

TM22

**RIA**  
IMPORTS

## USERS MANUAL



**WARNING: READ THE INSTRUCTIONS AND  
SAFETY PRECAUTIONS IN THIS MANUAL  
CAREFULLY BEFORE USING THE FIREARM.**

# ROCK ISLAND ARMORY

## **USERS MANUAL TM22 AND TM22 FEATHER RIFLE** SAFETY, INSTRUCTION AND PARTS MANUAL



As a responsible owner of this firearm, you must read the instructions and warnings in this manual carefully. Before using this firearm, make sure you understand thoroughly the contents of this manual.

This manual must always be in the firearms carrying case whenever the owner/user brings it or when it transfers ownership. A copy of this manual is available upon request from:

**ARMSCOR PRECISION INTERNATIONAL**  
150 N Smart Way, Pahrump NV 89060  
E-mail: [support@armscor.com](mailto:support@armscor.com)



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## MAINTENANCE



## STATEMENT OF LIABILITY

This firearm is classified as a firearm or dangerous weapon. It is expressly understood that we assume no liability for its resale or unsafe handling under local laws and regulations. Armscor assumes no responsibility for physical injury or property damage resulting from either intentional or accidental discharge, or for the function of the firearm subjected to influence beyond their control. Armscor will honor no claims which may result from careless handling, unauthorized adjustments, defective or improper ammunition, corrosion or neglect. Examine your firearm carefully at the time of purchase. It should be forwarded immediately to the factory or its sales agent if any adjustment of any kind is required.

## State-By-State Warnings



### CALIFORNIA STATE WARNING

*CHILDREN ARE ATTRACTED TO AND CAN OPERATE FIREARMS THAT CAN CAUSE SEVERE INJURIES OR DEATH. PREVENT CHILD ACCESS BY ALWAYS KEEPING FIREARMS LOCKED AWAY AND UNLOADED WHEN NOT IN USE. IF YOU KEEP A LOADED FIREARM WHERE A CHILD OBTAINS AND IMPROPERLY USES IT, YOU MAY BE FINED OR SENT TO PRISON. IT IS UNLAWFUL TO USE A MAGAZINE WITH A CAPACITY OVER 10 ROUNDS.*



### MASSACHUSETTS STATE WARNING

*IT IS UNLAWFUL TO CARRY ANY MAGAZINE OR BELT WHICH HOLDS MORE THAN TEN ROUNDS, UNLESS AUTHORITY IS GRANTED BY THE BOSTON POLICE COMMISSIONER. IT IS UNLAWFUL TO STORE OR KEEP A FIREARM, RIFLE, FIREARM OR MACHINE GUN IN ANY PLACE UNLESS THAT WEAPON IS EQUIPPED WITH A TAMPER RESISTANT SAFETY DEVICE OR IS STORED OR KEPT IN A SECURELY LOCKED CONTAINER.*



### NEW YORK STATE WARNING

*IT IS UNLAWFUL TO CARRY ANY MAGAZINE OR BELT WHICH HOLDS MORE THAN SEVEN ROUNDS, UNLESS AUTHORITY IS GRANTED BY THE STATE OF NEW YORK. THE USE OF A LOCKING DEVICE OR SAFETY LOCK IS ONLY ONE ASPECT OF RESPONSIBLE FIREARMS STORAGE FOR INCREASED SAFETY, FIREARMS SHOULD BE STORED UNLOADED AND LOCKED IN A LOCATION THAT IS BOTH SEPARATED FROM THEIR AMMUNITION AND INACCESSIBLE TO CHILDREN AND OTHER UNAUTHORIZED PERSONS.*



## 02 | SAFETY PRECAUTIONS

Safety must be the first and constant consideration of every person who handles firearms and ammunition. The person with a firearm in his possession has an important responsibility. He/She must know how to use his/her firearm safely:

