## The Best There Is.

## **OWNER'S MANUAL**

**VERY IMPORTANT:** 

Save This Booklet. Carefully read this entire manual before using your new Browning firearm.

## BT-99 PLUS TRAP SINGLE BARREL SHOTGUN

## NEW GUN OWNERS RECORD

#### **KEEP THIS RECORD FOR FUTURE REFERENCE**

Browning Model	
Serial Number	
Gauge / Caliber	
Purchase Price	
Purchased From	
Date of Purchase	

We are pleased that you have chosen a Browning BT-99 Plus trap shotgun. In every way it is a firearm you will be proud to shoot for many years. It is one of an advanced new generation of trap guns with more adjustability and comfort features than any Browning trap gun ever. Take time to follow this manual carefully, and you will gain real advantages that will bring out the best in your shooting ability.

With a reasonable amount of care, your BT-99 Plus should give you many years of dependable, enjoyable shooting. Please feel free to write us immediately if you have any observations regarding its performance and operation.



One Browning Place, Morgan, Utab 84050-9326 Distributed in Canada by Browning Canada Sports Ltd/Ltee, St-Laurent, Quebec

Printed in Japan 93123

## BT-99 PLUS TRAP SINGLE BARREL SHOTGUN

# You Are Responsible For Firearms Safety.

As a gun owner, you accept a set of demanding responsibilities. How seriously you take these responsibilities can mean the difference between life and death. Failure to follow any of these instructions can cause extensive damage to your gun and/or possible serious injury or death to yourself and others.

#### THERE IS NO EXCUSE FOR CARELESS OR ABUSIVE HANDLING OF ANY FIREARM. AT ALL TIMES HANDLE ANY FIREARM WITH INTENSE RESPECT FOR ITS POWER AND POTENTIAL DANGER.

READ AND UNDERSTAND ALL OF THE CAU-TIONS AND PROPER HANDLING PROCEDURES OUTLINED IN THIS BOOKLET BEFORE USING YOUR NEW FIREARM.

1 ALWAYS KEEP THE MUZZLE OF ANY FIREARM POINTED IN A SAFE DIRECTION.

Do this even though you are certain it is unloaded. Never point any firearm at anything you do not intend to shoot. Be extremely alert and aware of all persons and property within the range of your ammunition.

#### 2 CAUTION: THE BT-99 PLUS SHOTGUN HAS NO MANUAL SAFETY.

A trap shooter does not load his or her gun until moments before a bird is called for. For this reason, and because trapshooting demands intense concentration on shooting technique, no manual safety is provided on your BT-99 Plus. There is then no chance for a lost bird by reason of the safety being inadvertently left "on safe." Always open the action immediately, and visually check the chamber. Make certain that the chamber does not inadvertently contain any ammunition. Always keep the chamber empty and the safety in the "on safe" position unless shooting is imminent.

# 4 DO NOT TRANSPORT ANY FIREARM LOADED.

Keep all firearms unloaded during transport, whether stored in a holster, gun case, scabbard or other container.

#### 5 BEWARE OF BARREL OBSTRUCTIONS,

Do this for the safety of both your gun and yourself. Mud, snow, and an infinite variety of other objects may inadvertently lodge in a barrel bore. It takes only one small obstruction to cause dangerously increased pressures that can ruin (swell or rupture) the finest barrels.

#### BEFORE CHECKING FOR A BARREL OBSTRUCTION, BE CERTAIN YOUR FIREARM IS FULLY UNLOADED.

Make sure no live round is in the chamber by

breaking open the action. Look through the barrel to be sure it is clear of any obstruction. If an obstruction is seen, no matter how small it may be, clean the bore with a cleaning rod and patch as described later in this manual. Before the first firing, clean the bore with a cleaning rod and patch, and wipe away any anti-rust compounds in the action/chamber areas.

#### 6 ALWAYS COMPLETELY UNLOAD ALL FIREARMS WHEN NOT IN USE.

As a safety precaution, it is preferable to disassemble your gun for storage. Store your gun and ammunition separately—well beyond the reach of children. Your responsibilities do not end when your firearm is unattended. Store your firearm and ammunition separately and well beyond the reach of children. Take all safeguards to ensure that any firearm does not become available to untrained, inexperienced or unwelcome hands.

#### LOAD YOUR BT-99 TRAP GUN ONLY WHEN SHOOTING IS IMMINENT. ONCE LOADED, THIS GUN IS READY TO FIRE AND SHOULD BE RESPECTED AS SUCH.

#### NEVER TEST THE MECHANISM OF ANY FIREARM WHILE IT IS LOADED OR POINTED IN AN UNSAFE DIRECTION.

3 WHENEVER YOU HANDLE ANY FIREARM, OR HAND IT TO SOMEONE, MAKE SURE IT IS COMPLETELY UNLOADED.

#### 7 USE THE PROPER AMMUNITION.

The barrel and action of all Browning firearms have been made with substantial safety margins over the pressures developed by established American commercial loads. Nevertheless, Browning assumes no liability for incidents which occur through the use of cartridges of nonstandard dimensions which develop pressures in excess of commercially available ammunition which has been loaded in accordance with standards established by the Sporting Arms and Ammunition Manufacturers' Institute (SAAMI).

#### BE ALERT TO THE SIGNS OF AMMUNITION MALFUNCTION. IF YOU DETECT AN OFF SOUND OR LIGHT RECOIL WHEN A SHELL IS FIRED, DO NOT LOAD ANOTHER SHELL INTO THE CHAMBER.

Open the action and remove the shell from the chamber. With the action open, glance down the barrel to make sure that a wad or other obstruction does not remain in the barrel. Completely clear the barrel before loading and firing again. Failure to follow these instructions can cause extensive damage to your gun and possible serious injury to yourself and others.

#### MAKE SURE OF ADEQUATE VENTILATION IN THE AREA THAT YOU DISCHARGE A

#### FIREARM. WASH HANDS THOROUGHLY AFTER EXPOSURE TO AMMUNITION OR CLEANING A FIREARM

Lead exposure can be obtained from discharging firearms in poorly ventilated areas, cleaning firearms or handling ammunition. Lead is a substance that has been known to cause birth defects, reproductive harm and other serious injury.

#### 8 NEVER INSERT A SHELL OF THE INCORRECT GAUGE IN ANY SHOTGUN.

The gauge of your shotgun is marked on the side of the barrel. Store all shells of different gauges in completely separate and well-marked containers. Never store shells of mixed gauges in a common container or in your pockets. chamber. Your gun will misfire (with the chamber appearing to be empty). It is then possible to load a 12 gauge shell behind the 20 gauge shell. If the 12 gauge shell is then fired, the result will be a so-called "12-20 burst" which can cause extensive damage to your gun and possible serious injury to you and others.

#### 9 USE SHELLS OF THE CORRECT LENGTH.

Do not use 3-1/2" shotgun shells in any shotgun or barrel with a 2-3/4" chamber or 3" chamber. Do not use 3" shells in a shotgun chambered for a 2-3/4" shells. Doing so can result in a build up of dangerously high pressures that may damage your gun and possibly cause seriously injury to yourself or others.

The size of the chamber is inscribed, along with a gauge and choke designations, on the side of the barrel

#### 10 DO NOT SNAP THE FIRING PIN ON AN EMPTY CHAMBER — THE CHAMBER MAY NOT BE EMPTY!

Treat every gun with the respect due a loaded

gun, even though you are certain the gun is unloaded.

