

#### NTRODUCING THE FIAT 500 ABARTH

Faithful to the "small but wicked" saying coined for Karl Abarth's cars in the 1960s, the new 2012 Fiat 500 Abarth arrives to America with the racing traditions that have made it a success on European roadways and racetracks — world-class performance and precision, purposeful and aggressive styling, high power-to-weight ratio and limited-production volume.

Bringing the 2012 Fiat 500 Abarth to the U.S. enables FIAT to reach out to driving enthusiasts who want Italian performance at an attainable price. With its lightweight, track-tuned handling and purpose-built design, the Fiat 500 Abarth brings to life the legendary racing heritage of the brand and becomes the Italian high-performance car for everyday driving

With its all-new 1.4-liter MultiAir® Turbo engine, Abarth-tuned suspension and brake systems, race-inspired design, and technology features not traditionally included on a small car, the new 2012 Fiat 500 Abarth unleashes the brand's legendary performance heritage to American streets.

In the late 1950s Karl Abarth believed that race cars with brilliant performance could be derived from small, lightweight, everyday driving cars.

His tradition of track-ready small cars continues today by utilizing the 2012 Fiat 500 Sport as a base point for the new high-performance Fiat 500 Abarth



# Design

The aggressive styling of the new FIAT 500 Abarth embodies the Abarth brand tradition in full – purposeful and intentional details all designed to improve the car's performance, while enhancing the clean and simple design language of the Cinquecento.

To improve aerodynamics — while creating the necessary engine compartment space for the all-new 1.4-liter MultiAir® Turbo engine the front fascia is more pronounced and pushed 2.7 inches (69 mm) ahead of its signature "whiskers and logo" face, recalling the Abarth stylistic treatments from vintage 850 TC and 1000 TC models.



The signature "Abarth" shield floats on a finned surface that serves as an additional air intake. For a more aggressive look, a blacked-out fascia accent integrates projector-beam fog lamps and helps direct air for engine cooling.

More aggressive Abarth-designed side skirts provide a vertical and athletic profile, while highlighting the iconic curves of the FIAT 500 Abarth. From the rear, a large liftgate-mounted spoiler extends the roofline of the Fiat 500 Abarth and improves the vehicle's aerodynamic behavior by creating additional down force.

Below, the two-piece Abarth-styled rear fascia accentuates the road-holding stance of this high-performance 500 and optimizes airflow output with its black-accented rear diffuser. In addition, symmetric, twin exhaust cutouts deliver a powerful look, while large concentric "double tip" exhausts provide a tuned sound and Abarth-exclusive look

### Design D621011

#### **Bold exterior elements**

Paying homage to the brand's racing heritage and vintage Cinquecento-based 595 and 695 Abarth models, iconic Abarth shields are once again positioned on both driver and passenger rear-quarter panels.

Optional bodyside exterior decals pay homage to the historic models and provide the new FIAT 500 Abarth with a track-ready look.



#### Enthusiast-designed cockpit

The interior design theme of the FIAT 500 Abarth is an artistic blend of clean lines and functional performance appointments. An Abarthdesigned steering wheel features a thick rim, perforated leather and flat bottom to provide the look, feel and increased roominess desired during at-the-limit driving. For easier operation, and to keep the driver's eyes on the road ahead, the FIAT 500 Abarth's steering wheel includes cruise, audio and BLUE&ME™ Handsfree Communication technology controls. Behind the steering wheel, the FIAT 500 Abarth features a large concentric instrument cluster with 160-mph speedometer, tachometer and trip computer. The instrument-panel cluster brow is wrapped in Nero leather with Rosso accent stitching.

Unique to the FIAT 500 Abarth is the addition of an analog turbo-boost gauge with integrated LED shift light in the center that illuminates to optimize gear changes.

Abarth-designed aluminum pedal covers feature Nero rubber trim for a decidedly racing look, while the Nero leather shift knob with Rosso accent stitching provides a precise feel of the shifter.

Unique Abarth-styled front performance seats feature a one-piece design with large side bolsters, racing-harness pass through, accent stitching around the perimeter and integrated side-thorax air bags.



Engineering

Like the European-spec 500 Abarth derived from the standard Cinquecento, the 2012 Fiat 500 Abarth builds off the North American adapted Fiat 500 Sport - and adds the legendary performance and handling capabilities that have made Abarth models an international success both on and off the track.



## Engineering

#### Track ready, precision-tuned chassis

The FIAT 500 Abarth features an enhanced front- and rearsuspension design to deliver the precision handling, steering and refinement needed for high-performance driving. New dual-valve Frequency Selective Damping (FSD) KONI® frontshock absorbers replace standard twin-tube units and deliver an innovative two-in-one solution. This patented technology provides the

road-holding and handling characteristics needed for maximum grip and performance. In addition, the FSD system actively filters out high-frequency suspension inputs from uneven road surfaces and adjusts for improved comfort and smoothness.

