

IMPORTANT! PLEASE READ BEFORE FIRING!

Technical Bulletin 8837
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DON'T LOAD YOUR GUN

until you have read
and understood the vital
information in this folder
and the *Pellets and Pistons* booklet.



Beeman/HW97 OWNER'S MANUAL

 **WARNING:**

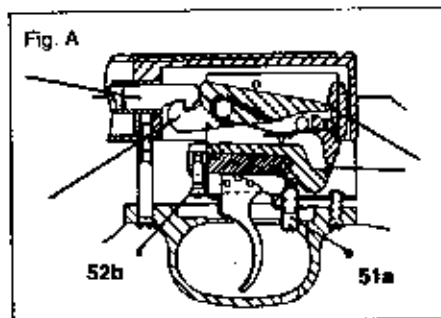
Be sure to read this booklet before firing! This airgun is recommended for adult use only. Airguns are not toys. Careless use may result in serious injury or death. Dangerous within at least 400 yards (366 meters).

Mr. Dealer: This information booklet **MUST** be given to retail customers with gun at time of sale. Shooters are advised to keep this booklet, and associated instructions, for future reference by **ALL** users of this gun and to transfer with the gun if resold.

Basic operation: Please read the booklet "Pellets & Pistons" first. This bulletin is only a specific supplement to that booklet — but it must be read also. The "Pellets & Pistons" booklet comes with your new gun and is available from your Beeman dealer or Beeman.

CAUTION

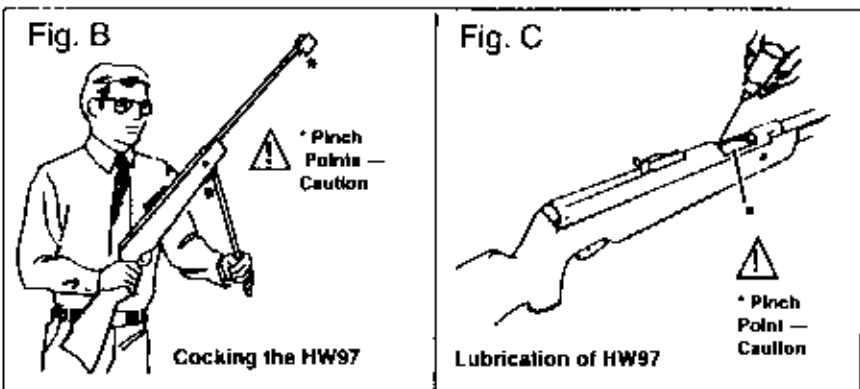
**DO NOT
ADJUST
SCREW 52b**



Trigger adjustments: The trigger is two stage. The first stage, considered by European shooters as a safety feature, consists of a fairly long slack phase — sometimes mistakenly identified by American shooters as "creep." The second stage is the actual trigger pull. The basic adjustment is made by the factory using screw 52b (Fig. A). **DO NOT ADJUST THIS SCREW!** It must be adjusted only by the factory or a factory-authorized service station. Improper adjustment may cause the gun to fire when snapped shut. Fine adjustments can be made simply by inserting a screwdriver through the hole in the trigger guard and turning screw 51a behind the trigger. Counter-clockwise turns produce a lighter pull. Adjustments below about 14 oz. pull are not recommended. Clockwise turns produce a heavier pull. Excessive lubrication and all molybdenum disulphide lubricants should be kept off the trigger sears. **NOTE:** Please use care when replacing the trigger guard; overtightening the rear trigger guard screw may make it impossible to release the trigger.

