REMINGTON FIELD SERVICE MANUAL

The Model 740 is an autoloading, high power, center fire rifle. To operate the autoloading action, a measured portion of the propellent gases are exhausted from an opening at midsection of barrel as gun is fired. This gas drives action bar assembly rearward, carrying with it the bolt carrier. The bolt carrier is attached to bolt by cam pins which work in cam ways in bolt. The cam ways are so cut that a delay occurs between the time action bar begins to move rearward, and the time bolt starts to rotate. This delay is timed to permit bullet to clear muzzle and chamber pressure to reduce, before bolt begins to rotate from a locked position.



The replacement of barrels and breech bolts requires **selective** assembly. That is, special tools and gauges are used to make certain the rifle will operate correctly. All other replacement parts, or components, can be assembled as received, but since they are made to close dimensions, the particular part may need slight adjustment to be sure rifle will operate correctly. An effort has been made in this manual to anticipate and describe such necessary adjustment.

CAUTION: Make certain the firearm is unloaded. Check both magazine and barrel chamber for live cartridges before servicing or shipping firearm.

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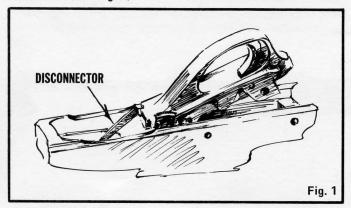
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Send all guns for factory service and inquiries on service and parts to REMINGTON ARMS COMPANY, INC.
Arms Service Division
Ilion, New York 13357

DISASSEMBLY

TRIGGER PLATE ASSEMBLY (Fire Control)

Open action to cock hammer. Close action. Place gun "ON SAFE". Remove magazine. Drive out front and rear trigger plate pins. Disassemble trigger plate by lifting from receiver, tipping front end slightly to disengage disconnector from wall of receiver. (See Fig. 1).



TRIGGER PLATE COMPONENTS (See Exploded View)

Push safety switch to "FIRE" position (red band mark showing).

Uncock hammer gently.

Magazine Latch - Magazine Spring

Pull magazine latch from protruding end of hammer pin. (Latches are marked for size). Disassemble magazine latch and small magazine spring, assembled to rear prong of latch, from trigger plate. (loose fit).

Trigger Plate Pin Bushing, Front

Push out bushing component from left to right and disassemble from trigger plate (loose fit.)

Note: Rear of action bar lock spring will be dislodged from left end of bushing to spring up and forward about hammer pin, as bushing is drawn from trigger plate.

Trigger Plate Pin Detent Spring, Front

Note: The spring component will remain assembled to trigger plate pin bushing, front, as bushing is disassembled from trigger plate. Slide spring component over end of bushing component and disassemble from end of slot in bushing.

Disconnector - Disconnector Spring

Partially cock hammer against hammer plunger to relieve pressure on disconnector and hold; Pull disconnector (and attached spring) from hammer pin and disassemble both disconnector and spring from trigger plate (loose fit). Release hammer gently.

Hammer - Hammer Pin

Push out hammer pin. (loose fit), from left to right. (note larger diameter on right end.)Disassemble pin and hammer from trigger plate.

Hammer Plunger - Hammer Spring

Lift both components from angled front slot and disassemble from trigger plate, withdrawing spring from plunger. (loose fit.)

Sear Spring

Disengage spring from rear of sear and projection on front of connector. Disassemble from trigger plate assembly.

Sear - Sear Pin

Shake or push out sear pin from right to left. Disassemble pin and sear from trigger plate.

Trigger Plate Pin Bushing, Rear and Trigger Plate Pin Detent Spring, Rear

Shake or push out combined component from right to left and disassemble from trigger plate. Slide spring over end of component and disassemble from end slot on bushing.

TRIGGER ASSEMBLY is factory listed as part of the Trigger Plate Assembly. It is composed of the trigger, connector, right; connector, left; and connector pin.

NOTE: FACTORY SERVICE IS REQUIRED FOR ALL TRIGGER ASSEMBLY RELATED PROBLEMS. RETURN THE TRIGGER PLATE ASSEMBLY OR THE FIREARM TO THE FACTORY FOR SERVICE.

Safety Switch Safety Swith Plunger Safety Switch Spring Safety Switch Spring Retaining Pin

Push out retaining pin from left to right (note taper end).

Caution: Hold fore-finger over spring hole in top of plate as pin is withdrawn to prevent safety switch spring and plunger from popping free of trigger plate. Lift safety switch spring and plunger from hole in trigger plate. Push out loosened safety switch from trigger plate. (Note righthand safety switch red band marking protruding from left of quard).

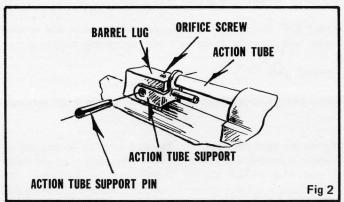
FORE-END (Assembly Fixed)

Place screw driver to front end of fore-end and unscrew foreend screw. Push fore-end towards muzzle of barrel and slide from gun. (It may be necessary to slap fore-end smartly with palm of hand to loosen, after unscrewing fore-end screw.) Pull fore-end screw, fore-end screw lock washer, and fore-end cap forward to disassemble easily from fore-end.

Note: This fore-end is actually an assembly of the fore-end wood and a metal liner or reinforcement. This assembly is permanently bonded together at the factory with a special adhesive under controlled heat and pressure. Separation cannot be made without damage to components. Therefore, replacement as a unit is necessary.

BARREL (Assembly Fixed)

Cock hammer and place gun "ON SAFE". Close action and remove magazine. Remove fore-end. Drive out action tube support pin and disassemble from barrel lug. (See Fig. 2).



Place gun upside down (Magazine opening up.) Pull action bar sleeve towards receiver to partially open action and hold. Push action tube support along action tube towards action bar sleeve until free of gas nozzle. Pull front end of action tube away from barrel lug, turn action tube support in a half circle on action tube. (See Fig. 2).

Slide action tube support along action tube towards muzzle of barrel and disassemble from gun. Pull action tube out of action bar sleeve and action spring, towards muzzle, and disassemble from gun.

Caution: Action spring will spring free as the action tube is withdrawn from the action spring.

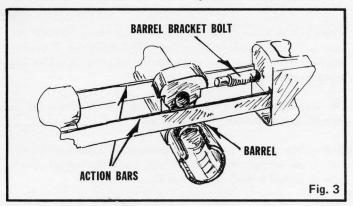
Return action bar sleeve forward and disassemble action spring from gun.

Note: Proper operation of rifle will be impaired, if nozzle end of gas jet is changed or damaged in any manner. Therefore, when returning action bar sleeve forward, guide it into position carefully with matching hole in front of sleeve, sliding easily over gas jet nozzle. A spanner wrench, or equivalent tool, is required to unscrew nut (old style) from barrel bracket bolt.

