



G-S173

Binary Firing System® for Glock® 17 Gen3 Installation and Operation Manual

V1.3 - 10.13.2023



Patent # 11,644,261 and other patents may apply.

FRANKLIN ARMORY® PATENTED BINARY FIRING SYSTEM® WAIVER AND RELEASE

1. STATEMENT OF OPEN AND OBVIOUS DANGER REGARDING THE BINARY FIRING SYSTEM®

Firearms, by their very nature, can be lethal. The Franklin Armory® Binary Firing System® (BFS™) may inadvertently cause INJURY or even DEATH if improperly installed or misused. The BFS™ is a unique multi-mode Trigger system that requires proper installation and user training for safe operation. Improper use, misuse, or untrained use of the BFS™ may lead to the unintentional discharge of the firearm which may cause the following: **PROPERTY DAMAGE, PERSONAL INJURY TO SELF OR OTHERS, OR DEATH!** It is imperative that the BFS™ only be installed, adjusted, and/or repaired by a certified Franklin Armory® armorer. Failure to use a Franklin Armory® armorer to install your Trigger may expose you to serious liability including PROPERTY DAMAGE, PERSONAL INJURY TO YOURSELF OR OTHERS, AND/OR DEATH!

Improper installation, use, or tampering with the BFS™ will void the warranty and MAY LEAD TO UNINTENTIONAL DISCHARGE OF THE FIREARM THAT MAY LEAD TO INJURY OR EVEN DEATH. NEVER ALTER ANY COMPONENT OF THE BFS™ AND NEVER OPERATE THE BFS™ IF ANY OF THE COMPONENTS ARE MISSING, DAMAGED, OR WORN. AFTER THE BFS™ HAS BEEN PROPERLY INSTALLED, IT IS IMPERATIVE THAT ALL USERS SEEK QUALIFIED TRAINING ON HOW TO USE THESE PRODUCTS.

WARNING: THE FRANKLIN ARMORY® BFS™ HAS THE ABILITY TO FIRE UPON THE PULL AND THE RELEASE OF THE TRIGGER. PLEASE READ THE INSTRUCTIONS THOROUGHLY BEFORE OPERATING THE BFS™ IN YOUR FIREARM.

WARNING: FRANKLIN ARMORY® RECOMMENDS THAT ALL USERS SEEK QUALIFIED TRAINING PRIOR TO OPERATING A BFS™ TRIGGER OR BFS™ EQUIPPED FIREARM. IMPROPER UNDERSTANDING OF HOW THE TRIGGER OPERATES MAY LEAD TO UNINTENTIONAL DISCHARGE OF THE FIREARM AND MAY LEAD TO INJURY OR EVEN DEATH.

WARNING: NEVER USE THE BFS™ WITH ANY ACCESSORY THAT MIGHT CREATE A SAFETY HAZARD. SOME SLINGS, STOCKS, OR OTHER ACCESSORIES MAY NOT BE SAFE FOR USE WITH THIS PRODUCT.

WARNING: NEVER RELY ON MECHANICAL FEATURES. IT IS YOUR RESPONSIBILITY TO ENSURE SAFE HANDLING OF ANY FIREARM INCLUDING ANY EQUIPPED WITH THIS BFS™ TRIGGER.

WARNING: IT IS THE BUYER'S RESPONSIBILITY TO ENSURE THAT THEY ARE IN COMPLIANCE WITH ALL APPLICABLE LAWS AT ALL TIMES WHILE USING THIS PRODUCT. SOME STATES WILL NOT ALLOW CIVILIANS TO OWN AND USE THE BFS™.

2. COMPREHENSION OF RISK

The BFS™ Trigger has the ability to fire on the pull and the release of the Trigger. By purchasing and/or using the Franklin Armory® BFS™, YOU COMPREHEND THE INHERENT RISK, including without limitation, of LIABILITY, INJURY, LOSS, DAMAGE or DEATH as a result of improper installation, use, misuse, tampering, and/or abuse of the BFS™.

3. ASSUMPTION OF RISK

By purchasing and/or using the Franklin Armory® BFS™, YOU ASSUME ALL INHERENT RISK AND PERSONAL RESPONSIBILITY, including without limitation, of LIABILITY, INJURY, LOSS, DAMAGE or DEATH as a result of improper installation, use, misuse, and/or abuse of the BFS™.

