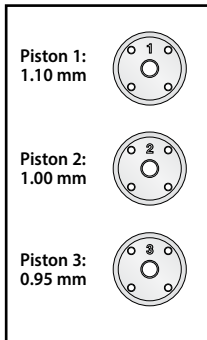




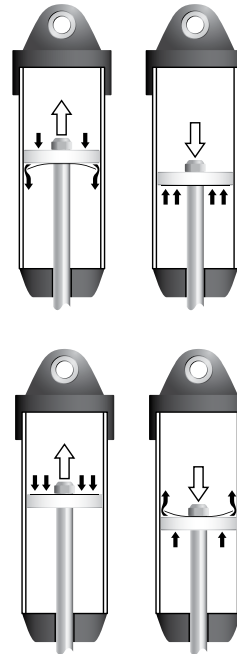
Variable Damping Pistons

Covers Part #5461



Shock piston hole sizes

The Variable Damping Pistons design greatly enhances the tuning ability of the suspension. The key to the piston's unique operation is the flexible plate which seals two of the piston holes. When the shock is compressed, full damping rate is delivered. While rebounding, this new valve action allows additional bypass of shock fluid, speeding shock response. The direction at which the shock responds faster depends on the orientation of the piston and valve assembly. This is selectable by flipping the piston assembly into the desired position as shown in the diagrams. For off-road use, it is generally desirable for the shock to rebound faster than compress, requiring the valve plate to be on the top of the piston (stock position). The opposite is generally true for on-road use. To further alter the characteristics of the variable rate, the diameter of the bypass holes may be fine tuned by enlarging them - further speeding up the rebound rate.



Valve on Bottom
• Best for On-Road
On Compression:
• Valve Open
• Faster Compression
On Rebound:
• Valve Closed
• Slower Rebound

Valve on top
• Best for Off-Road
On Compression:
• Valve Closed
• Max Rate of Compression
On Rebound:
• Valve Open
• Faster Response

Tools needed (not included):

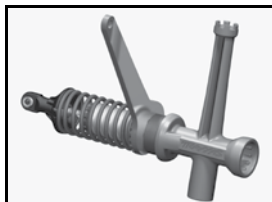
- Suspension multi-tool (Part #5475)
- Side cutters or needlenose pliers
- 5mm nut driver
- 16mm wrench

Shock disassembly

The shocks must be removed from the vehicle and disassembled to change the pistons. Use the shock exploded view to aid in the assembly process.

1. Remove the spring and lower spring retainer from the shock.
2. Remove the shock cap (A) and empty the shock body of shock oil.
3. Remove the lower cap (B) and the X-ring from the shock body.
4. Use side cutters to grip the shock shaft just above the rod end (C). Remove the rod end from the shock shaft using the suspension multi tool (C).
5. Remove the shock shaft with piston from the shock body out through the top of the shock body.

These steps are shown using Part #5475 multi-tool (not included).



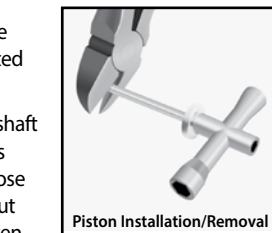
A. Tighten/Loosen Upper Cap



B. Tighten/Loosen Lower Cap



C. Remove/Install Rod End



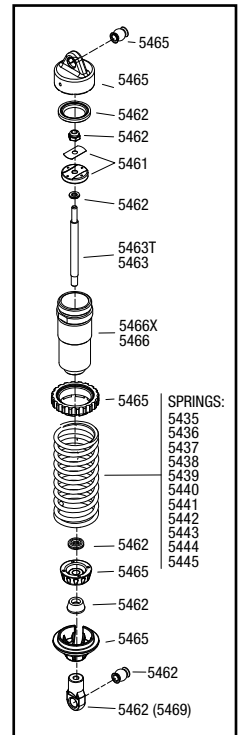
Piston Installation/Removal

Shock assembly

1. Replace the stock piston with desired optional piston. Be careful not to lose the thin steel valve or the small washer located below the piston.
2. Position the new piston onto the shock shaft above the small washer. Grip the threads of the shaft with side cutters or needlenose pliers and tighten the nut with a 5mm nut driver to secure the assembly. Only tighten the nut enough to remove vertical "play" of the piston. Over tightening the nut will deform the steel valve and cause the shock to malfunction. The piston should be free to rotate on the shaft when tightened.
3. Insert the shock shaft assembly through the shock body until the piston bottoms out.

4. Lubricate the shaft and X-ring with silicone oil.
5. Install the X-ring over the shaft and into the bore of the shock body.
6. Install the lower cap using the suspension multi tool (B).
7. Slide the bump stop onto the shaft.
8. Grip the shaft close to the threads with needle nose pliers or side cutters and thread the rod end onto the shock shaft until the rod end bottoms out (C).
9. Fill the shock with new silicone shock oil up to the top of the shock body. Slowly move the piston up and down (always keeping it submerged in oil) to release the air bubbles. Let the shock sit for a few minutes to allow any remaining air bubbles to surface.
10. Slowly thread the upper cap with the installed shock bladder onto the shock body with the suspension multi tool (A). The excess oil will bleed out of the small hole in the shock cap. Tighten the shock cap until snug. Use a 16mm wrench to hold onto shock body while tightening.
11. Reinstall the spring and lower retainer.

Shock Exploded View



If you have questions or need technical assistance, call Traxxas at

1-888-TRAXXAS

(1-888-872-9927) (U.S. residents only)