

COLOR CODES FOR RPM TWO STAGE SHOCK PISTONS

#80420 - Light to Medium Dampening (3 sizes, 4 pcs. each)

- White:** Lightest Dampening.
Blue: Light Dampening.
Yellow: Medium Dampening.

#80430 - Med. to Heavy Dampening (3 sizes, 4 pcs. each)

- Red:** Medium - Heavy Dampening.
Green: Heavy Dampening.
Purple: Heaviest Dampening.

PROPER SET-UP OF YOUR RPM TWO STAGE SHOCK PISTONS

First, completely disassemble your shocks and remove the stock shock pistons. Leave the e-clip in place closest to the end of the shock shaft. Now, remove the pistons that you wish to use from the parts' trees.

Important: Remove any and all burrs with a sharp hobby knife. Align the floating piston with the stationary piston so that they key together properly. The flat side of the floating piston should be sitting against the stationary piston (the e-clip that should still be on the shock shaft will fit inside the step area of the floating piston). Slide the piston assembly on to the bottom of the shock shaft with the floating piston toward the e-clip. Once the assembly is resting against the e-clip, snap the bottom e-clip into place. (It is a tight fit for the e-clip. If it doesn't go in, remove the stationary piston and lightly sand the bottom, flat surface with a fine grit sand paper and then reinstall.) Once the bottom e-clip is in place, the floating piston should move freely at the top of the shock shaft. Install the piston - shaft assembly normally into the shock body. Be absolutely sure that the piston moves freely in the shock body before filling with oil.

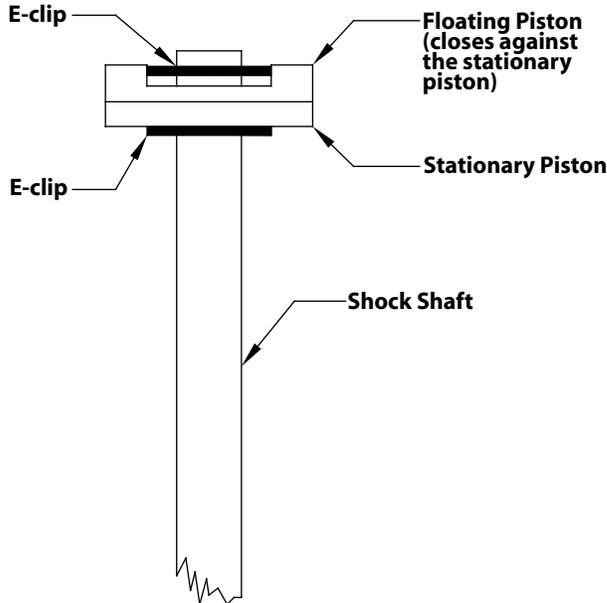
How they work: **RPM** shock pistons work better than any other R/C shock piston because they allow the shock to return to its static ride height at a much faster rate than do stock pistons. Our shock pistons act as miniature check valves (one way valves) that work instantaneously as the direction of the flow of oil through the piston changes. With **all** R/C shocks, the shock spring is the only thing that returns the shock to normal, static height. Up until the invention of the **RPM** Two Stage Shock Pistons, suspension set-up has always been a compromise. If the vehicle is set-up for the big jumps, it usually wouldn't handle as well over the small stuff (suspension too stiff & bouncy), likewise, if the vehicle is set-up for the smaller stuff, the vehicle would usually bottom out over the jumps (suspension too soft). **This is because all other shock pistons have the same dampening (resistance) on both the compression stroke as well as the rebound stroke.** **RPM** pistons allow normal dampening during the compression of the shock and increased oil flow on the rebound stroke for a quicker recovery with a normal, soft spring. This allows the suspension to stay planted and not over-compress or bounce.

Recommended Starting Points

All Vehicles: Regardless of piston choice, 30 - 40wt. oil is the best starting point. A variation in excess of 10wt. either up or down should be met with a piston change (next lighter dampening piston or next heavier dampening piston) to return your settings back to the 30 - 40wt. range.

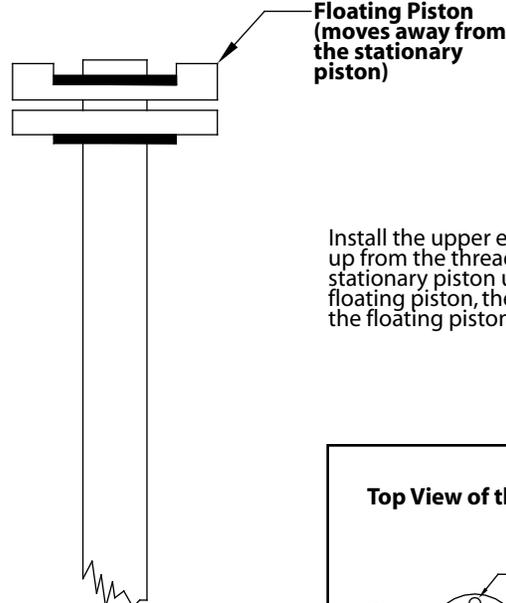
T-Maxx, E-Maxx & Monster GT: Use stock springs for most trucks unless heavily modified with aluminum parts, then a slightly heavier spring may be necessary. **Best Piston set-up:** Purple pistons in all eight shocks (requires a second package of **RPM** #80430 Pistons) with 30wt. oil in the front shocks & 40wt. oil in the rear shocks. **Alternate set-up:** (Uses one package of #80430 Pistons): Purple pistons in the rear four shocks and **RPM** green pistons in the front four shocks with 40wt. oil in all eight shocks. For more info., please see our website at www.RPMRCPRODUCTS.com.

#80420 & #80430 Two-Stage Shock Pistons Installation Tips and Working Theory



Compression Stroke

Under compression, the shock shaft moves up, pressing the two halves of the piston together, closing the "B" bypass holes and only allowing the "A" metering holes to flow oil.

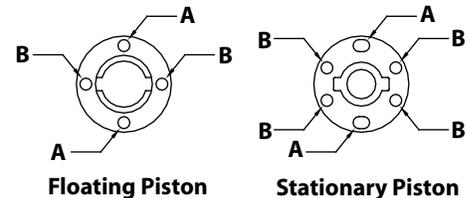


Rebound Stroke

Under rebound, the shock shaft pulls away from the floating piston, causing the two halves to separate, which allows the oil to flow through the "B" bypass holes in the stationary piston as well as the "B" bypass holes in the floating piston.

Install the upper e-clip first, then slide the floating piston up from the threaded end of the shock shaft. Slip the stationary piston up from the bottom and key it to the floating piston, then install the lower e-clip. Make sure the floating piston moves freely around the upper e-clip.

Top View of the Stationary and Floating Pistons



Floating Piston

Stationary Piston