

## PRESS INFORMATION

October 2016

# ***V-Strom 650XT*** ***ABS***

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<b><u>Introduction</u></b>	<b><u>P.3</u></b>
<b><u>Product concept</u></b>	<b><u>P.5</u></b>
<b><u>Engine design</u></b>	<b><u>P.8</u></b>
<b><u>Chassis design</u></b>	<b><u>P.16</u></b>
<b><u>Electrical design</u></b>	<b><u>P.20</u></b>
<b><u>Styling design</u></b>	<b><u>P.22</u></b>
<b><u>Accessories</u></b>	<b><u>P.26</u></b>
<b><u>Color variations</u></b>	<b><u>P.29</u></b>
<b><u>Specifications</u></b>	<b><u>P.31</u></b>



Image shown with optional accessories.

Achieving a worldwide hit and becoming a best seller in its category since its debut in 2004, the V-Strom 650 has grown to gather support and respect from various riders. Gaining the status as the benchmark for the middle-class adventure models, the V-Strom 650 underwent a model change in 2011 to further lead its rivals, and now the new model with the new styling is now lighter, more powerful and has the image of the DR-BIG, the pioneer of the adventure segment, and aims to appeal to even more enthusiastic riders.



2004 V-Strom 650



2011 V-Strom 650 ABS



2017 V-Strom 650XT ABS

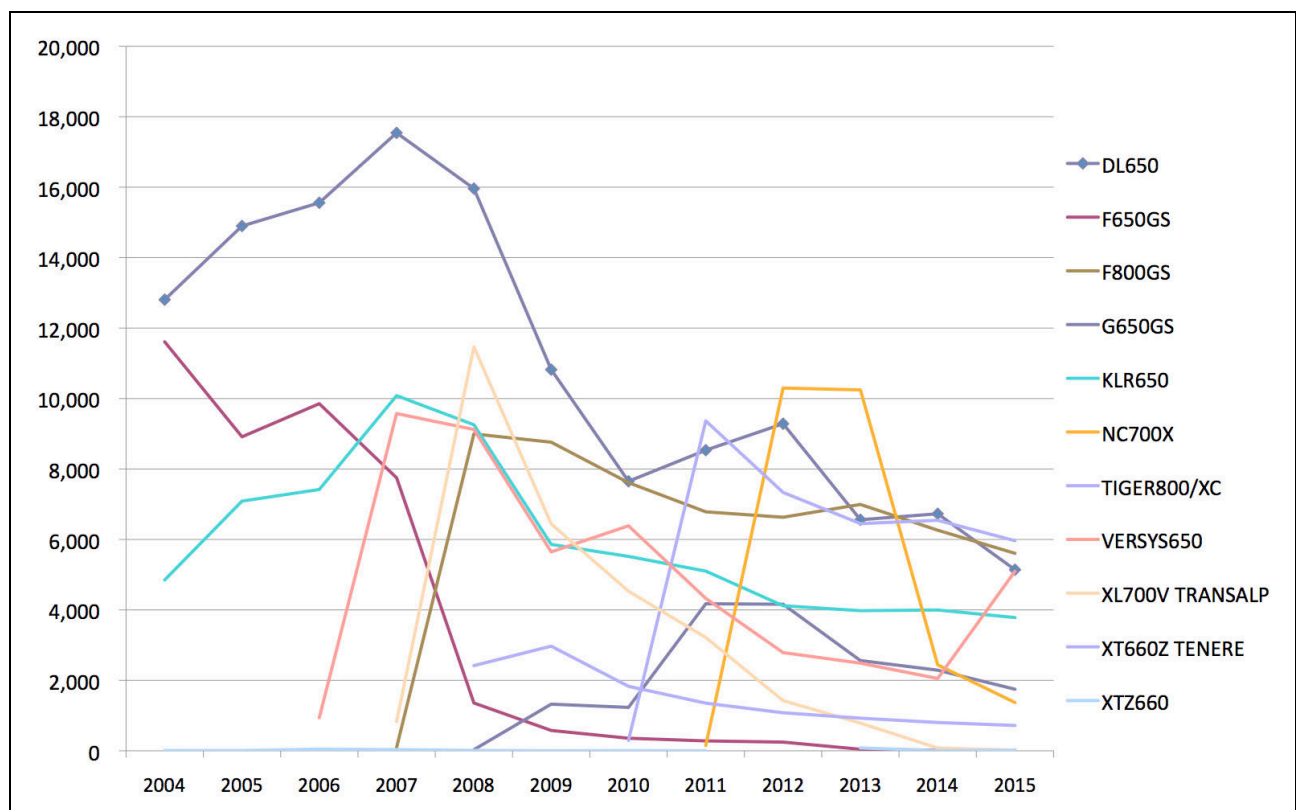


## **Background of Introduction**

Since first introduced in 2004, the V-Strom 650 has been the top selling model in the 650-800cm<sup>3</sup> class adventure segment reaching a respectable total number of sales in the past decade. However, with the demand of off-road style adventure touring machines constantly growing, the competition has escalated offering riders many options. The V-Strom 650 underwent a model change in 2011 but to answer the growing demand, we introduce the new V-Strom 650 with styling image from the desert racer DR-Z and DR-BIG, matching with the larger capacity V-Strom 1000. With a lighter weight and a more powerful engine now meeting Euro4 emission standards, plus the addition of Traction control, we are sure the new V-Strom will appeal to not only existing fans of the V-Strom brand but also to enthusiasts searching for the perfect middle weight adventure machine.

