

Specifications	V-Strom 650XT / V-Strom 650
Overall length	2,275mm (89.6 in)
Overall width	910mm (35.8 in) / 835 mm (32.9 in)
Overall height	1,405mm (55.3 in)
Wheelbase	1,560mm (61.4 in)
Ground clearance	170mm (6.7 in)
Seat height	835mm (32.9 in)
Curb mass	216 kg(476 lbs) / 213 kg (470 lbs)
Engine type	4-stroke, 2-cylinder, liquid-cooled, DOHC
Bore × Stroke	81.0 mm × 62.6 mm (3.2 in × 2.5 in)

Displacement	645 cm ³ (39.4 cu. in)
Compression ratio	11.2:1
Fuel system	Fuel injection
Starter system	Electric
Lubrication system	Wet sump
Transmission	6-speed constant mesh
Primary reduction ratio	2.088 (71 / 34)
Final reduction ratio	3.133 (47 / 15)

Suspension	Front	Telescopic, coil spring, oil damped
	Rear	Link type, coil spring, oil damped, spring preload adjustable
Rake / Trail		25°40' / 107mm (4.2 in)
Brake	Front	Disc, twin
	Rear	Disc
Tire size	Front	110/80R19M/C 59V, tubeless
	Rear	150/70R17M/C 69V, tubeless
Ignition system		Electronic ignition
Fuel tank capacity		20.0 L (5.3/4.4 US/Imp gal)
Oil capacity (Overhaul)		3.0 L (3.2/2.6 US/Imp at)

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Please inquire at your local dealer for details of any such changes.

■ Always wear a helmet, eye protection and protective clothing.

■ Enjoy riding safely.

tead your Owner's Manual carefully.

PRINTED IN JAPAN 99999-A0130-2M1 V-Strom 650/XT (DL650A/XA) M0 Product Information DEC. '19 SUZUK| MOTOR CORPORATION

Suzuki's "Way of Life!" is the heart of our brand - every Suzuki vehicle, motorcycle and outboard motor is built to create excitement so customers can enjoy everyday life.

















Back up Support

to back up your urge to go those few miles further.

Rain or shine, the adoption of the Traction Control is there to support you.

Advanced technologies are there to give you that extra feel of confidence,

When riding out from those slippery campgrounds, or riding through stone-paved city streets.

Advanced Traction Control System

Inheriting the favored traction control system from the V-Strom 1000, the V-Strom 650/XT also is equipped with this advanced technology. This system continuously monitors the front and rear wheel speeds, throttle position, crank position, and gear position with various sensors, and controls the engine output by managing the ignition timing and air delivery. The traction control system can be switched to either of two modes, or off. The modes differ in terms of sensitivity. Mode one allows modest rear wheel spin for more advanced. exhilarating riding, while mode two activates traction control at the slightest loss of rear-wheel grip to give you greater confidence on slippery surfaces or in the rain. The choice of modes can be guickly and easily made by selecting the traction control mode from the left switch cluster and confirming it with a glance at the instruments. In

difficult riding situations such as cold or ragged road surfaces, fully loaded with luggage, or with a pillion rider, this advanced system already established on the V-Strom 1000 shall back up the ride.

Note: Traction control system is not a substitute for rider's throttle control under the various conditions, and traction control cannot prevent loss of traction due to excessive speed when entering turns, or while braking, and it does not control front wheel traction



Traction control mode description

Sport riding, good road conditions

ASSIST LOW RPM ASSIST

adopting the Low RPM assist system, the concern of an unexpected engine stall has been relieved. This system will automatically raise the idle speed when engaging the clutch or when riding at low rpms, assisting frequent clutch work in congested town rides and preventing sudden and unexpected engine stall when running in the low rpm range.

