
SUZUKI
Way of Life!
V-Strom 650
ABS
SHOEI


Time For Real Adventures

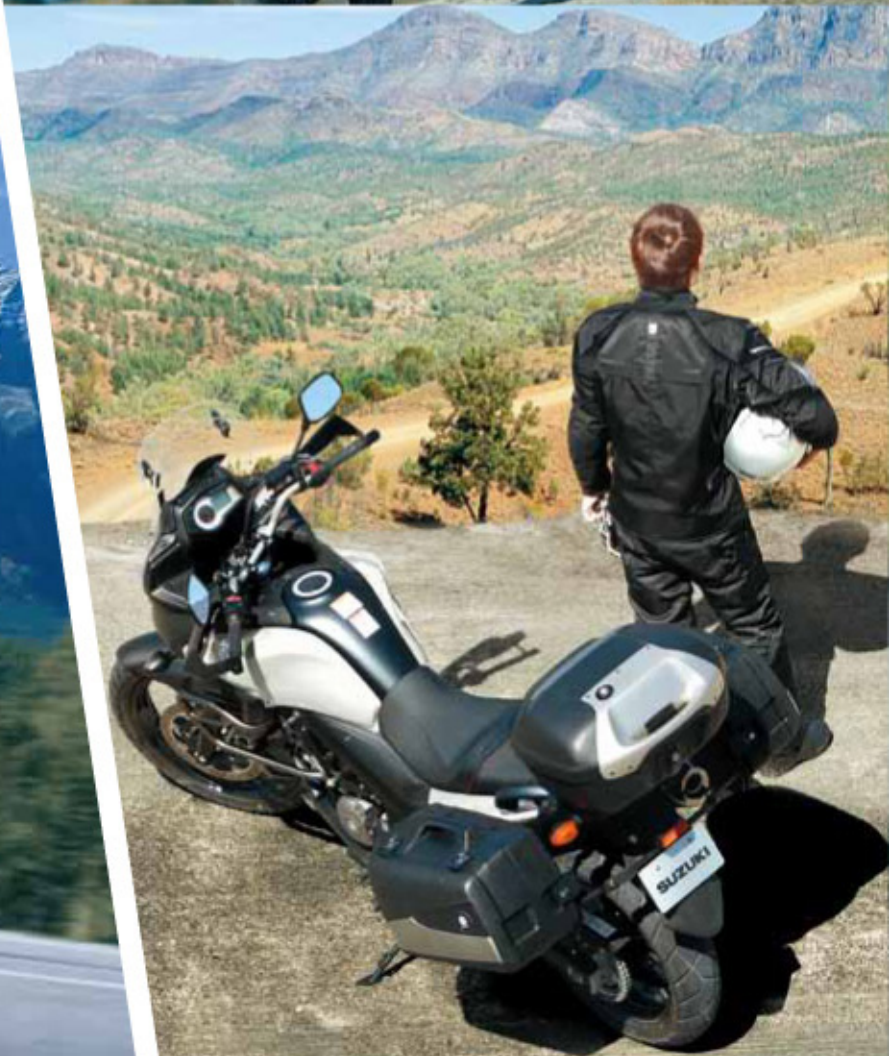
The spirit of adventure beckons you to new destinations.
To new sights, sounds and sensations.
The V-Strom 650 ABS is built to get you there with more enjoyment and excitement, in greater comfort.
Performance. Handling. Styling.
Redesigned throughout.
Upgraded throughout.

*Top and side cases, touring windscreen, knuckle covers, accessory bar and under cowling are optional parts.

The machine comes alive with a smooth rumble.
Familiar streets become once again
the starting gate for another adventure.


Cityscapes far behind. Fresh air all around. The horizon opens up.

New roads. Unfamiliar scenes.
The spirit of adventure kicks into action.



Another ride completed.
Vivid memories beckon you to
new adventures in no time.

*Top and side cases, touring windscreen, knuckle covers, accessory bar and under cowling are optional parts.

