Suzuki S-Cross Ultra ALLGRIP Full Hybrid – Road Test

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Author: Kim Henson

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Kim Henson test-drives the latest Full Hybrid all wheel drive ‘Ultra’ version of Suzuki’s S-Cross SUV, during a week of stormy weather…

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A well-respected model within Suzuki’s line-up, the practical S-Cross SUV has evolved

through the years and within the last 12 months there have been many changes.

Before looking in detail at the current examples of the S-Cross, on sale in Britain from October 2022, it is worth saying that today the firm has a ‘hybrids for all’ range, including (depending on the model chosen) 12 volt/48 volt ‘Mild Hybrids’, higher voltage (140 volt) ‘Full Hybrids’ and a plug-in hybrid (the A-Cross).

It is also useful and important to note that, as a company, Suzuki consistently performs well in U.K. customer surveys. For example, in a recent Institute of Customer Service survey, customer satisfaction ratings put the firm at No. 1 in the automotive sector, and within the top five companies within *all* sectors.

I should add that independent trade sources, as well as owners, consistently rate Suzukis for especially good reliability, over many years.

As covered in our various ‘first drive’/‘first impressions’ reports on Wheels-Alive, Suzuki has recently introduced their new 140 volt ‘Full Hybrid’ variants of the S-Cross, by contrast with the ‘Mild Hybrid’ versions which arrived in December 2021.

S-Cross recent evolution/perspective

The latest version of the S-Cross, available since October 2022, is built at Magyar, Hungary, and features Suzuki’s ‘Full Hybrid’ technology – the fourth of the company’s models to incorporate this.

The latest vehicle is similar in concept, body construction and appearance to the all-new S-Cross that arrived in December 2021. Compared with previous generation S-Cross models, the newcomer was developed to provide strong, dynamic exterior styling, as well as having greater interior space and practicality, also improved standard equipment and safety features.



There are significant technical changes under the skin of the new Full Hybrid versions (from October 2022), an example of which I have been road-testing for a week, in the shape of the Ultra ALLGRIP variant.

From December 2021 until October 2022 the S-Cross drivetrain incorporated a 1.4 litre Boosterjet (turbocharged) engine and 48 volt Mild Hybrid drivetrain (and it's important to say that this set-up continues in the latest versions equipped with a conventional manual gearbox).

By contrast, the new Full Hybrid versions, on sale in the U.K. from October 2022, are powered by Suzuki's efficient 1.5 litre K15C naturally-aspirated four cylinder engine, working in conjunction with a 140 volt power supply with EV (Electric Vehicle) mode. This

engine and 140 volt Full Hybrid set-up was first used on the Vitara earlier this year.



There is unusually good underbonnet space and petrol engine access – helpful for future maintenance.

The Full Hybrid variants are fitted with Suzuki's state-of-the-art six speed Auto Gear Shift (AGS) transmission, which essentially is an automated manual transmission (by contrast with a traditional automatic gearbox). The upper two ratios are both 'overdrive', i.e. lower than 1:1.

The transmission unit is much lighter than a conventional torque converter type automatic gearbox, and incorporates steering wheel mounted 'paddles' to enable manual ratio changes

to be made if preferred. That said, the transmission will happily change up and down through the ratios on its own in ‘automatic’ mode.

Two variants of the Full Hybrid S-Cross are available: The well-equipped front wheel drive ‘Motion’ is competitively priced at £26,749 and the range-topper ‘Ultra’ costs £31,549. This additionally features ‘ALLGRIP Select’ four wheel drive, 17 inch polished aluminium alloy wheels, leather upholstery, built-in satellite navigation employing a centrally-positioned 9-inch screen, and a huge panoramic tilt/slide sun roof. This special roof incorporates two individually sliding glass panels which have a combined length of 1,000 mm (just over three feet), and covering the front and rear seats. When the roof is open, the aperture is 560 mm (1.84 ft) long – said to be one of the largest in this class of vehicle.

The Ultra model also features a very effective 360 degree view camera system. This employs four cameras (to the front, rear and both sides of the car) to give the driver a clear view around the vehicle. Notable are a 3D opening view that allows the driver to check all around the car before driving away, and a ‘birds eye’ view to aid safer parking. There is also a high resolution view (that can be enlarged on-screen) and an automatic front-rear view display that changes according to the gear selected.