#### 11 KEEP YOUR FINGERS AWAY FROM THE TRIGGER WHILE UNLOADING, LOADING, UNTIL YOU ARE READY TO SHOOT.

#### 12 BE SURE OF YOUR TARGET AND BACK-STOP.

Particularly during low light periods. Know the range of your ammunition. Never shoot at water or hard objects.

#### 13 ALWAYS UNLOAD THE CHAMBER OF ANY FIREARM BEFORE CROSSING A FENCE, CLIMBING A TREE, JUMPING A DITCH OR NEGOTIATING OTHER OBSTACLES.

#### EXAMINE EVERY SHELL YOU PUT IN YOUR GUN. NEVER PUT A 20 GAUGE SHELL IN A 12 GAUGE GUN.

The most certain way to bulge or rupture a shotgun barrel is to drop a 20 gauge shell into a 12 gauge chamber. The 20 gauge shell, unfortunately, will not fall completely through the barrel; its rim is caught by the front of a 12 gauge Never lean or place any loaded firearm on or against a fence, tree, car, or other similar object.

#### 14 WEAR EYE AND EAR PROTECTION WHEN SHOOTING.

Unprotected, repeated exposure to gunfire can cause hearing damage. Wear ear protectors (shooting earplugs or muffs) to guard against such damage. Wear shooting glasses to protect your eyes from flying particles. Always keep a safe distance between the muzzle of your firearm and any persons nearby, as muzzle blast, debris and ejecting shells could inflict serious injury. Also, wear eye protection when disassembling and cleaning all firearms to prevent the possibility of springs, spring-tensioned parts, solvents or other agents from contacting your eyes.

#### 15 DROPPING A LOADED GUN CAN CAUSE AN ACCIDENTAL DISCHARGE.

This can occur even with a firearms "safety" in the "on safe" position (remember, your BT-99 has no manual safety). Be extremely careful while hunting or during any shooting activity, to avoid dropping any firearm.

#### 16 IF ANY FIREARM FAILS TO FIRE, KEEP THE MUZZLE POINTED IN A SAFE DIRECTION.

Hold this position for a minimum of 30 seconds. Carefully open the action and remove the shell or cartridge. If the primer is indented, the cartridge should be disposed of in a way that cannot cause harm. If the primer is not indented, your firearm should be examined by a qualified gunsmith and the cause of the malfunction

#### 20 NEVER DRINK ALCOHOLIC BEVERAGES OR TAKE ANY TYPE OF DRUGS BEFORE OR DURING SHOOTING.

Your vision and judgment could be dangerously impaired, making your gun handling unsafe to you and to others.

#### 21 PERFORM PERIODIC MAINTENANCE. AVOID UNAUTHORIZED SERVICING.

Your new firearm is a mechanical device which will not last forever, and as such, is subject to wear and requires periodic inspection, adjustment, and service. Browning firearms should be serviced by a Browning Recommended Service Center or by Browning's service facility in Arnold, Missouri. Browning cannot assume any responsibility for injuries suffered or caused by unauthorized servicing, alterations or modifications of Browning firearms.

#### 22 BROWNING RESERVES THE RIGHT TO REFUSE SERVICE ON FIREARMS THAT HAVE BEEN ALTERED, ADDED TO OR SUBSTAN-TIALLY CHANGED.

should be corrected before further use.

#### 17 BE DEFENSIVE AND ON GUARD AGAINST UNSAFE GUN HANDLING AROUND YOU AND OTHERS.

Don't be timid when it comes to gun safety. If you observe other shooters violating any of these safety precautions, politely suggest safer handling practices.

#### 18 BE CERTAIN ANY FIREARM IS UNLOADED BEFORE CLEANING.

Because so many gun accidents occur when a firearm is being cleaned, special and extreme care should be taken to be sure your gun is unloaded before disassembly, cleaning and reassembly. Keep ammunition away from the cleaning location. Never test the mechanical function of any firearm with live ammunition. Removal of metal from barrel(s), or modifications of the firing mechanism and/or operating parts may lead to Browning's refusal of service of such firearms. Browning will charge the owner for parts and labor to return the firearm to original Browning specifications.

Read and heed all warnings in this instruction book, on ammunition boxes and with all accessories that you install on your firearm. It is your responsibility to secure the most up-to-date information on the safe handling procedures for your Browning gun. Browning assumes no liability for incidents which occur when unsafe or improper gun accessories or ammunition combinations are used.

DO NOT, UNDER ANY CIRCUMSTANCES, ALTER THE TRIGGER OR OTHER PARTS OF THE FIRING MECHANISM OF THIS OR ANY OTHER FIREARM. FAILURE TO OBEY THIS WARNING MAY RESULT IN INJURY OR DEATH TO YOURSELF OR OTHERS.

19 SUPERVISE AND TEACH FIREARMS SAFETY TO ALL MEMBERS OF YOUR FAMILY — ESPECIALLY TO CHILDREN AND NONSHOOTERS.

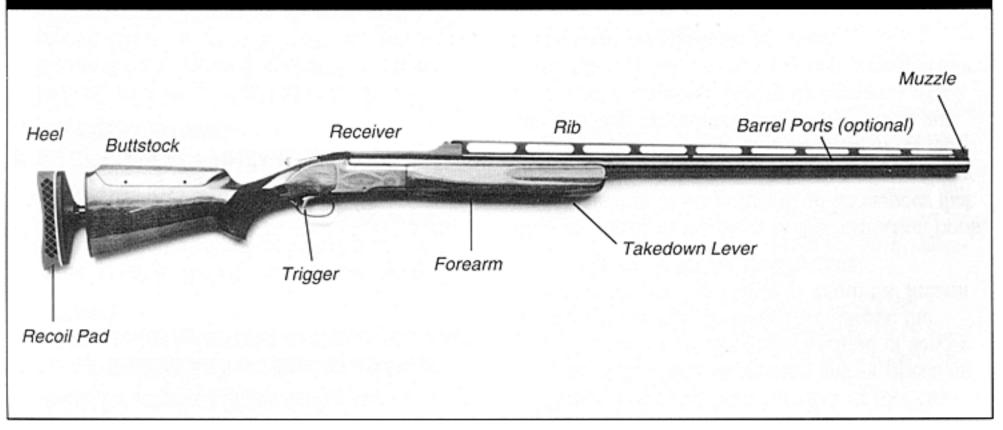
Closely supervise newcomers to the shooting sports. Encourage enrollment in hunting/shoot-ing safety courses.

# **BE CAREFUL!**

#### Nomenclature

In conventional gun terminology, the position and movement of gun parts are described as they occur with the gun horizontal and in normal firing position; i.e., the muzzle is forward or front; butt stock is rearward or rear; trigger is downward or underneath; the rib is upward or on top. For general parts nomenclature refer to Figure 1. For specific parts names related to disassembly and adjustments see Figure 2.