Experience the latest evolution of
the V-Strom 650 ABS's all-round
adventure tourer performance.
Savor the full benefits of the latest refinements
and technology.
New performance to make adventure tours
more enjoyable and comfortable.
New performance to inspire new adventures.
The V-Strom 650 ABS.
Time for real adventures.

Tough, Smart Form

The new V-Strom 650 ABS styling, created with a "tough x smart" theme, reflects its upgraded adventure tourer performance. The purposeful, poised form is composed with compactly shaped bodywork using expressive painted sections and functional black resin components – a combination that vividly accentuates the machine's sporty profile.
Rider comfort is enhanced with a new windscreen, heat- and wind-diverting designs and the slim bodywork.

Front End Styling

The sporty, dynamic front fairing is composed of a painted upper section with 60/55w halogen bulb compact dual multi-reflector headlight delivering superb light distribution, and contrasting black resin lower/side section with a new, sturdy surface texture. The front fender, designed for easier radiator airflow, is combined with the fork chip guard.

Improved Wind Protection

The carefully shaped windscreen, along with the compactly shaped bodywork, is developed with extensive wind tunnel testing, and has thoroughly-reviewed air management to provide improved wind protection, which efficiently reduces wind noise and rider fatigue. In addition to providing superb wind protection, the new screen is shaped so that the change in wind flow right outside of the screen is more gradual. Screen height is 3-way adjustable, offering a range of riding environment to suit different rider stature, riding positions or traveling situations. Adjustment is easy: simply remove the screen and bolts, and reinsert them into different attaching holes.
New air intakes below the headlight enhance rider comfort by reducing the pressure difference behind the windscreen. The base of the windscreen is textured, rather than blacked, for an attractive "see-through" impression.

Side View

The class-leading 20-liter-capacity fuel tank and the surrounding bodywork, including the separate tank side covers, compose a trim and purposeful impression with a combination of painted surfaces and unpainted black sections, which make the tank seem smaller than its actual capacity. The tank is shaped slim towards the rear to facilitate knee grip for maintaining proper riding position. The distinctive side air outlets heighten cooling performance.

The comfortable seat allows flexible sitting position to the rider. The seat and the frame covers are shaped tucked in at the straddling section for easy leg reach. The pillion section is shaped so as to help prevent the passenger from slipping forward, enhancing comfort on long-distance tours. The functional seat also heightens owner pride with embossed V-Strom logo and a combination of red-stitched leather-look sections and suede-look, slip-resistant surfaces. The seat key hole is relocated to the left side of the rear fender, closer to the rider, freeing up space in the underseat compartment for carrying items such as a U-lock*.

*U-lock is sold separately. U-lock may not be carriable depending on size and texture.

Instruments And Anti-Theft Immobilizer*

The compact, easy-to-read multi-function instrument cluster combines an analog tachometer with a large brightness-adjustable LCD which newly displays the gear position, ambient temperature, and average fuel consumption, in addition to speed, odometer, dual trip meter, coolant temperature, clock and fuel gauge.

The gear position indicator allows the rider to confirm the present gear position at a glance. Switching between LCD readings can be done with the left handlebar switch: the odometer section changes to trip meter, fuel consumption and brightness with each short push; the clock section changes to ambient temperature with a long push. LED indicators now include a road freeze warning indicator which, together with the ambient temperature display, helps riders' awareness of road conditions. Newly equipped transponder-type Suzuki Advanced Immobilizer System (SAIS) helps prevent theft with an electronic code identification system built into the owner's key.

*Excluding North American specifications.

Rear End

Gracing the rear end is an upswept muffler, neatly aligned with the seat rail and topped with a silver cover and a buffed-finish end cap. The new lightweight resin luggage carrier with a slip-resistant rubber mat allows easy, bolt-on installation of a top case adaptor plate (an optional part), and is one piece with well-shaped, easy-to-grasp grab bars. The rear fender has a unique waisted shape and a neat textured surface.

