

# ORI STX Strut Quick Start Guide

The full STX strut User Guide is located on our website at

<http://oristruts.com/assets/stxm2-user-guide.pdf>

**Warning!** ORI Struts are intended for off-road use only. Factory vehicle warranty and safety can be compromised if factory suspension is altered.

## 1 Mount

- 1.1 Ensure all struts will fully extend and compress without binding at the upper and lower mounts to avoid damage to the struts.
- 1.2 Mount struts to vehicle at desired angle, 50° maximum from the vertical position.
- 1.3 Best performance is achieved when the strut is at 90° to the axle with the wheel at full stuff (full compression).

## 2 Vent Pressure

- 2.1 Remove upper and lower filler valve caps.
- 2.2 Slowly vent pressure from the upper chamber first.  
**Caution!** Vehicle will drop suddenly when upper pressure is vented. Don't get your arm caught between the fender and tire—it hurts.
- 2.3 Depress valve core in lower mount after upper chamber pressure is vented.  
**Caution!** Pressure will be high in the lower chamber if piston shaft is extended. For safety, always vent upper chamber pressure first to completely compress the strut, then vent lower chamber pressure.
- 2.4 Re-vent both upper and lower valves after struts are at full compression.

## 3 Charge Pressure

**Important!** Pressures and shaft extension length between left and right side struts should be equal for level ride.

- 3.1 Rest vehicle on a level, flat surface.
- 3.2 **Lower Mount Charge First** (lower chamber)
  - 3.2.1 With piston shaft fully compressed, charge with nitrogen gas to approximately 90 psi pressure, more for heavy sprung weight.
  - 3.2.2 *High Pressure:* Maximum resistance to piston shaft extension and ride will be stiff, but very stable. *Pressure can range between 20 psi to as much as 300 psi, depending on vehicle weight and geometry.*
  - 3.2.3 *Low Pressure:* Piston shaft will fully extend easily, softer ride.
  - 3.2.4 Readjust pressure as needed to achieve desired ride height, optimal strut operation, and ride comfort.
- 3.3 **Upper Cap Charge Last** (upper chamber)

Do this step after pressurizing the lower mount in previous step.

  - 3.3.1 With vehicle weight resting on struts, charge Upper Cap Valves with nitrogen gas until vehicle lifts to desired ride height. *New struts are very stiff and resist movement.*
  - 3.3.2 Block or shut off the pressure input.
  - 3.3.3 Lift up and then allow the body to drop, or rock vehicle side-to-side several times to settle the suspension, and then recheck ride height.
  - 3.3.4 Measure left and right side piston shaft extended length. This works best with a dual-fill kit so both right and left sides are sharing pressure (R&L valves open). Rock vehicle until equal chrome showing, then block fill kit valves, and back off T-handles of fill kit.
  - 3.3.5 You can also add or vent pressure from one side or the other to achieve a level ride if vehicle is unevenly loaded.
- 3.4 Record final pressures at upper caps and lower mounts for later reference.

## 4 Rebound Damping Adjustment

- 4.1 Adjust hydraulic rebound damping by turning Damper Screw in Lower Mount to one of 7 positions.
- 4.2 Full clockwise (+) for maximum damping (slowest rebound).
- 4.3 Full counter-clockwise (-) for minimum damping (fastest rebound).