9MM
FIELD
SERVICE
MANUAL

BROWNING
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BROWNING FIELD SERVICE MANUAL

IMPORTANT SAFETY WARNINGS
Below carrying out any instructions given throughout this manual, be certain to read the NOTE and CAUTION notes given in regard to those instructions. Generally, these precautionary notes follow the related instructions. In any case, read all of the instructions, notes and cautions on any step involving assembly or disassembly before proceeding with that step.

NOTE
Failure to obey a Safety Warning
CAUTION may result in injuries to you or to others.
Failure to obey a NOTE regarding the repair process may result in incorrect procedure which could cause malfunctions and/or damage to the firearm.

CAUTION:
1. Be certain the firearm is unloaded before proceeding with any service work.
2. Appropriate safety glasses should be worn by service personnel and bystanders when removing or re-installing any springs or spring-loaded components.
3. If for any reason it becomes necessary to load and discharge this firearm, it is recommended that reference be made to the Owners Manual for proper loading, handling and safety procedures. These Owners Manuals are supplied with each new firearm and extra copies may be obtained by contacting Browning, Route #1, Morgan, Utah, 84050.
4. Read all of the instructions, cautions and notes on any step involving assembly or disassembly before proceeding with that step.
5. Section VI describes special tool which may be required and special instructions.

SECTION I
DESCRIPTION AND FUNCTIONAL OPERATION
The Browning 9mm Hi-Power is a single action, recoil operated, semi-automatic pistol. For the purpose of functional operation explanations, assume the pistol is loaded with the Magazine installed and ready to fire.

When the Trigger is pulled, it rotates about its pin and lifts the Trigger Lever. In lifing, the Trigger Lever contacts the forward end of the Slide Lever, located in the Slide, causing it to rotate. In rotating, the rear end of the Slide Lever is moved downward to contact the Seer. Thus, sufficient Trigger pressure causes the Seer to rotate and disengage the Hammer. The Hammer, driven by the compressed coil mainspring, rotates to drive the Firing Pin forward compressing the Firing Pin Spring and forcing the chambered round forward out the muzzle. During recoil, both the Barrel and Slide start moving together to the rear. This is due to the being locked together, by two milled lugs in the top of the Slide mating cutouts in top of the Barrel. After approximately 3/16 Inch movement to the rear, a Barrel Lug, located just forward of the Barrel feed ramp, comes in contact with the Cam located in the Frame just above the Trigger Assembly. When contact is made, the Barrel is cammed downward and unlocked from the Slide. The Barrel is stopped on the Cam but the inertia imparted to the Slide carries it to the rear. In moving to the rear, the Slide extracts the empty cartridge, overrides and rocks the Hammer, compresses the Main-spring and Recoil Spring and finally ejects the spent cartridge from against the Extractor.

In moving forward by action of the compressed Recoil Spring, the Slide picks up a new cartridge from the Magazine and chambers it. Approximately 3/16 Inch from the Slide being completely forward, a reverse action occurs on the Barrel Cam. The Slide coming in contact with the Barrel causes it to be cammed up and into the locked position with the Slide.

If the Trigger is held to the rear throughout the cycle of firing, opening and loading, the forward end of the Slide Lever comes to rest against the side of the Trigger Lever. The Trigger Lever cannot properly engage the Slide Lever until the Trigger has been fully released. This feature constitutes the disconnect feature of the fire control system. When the last shot is fired (Magazine empty) the Slide is held to the rear by the Slide Stop being activated by the Magazine Follower.

The Hi-Power contains a manual Safety located on the left side of the Frame as well as a Magazine Safety mechanism. When in the "ON SAFE" position, the manual Safety provides a mechanical interference with the Seer inhibiting its rotation and disengagement with the Hammer.