Greatly Upgraded Power Character

The V-Strom 650 ABS's liquid-cooled, DOHC, 90-degree V-Twin engine is ready for a full-range riding enjoyment with its broad torque delivery and the signature V-Twin power pulses at the low-to-mid rpm range, and sporty quick-revving high rpm range power surges. Combined with a full 6-kilogram reduction in curb mass, the engine's wide powerband makes for smooth going over steep mountain paths, stretches of highway and crowded city streets, while its efficient designs deliver high mileage and class-leading riding range, making the V-Strom 650 ABS perfect for both long tours and long ownership. The power unit also presents users with a more refined, high-grade riding experience, thanks to its improved clutch and gearshifting feel and reduced mechanical noise.

Thoroughly Revised V-Twin Engine

The 645cm³ V-Twin engine, while retaining the bore and stroke figures of 81.0mm x 62.6mm, has been thoroughly refined for greater low-to-mid rpm range torque and high rpm range output with various changes including use of new cam profiles. New single valve springs replacing the double springs help reduce mechanical losses with their lower inertial mass and spring loading, allowing more precise valve control. Newly-designed crankshaft is slightly increased to better emphasize the signature V-Twin power pulses and deliver a high torque power feel that's both enjoyable and rider-friendly. The engine uses diecast aluminum-alloy cylinders plated with Suzuki Composite Electrochemical Material (SCEM) which reduces friction and improves wear resistance and piston ring seal while realizing high heat dissipation.

Transmission Tuned For Sporty Riding And A Highly Refined Riding Feel

The 6-speed transmission is tailored for active sporty rides with tighter 1st through 5th gear ratios, while keeping highway cruises comfortable with a tall top gear. The final drive ratio is chosen for smooth going over steep hills and crowded streets. Scissors type primary driven gear helps reduce mechanical noise and contributes to a quality idling feel that's further enhanced with a new double-layered clutch cover. Smooth and satisfying gearshifting is provided with a new cam-type clutch release replacing the ball-screw type for a more direct, positive operating feel at the clutch lever. Reshaped transmission gear engagement dogs improve gearshift-pedal operating feel.

Efficient Radiator And Oil Cooler

The radiator now has a more compact core and is flanked by wind-directing plates that enhance cooling efficiency and are shaped with holes* which allow hot radiator air to flow out to the side air outlets and away from the rider's legs. New liquid-cooled oil cooler replacing the air-cooled unit helps keep oil temperatures more stable.

*Patent application under process.

Advanced Digital Engine Management

The V-Strom 650 ABS uses a 32-bit Engine Control Unit (ECU) to control the state-of-the-art Suzuki Dual Throttle Valve (SDTV) fuel injection, ignition and emission control systems and help translate the 645cm³ V-Twin's hefty output into a highly refined, rider-friendly power character. The high-speed ECU also contributes to smooth throttle response, reduced exhaust emissions and improved fuel efficiency.

Fuel Injection With Suzuki Dual Throttle Valve (SDTV)

SDTV 39mm throttle bodies use, in addition to the rider-operated primary throttle valve positioned on the intake-valve side, a secondary throttle valve mounted on the airbox side that's driven by a compact, lightweight DC stepping motor. The ECU determines the secondary-throttle-valve position for maintaining the optimum intake velocity for each riding conditions, based on engine rpm, gear position and the position of the primary throttle valve. The SDTV system optimizes the intake-charge velocity in each rpm range, allowing intake mixture with optimum air-fuel ratio to be constantly supplied to the combustion chamber, thus helping deliver abundant low-to-mid rpm range torque and a linear throttle response while keeping emissions low.

Fine-atomization 10-hole Fuel Injectors

The fuel-injection volume is first calculated by the ECU based on engine rpm, intake pressure and throttle position, and further compensated with data from the muffler-mounted O_2 feedback sensor to determine the actual injection volume that's optimally suited to engine running conditions as well as riding conditions. Fuel is delivered to the throttle bodies by fine-atomization 10-hole fuel injectors for high combustion efficiency.

