sup>th</sup> gear ratios while the WRX has revised 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> ratios.

A four-speed automatic transmission provides smoother changes with greater sensitivity to the driver's wishes.

It is more efficient, saving fuel, because a slip lock-up device reduces wasted engine revs. In addition, advanced electronics – linked to an electronic throttle – match engine speed with the best gear for any given situation.

The standard low-ratio transfer 'box on manual Imprezas effectively provides 10 speeds. This is useful when towing or covering difficult road surfaces, providing extra engine braking – and therefore greater control – at low speeds.

As with previous models, the full-time all-wheel drive transmission features a 50/50 front to rear torque split on manual models and 60/40 on the automatic. However, the split varies according to changing conditions.

The manual Impreza has a centre differential with viscous coupling which senses which axle has the better grip and distributes torque accordingly to minimise the risk of wheelspin.

The Impreza 2.0R and RX plus the WRX benefit from Subaru Vehicle Dynamics Control as standard. This has previously only been available on certain automatic versions of the Forester and Legacy/Outback.

Subaru Vehicle Dynamics Control uses sophisticated sensors to detect side to side and front to rear slip plus sudden steering movements. It controls oversteer /understeer and potential loss of control

by braking individual wheels and cutting engine revs – all in milliseconds.

On automatic models, a similar function to the viscous coupling is carried out by Subaru's sophisticated Active Torque Split system. This employs electronics,

sensors and a multi-plate hydraulic transfer clutch. Again, on 2.0 litre models, SVDC is standard.

Finally, the Impreza WRX changes its previous viscous rear limited-slip differential to a mechanical one which reduces weight and improves fuel consumption.

### **Passenger And Pedestrian Safety Boost**

Both occupants and pedestrians are well protected by the latest Impreza thanks to a whole series of safety measures aimed at achieving the highest standards of both occupant and pedestrian safety.

Curtain and side airbags are now fitted to all models together with driver and passenger airbags. Front seatbelts have pre-tensioners, most models have anti-whiplash head restraints and all front seats have energy-absorbing backs.

The brake pedal is energy-absorbing, being designed to snap away under severe impact, protecting the driver's lower limbs. In the rear seat are two ISOFIX-compatible child seat mountings.

The passenger airbag is dual-stage which provides progressive protection matched to the severity of the impact and the standard anti-lock brakes (ABS) come with electronic brakeforce distribution (EBD). This juggles the braking force between front and rear wheels according to load shifts during deceleration. All Imprezas have front ventilated disc brakes and solid rear discs.

Outside, pedestrian injury is reduced thanks to a more rounded contour to the top of the front bumper, a gently curved bonnet and windscreen wipers which collapse, softening any impact.

High tensile steel of varying thickness is used extensively throughout the body, providing good crushability where needed while protecting the passenger area. Not only does the elimination of the previous Impreza's front subframe reduce body weight by 20 kg but the new structure better dissipates front impact forces.

### **Outstanding Ride Comfort Plus Precise, Interactive Handling**

A sophisticated all-wheel drive system coupled with low-friction, long travel four-wheel independent suspension and low-centre of gravity 'boxer' engines have all contributed to the Impreza's reputation for outstanding chassis dynamics.

Now for the new model, Subaru has devised a completely new platform with a 3.7 ins (95 mm) longer wheelbase, tracks widened by around 2 ins (50 mm) and a sophisticated multi-link, double wishbone rear suspension.

In addition, to further improve handling and roadholding, the position of the 'boxer' engine has been dropped by almost half an inch (10 mm), lowering the centre of gravity still further.

Other changes include a quicker steering rack with more rigid mounting and new design of MacPherson strut front suspension.

The result is a highly-absorbent ride with precise geometry control for accurate straight-line running over uneven road surfaces backed by extremely responsive steering and handling.

The rear multi-link, double wishbone suspension liberates more luggage space thanks to its compactness compared to the previous rear strut arrangement.

And because it is attached to a sub frame via bushes, with the mounting section moved to under the floor itself, road noise is reduced.

The rear springs and shock-absorbers are mounted behind the centre-line of the rear wheels, with the wheel stroke itself moving rearwards – all helping ride comfort. A rear anti-roll bar is fitted to the 2.0 litre Imprezas.

At the front, the previous sub frame has been eliminated, saving 20 kg in body weight yet a new

box-section for the front cross-member provides the same level of rigidity. In fact, the new Impreza WRX five-door is a full 30 kg lighter than the previous Sports Wagon.

The new MacPherson strut and anti-roll bar layout is based on that used by the highly-praised Legacy. It offers high lateral rigidity which improves steering response and cornering stability.

This is further enhanced by a new design mounting for the steering rack. Furthermore, special suspension bushes and attachment points reduce road shock.

The steering gear ratio has been changed from 16.5:1 to 15:1 for a sportier feel while the rack diameter is increased from 23 to 26 mm. The result is a more linear feel to steering inputs. A new variable capacity power steering pump is used throughout to improve fuel economy.

Wheel and tyre sizes have been optimised for each model's suspension setting with the new Impreza 1.5R running on 195/65 tyres mounted on 15 x 6 ins alloy wheels and the 2.0R having 205/55 tyres on 16 x 6.5 ins alloy wheels. Finally, the sportier 2.0RX and 2.5 WRX boast 205/50 tyres on 17 x 7 ins alloys.

### **Generous Warranty**

All Imprezas marketed by Subaru (UK) Limited come with the reassurance of a three year or 60,000 mile warranty plus 12 year anti-corrosion cover and three year paintwork warranty.

This is in addition to three years' membership of Subaru Assistance – a comprehensive home and roadside repair and recovery package throughout the UK and Europe administered by Mondial Assistance.

The new '08 Impreza Range is as follows: On-The-Road

1.5R AWD manual £12,495  
1.5R AWD auto £13,495  
2.0R AWD manual £14,995  
2.0R AWD auto £15,995  
2.0RX AWD manual £17,495  
2.0RX AWD auto £18,495  
2.5 WRX AWD manual £ TBA

Performance And Economy:

	<b>Top Speed</b>	<b>0-60</b>	<b>Urban</b>	<b>Extra Urban</b>	<b>Combined</b>
	<b>mph</b>	<b>sec</b>	<b>mpg</b>	<b>mpg</b>	<b>mpg</b>
1.5R (Man)	109	13.7	29.4	44.8	37.7
1.5R (Auto)	104	14.8	28.8	45.6	37.7
2.0R/RX (Man)	TBA	9.2	25.4	40.9	33.6
2.0R/RX (Auto)	TBA	11.3	25.4	43.5	34.4
2.5 WRX (Man)	TBA	5.4	19.8	34.4	27.2

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