If you are considering any of the Suzuki models is worth noting that the firm’s pricing policy is straightforward and transparent; the only extra-cost option on the S-Cross is metallic paintwork, which costs £550 (that said, the only ‘non-metallic colour offered is white; there is a choice of five metallics).

Suzuki prices always include a great deal of standard equipment that would cost extra in many/most competitor models.

For those preferring the 1.4 litre Boosterjet engine and ‘Mild Hybrid’ (48 volt) set-up, the ‘Motion’ is priced at £24,999 while the four wheel drive ‘Ultra’ variant costs £29,799.

Standard equipment on both the new Full Hybrid models includes (as examples from an extensive list): Suzuki Connect services, Smartphone connectivity, a rear parking camera

plus parking sensors at the front and rear, keyless entry and start, also climate control air conditioning, plus an extensive array of state-of-the-art safety measures including Dual Sensor Brake Support, Blind Spot Monitor, Rear Cross Traffic Alert, Traffic Sign Recognition, Lane Departure Warning and Prevention, Adaptive Cruise Control and seven airbags, including a Driver's Knee Airbag.

What does 'Full Hybrid' mean?

The higher voltage drivetrain in the new Full Hybrid models is more efficient (compared with 'Mild Hybrid' variants) in the way it operates in conjunction with the petrol engine, and, crucially, provides an EV mode. When this is activated – automatically – the car runs on electric power, with the petrol motor switched off. The set-up switches between electric and petrol propulsion and back again according to driving conditions.

Maximum power output for the Full Hybrid models is 115 PS, and maximum torque is quoted at 138 Nm (101 lb.ft) at 4,400 rpm.

The Motion (front wheel drive) version operates with low emissions of 118g/km (WLTP protocol) and the official Combined fuel consumption (WLTP) is quoted at 54.3 miles per gallon.

By contrast the Ultra (with ALLGRIP Select four wheel drive) produces CO2 emissions of 132 g/km, and the Combined mpg figure is 48.7.

Emissions and fuel consumption are always helped by low vehicle weight, and for the S-Cross, Suzuki engineers have used high tensile steel and other weight-saving measures within the body shell. The front wheel drive models weight just 1,308 kg (2,884 lb), with the Ultra ALLGRIP model weighing just 70 kg (154 lb) more. It is notable too that emissions for this model are commendably low compared with most comparable all wheel drive vehicles.

At the heart of the Full Hybrid models is a 140 volt lithium-ion battery and inverter, plus a new Motor Generator Unit (MGU). This belt-driven assembly acts as a starter motor and a

power generator, and is located on the output side of the AGS transmission, so that output from the MGU is transmitted straight to the driveshafts, aimed at filling the ‘torque gap’ experienced during gearchanges, thereby aiding transmission smoothness. A chain-driven reduction gear is built-in too, which reduces the rotational speed of the MGU to increase the amount of torque applied directly to the car’s wheels.

The MGU assists the petrol engine during start-off, and works together with the 140 volt battery. This stores electrical energy recovered during deceleration and braking, and features an idle stop function that works via the MGU.

The Engine Control Unit (ECU) uses engine speed and throttle position to assess when the driver will accelerate, then applying electric motor assistance to provide additional torque.

In addition the hybrid set-up collects kinetic energy and generates electricity by stopping the engine and disengaging the clutch during deceleration, thus increasing the EV driving range.

The system does all this automatically. There is no need nor facility to ‘plug in’ the car to a mains electricity supply; it’s just a very clever – but simple in operation from the driver’s point of view – self-charging system.

All the Full Hybrid S-Cross models feature two selectable drive modes; ‘Standard’ and ‘Eco’. A single switch facilitates changing between the modes, depending on conditions, and in addition can increase the frequency of EV motoring.

In Standard mode, power is prioritised; the MGU more often helps the petrol engine to permit more enthusiastic driving enjoyment.

In the Eco setting, fuel economy is the priority, and the air conditioning system will not operate.

When driving in Standard mode, the driver can select any one of the four settings for the

ALLGRIP Select four wheel drive system. These include Auto (front wheel drive only, by default), Sport (which optimises engine response and cornering performance), Snow (providing traction and stability on very slippery surfaces) and Lock (for extricating the car from snow, sand or mud; a limited slip differential is built-in, to brake a slipping wheel and transfer torque to those wheels having grip).

By contrast, with the car set to Eco mode, only the Auto setting can be used.