Cocking the Gun: Unlatch the cocking lever (under the barrel) by pushing the button at the end of the cocking lever. Firmly pull down the cocking lever as shown in Figure B. Notice the three pinch points shown in Figs. B. and C. Keep your fingers, clothing, etc., away from these points while cocking the gun. You may wish to position your non-cocking hand differently than shown in Fig. B, but **BE SURE** you do not allow anything to touch the trigger during cocking. Also, your non-cocking hand should never be near the barrel or loading area (shown as pinch point in Fig. B. and C.) until you have cocked the gun (as evidenced by the safety button popping out and the lack of tension on the cocking lever). Once you have cocked the gun, return the cocking lever to its storage position under the barrel and re-latch it into place. **CAUTION:** If you do not maintain a firm grip on the cocking lever during the entire time it is down, it could fly out of your hand and cause injury to yourself, a nearby object or person, or the gun itself. Beeman is not responsible for such damage and such damage is not covered by Beeman's Repair Policies or Service Contracts.

Safety button: A "safety" button on the left rear corner of the receiver protrudes automatically when the rifle is cocked. Push it in to put the gun in the firing mode. A red indicator button will appear on the right side of the receiver when the gun is ready to fire. If desired, the safety may be re-engaged after release, without firing, by swinging the underlever back down to the full cocking position again. **BE SURE NOT** to touch the safety button during cocking. Watch carefully to see that this button is free and does pop out during cocking. **NEVER DEPEND** on the "safety" of any gun! Spring-piston guns should not be left cocked for long periods. Unload any unattended gun. A vise or other pressure **MUST NEVER** be applied to the compression tube; that could injure the gun and interfere with the action of the safety. The safety of this gun is designed to function automatically to reduce the possibility of damage to the gun or persons by the cocking lever during the cocking stroke. It is not the intent of this mechanism to automatically make the gun safe from firing. Guns with automatic safeties should never be used to train inexperienced shooters. Shooters should never learn to depend on a safety instead of safe gun handling procedures.



Uncocking the gun: The HW 97 cannot be uncocked. The rifle can only be "uncocked" by simply loading and firing it in a safe direction, or put the muzzle of an unloaded gun against a carpeted floor or other soft material and pull the trigger. Note: never dry-fire a spring-piston airgun. Without a pellet to create a cushion of back pressure, the piston will slam against the chamber wall. Repeated dry firing will eventually damage the piston mechanism. Allowing the cocking lever to slam back into the closed position can cause personal injury as well as damage the airgun.

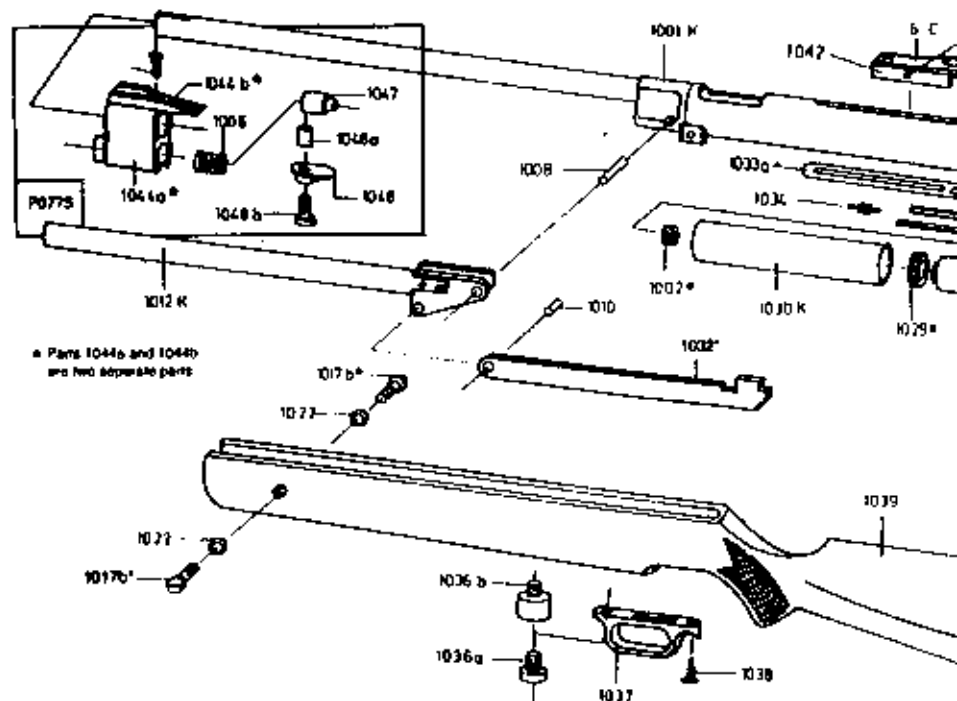
To unload the gun, it is best to fire it in a safe direction. If that cannot be done, open the action and remove the pellet from the chamber. The pellet can sometimes be caused to drop out by pointing the gun straight up and hitting the side of the chamber area with the heel of your hand. Or the pellet may easily be removed by pushing it out with a clearing rod (or other rod) down the barrel from the muzzle end. Be sure the pellet falls clear of the gun and then close the action and dry-fire the gun while firmly holding the muzzle against a resilient pad or carpeted floor.