1. Always keep the muzzle pointed at a safe direction. Watch the muzzle at all times. Never point a gun, accidentally or intentionally, at any person or anything you do not intend to shoot. Identify the target before shooting; do not shoot at sounds.
2. Always treat a gun as if it is loaded – it may be!
3. Keep your finger off the trigger while operating the action and at all other times until you are ready to shoot.
4. Keep the safety “on” or in the “safe” position at all times until you are ready to fire. Do not rely on your gun’s safety, the safety on any gun is a mechanical device and is not intended as a substitute for common sense or safe gun handling.
5. Learn how your gun functions and handles. If you do not thoroughly understand the proper use and care of your gun, seek the advice of someone who is knowledgeable.
6. Do not alter or modify any part of the firearm.
7. Store guns unloaded, separate from any ammunition, and out of the reach of children.
8. Be sure the barrels is clear of any obstructions before loading. Make it a habit to check the barrel every time before loading.
9. Be sure you have and use the proper ammunition.
10. Wear protective shooting glasses, adequate ear protection and gloves when shooting.
11. Never climb or jump over anything, such as a tree, fence, or ditch, with a loaded gun. Open the barrel, remove the shells and hand the gun to someone else or place it on the ground on the other side of the obstacle before crossing it yourself. Do not lean a gun against a tree or other object; it could fall and possibly discharge.
12. Do not shoot at a hard surface or at water. Bullet and shot can ricochet or bounce off and travel in unpredictable directions with great velocity.
13. Never transport a loaded gun. Do not place a loaded gun into a vehicle. The gun should be unloaded and placed into a case when not in use.
14. Never consume intoxicating beverages and/or drugs before or during shooting.

### WARNING

DO NOT ATTEMPT TO USE ANY FIREARM WITHOUT HAVING A COMPLETE UNDERSTANDING OF ITS PARTICULAR CHARACTERISTICS AND SAFE USE. READ AND UNDERSTAND THIS MANUAL CAREFULLY BEFORE USAGE OF YOUR FIREARM.

### WARNING

YOU SHOULD NEVER DEPEND ON A SAFETY MECHANISM OR ANY OTHER MECHANICAL DEVICE TO JUSTIFY CARELESS AND IMPROPER HANDLING.

### WARNING

THIS FIREARM WAS MANUFACTURED TO PERFORM PROPERLY WITH THE ORIGINAL PARTS AND MAGAZINES AS DESIGNED. PLEASE MAKE SURE ANY PARTS YOU BUY ARE INSTALLED CORRECTLY AND THAT NEITHER REPLACEMENTS NOR ORIGINALS ARE ALTERED OR CHANGED. PUTTING A FIREARM TOGETHER INCORRECTLY OR WITH MODIFIED PARTS CAN RESULT IN DAMAGED FIREARM, DANGER, AND INJURY OR DEATH. ANY MODIFICATIONS TO FIREARM WILL VOID FACTORY WARRANTY.

## 03 | SAFETY PRECAUTIONS

### WARNING

CHILDREN ARE ATTRACTED TO FIREARMS, AND MIGHT BE ABLE TO OPERATE THEM, THEY CAN CAUSE SEVERE INJURIES AND EVEN DEATH, TO THEMSELVES OR OTHERS. PREVENT CHILDREN FROM ACCESS, ALWAYS KEEP YOUR FIREARMS LOCKED AWAY, UNLOADED AND OUT OF REACH OF CHILDREN WHEN NOT IN USE AT ANY TIME.

### WARNING

THE FIREARM SHOULD BE STORED IN ROOMS WITH A DRY ATMOSPHERE AND MINIMUM HUMIDITY. IT SHOULD NOT BE STORED ENCASED IN LEATHER OR ANYTHING THAT WILL ATTRACT AND HOLD MOISTURE, CAUSING IT TO RUST.

### WARNING

DO ALL PROCEDURES (DISASSEMBLY, CLEANING AND OTHER MAINTENANCE) ONLY WHEN THE FIREARM IS UNLOADED. BE SURE THAT THE MAGAZINE TUBE, RECEIVER AND CHAMBER ARE EMPTY WHILE YOU ARE PROCEEDING. CHECK EJECTION PORT, LOADING PORT AND CHAMBER VISUALLY.

### WARNING

ALL PRODUCTS HAVE 3" (76MM) CHAMBERS (EXEPT OTHERWISE STATED). YOU CAN SEE MARKS ABOUT GAUGES AND CHAMBER LENGTH ON THE GUN. EVERY FIREARM HAS PASSED DURABILITY TEST WITH SPECIAL HIGH PRESSURE CARTRIDGES.

### WARNING

WHEN STORING THE GUN FOR A PROLONGED PERIOD OF TIME, IT IS NECESSARY TO OIL IT HEAVILY WITH AN ACID-FREE LUBRICANT. THE EXTERNAL PARTS MUST BE COATED WITH AN ANTI-RUST OIL OR GREACE TO PREVENT MOISTURE CAUSING THE PARTS TO RUST AND MALFUNCTION. BEFORE USAGE, THE FIREARM MUST BE CLEANED AND WIPED DRY AGAIN.



