

Off-Road Suspension

Badlands models feature an off-road suspension that includes:

- Higher ground clearance (8.6") to help provide the 24" water fording capability on Badlands (with optional 29" all-terrain tires)
- Hydraulic Rebound were added for off-road performance
 - These replace the hard rubber with a fluted cylinder and a plunger
 - When the plunger enters the cylinder, a cushion of fluid provides progressive engagement and a very high amount of energy absorption
 - Flutes and cylinder length are tuned by Vehicle Dynamics in off-road events at speed (table tops, whoops, sharp drop-offs)
 - Help give high confidence to driver in off-road situations involving rapid changes in wheel end position and when tire contact with the ground is not guaranteed
 - Help protect (such as strut top mounts and body attachments) by absorbing energy and lowering loads into vehicle body
- Larger diameter off-road shocks
- Modified rear knuckles for high ride height and ground clearance



MAKE THE POINT: REBOUND TRAVEL AND TOPPING

Rebound Travel is movement in the direction in which the wheel end fully extends from the body.

Topping is the opposite of bottoming out the suspension.

When the suspension has reached the end of rebound travel and the tire patch is just at or past the point of contact with the ground.

On-road vehicles typically use a very hard rubber bumper in the shock to avoid metal to metal contact during topping events.

On-road vehicles are tuned to avoid hitting this hard stop or to hit only in very extreme events (high curb drop-offs, ignored severe speed bumps).

NOTE: For availability of product features, please see Availability by Model and/or the [Dealer Ordering Guide](#).

2021 Bronco Sport > **Performance and Capability** > Off-Road Technology

Off-Road Tires

- Open-tread design
- Reinforced sidewalls
- Year-round operability make them ideal for off-roading
- Name brands include Pirelli Scorpion™ and Falken Wildpeak
- 27.5" and 29.0" diameter tires are available



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