Lubrication: Before lubricating any gun, be sure the chamber and barrel are clear of any obstructions and that it is not loaded. The two main areas for lubrication are the compression chamber ahead of the piston seal and the spring chamber which contains the mainspring (page 9 of "Pellets & Pistons" booklet). Use Beeman Chamber Oil for the compression chamber. Use Beeman Spring Oil for the mainspring only. Petroleum based oils, regular gun oils, and most other lubricants may cause injury to the internal seals and possibly dangerous detonation upon compression during firing.

To lubricate the compression chamber, cock the gun so that it is fully opened as for loading. Keep your fingers and all other objects away from the trigger during this operation. Screw a flexible oiling needle onto the spout of your oil bottle after cutting off the very tip of that spout. Squeeze a few drops onto a piece of paper to get the feel necessary to release one drop of oil. Now insert the oiling needle into the small vent hole, deep into the compression chamber, as shown in Fig. C. Because the compression chamber moves to the rear with the piston during cocking, the cocking lever must be partially closed. Insert 2 or 3 drops of oil and remove the needle. Now cock and uncock the gun in several positions to cause the piston seal to spread oil around the compression chamber. The compression chamber should be lubricated whenever the piston seal can be heard to "squeak" during cocking — never more than once every 500 or so shots. To lubricate the mainspring, it is necessary to remove the barreled action from the stock. This is simply done by removing the two forearm screws and two trigger guard screws with a screwdriver. Do not ever put the compression tube (receiver) of this gun in a vice. When the action and stock are separated, turn the action over. A portion of the mainspring will be visible through the slot at the base of the underlever. The mainspring is easily lubricated by inserting a long oiling needle through the slot, and squeezing 6 to 10 drops of Beeman Spring Oil onto various points of the spring. NOTE: do not disassemble the action to expose the spring any further. It is not necessary for proper lubrication. See CAUTION for further information. After applying Spring Oil, reassemble action and stock and then cock and uncock the gun in several positions to spread the oil. The mainspring does not need to be lubricated as often

Beeman/HW97

NOTE: This is the schematic drawing for the HW77, but can be used for the HW97. There may be some part changes, please call Beeman Precision Airguns for more information.

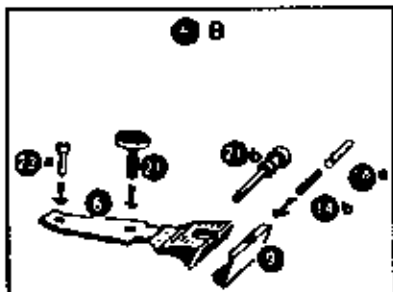


PARTS "INSURANCE"? Spring-piston airguns generally need very few repairs. However, many knowledgeable airgunners keep one to three each of the following items listed in order of priority: 1) breech seal, 2) mainspring, 3) piston seal, 4) cocking lever.