## 04 | TECH SPECS

|                |                                     |
|----------------|-------------------------------------|
| Model          | <b>TM22</b>                         |
| Caliber        | .22LR                               |
| Action         | Semi Automatic                      |
| Capacity       | 10 Rounds                           |
| Barrel         | Contoured                           |
| Barrel Length  | 457.2mm / 18" & 500mm / 20"         |
| Overall Length | 920mm / 36" & 950mm / 37"           |
| Overall Width  | 50mm / 1.96"                        |
| Overall Height | 180mm / 7.08"                       |
| Accs.          | Picatinny Type Rail or Carry Handle |
| Weight, Empty  | 2.3kg / 5lb. - 2.9kg / 6.5lb.       |
| Weight, Loaded | 2.4kg / 5.3lb. - 3kg / 6.6lb.       |
| Finish         | Black Anodized                      |
| Stock          | Fixed or Adjustable Stock           |
| Thread         | ½ x 28 UNEF                         |

## CALIBER



.22LR



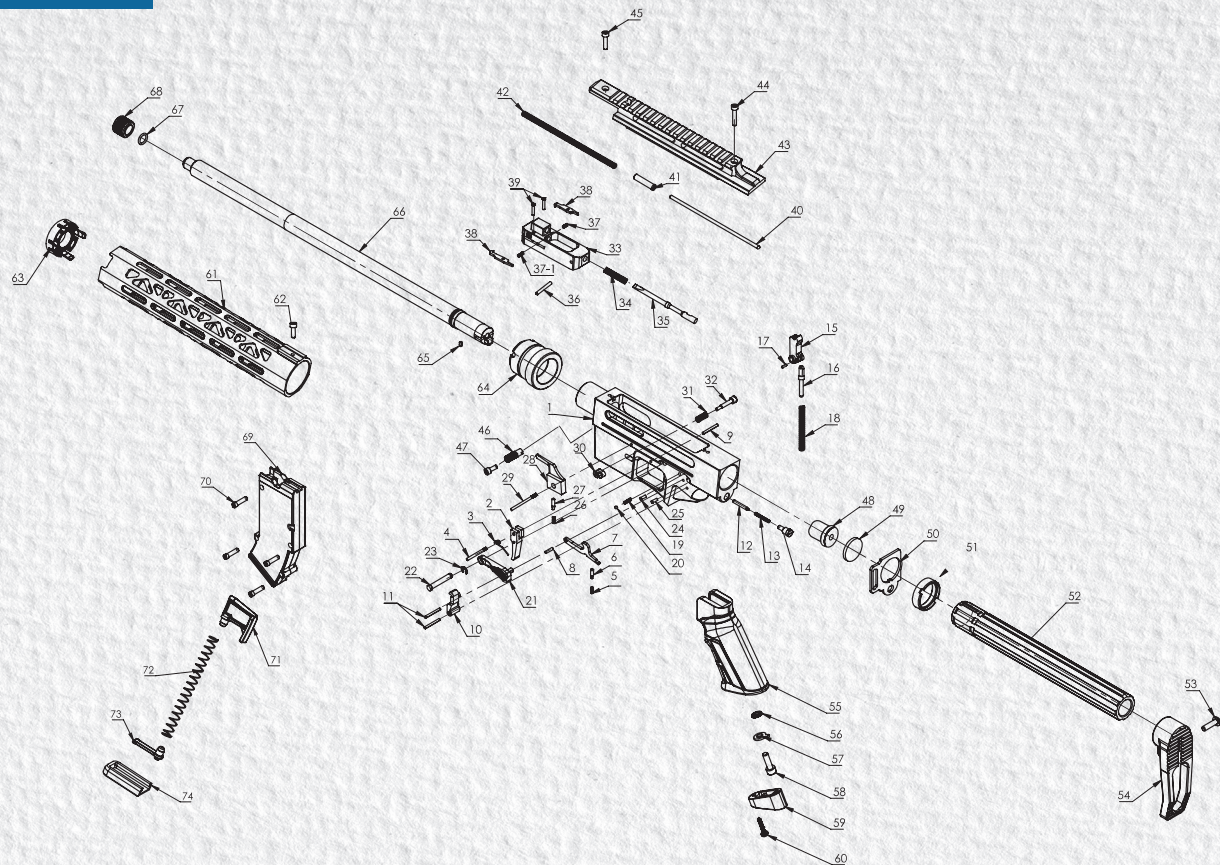
## 05 | BASIC PARTS

| P.NO | PART NAME                      | P.NO | PART NAME                   | P.NO | PART NAME                    | P.NO | PART NAME                |
|------|--------------------------------|------|-----------------------------|------|------------------------------|------|--------------------------|
| 1    | Lower Receiver                 | 26   | Ejector Spring              | 51   | Stock Support Rubber         | 76   | Magazine Spring          |
| 2    | Trigger                        | 27   | Ejector Spring Pin          | 52   | Stock Connector              | 77   | Magazine Base Plate Lock |
| 3    | Trigger Spring                 | 28   | Ejector                     | 53   | Pivot Nut                    | 78   | Magazine Base Plate      |
| 4    | Trigger Pin                    | 29   | Ejector Pin                 | 54   | Stock Support                |      |                          |
| 5    | Trigger Socket Spring          | 30   | Magazine Catch Button       | 55   | Stock Fixing Screw           |      |                          |
| 6    | Trigger Socket Spring Pin      | 31   | Magazine Catch Spring       | 56   | Stock                        |      |                          |
| 7    | Trigger Slide                  | 32   | Magazine Catch Button Screw | 57   | Pistol Grip                  |      |                          |
| 8    | Trigger Slide Pin              | 33   | Bolt                        | 58   | Pistol Grip Connector Washer |      |                          |
| 9    | Trigger Docking Pin            | 34   | Firing Pin Spring           | 59   | Pistol Grip Custom Washer    |      |                          |