#### Figure 1



#### Figure 2

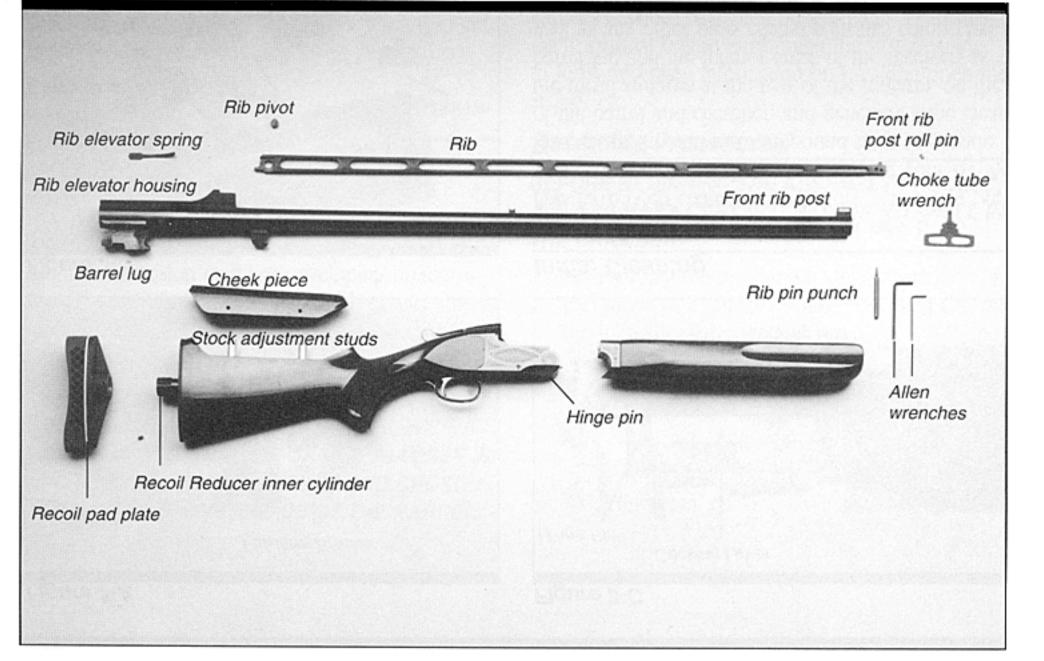


Figure 3-A

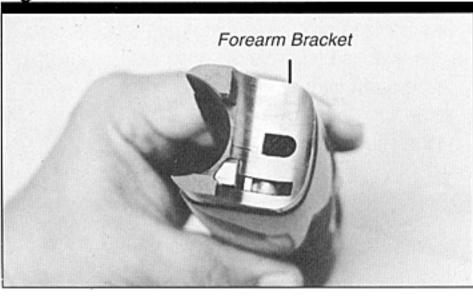
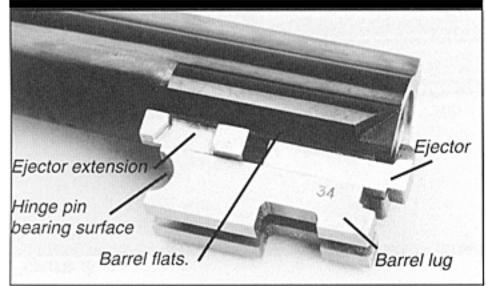


Figure 3-B



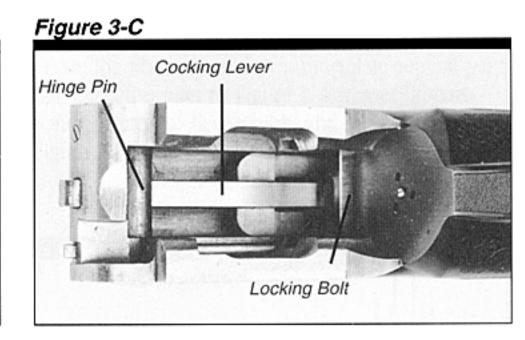
#### Serial Number

The serial number of your BT-99 Plus can be found on the top tang under the top lever. Record this number for future reference.

#### Ammunition

All BT-99 Plus Models are designed to shoot and function with 2 3/4" 12 gauge trap loads only. Browning can assume no responsibility for incidents which occur through the use of cartridges of nonstandard dimension or those developing pressures in excess of industry standards established by the Sporting Arms and Ammunition Manufacturer's Institute (SAAMI).

CAUTION: DO NOT USE 3" OR 3 1/2" SHOTGUN SHELLS IN ANY SHOTGUN OR BARREL WITH A 2 3/4" CHAMBER. THE SIZE OF THE CHAMBER IS INSCRIBED ALONG WITH GAUGE AND CHOKE DESIGNATIONS, ON THE SIDE OF THE BARREL.



### Initial Cleaning

Various exposed metal parts of your new BT-99 Plus have been coated at the factory with a rust preventative compound. Before assembling your BT-99 Plus, clean the anti-rust compound from the inside of the barrel and chamber, and generally wipe clean the metal surfaces at the rear of the forearm, on the barrel lug and the interior areas of the receiver, as well as any other parts coated with this compound. Browning Oil is ideal for wiping and cleaning these parts and for giving your gun its first lubrication.

Clean the barrel using a cleaning rod and patch as explained under "Cleaning Suggestions." Read this entire manual before performing the first cleaning, to learn necessary information on breaking open the action, etc.

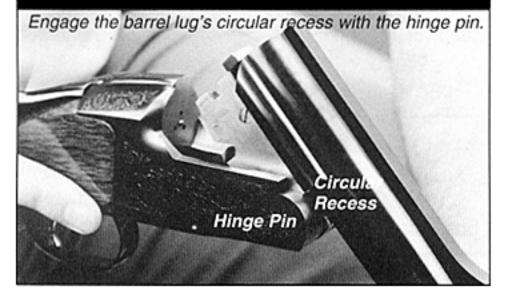
#### Assembly Procedures

#### BEFORE BEGINNING THE ASSEMBLY PROCESS, ALWAYS MAKE CERTAIN THERE IS NO SHELL IN THE CHAMBER.

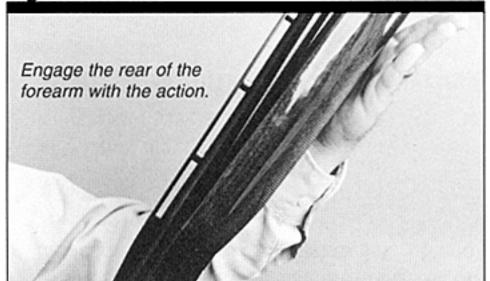
- 1 After wiping the mechanism clean, place one or two drops of a quality oil, like Browning Oil, on the following surfaces (See Figures 3-A, 3-B and 3-C):
  - 3-A) The forearm bracket.
  - 3-B) Barrel lug, hinge pin bearing surface, ejector extension and barrel flats.
  - 3-C) Hinge pin, cocking lever and locking bolt.