For latest parts list and prices, please contact Beeman Repair Department, 5454 Argosy Drive, Huntington Beach, California 92649, and request parts list no. 8629. Requests for this list as well as additional parts lists for other models should include a long self-addressed stamped envelope for prompt service. We will send you another parts diagram with your parts order. Because of foreign currency changes and other factors beyond our control, prices and terms are subject to change without notice.



Warning: This gun has an especially powerful mainspring which is under partial compression even when the gun is uncocked. Disassembly of this gun by inexperienced workers may cause sudden release of the mainspring and associated parts resulting in possible damage to the gun and injury to the worker or bystanders!



*** KEY PARTS FOR SPARE PARTS KITS**

(should be ordered by all owners for future or emergency needs and to assure availability).

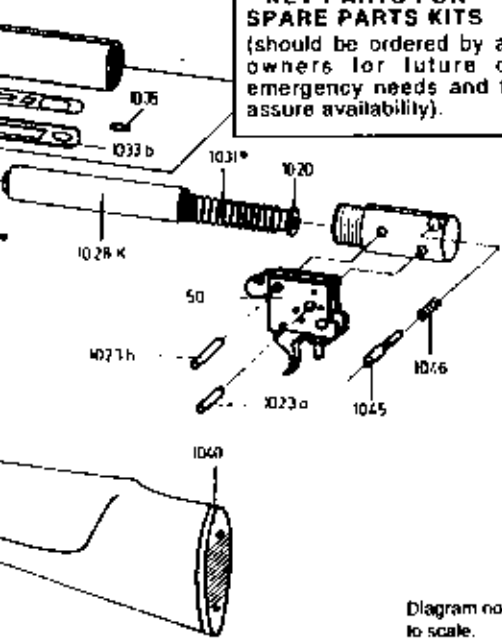


Diagram not to scale.

Pos. No.	Part No.	Description
6B	H9262	Micrometer Rear Sight Complete
6C	H9267	Micro Rear Sight (w/ Base H9268)
6	H9255	Rear Sight Leaf
9	H9258	Rear Sight Slide
14a	H9900	Plunger Rear Sight
14b	H9008	Plunger Spring (windage micrometer rear sight)

21	H8956	Elevation Adjuster
21b	H8957	Windage Knob
23a	H8959	Sight Base Screw
50	H9152	Match Trigger Assembly
50K	H9181	Trigger Housing
50a	H9211	Upper Rear Sear Lock
50c	H9154	Trigger Only
50d	H9320	Piston Sear Lever
50e	H9333	Roller

50f	H9331	Retaining Roller
50g	H8912	Retaining Pin Upper Rear Sear Lock
50h	H9014	Piston Sear Lever Spring
50i	H9015	Upper Rear Sear Lock Spring
50l	H9920	Pivot Pin for Guide and Tongue
50m	H9927	Lever Spring Stop Pin Piston Sear
50n	H9328	Trigger Pin
50o	H9284	Spacers
51a	H8967	Rear Trigger Adjusting Screw
51c	See Cat. #884	Trigger Spring
52	H9350	Guide
52a	H9360	Tongue
52b	H9968	Front Trigger Adjustment Screw
723	H9966	Sight Base Screw

1001k	H9479**	.177" Barrel w/Receives Tube
1001k	H9479**	.22" Barrel w/Receives Tube
1001k	H94781**	.20" Barrel w/Receives Tube
1002	H9065-HW37	Breech Seal
1006	H9036	Spring Thumb Piece
1008	H8924	Cocking Lever Pivot Pin
1010	H8925	Cocking Lever Pivots
1012k	H9486**	Cocking Arm
1017b	H8961*	Front Stock Screw x 2
1020	H9372	Main Spring Guide
1022	H9283	Lock Washer x 2
1023a	H8906	Trigger Housing Pin 4x28mm
1023b	H8904	Trigger Housing Pin 4x32mm
1028k	H9201	Piston Complete w/Seal
1029	H9070*	Piston Seal
1030k	H9202	Compression Tube
1031	H9034*	Main Spring
1032	H9487*	Cocking Lever
1033a	H9297	Safety Slide
1033b	H9298	Safety Guide
1034	H9047	Spring Safety Slide
1035	H9285	Distance Ring
1036	H8978	Rear Stock Retaining Screw
1036a	H8987	Rear Stock Retaining Screw
1036b	H8988	Retaining Screw