Note: This barrel bracket nut is designed to tighten a barrel very securely to receiver. Therefore, forceful effort may be required to make first turn on nut.

Disassemble barrel bracket nut from gun. Disengage barrel from receiver and barrel bracket bolt, using an easy toggle movement. Pull barrel from receiver. Now disassemble barrel

from gun by swinging barrel to a right angle position between both sides of the action bar. (See Fig. 3).



Note: The barrel lug and gas nozzle located at the midsection of barrel, the breech ring and barrel extension, and front sight ramp are considered as components of the "fixed" barrel assembly. Therefore, please return barrel to factory if any replacement of these parts is necessary.

The small orifice screw, visible on top of barrel lug is staked at factory to prevent any possible working loose, during functioning of arm. The screw may be disassembled if a replacement of orifice ball is required. Care should be taken that screw is staked if replacement is made.

FRONT SIGHT

Place support against front sight ramp. Drive against dove-tail base of sight with soft metal or hard composition material to prevent mutilation of sight. Disassemble front left to right if replacement is desired.

REAR SIGHT

Lift rear sight leaf and slide rear sight step towards breech of barrel and disassemble from gun.

Note: The rear sight step is marked for size.

Support barrel properly to prevent damage and drive against dove-tail base to disassemble from barrel.

OPERATING HANDLE

Remove magazine. Partially open action and hold. Position ejection port cover with notch in handle slot aligned to operating handle retaining pin.

Drive operating handle retaining pin from shoulder at rear of operating handle — drive from ejection port to disassemble from bottom surface of bolt carrier. Reposition ejection port cover notch to bolt handle and lift and disassemble operating handle from the bolt carrier with a slight toggle movement.

Note: Four (4) ridges are raised up by line cuts on bottom end of operating handle retaining pin. These raised ridges will hold pin tightly assembled to bolt carrier. Therefore, a solid punch may be required to start pin moving from assembled position at ejection port. A bent drift punch can then be applied to disassemble pin completely from bolt carrier.

ACTION BAR ASSEMBLY (Fixed) EJECTION PORT COVER

Close action and remove magazine. Disassemble fore-end and barrel. Disassemble operating handle. Pull action bar sleeve forward to slide bolt carrier and attached breech bolt, along with ejection port cover from receiver.

Caution: Ejection port cover will drop free as action bar assembly is disassembled from receiver.

Spring arch at rear of action bar sufficiently to permit bolt carrier to be pushed from grip of bar. Disassemble bolt carrier, with attached breech bolt, from action bar.

Caution: The cam pin is loose fitting and may drop from bolt carrier.

The action bar assembly is factory listed as only the action bar sleeve, action bar rivet, and action bar. This assembly is recommended for replacement as a unit.

BREECH BOLT (Assembly)— FIRING PIN RETRACTING SPRING

Disassemble action bar from gun. Shake loose fitting cam free and disassemble from bolt carrier. Slide forward and disassemble breech bolt from bolt carrier.

Note: The firing pin retracting spring will be loose on front section of firing pin in bolt carrier. Slide and disassemble firing pin retracting spring from firing pin.

Note: The breech bolt assembly (new style) as disassembled from bolt carrier at this stage, is factory listed as the breech bolt, ejector, ejector spring, ejector retaining pin, extractor, extractor rivet.

The two (2) diagonal camming slots on sides of breech bolt are of different widths. The cam pin reassembles to smaller width cam slot. The base end of operating handle reassembles to larger width cam slot and serves as the other cam pin.

EJECTOR - EJECTOR SPRING

(Bolt Type – new Style). Disassemble breech bolt from gun. Drive ejector retaining pin from breech bolt.

Caution: Hold ejector with fore-finger to prevent ejector from springing free of bolt during disassembly.

Disassemble ejector and ejector spring from breech bolt.

EJECTOR - No Spring Required

(Receiver Type — old style.) Close action, remove magazine. Disassemble trigger plate from gun. Turn gun bottom up, drive ejector retaining pin from left wall of receiver. Disassemble pin from left top panel of receiver. (outside) Disassemble ejector from left wall of receiver. (inside).

EXTRACTOR

Disassemble breech bolt from gun. Disassemble ejector. (bolt type) Drive extractor rivet from breech bolt — outside to inside.

Pry up extractor from inner rim, on face of bolt, and disassemble extractor and rivet from bolt.

BOLT CARRIER -FIRING PIN

Disassemble action bar from gun. Disassemble breech bolt from gun. Slide and disassemble loose fitting firing pin retracting spring from front section of firing pin in bolt carrier. Spring arch at rear of action bar sufficiently to permit bolt carrier to be pushed from grip of bar.

Note: Bolt carrier, as disassembled from action bar at this stage, will contain firing pin and firing pin retaining pin.

FIRING PIN

Drive firing pin retaining pin and disassemble from bolt carrier.

Notice the four (4) ridges raised up by line cuts on one end of firing pin retaining pin. These raised ridges will hold pin tightly assembled to bolt carrier. Therefore, drive pin, when disassembling, from end opposite line cuts. Disassemble firing pin from bolt carrier.

STOCK

Note: The stock may be disassembled with all major parts assembled to gun. The stock bolt is firmly screwed to receiver. Therefore hold receiver and stock securely in support or padded vise when disassembling. Take care that receiver is not squeezed in as stock is disassembled. Remove butt plate to expose stock bolt hole. Insert long screw driver into stock bolt hole. Unscrew stock bolt. Disassemble stock from receiver, including stock bolt, stock bolt lock washer, and stock bolt washer, Replace butt plate on stock, if desired, to prevent loss of stock washers and bolt.

RECEIVER (Assembly)

Note: The receiver may be furnished as a replacement assembly, which is factory listed as receiver, barrel bracket bolt, receiver stud, stock bearing plate, receiver plug screw (4). The receiver is center part assembly of gun. All of the major part assemblies of magazine, trigger plate, fore-end, barrel, action bar, and stock must be disassembled from gun if a replacement receiver is required. Disassemble components of the receiver assembly as follows: Tap threaded end of barrel bracket bolt, protruding from front of receiver to dislodge serrated head from receiver. Disassemble barrel bracket bolt from receiver. Unscrew receiver stud from rear of receiver. Disassemble stud and stock bearing plate from receiver.

MAGAZINE CÓMPONENTS

Note: Components in this assembly, complete, including magazine assembly, (magazine, bolt release assembly, bolt release

button, magazine follower and magazine spring.)

