

REMINGTON MODEL 710 FIELD SERVICE MANUAL

The Remington Model 710 is a centerfire bolt action rifle available in popular big game calibers. Two sighting systems are offered, a factory installed variable power scope or Remington open rifle sights. (Open sight version shown below)

**show picture

The Remington Model 710 owners manual, RD XXXX, is packaged with each new rifle. Owners Manuals may also be obtained from a Remington dealer, Remington Customer Service (1-800-243-9700), or downloaded from the Remington Website (www.remington.com). The owner's manual provides descriptions of the major components and safe operation of the firearm. The Field Service Manual provides detailed explanation of disassembly and repair of the Remington Model 710 firearm. Unless otherwise noted in the manuals, parts are interchangeable with no factory adjustment required. When handling a firearm for service or return shipment, **ensure that the firearm is unloaded and the safety is in the safe position before proceeding.**

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BOLT ASSEMBLY (Before working on any firearm, ensure the firearm is unloaded and the safety is in the safe (S) position.) The M/710 bolt assemblies are intended to be fully interchangeable, but upon replacement of a bolt assembly or bolt head, the firearm must be inspected for proper headspace prior to firing.

To remove the firing pin assembly from the bolt assembly-Rotate the bolt plug clockwise until the firing pin assembly releases rearward from the bolt body. If the bolt plug is rotated counter-clockwise such that the firing pin head falls into the cam cut, firmly clamp the firing pin head, pull the bolt assembly forward and rotate clockwise aligning the firing pin head to the cocking notch or further until the firing pin assembly releases from the bolt body. The firing pin assembly should not be disassembled, if any component of the firing pin assembly is damaged, replace the entire firing pin assembly. To reassemble, slide the firing pin assembly into the bolt body, align the firing pin head to the left of the cocking notch in the bolt body, depress and rotate the bolt plug until the firing pin head aligns with the cocking notch.

To remove the bolt head from the bolt body-Remove the bolt assembly pin from the bolt body. Slide the bolt head forward from the bolt body. If the bolt head is replaced for any reason, the headspace must be inspected before attempting to fire the firearm. To reassemble, insert the bolt head into the bolt body aligning the assembly pin hole in the two components so that the ejector is located opposite of the bolt handle. Insert the bolt assembly pin so that the cross hole in the pin will align with the firing pin.

To remove the ejector from the bolt head-Remove the ejector retaining pin. **Caution:** The ejector is under spring pressure, prior to removing the retaining pin ensure the ejector is supported so that it does not spring out of the bolt head. To reassemble, insert the ejector spring and ejector into the bolt head, align the slot in the ejector with the retaining pin hole. Depress the ejector to the bolt face and insert the ejector retaining pin.

To remove the extractor from the bolt head-Remove the ejector per instructions above. For non magnum bolt heads, use a small punch to rotate the extractor clockwise until the extractor leg is exposed. Grasp the leg with pointed pliers and continue to rotate until the extractor releases from the bolt head. To reassemble, insert the right leg of the extractor below the bolt shroud and rotate against the dimple, lightly push the left leg toward the center of the bolt head working the extractor in to the bolt shroud. When assembled, the extractor claw should be the only visible portion of the extractor when viewed from the front. The extractor should hold a fired case firmly in place when pointed downward.

For magnum bolt heads, use a pointed punch to drive the extractor rivet inward towards the center of the bolt head and remove. Rotate until an extractor leg is exposed, grasp with pointed pliers and continue rotating until the extractor releases from the bolt head. To reassemble, insert the extractor under the bolt shroud aligning the hole in the extractor and bolt shroud. Insert the extractor dimple into the hole from the inside outward, support and peen the rivet from the outside. Test spring pressure with an empty case, adjustment of tension force may be adjusted by pressing the extractor inward to reduce pressure or pulling outward to increase pressure. The extractor should hold the case firmly in place when pointed downward.

STOCK ASSEMBLY (Before working on any firearm, ensure the firearm is unloaded and the safety is in the safe (S) position.) The M/710 stock assemblies are intended to be fully interchangeable. The recoil bracket is epoxied into the stock and should not be removed. If removed for any reason, prior to reassembly, the residual glue must be thoroughly removed from the pocket and recoil bracket to ensure proper seating of the recoil bracket. Prior to assembly, Loc-tight #422 should be applied to the recoil bracket.

To remove the stock assembly-Remove the three take down screws using the proper Allen wrench size. Lift the barrel assembly out of the stock assembly, the bolt stop is held in place by the stock and will slide out of the receiver when the stock is removed. To reassemble, insert the bolt stop into the mating hole in the receiver, place the barrel assembly into the stock aligning the recoil bracket with the cross slot in the bottom side of the barrel. Install and tighten the front and middle take down screws to a torque of 50-60 in-lbs. Install and tighten the rear take down screw to a torque of 10-15 in-lbs.

To remove the recoil pad from the stock assembly-Remove the two recoil pad screws using a large "Phillips" style screw driver, pull the recoil pad from the stock. To reassemble, align the recoil pad with the recess in the rear of the stock and install the two recoil pad screws.

To remove the sling swivel studs from the stock assembly-Insert a small punch through the cross hole in the stud and turn counterclockwise. To reassemble, turn clockwise until the stud mates flush with the counterbore in the stock, align the cross hole perpendicular to the barrel.