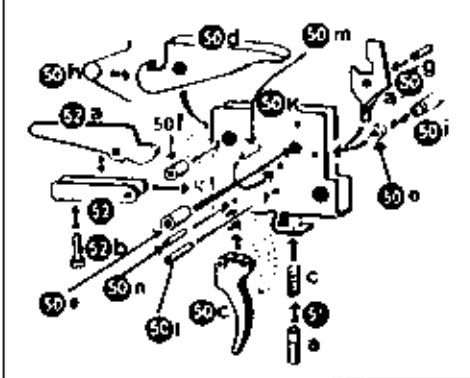
1037	(See Cat. No. 150)	Trigger Guard
1038	H8942	Rear Trigger Guide Screw
1039	H9129	(40% Price of Gun) Right Hand Stock
1039	H9130	(40% Price of Gun) Left Hand Stock
1040	(See Cat. No. 7730)	Rubber Buttplate
1042	H9268	Rear Sight Base
1044a	H9403	Front Sight Base
1044b	H9404	Ramp Front Sight
1044c	H8989	Retaining Screw for 1044b
1044c	H9398	Hooded Tunnel Front Sight (Not Shown)

1045	H9217	Safety Bolt
1046	H9018	Safety Bolt Spring
1047	H9281	Automatic Detent Bolt
1048	H9981	Thumb Piece
1048a	H8548	Tube
1048b	H8990	Retaining Screw

(See Cat. No. 5080)	Filler Screw for 1044a (Not Shown)
P077S	9401 Front Sight Complete

*	Key parts for Spare Parts Kit
**	Please specify if for carbine version

Caution: Screw 52b must be adjusted by the factory or authorized shop workers only.



(Cont'd from pg. 3)

as the compression chamber. Lubricate every five to ten tins of pellets or every six months.

Cocking lever linkages should be lubricated with Beeman MP-5 Metalophlic Oil and/or molybdenum disulphide in a liquid carrier ("Beeman Pena-Dry"). The barrel may be cleaned using Beeman Cleaner/Degreaser — absolutely do not use any nitro solvents suitable for firearms; they can damage breech seals, etc. For further details see the Beeman Information Sheet No. 8215: *The Principles of Airgun Lubrication/Care & Feeding of Spring Piston Airguns* (also reprinted in the *Beeman Precision Airgun Catalog/Guide*.) Beeman Maintenance and Cleaning Kits contain all essential airgun maintenance items and detailed instructions on how to use them.

Accuracy Problems: Occasional poor accuracy is almost always due to:

- 1. Dirty bore:** Most accuracy complaints are due to a dirty bore. This is especially true of new guns or those which have been recently lubricated or Super Tuned. This is due to excess lubricant being burned off and/or thrown into the bore of the barrel. Use Beeman Cleaner/Degreaser which will not attack air seals or stock finish. Clean from the muzzle end with a carefully wiped rod. Use Beeman Quick Cleaning Pellets between regular cleanings.
- 2. Loose stock screws:** Even one-fourth of a turn can increase group size by as much as three inches at 25 yards. Be sure to tighten all of these screws very well with a proper gunsmith screwdriver. Excessive vibration of the gun may loosen these screws; this can be cured by applying a very mild grade of Loc-Tite to the screw threads and/or by eliminating the cause of excessive vibration. Do not overtighten rear trigger guard screw.
- 3. Over or under lubrication and lack of break-in:** Serious accuracy testing cannot be carried out with a new spring-piston airgun until it has fired enough times to smooth out the piston action—generally about 500 shots. If the gun was well lubricated at the beginning of this series of shots, this series will also cause the removal of any excess lubrication. Vertical displacement of shots is usually due to air blowing by an inadequately lubricated piston seal, excessive lubrication being burned off by occasional dieseling action, or irregular pellets.