Twin Iridium Spark Plugs

Detailed ignition mapping for various coolant temperature ranges and for each cylinder, as well as for each gear position, realizes comprehensive combustion control. Iridium spark plugs on each cylinder produce a hotter, quicker spark for improved combustion efficiency, resulting in increased power, a more linear throttle response for better acceleration, easier engine start-up and a more stable idle. The plugs both improve fuel efficiency and reduce exhaust emissions. Twin iridium spark plugs for each cylinder further heighten the spark strength and combustion efficiency in various riding conditions.

Throttle-body Integrated Idle Speed Control (TI-ISC)

In place of a conventional Idle Speed Control (ISC) unit, the ISC mechanism is integrated into each throttle body. A notch is machined into the extended secondary throttle valve shaft, and air circuit and valve mechanism are added to the throttle bodies. A secondary throttle valve actuator rotates the notch to control the idling airflow. This Suzuki-developed and patented design is effective in improving cold starting, producing a stable idle and reducing the amount of emissions immediately after start up. The elimination of a conventional ISC unit results in a compact, lightweight design. The combined benefits of the TI-ISC fine-atomization fuel injectors, twin iridium spark plugs and the large, 300-cell catalyzer allow the V-Strom 650 ABS to meet tough emission standards without a secondary air-injection system, thus reducing weight.

Improved Fuel Efficiency

The reduction in mechanical and frictional losses and the heightened combustion efficiency achieved by the thoroughgoing powerplant improvements brings a 10% improvement in fuel efficiency (WMTC mode, Suzuki in-house research), allowing use of a more compact and lighter fuel tank while maintaining a class-leading riding range between refueling stops. The resulting slimmer chassis heightens touring comfort and contributes to the V-Strom 650 ABS's adventurer touring performance.

Chassis Tailored For Comfortable Performance

The V-Strom 650 ABS's user-friendly chassis, built around a lightweight and rigid twin-spar aluminum-alloy frame and swingarm, composes a comfortable performance package for enjoyable and refreshing adventure touring rides with an upright riding position, long-stroke front and rear suspension, lightweight aluminum-alloy wheels carrying radial tires specifically designed for the model, and standard equipment Antilock Brake System (ABS).

Comfortable Riding Position

A comfortable riding position that helps reduce fatigue on long-distance tours is created by slightly raising the seat position to optimize its relation to the handlebars. The upright position allows much freedom of rider movement and, together with the slim, lightweight chassis, make the rider feel at one with the machine. Slim seat design keeps rider leg reach to the ground easy.

Adjustable Suspension

Front forks with 43mm stanchion tubes are tuned for a combination of rigidity feel and smoothness of operation; spring preload is 5-way adjustable to suit road conditions, rider tastes or the carrying of a passenger or luggage. The link-type rear suspension, designed for progressive response, comes with stepless rebound damping adjuster as well as a spring preload adjuster that's conveniently located below the right sidecover. Front suspension stroke is a generous 150mm, the rear wheel travel 159mm. The well-damped front and rear suspensions enhance riding comfort.

Twin-Spar Aluminum-alloy Frame And Swingarm

The V-Strom 650 ABS's twin-spar aluminum-alloy frame is built using cast and extruded pieces while the swingarm combines extruded arms and pivot with a cast joint section. The lightweight frame and swingarm compose a superb match with the powerful engine, contributing to smooth handling performance and well-poised running at high-speeds with their excellent rigidity balance.

Radial Tires On Aluminum-alloy Wheels

Three-spoke aluminum-alloy wheels carry 110/80R19 front and 150/70R17 rear radial tires specifically designed for the V-Strom 650 ABS. The lightweight aluminum-alloy wheels, together with the aluminum-alloy swingarm, help reduce unsprung weight and improve suspension response, thereby enhancing both handling agility and riding comfort.