4. WAIVER OF RIGHTS

By purchasing and/or using the Franklin Armory® BFS™, you waive and release any claim for damages, indemnity, or reimbursement against Franklin Armory® for any claims, fines, or damages imposed upon you for use of the BFS™. In addition, you agree to release Franklin Armory® (including its independent contractors, affiliated entities, parent companies, subsidiaries, present and former employees, owners, officers, members, managers, partners, contractors, insurers, shareholders, and directors) from any and all claims, actions, damages, liabilities, losses, costs, and expenses (including, without limitation, attorney fees) for death, injury, loss, or damage of property in any way arising out of the purchase and use of the Franklin Armory® BFS™. By purchasing and/or using the Franklin Armory® BFS™, you agree to limit liability to actual damages arising from gross negligence or willful misconduct of Franklin Armory®. In no event shall Franklin Armory® be liable for any special, incidental, punitive, or consequential damages or other indirect damages.

5. INDEMNIFICATION

By purchasing or using the Franklin Armory® BFS™, you agree to accept responsibility for your use of the product and any consequence or fine imposed upon you by any government entity or third party and to indemnify and hold harmless Franklin Armory® for any claims made resulting from your use of the BFS™.

6. TRANSFER OF PRODUCT

If you should sell, lease, let someone borrow or use, or in any way transfer the BFS™ to any other individual, you agree, as a condition of acquiring this product, to accept the responsibility of ensuring that the transferee is fully aware and agrees to the conditions set forth herein. Failure to disclose these conditions to a third party without first providing acknowledgment and acceptance by the transferee of the conditions set herein will be grounds for liability on the part of the transferor.

7. BINDING EFFECT

By purchasing the Franklin Armory® BFS™, you agree that this waiver shall be binding upon you as well as your next of kin, personal representatives, heirs, beneficiaries, and assigns and shall inure to the benefit of Franklin Armory® and successors and assigns of Franklin Armory®.

8. SEVERABILITY

If any provision of this Waiver and Release is for any reason declared to be invalid or unenforceable, the validity and enforceability of the remaining provisions will not be affected. The invalid or unenforceable provision will be deemed modified to the extent necessary to render it valid and enforceable, and if no modification may render it valid and enforceable, this Waiver and Release will be construed as if not containing such provision and the rights and obligations of the parties will be construed and enforced accordingly.

9. GOVERNING LAW

This Waiver and Release shall be governed in all respects by the laws of the state of Nevada without regard to conflict and law principles. Any action or claim shall be brought in Douglas County, Nevada.

10. DISPUTE RESOLUTION: ARBITRATION

To the extent permitted by applicable law, any controversy or claim arising out of or relating to the product, its design, functionality, or materials, and this contract, or breach thereof, will be settled by binding arbitration in accordance with the Commercial Arbitration Rules of the American Arbitration Association. Under this arbitration provision, you give up the right to resolve any controversy or claim arising out of or relating to the product, including its design, functionality, materials, or this contract by a judge and/or a jury. You also agree not to participate as a class representative or class member in any class action litigation, any class arbitration or any consolidation of individual arbitrations. The parties specifically agree to the binding nature of the arbitration.

11. VOLUNTARY ACTION

While we sincerely value every Franklin Armory® customer, there is no necessity for anyone to own a Franklin Armory® BFS™. There are many other high-quality firearms and Triggers that the consumer may purchase instead of our products. Please take your time in deciding whether to purchase the BFS™ products. We intend to maintain supply, so please do not rush this important decision. Please contact the Franklin Armory® factory if you have any questions. However, if for any reason the conditions set forth in this agreement are unacceptable to you, THEN DO NOT PURCHASE THIS PRODUCT.

If you have already purchased a Franklin Armory® BFS™, and you do not agree to the terms set herein, then we encourage you to IMMEDIATELY RETURN THE PRODUCT TO YOUR RETAILER in an unused, new condition. Refund terms will be set by each independent retailer.

THIS IS A WAIVER AND RELEASE OF LIABILITY. YOU AGREE TO THIS ENTIRE DOCUMENT. YOU AGREE TO ALL OF THE PROVISIONS HEREIN AND UNDERSTAND THAT YOU HAVE GIVEN UP SUBSTANTIAL RIGHTS BY AGREEING TO ALL OF THE PROVISIONS. BY PURCHASING, AND CONTINUING TO RETAIN THESE PRODUCTS, YOU ARE INDICATING YOUR VOLUNTARY AGREEMENT TO THE PROVISIONS OF THIS WAIVER AND RELEASE OF LIABILITY.

Thank you for purchasing your new Binary Firing System® (BFS™).

