Guide to Installing Shims in Ruger Double Action (RDA) Revolvers

If you're working on large-frame Ruger Double Action revolvers (like the GP100, SP101, Redhawk, Super Redhawk, or Alaskan), installing shims for the trigger, hammer, and hammer dog can significantly reduce side play, minimize friction, and improve overall trigger smoothness—especially in double-action mode. Shims provide better bearing surfaces and help center components, but proper measurement and installation are key to avoiding binding or reliability issues. Always prioritize safety: Unload your firearm, work in a well-lit area, and if you're unsure, consult a qualified gunsmith. By proceeding, you assume full responsibility for the modifications.

Measuring Clearances

Before installing any shims, use a feeler gauge (e.g., a standard automotive set) to measure the total side play (clearance) on one side of the component against the frame. Subtract your desired ending clearance (typically .002" to .004" for free movement), then divide the remainder by 2 to determine shim thickness per side. Aim to install shims on both sides for even distribution where possible. Test for smooth, bind-free operation after installation—it's always better to err on the looser side rather than too tight, as excessive tightness can cause drag, stress, or malfunctions.

Note: Newer models often have tighter machining tolerances than older ones, so they may require less (or no) shimming. Shims are typically stainless steel and color-coded by thickness (e.g., .002" black, .003" blue—check your kit for specifics).

Trigger Shims

Triggers in RDA revolvers benefit from shimming to reduce wobble and ensure consistent pull.

- If the measured clearance is .004" or less, it's often best to leave it alone to avoid over-tightening.
- For clearances starting from a .003" minimum ending goal, you can add a single shim on the shooting-hand side (right side for right-handed shooters) to improve feel without symmetrizing both sides.
- **Example:** With .006" total clearance, install a .003" shim on one side, leaving about .003" ending clearance.
- Don't shim tighter than .002" overall. For smaller gaps (under .006"), a single .002" or .003" shim on the left side can help right-handed shooters by centering the trigger better under pull.
- **Installation tip:** Apply a light grease to hold the shim in place during reassembly. After fitting, verify the trigger moves freely with no drag.

Hammer Shims

Hammers typically have more side play than triggers (often .010"–.014" or wider), which can cause frame rubbing and reduce hammer speed—look for arc-shaped scratches as a sign.

- Aim for a .005" minimum ending clearance to maintain reliability.

- Adjust by staggering shim thicknesses on each side as needed to center the hammer properly (e.g., .004" on one side and .006" on the other for a .014" gap, subtracting .004" ending clearance).
- Don't shim tighter than .003". Remove the hammer mainspring first to ease measurement and installation.
- **Pro tip:** Install the hammer into the frame, then slide shims down the sides using a feeler gauge blade or paper clip to align them. Grease helps them stick during assembly. Reinstall the pivot pin and test for smooth pivoting—no binding allowed.

Hammer Dog Shims

These shims are particularly effective for smoothing double-action trigger pull by stabilizing the hammer dog (the part that engages during DA cycling).

- A loose hammer dog can add grittiness; shimming reduces this without affecting single-action performance.
- Target an ending clearance of .002" to .003"—that's sufficient for noticeable improvement.
- Measure total clearance and install accordingly, but never go tighter than .002" to prevent stress on the mechanism.
- **Tip:** These are quick to add during a full disassembly and can make a big difference in DA feel, especially on well-used revolvers.

Final Tips and Warnings

- After any shimming, dry-fire (with snap caps) and function-check the revolver thoroughly. If you notice binding, increased trigger weight, or inconsistent operation, remove shims and reassess.
- For visual guides, check out installation videos on YouTube from TriggerShims (e.g., for SP101 or GP100 models—they apply broadly).
- Remember, these mods enhance performance but aren't always necessary. If your revolver functions smoothly stock, consider leaving it be.
- Shims available at TriggerShims.com—proudly made in the USA since 2008.