The beefier rear-suspension design takes the Fiat 500 Sport model's twist-beam design further, with a reinforced rear axle with strengthened coil-spring supports. A new Abarth-specific rearstabilizer bar increases cornering grip. For improved handling, minimal body roll and ride-height control (when fully loaded), the new Fiat 500 Abarth features 20 percent stiffer rear springs.







#### Abarth-tuned steering

The new 2012 Fiat 500 Abarth features a 15.1:1 (up from 16.3:1) steering-gear ratio for 10 percent quicker steering to enhance responsiveness, maneuverability and high-performance feel. Compared to the Fiat 500 Sport, the 500 Abarth features a uniquely tuned electronic power steering (EPS) calibration for increased steering response and feedback.

#### Track-proven brake system

The Fiat 500 Abarth presents a high-performance brake system with an Abarth-tuned electronic stability control (ESC) system which features a threemode calibration to maximize the new 2012 Fiat 500 Abarth's handling capabilities on and off the track. When ESC is selected from "On" to "Partial Off" or "Full Off" on the instrument panel, the 500 Abarth's innovative Torque Transfer Control (TTC) system maximizes throttle performance during onthrottle cornering.

#### Lightweight wheels with high-performance tires

Standard on the 2012 Fiat 500 Abarth, 16 x 6.5-inch cast-aluminum wheels feature a race-inspired design and are fitted with 195/45 R16 Pirelli Cinturato P7 tires that deliver all-season traction and low-noise characteristics. **Putting the new 2012 Fiat 500 Abarth to the test** 

In addition to the 4 million development miles (6.4 million kilometers) of the North American Fiat 500, plus the quality-proven engineering of the European 500 Abarth, the new 2012 Fiat 500 Abarth added more than 2 million additional miles (3.2 million kilometers) during its reliability and durability evaluations

#### 160 Horsepower (117 horsepower/liter) with new 1.4-liter MultiAir® turbo engine

Behind the unique Rosso (red) Abarth engine cover and Abarth-designed front fascia with twin "nostrils," lies the heart of the FIAT 500 Abarth – the allnew 1.4-liter MultiAir Turbo engine backed with a stronger, manual five-speed transmission, equal-length half shafts, 3.35 final-drive ratio, and a Torque Transfer Control (TTC) system that delivers power to the pavement.

Taking a page from Karl Abarth's extensive experience to increase the power and durability of the original Cinquecento's engine for racing use, the FIAT 500 Abarth debuts a turbocharged variant of the proven 1.4-liter MultiAir® engine for increased horsepower, torque and performance.

With the addition of a turbocharger to the 1.4-liter engine, advanced intake technology including FIAT's exclusive MultiAir system, a heavy-duty fivespeed manual transmission and a host of other internal refinements to the powertrain, the FIAT 500 Abarth transforms the Fiat 500 into a highperformance precision driving machine that every enthusiast will appreciate.





## Powertrain

#### Innovative MultiAir® cylinder head

The valve train for the high-performance 1.4-liter MultiAir Turbo engine features FIAT's exclusive MultiAir fuel delivery technology. Unlike engines that rely on direct action from fixed lobes on the camshaft to control intake valve opening and closing, MultiAir is an electro-hydraulic system that can control intake air, cylinder by cylinder and stroke by stroke depending on the demands from the standard electronic throttle control (ETC) system.

#### Turbo and twin intercoolers provide 160 horsepower\*

Compared with the FIAT 500's natural-aspirated 1.4-liter MultiAir engine, the boost to an estimated 160 horsepower on the FIAT 500 Abarth is largely due to its single turbocharger that operates off engine exhaust and utilizes energy that would normally be wasted through the tailpipe.

The 1.4-liter MultiAir Turbo's induction system includes two intercoolers located behind the driver- and passenger-side air inlets of the Abarth-styled front fascia.

The FIAT 500 Abarth also features several engine system component upgrades needed for high-performance driving: an Abarth-designed fresh-air intake system with high-flow air filter; an Abarth-designed concentric "double tip" dual-exhaust system; an Abarth-tuned powertrain control module (PCM) integrating all of the MultiAir Turbo's engine control functions. An upgraded electrical system includes a high-output 140-amp alternator and 500 amp cold-cranking maintenance-free battery for increased vehicle system charging. \* Estimate

#### High-performance engine design with high output

The new 1.4-liter MultiAir Turbo engine in the Fiat 500 Abarth is designed to meet the rigorous demands of performance driving throughout its 6,500 rpm range. Structurally, the 1.4-liter MultiAir Turbo engine starts with a cast-iron block and an aluminum bedplate. At the bottom end, a forged-steel crankshaft with select-fit main bearings is supported across four main journals. The crankshaft has been designed with lightened counterweights to reduce overall mass for high engine rpm operation. Durability is ensured with the use of lightweight forged-steel connecting rods that have been designed with a unique cross section to minimize the longitudinal and lateral bending of the rod.