With the Magazine removed, the top of the Trigger Lever is designed to rotate forward by pressure from the Magazine Safety and Magazine Safety Spring. This feature is to disalign the Trigger Lever with the Slide Lever preventing its engagement if the Trigger is pulled with the manual Safety in the "OFF SAFE" position.
SECTION II

PARTS LIST 99M HI-POWER

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S: Standard R: Reassembly N: Note
SC: Silver Chrome L: Lock XVI

**Indicate part must be listed to Browning Service Department or qualified gunsmith.
Note: Unless otherwise indicated, part is interchangeable between gauges/calibers.

PART NO. | PART NAME & MODEL |
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* Standard R: Reassembly N: Note
SC: Silver Chrome L: Lock XVI

**Indicate part must be listed to Browning Service Department or qualified gunsmith.

Note: Unless otherwise indicated, part is interchangeable between gauges/calibers.
SECTION III

INSPECTION AND HAND DISASSEMBLY INTO SUB-ASSEMBLIES

1. PRE-DISASSEMBLY INSPECTION

CAUTION: Make certain the pistol is unloaded before any inspection or disassembly operations are performed.

A. With the Magazine removed, Hammer fully cocked and the Safety in the "OFF SAFE" position, pull the Trigger; observe the Hammer will not fall.

CAUTION: Due to the creation of a potentially unsafe condition, the Magazine Safety should never be removed or made inoperable. It is the policy of the Browning Arnold Service Center to replace the Magazine Safety on any 9mm received for service had it been previously removed.

It is recommended this policy be followed by outside service centers or by those persons performing repairs on the 9mm.

B. To simulate firing and with the Magazine removed, retract the Slide smoothly, release and let it slam forward. Repeat these procedures at least six times and observe the Hammer does not jar off the full cock position.

C. With the Hammer fully cocked, install the Magazine and observe the Trigger. The Hammer will fall when the Trigger is pulled.

D. Check the Trigger pull for a let-off force of 7 to 10 lbs.

E. With the Hammer fully cocked and the Safety in the "ON SAFE" position, pull the Trigger as hard as possible with the index finger of both hands and observe the Scar does not disengage or partially disengage the hammer.

CAUTION: If the pistol fails any of the inspection criteria given above, necessary repairs must be accomplished in order to correct those discrepancies or return the pistol to the Arnold Service Center.

2. SLIDE AND FRAME DISASSEMBLY

With the pistol completely assembled, depress the Magazine Latch and remove the Magazine.

Holding the pistol in the right hand, push the Slide Assembly to the rear and lock it there by engaging the Safety in the center recess on the left side of the Slide. See Figure #1.

Hold the rear end of the Slide Stop upward with the thumb of the left hand and with the index finger of the right, push the pin of the Slide Stop partially through the Frame. See Figure #2.

Lay the pistol on its right side and remove the Slide Stop by lifting it straight out using both hands.

NOTE: Use care not to scratch the Slide with the sharp corner on the rear end of the Slide Stop.

With the Slide in the left hand and the grip in the right, apply slight rearward pressure on the Slide and rotate the Safety downward with the right thumb. Remove the Slide by slowly letting it move forward and off the Frame.

CAUTION: Use care not to let the Slide Assembly release from your grasp.

3. BARREL DISASSEMBLY

Hold the Slide in the inverted position in the left hand. With the right hand, compress the Recoil Spring with the Recoil Spring Guide and remove both pieces. See Figure #3.

CAUTION: Use care not to let the Recoil Spring Guide escape your grasp.

Lift the chamber end of the Barrel inwards and remove the Barrel from the Slide Assembly.

SECTION IV

DISASSEMBLY OF SUB-ASSEMBLIES INTO COMPONENT PARTS, INSPECTION AND REASSEMBLY OF SUB-ASSEMBLIES

CAUTION: Do not alter, lighten or substitute any springs during reassembly in order to lighten the Trigger pull. This could result in an unsafe pistol.

A. DISASSEMBLY OF THE SLIDE ASSEMBLY (Figure #4)

1. FIREFIELD PIN AND SPRING

FIGURE #4

Using a 1/8" punch, pry the pin of the Slide Stop, press the Firing Pin forward in the Slide and remove the Firing Pin Retaining Plate at the rear of the Slide.