### **650-800cm<sup>3</sup> class Dual Purpose retail sales result**

(North America + Europe + Oceania)



## Product Concept

# Simply, More V-Strom

Gathering followers with its versatility and friendly nature, the V-Strom 650 has attracted many riders as an excellent touring machine. It is a masterpiece with an ultimate balance provided by the natural riding position, comfortable seat and the flexible engine character realizing stress-free riding from daily use to long distance adventure touring. This latest model change has given the 650 the same image in looks as the 1000, uniting the V-Strom family, and has succeeded in boosting the engine performance while corresponding to Euro4 emission standards. All the small updates, including weight savings, has further developed the V-Strom to be more versatile, more controllable, more accessible, and has uplifted its total performance to proudly announce that it is simply “More V-Strom”. As well as the current V-Strom 650, both the cast aluminum wheel version and wire spoked wheel version are available offering a choice for various riders.



Each element is improved to enhance the “V-Strom-ness”.

## Major features of the new V-Strom 650 are;

### PERFORMANCE

- Proven 645cm<sup>3</sup> V-twin engine now Euro4 correspondent while succeeding in boosting both power and torque. **UPDATE**
- While the performance has improved, the easy to use and friendly nature of the engine is maintained.
- Weight reduction of 1kg has been achieved on V-Strom 650 ABS version while equipment has been increased. **UPDATE**
- Finely tuned and updated fuel injection system. **UPDATE**
- Class-leading fuel range to support long distance touring.
- Newly adopted traction control system to support riding on wet or uneven road surfaces. **NEW**
- Light weight digital ABS.

### UTILITY / COMFORT

- Suzuki Easy Start System enabling to start the engine with only one-push of the starter button. **NEW**
- Low RPM Assist to support clutch engaging and low rpm riding. **NEW**
- Comfortable upright riding position
- Slim bodywork and seat with the ease to reach the ground.
- Windscreen with a three position adjustment for increased wind protection. **UPDATE**
- Tool-less adjustable rear suspension preload.
- Large 20L fuel tank inherited from previous model.
- Informative multi-function instrument panel alike the V-Strom 1000. **UPDATE**
- 12V DC outlet is now standard equipment, for powering a satellite navigation system or for charging mobile devices. **NEW**
- The cast aluminum wheel version and wire spoked wheel version to meet various needs.
- Optional integrated three-luggage system (the same item as the V-Strom 1000) attach/detachable with the ignition key. **NEW**

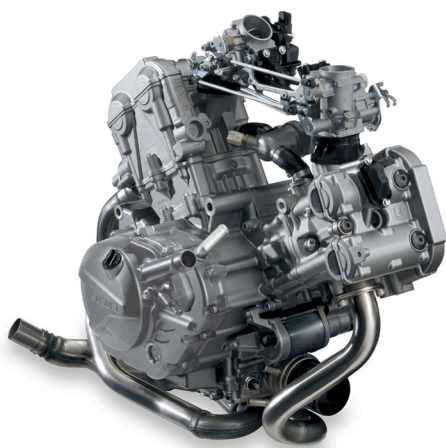
- By newly adopting the down type exhaust system, large side cases can be attached at the minimum width. **NEW**
- A large 55L top case able to hold two full-face helmets is added to the genuine accessory lineup. **NEW**
- New slim type grip heaters (Genuine accessory). **UPDATE**

### STYLING / DESIGN

- New styling design inspired by the DR-Z and DR-BIG. **NEW**
- Vertically positioned headlights and new exterior design in kin to the V-Strom 1000 unites the V-Strom brand. **NEW**
- Highly visible and stylish LED tail lights. **NEW**
- Slim and easy to maneuver bodywork with a new slimmer tank. **UPDATE**
- Passenger seat and rear carrier meets at the same level offering a large flat area to easily load large luggage.
- Practical and exhilarating knuckle covers and engine under cowling as standard on the V-Strom 650XT ABS. **NEW**

## Engine design **UPDATE**

The four-stroke, DOHC 645cm<sup>3</sup> 90-degree V-twin engine with its latest update has boosted torque in the low to mid rpm range, an ideal and attractive advancement to enhance the character of the V-Strom and the multiple situations it will be used in. Unlike standard sports models with exciting top end power, The V-Strom, a well-balanced touring model, is expected to deliver not only top end power but an easy to use and stress free character engine with ample torque allowing long distance rides with little fatigue. The new engine has achieved a rise in both torque and power while corresponding to Euro4 emission standards, offering the rider with smooth and powerful performance in the high rpm range for an exciting ride, and a comfortable V-twin beat with practical torque in the more frequently used mid-range. The new model is still capable of accomplishing any task the rider requests, such as climbing a steep mountain pass, long distance highway cruising, and or daily use in congested streets, but with these updates, will only do everything even better.



Engine type	4-stroke DOHC V-twin
Cooling system	Liquid-cooled
Bore x Stroke (mm)	81.0 x 62.6
Displacement (cm <sup>3</sup> )	645cm <sup>3</sup>
Maximum Output (kW)	52kW/8,800rpm
Maximum Torque (Nm)	62Nm/6,500rpm

Major features of the model change is the installation of resin coated pistons and exhaust camshafts from the new SV650, and also with more than 60 engine components revised and updated settings, the new unit has succeeded in boosting its V-Strom characteristic performance. Large diameter valves (31.0mm for the intake and 25.5mm for the exhaust) set at a narrow angle featuring a compact combustion chamber, and shot-peened connecting rod, Suzuki Composite Electrochemical Material (SCEM)-plated cylinders, twin spark plugs are features inherited from the previous model while fine tuning has matured the engine making it attractive as ever.