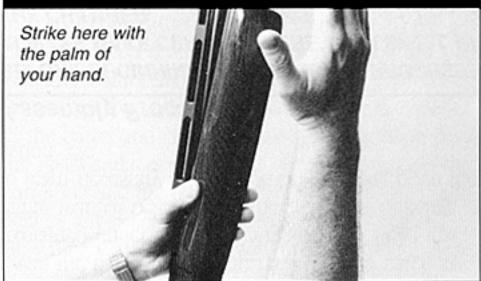


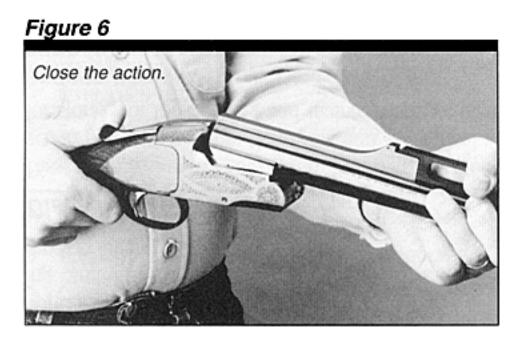


#### Figure 7









2 To attach the barrel to the action, grasp the stock's pistol grip with your right hand and anchor the butt stock between your right forearm

- 4 Release the top lever. It should snap back to its central position.
- 5 Place the butt of the gun's stock against your upper leg to support it. Engage the rear portion of the forearm with the action (See Figure 7).
- 6 Pivot the forearm up to the barrel tightly. This will cause the takedown lever latch to engage onto the barrel. It may be necessary to depress the takedown lever latch. It should be flush with the wood on the underside of the forearm. The forearm and latch can be installed in one motion by positioning the forearm as shown and tapping the forearm's widest part sharply toward the barrel with the heel of your hand (See Fig-

and right side. With the thumb of your right hand, move the top lever sideways to the extreme right (Figure 4).

3 Grasping the barrel in the left hand, engage the barrel lug's circular recess with the action's hinge pin (See Figure 5). Keeping pressure on the barrel to keep the hinge pin aligned in the barrel lug's circular recess, rotate the barrel upward, fully closing the action (See Figure 6). ure 8). The takedown lever latch should then automatically lock into position.

#### CAUTION — WHEN ASSEMBLING YOUR BT-99 PLUS SINGLE BARREL TRAP GUN DO NOT USE UNDUE FORCE IN CLOSING THE ACTION.

If the action and barrel are not properly aligned, undue force will only cause them to grind together and score or mar the finely fitted surface. If there



appears to be interference, start over at Step 2, being careful to mate and align the barrel lug and the receiver hinge pin properly.

#### Disassembly Procedures

Dissembling your BT-99 Plus into two parts — the action/buttstock and the barrel/forearm — is ideal for storage or for cleaning and maintenance.

#### BEFORE BEGINNING ANY DISASSEMBLY PROCEDURES MAKE CERTAIN THERE IS NOT A SHELL IN THE CHAMBER.

- 1 With the action closed, anchor the buttstock against your upper leg and pull the takedown lever latch outward.
- 2 At the same time, grasp the forearm with the other fingers of the left hand and with the help of the right hand pivot the forearm away from the barrel (See Figure 9). Set the forearm aside.
- 3 Break open the action in the usual manner.
- 4 Carefully disengage the barrel lug from the hinge pin and lift the barrel upward out of the action.
- 5 Reattach the forearm to the barrels as explained previously, except with the barrels separated

and because trapshooting demands intense concentration on shooting technique, no manual safety is provided. There is then no chance for a lost bird by reason of the safety being inadvertently left "on safe."

#### LOAD YOUR BT-99 PLUS TRAP GUN ONLY WHEN SHOOTING IS IMMINENT. ONCE LOADED, THIS GUN IS READY TO FIRE AND SHOULD BE RESPECTED AS SUCH.

Always keep the muzzle of your shotgun pointed down range at all times when on the shooting line. When leaving or moving along the line always open the action. Never have the action of your BT-99 Plus closed except when you are on the line, ready to shoot, when your gun is cased, or when it is set in a gun rack at the range. When you retrieve your gun from its case or from a gun rack, always immediately open the action and check to assure that no shell is in the chamber.

#### ALWAYS KEEP THE MUZZLE OF YOUR BT-99 POINTED IN A SAFE DIRECTION.

#### FAILURE TO FOLLOW THE ABOVE INSTRUC-TIONS COULD RESULT IN INJURY OR DEATH TO YOURSELF OR OTHERS.

#### General Operating Procedures

Highly skilled techniques of hand-fitting and polishing have been used to accomplish the hairline fitting of metal parts on this gun. These painstaking operations are necessary to prevent looseness, even after long use. You may consider your new gun to be slightly stiff. This close fitting, however, assures you of long lasting dependability.

**OPERATION OF THE TOP LEVER** — The top lever operates the locking bolt, which is very closely handfitted to its barrel lugs. Provision is made for the gradual wear of locking surfaces by allowing a slight excess of metal. This exacting metal allowance keeps the breech of the gun tight for many years.

from the receiver. This is an ideal way to store your shotgun — in two separate pieces.

### No Manual Safety

#### CAUTION: REMEMBER, THE BT-99 PLUS SHOTGUN HAS NO MANUAL SAFETY. THE BT-99 IS DESIGNED SOLELY FOR TRAP SHOOTING.

A trap shooter does not load his or her gun until moments before a bird is called for. For this reason, Upon closing your gun, let the top lever snap into position — do not retard its action with your thumb. If closed in this manner, the top lever spring will return the top lever mechanism to the locked position. It is not necessary that the top lever return to a completely central position; infact, it usually will not do so in a new gun. Many experienced shooters cultivate the habit of lightly pushing the top lever to the left after the gun is closed. It becomes automatic and is a quick method of assuring yourself that foreign matter has not interfered with the complete closure of the breech.

The breech is so tightly hand-fitted that foreign matter, sand, etc. may prohibit complete closing.

#### IF THE BREECH WILL NOT CLOSE COMPLETELY, UNDER NO CIRCUMSTANCES SHOULD YOU ATTEMPT TO FIRE.

Break the gun and unload it. Carefully examine the breech surfaces, and remove the foreign matter. Remember to always keep the polished breech surfaces clean and lightly oiled.

#### LOADING ---

CAUTION: REMEMBER, THE BT-99 PLUS SHOTGUN HAS NO MANUAL SAFETY. LOAD YOUR BT-99 PLUS TRAP GUN ONLY WHEN SHOOTING IS IMMINENT. ONCE LOADED, THIS GUN IS READY TO FIRE AND SHOULD BE

#### RESPECTED AS SUCH. AT ALL TIMES DURING THE LOADING AND UNLOADING PROCEDURES BE SURE YOUR MUZZLE IS POINTING DOWN RANGE, IN A SAFE DIRECTION.

- Break the action as explained above. 1
- Insert a cartridge fully into the chamber. 2
- Close the action by pulling up on the forearm. 3 The lever will snap back to center when properly closed. Remember, keep your finger away from the trigger until you are ready to shoot.

#### UNLOADING -

Open the action by pushing the top lever to the 1 right, as explained previously,

slightly canting the shotgun to the right (left for left-handed shooters)-so the shell ejects clear of your body and face.

Collecting empties with automatic ejectors-3 There is no disadvantage to having an automatic ejector when collecting empties. Simply brace the buttstock between your torso and forearm, and, after unlocking the action, cup your hand over the chamber before the action fully breaks open and the shell ejects. The shell will pop up into your hand for easy removal.

Remember, never have the action of your BT-99 Plus closed except when you are on the line ready to shoot, when your gun is cased, or when it is set in a gun rack at the range. It is a courtesy to other shooters, and a wise safety practice, to keep your action open at all other times.

#### FIRING YOUR BT-99 PLUS —

With the chamber loaded, and the action closed, the BT-99 Plus is fired by simply pulling the trigger.

