Adjusting the GTX Generation-II True 2-stage Trigger

VERIFY THAT THE GUN IS UNCOCKED AND UNLOADED! !!SAFETY FIRST!!

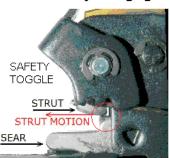


The GTX has two adjustment screws: *PRIMARY* and *SECONDARY*. The adjustment process should begin with the screws positioned approximately as shown here, with ~2 threads of the *SECONDARY* screw exposed above the top surface of the trigger, and ~4.5 threads of the *PRIMARY* screw exposed. Make adjustments with a 0.050" Allen wrench - provided in the GTX kit. Always make only small adjustments - 1/4 turn or less at a time.

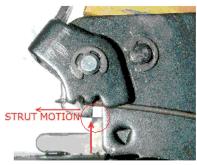
PRIMARY ADJUSTMENT: Like all true 2-stage triggers, the pull of the GTX consists of a light-weight 1st stage that does most of the work of preparing the sear to break and the gun to fire, followed by a heavier 2nd stage that completes the break and fires the gun. The PRIMARY screw allows adjustment of the transition between 1st and 2nd stages to synchronize it with the "knife edge" of the end of sear engagement and provide the ideal "glass rod" trigger break.

Adjustment of the GTX to achieve the ideal break is easier when trigger mechanics are understood, and the easiest way to understand is to watch them in action. With the action out of the stock and positioned with the trigger housing on top, the two main elements of the mechanics can be seen at the front of the housing: Strut and Sear. Pulling the trigger causes the Strut to rotate clockwise, moving its vertical edge toward alignment with the matching edge in the Sear #1. When these edges align #2, the Sear is free to break which, if the gun were cocked, would release the piston and fire the gun #3.

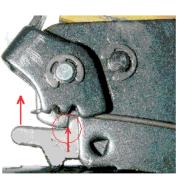
#1 Strut and Sear Fully Enagaged

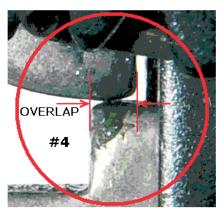


#2 Strut and Sear About to Break



#3 Fire!





When the GTX is pulled without first cocking the gun, a springy resistance should be felt that starts out light (1st stage) and then, as the pull is continued, suddenly changes and gets heavier (2nd stage). If this change in resistance can't be felt even when the blade is pulled through its full range of travel, then the PRIMARY screw needs adjusting so that it can be. The question is, which direction to turn it: CW(ClockWise = in) or CCW(CounterClockWise = out)?

A clue can be found in the amount of overlap (red circle) between Strut and Sear in figures #1 and #4. If greater than shown, turn the screw CW (in) - if less, turn it CCW (out). Always make only small adjustments - 1/4 turn or less at a time - between trial pulls of the trigger. If you go further than about two turns without finding the 2nd stage, you're probably going the wrong way.

Once the 1st/2nd stage transition can be felt, continue fine adjustments of the PRIMARY screw and trial pulls until the stage transition is properly synchronized with the moment of alignment of the Strut and Sear vertical edges #2. Turn the screw CW to move the Strut edge forward (to the left in the figures), CCW to move it backward (right). Final PRIMARY adjustment is done later in actual shooting.

Turning the PRIMARY adjustment CW (in) will shorten and lighten the 2nd stage - potentially to the point that it disappears completely. So if the 2nd stage can't be felt, turn the PRIMARY CCW (out). If the opposite situation occurs - the 2nd stage is too long and heavy (excess creep) - turn the PRIMARY CW (in). Always make only small adjustments - 1/4 turn or less at a time - between trial shots.

SECONDARY ADJUSTMENT: The main purpose of the SECONDARY screw is to provide for proper operation of the safety toggle. It can also be used to avoid a loose initial stage of blade free-play motion (takeup). If adjusted too far CW (in), the toggle won't work. If adjusted too far out (CCW), excessive takeup may result. Generally speaking, anywhere in between these extremes represents proper SECONDARY adjustment.