| 10   | Disconnecter                   | 35   | Firing Pin                  | 60   | Pistol Grip Screw            |      |                          |
| 11   | Disconnecter Docking Pin       | 36   | Firing Pin Retainer         | 61   | Pistol Grip Cap              |      |                          |
| 12   | Disconnecter Socket Spring Pin | 37   | Right Extractor Spring      | 62   | Pistol Grip Cap Screw        |      |                          |
| 13   | Disconnecter Socket Spring     | 38   | Left Extractor Spring       | 63   | Forend                       |      |                          |
| 14   | Disconnecter Socket Screw      | 39   | Right Extractor             | 64   | Long Forend                  |      |                          |
| 15   | Hammer Assembly                | 40   | Left Extractor              | 65   | Forend Upper Screw           |      |                          |
| 16   | Hammer Pin                     | 41   | Extractor Pin               | 66   | Forend Connection Part       |      |                          |
| 17   | Hammer Spring Pin              | 42   | Main Stick                  | 67   | Barrel Nut                   |      |                          |
| 18   | Hammer Spring                  | 43   | Main Spring Stick Socket    | 68   | Barrel Pin                   |      |                          |
| 19   | Safety Detent Spring           | 44   | Recoil Spring               | 69   | 18" Barrel                   |      |                          |
| 20   | Safety Detent Ø3 Ball          | 45   | Top Cover                   | 70   | 20" Barrel                   |      |                          |
| 21   | Safety Lever                   | 46   | Top Cover Back Screw        | 71   | Barrel Shroud Oring          |      |                          |
| 22   | Safety Lever Pin               | 47   | Top Cover Front Screw       | 72   | Barrel Shroud                |      |                          |
| 23   | Crescent Washer                | 48   | Charging Handle             | 73   | 10rd Magazine Body           |      |                          |
| 24   | Safety White Pin               | 49   | Charging Handle Screw       | 74   | Magazine Rivet               |      |                          |
| 25   | Safety Red Pin                 | 50   | Bolt Stopper                | 75   | Magazine Follower            |      |                          |

Note: Some models will vary from exploded view.



# 06 | EXPLODED VIEW





## 07 | OPERATING INSTRUCTIONS

### DISASSEMBLY OF THE FIREARM

- 1) Remove the magazine. Check to see if the gun is loaded.
- 2) Unscrew the forend and receiver screws by using an allen wrench.



- 3) Pull the forend to forward.
- 4) Unscrew the barrel nut with a choke tube wrench.



- 5) Remove the barrel nut by pulling in arrow direction.
- 6) Pull the barrel in arrow direction.