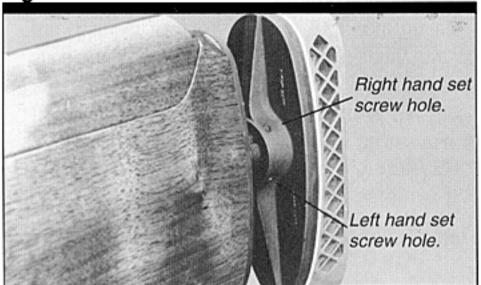
Never pull the trigger unless the muzzle is pointed down range, at the clay target. Make sure peopleother shooters, spectators, trap operators-are not down range. If there is any doubt about down range safety, open the action immediately and remove the shell until you are certain all conditions are safe.

#### Browning Recoil Reducer

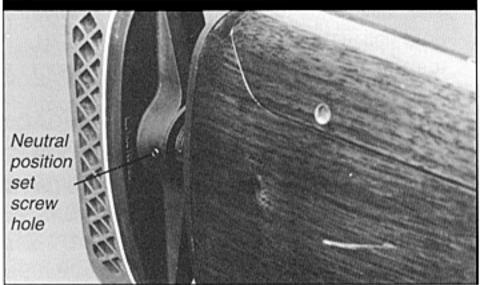
The Browning recoil reducer will allow you to shoot more, with greater comfort, than every before thought possible. It reduces recoil to your shoulder by splitting the single, large jolt of normal recoil into two smaller impulses, reducing peak recoil by up to 45% — all in a design that is virtually maintenance free. The internal mechanism has no hydraulic or pneumatic parts to leak or wear out. Under normal use no maintenance is required. The entire mechanism is lubricated at the factory with an advanced silicone based grease. No other lubrication should ever be necessary under normal conditions. In the highly unlikely event that you experience a problem with our recoil reducer take your BT-99 Plus to an

Pull down on the forearm. The BT-99 Plus has 2 an automatic, selective ejector. This means that a fired shell will eject completely clear of the shotgun when the action is broken open. An unfired shell will be conveniently elevated slightly out of the chamber for easy removal with your fingers.

If you will be ejecting cartridges onto the ground it is important to point the chamber-by







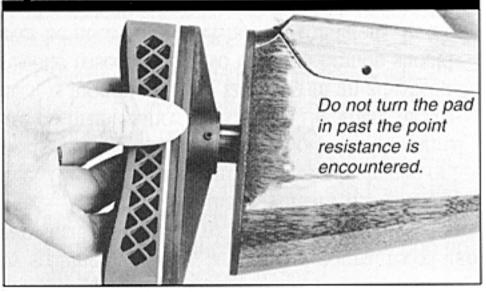
authorized Browning Service Center or send it to our facility in Arnold, Missouri.

#### Adjusting Length of Pull and Recoil Pad Cant

Length of pull is adjusted by screwing the recoil pad and plate in or out on the threaded inner cylinder extending from the recoil reducer. Recoil pad cant is set by angling the recoil pad with respect to the stock, and securing it with a set screw.

The recoil pad plate has three threaded holes for inserting a set screw and securing the recoil pad plate to the recoil reducer inner cylinder. These holes allow you to set the angular cant of the recoil pad: for Right Hand, Left Hand or Neutral Position. Each position has its designation inscribed on the recoil plate adjacent to its threaded hole (See Figures 10 and 11). There are three perpendicular grooves traversing the threads on the inner cylinder. Each threaded hole corresponds to a groove, depending on the setting of the recoil pad for cant. Your BT-99 Plus comes with one set screw, pre-positioned and tightened down in the Neutral Position.

#### Figure 12



#### NEVER TIGHTEN THE SET SCREW DIRECTLY ONTO THE THREADS, AS THIS WILL DAMAGE YOUR GUN.

When properly adjusted, the set screw will align perfectly with the proper groove. Several extra set screws are provided. Do not insert them into the recoil pad plate holes at the same time. Only *one set screw* should be installed at any given time. The procedures for adjusting cant and pull are outlined below.

#### BEFORE PERFORMING ANY ADJUSTMENTS, ALWAYS MAKE CERTAIN THERE IS NO SHELL IN THE CHAMBER.

#### LENGTH OF PULL —

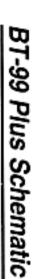
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The BT-99 Plus comes with the recoil pad set in the neutral cant position. Length of pull comes set, from the factory, at approximately 14 1/4". Maximum pull is approximately 14 1/2" and minimum length is approximately 14". To adjust the length of pull:

 Loosen the set screw in the recoil pad plate using the smaller allen wrench provided (2mm).
The set screw is in the hole designated "Neutral Position" on the right side of the recoil pad plate

on your new BT-99 Plus.

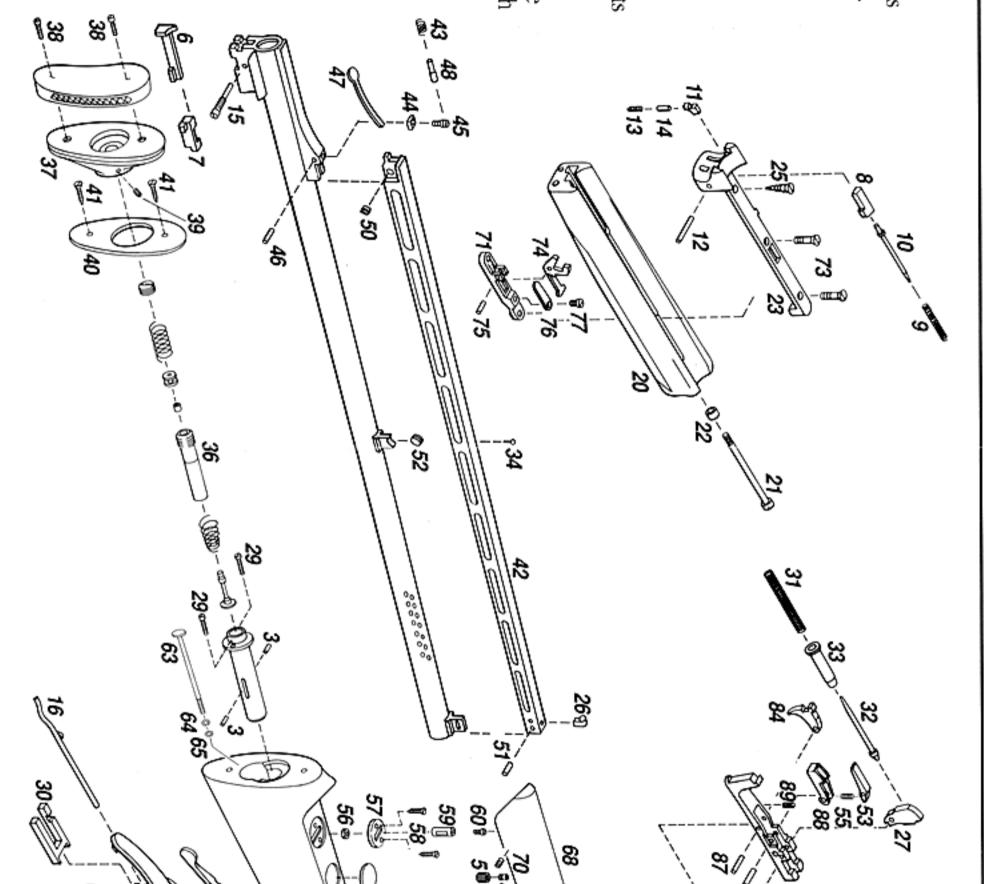
To shorten length of pull turn the pad clockwise. Each turn represents 1/20". To lengthen, turn the pad counterclockwise. When shortening the length of pull do not turn the pad bracket down the inner cylinder past the point where resistance to turning is encountered (See Figure 12). When lengthening pull never unscrew the recoil pad plate excessively. Always leave at least four threads engagement between the plate