For a downloadable copy of this manual as well as links to installation videos, please visit FranklinArmory.com.

SAFETY FEATURES

BEFORE operating G-S173, ensure you can clearly identify when the product is in Semiautomatic Mode or Binary® Mode by way of two safety features: Mode Selector Paddle (*Figure A*) and Mode Indicator (*Figure B*).



*Figure A:
Mode Selector Paddle*

 **Semi:** Fires 1 round on pull

 **Binary®:** Fires 1 round on pull and 1 round on release*

*Release round is cancellable.
See “Dry Fire Function Test”
for instructions.



*Figure B:
Mode Indicator*



EXCESSIVE HEAT WARNING



WARNING: Extensive use of G-S173 may result in the Slide, Barrel, and Trigger becoming hot to the touch. Be aware that racking, manipulating or otherwise touching these parts following extensive use may cause burns. The wearing of proper gloves while using G-S173 for extended periods is recommended.

Important Notices

NOTICE: Read the document included in this packaging titled “Franklin Armory® Patented Binary Firing System® Waiver and Release” **BEFORE** installing and using this product.

NOTICE: G-S173 is for use **ONLY** with the third generation of the Glock® 17 handgun. **Do not attempt to install G-S173 in any other Glock® model or generation.**

NOTICE: It is very important that new users seek qualified instruction **BEFORE** using the Binary Firing System®. A professional firearms instructor with experience operating Franklin Armory’s Binary Firing System® is highly recommended. If you do not know a qualified instructor, please contact our Customer Service department for a referral.

NOTICE: It is very important that the Binary Firing System® is installed correctly. Franklin Armory recommends that this product be installed by a Franklin Armory Certified Armorer or a certified gunsmith. Franklin Armory will not be responsible for improper installation.

NOTICE: To ensure the Binary Firing System® was installed correctly, user **MUST** perform the “Dry Fire Function Tests” (included in this manual) **BEFORE** live fire operation. If any of the checklist steps result in a failure, it is likely that something has been installed incorrectly. If reinstallation does not cure the problem, contact your gunsmith or Franklin Armory’s Customer Service department for assistance.

NOTICE: G-S173 contains small quantity of radioactive tritium gas in its night sight. No attempt shall be made to disassemble the site. Contact Franklin Armory Customer Service for corrective measures.

NOTICE: Due to holster manufacturer inconsistencies and possible unknown holster defects, **ONLY** holster a Binary®-equipped firearm in Semiautomatic Mode. **Do not holster in Binary® Mode.**

NOTICE: G-S173 must be properly cleaned and lubricated to operate as intended. Proper cleaning of G-S173 and re-application of lubrication as needed is recommended at least after every 500 rounds.

G-S173 INSTALLATION INSTRUCTIONS

Manufacturers Warning: Always wear safety glasses when installing BFS™ components. Small springs may inadvertently project small parts with great force.

TOOLS REQUIRED:

Pin Punch - 5/64" or 1/16"

Step 1: Make sure the firearm is unloaded per the original equipment manufacturer's (OEM) instructions. Be certain that the magazine is removed and the chamber is clear.

Step 2: Locate all the G-S173 components (*Figure 1*) and tools required (see list above) for the installation. Read the entire instructions before attempting the installation of the Binary Firing System®.

Step 3: Follow the OEM instructions for removing the OEM Slide, Barrel, Recoil Assembly, and Trigger Assembly.

Step 4: Arrange OEM parts required for assembling G-S173 as illustrated in *Figure 2*.

Step 5: Remove red rubber band from Trigger Assembly while making sure to hold assembly together with other hand (*Figure 3*).

NOTE: If Trigger Assembly becomes disassembled, refer to instructional video at FranklinArmory.com or contact Franklin Armory's Customer Service department via the details on first page of this manual.

Step 6: Insert Trigger Assembly (Trigger end first) into the frame by sliding Trigger component under the Locking Block (*Figure 4*). Then, push down on rear part of Trigger Housing to secure firmly into the frame (*Figure 5*).

Step 7: Insert OEM Trigger Housing Pin from left side of frame (*Figure 6*). Use a punch to fully seat pin into frame (*Figure 7*).

Step 8: Insert OEM Slide Stop Lever into frame from left side of frame (*Figure 8*). Ensure Slide Stop Lever is securely inserted into the frame, next to the Trigger (*Figure 9*). Then, from right side of frame, insert OEM Trigger Pin (*Figure 10*) and use punch to fully seat pin (*Figure 11*).