CAUTION: Keep a thumb over the end of the Slide to retain the Firing Pin. Personal injury could
A. INSTALLATION OF THE EXTRACTOR AND SEAR LEVER

NEW MODELS

1. EXTRACTOR
   Install the large end of the Extractor Spring in its hole in the Slide.
   Position the Extractor for installation and align the holes by inserting a 1/16" punch from the top of the Slide.
   Install the Extractor Pin from the bottom of the Slide and drive flush.
   Ascertain the Extractor works freely when its rear end is depressed and released.

2. SEAR LEVER
   Position the Sear Lever for installation with the small slender end forward in the Slide.
   Align the holes with a 3/32" punch inserted from the left side of the Slide and install the Sear Lever Pin from the right.
   NOTE: Do not install the Sear Lever Pin in too far so as to extend into the Extractor slot of the Slide.

OLD MODELS

1. EXTRACTOR
   After removal of the Firing Pin Retaining Plate, the Extractor may be removed by pushing it to the rear and prying it out of the Slide.

2. SEAR LEVER
   After removal of the Extractor, remove the Sear Lever by prying out the Sear Lever Pin from the radiused hole in the bottom of the Slide.

C. SIGHTS
   The rear sights may be removed by driving out from left to right with the use of a brass punch to prevent damage.
   The front sights are silver soldered on all models. The blade sight fits in a rolled groove in the top of the Slide. The front sight on the Sport Model is soldered to top of the Slide with no groove.

2. INSPECTION OF COMPONENTS AND REASSEMBLY OF THE SLIDE ASSEMBLY

B. INSPECTION OF THE SEAR LEVER INSTALLATION (OLD & NEW MODELS)
   Hold the Slide level and inverted in one hand and rub a straight edge over the Sear Lever Pin with the other as shown in Figure #6.
   This procedure is to determine if the Sear Lever protrudes beyond the surface of the Slide directly over the Sear Lever Pin.
   CAUTION: If the Sear Lever protrudes beyond the surface of the Slide, the Sear Lever must be removed and relined with a file at that point. Failure to remove any interference that may exist could possibly cause the piston to double when firing.

C. INSPECTION AND INSTALLATION OF THE FIRING PIN AND SPRING

EXTRACTOR INSTALLATION
   CAUTION: A production change was made in 1972 to the Firing Pin Spring. The old spring had a wire diameter of approximately 0.24". The new spring is approximately 0.18" longer and is made of 0.030" diameter wire. If the piston being repaired contains the old configured spring, it should be updated to the new.
   Grip the Slide in a padded vise and position the Firing Pin and Spring for installation. Compress the Firing Pin Spring and Pin with a small blade screwdriver and install the Firing Pin Retaining Plate.

NOTE: Use extreme care not to let the Firing Pin fly out of the Slide or serious personal injury could result.
   NOTE: When attempting to install the Firing Pin Retaining Plate, make sure the plate is oriented properly with the Slide.

D. BARREL, Recoil SPRING GUIDE ASSEMBLY AND RECOIL SPRING

Position the Barrel in the Slide and install the Recoil Spring Guide Assembly and Recoil Spring in reverse order of disassembly.
   NOTE: Make sure the small flat area on the rear end of the guide is positioned downward as installed in the pistol. This will result in the Recoil Spring Guide Assembly being seated parallel to the Barrel.

3. DISASSEMBLY OF THE FRAME ASSEMBLY

A. SEAR, SEAR SPRING AND PIN
   Remove the Grip Plates, cock the
C. TRIGGER WITH MAGAZINE SAFETY ASSEMBLY (Figure #10)

NOTE: Disassembly of the Magazine Latch Assembly should not be necessary except for replacing the Magazine Latch Spring Guide counter-clockwise 90 degrees to a locked-in/pressed position. The Magazine Latch Assembly can then be lifted out of the Frame Assembly.

NOTE: Disassembly of the Magazine Latch Assembly should not be necessary except for replacing the Magazine Latch Spring Guide counter-clockwise 90 degrees to a locked-in/pressed position. The Magazine Latch Assembly can then be lifted out of the Frame Assembly.