Rich Information to Support Multiple Tasks

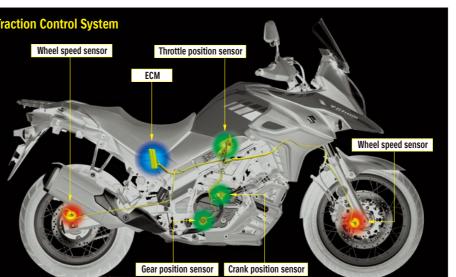
By sharing the easy to see and easy to operate/understand instrument cluster, along with the cowling image with its bigger brother, the V-Strom 650 has rich information with a quality design. The instrument cluster incorporates a large analogue tachometer and digital readouts for the gear position and speedometer. The digital section below displays the odometer, twin-trip meter, clock, fuel level, coolant temperature, ambient temperature, battery voltage, range on remaining fuel, average and instantaneous fuel consumptions, and traction-control modes. The remaining fuel range continues to display after the fuel gauge shows empty, offering the rider with accurate and comforting information. Plus, instantly recognizable LEDs provide freeze*, high-beam, neutral, malfunction indicator lamp (MIL), ABS, traction-control mode, and water-temperature indicators. All of this information is accessible from the left handlebar switch, where it is also possible to reset the trip meter.

*The freeze indicator starts blinking when the ambient temperature falls below 3°C. It continues to blink for 30 seconds then remains li until the ambient temperature rises above 5°C.

ABS-Equipped Brake System

Equipped with 310mm diameter twin discs with twin two piston calipers on the front and a 260mm diameter single disk with a single piston caliper on the rear, the V-Strom 650 and 650XT provides controllable and dependable stopping performance. Also the compact and light-weight ABS, to avoid wheel lock caused by excess hard braking, has been upgraded to the next generation with advanced settings for a further natural feel and secure activation.

Note: ABS is not designed to shorten the braking distance. ABS cannot prevent wheel skidding caused by braking while cornering. Please drive carefully and do not overly rely on ABS.







EASYSTART Suzuki Easy Start System

Conventional starter switches needed to be pressed by the rider until the engine starts, but the V-Strom 650 has adopted the Suzuki Easy Start System enabling the engine to start with one push of the button. A computerized ECM checks the status and disengages the starter motor immediately after start, making the engine start easier for the rider.



Sophisticated V-Twin Performance

The 645cm³ DOHC V-twin is a masterpiece of Suzuki engineering which has an evolving history. For the V-Strom 650, this unit has been tuned for ample low to mid-range torque for practical use while maintaining an exhilarating top-end. The unit meeting Euro4 emission standards has undergone a rebuild, installing technology such as the resin-coated pistons, and revising over 60 components of the engine to achieve a higher output in a broad area of the rev-range while keeping the unique V-twin character with low fuel consumption. With low fuel consumption combined with the large 20L fuel tank, the riding rage between fill-ups are at the top in this class, relieving the rider from the stress of frequent refueling. The further evolved engine has succeeded in emphasizing the attractions of the V-Strom 650 character, making it another masterpiece by Suzuki.



645cm3 DOHC, 90-degree V-twin engine

Resin Coated Pistons

One of the upgraded features in the 645cm3 unit are the resin-coated pistons which is a coating technology to decrease friction in the cylinder, resulting in improved fuel economy and corresponding to latest emission control. Special L-shaped piston rings are also installed for enhanced sealing performance and blow-by gas reduction, all resulting in meeting up-to-date regulations while improving the output and the ease of use.



Suzuki Dual Throttle Valve (SDTV) Fuel-Injection System

Featuring the performance-proven Suzuki Dual Throttle Valve (SDTV) injection system, each cylinder has two butterfly valves for enhanced power output and efficiency. One butterfly valve is directly linked to the riders throttle control while the other butterfly valve is controlled by the ECM and operates according to information from the throttle position sensor, engine speed sensor and gear position sensor for optimum intake flow, realizing an efficient and smooth power delivery with ample torque at low revs. Idle speed control is also a feature, supporting a steady idle speed and fewer emission. The injectors have been upgraded to a 10-hole type with a long nozzle for further efficiency.

Dual Spark Technology

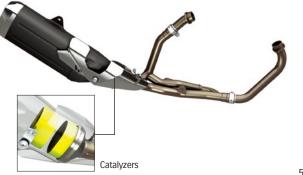
Suzuki's Dual Spark Technology, unique in this class, utilizes two spark plugs per cylinder for precision ignition. Combined with the adopted high-ignition nickel spark plugs, it contributes to increased combustion efficiency, smoother power delivery, lower fuel consumption and lower emissions.