Specifications:

Caliber: .177/4.5 mm, .20/5.0 mm

Barrel: 12 groove precision rifling for the sensitive .177/4.5mm and .20/5 mm calibers. Best ordnance steel, precision crowned.

Stock: Walnut stained beech, soft rubber buttplate, cut checkering on pistol grip, American Monte Carlo styling with cheekpiece.

Cocking and Loading: Underlever cocking. Detent lock for cocking lever. Fully opening breech, direct loading into barrel without mechanical forcing. Smoothing of pellet skirt with Pellet Seat is easy and recommended for maximum accuracy and power.

Trigger: Heavy-duty two-stage match trigger in unilized block. Easily adjustable from factory setting of about 2.5 lbs.

Safety Provision: Automatic safety to prevent cocking lever snap-up.

Discharge Sound: Moderate; below less powerful domestic airguns.

Firing Behavior: Recoil about average for spring airguns. Vibration only moderate when correctly lubricated.

Instructions: Special Beeman instructions supplied with gun.

Seals: Non-drying, finest synthetic breech seal and parachute style nylon piston seal. Easily removed from disassembled gun with screwdriver.

Pre-Sale Service: Inspected, test fired.

\$1 Lifetime Repair Policy and 5-Year Service Contract: See policies packed with gun. Factory authorized service and genuine factory parts available in U.S. exclusively from Beeman.

Scope Use: There are no open sights provided with your Beeman/HW 97 because it has been designed to be used exclusively with a scope. It is very important that the proper scope and scope mounts be selected for optimum performance with this rifle. Beeman airgun scopes and scope mounts are highly recommended as they have been designed and manufactured to the finest quality to compliment your Beeman/HW 97. Consult your dealer for help in selecting the proper scope and scope mounts for your needs.

Beeman quality airgun scopes are especially recommended for increased accuracy, quick tracking and lining, and extended shooting time into periods of lower illumination (Beeman scopes enhance low light conditions). NEVER use any telescope sight not specifically manufactured for airgun use. Scopes not designed to withstand the two-way snap of spring piston airguns may cause irreparable damage if used for an extended period of time. Also parallax error on such scopes, even very expensive ones, may increase inaccuracy as much as 300%.

Special Notes: Due to the recoil of this rifle, scope mounts may begin to slip after extended periods of firing. The best solution for scope movement is to add Beeman Scope Stop No. 5090 or 5093 (see Beeman catalog or dealer for the one that is right for your scope). These units simply slip on the scope grooves and are secured into position behind the mounts. Or use Scope Mounts 5030M, 5030H, or 5040 which have an integral recoil stop pin.

Special Options: Select group 9906 or select condition stock 9904. Super Tune 9910. Trigger Tune 9919.

Recommended Accessories: Beeman Super Tuff Case 6448, Belt Pouch 7290, Pellet Seat 7199 or Adjustable Pellet Seat 7200, Deluxe Silent Pellet Trap 4030, Protective Eyewear.

Recommended Maintenance Items: A) Deluxe Cleaning Kit 9082 or Basic Cleaning Kit 9074 or Field Cleaning Kit 9005. B) Basic Maintenance Kit 9070. C) Pena-Dry 9100 with Oiling Needles 9110PR. Optional: Spring Gel 9295. Parts Kits see Beeman Catalog/Guide.

Pellet Recommendations: Try several types to determine the best for your gun. We suggest Beeman Ram Jet, Kodiak, Crow Magnum, Silver Arrow, and Laser (should give highest velocities).