D. MAGAZINE LATCH ASSEMBLY (Figure #12)

Push the Magazine Latch fully from left to right and hold it with the Magazine Latch Spring Guide clockwise 90 degrees to lock the Assembly in the Frame.

B. EJECTOR, HAMMER AND SAFETY ASSEMBLIES (Figure #9)

Retain the Hammer with the thumb, remove the Special Tool and slowly lower the Hammer.

Rotate the Ejector 90 degrees downward.

NOTE: Further disassembly of the Trigger Assembly should not be required except for replacing the Magazine Latch Spring Guide.

B. INSTALLATION OF THE TRIGGER WITH MAGAZINE SAFETY ASSEMBLY

Insert the Trigger Assembly (less the Trigger Lever) up through the Trigger Guard as shown in Figure #11 during disassembly.

Position the Trigger Lever in the Trigger Assembly with its small stud located to the left, and the Trigger Spring positioned in the groove in the center of the Trigger Lever.

Simultaneously, the forward end of the Trigger Spring must be positioned in the radiused outslot at the forward end of the Trigger Slot in the Frame and retained there.

With the parts in the relationship described above, put pressure on the Trigger and Magazine Safety with the thumb and index finger as shown in Figure #13 and maintain this pressure.

With the other hand, pull back on the Trigger Lever to properly position the Trigger Lever in the Trigger, also shown in Figure #13.

4. INSPECTION OF COMPONENTS AND REASSEMBLY OF THE FRAME ASSEMBLY

A. INSTALLATION OF THE MAGAZINE LATCH ASSEMBLY

Insert the Magazine Latch Assembly into the right side of the Frame.

With the middle finger of the left hand, hold the Magazine Latch flush with the left side of the Frame.

With a small blade screwdriver, turn the Magazine Latch Spring Guide clockwise 90 degrees to lock the Assembly in the Frame.

B. INSTALLATION OF THE TRIGGER WITH MAGAZINE SAFETY ASSEMBLY

Insert the Trigger Assembly (less the Trigger Lever) up through the Trigger Guard as shown in Figure #11 during disassembly.

Position the Trigger Lever in the Trigger Assembly with its small stud located to the left, and the Trigger Spring positioned in the groove in the center of the Trigger Lever.

Simultaneously, the forward end of the Trigger Spring must be positioned in the radiused outslot at the forward end of the Trigger Slot in the Frame and retained there.

With the parts in the relationship described above, put pressure on the Trigger and Magazine Safety with the thumb and index finger as shown in Figure #13 and maintain this pressure.

With the other hand, pull back on the Trigger Lever to properly position the Trigger Lever in the Trigger, also shown in Figure #13.
C. TRIGGER AND MAGAZINE SAFETY INSPECTION PROCEDURE

If the installation is correct, the top of the Trigger Lever will be slightly below flush with the top of the Frame with the Trigger relaxed.

NOTE: If a new Trigger Lever was fitted to the pistol, its top end may have to be shortened. After properly installed, the top end of the Trigger Lever must be adjusted to slightly below the level of the top of the Frame with the Trigger relaxed.

The Trigger Lever will also be spring-loaded against the forward edge of the slot 'n' the right side of the Frame. If it is not, check for the following:

1. Incorrect assembly.
2. Burrs in the Magazine Safety mechanism on the side of the Frame contacting the Trigger Lever, or on the Trigger Lever.
3. Magazine Safety button dragging in its slot in the Frame.
4. If any of these conditions exist, they MUST be corrected before proceeding.

Insert the Magazine fully into the grip and observe the Trigger Lever will move forward along the slot in the Frame.

D. INSPECTION OF THE HAMMER ASSEMBLY

Inspect the full cock notch of the Hammer for the proper angle. The notch must not show signs of alteration and must be machine ground to within the limits of 45 degrees to 57 degrees indicated by Figure # 14.

The Hammer may be positioned on the outline of Figure # 14 and the angle of the catching rock notch compared to the "ACCEPT" and "REJECT" lines. To aid in this comparison, a 5X eye loupe should be used.