## 08 | OPERATING INSTRUCTIONS

7) Unscrew the charging handle screw with an allen wrench.

8) Untighten the screws with an allen wrench.



## DISASSEMBLY OF THE FIREARM

9) Detach upper from lower.

10) Remove the main stick and the main spring by pulling upward.



11) Remove the bolt by pulling upward.

12) To remove the stock, unscrew the pivot nut by using a choke tube wrench.

13) Unscrew the stock support by turning in arrow direction.





### ASSEMBLY OF THE FIREARM

1) Screw the stock support by turning in arrow direction.

2) Screw the pivot nut and tighten it with a choke tube wrench.

3) Mount the bolt on the lower.



4) Push the main stick and the main spring forward by pressing down.



5) Mount the upper to lower.



6) Tighten the screws with an allen wrench.

7) Put the charging handle back by giving attention to the channels.





## 10 | OPERATING INSTRUCTIONS

### ASSEMBLY OF THE FIREARM

8) Tighten the screw with an allen wrench.

9) Pull the barrel backward and place the barrel pin and the extension on their housing.



10) Screw the barrel nut in arrow direction.

11) Use a choke tube wrench to tighten it.



12) Mount the forend by pulling backward.

13) Screw the forend screws with an allen wrench.



## 11 | BASIC PARTS

| P.NO | PART NAME                   |
|------|-----------------------------|
| 1    | Lower Receiver              |
| 2    | Ejector Spring              |
| 3    | Ejector Spring Pin          |
| 4    | Ejector                     |
| 5    | Trigger Pin                 |
| 6    | Magazine Catch Button       |
| 7    | Magazine Catch Spring       |
| 8    | Magazine Catch Button Screw |
| 9    | Trigger Docking Pin         |
| 10   | Trigger                     |
| 11   | Trigger Spring              |
| 12   | Trigger Pin                 |
| 13   | Trigger Socket Spring       |
| 14   | Trigger Socket Spring Pin   |
| 15   | Trigger Slide               |
| 16   | Trigger Slide Pin           |
| 17   | Disconnecter Spring         |
| 18   | Disconnecter                |
| 19   | Disconnecter Docking Pin    |
| 20   | Hammer                      |
| 21   | Hammer Action Pin           |
| 22   | Hammer Connection Pin       |
| 23   | Hammer Spring               |
| 24   | Safety Detent Spring        |
| 25   | Safety Detent Ø3 Ball       |