Camshafts for a Distinctive Power Feel

For the unique character of the V-Strom 650, the engine needs to be strong not only at the top end but at the frequently used low to mid-range. To meet these demands, the engine has an original intake camshaft with equally lengthened intake ports, while for the exhaust camshaft, has adopted the item from the SV650 road model which are higher lifting compared to the previous V-Strom 650. These features and a total set-up has resulted in a boost in torque and power in the mid to high rev-range, providing the rider with an exciting ride when with a sporty mind, and a stress-free character for daily rides or on a long haul, simply enhancing the attractions of this 650.

USA Lighter and Lower Exhaust System

The down-type exhaust system is lighter and closer to the center of gravity, contributing to nimble handling while being able to accommodate the slim and smart optional luggage system. The catalyzers have been positioned in a tandem configuration achieving the required level of emission control for Euro4 emission standards, while successfully gaining exhaust efficiency to boost the output.









DR-BIG being the first Adventure model to have a "Beak", the V-Strom brand has inherited that distinctive look. The 650 has adopted the same image as the 1000, and with the design featuring a more direct line from the tip of the beak to the top of the tank, that challenging spirit of its ancestor is further exhilarated.

The V-Strom Family

With the design concept "Design is in our DNA", the V-Strom 650 has an solid and smart look, in kin to its 1037cm³ brother bringing the V-Strom family together. Suzuki's original "Beak" style has been further emphasized by making it a straight line from the tip to the top of the tank, expressing the DNA from the DR-BIG and the desert racer DR-Z. The heritage and history of Suzuki's adventure models are further expressed, giving the owners pride of ownership. Champion yellow is a symbolic color for the V-Strom series, relating to the off-road racing scene of Suzuki and providing owners with an active and challenging adventure feel.



HeadLights and Tail Light

Contributing in giving the V-Strom 650 image is the headlights and tail light, a common feature with the V-Strom 1000. The high and low beam of the light weight headlight is in a compact vertical configuration and realize brightness equivalent to the previous twin headlights, while when on high beam, both low and high bulbs illuminate providing a broader lit up area. The featured LED tail light, also in kin with its bigger brother, has a high visibility and contributes to weight savings.

Adventure with the Heritage

By installing the "Beak" design cowling with the vertical configuration headlights, sharing the image with the V-Strom 1000, the cowling is noticeably slimmer giving the rider a wider view and therefore a lighter impression when mounted on the seat. The "Beak" giving the image of the DR-BIG heritage, is sharp and slanted forwards motivating the adventure feel while acting as a functional component reducing the uplift by 9%.

Slimmer Tank, with a 20L Capacity

The slimmer and smarter tank holds a capacity of 20L, realizing a long riding range combined with the excellent fuel consumption. Also by eliminating the plastic covers on both sides of the tank from the previous model, the tank has become slimmer and is able to accommodate magnetically attachable tank bags. The frame covers which wore positioned directly underneath the seat on the previous model have been slimmed down as well, allowing the rider to reach straight down to the ground, resulting in better access to the ground and more confidence.



Equipped for V-Strom 650"XT"

Unique to the V-Strom 650XT are the knuckle covers to support harsh condition riding, and the engine under cowling to give the rider that extra adventure feel, both as standard equipment.

Functional Comfort

An important feature on the V-Strom 650 is the ultimately comfortable seat, and although with the new design to match the update in cowling design, the reputation will continue. Also an appeal inherited from the previous model is that the tandem area is parallel with the rear carrier providing a large flat space to securely strap large baggage when needed.



The Luxury Ride The unbeatable comfort of the seat and natural riding position are not the only the that makes the ride such a luxury. The stress free nature of the engine, the super-neutral handling, the acceptability of the whole bike is at a premium balance. As the miles build up, the difference is obvious and the love will grow.

Supple Suspension

Flexible and comfortable conventional telescopic forks have a forgiving character, allowing stress free long distance rides to an exciting run on twisty roads. The rear suspension is equipped with rebound adjustment and a remote preload adjuster which can be operated by hand allowing the rider to quickly setup the suspension to match the riding style or in a case of two-up riding or with a full load of luggage without any tools



Controlling the Comfort

The windscreen has been extended 9mm upwards to reduce the windblast and buffering to the body, while the shape has been changed to control the wind flow rather than to simply create a wind-free zone. By making the boundary between the protective area and the not-protective area a blur, the rider will be able to move more freely due to less turbulence and feel a natural wind flow. The adjustable preset three positions are also available using four screws.



