

JP AR-15 Reduced Weight Trigger/Hammer Spring Set JPS3.5, JPS3.5T

Parts Included:

- Yellow trigger spring
- Yellow hammer spring (JPS3.5 only)
- Red hammer spring (JPS3.5T only)
- Disconnecter spring

CAUTION:

**REMOVE MAGAZINE AND
VISUALLY CHECK CHAMBER
TO MAKE SURE THAT FIREARM
IS UNLOADED.**

These custom-produced springs are the same ones we use with our JP Fire Control components to achieve a reliable 3-lb. trigger setup with our proprietary sear geometry. They can also be used with properly prepared Mil-spec trigger/hammer components and a good anti-seize grease to achieve a usable 4- to 5-lb. trigger. The standard trigger and hammer are made of 8620 alloy steel with a case-hardened surface that is over 60R in hardness. However, this hard outer layer is very thin, and no change in the geometry of the sear surface or hammer notch is possible without cutting through to the inner ductile core of the parts. Once you cut through the hard case, the parts are of no use.

For the most straight-forward installation of these springs, simply remove the trigger pins from the receiver using a plastic mallet and drift pin. Then, replace the existing fire control springs with the new JP ones. When replacing the springs, note that one end of the disconnecter spring is slightly wider than the other. Make sure to insert this wider end into the trigger so that the narrower end is exposed to contact the disconnecter. Similarly, because it is easy to accidentally reverse, make sure to install the hammer spring as shown. With the new springs installed, reassemble the trigger group as you found it to complete the installation. For recommendations on performing a more thorough examination and optimization of the trigger components to maximize the effect of the trigger job, see the supplementary section below.



After the trigger components are reinstalled and secured, apply an appropriate lubricant particularly to the sear and disconnecter engagement surfaces. Oils and standard greases aren't optimal for this application, which really requires a good anti-seize grease. For this purpose, we offer Rydol Boron Nitride, a special sear compound ideally suited for this use.

It has a high solids content that actually separates the high-load surfaces and keeps the lube from being squeezed out after a few cycles. It is well worth the price and can be used on 1911s, Glocks and many other high-load trigger applications. It is practically a trigger job in a bottle.

Once installed, this spring setup will give good ignition reliability with domestically manufactured ammo and properly seated primers. Do not use foreign-manufactured ammunition because the primers in such ammo are often extremely hard and will give poor ignition with this spring kit. If after the installation you require further trigger improvement, order the JP Fire Control Kit for a true professional-quality 3-lb. single-stage trigger, or send in your lower receiver to us for a complete fire control installation. Check our website for service details and shipping instructions.

Examination and Refinement of Components

A common mistake when attempting to do a “trigger job” on AR-15 semi-auto parts is to change the sear geometry to eliminate the hammer camming effect. This results in a soft sear nose and a trigger that will only last a few hundred rounds before it “doubles” by firing on release. Therefore, the best you can do without access to welding and precision grinding equipment is to polish the sear and hammer notch. The sear surface on most quality triggers is already fairly good and can be polished to nearly a mirror finish using a buffing wheel or Dremel® tool with a polishing wheel. Be very careful not to round off the edge of the sear nose. Hold the trigger with the sear edge down or in the direction of the wheel. Do not polish with the edge into the wheel as you will quickly dump the edge on the sear. A slight radius is acceptable, as that will give a smoother “roll-off” feel to the sear.

The hammer can be a more problematic. The notch should be precisely ground into the hammer at 90° to the sear engagement orientation. Small ridges in the grind can give a gritty feel to the trigger and must be removed with a hard stone if they are very pronounced. If you do not have jigs to support the hammer and give a perfect 90° engagement of the stone in the notch, stoning the hammer can be a risky proposition. It’s important that the stone be used perpendicular to the hammer and parallel to the notch surface. You can set up the hammer in a vise to serve as a makeshift jig to help you position the stone on the hammer. If the notch doesn’t need to be stoned, polishing may suffice. If you have a cast-to-print hammer (which will not have a bare ground surface on the notch), examine it for a two-tier notch defect at the parting line of the mold. If the notch appears to have two levels, the hammer is not good and should be replaced. Unfortunately, there are many such hammers in use.

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