Figure 1



Figure 2

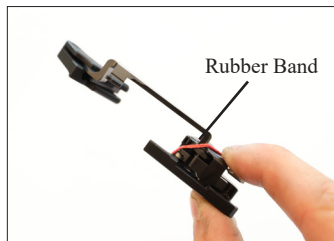


Figure 3

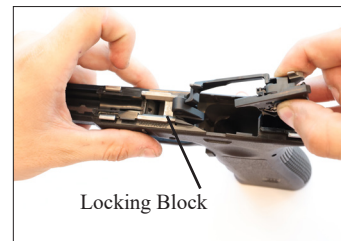


Figure 4



Figure 5



Figure 6



Figure 7



Figure 8



Figure 9



Figure 10



Figure 11

Step 9: Partially insert OEM Locking Block Pin from right side of frame (*Figure 12*), stopping just prior to making contact with the Slide Stop Spring (*Figure 13*).

Step 10: Using a punch to access the Slide Stop Spring from the front side of the Locking Block, depress the Slide Stop Spring enough to allow the Locking Block Pin to fully seat on top of the spring tail; Locking Block Pin should be completely inserted on top of spring to provide necessary tension on Slide Stop Spring (*Figure 14*). Use punch to fully seat Locking Block Pin into frame (*Figure 15*).

Step 11: Trigger assembly installation is complete. Set frame with Trigger assembly aside.

Step 12: Place G-S173 Slide upside down and insert muzzle end of OEM barrel through opening at front of Slide (*Figure 16*). Slide barrel backwards until locking lug is fully seated into the locking lug recess of the slide.

Step 13: Insert small end of OEM recoil spring and rod into opening (*Figure 17*), pushing large end of rod into place on the OEM barrel (*Figure 18*).

Step 14: Align cutouts in the G-S173 slide with the front slide guide rails on the frame (*Figure 19*) and pull rearward on the Slide (*Figure 20*).

Step 15: Push Trigger forward while continuing to move Slide rearward to clear the rear guide rail (*Figure 21*). You should now be able to fully pull G-S173 Slide rearward to charge the Trigger mechanism (*Figure 22*). Your G-S173 is now assembled and ready for function testing.

Step 16: Proceed to mandatory G-S173 Dry Fire Function Testing section of this manual before using.

WARNING:

**DO NOT LIVE FIRE TEST YOUR FIREARM
UNTIL YOU HAVE COMPLETED AND PASSED
THE G-S173 DRY FIRE FUNCTION TESTS
LOCATED ON THE FOLLOWING PAGE.**

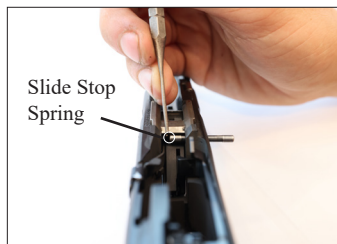


Figure 12



Figure 13

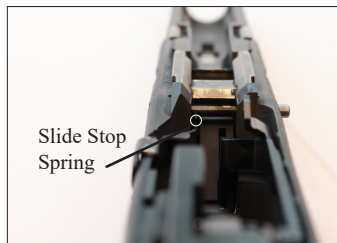


Figure 14



Figure 15



Figure 16



Figure 17



Figure 18



Figure 19



Figure 20



Figure 21



Figure 22

G-S173 Dry Fire Function Tests

WARNING: Always ensure that your firearm is completely unloaded before performing a dry fire test. Remove the ammunition magazine, and ensure that there is not a loaded round in the chamber.

WARNING: Even though you believe your firearm is unloaded, it is always important to point your muzzle in a safe direction while performing the following tasks.

1. Binary Function Test

After clearing the firearm and ensuring no ammunition is in the chamber, place the Selector into the Binary® Mode position. Cock the Firing Pin by racking the Slide. Pull the Trigger and make sure the Firing Pin drops. While holding the Trigger back, re-cock the Firing Pin by racking the Slide. Then release the Trigger and make sure the Firing Pin drops, which will be indicated by an audible click.

2. Slow Release Binary® Reset Test

Repeat the same Binary® function as above with a **SLOW** Trigger release. Make sure the firearm is cocked. Pull the Trigger and make sure the Firing Pin drops. While holding the Trigger back, re-cock the Firing Pin by racking the Slide. Then, release the Trigger **SLOWLY** and make sure the Firing Pin still drops. While **SLOWLY** releasing the Trigger, you should first hear an audible reset, then, with further forward release, you should hear the Firing Pin drop. Re-cock the Firing Pin by racking the Slide in preparation for the next test.