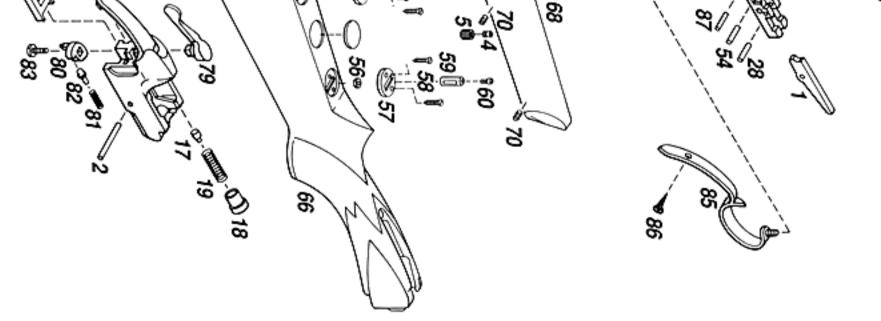
Schematic is provided for parts identification only and should not be used as a guide to assemble guns.

*IMPORTANT:* When ordering parts, list part number, part name, gauge, model and serial number. Do not use the Key Number when ordering.

**CAUTION:** Browning parts are made exclusively for Browning guns and are not recommended for use in other guns even though models may be similar. Inadequately fitted parts may be dangerous.



11

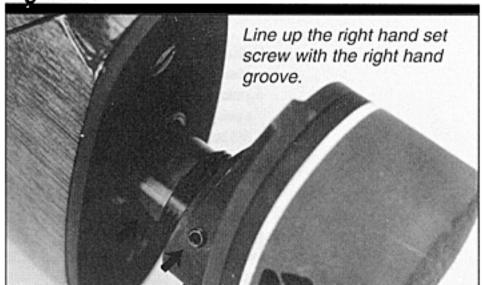


## Parts List - BT-99 Plus

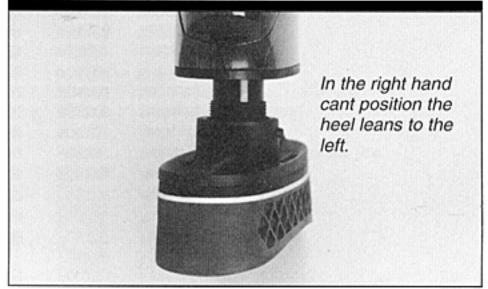
KEY #	PART NO.	DESCRIPTION	VEV #	DADT NO	DECODIDITION
1 '	PO93710	Cocking Lever	KEY # 53 '	PART NO. PO93840	DESCRIPTION
2	PO93712	Cocking Lever Pin	53 54	P093840 P093842	Sear Sear Bin
3	PO93634	Cylinder Stop Screw	54 55	P093842 P093845	Sear Pin
4	PO93672	Drop Stop Adj. Screw	56	P093654	Sear Spring Stock Adjustment Nut
5	PO93675	Drop Stop Screw (92)	57	PO93655	Stock Adjustment Plate
	PO93720	Ejector	58	PO93664	Stock Adjustment Plate Set Screw
7 .	PO93724	Ejector Extension	59	PO93652	Stock Adjustment Stud
8 .	PO93744	Ejector Hammer	60	PO93653	Stock Adjustment Stud Screw
9 .	PO93746	Ejector Hammer Spring	61	PO93659	Stock Assembly BT-99 Micro Plus
10	PO93748	Ejector Hammer Spring Guide		PO93658	Slock Assembly BT-99 Plus
11 '	PO93732	Ejector Sear		PO93661	Stock Assy Complete Painted Micro Plus BT-99
12	PO93734	Ejector Sear Pin	~~	PO93660	Stock Assy Complete Painted Plus BT-99
13	PO93736	Ejector Sear Spring	62	PO93649 PO93650	Stock Base Assy BT-99 Micro Plus Stock Base Assy BT-99 Plus
14	PO93738	Ejector Sear Spring Follower		PO93649	Slock Base Assy B1-33 Flus Slock Base Assy (2 Holes Micro)
15	PO93728	Ejector Stop Screw		PO93650	Stock Base Assy (2 Holes Plus)
16 •	PO93755	Ejector Trip Rod		PO93648	Stock Base Assy Painted Micro Plus BT-99
17 .	PO93760	Firing Pin		PO93647	Stock Base Assy Painted Plus BT-99
18 .	PO93689 PO93763	Firing Pin Bushing	63	PO93884	Stock Bolt, Micro Plus
	PO93763	Firing Pin Bushing Firing Pin Bushing Stainless	64	PO93885	Stock Bolt
19	PO93767	Firing Pin Spring	64 65	PO93889 PO93887	Stock Bolt Lock Washer Stock Bolt Washer
20	PO93628	Forearm	66	PO9359B	Stock BT-99 Micro Plus Pigeon Grade
	PO9328B	Forearm Pigeon Grade	00	PO9358B	Stock BT-99 Plus Pigeon Grade
	PO93773	Forearm Painted Competition		PO93650	Stock BT-99 Plus
	PO93629	Forearm Painted	67	PO93673	Stock Cheek Piece (2 Holes Micro)
~	PO93628	Forearm Plus & Micro Plus		PO93670	Stock Cheek Piece (2 Holes Plus)
21	PO93780	Forearm Bolt	68	PO93673	Stock Cheek Piece Assy Micro Plus
22	PO93784	Forearm Bolt Escutcheon		PO93670 PO93663	Stock Cheek Piece Assy Plus Stock Cheek Piece Assy Painted Micro Plus
23 . 25	PO93790 PO93690 PO93787	Forearm Bracket Forearm Bracket Stainless Forearm Screw	69	PO93662 PO93855 PO93851	Stock Cheek Piece Assy Painted Plus Stock Painted Monte Carlo Trap Stock Painted Trap
26	P208180	Front Sight	70	PO93651	Stop Adjustment Set Screw
27	PO93802	Hammer	71	PO93926	Take Down Lever
28	PO93805	Hammer Pin	72 '	PO93693	Take Down Lever Bracket Stainless
29	PO93641	Impact Ring Retaining Screw Machine Type		PO93926	Take Down Lever Bracket Competition Model
30 '	PO93815	Locking Bolt	73	PO93694 PO93936	Take Down Lever Bracket Screw Stainless Take Down Lever Bracket Screw Competition
31	PO93830	Mainspring	74	PO93692	Take Down Lever Stainless
32	PO93833	Mainspring Guide		PO93032	Take Down Lever Competition Model
33	PO93836	Mainspring Sleeve	75	PO93920	Take Down Lever Pin Competition
34	P208234	Middle Sight	76	PO93912	Take Down Lever Spring
35 36	PO93676 PO93674	Recoil Pad Assembly Recoil Reducer Assembly	77	P093915	Take Down Lever Spring Screw
30	P093646	Recoil Reducer Resention		PO93820	Tang Piece
38	PO93667	Recoil Reducer Pad Plate Screw		PO93821	Tang Piece Stainless
39	PO93638	Recoil Reducer Pad Plate Set Screw	79	PO93941	Top Lever (92)
40	PO93645	Recoil Reducer Stock Plate	80	PO93695 PO93950	Top Lever Stainless Top Lever Dog
41	PO93666	Recoil Reducer Stock Plate Screw	81	PO93953	Top Lever Dog Spring
42	PO93611	Rib Assembly 28*	82	PO93956	Top Lever Dog Spring Guide
	PO93610	Rib Assembly 30"	83	PO93960	Top Lever Screw
	PO93609	Rib Assembly 34"		PO93960	Top Lever Screw (92)
43	PO93614	Rib Elevator Detent Spring	84	• PO93962	Trigger
44	PO93623	Rib Elevator Nut	85	• PO93975	Trigger Guard
45 46	PO93608 PO93618	Rib Elevator Screw Rib Elevator Screw Pin		• PO93696	Trigger Guard Stainless
40 47	PO93618 PO93625	Rib Elevator Spring	86	PO93985	Trigger Guard Screw Trigger Guard Screw Stainless
48	PO93625 PO93616	Rib Elevator Spring Follower	87	PO93697 PO93965	Trigger Guard Screw Statiliess
49	PO93678	Rib Pin Punch		• PO93965	Trigger Safety
50	PO93612	Rib Pivot	89	PO93907 PO93970	Trigger Safety Spring
51	PO93620	Rib Pivot Pin			
52	PO93624	Rib Vibration Damper	*Indica	ites part must b	e litted by Browning Service Department or qualifier
					umber when ordering.