WANT MORE INFO ON ADULT AIRGUNS? The World's most famous guide to adult airguns is the Beeman Precision Airgun Guide/Catalog. Over 100 pages packed with interesting info! Regularly \$3.00 each, you can get a copy FREE for yourself and/or friends by mentioning code CW when writing to Beeman or calling 714/890-4800 or FAX 714/890-4806 - 24 hours, every day.

CONGRATULATIONS

You have one of the finest adult airguns made.
Please enjoy it safely for many, many years.

NOTE: All new Beeman guns are packed with the following items and you should be very sure that you have received them with your purchase: 1) Trigger tag tied to trigger guard. 2) Statement of Non-Liability. 3) Pellets & Pistons Booklet—how to operate your gun safely and for top performance. 4) Care & Feeding Sheet—necessary information on maintenance. 5) Inspection Form. 6) Beeman Lifetime or 1 Year Repair Policy application.

If any of these items are missing, please be sure to obtain them from your dealer immediately before using your gun. If you need an extra copy of any that are missing, except for the inspection form and repair policy application, Beeman will be pleased to supply it upon your request at no charge. Request them from Beeman Precision Airguns, 5454 Arroyo Drive, Huntington Beach, Calif. 92649 U.S.A. A self-addressed envelope will expedite their delivery to you. Replacement copies of inspection forms and repair policy applications are not available. They apply to the original sale and can be obtained only at the time of purchase.



DANGER!

Please READ these Special Notes:

As is common knowledge, the muzzle end of any gun is dangerous. Perhaps more accidents occur with guns that are presumed to be unloaded than with ones that are known to be loaded. At all times you must be extremely careful to point a loaded gun only in a direction in which it is safe to shoot. Never point a gun towards others or towards any part of your body while cocking or closing it, or after the gun has been loaded and cocked, **EVEN IF THE SAFETY IS ON! Never depend on any safety.** All safeties are mechanical devices and therefore subject to failure. Many guns, including airguns, may discharge accidentally, even if the safety is on, when the trigger is pulled partially or when the action is closed. This may be due to excessive force in handling the gun, unseen internal injury to the gun's mechanism, excessive lubrication and/or improper or unauthorized adjustments, use of unauthorized parts, impact to the gun, faulty parts or assembly, etc.

Be sure your gun is unloaded when crossing a fence, stream, or other barrier; letting go of it for any reason, putting it away, or allowing another person to handle it, entering a house or vehicle, etc. The only sure way to be sure that your gun is not loaded is to look up the bore or to pass an object all the way through the bore. A projectile or obstruction could be present anywhere in the bore. If your gun is a barrel-cocking gun, simply open the barrel slightly and look down the bore from the rear. **YOU MUST BE ABLE TO SEE ALL THE WAY THROUGH THE BORE TO CONSIDER IT CLEAR.** If your gun has a breech block arrangement (other than tap loader) that makes it difficult to look down the barrel directly from the rear, you should use a small mirror or pass a flexible or rigid cleaning rod, or similar thin rod of material that will not harm the bore, all the way through the bore to determine if it is clear. Dropping a toothpick or match all the way through the bore is another way to see if the barrel is clear.

If your gun does not go off when you expect it to (i.e. when you pull the trigger all or part of the way) assume that the trigger or sear mechanism is hung up. Any gun can be extremely dangerous in this condition, so open it carefully while being sure that the muzzle is pointed out of harm's way. Safely unload the gun and do not use it until the unloaded gun has been carefully checked by a qualified gunsmith.

You should have a proper cleaning rod both for the above safety checks and to insure best accuracy. A cleaning rod may also be used to clear a projectile or other obstruction out of the barrel. Never fire a projectile to clear a barrel! Such an action will only make the problem worse and may be dangerous. Your gun should be safely locked up when not in use.

This airgun and its ammunition should be securely stored so that they cannot be handled by children or unauthorized persons.

TREAT ALL GUNS AS IF LOADED!



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**This owner's manual was
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by:**



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