CAUTION: If the angle of full cock notch falls out of this range, the Hammer must be replaced and not altered. Do not attempt to alter the Hammer.

E. INSTALLATION OF THE ELECTOR, SAFETY AND HAMMER ASSEMBLY

Position the Hammer Assembly in the Frame and engage the top of the Main Spring under the shoulder at the rear of the grip.

Position the Ejector to the left of the Hammer with it rotated 90 degrees from final orientation.

Align the holes of the Frame, Ejector and Hammer.

Insert the Safety for installation, orient it to the "OFF SAFE" position and snap it into final position.

Rotate the Ejector to final position, retract the Hammer and install the Special Tool to keep the Hammer fully retracted.

F. SEAR AND SEAR PIN INSPECTION PROCEDURE

1. Inspect the Sear with a 5X eye loupe for a proper seating surface. It must not show signs of being filed or excessively polished. The seating surface must be perfectly flat and 90 degrees from the small flat surface on top of the Sear as indicated by Figure # 15.

CAUTION: Replace the Sear if it does not meet the criteria given above and if the seating surface is only slightly rounded or has been filed or ground back by an amount.

2. Inspect the Sear Pin for any signs of wear and replace if worn or bent.

CAUTION: Installation of a bent Sear Pin may result in the pistol discharging if the Hammer was to drop from the full cock to the half cock position (lower models).

3. Inspect the Sear and see that when it is installed on the Sear Pin it does not have excessive play, i.e., the hole in the Sear is not excessively large for the pin. (Seldom is this a cause for concern and only on older models.)

If the Trigger pull was higher than the following specifications of 7 to 10 lbs, it may be reduced by approximately 2 lbs by slightly centering the lower edge of the Sear, also shown in Figure # 15.

CAUTION: Do not make the trigger so large as to reduce the contacting surface with the Hammer notch when in the full cocked position, i.e., the chamfer should not extend over the undercut in the Hammer's full cock notch.

G. SEAR SPRING INSPECTION PROCEDURE

Inspect the Sear Spring for proper configuration. It must not show signs of being stretched. It should be compared to the tracing given in Figure # 16.

CAUTION: If the Sear Spring is not to the configuration shown in Figure # 16, it should be replaced and not respun to shape.
H. INSTALLATION OF THE SEAR SPRING, SEAR AND PIN
Position the Seear Sping for instal-
lation with its stud in the hole at
the bottom of the grip.
With the index finger and thumb of
one hand, compress the Seear Sping
and position the Seear for installation
with the other hand as shown in
Figure #17.
Align the holes of the Frame and
Seear and install the Seear Pin as
shown in Figure #18.

NOTE: Be sure to center the
Seear Pin with the Frame.

I. SEAR INSTALLATION INSPEC-
TION PROCEDURE
With the Hammer in full cocked
position, place a straight edge
across the top of the right hand rail
of the Frame and over the small tab
on top of the Seear as shown in
Figure #19.
Inspect for clearance between the
small tab on top of the Seear and
the straight edge.

CAUTION: If interference exists,
remove the Seear after first
installing the Special Tool, and
remove a small amount of
material from the small tab to
effect clearance with the straight
edge. Interference between the
Seear and Slide may cause the
gun to double when fired.

5. FINAL ASSEMBLY
Position the Slide on the Frame,
retreat it and lock it into the
retracted position by rotating the
Safety into the middle notch on the
left side of the Slide.

Lay the pistol on its right side.
Using both hands, install the Slide
Stop guiding the rear end of the
slide into its recess in the Slide and
Frame.

NOTE: Use care not to let the
rear end of the Slide Stop
scratches the Slide.

Put backward pressure on the Slide,
rotate the Safety downward and
release the Slide.
Install the Grip Plates and Grip Plate
Screws.

6. FINAL INSPECTION
Refer to Section B and perform the
Provisional Inspection proce-
dures given in Paragraph 1 in its
entirety.

SECTION V
TROUBLESHOOTING/POSSIBLE
CAUSES

CAUTION: Make sure the pistol
is unloaded before performing any
troubleshooting.