The well-proven and effective ALLGRIP Select system made its debut in the first S-Cross in 2013. Importantly, during development of the current version of the set-up, it has been enhanced by adding a 'feed forward' function. The system engages four wheel drive when it senses that this is required (normally just the front wheels are driven) and crucially in the current models so equipped it allocates torque to the rear wheels even *before* any slippage occurs. The system controls the vehicle to prevent grip being lost, rather than reacting to that situation (as occurs with conventional four wheel drive systems). Excellent.

A 'Hill Hold Control' facility is also provided; this useful aspect is used during hill starts, and prevents the vehicle from rolling backwards, for two seconds.

Adaptive cruise control with a speed limiter is standard equipment too.

It is worth noting that in addition to the 140 volt hybrid system battery, there's a 12 volt lithium-ion battery plus a 12 volt conventional lead-acid battery, to operate lower voltage systems such as the lamps, instrumentation and the heating/air con systems.

Running Gear



Smart 17 inch aluminium wheels are standard-fit.

The S-Cross rides on MacPherson strut type front suspension, said to be optimised for rigidity and driving stability, while at the rear the cross-beam installation is set up to provide superior rigidity and ride comfort.

Braking is by ventilated discs at the front, with solid discs at the rear.

A welcome feature for many (myself included) is the manually-operated conventional parking brake.

Testing…



My week-long test drive was in the range-topper Ultra variant Full Hybrid S-Cross, equipped as standard with the ALLGRIP Select four wheel drive system. The cost of the vehicle as tested was the list price of £31,549, plus £550 for the metallic Sphere Blue paint finish (which I thought was very attractive), making £32,099 in total.

At the outset I was impressed by the spacious interior, providing good head and leg room in both the front and rear. In addition, the front and rear doors opened wide, allowing easy entry to and exit from the S-Cross.

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From the driving seat – which proved very supportive and comfortable over many miles of driving, I was cheered by the clear instrumentation (always a feature of Suzukis), with an information panel (providing current and accumulated mpg, mileage range information and much more) positioned between the two main dials ahead of the driver.

Clear too was the standard-fit sat 3D nav system, with its nine-inch screen clearly showing our route, and during my time with the car we found it easy to programme too. Routes were displayed on the car's central screen, which can also be used to control many other functions. Thankfully though, heating and air conditioning systems can be accessed by controls beneath the display screen, which I feel is safer and, for example, enables 'demist' functions to be operated instantly without the need to work through a menu, as is the case with many of today's cars. I should add that both the front and rear screens are heated, and when activated these cleared condensation very quickly from the glass.

The front and rear seats were all accommodating and comfortable, and the suspension provided a ride quality that was commendably well-controlled and smooth, even over the many uneven road surfaces we encountered on west country lanes.

During our test, for some miles we travelled with four adults on board and our rear seat passengers said that they were very happy with the available space and comfort on offer.

We appreciated the storage spaces all around the interior, including front and rear door bins, a good-size glovebox, an elasticated pocket on the back of the front passenger seat, plus a useful 'box' compartment forming part of the centre console (and with a 'front' arm rest on top). We also liked the rear seat's central arm rest.

The power-assisted steering was perfectly-weighted for my preferences, both at low and high speeds, and when carrying out slow speed manoeuvres.

On one journey of more than 160 miles we were driving into very strong winds, and the car felt stable at all times – including when we were buffeted by side winds on motorway and main roads.

Braking was effective and progressive, and the ‘traditional’ manually-operated parking brake worked well – it was well-tested when parking facing uphill and downhill on a variety of gradients in Cornwall.



Effective lights and wipers

My testing of this Suzuki took place during a week of unusually heavy, persistent rainfall (as well as the strong winds already referred to) and it was reassuring that the headlights were excellent on both dipped and main beams, and the screen wipers/washers, both front and rear, were exemplary in the way in which they cleared the screen in extremely adverse driving conditions.

Performance?

On paper the S-Cross ALLGRIP Select is not a fast vehicle by today's standards, but in any case it is not meant to be a sports car and I suggest looking beyond the mere figures. For the record it has a zero to 62 mph acceleration time of 13.5 seconds, and a top speed of 108 mph.

In everyday reality, I feel these figures are somewhat academic, and from my perspective I found that the car accelerated quickly and quietly in normal driving. Indeed it performed eagerly, so overtaking was easy, including in 'Auto' mode, and the extra urge provided by the Full Hybrid system was appreciated by this driver.