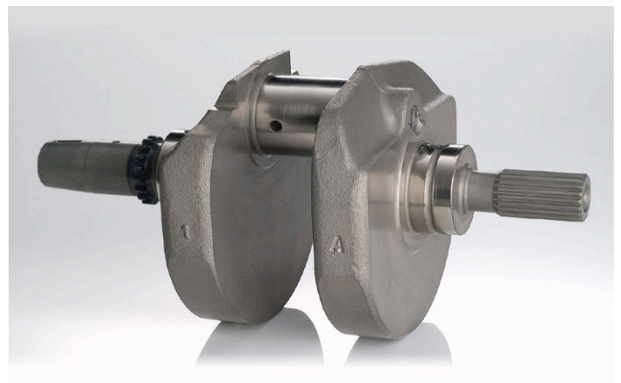
### **SCEM-plated cylinders**

- The V-Strom 650's cast aluminum cylinder employs unique Suzuki Composite Electrochemical Material (SCEM) plating which is a hard coating achieving excellent heat dissipation and superb resistance to abrasion. It also helps to reduce friction and increases the sealing performance of the piston rings.



### **Crank shaft**

- The crankshaft enhances the beat feel of the V-Twin engine featuring unequal-interval firing while delivering power output characteristics such as abundant torque and smooth top end power, also contributing to the quality feel of the engine.



### **Pistons** **NEW**

- To meet emission requirements and to also achieve higher performance and fuel efficiency, the new pistons have a tin plating and an additional resin coat on the skirts for largely improved friction savings and lubrication, realizing further fuel efficiency, boost in power and durability. Special L-shaped piston rings are also installed to enhance sealing performance and blow-by gas reduction.



## Cylinder head

- Featuring an inlet port and intake camshaft original to this model, the cylinder head has also newly installed the exhaust camshaft of the new SV650. This combination, with increased exhaust camshaft lift, realizes both powerful feel of the SV650 and mild, easy nature of the V-Strom. **NEW**