To remove the latch assembly from the stock assembly-Slide a thin flat piece of steel between the stock and leg of the latch spring from the bottom side of the stock through to the top side. Without the use of a piece of steel, the latch spring leg will catch on the stock. Use a large diameter punch to push the latch, pivot pin, and spring upward and out of the stock. To reassemble, position the latch spring in the stock, aligning the pivot pin with slots in the stock. Use a large diameter punch to snap the pivot pin downward into the pockets molded into the stock. Activate the latch to ensure free movement and proper spring return.

CYCLE OF OPERATION

The cycle of operation for the M/710 follows the basic pattern of bolt action rifles. To fire the firearm, the Integrated Safety System (ISS) must be in the fire position (red dot showing), slide the bolt assembly forward feeding a round from the magazine, fully close the bolt and rotate handle downward until contact is made with the receiver, align the sights or scope with the intended target, slide the safety to fire (F) position and squeeze the trigger. To unload the rifle, rotate the bolt handle upward and pull the bolt assembly rearward, the fired cartridge will automatically eject from the receiver when the bolt reaches the bolt stop. When not in use,

the firearm should be stored with the bolt assembly open, the ISS in the locked position (white dot showing), and the safety in the safe position (S).

MALFUNCTIONS

Cause and Correction

Bolt fails to feed a round when closed (Bolt Over-Ride)

- Cause:
1. Magazine not properly latched into stock
 2. Magazine follower binds
 3. Magazine feed lips deformed

- Correction:
1. Ensure proper mating of latch and magazine box.
 2. Adjust width of magazine to ensure free movement of follower.
 3. Adjust width of magazine feed lips to .430 inches.

Bullet nose hits below the chamber when fed (Stem Chamber)

- Cause:
1. Magazine follower binds

- Correction:
1. Adjust width of magazine to ensure free movement of follower.

Bolt closes hard over cartridge (Close Hard)

- Cause:
1. Bolt interferes with cartridge rim
 2. Extractor interferes with cartridge rim
 3. Ejector binds
 4. ISS locked

- Correction:
1. Replace bolt head
 2. Replace extractor
 3. Remove ejector and ream ejector hole, or replace ejector
 4. Unlock ISS

Bolt fails to extract cartridge case from chamber (Fail to extract)

- Cause:
1. Rough or dirty chamber
 2. Extractor deformed or broken
 3. Extractor binds

- Correction:
1. Clean and ream chamber
 2. Replace extractor
 3. Replace extractor and/or bolt head

Bolt fails to eject cartridge case from receiver (Fail to extract)

- Cause:
1. Ejector binds
 2. Weak ejector spring

3. Weak extractor

Correction: 1. Remove ejector and ream ejector hole
2. Replace ejector spring
3. Replace extractor

Misfires

Cause: 1. Damaged firing pin
2. Firing pin binds
3. Faulty ammunition
4. Incorrect head space

Correction: 1. Replace firing pin assembly
2. Replace firing pin assembly
3. Replace ammunition
4. Replace bolt head

Firing pin fails to cock (Follow down)

Cause: 1. Sear binds
2. Trigger binds
3. Damaged firing pin assembly

Correction: 1. Replace receiver insert assembly complete
2. Replace receiver insert assembly complete
3. Replace firing pin assembly

Bolt opens hard:

Cause: 1. Damaged extractor
2. Burr on bolt face
3. Damaged cartridge primer

Correction: 1. Replace extractor
2. Clean and deburr bolt face
3. Clean and inspect chamber, replace ammunition

Bolt slides out of receiver:

Cause: 1. Missing bolt stop
2. Damaged bolt stop
3. Damaged stock

Correction: 1. Replace bolt stop
2. Replace bolt stop
3. Replace stock assembly

Fails primers and/or bulges cartridge cases

- Cause:
1. Oversized chamber
 2. Incorrect head space
 3. Damaged firing pin
 4. Faulty ammunition

- Correction:
1. Replace barrel assembly
 2. Replace bolt head
 3. Replace firing pin assembly
 4. Replace ammunition

Bolt binds inside of receiver

- Cause:
1. Excessive debris
 2. Damaged bolt lugs
 3. Damaged receiver insert assembly complete

- Correction:
1. Clean and lubricate
 2. Replace bolt head
 3. Replace receiver insert assembly complete

EXPLODED VIEW PARTS LIST

| BALLOON NUMBER | PART NAME | PART NUMBER |
|----------------|----------------------------|----------------|
| 1 | Firing Pin Assembly | 300404 |
| 2 | Bolt Body Assembly | 300403 |
| 3 | Bolt Assembly Pin | 300330 |
| 4 | Bolt Head | 300338 |
| 5 | Extractor | 300489 |
| 6 | Ejector Spring | 300367 |
| 7 | Ejector | 300342 |
| 8 | Ejector Pin | 300493 |
| 9 | Scope Rail Screw (4 req'd) | 300495 |
| 10 | Scope Rail | 300441 |
| 11 | Receiver Insert Assembly | 300401 |
| 12 | Barrel Assembly | 305400 (30-06) |
| 12 | Barrel Assembly | 305401 (270) |
| 13 | Recoil Pad | 97973 |
| 14 | Latch Spring | 300398 |
| 15 | Latch Pivot Pin | 300371 |
| 16 | Magazine Latch | 300362 |

| | | |
|----|-----------------------------|--------|
| 17 | Recoil Bracket | 300364 |
| 18 | Stock | 300437 |
| 19 | Sling Swivel Stud (2 req'd) | 300498 |
| 20 | Rear Take Down Screw | 300425 |
| 21 | Magazine Box | 305395 |
| 22 | Middle Take Down Screw | 300500 |
| 23 | Front Take Down Screw | 300499 |