A switch from 'Auto' to 'Sport' mode (simply by rotating the mode dial) immediately changed the character of the car (as well as changing the instrumentation to a sporty red colour) and I found that on-the-move acceleration felt very rapid – and indeed sports-car like! Note that use of the Sport mode does not affect the already exemplary handling of the car, but imparts greater 'urgency' to the drivetrain.

However, for most of my driving I used the 'Eco' or 'Auto' settings, and found them perfectly adequate for most of my mileage.

Starting from rest, and accelerating gently, the car initially operates in EV mode only, but if more power is required and the accelerator is depressed further, the petrol engine seamlessly cuts in to do its work.

The transition between EV and petrol operation, and the activation of the regenerative electrical charging system, were smoothly delivered – in fact seamless and undetectable to me. The clever system just worked well.

During my 500 plus miles of motoring with the S-Cross, when driving along normally, the propulsion battery would be charged up as required, and as indicated by the white 'charge' lamp on the dash (aided by 'regenerative' braking and with electrical power from kinetic

energy also harnessed when descending hills).

When the car's software/computer system detected that conditions were appropriate, the green 'EV' lamp on the facia would illuminate, at the same time as the petrol engine stopped, and the car would continue in 'electric only' mode for some time, before switching back to petrol power when the system sensed this was required.

It is worth commenting that the 'EV' mode will only operate under circumstances in which the car's systems are 'happy'. As examples, and among other conditions, the EV mode/petrol engine stopping may NOT function until the batteries are at optimum operating temperature and voltage, nor if the coolant temperature is low, nor if front or rear heated screens are turned on, nor if the air conditioning system is on the 'Low' setting or the temperature setting is 'High'. Easy enough to remember, but I feel it's worth studying the car's handbook (very comprehensive, by the way) at the outset if you buy an S-Cross, to get the best out of the vehicle in terms of performance and operating economy.

The petrol engine was certainly audible as revs increased when accelerating hard and when hill climbing, but I did not find the sound intrusive.

Sometimes when climbing fairly steep gradients, I found that the transmission would select second gear, resulting in the petrol engine running at fairly high rpm, but gently easing off the accelerator pedal enabled the gearbox to change up a ratio or two while maintaining reasonable speed up the hill.

Fast cruising was enjoyable, and the engine was quiet and refined in operation. At an indicated 60 mph the petrol engine required just 2,200 rpm or so in top (sixth) gear, while at 70 mph the tachometer needle indicated approximately 2,600 rpm.

During a week of driving on roads covered with surface water, autumnal leaves and mud resulting from heavy rainfall, I found that handling and roadholding characteristics were spot-on, with traction and grip a-plenty available – which was comforting when conditions under-wheel were very poor, even on tarmac surfaces.

The reassurance of four wheel drive was terrific to have, and while I didn't test the off-road abilities of this particular S-Cross test car, I can confirm from my 'cross country' experiences with an identical model during the U.K. launch of the car in October, that traction and grip in slippery (muddy/wet grass) conditions and on steep gradients have to be experienced to be believed.

This vehicle is not intended to be used in 'serious' off-roading, but the abilities of the ALLGRIP Select four wheel drive system are very impressive, and certainly helpful for those who live, or travel often, in country districts. (For further information/comments on this, please see also my 'First Impressions' feature on this model, on this website).

I should mention that I found the car's comprehensive camera systems worked very well in terms of aiding visibility around the vehicle, and notably useful in helping vehicle positioning when reversing and/or parking.

Fuel consumption



During my week of driving, covering more than 520 miles, the overall consumption figure we achieved was 45.2 miles per gallon. This was a little worse than the official WLTP 'Combined' figure of 48.7 mpg for the ALLGRIP Select four wheel model (by the way it's an impressive 54.3 mpg for the front wheel drive Motion version), but I am not surprised at nor disappointed with the figure we obtained.

Our road test S-Cross – which is a four wheel drive vehicle of course – was 'fresh out of the box' and had covered only around 800 miles at the start of my assessment, and the consumption figures would be expected to improve as the petrol engine clocked up more miles. In addition, for more than 200 miles during we were battling against gale-force headwinds, which obviously have a detrimental effect on fuel consumption, in addition to which the car was well-tested on steep gradients and twisting lanes in north and south

Cornwall, and also covered some miles in urban motoring.