Plunge magazine follower downward in magazine, permitting front end to tilt slightly upward. Insert blade of screw driver under front end of follower and lift upward with a side twist of screw driver to allow front end of follower to thrust upward and free from magazine. Reach into magazine under upthrust follower and pull middle bend of magazine spring from magazine until bottom end of spring is free of magazine. Lift magazine spring with attached magazine follower upright in magazine and disassemble follower with a twisting side motion from bolt release pin on bolt release assembly and remove from magazine.

IMPORTANT: A deft twisting motion of magazine follower is required during removal.

Magazine Spring from Magazine Follower: (After removal of combined unit from magazine.)

Dislocate bent back section of magazine spring from rear bottom surface of magazine follower. Pull spring to rear and slide front bladed section of spring from under double grip of magazine follower.

Magazine (Assembly)

Note: This assembly is composed of magazine, bolt release, bolt release pin, and bolt release button. (The bolt release pin is press fitted to bolt release at factory to form bolt release assembly).

Locate bolt release button end of bolt release assembly for proper support position. Then drive swaged inner end of bolt release button, to dislocate, and remove from bolt release assembly. Disassemble bolt release assembly from magazine. Replace bolt release assembly as a unit, if necessary.

REASSEMBLY

TRIGGER PLATE ASSEMBLY (Fire Control)

Cock hammer. Push safety switch to "ON SAFE" position (red band mark not showing). With action closed, reassemble trigger plate assembly to receiver as follows: Tip front of plate down into receiver, until disconnector lays flat against side of receiver. Slide plate forward in receiver until disconnector can be raised upon rounded end of action bar. Level plate in receiver and pull to rear until pin holes can be aligned. Push in both front and rear trigger plate pin through aligned holes.

Note: Replacement of trigger plate assembly including all of its components may be made as a unit. It should interchange in gun with present unit.

TRIGGER PLATE COMPONENTS

Safety Switch Safety Switch Plunger Safety Switch Spring Safety Switch Spring Retaining Pin

Reassemble safety switch to trigger plate with red band marking to left of plate. Reassemble safety switch spring to safety

switch plunger. Drop safety switch plunger with attached spring, head down, in safety switch retaining hole. Reassemble safety switch retaining pin to side of trigger guard. Compress safety switch spring and push in retaining pin to hold over safety switch spring reassembled to trigger plate.

TRIGGER ASSEMBLY is factory listed as part of the Trigger Plate Assembly. It is composed of the trigger, connector, right; connector, left; and connector pin.

NOTE: FACTORY SERVICE IS REQUIRED FOR ALL TRIGGER ASSEMBLY RELATED PROBLEMS. RETURN THE TRIGGER PLATE ASSEMBLY OR THE FIREARM TO THE FACTORY FOR SERVICE.

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Sear - Sear Pin

Reassemble sear to trigger plate with sharp hammer notch on sear located to front of plate. Hold pin holes aligned and assemble sear pin (loose fit), left to right.

Sear Spring

Pull forward on trigger to permit connectors to fall back in plate. Reassemble sear spring against rear of sear, locating on protruding prong, and against short dual stud projecting from combined connectors.

Trigger Plate Pin Bushing, Rear Trigger Plate Pin Detent Spring, Rear

Reassemble detent spring to bushing with straight end of spring located to end slot cut. Hold back on trigger, thereby permitting top of trigger to rotate forward against reassembled sear spring and clear of bushing hole. Slide combined unit of bushing and detent spring to seat into large recessed bushing hole.

Hammer Spring - Hammer Plunger

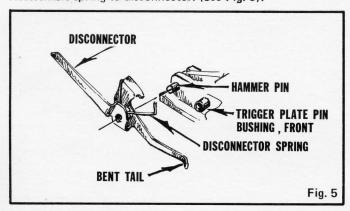
Reassemble spring to open end of plunger (loose fit). Reassemble combined spring and plunger to plate with spring end down first in angled hole at front section of the plate.

Hammer - Hammer Pin

Reassemble hammer to front section of plate positioning sear notch section of hammer to overhang reassembled hammer plunger. Align pin holes and push in hammer pin (headed end of pin) seated against right or magazine latch side of plate. Depress hammer plunger and cock hammer back to latch against sear.

Disconnector Spring - Disconnector

Reassemble spring to disconnector. (See Fig. 5).



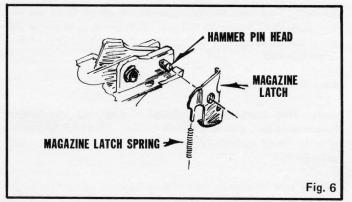
Reassemble combined components to smallest end of hammer pin protruding from front left section of plate. Make certain rear bent tail on disconnector reassembles **under** front end of connector, left.

Trigger Plate Pin Bushing, Front Trigger Plate Pin Detent Spring, Front

Reassemble spring to bushing, permitting straight end of spring to locate in end slot of bushing (either end), Slip circular section of spring over end of bushing. Reassemble free end of bushing to right side of plate to surface from left side above rear tail of disconnector. Bend right angled end of disconnector spring backwards until it can be held down by protruding free end of trigger plate pin bushing, front, and positioned in end slot.

Magazine Latch and Spring

Reassemble spring to rear projection on latch. Insert free end of spring to round depression in right forward rail of plate. Align hole in latch to protruding hammer pin head. Reassemble latch to fit flush with hammer pin head and seat flush into magazine latch cut, in right front of plate. (See Fig. 6).



Cock hammer, push safety switch to "ON SAFE" position, and trigger plate and components are ready for reassembly to gun.

Trigger Plate

A replacement trigger plate, if required, can receive the reassembly of all of the above components, without adjustment.

FORE - END

Assemble fore-end cap, fore-end screw lock washer, and foreend screw to fore-end. Assemble fore-end barrel lug and slide towards receiver.

Note: Make certain fore-end cap is correctly positioned to fore-end to permit barrel clearance cut in cap to align properly with barrel. Settle rear of fore-end firmly over breech ring on barrel and against receiver. Tighten fore-end screw to assemble fore-end assembly to gun.

BARREL (Assembly Fixed)

The barrel is factory listed as an assembly to include barrel, barrel extension, barrel lug, breech ring, front sight ramp. Replace as an assembly.

Caution: Replacement barrels require selective assembly. Headspace requirements must be rigidly held within established dimensional limits. Unless the correct minimum "GO" and maximum "NO GO" heading gauges are used to check dimensional limits, the selective assembly must be done at factory. Return complete gun.

With fore-end and magazine disassembled from gun, pull action bar sleeve forward to half close the action. Insert breech ring of barrel between both sides of action bar, with barrel at right angles to receiver. Swing barrel forward to align with receiver, permitting breech ring to spread bar slightly as alignment is made. Line up hole in breech ring to threaded barrel bracket bolt on receiver and settle breech of barrel into receiver.