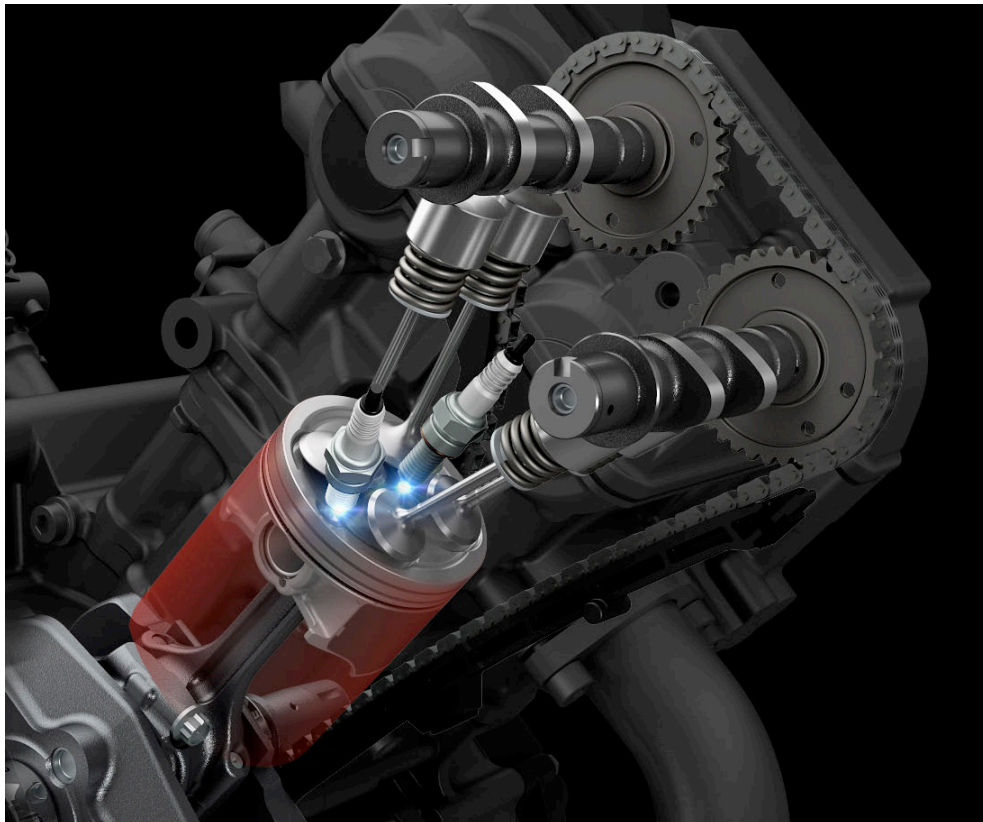


Intake camshaft



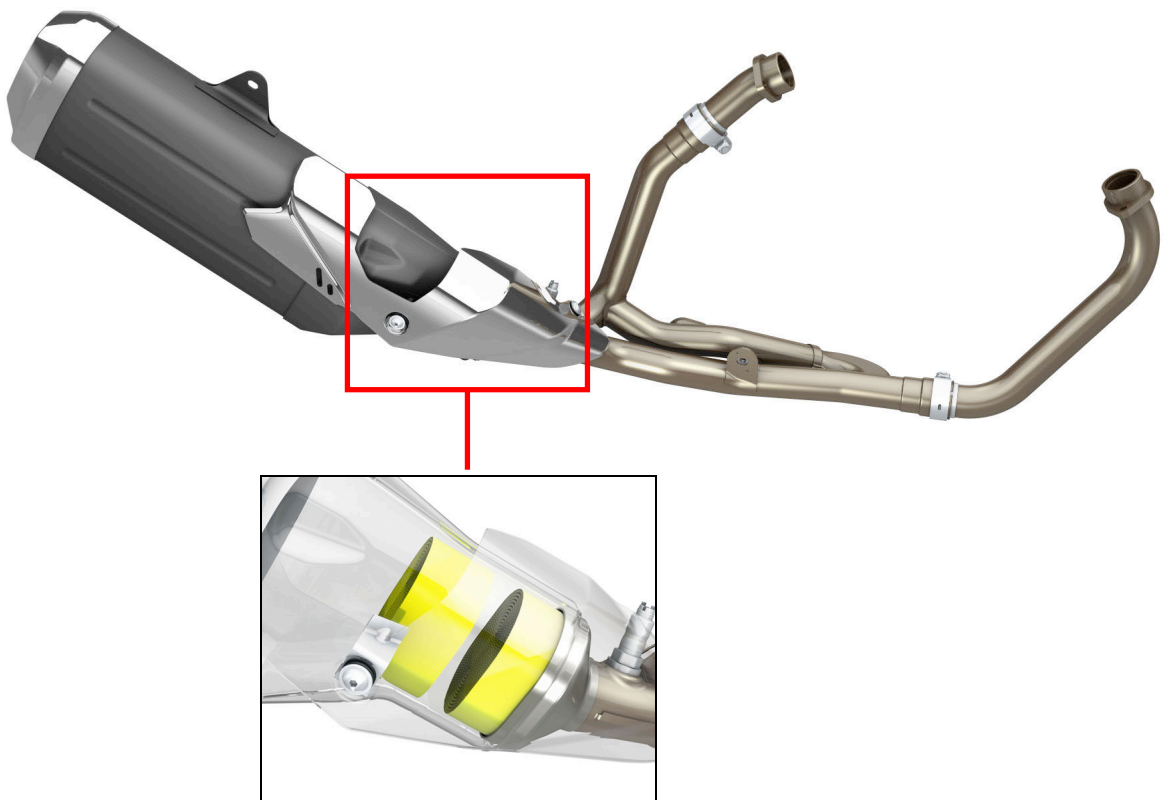
Exhaust camshaft

- Inheriting the dual spark technology, the newly adopted high-ignition nickel spark plugs with slim electrodes are positioned to be closer to the center of the combustion chamber, resulting in combustion efficiency and an increase in power throughout the rev range. **NEW**
- Single valve springs are used for less friction.



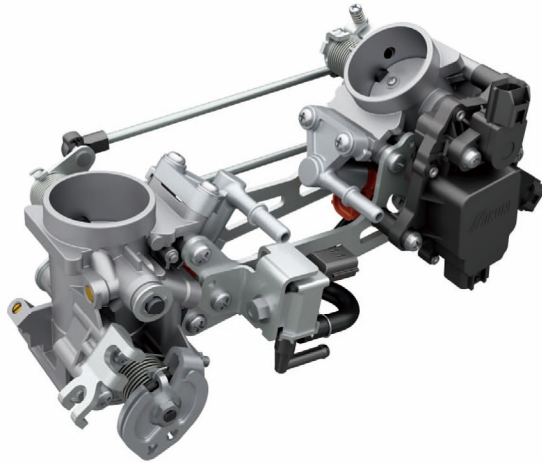
**Exhaust system** **NEW**

- A down type exhaust system with the same image as the V-Strom 1000 has been newly installed, resulting in lighter handling due to the lower center of gravity and an approximate 40g weight saving. The exhaust pipe exclusively designed for the V-Strom 650 is set longer than the SV650 while with a larger diameter compared to the previous model, resulting in increased power and a strong mid-range unique to the V-Strom. The tandem configuration catalyzers are also a new feature for enhanced efficiency. With the new down type exhaust system, and sharing the tail section design with the V-Strom 1000, it is now possible to accommodate the slim and smart optional three-part luggage system without additional fitting parts.

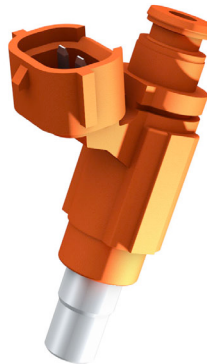


## Fuel Injection System

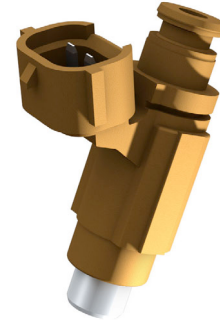
SDTV Throttle body



10-hole fuel injector



New  
V-Strom 650



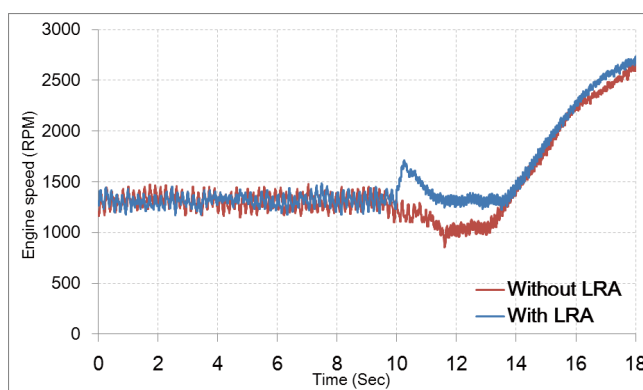
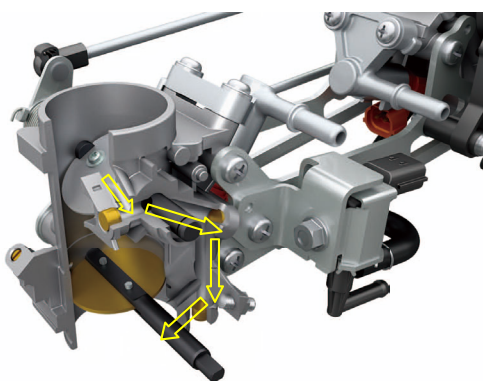
Previous  
V-Strom 650