12

\*Indicates part must be fitted by Browning Service Department or qualified gunsmith. Do not use the Key Number when ordering.







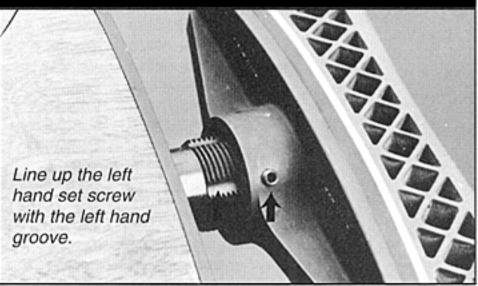
and inner cylinder. An average length of pull for most shooters of 14 1/4" is set when approximately five threads are showing.

#### ANGULAR CANT ---

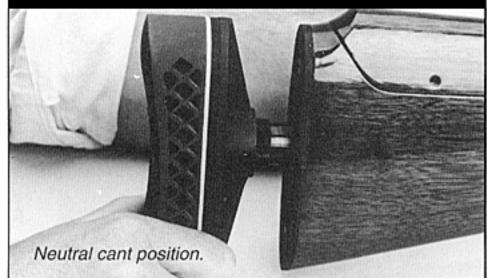
This allows you to cant the recoil pad to the right or left—depending on whether you are right or left handed—or leave it in the neutral position. It is usually easier to determine and set your length of pull before setting angular cant.

- 1 Make sure the set screw on the inner cylinder is removed or loosened enough that it will not contact the threads on the inner cylinder. Use the 2mm allen wrench supplied.
- 2 For right-handed shooters, line up the set screw hole marked Right Hand with the groove closest to it (See Figure 13). The Right Hand hole is located on the upper left side of the recoil pad plate. This setting will lean the heel (top end) of the recoil pad slightly to the left (See Figure 14).
- 3 If you are left-handed, follow the above, except line up the Left Hand hole with the left hand

Figure 15





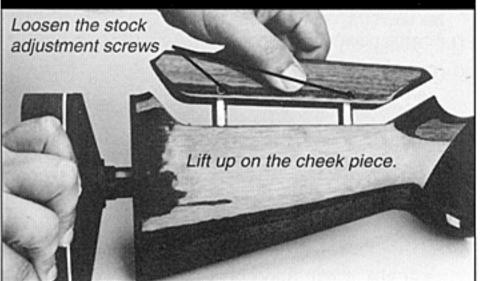


groove (See Figure 15). The Left Hand hole is found on the bottom left side of the recoil pad plate.

- 4 To place the recoil pad in the Neutral Position line up the Neutral Position hole and groove (See Figure 16). The Neutral Position threaded hole is found on the right side of the recoil pad plate.
- 5 With the hole lined up with the correct groove, insert the set screw and tighten it down through the recoil pad plate and down into the groove—using the small allen wrench. (If the set screw was already partially screwed into one of the other threaded holes—for a different Cant setting—you will need to remove it and move it to the correct hole.)

### Adjusting Cast On and Cast Off

This adjustment allows you to achieve a perfect fit of the stock against your face. This is a most crucial adjustment, as it determines how correctly and consistently your eye will line up with the sight plane along the barrel rib. A BT-99 Plus correctly adjusted



for cast on and cast off will have you looking directly down the center of the rib with the front and middle beads in alignment.

Cast on and off is not affected by any changes in point of impact made at the rib. To adjust cast on and cast off perform the following:

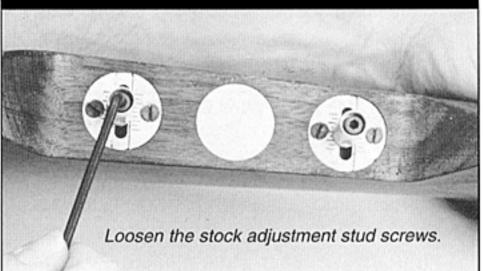
#### BEFORE PERFORMING ANY ADJUSTMENTS, ALWAYS MAKE CERTAIN THERE IS NO SHELL IN THE CHAMBER.

1 Loosen the two stock adjustment set screws on

the right side of the removable cheek piece and remove the cheek piece by lifting upward (See Figure 17). This exposes the Cast On and Cast Off adjustment mechanism. the cheek piece comes set from the factory with cast in the center position.

- 2 Loosen both of the stock adjustment stud screws located in the top of the stock adjustment studs using the larger (3mm) allen wrench provided (See Figure 18). It takes about a 1/4" turn to loosen them adequately.
- 3 Slide each stud equally in the desired direction. Each mark indicates 1/16".
- 4 Move the studs to the right for Cast Off.
- 5 Move the studs to the left for Cast On.
- 6 Right handed shooters may desire some Cast Off, with left handed shooters preferring some Cast On. The terminology is the same for rightor left-handed shooters. The net effect is to move the cheek piece to allow the face to move farther over the stock for better eye-to-rib alignment.

#### Figure 18



- 7 When properly set, the front and rear sight beads should line up perfectly each time you shoulder your shotgun.
- 8 Tighten the stock adjustment stud screws. Be careful not to over tighten.
- 9 Replace the cheek piece onto the studs. If drop at comb has already been set to your desired height, tighten the two stock adjustment set screws securely. If drop has not been set, leave the set screws loose and proceed to "Adjusting"

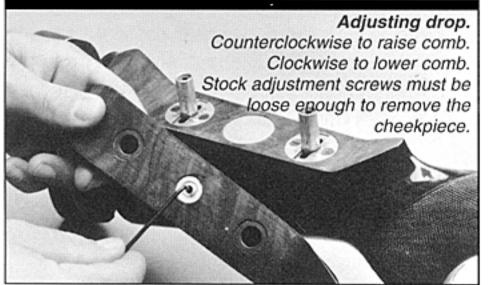
Drop at Comb" below.