Note: If action should be pulled closed before barrel reassembly, breech bolt must be in fully extended position on cam pin. The breech bolt will then easily re-enter matching channels in barrel extension.

Reassemble barrel bracket nut to threaded barrel bracket bolt with the split cone side of nut placed toward breech ring of reassembled barrel. Screw up barrel bracket nut until breech ring of barrel is very securely tightened to receiver.

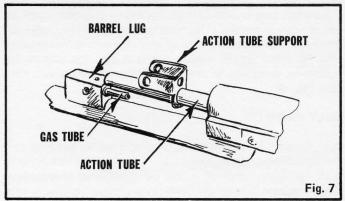
Note: A spanner wrench, or equivalent tool is required to tighten nut (old style) and secure barrel to receiver.

Caution: Proper operation of rifle may be impaired if nozzle end of gas tube is changed or damaged in any manner. Guide action bar sleeve carefully forward as nozzle re-enters matching hole in front of sleeve.

Close action by pulling action bar sleeve fully forward to rest **not assembled** to gas nozzle. Assemble action tube to enter front of action bar sleeve. Assemble action spring with forward end inserted in rear of action bar sleeve and over rear end of action tube, projecting from sleeve.

Note: Sleeve may be pivoted upon rivets to assist in assembly.

Compress action spring forward along action tube as tube is pushed backward into sleeve and reassembled to recess in barrel bracket nut. Pull sleeve back against pressure of assembled action spring and assemble action tube support to protruding front end of action tube. (See Fig. 7).



Push action tube support back along front end of action tube until support can be turned toward barrel. Push action tube down to seat against rear of barrel lug, above gas nozzle. Align gas nozzle hole in support with gas nozzle on barrel lug. Return action tube support forward along action tube and gas nozzle until pin holes align with hole in barrel lug. Note: Make sure front end of action tube reassembles properly to rear of barrel lug and remains seated with rear end recessed into front of barrel bracket nut. Reassemble and drive (split) action tube

support pin through aligned pin holes of support and lug. Drop orifice ball into hole in bottom of barrel lug, screw in orifice screw snugly and stake in place. Reassemble fore-end to qun.

OPERATING HANDLE

With magazine removed — Partially open action and hold; Position ejection port cover with notch in handle slot aligned to operating handle hole in bolt carrier. Reassemble operating handle to bolt carrier. Release and close action. Turn receiver bottom up, reassemble operating handle retaining pin to pin hole in bolt carrier, with smooth end (no cut ridges) entering hole. Drive reassembled pin through aligned hole in bolt carrier and operating handle. Sear flush to surface of bolt carrier. Replace magazine, open and close action to check for proper function.

ACTION BAR (Assembly Fixed)

Ejection Port cover

With magazine, fore-end, barrel, trigger plate, and operating handle disassembled. With bolt carrier and breech bolt reassembled to action bar. Pull breech bolt to extended position from bolt carrier and reassemble ejection port cover to bolt carrier.

Hold ejection port cover to bolt carrier and align combined unit of action bar, bolt carrier, breech bolt, and ejection port cover to channel cuts in front of receiver.

Caution: Make certain cam pin (loose fit) remains fully seated in bolt carrier. Otherwise, if protruding, it may hinder reassembly of action bar to receiver.

Slide unit into receiver. After action bar is reassembled to receiver, check for free sliding movement of ejection port cover upon bolt carrier, as action bar is moved to and fro in receiver. Check and make certain that action bar hugs wall of receiver and is not bent excessively in towards bolt carrier. Reassemble operating handle, barrel, trigger plate, and fore-end to gun.

BREECH BOLT (Assembly) (new-style)

Note: The breech bolt (new-style) can not be replaced in a receiver which has the receiver wall ejector.

The breech bolt is factory listed as an assembly to include breech bolt, ejector, ejector spring, ejector retaining pin, extractor, extractor rivet. Replace as an assembly as desired.

Caution: Replacement breech bolts require selective assembly. Headspace requirements must be rigidly held within established dimensional limits. Unless correct minimum "GO" and maximum "NO GO" heading gauges are used to check dimensional limits, selective assembly must be done at factory. Return complete gun.

With action bar disassembled from gun, with bolt carrier reassembled to action bar, with firing pin retracting spring reassembled upon firing pin in bolt carrier, slide small end of breech bolt to bolt carrier over firing pin and retracting spring.

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Note: The two (2) diagonal camming slots on breech bolt are of two widths. The cam pin reassembles to the smaller of the two slots. The operating handle, when reassembled, serves as the opposite cam pin, entering the larger of the two slots. Align narrow width cam slot in breech bolt to cam pin hole in bolt carrier. Reassemble cam pin to bolt carrier and into cam slot in breech bolt. Seat flush to bolt carrier. Check breech bolt for free rotating travel, to and fro in bolt carrier. Hold breech bolt closed to bolt carrier and check firing pin for plunging protrusion from the bolt face (.040" to .060") and full retraction back by the retracting spring in bolt carrier. Reassemble action bar to gun. Reassemble remaining parts to gun.

EJECTOR (Bolt type — new style) EJECTOR SPRING

With action bar disassembled from gun, with breech bolt disassembled from action bar, Reassemble ejector spring to small shank end of ejector. Reassemble combined ejector spring and ejector to ejector hole in breech bolt face. Align clearance slot in heavy shank end of ejector to ejector retaining pin hole in side of bolt. Reassemble ejector retaining pin to breech bolt.

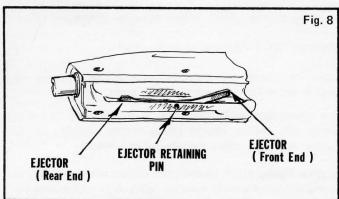
Note: The four (4) ridges raised by line cuts on one end of retaining pin. Insert smooth end first into hole when reassembling.

Drive retaining pin thru aligned slot in ejector and seat flush to breech bolt. Check ejector for free plunging motion in bolt.

EJECTOR (Receiver Type - old style - no spring).

Note: The receiver — type ejector will not operate with new-style breech bolt which has new—style ejector protruding from bolt face.

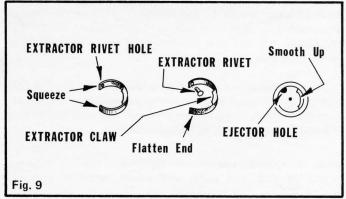
With magazine and trigger plate disassembled. Turn receiver bottom up and reassemble ejector to inner wall of receiver opposite ejection port. Position ejector under inner rail and align pin holes. (See Fig. 8).