- Fuel injection system employs Suzuki's original, SDTV (Suzuki Dual Throttle Valve), for smooth power delivery and optimum combustion efficiency.
- The inlet pipes connecting the air cleaner box and the throttle body has been redesigned at the same length, realizing ease of use and ample torque at slow speeds unique to the V-Strom. **NEW**
- 10 hole fuel injectors now have a long nose for a more precise control, contributing to increased combustion efficiency and lower fuel consumption. **NEW**
- Fuel injection system works with O<sub>2</sub> feedback system and intake pressure sensors for optimum combustion efficiency in various conditions. With up to date settings it now meets Euro4 emission standards. **NEW**
- While succeeding in boosting the output and corresponding to Euro4 emission standards, the low fuel consumption engine combined with the 20L fuel tank realizes a riding range at the top of its class\*. Also with the required fuel being RON 91, it is economical to run despite its attractions.

\* 650-800cm<sup>3</sup> class adventure segment

## **Low RPM Assist** **NEW**

- The Suzuki-developed and patent-pending throttle body integrated Idle Speed Control (ISC) has been carried on from the previous model contributing to easy cold starting, stable idling and lower emissions. Additionally, the new Low RPM assist system has been installed. This system will automatically raise the idle speed when engaging the clutch or when riding at low rpms, contributing to smoother launching and low-speed riding.



Engine rpm in launching moment

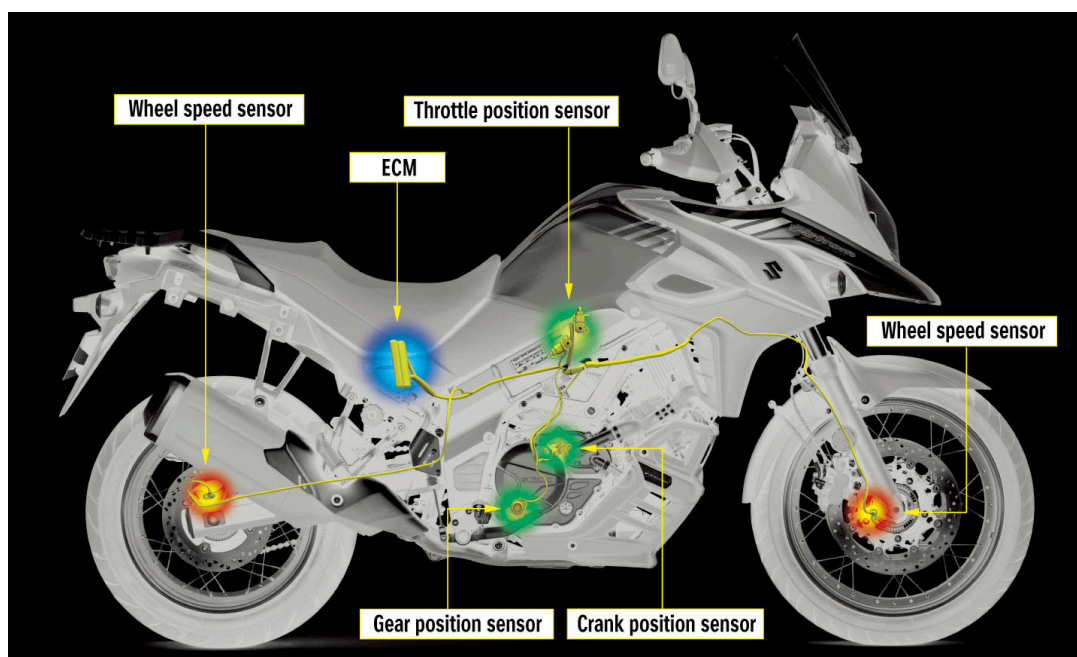
## **Suzuki Easy Start System** **NEW**

Conventional starter switches needed to be pressed by the rider until the engine starts, but the new 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, enabling a secure and stress-free start-up.





## Suzuki Traction Control System **NEW**



The V-Strom 650 now also features the 3 mode (2 modes and off) traction control system already proven on the V-Strom 1000. Simple to use and effective in difficult road conditions, this advanced system is designed to prevent spin due to excessive throttle control and support riders in various conditions they are likely to face in long distance tours.

Note: The traction control system is not a substitute for the rider's throttle control. It cannot prevent loss of traction due to excessive speed when the rider enters a turn and / or applies the brakes. Neither can it prevent the front wheel from losing grip.

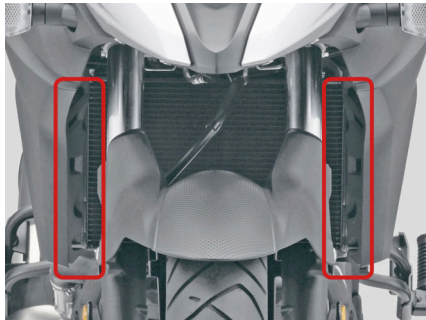
- The Suzuki Traction Control System continuously monitors the front and rear wheel speeds, the throttle position, the crank position, and the gear position with sensors. When detecting wheel spin, it quickly reduces engine output by managing the ignition timing and intake air delivery.
- The traction control system reacts instantly: it confirms conditions every four milliseconds and governs the ignition accordingly.
- The rider can select three modes (1,2 and off). Modes 1 and 2 differ in the timing and levels of intervention. Mode 1 has a lower level of intervention applied at a later timing allowing a certain degree of rear wheel spin, not to interrupt a sporty ride. Mode 2 has a higher level of intervention applied at an instant, controlling and preventing the slightest amount of spin, more actively supporting the rider in situations such as in the rain or on slippery road surfaces.