Furthermore, when the test car arrived I noticed that its on-board computer readout was showing an overall figure of more than 51 mpg in previous use, so I am sure that in more favourable conditions in real life motoring our figure would have been greatly improved.

Luggage space galore

The luggage compartment is roomy, even with the rear seats all occupied (for dimensions as measured by me, please see our ‘Tech. Spec.’ section) . However, I found that when required it was easy to fold forward the two-thirds:one-third ratio sections of the rear seat back, to provide greater space. With the seatbacks folded the floor isn’t completely flat, but

nearly so (they sit atop the rear seat base, that doesn't lift/tilt). According to Suzuki's figures the capacity of the 'boot' ranges between 293 and 665 litres (10.35 and 23.48 cu.ft).

In reality this provides ample space for a week's touring luggage for two or more people. Beneath the boot floor is a shallow tray, which contains the tyre inflation kit but which also has space for many other small objects to be carried.

On either side of the main boot is a compact but useful compartment that I found is perfect for carrying cameras, etc, and the inner 'walls' of these prevent items from rolling around loose in the boot.

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Adverse aspects?

I speak as I find, and honestly, after a week of living with the latest S-Cross I can find no serious or even minor adverse points to mention/carp about.

Just a comment… This probably wouldn't affect many owners, but my wife and I found it difficult to find a horizontal surface within the cabin, to accommodate cups. I realise that there are 'cup holders' (two in the front; two in the rear) but those from our hot drinks flask (standard-size flask sort of cups!) wouldn't sit in these without tilting. We just like to enjoy a hot drink from our flask when pausing during a journey, so if we buy an S-Cross perhaps we would have to change our flask and/or cups!

VERDICT

In my view the Full Hybrid S-Cross is a very effective family vehicle, with practicality, fuel efficiency, space and comfort being just four of its many attributes. No question, I like it!

I also feel that the S-Cross represents good value for money, particularly when the standard-fit four wheel drive system and comprehensive equipment, all included in the price of the

Ultra version, are taken into account.

Furthermore, with the excellent proven reliability record of Suzuki models over many years, the promise of long-term dependability for any S-Cross version should be reassuring for potential buyers.

STOP PRESS: It is always worth checking the Suzuki U.K. website for special offers. At the time of writing (30th November 2022) the website advises that if you buy a new Suzuki before 31st December 2022, it will come with two years' free servicing (in each case, check for terms and conditions applicable).



Wheels-Alive Tech. Spec. in Brief:

Suzuki Full Hybrid S-Cross ALLGRIP



Price as tested: £32,099 (including £550 for the Sphere Blue metallic paintwork).

Propulsion: K15C, 1462cc four cylinder petrol plus 140 volt Full Hybrid system, driving through an Auto Gear Shift (AGS) six speed transmission

Power: 115 PS @ 6,000 rpm

Torque: 138 Nm (101 lb.ft) @ 4,400 rpm

0 – 62 mph: 13.5 sec

Top speed: 108 mph

CO2 emissions: 132 g/km (WLTP)

‘Official’ Combined fuel consumption: 48.7 mpg (WLTP)

Actual fuel consumption achieved on test drive: 45.2 mpg over approximately 520 miles

Fuel tank capacity: 47 litres (10.34 Imp. gallons)

Approximate range on our achieved mpg: 465+ miles

Vehicle Dimensions:

Length: 4,300 mm (14.11 ft)

Width: 1,785 mm (5.86 ft)

Height: 1,585 mm (5.20 ft)

Ground clearance: 175 mm (6.89 in)

Kerb weight: 1,378 kg (3,038 lb)

Max. towing weight (braked trailer): 1,200 kg (2,645 lb)

Luggage compartment:

Capacity (Suzuki figures): 293 to 665 litres (10.35 to 23.48 cu.ft)

Luggage compartment approximate measurements (by Kim):

Length of load bed (seats up): 79 cm (31 in)

Available length of load compartment (seats down) – Note: measurement taken in

approximately mid-way setting of front seats on runners, so length can be slightly more, or less, depending on seat positions): 162 cm (64 in)

Width of luggage compartment (max.): 132 cm (52 in)

Width of luggage compartment (min.): 103 cm (40.5 in)

Height (from floor to beneath roof tailgate cross-beam): 72 cm (28.5 in)

Warranty: Three years/60,000 miles (and 12 year anti-perforation warranty), and with one year AA Suzuki Assistance.