Reassemble ejector retaining pin from top panel of receiver. (outside). Notice cutaway flat on one end of retaining pin. Insert opposite solid end first to hold in top panel of receiver. Position cutaway flat to outside when reassembling to receiver panel. Drive ejector retaining pin thru aligned holes in ejector, flush only to receiver panel. Do not drive deeper in hole. Check ejector for free pivot motion when reassembled to receiver. Open and close action for further check of operation in breech bolt channel cut. (old—style breech bolt). Reassemble trigger plate and magazine.

EXTRACTOR

With breech bolt disassembled from bolt carrier. With ejector (bolt type) disassembled. Adjust replacement extractor for proper tension before reassembly as follows: (Replacement extractor will interchange with the old style extractor.) Squeeze ends of extractor together slightly. (See Fig. 9).



Straighten tail of extractor. Reassemble extractor to bolt face and snap under bolt rim. Align extractor rivet hole in extractor with rivet hole in bolt rim. Insert extractor rivet thru aligned hole with rivet head against extractor when reassembling.

Note: If original disassembled extractor is reassembled, adjustment for proper tension before reassembly may not be necessary. A replacement extractor rivet must be supplied for reassembly. Place support, inside bolt rim, against head of rivet. Stake rivet against outside of breech bolt. Smooth up staking to blend with outside wall of bolt. Adjust extractor for proper tension, using a fired case. Extractor must grip fired case firmly and hold fired case when breech bolt is held face downwards.

If fired case is gripped too securely (case snaps free with difficulty) — Tap extractor smartly, with a soft metal punch, back under bolt rim. Test with fired cartridge case again. Repeat same operation if extractor needs further adjustment to reduce tension. If fired case is gripped to loosely (case drops away when bolt is held face downward) — Extractor must be pulled from under rim to increase tension against fired case, or disassemble, if necessary, and rebend extractor as indicated in (Fig. 9). After proper tension has been adjusted, smooth up incline on extractor to match perfectly to breech bolt rim. (See Fig. 9).

BOLT CARRIER

With breech bolt disassembled from bolt carrier and bolt carrier disassembled from action bar. If replacement action bar is used, spring rear arch of action bar together to provide firm tension against bolt carrier. With firing pin reassembled to bolt carrier. Push and reassemble bolt carrier to rear arch of action bar.

Bolt carrier should settle firmly into place and hold securely gripped by action bar as bar is turned over to test grip. Reassemble breech bolt to bolt carrier. Reassemble action bar to gun.

Note: Action bar should hug receiver walls snugly without bind to prevent disconnector from dropping off action bar,

and to clear magazine. This can be adjusted by holding the assembly in a vise where it grips the bolt carrier and spreading the bars at this point by tapping with a hammer. Reassemble remaining parts to gun.

Firing Pin

With breech bolt disassembled from bolt carrier, and bolt carrier disassembled from action bar. Reassemble firing pin to bolt carrier, aligning — Firing pin retaining pin clearance slot in heavy section of firing pin with retaining pin hole in rear of bolt carrier. Reassemble firing pin retaining pin to aligned holes. (Insert smooth end of retaining pin first in hole). Drive against ridged end of retaining pin until pin is seated below surface of bolt carrier. Check firing pin for free movement, to and fro, in bolt carrier.

STOCK

Remove butt plate, if on stock, to expose stock bolt hole in stock, Reassemble stock bolt lock washer first on stock bolt, then reassemble stock bolt washer on stock bolt with projections or spurs toward stock. Reassemble stock bolt with attached washers into bolt hole in stock. Reassemble stock to rear of receiver. Screw stock bolt to receiver until stock is securely tightened to receiver assembly. Reassemble butt plate and screw tightly to stock.

Stock Bearing Plate - Receiver Stud

With stock only disassembled from gun. Reassemble stock bearing plate to rear face of receiver. Reassemble receiver stud thru hole in stock bearing plate and screw stud against stock bearing plate to tighten bolt stud and stock bearing plate to receiver.

RECEIVER (Assembly)

Note: This assembly is factory listed to include barrel bracket bolt, receiver, receiver plug screw (4), receiver stud, stock bearing plate.

With magazine trigger plate, and stock disassembled. With fore-end, barrel, and action bar disassembled. The receiver assembly is the center part of the gun. Therefore, all of the above major parts of the gun must be reassembled in proper order to the receiver assembly.

Barrel Bracket Bolt

With magazine, fore-end, and barrel disassembled from gun. Reassemble barrel bracket bolt to front of receiver. Seat serrated head to front end of receiver through magazine opening. Tap serrated head into place, with threaded end of bolt protruding from front end face of receiver.

Note: Barrel bracket nut will tighten barrel bracket bolt securely in place as barrel is reassembled to reciever.

MAGAZINE COMPONENTS

Magazine Assembly

Note: This assembly is composed of magazine, bolt release, bolt release pin, and bolt release button. (The bolt release and bolt release pin are press fitted at the factory to form bolt release assembly.)

Locate this assembly to the narrow slot cut on magazine, with pinned end facing inside opposite wall of magazine. Position rivet end of bolt release button through matching hole in protruding end of bolt release assembly. Swage or rivet under side of this bolt release button to tighten against bolt release assembly.

Magazine Spring to Magazine Follower

Assemble notched end of magazine spring to under face of magazine follower. Slide spring forward under front double locking lips until rear bent section of the spring will snap to a lock position forward of the rear lug on magazine follower.

Magazine Follower & Magazine Spring to Magazine

Position bolt release pin of bolt release assembly to top of magazine and hold. Assemble follower with attached spring to bolt release pin. Permit pin to enter hole in rear side of follower. Locate follower correctly upright in magazine to permit assembly of follower in proper functioning position with in magazine. Grasp magazine spring by middle bend, compress to follower until free end of magazine spring will slide into magazine — front end of magazine follower will remain up—thrust from magazine. Grasp front end of upthrust follower, tilt toward bolt release side of magazine, then plung follower down into magazine and under the restraining lips of the magazine.

Note: Make certain bolt release pin of bolt release assembly remains assembled to rear side of follower.

Release magazine follower and test for free motion in magazine. Also test bolt release assembly for free back and forth motion as magazine follower is moved up and down in magazine.

CYCLE OF OPERATION

This rifle is similar to other autoloading high power center fire rifles such as the discontinued Remington Model 81 or the Military "Garand" U. S. Rifle M1 in that the operation of the action is automatic and utilizing energy which is available in the form of high pressure gases from the cartridge to unload and reload the rifle. There are a number of features about the Model 740 Rifle which differ from those of any other similar type of autoloading rifle. These may be described in the following sequence of events which occur in the cycle of operations.

The loaded cartridge is firmly seated in chamber and supported at its head by face of breech bolt which is securely locked in barrel extension. At the same time, extractor is engaged in extractor groove of cartridge case and hammer is in "cocked" position and held there by the engagement of its notch into sear notch. The disconnector has pivoted into engagement with action bars holding action from opening, and at the same time, permitting connector to fall into its lower position where front surface of connector, right, may engage rear notch on sear.