## Cooling performance

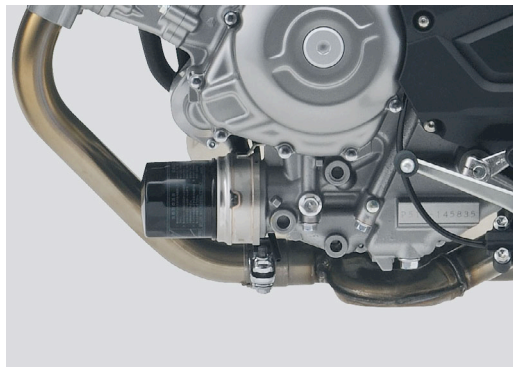
- Newly designed wind directing plates for the radiator are designed to match the exterior update while maintaining the cooling performance. The holes in the wind-directing plates also let the heat in the area of the riders feet escape (patent granted) resulting in the riders comfort. **UPDATE**
- Lightweight and compact liquid cooled oil cooler inherited from the previous model.



Radiator



Wind directing plates



Liquid cooled oil cooler

## **Chassis design** **NEW**

The new V-Strom 650 inherits the lightweight and rigid aluminum twin spar frame and swingarm of the previous model. Compared to the steel frames used in competing models, the lightweight frame with superior rigidity and balance provides steady handling and maneuverability while keeping the chassis slim enabling the rider to easily reach the ground. The new design with the plastic sections eliminated from the tank, has realized a further 5mm of slimness on the sides of the tank for enhanced control and easier access to the ground.



## **Wheels and tires**

- Newly designed 10 spoked cast aluminum wheels (both front and rear 100g lighter in total) give the V-Strom 650 a sporty impression in kin to its brother and increased the feel of road holding and stable maneuverability. **NEW**



V-Strom 650 ABS

- Wire spoked V-Strom 650XT model also available. The flexible character of spokes absorb shock from the road better especially at lower speeds, providing the rider with further comfort and exhilarated riding pleasure.
- Champion Yellow color option features unique and active image gold-anodized rims in contrast to the black-anodized items on the other colors. **NEW**



V-Strom 650XT ABS  
Champion Yellow No.2 (YU1)



V-Strom 650XT ABS  
Pearl Glacier White (YWW)  
Glass Sparkle Black (YVB)

- Both wheel options have a tire size of front tire 110/80R19M/C 59V、rear tire 150/70R17M/C 69V (tubeless).
- Newly installed tires are up to date adventure tires by Bridgestone BATTLAX ADVENTURE A40, specially developed for this model to realize high on-road capabilities, stability and durability. **NEW**

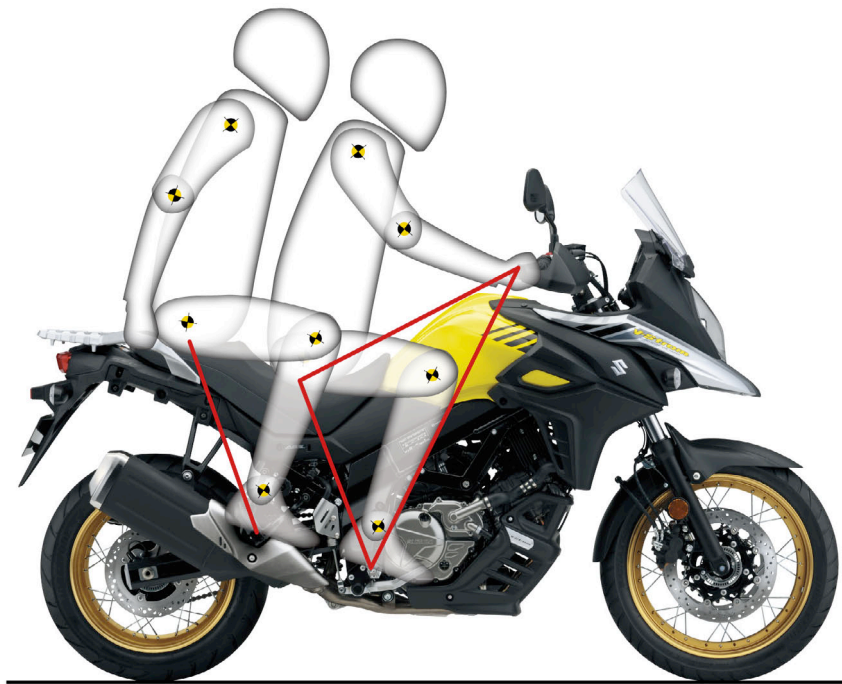
**BATTLAX ADVENTURE A40**



	Rim Size	Tire size	Tire Brand
Front	19M/C x MT2.50	110/80R19M/C 59V, tubeless	Bridgestone BATTLAX ADVENTURE A40
Rear	17M/C x MT4.00	150/70R17M/C 69V, tubeless	Bridgestone BATTLAX ADVENTURE A40



## Dimensions and Ergonomics



- Well balanced, comfortable and accessible riding position inherited from the previous model, provides maximum comfort in long rides and ease in daily use.
- New slimmed down tank design in the knee-gripping area for comfortable ergonomics and easy foot reach. **NEW**
- By also slimming down the frame covers positioned below the seat, it is now possible to stretch legs directly down, making for easier access to the ground. **NEW**
- The new tail section design with the down type exhaust system closely resembling the V-Strom 1000, enables to accommodate the slim and smart optional three-part luggage system without additional fitting parts. This update also realized a considerable decrease in width when equipped with side cases compared to the previous model. **NEW**





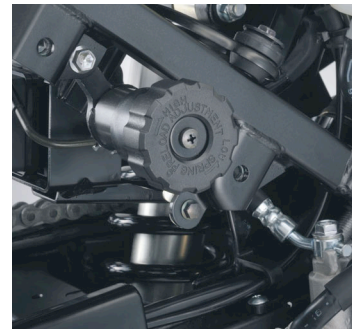
## **Front forks**

- With a stroke of 150mm, the conventional forks have a flexible and forgiving nature for various riding situations.