3. Cancellation Test

With the Selector in Binary® Mode, pull the Trigger and make sure the Firing Pin drops. While holding the Trigger to the rear with firing finger, move the Selector to the semi-auto position with thumb or other hand. Re-cock the Firing Pin by racking the Slide and then release the Trigger. The Firing Pin should **NOT** drop.

4. Semi Function Test

With the Selector in the Semiautomatic Mode position, pull the Trigger and confirm that the Firing Pin drops. While holding the Trigger to the rear, re-cock the Firing Pin by racking the Slide. Release the Trigger and confirm that the Firing Pin did **NOT** drop.

5. Half Pull / Pre-Travel Take-Up Safety Test

Move the selector into the Binary® Mode. Start pulling the Trigger to take up Pre-Travel but stop at the wall where resistance is felt (roughly half way), and then release the Trigger. The Trigger should remain in the Pre-Travel Take-Up Safety position without dropping the Firing Pin. Then, pull the Trigger fully and confirm the Firing Pin drops. Release the Trigger. After releasing the Trigger, re-cock the Firing Pin by racking the Slide in preparation for the next test.

NOTE: Due to holster fit and retention variances between manufacturers, holstering your firearm in the Pre-Travel Take-Up Safety position is **NOT** recommended.

6. Trigger Reset Test

With the selector in the Binary® Mode position, pull the Trigger until the Firing Pin drops. While holding the Trigger back, re-cock the Firing Pin by racking the Slide and release the Trigger until the Firing Pin drops. Hold the Trigger at the release point and rack the Slide. Confirm that the Firing Pin does **NOT** drop and the Trigger resets.

7. Lock Back Trigger Rest Test

With the selector in the Binary® Mode position, pull the Trigger completely and make sure the Firing Pin dropped. Then, let go of the Trigger. Rack the Slide and make sure that the Trigger resets to the forward position.

What to Expect When Live Fire Testing the BFS™ G-S173:

WARNING: Keep your finger off the Trigger until you are ready to shoot.

WARNING: Never point your firearm at anything that you do not intend to destroy.

WARNING: Be sure of your target and what is behind it.

Note: The Selector Paddle is designed to point toward the firing mode that it is indicating.

Test Semiautomatic Mode:

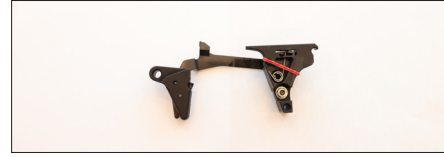
With the Safety Selector in Semi Mode, the firearm should fire one round every time the Trigger is pulled. When the Trigger is released, the Trigger will reset.

Test Binary® Mode:

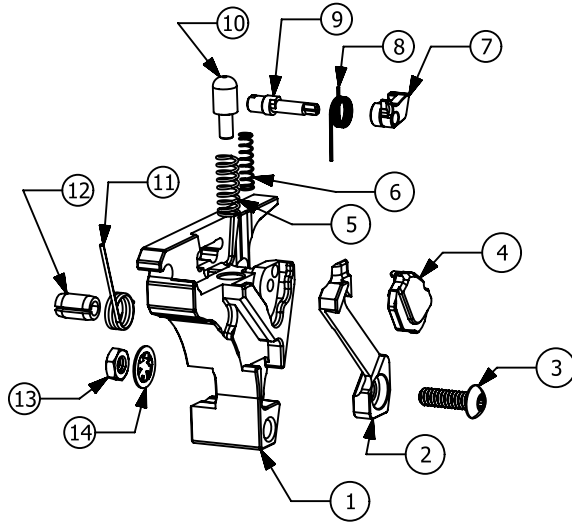
With the Safety Selector in Binary® Mode, the firearm should fire once every time the Trigger is pulled and once again when the Trigger is released.