When rifle is fired by pulling trigger rearward, the following train of events takes place: The connector is actuated by trigger and it in turn causes sear to pivot on sear pin. As sear pivots, the sear notch disengages hammer notch. The hammer is urged forward by hammer spring plunger due to the energy in hammer spring, until it strikes firing pin. Just before striking firing pin, hammer spring plunger contacts a striking surface on disconnector causing it to rotate and lift connector away from sear, thus disengaging trigger. This rotating of disconnector also disengages it from the action bars. The firing pin strikes primer and firing cycle is completed.

Approximately 8" from chamber, some of the gas is bled off through an orifice that is drilled into barrel. These gases are discharged from the gas nozzle of barrel lug into a cavity of action bar sleeve. The impulse of the gas being directed into action bar sleeve, together with reactive force of the gas as it leaves cavity of sleeve, provides force or energy to carry action bars and connected bolt carrier on its rearward movement to start extraction and ejection cycles. Cam pins in bolt carrier engage cam tracks in bolt and translate rearward linear motion of action bar assembly into rotary motion in bolt. The bolt rotates approximately 45°, at which point lugs of bolt line up with openings in barrel extension and further rotary motion stops, allowing bolt to be moved rearward. Primary extraction has taken place at this time since rotary motion of bolt permits it to move rearward by the amount of lead of locking lugs. Since extractor has engaged extractor grooves of cartridge, further rearward motion of bolt causes fired case to be carried from chamber and rearward until it contacts front end of ejector which has been cammed into position at rear of receiver. The fired case is then caused to be rotated and ejected out through ejection port opening in receiver. In the meantime ejection port cover is also engaged by bolt carrier and moved rearward by it in order to open port in receiver.

The rearward travel of bolt carrier forces down hammer to a position which permits engagement of hammer notch in front sear notch. The cartridges in magazine are forced upward by magazine spring, and when action is fully rearward, the top cartridge comes in contact with, and is held in position by, a lip of magazine and next cartridge. The action spring has been compressed by action bar sleeve. At this point, gun has been freed of empty case and cocked.

The action bar sleeve is next urged forward by action spring causing action bar assembly and bolt to move forward and into feeding cycle. The top cartridge in magazine is forced up feeding ramp into chamber by bolt, pushing it from rear. The bolt enters barrel extension and is rotated 45° in to locking position by forward motion of bolt carrier, the cam pin engaging cam slots in bolt. This forward motion of bolt carrier is stopped by action bar sleeve engaging barrel lug assembly at

front end of action tube. The bolt has fully closed on cartridge and all rearward thrust is taken through engagement between locking lugs on bolt and lugs in barrel extension.

This sequence is repeated until last cartridge is fired. At this time magazine follower, being urged upward by magazine spring, assumes its top position where it may be engaged by face of bolt, causing action to be held in "open" position. The bolt may be released and action closed by pressing forward on "action release" lever which is located at lower left side of magazine. The "action release" causes rear of follower to be moved downward into magazine and thus be disengaged from face of bolt and in turn permitting action to close.

It should be noted that in the event action is not entirely closed, rifle cannot be fired as long as action bar lock is held down by action bars, thereby holding connector out of engagement with sear. In addition to this feature, the rifle has been made double safe in that the firing pin does not have sufficient protrusion to contact primer of cartridge, except when locking lugs of bolt are fully engaged with lugs in the barrel extension.

The above cycle can be repeated at the will of shooter until magazine is emptied. Refiling of magazine and loading of rifle has been covered thoroughly in Instruction Folder furnished with each new rifle.

MALFUNCTIONS

Cause and Correction

GUN FAILS TO FEED

Cause:

(Breech bolt over-rides cartridge in magazine.)

- 1. Magazine assembles too low in gun.
- Magazine lips (front) bent outward too much.
- 3. Magazine lips (rear) bent downward too much.
- 4. Magazine sides bent inward too much.
- 5. Breech bolt chamfered too much at front face.
- 6. Action fails to blow back far enough.

Correction:

- Replace magazine latch to higher number size.
- 2. Replace magazine or adjust lips to prevent cartridge tipping up at front in magazine.
- 3. Replace magazine or adjust lips to prevent cartridge tipping down at rear in magazine.
- 4. Replace magazine or adjust sides to prevent cartridge from rocking in magazine.
- 5. Replace breech bolt.
- 6. See Correction GUN FAILS TO OPEN

GUN FAILS TO CHAMBER

Cause:

(Cartridge stems barrel chamber.)

- 1. Cartridge stems top of chamber.
- 2. Cartridge stems bottom of chamber.
- 3. See GUN FAILS TO FEED.
- 4. See GUN FAILS TO CLOSE.

Correction:

- Check barrel extension incline for proper angle (45 deg.) and polish to blend smoothly.
- Check barrel extension incline for proper angle (45 deg.) and polish to blend smoothly, or replace magazine (drop out or loose on front notch in receiver.) Replace magazine, or adjust front fold of lips to permit higher angle feed from magazine. Replace magazine latch to lower number size (will drop rear of magazine for higher angle feed magazine).
- 3. See Corrections GUN FAILS TO FEED.
- 4. See Corrections GUN FAILS TO CLOSE.

GUN FAILS TO CLOSE

Cause:

(Action binds).

- 1. Ejection port cover out of alignment.
- 2. Magazine binds action.
- 3. Action spring jams in action bar sleeve.
- 4. Ejector or ejector spring binds in breech bolt.
- 5. Action bar sleeve binds fore-end.
- Receiver, barrel extension, or bolt carrier out of alignment.
- 7. Breech bolt jams receiver guide rails.
- 8. See GUN FAILS TO FEED.

Correction:

- 1. Replace ejection port cover.
- Check operating handle retaining pin. Must assemble flush to bottom surface of bolt carrier. Check action bar. Must assemble closely to receiver walls. Check disconnector, Must assemble correctly to end of action bar and hug receiver wall. Replace magazine latch. Use lower number size to assemble magazine lower in gun.
- 3. Replace action spring.
- 4. Replace ejector spring or clean ejector hole.
- Replace action bar assembly or "clean up" rivet head.
- 6. Replace receiver, barrel, or bolt carrier, whichever is at fault.
- 7. Replace receiver.
- 8. See Corrections GUN FAILS TO FEED.

GUN FAILS TO LOCK CLOSED

Cause:

(Breech Block improperly rotated forward).