## **Rear suspension**

- Equipped with a spring preload adjuster knob on the right side of the frame, adjustments are possible without any tools in the case of riding with a passenger or with heavy luggage.
- Rebound damping adjustment also available.



## **Brake system and ABS**

- Front brakes are a combination of twin 310mm diameter discs with 2pod pin-sliding calipers, offering a controllable and trustworthy braking performance in various conditions.
- Rear brake has a 260mm single disk with a single pod pin-sliding caliper.
- The light weight Bosch ABS is unchanged from the previous model, helping avoiding wheel lock when excessive braking force is applied.

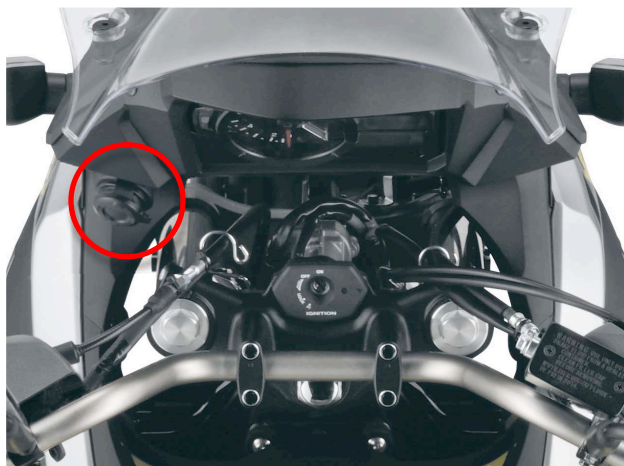
Note: ABS is not designed to shorten the braking distance. Please always ride at a safe speed for road and weather conditions, including while cornering.



**Multi-function instrument panel** **NEW**

\*All lights and indicators are illuminated in the photo for illustrative purposes.

- Like the exterior, the instrument panel has also been updated to the functional unit of the V-Strom 1000, with original design for the 650 in fine detail such as the logo. The instruments include an analogue tachometer and a brightness-adjustable LCD speedometer. Newly designed LCD readouts include an odometer, dual trip meters, gear position, coolant and air temperatures, battery voltage, range on remaining fuel, average fuel consumption, instantaneous fuel consumption, traction control mode, a fuel gauge and clock.
  - White backlighting gives good visibility at night.
  - LED indicators are included for freeze\*, turn signals, high beam, neutral, fuel injection, ABS, TC, and water temperature.
- \* The freeze indicator starts blinking when the ambient temperature falls below 3°C. It continues to blink for 30 seconds then remains lit until the ambient temperature rises above 5°C.
- Remaining riding range continues counting after the fuel gauge shows Empty.
  - The rider is able to select information on the LCD display or choose a TC setting, and on the new model, can also reset the trip meter all on the left handle bar switch.

**DC Outlet** **NEW**

- With the newly 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.

## Styling design concept

### Solid, yet smart for daily use

By newly adopting the slimmer cowling with the vertical configuration headlights in kin to the 1000, the V-Strom series have been united with the strong feel of adventure, inspired from models such as the DR-BIG and DR-Z, associating with Suzuki's adventure DNA giving it a solid and strong sense of high abilities. Also the Suzuki's original beak design, now in a straight line from the tip to the top of the tank, gives it a sharp and sporty image. Although identical to the 1000, the 650 is visibly slimmer thanks to components such as the slim tank design, and gives the rider confidence to ride on a daily basis enabling it to be smartly used as a dependable tool in urban riding situations.



Design sketch



1991 DR-Z

- Tough and functional design of an adventure model combined with a slim tank and seat to smartly match daily use.
- To emphasize the heritage of Suzuki in this category, the “beak” has been highlighted in the intention to associate with the desert racer DR-Z and DR-BIG.
- Champion Yellow is a new color to give the image of the successful Suzuki off-road racing scene, giving the V-Strom an active styling image.



**Headlight** **NEW**

- By adopting the vertical configuration headlight unit from the 1000, the low-beam is also lit when on high-beam providing a broad illuminated area, supporting the rider on night runs. An approximate 290g weight saving has also been achieved.
- The headlights have the distinctive vertical configuration seen on the Hayabusa and GSX-R sports bikes.
- The headlight bulbs are 12V65W for high beam (the lower bulb) and 12V55W for low beam (the upper bulb). The position light has a 12V5W bulb.
- The turn signals each have an orange 12V21W bulb and white lenses.

**Rear combination lights** **NEW**

- Rear LED combination lights are also shared with the 1000, a highly visible, durable, light weight (minus 50g) component with up to date design.
- The number-plate light has a single 12V5W bulb.