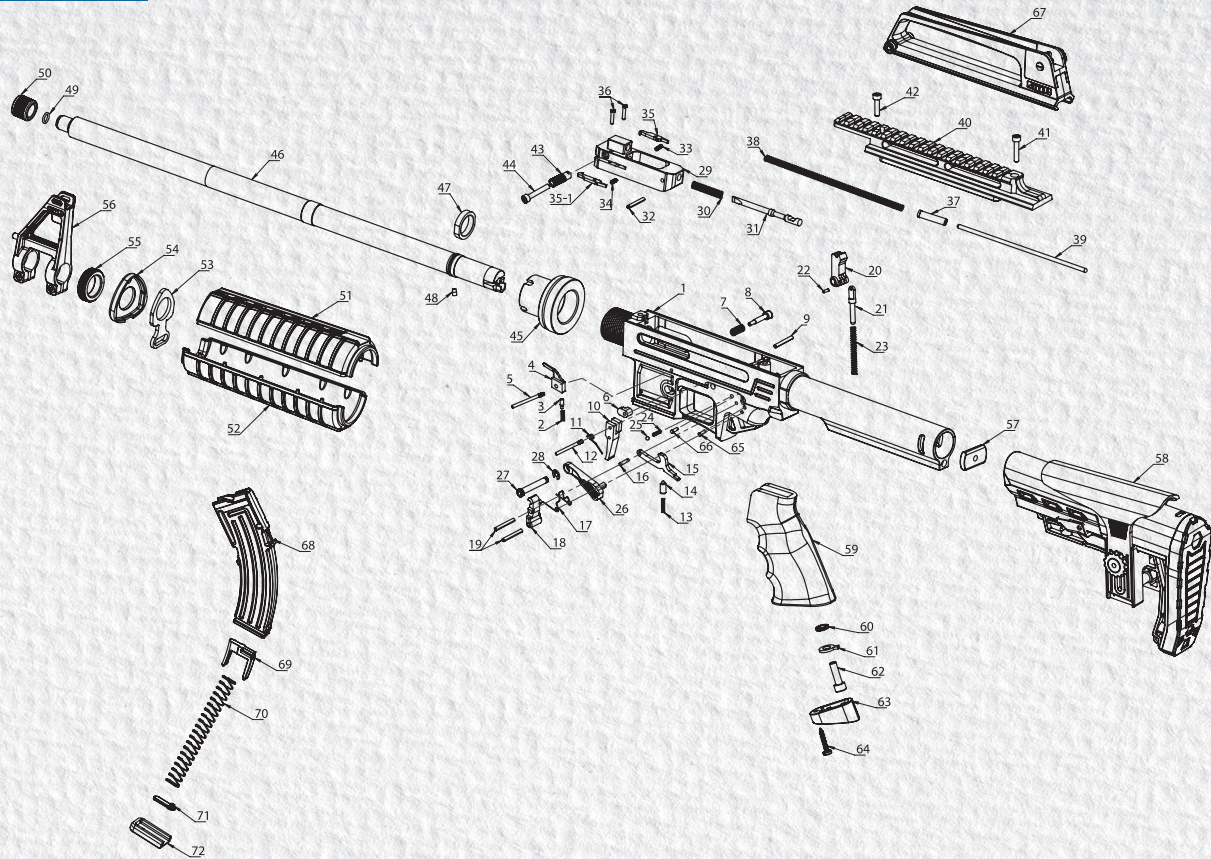
| P.NO | PART NAME                |
|------|--------------------------|
| 26   | Safety Lever             |
| 27   | Safety Lever Pin         |
| 28   | Crescent Washer          |
| 29   | Bolt                     |
| 30   | Firing Pin Spring        |
| 31   | Firing Pin               |
| 32   | Firing Pin Retainer      |
| 33   | Right Extractor Spring   |
| 34   | Left Extractor Spring    |
| 35   | Extractor                |
| 36   | Extractor Pin            |
| 37   | Main Spring Stick Socket |
| 38   | Recoil Spring            |
| 39   | Main Stick               |
| 40   | Top Cover                |
| 41   | Top Cover Screw          |
| 42   | Top Cover Screw          |
| 43   | Charging Handle          |
| 44   | Charging Handle Screw    |
| 45   | Barrel Nut               |
| 46   | Barrel                   |
| 47   | Chamber Nut              |
| 48   | Barrel Pin               |
| 49   | Barrel Shroud Oring      |
| 50   | Universal Barrel Nut     |

| P.NO | PART NAME                    |
|------|------------------------------|
| 51   | Upper Forend                 |
| 52   | Lower Forend                 |
| 53   | Sling Swivel                 |
| 54   | Forend Drop In               |
| 55   | Forend Nut                   |
| 56   | Front Sight                  |
| 57   | Stock Connector              |
| 58   | Stock                        |
| 59   | Pistol Grip                  |
| 60   | Pistol Grip Connector Washer |
| 61   | Pistol Grip Custom Washer    |
| 62   | Pistol Grip Screw            |
| 63   | Pistol Grip Cap              |
| 64   | Pistol Grip Cap Screw        |
| 65   | Safety White Pin             |
| 66   | Safety Red Pin               |
| 67   | Carry Handle                 |
| 68   | Magazine Body                |
| 69   | Magazine Follower            |
| 70   | Magazine Spring              |
| 71   | Magazine Base Plate Lock     |
| 72   | Magazine Base Plate          |

Note: Some models will vary from exploded view.



## 12 | EXPLODED VIEW





## 13 | OPERATING INSTRUCTIONS

### DISASSEMBLY OF THE FIREARM

**1)** Remove the magazine. Check to see if the gun is loaded.

**2)** Unscrew the front sight screws by using an allen wrench.

**3)** Pull the front sight to forward.

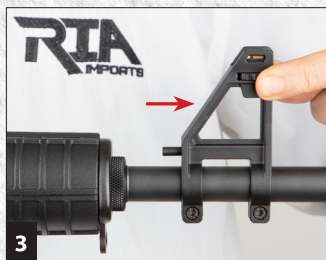
**4)** Unscrew the forend nut by turning in arrow direction.

