ROCKER
AR-7 FULL AUTOMATIC CONVERSION

DISCLAIMER: THE DRAWINGS HEREIN ARE SOLELY INTENDED FOR
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DRAWINGS TO ANY PURPOSE OTHER THAN THE USE STATED ABOVE.

WARNING: IT IS A VIOLATION OF FEDERAL LAW SUBJECT TO
FINE AND/OR IMPRISONMENT TO CONVERT ANY SEMI-AUTOMATIC
FIREARM TO FULL AUTOMATIC OPERATION.
This longitudinal section shows the rifle cocked and ready to fire. The far notch of the hammer is engaged with, but not restrained by, the auto sear. Pulling the trigger would cause the gun to fire automatically until the magazine is empty or the trigger released.

SECTION
FULL SIZE DRAWING
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The Gun Control Act of 1968 and the Hughes Amendment (machine gun ban) of 1986 make it illegal to build a machine gun or have in your possession the parts to make a machine gun. The law makes no distinction between a fully functioning, fully automatic weapon or merely having the loose parts necessary for the conversion. To actually make an auto sear for a semi-automatic rifle is a Federal felony offense risking severe penalties, fines and/or imprisonment. Local and State laws may even be more stringent.

HOW THE AUTO SEAR WORKS

Beginning with the gun loaded and cocked as shown in the sectional drawing, pulling the trigger allows the hammer to rotate under spring pressure to strike the firing pin. The firing pin crushes the rim of the bullet exploding the primer and igniting the powder. The resulting chemical reaction forces the bullet down the barrel and begins the bolt moving rearward compressing the action springs.

The recoiling bolt rotates the hammer on the hammer pivot pin tensing the hammer spring. The far notch of the hammer strikes the auto sear which snaps back over the hammer notch under pressure from the bent end of the hammer spring. As action springs force the bolt forward the hammer starts to rotate under pressure from the hammer spring forcing the auto sear upwards against the bottom of the bolt. As long as any part of the bolt is over the auto sear the hammer is held captive.

As a fresh round is chambered, the end of the bolt clears the top of the auto sear which rises into the space behind the bolt. This releases the hammer and causes the auto sear to snap down to the floor of the frame under pressure from the bent leg of the hammer spring. The hammer strikes the firing pin causing the whole cycle to repeat. Releasing the trigger engages the near notch of the hammer resulting in the cocked configuration as shown in the sectional drawing.

MAKING THE AUTO SEAR

First, order one new trigger and one new hammer spring from the manufacturer of the rifle. The auto sear is made from two components: a piece of 0.032" brass and a 3/32" drill bit. The brass is available as an 0.032"x2"x1/16" brass plate (RK & Engineering Co., 5917 West 59th St., Chicago, IL 60638, part number 244-032x2x1/16). A rectangle approx. 1.3"x1.1" is cut out and bent over a 5/16" square rod (HAR-KEY 5/16") to form a "U". A 3/32" hole is drilled as indicated and the shank of the drill bit is cut and soldered into place. The hole, groove and square slot are cut into the back and the whole assembly ground or sanded to the final shape.

To bend the "U" shape in the brass take a 12" piece of 5/16" square rod and cut it in half. Hold the 1.3"x1.1" brass between the rods like a pair of chopsticks. Place a scrap piece of brass at the other end and to keep the tubes parallel. Squeeze the tubes together in a vise and tap the brass rectangle into proper position before clamping down hard. Start the bends with thumb pressure. Make the last part of the bends using channel lock pliers or other device to insure good square corners. Keep in mind that the thickness to the "U" must be no greater than the thickness of the gun's detachable magazine.

The technique employed to solder the 3/32" drill bit to the brass frame is known as "sweating" and widely used by plumbers. The pieces are cleaned with steel wool, coated with soldering flux paste, fitted together, heated with a small torch (alcohol lamp, kitchen range, etc) and acid core solder is applied to the joint. If there is sufficient heat, the lead solder will be drawn into the joint by capillary action making a very strong connection.

A Dremel hand grinder with #402 mandrel and #409 cutting wheel are extremely useful for cutting the bit and shaping the brass. Test fit the pieces into the rifle often during the process to check for proper relationship with the bolt and hammer. Grind the hook off the trigger and bend one leg of the hammer spring and the parts are ready for assembly.

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The bent leg of the hammer spring goes through the 1/16" hole in the auto sear with the tip bearing in the shallow groove on the back. When properly positioned, the auto sear should be pressed against the hammer guides cast into the frame and cover plate. This should be enough flexibility to allow the far notch of the hammer to be caught by the 3/32" drill rod. The rectangular notch allows the auto sear to straddle the trigger without touching it. The sectional drawing shows the proper relationship.

Test for proper function by cycling the bolt slowly while holding down the trigger. The fall of the hammer should be heard just before the bolt contacts the back of the barrel. During automatic fire the bolt will stop moving before the hammer hits the firing pin. Reorder trigger and hammer spring (parts #2238 and #2246 respectively) from the manufacturer for reassembly as semi-automatic rifle.

MISCELLANEOUS
Other designs are available which reflect the quality and originality of the one you have before you. ZAPPER: dual function lighting/Firing cigarette lighter. BUCKLER: double barreled belt buckle gun. BLITZER: high explosive bullets for your handgun. FENZUN: dual function, writing/Firing ball point pen. Other plans are also available. For catalogue and photographs send $1 and a self addressed stamped envelope to:

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