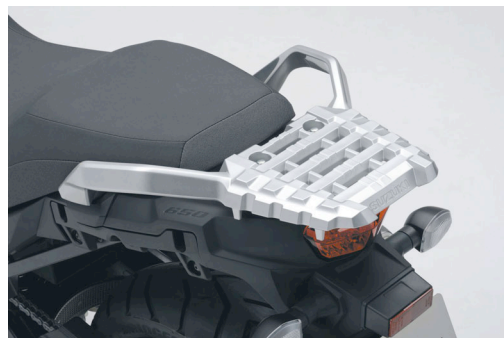
**3-way adjustable wind screen****UPDATE**

New V-Strom 650XT ABS

Previous V-Strom 650XT ABS



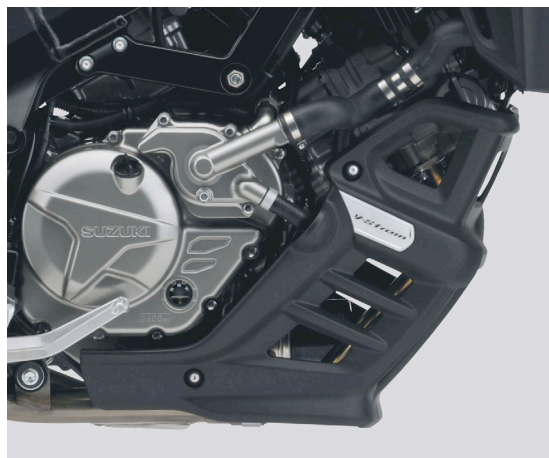
- The windscreen design has also been changed to match the exterior design now in kin to the 1000. The new design has been decided through extensive wind-tunnel testing in intention to provide a comfortable protected area, and has succeeded in reducing wind baffle and turbulence. Rather than producing a totally wind-free zone, the new wind screen is designed to channel some wind into the protected area to make the border between the un-protected area a blur. This allows the rider to move more freely while benefitting from the wind screen and has improved the comfort.
- The wind screen is 9mm taller than the previous model.
- Three positions are available, standard and 2 higher positions.
- Extensive wind-tunnel testing also resulted in a 9% reduce in lifting force.

**Seat** **NEW**

- Offering a natural and comfortable riding position for both the rider and the passenger, the new seat has now approximately 2mm thicker urethane and covered with a skin of grater grip. While supporting the rider with a wide space for comfortable riding, the front end of the seat is slimmed down for the ease of reaching the ground when stopped. Also by keeping the passenger seat and the top surface of the rear carrier level, it is possible to use a large space to securely strap on large baggage.

**Equipped for V-Strom 650"XT" ABS** **NEW**

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



**Load up and be prepared** **NEW**



New V-Storm 650XT ABS

Previous V-Storm 650XT ABS

By sharing the design of the rear section of the bodywork with the 1000, the new integrated three-luggage system\*<sup>1</sup> can be applied with no additional brackets or tools. The new design allows the cases to be fitted closer to the body, realizing a considerable reduction in width and even when fully loaded the effect on handling is minimum, contributing for more easy riding and stability. Both of the side cases and 35L top case are lockable with the ignition key. Additional to the 35L top case in existence, a 55L top case\*<sup>2</sup> has been introduced to the lineup which is able to hold two full-face helmets\*<sup>3</sup> 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.



<p>Plastic top case (35L)</p>	<p>Plastic side case</p>	<p>Plastic top case (55L)</p>
<p>* The side case and 35L top case each have a maximum loading capacity of 3kg.</p> <p>* Maximum loading capacity is 5kg.</p> <p>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.</p>		
<p>Grip heaters</p>	<p>LED turn signal lamps</p>	<p>LED fog lamps</p>
<p>Center stand</p>	<p>Chain guard (Aluminium)</p>	<p>Touring screen</p>
<p>High/Low seat</p>	<p>Accessory bar</p>	<p>Tank bag</p> <p>* Maximum loading capacity is 2.5kg.</p>

Note: SUZUKI MOTOR CORPORATION reserves the right to add any improvement to change the design or to discontinue any Suzuki Genuine Accessories at any time without notice. Some Suzuki Genuine Accessories might not be compatible with local standards or statutory requirements. Please check with your local AUTHORIZED SUZUKI DEALER for details at the time of ordering.



## V-Strom 650XT ABS



Champion Yellow No.2 (YU1)



Pearl Glacier White (YWW)



Glass Sparkle Black (YVB)

### V-Strom 650 ABS



Champion Yellow No.2 (YU1)



Pearl Glacier White (YWW)



Glass Sparkle Black (YVB)

# SPECIFICATIONS

## V-Strom 650XT ABS / 650 ABS

		V-Strom 650XT ABS	V-Strom 650 ABS
Overall Length		2,275mm (89.6 in)	
Overall width		910mm (35.8 in)	835mm (32.9 in)
Overall height		1,405mm (53.3 in)	
Wheelbase		1,560mm (61.4 in)	
Ground clearance		170mm (6.7 in)	
Seat height		830mm (32.7 in)	
Curb mass		216kg (476 lbs)	213kg (470 lbs)
Engine type		4-stroke, liquid-cooled, DOHC, 90° V-twin	
Bore x stroke		81.0mm x 62.6mm (3.2 in x 2.5 in)	
Engine displacement		645cm <sup>3</sup> (40.2 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	
Rake / trail		26° / 110mm (4.3 in)	
Brakes	Front	Disc, twin	
	rear	Disc	
Tires	Front	110/80R19M/C 59V, tubeless	
	Rear	150/70R17M/C 69V, tubeless	
Ignition system		Electronic ignition	
Fuel tank capacity		20.0L (5.3 / 4.4US / Imp gal)	
Oil capacity (Overhaul)		3.0L (3.2 / 2.6US / Imp qt)	