G-S173 PARTS

Assembled Parts Include:



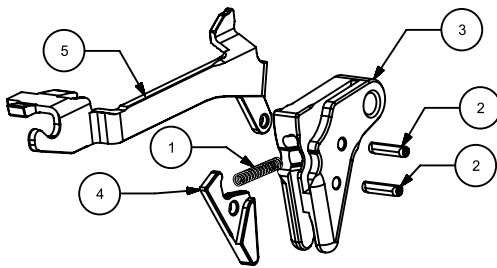
Trigger Sub Assembly Parts List:



Part# Trigger Assembly Part Name (QTY)

1	Trigger Housing (1)
2	Trigger Connector (1)
3	Trigger Connector Screw (1)
4	Retainer (1)
5	Trigger Bar Plunger Spring (1)
6	Retainer Spring (1)
7	Disconnecter (1)
8	Disconnecter Spring (1)
9	Disconnecter Axle (1)
10	Trigger Bar Plunger (1)
11	Trigger Bar Torsion Spring (1)
12	Trigger Housing Roll Pin (1)
13	Trigger Connector Nut (1)
14	Trigger Connector Lock Washer (1)

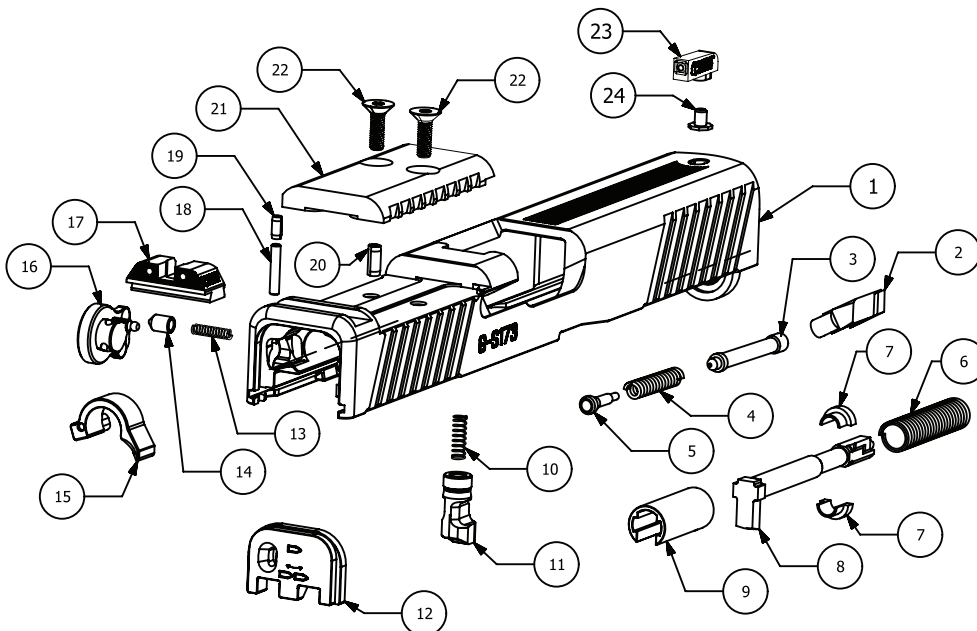
Trigger Bar Sub Assembly Parts List:



Part# Trigger Bar Part Name (QTY)

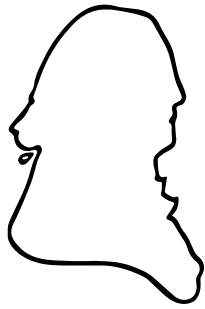
1	Trigger Safety Blade Spring (1)
2	Trigger Coil Pin (2)
3	Trigger (1)
4	Trigger Safety Blade (1)
5	Trigger Bar (1)

Slide Sub Assembly Parts List:



Part# Slide Part Name (QTY)

1	Slide G-S173 (1)
2	Extractor (1)
3	Extractor Plunger (1)
4	Extractor Spring (1)
5	Spring Loaded Bearing (1)
6	Firing Pin Spring (1)
7	Spring Cups (2)
8	Firing Pin G-S173 (1)
9	Spacer Sleeve (1)
10	Firing Pin Safety Spring G-S173(1)
11	Firing Pin Safety G-S173 (1)
12	Slide End Plate (1)
13	Selector Spring (1)
14	Selector Detent (1)
15	Selector Ring (1)
16	Selector Paddle (1)
17	Rear Sight (1)
18	Selector Dowl Pin (1)
19	Selector Roll Pin (1)
20	Extractor Spring Coil Pin (1)
21	Optic Cover Plate (1)
22	Optic Cover Plate Screws (2)
23	Front Sight (1)
24	Front Sight Screw (1)



**FRANKLIN®
ARMORY**

UPGRADE YOUR 2A.

*“Those who would give up essential Liberty,
to purchase a little temporary Safety,
deserve neither Liberty nor Safety.”*

- BENJAMIN FRANKLIN

If you have a suggestion on how to improve this installation procedure or if you have any questions, please contact us:

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Minden, NV 89423

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Phone: (775) 783-4313