Lightweight forged-aluminum pistons contribute to the overall strength of the reciprocating assembly and the engine's high rpm capability. Full-floating piston pins are used for added strength. Piston cooling jets, located at the bottom of each cylinder, contribute to fuel economy by squirting oil on the bottom of the pistons to help maintain cylinder temperatures and reduce the possibility of hot spots along the cylinder walls or at the top of the piston that could lead to detonation.





#### High-performance transmission and driveline

Developed by Fiat Powertrain Technologies (FPT) for high-output applications, the FIAT 500 Abarth is equipped with the heavy-duty C510 five-speed manual transmission. Proven on the European 500 Abarth models, this transmission features a 3.35 final-drive ratio for quick acceleration and faster top speed, while maintaining fuel efficiency.

#### Maximum track handling with Torque Transfer Control (TTC) system

Helping the driver to utilize the power of the new 1.4-liter MultiAir Turbo engine is an Abarth-tuned Torque Transfer Control (TTC) system. TTC is designed to control and transfer the engine's torque to the drive wheels for world-class performance and improved at-the-limit handling.



## Technology

State-of-the-art performance and connectivity technologies are intelligently integrated into the cockpit-designed interior of the new FIAT 500 Abarth.



#### Abarth-tuned "Sport" mode

The FIAT 500 Abarth features a standard-equipped "Sport" mode calibration for more engaging driving. Should the driver select Sport mode on the instrument panel, the Abarth-tuned powertrain control module (PCM) unleashes the full power of the 1.4-liter MultiAir® Turbo with linear throttle response and a more performance-weighted steering feel.

When Sport mode is not engaged, the Fiat 500 Abarth returns to "Normal" mode, and limits the torque in first and second gears to enhance fuel efficiency and minimize CO2 emissions.

#### Abarth shift light with turbo-boost gauge

An additional benefit of the Abarth-tuned PCM is the addition of a driver's shift light with turbo-boost gauge mounted left of the instrument cluster. Should the driver choose to switch to "Sport" mode, the Fiat 500 Abarth's LED-illuminated shift light flashes as the engine speed approaches the redline–giving the immediate feedback needed on the track or during high-performance driving.

Engine information is critical during performance driving, and the Fiat 500 Abarth's turbo-boost gauge allows the driver to monitor the turbocharger's pressure on the engine.

#### BLUESME™ Handsfree Communication technology

Developed as a collaboration between FIAT and Microsoft, BLUE&ME™ Handsfree Communication technology is an in-vehicle, voice-activated communication system that allows the FIAT 500 Abarth driver to operate a Bluetooth®-compatible phone while keeping his or her hands on the wheel and eyes on the road. Using a series of voice commands, the driver can place phone calls, access the phone's address book or listen to MP3s. BLUE&ME Handsfree Communication technology.

#### nnovative TomTom® Navigatio

With the available TomTom® Navigation with BLUE&ME Handsfree Communication technology, the Fiat 500 Abarth integrates an innovative 4.3-inch (10.9 cm) TomTom portable navigation device that docks on top of the instrument panel.

Bose® premium audio system

For high-performance sound, the 500 Abarth features a standard Bose® Energy Efficient Series (EES) premium audio system with six premium speakers and a subwoofer.

#### SiriusXM Satellite Radio

For the best music, entertainment and information from coast-to-coast, SiriusXM Satellite Radio with more than 130 channels is available on the FIAT 500 Abarth.

#### Seven standard air bags

The FIAT 500 Abarth features an all-new air bag system to offer unique protection for its passengers to meet all U.S. regulatory requirements. Its seven standard air bags include: driver and front-passenger advanced multi-stage air bags, driver's knee air bag, full-length sidecurtain air bags and standard seat-mounted side pelvic-thorax air bags, all offer enhanced occupant protection to all occupants in the event of a collision.

#### Abarth-tuned three-mode electronic stability control (ESC)

The new Fiat 500 Abarth features a unique three-mode electronic stability control (ESC) system standard for improved braking performance in wet or panic conditions.

The Abarth-tuned ESC system features a three-mode calibration including "ESC On" to "ESC Partial Off" and "ESC Full Off."

When the system is set "ESC On" (default) or "ESC Partial On," the ESC system is ready to intervene by integrating key chassis control systems including electronic brake-force distribution (EBD), anti-lock brake system (ABS) and traction control systems (TCS) to control all four wheels in response to yaw and steering input.

In effect, ESC determines the driver's intentions and adjusts the vehicle's dynamic forces to maintain the driver's intended course. Should the driver exceed the performance limits of the road surface – such that the vehicle starts to oversteer or understeer – ESC instantly analyzes input from the wheel sensors and corrects the pending loss of control by applying any one, several or all of the system's disc brakes.

#### More than 35 available safety and security features

The Fiat 500 Abarth includes more than 35 available safety and security features.

### Safety & Security

State-of-the-art connectivity and more than 35 safety and security features keep passengers of the FIATat 500 Abarth connected, comfortable and secure.



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