**5)** Pull the sling swivel and forend drop in to forward.

**6)** Unscrew the carry handle screw.

**7)** Pull the forend to forward.

**8)** Pull the carry handle to backward.





## 14 | OPERATING INSTRUCTIONS

### DISASSEMBLY OF THE FIREARM

**9)** Unscrew the barrel nut with a choke tube wrench. Remove the barrel nut by pulling in arrow direction.

**10)** Pull the barrel in arrow direction.

**11)** Unscrew the charging handle screw with an allen wrench.

**12)** Untighten the screws with an allen wrench.

**13)** Detach upper from lower.

**14)** Remove the main stick and the main spring by pulling upward.

**15)** Remove the bolt by pulling upward.





## ASSEMBLY OF THE FIREARM

1) Mount the bolt on the lower.

2) Push the main stick and the main spring forward by pressing down.

3) Mount the upper to lower.

4) Tighten the screws with an allen wrench.

5) Put the charging handle back by giving attention to the channels. Tighten the screw with an allen wrench.

6) Pull the barrel backward and place the barrel pin and the extension on their housing.

7) Screw the barrel nut in arrow direction. Use a choke tube wrench to tighten it.

8) Pull and mount the carry handle to forward.





## 16 | OPERATING INSTRUCTIONS

### ASSEMBLY OF THE FIREARM

**9)** Mount the forend by pulling backwards.

**10)** Screw the carry handle screw.



**11)** Pull the sling swivel and forend drop in to backward.

**12)** Screw the forend nut by turning in arrow direction.



**13)** Pull the front sight to backward.

**14)** Screw the front sight screws by using an allen wrench.



**15)** Now you can put the magazine but check if the gun is loaded.





## ORDERING PARTS

Visit RIA website to browse, learn more about and purchase parts and ammunition for all of your Rock Island Armory products.



[www.advancedtactical.com](http://www.advancedtactical.com)



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ROCKISLANDARMORY



ARMSCORRIA



### WARRANTY REGISTRATION

Armcor's warranty covers its firearms and parts. We offer limited lifetime warranty on our products for their intended purpose. As with any product, abuse, gunsmithing by an unqualified person and normal wear and tear are excluded. Additionally, if the firearm was modified and/or repaired by an unqualified gunsmith without permission from Armcor, then the warranty will be void. If warranty work should be required, return the firearm to the address listed below. There is no refund for the shipping cost. Gunsmithing services are available by registered Armcor Gunsmithers. Please email the address below.

To register your firearm, please go to [www.rockislandarmory.com/support-center/warranty/](http://www.rockislandarmory.com/support-center/warranty/) and complete online warranty form. In comments section, write warranty registration and press submit. You can also go to [www.rockislandarmory.com](http://www.rockislandarmory.com) and press warranty section at the bottom.

**Armcor Precision International**  
**150 North Smart Way**  
**Pahrump, NV 89060**  
**Email: [support@armcor.com](mailto:support@armcor.com)**

For more information on warranty, visit [www.rockislandarmory.com](http://www.rockislandarmory.com), or email [support@armcor.com](mailto:support@armcor.com)

### IMPORTANT WARRANTY INFORMATION

Our Rock Island Armory firearms are warranted to function only with Factory Ammo and the Original Factory Magazine. Use of Handloads is not covered in Warranty of Repair for the function of the Firearm.

DUE TO THE FIT AND TIGHTNESS OF FIREARM, RIA RECOMMENDS A BREAK-IN PERIOD OF 500 ROUNDS.

#### **THIS IS HOW YOU VOID YOUR WARRANTY**

- \* Refinishing your RIA firearm
- \* Misuse, Mishandling, Dropping your RIA Firearm
- \* Firing Remanufactured or Reloaded Ammunition
- \* Not properly reassembling your RIA Firearm resulting in damage, ie reverse plugs!
- \* Any addition of after market parts
- \* Unauthorized repairs done by any other than Rock Island Armory

#### **LIMITS ON WARRANTY (will not cover)**

- \* Finish, Holster wear, Scratches, Chemical damage
- \* After Market Magazines
- \* Damage to Factory Magazines
- \* Sights not installed by Rock Island Armory
- \* Recoil Springs

WE RESERVE THE RIGHT TO CHARGE FOR LABOR, PARTS AND SHIPPING TO RETURN YOUR RIA FIREARM BACK TO FACTORY SPECIFICATIONS IF IT HAS BEEN ALTERED.











# RIA

IMPORTS

[WWW.ROCKISLANDARMORY.COM](http://WWW.ROCKISLANDARMORY.COM)

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