Disc Brakes And Antilock Brake System (ABS)

Front dual 310mm-disc brakes with hydraulic dual-piston calipers and rear 260mm-disc brake with a hydraulic single-piston caliper deliver smooth, controllable stopping power. New, high-pressure brake hose which is more resistant to expansion further improves the responsive brake feel. New, standard equipment Antilock Brake System (ABS) unit features a lightweight, compact design. The ABS enhances brake performance by helping prevent, to a certain extent, wheel locking due to changes in road conditions or excessive braking, by matching stopping power to available traction.

*Please note that ABS is a supplemental device for brake operation, not a device for shortening stopping distance. Always remember to reduce speed sufficiently before approaching curves and corners.

*Top and side cases, touring windscreen, knuckle covers, accessory bar and under cowling are optional parts.

Accessories That Stretch Your Riding Horizons


Top and side cases


Aluminum top and side cases


Touring windscreen


Knuckle covers


Accessory bar


Under cowling


Chain guard


Handlebar grip heater


Low seat


High seat


Centerstand


12-volt accessory socket

A wide selection of Suzuki Genuine Accessories for the V-Strom 650 ABS, each developed together with the machine, are built easy to install and shaped to accentuate the bike's purposeful, adventure tourer profile while adding convenience and function. Choices of resin and aluminum top and side cases* include resin cases large enough for a full-face helmet (for top and left side cases) and which can be fitted without repositioning the rear turn signals (aluminum cases need repositioning of rear turn signals). The V-Strom 650 ABS chassis layout was designed from the early development stages to allow the side cases to be positioned as low and as close to the vehicle center of gravity as possible for a rider-friendly handling quality. Also, the side case carrier can be easily detached with the quick-release screws, for riding without the side cases to look slim.
A touring windscreen with a visor for adjusting its height and angle and new knuckle covers heighten rider comfort. A new accessory bar to fit over the radiator shrouds, new under cowling and a chain guard heighten the adventure feel.
Items that add to riding comfort include new, low/high seat options to lower or raise the seat height by 20mm from the normal height to suit each rider's stature or taste, and a handlebar grip heater for comfortable clutch, throttle and brake operation in cold weather. Other accessory choices include a centerstand, an easy-to-install 12-volt accessory socket, an alarm kit and a bracket to attach a GPS navigation device on the handlebar.

*Maximum loading capacity of each case is 3kg.

*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. Actual colors might differ from those appearing in this catalogue.

V-Strom 650 ABS SPECIFICATIONS

Overall length	2,290 mm (90.2 in)
Overall width	835 mm (32.9 in)
Overall height	1,405 mm (55.3 in)
Wheelbase	1,560 mm (61.4 in)
Ground clearance	175 mm (6.9 in)
Seat height	835 mm (32.9 in)
Curb mass	214 kg (472 lbs)
Engine type	4-stroke, liquid-cooled, DOHC, 90° V-Twin

Bore x Stroke	81.0 mm x 62.6 mm (3.2 in x 2.5 in)
Displacement	645 cm^3 (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° / 110 mm (4.3 in)
Brakes	Front	Disc, twin
	Rear	Disc
Tires	Front	110/80R19M/C 59H
	Rear	150/70R17M/C 69H
Ignition system		Electronic ignition (Transistorized)
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 qt)

Specifications, appearance, colors (including body color), equipment, materials and other aspects of the "SUZUKI" products shown in this catalogue are subject to change by Suzuki at any time without notice, and they may vary depending on local conditions or requirements. Some models are not available in some regions. Each model may be discontinued without notice. Please inquire at your local dealer for details of any such changes.
Image contains computer-generated composites.

- Always wear a helmet, eye protection and protective clothing.
- Read your Owner's Manual carefully.
- Enjoy riding safely.
- Never ride under the influence of alcohol or other drugs.

PRINTED IN JAPAN V-Strom 650 ABS (DL650A) Product Information 99999-A0030-221 JUN. '11

SUZUKI MOTOR CORPORATION
300 Takatsuka-cho, Minami-ku, Hamamatsu City, JAPAN 432-8611
www.globalsuzuki.com

SUZUKI