- 1. Too long cartridge.
- 2. Receiver, barrel, or bolt carrier mis-aligned.
- 3. Disconnector binds action bar.
- Extractor closes hard over chambering cartridge.
- 5. Ejector binds in breech bolt.
- 6. Breech bolt jams receiver rails.
- 7. Cartridge primer pierced on previous round.
- 8. See GUN FAILS TO FEED OR CHAMBER.
- 9. Fouling in barrel chamber.

Correction:

- 1. Discard cartridge.
- 2. Replace receiver, barrel, or bolt carrier, whichever is at fault.
- Adjust action bar to hug receiver wall. Adjust disconnector to hug receiver wall and align to end of action bar. Replace either component if necessary.
- 4. Smooth up extractor, or adjust tension on cartridge, or replace extractor.
- Smooth up ejector, disassemble, and clean ejector hole. Replace ejector or spring if necessary
- 6. Replace receiver.
- 7. Remove cartridge brass from firing pin hole.
- 8. See Correction —GUN FAILS TO FEED AND CHAMBER.
- Clean chamber, remove grease or foreign deposits.

GUN FAILS TO FIRE

Cause:

(Firing pin fails to indent cartridge primer properly.)

- 1. Firing pin defective.
- Bolt carrier fails to close completely to breech bolt.
- 3. Cartridge primer pierces.
- 4. Hammer fails to cock.

Caution: Do not open the action immediately after a misfiring has occured. A wait of approximately two (2) minutes is recommended.

5. Sear spring defective.

Correction:

- 1. Replace firing pin. Check protrusion from bolt face (.040" to .060") with bolt carrier completely closed to breech bolt.
- See Corrections GUN FAILS TO CLOSE OR LOCK UP.
- 3. Remove cartridge brass from firing pin hole.
- 4. Check right connector for proper seat at rear of sear. See REASSEMBLY. Check disconnector for proper engagement with action bar in front and in rear with proper engagement under the left connector. Check hammer and sear notch engagement.
- 5. Check sear spring.

GUN FAILS TO EXTRACT

Cause:

(Cartridge fails to be fully removed from chamber).

- 1. Extractor defective.
- 2. Barrel chamber rough.

Correction:

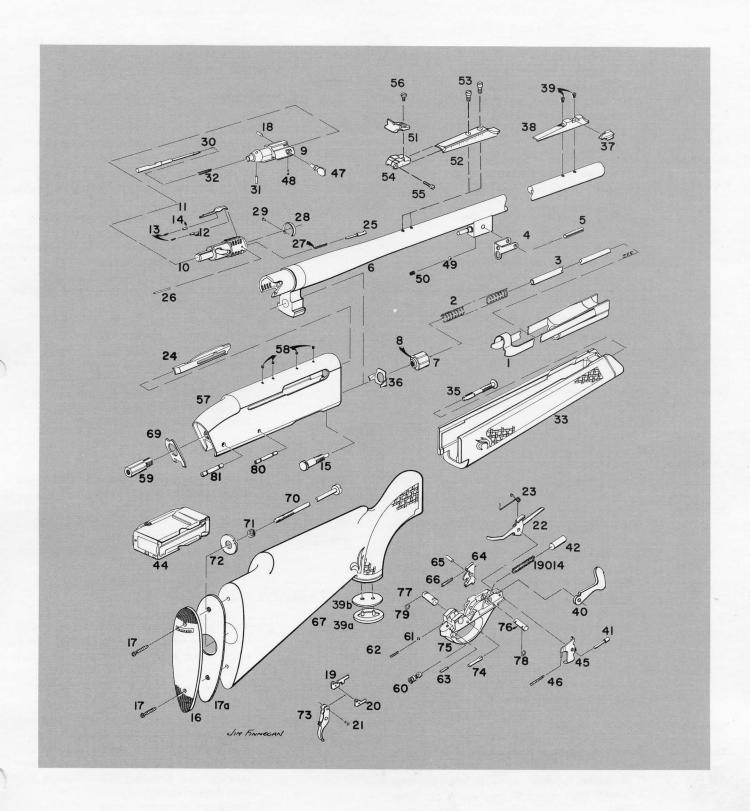
- Replace extractor or adjust tension. See RE— ASSEMBLY.
- 2. Replace barrel or polish chamber.

Caution: Avoid too much polishing of chamber. Dimensional limits of chamber must not be exceeded.

REMINGTON FIELD SERVICE MANUAL

View No.	NAME OF PART		View No.	NAME OF PART	
1	Action Bar Assembly – 30-06		51	Rear Sight Aperture	
2	Action Spring		52	Rear Sight Base	
3	Action Tube		53	Rear Sight Base Screw	
4			54	Rear Sight Slide	
5	Action Tube Support		55	Elevation Screw	
	Action Tube Support Pin		56	Windage Screw	
6	Barrel Assembly		00	Receiver Assembly	
7	Barrel Take Down Nut — 30-06		57	Receiver Assembly, BDL Grade	
8	Barrel Take Down Nut Washer		58		
9	Bolt Carrier			Receiver Plug Screw	
10	Breech Bolt Assembly		59	Receiver Stud	
11	Bolt Latch		60	Safety Switch	
12	Bolt Latch Pivot		61	Safety Switch Detent Ball	
13	Bolt Latch Spring		62	Safety Switch Spring	
14	Bolt Latch Spring Plunger		63	Safety Switch Spring Retaining Pin	
15	Breech Ring Bolt		64	Sear	
16	Butt Plate		65	Sear Pin	
17	Butt Plate Screw		66	Sear Spring	
17a	Butt Plate Spacer			Stock Assembly	
18	Cam Pin		67	Stock Assembly, BDL Grade, R.H.	
19	Connector, Left	(Restricted)		Stock Assembly, BDL Grade, L.H.	
20	Connector, Right	(Restricted)	69	Stock Bearing Plate	
21	Connector Pin	***************************************	70	Stock Bolt	
22	Disconnector	(Restricted)	71	Stock Bolt Lock Washer	
23			72	Stock Bolt Lock Washer	
	Disconnector Spring		73		/Dantalata
24	Ejector Port Cover		/3	Trigger	(Restricted
25	Ejector		74	Trigger Assembly	(Restricted
26	Ejector Retaining Pin			Trigger Pin	
27	Ejector Spring		75	Trigger Plate, Right Hand	
28	Extractor			Trigger Plate, Left Hand	
29	Extractor Rivet			Trigger Plate Assembly, R.H.	
30	Firing Pin			Trigger Plate Assembly, L.H.	
31	Firing Pin Retaining Pin		76	Trigger Plate Pin Bushing, Front	
32	Firing Pin Retractor Spring		77	Trigger Plate Pin Bushing, Rear	
	Fore-end Assembly		78	Trigger Plate Pin Detent Spring, Front	
33	Fore-end Assembly, BDL Grade		79	Trigger Plate Pin, Detent Spring, Rear	
	Fore-end Bushing		80	Trigger Plate Pin, Front	
	Fore-end Cap		81	Trigger Plate Pin, Rear	
	Fore-end Cap Spacer				
35	Fore-end Screw				
30	Fore-end Spacer				
26	Fore-end Tip Spacer				
36	Fore-end Spring				
37	Front Sight				
38	Front Sight Ramp				
39	Front Sight Ramp Screw				
39a	Grip Cap				
39b	Grip Cap Spacer				
10	Hammer				
11	Hammer Pin				
12	Hammer Plunger				
13	Hammer Spring				
14	Magazine Assembly, 30-06				
45	Magazine Latch (Selected Size)				
46	Magazine Latch Spring				
47	Operating Handle				
48	Operating Handle Retaining Pin				
10					
49 50	Orifice Ball Orifice Screw				

REMINGTON FIELD SERVICE MANUAL



MALFUNCTIONS

Cause and Correction

(Cont. from page 10)

GUN FAILS TO OPEN

Cause:

(Action fails to blow back properly.)