Core of Comfort

The seat design lives up to the reputation of the V-Strom comfort. While securing a wide flat area to support the rider when riding, the front of the seat is slim enabling the rider to easily reach the ground when stopping. Also the pillion seat has a wide and comfortable space, making sure the pillion rider can also enjoy the ride. When viewed from the side the plentiful padding is visually assuring, inviting the rider on a long adventure.



DC Outlet

With the adopted instrument cluster, the V-Strom 650 has gained a 12V DC outlet positioned directly below the instruments as standard equipment, supporting the rider for the use of satellite navigation systems and/or the recharging of mobile devices. An update for convenience especially on long distance touring.

*To prevent draining the battery, do not use the DC outlet under the engine stop or idling condition.

New Wheels and Tires

Ten spoked cast aluminum wheels are an eye-catching feature for the V-Strom 650. Not only do they give a sporty image in kin to its V-Strom 1000 brother in the Suzuki Adventure model family, tracking back to the DR-BIG and DR-Z, but improves the road holding ability and reduces weight. The V-Strom 650XT features tubeless tire applicable wire spoked wheels which absorb shock from the road better due to the flexible character of spokes, providing the rider with further comfort and exhilarated riding pleasure. The Champion Yellow colored model features unique gold-anodized rims in contrast to the black-anodized items on the other colors.

Wheel sizes are 19-inch on the front and 17-inch on the rear, realizing the perfect balance of stable and nimble handling, and installed tires are the stability and grip level heightened Bridgestone BATTLAX ADVENTURE A40, specially developed for the V-Strom 650.

Aluminum Twin-Spar Frame Combination of the light yet rigid aluminum

twin-spar frame and swingarm is a feature unique to this class, and with the wide-rage engine, provides light and smooth handling and stability in various riding situations.





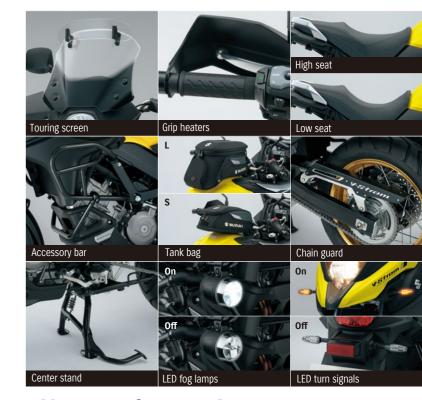




With the reputation for its long-distance touring performance sometimes even tandem riding, the optional integrated three-luggage system*¹ is an important option to heighten the attraction of the V-Strom 650. The rear section of the bodywork can accommodate the same integrated three-luggage system as the V-Strom 1000, therefore no additional brackets or tools are needed to attach/detach the cases. Also mainly benefitting from the exhaust system, it was possible for the cases to be fitted close to the center of gravity of the body, resulting in minimum effect in handling providing increased maneuverability. All three cases are lockable with the ignition key. Additional to the 35L top case in existence, a 55L top case*² has been introduced to the lineup which is able to hold two full-face helmets* reassuring further luggage capacity for long distance, tandem riding tours.

*1 The side case and 35L top case each have a maximum loading capacity of 3kg. *2 Maximum loading capacity is 5kg. *3 Helmets of certain shapes may not fit in the top case.

Note: The 55L top case is not designed to be used with the side cases. Be sure to use the 55L top case alone. When using the side cases, be sure to use the 35L top case.



Wide Range of Accessories

Most appreciative in the cold seasons of riding or in the rain, the grip heaters have undergone a model change. The new type has a thinner grip and is almost identical to the standard grips making it feel natural even when not using them. Also the switch is built in to the left hand grip making the device compact and easier to fit, while the hot wire inside the grip has been positioned all-round the grip rather than only half, providing a more effective heating efficiency. The rich accessory lineup include items such as touring screen, high/low seats, accessory bar, tank bag, chain guard, center stand, LED fog lamps, and LED turn signals which comes in handy when loading the vehicle.

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