1. FEEDING PROBLEMS
A. Improper ammunition. Malfunctions
may occur with 90 and 100 grain
hollow point ammunition. It is
recommended full jacketed bullets
of no less than 110 grains be used.
B. Improperly loaded ammunition.
C. Magazine follower spring weak.

2. EJECTION PROBLEMS
A. Weak Extractor Spring (new model).
B. Bent Extractor (old model).
C. Extractor binding on the Extractor
Pin (new model).
D. Extractor engagement surface worn
and not sharp. Sharpen with file or
replace.

3. SAFETY DIFFICULT TO OPERATE
A. Check the Safety Sping and Plun-
ger for free movement.
B. Check for smoothness at the end of
the Safety Plunger and the indent
hole where it rides in the Frame.
C. Brooms between the Safety and the
Seear at the tab on the front lead
side of the Seear.
D. Check for smoothness and brooms at
the Safety and Extractor contact point.

4. POOR GROUPING
A. Muzzle may need re-turning.
B. On fixed sight models it may be
necessary to file the front sight to
raise the point of impact.

5. HAMMER JARS OFF THE FULL
COCK POSITION AND IS
CAUGHT BY SAFETY NOTCH
A. Weak or sprung Seear Sping.
B. Trigger pull too light - improper
searing surfaces.
C. Interference with the top of the Seear
and the bridge.
D. Interference with the Seear Lever at
the pivot point with the Seear.
E. Worn or bent Seear Pin.
F. Trigger Lever improperly fit and
extends too high in the Frame. This
may cause the Hammer to fall from
the full cock position when install-
ning the Magazine.
6. PISTOL FIRING WHEN HAMMER FALLS TO HALF COCK POSITION (Newer Models)

A. Bent or worn Sear Pin.
B. Sear not to specification, i.e. engaging surface of the Sear ground or filed back.
C. Hammer half cock notch has been altered.

SECTION VI

SPECIAL INSTRUCTIONS

1. RECOMMENDED POINTS OF LUBRICATION DURING REASSEMBLY

The use of browsing Ultra Fine Gun Oil is recommended in the following areas. Always use oil sparingly.

A. Magazine Safety mechanism.
B. Magazine Latch Assembly.
C. Recoil Spring Guide Assembly.
D. Safety Assembly.
E. External surfaces.

2. SPECIAL TOOLS

A special tool to disassemble and reassemble the gun may be made from a No. 12 common nail as depicted in Figure #20.

FIGURE #20

3. REPLACEMENT OF THE CAM

(P/N: PQS5515)

Tap the broken pieces of the Cam out of the Frame. Position the new Cam in the Frame making sure it is oriented properly. A cross section of the Cam should appear in the pistol as shown in Figure #21.

With the Cam properly positioned and centered in the Frame, place the assembly in a large machinist vice and upset both ends of the Cam.

FIGURE #21

Remove the assembly and, using an emery and hammer, carefully work the ends of the Cam to form metal into the recesses on each side of the Frame.

NOTE: The metal of the Cam must be flowed gently with light hammer taps to avoid work hardening and brittleness of the Cam.

File both ends of the Cam to the side surfaces of the Frame. Finish with 220 grit emery cloth, polish, and reblue.

4. SAFETY REPLACEMENT PROCEDURE

The Sear and/or Safety must be replaced if the Sear and Hammer are allowed only to partially disengage when pulling the Trigger with the Safety In the “ON SAFE” position.

Generally, a new Sear and Safety are compatible requiring no adjustment after installation. Occasionally it may be necessary to tap the Sear to the “ON SAFE” and “OFF SAFE” positions a few times with a rawhide mallet to “wear in” the mating surfaces.

If working the Safety “ON” and “OFF” fails to free the Safety up sufficiently, remove the Safety and slightly polish the Sear bearing surface and reinstall.

In the disassembly and reassembly of the pistol, follow the procedures given in Sections II and IV and Final Inspection Procedures given in Section II, Para. 6.