- 1. Action binds.
- 2. Gas orifice defective.
- Gas nozzle or tube defective.
- 4. Barrel chamber rough, defective.
- Gas nozzle hole in action sleeve broken thru into spring hole in receiver.
- 6. Failure to replace gas orifice ball and screw.

Correction:

- 1. See Correction GUN FAILS TO CLOSE.
- 2. Check gas orifice for proper size.

Caliber .30/06 .085" dia.

.085 dia.

Caliber .308 .097" dia.

.099" dia.

Replace barrel if necessary.

- Check gas tube opening for damage. Adjust, or replace barrel if necessary.
- Polish chamber or replace barrel. Avoid excessive polishing.
- 5. New action sleeve new action spring.
- 6. Replace components.

GUN FAILS TO EJECT

Cause:

(Fired cartridge case fails to clear ejection port.)

- 1. Ejector or ejector spring defective.
- 2. Ejector (receiver type) defective.
- 3. Extractor defective.
- 4. Action binds.
- 5. Action fails to blow back properly.
- 6. Firing pin bound in by pierced primer.

Correction:

- Adjust ejector for free plunging movement into bolt face. Clean ejector hole. Replace ejector or spring if necessary.
- Adjust ejector (receiver type) for free pivot movement in receiver wall and proper contact with cartridge base. Replace ejector if necessary.
- Adjust extractor for firm grip on cartridge base. Replace extractor, if necessary. (Use new-style with long end.)
- 4. See Corrections GUN FAILS TO CLOSE
- 5. See Corrections GUN FAILS TO OPEN.
- Knock out cartridge and free firing pin, replace same if damaged.

GUN FAILS TO LOCK OPEN

Cause:

(Action fails to lock back after last cartridge is fired.)

- 1. Magazine follower defective on rear end.
- Breech bolt rounded too much on front edge.
- Magazine follower binds down at rear or front end. Releases and tips up from magazine.
- 4. See GUNFAILS TO EJECT.

Correction:

- 1. Replace magazine follower.
- 2. Replace breech bolt.
- 3. Replace magazine follower.

Replace magazine or adjust for proper assem-

bly of follower.

4. See Corrections - GUN FAILS TO EJECT.

GUN FAILS TO GROUP SHOTS AT TARGET

Cause:

(Shots fail to group tightly at target.)

- 1. Crown or muzzle of barrel damaged.
- 2. Bore of barrel metal fouled.
- 3. Cone on barrel bracket nut defective.
- Seat for barrel bracket nut in breech ring defective.
- Seat for breech ring to receiver uneven (rocks).
- Rear of barrel extension engages and rocks against shoulder in receiver.

Correction:

- Recrown barrel or repair muzzle. Replace barrel if necessary.
- 2. Remove metal fouling from bore.
- 3. Replace barrel bracket nut.
- 4. Replace barrel or adjust seat in breech ring.
- Adjust engagement of breech ring to receiver to prevent uneven seating.
- No contact must be made by the barrel extension against the shoulder in the receiver. Relieve end of barrel extension.

GUN TARGETS RIGHT OR LEFT

Cause:

(Present sights can not adjust to bull's eye).

- 1. Barrel bent.
- 2. See GUN FAILS TO GROUP AT TARGET.

Correction:

- 1. Straighten or replace barrel.
- 2. See Correction –GUN FAILS TO GROUP AT TARGET.

GUN TARGETS HIGH OR LOW

Cause:

(Present sights can not adjust to bull's eye.)

- 1. Rear sight elevation improper (5 sizes).
- 2. Front sight elevation improper (2 sizes).
- 3. Barrel bent.
- 4. Fore-end loose.

Correction:

- 1. Shooting low. Replace rear sight step with higher number size. Shooting high. Replace rear sight step with lower number size.
- 2. Shooting low. Replace front sight with lower number size. Shooting high. Replace front with higher number size.
- 3. Straighten or replace barrel.
- 4. Tighten fore-end.

REMINGTON FIELD SERVICE MANUAL

The Remington Model 742 is an automatic, high power center fire rifle. The basic design and operation of this model is similar to that of the model 740. Any instructions not listed in this supplement, therefore, will be found in the Model 740 manual.

DISASSEMBLY

BARREL TAKE DOWN NUT FORE-END SPRING

Unscrew nut from breech ring bolt and remove nut and washer. Remove fore-end spring.

BOLT LATCH
BOLT LATCH PIVOT
BOLT LATCH SPRING
BOLT LATCH SPRING PLUNGER

With breech bolt assembly removed from bolt carrier, lift and remove bolt latch, bolt latch pivot, bolt latch spring and plunger from bolt.

REAR SIGHT APERTURE REAR SIGHT BASE REAR SIGHT SCREW REAR SIGHT SLIDE ELEVATION SCREW WINDAGE SCREW

Unscrew and remove windage and elevation screws and rear sight slide and aperture. Unscrew and remove rear sight base screws and rear sight base.

REASSEMBLY

Follow reverse order. Tighten barrel take down nut securely. When reassembling bolt latch, hold latch down and slide bolt carrier over end of latch and reassemble carrier to bolt assembly.

DIAMETER / DRILL SIZE OF GAS HOLES

Caliber	Orifice Dia.	Drill Size	Nozzle Dia.	Drill Size
30-06	.086"	44	.100"	39
280 Rem. 308 Win.	.073 .113	49 33	.086 .128	44 30
6mm Rem.	.076	48	.086	44
243 Win.	.0 76	48	.086	44
Caliber —Carbine	Orifice Dia.	Drill Size	Nozzle Dia.	Drill Size
-Carbine	Office Bia.	Dim Gize	WOZZIO DIU.	Dim Oils
30-06	.089"	43	.100"	39
308 Win.	.116	32	.128	30