#### Adjusting Drop at Comb

Adjusting the drop at the comb allows you to align your eye perfectly with the plane of the rib. A correct sight picture for most shooters should have you looking down the rib with the bottom of the front bead resting on the top of the middle bead. This forms a "figure eight" or "stacked" configuration. Some of the rib will be showing as you look down the rib, but no rib will show between the beads. The important thing is to line up correctly each time you shoot.

The drop measurement is determined by measuring the distance between the plane formed by the top of the rib and the top of the cheek piece itself. The higher the cheek piece, the lower the drop. To set drop perform the following:

#### BEFORE PERFORMING ANY ADJUSTMENTS, ALWAYS MAKE CERTAIN THERE IS NO SHELL IN THE CHAMBER.



- 1 Loosen the two stock adjustment set screws on the right side of the cheek piece (if they were not left loose after setting the Cast). The cheek piece will now move freely, up and down on the stock adjustment studs.
- 2 Remove the cheek piece completely off of the buttstock by lifting it straight up. If it won't remove, loosen the stock adjustment set screws until it can be removed.
- 3 Insert the smaller (2mm) allen wrench (provided) into the drop stop adjustment screw located in the center of the drop stop nut, found on the underside of the cheek piece (See Figure 19).
- 4 Turn it counterclockwise to raise the drop stop screw, and, in turn *reduce* the drop at the comb. The more the drop stop screw protrudes from the bottom of the cheek piece, the less drop at the comb. This is because the end of the drop stop screw will limit how far down you can insert the cheek piece as you reinstall it on the stock.
- 5 To increase drop, turn the screw clockwise up into the cheek piece. Do not continue turning clockwise past the fully down position (this is when the drop screw is flush with the bottom of the cheek piece. In this position the cheek piece will rest on the stock.) **DROP ADJUSTMENTS ARE A MATTER OF TRIAL AND ERROR.** Adjust

a little at a time until you obtain the desired sight picture on the rib.

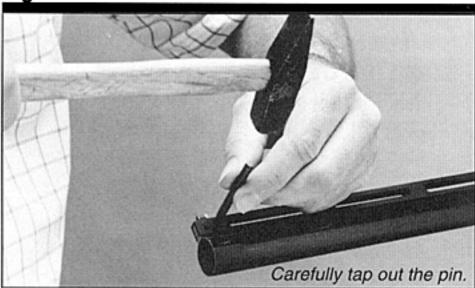
Once your desired drop at comb is obtained, 6 reinstall the cheek piece on the stock adjustment studs and then secure the cheek piece in place by tightening the two stock adjustment set screws on the right side of the cheek piece. Drop is now set on your shotgun. Do not set drop by moving the cheek piece up and down and simply securing it with the stock adjustment set screws-without using the drop stock screw. Unless the cheek piece is positioned all the way down, flush with the stock, YOU MUST AL-WAYS LEAVE THE DROP STOP SCREW AD-JUSTED SO IT CONTACTS THE DROP STOP **PLATE**, limiting the downward movement of the cheek piece at the drop position you determine.

#### Adjusting Point of Impact

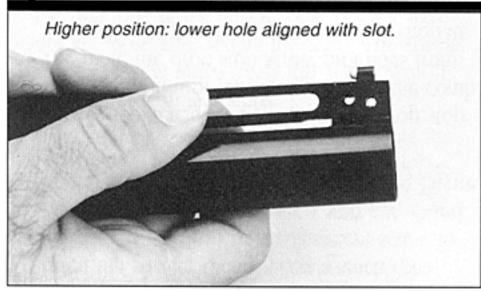
#### BEFORE PERFORMING THESE AND ANY ADJUSTMENTS, ALWAYS MAKE CERTAIN THERE IS NO SHELL IN THE CHAMBER.

Point of impact is determined by patterning a shotgun and determining the relationship between where you were aiming and where the actual center of the pattern is. The BT-99 Plus comes preset with point of impact approximately 6" above the point of aim at 40 yards. Point of impact *above* the actual aiming point allows you to keep the clay bird in view constantly—just above the rib—as you swing and shoot.

The BT-99 Plus has a point of impact adjustment range of approximately 3" to 12" above point of aim. Two approximate ranges of adjustment are available: 3" to 9" and 6" to 12". Changes are accomplished, across the full range, by a combination of turning the rear adjustment screw, and moving the muzzle end of the rib to either the higher or lower setting. Use the following to help decide what adjustments will be necessary.



#### Figure 21-A



#### The approximate range of adjustment is as follows:

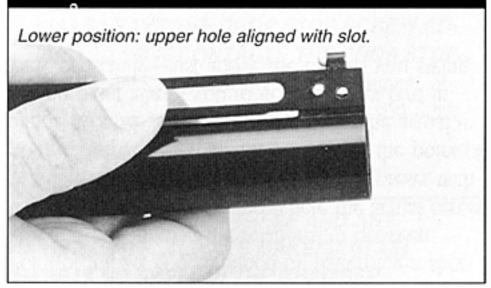
Front in	Up Position:
With	rear all the way down:3"
With	rear all the way up:9"
Front in	Down Position:
With	rear all the way down:6"
With	rear all the way up:12"

#### CHANGING THE POSITION OF THE RIB AT THE MUZZLE END —

The rib at the muzzle end has two holes-one

- 1 Place your BT-99 Plus securely in a padded vice, if possible. (If no vice is available lay it on a surface that will not mar the finish and hold the shotgun securely.)
- 2 With the special BT-99 Plus rib pin punch (supplied) and a light hammer, tap out the pin holding the rib to the front rib post (See Figure 20). This punch is designed to make this change easy and to avoid any possibility of marring the rib.

#### Figure 21-B

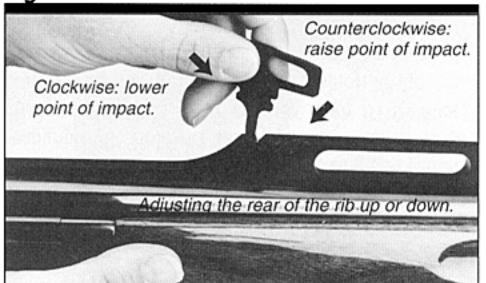


NOTE: Although rarely necessary, at this point the rib itself is nearly ready to be removed entirely from the barrel. When performing point of impact adjustments only, it is never necessary to remove the rib. For a thorough cleaning of the rib adjustment mechanisms it may be helpful in some cases. See "Removing and Reinstalling the Rib," below, for instructions. Otherwise, proceed to step three for adjusting point of impact.

3 To set the front of the rib in the higher position, lift up on the rib until the lower hole in the rib lines up with the slot in the rib post (See Figure 21-A). To set the rib in the down position (as it comes from the factory) align the upper hole in the rib with the slot in the post. The rib is

slightly higher than the other. Removing the pin and realigning the holes to the slot in the front rib post changes rib height at the muzzle. Your BT-99 Plus comes with the rib in the down position at the muzzle. With it in this position you have an approximate point of impact adjustment range from 6" to 12" above point of aim. If you desire to change the range to 3" to 9", or later return it to the original setting, perform the following: pushed all the way down onto the rib post in this position (See Figure 21-B). The amount of vertical change from one setting to the next may seem small, but it results in an approximate 3" change in point of impact.

4 To secure your setting, insert the punch in one end of the roll pin and place the pin in the



desired hole. Using a light hammer, tap the roll pin into position. Once in position, with no portion of the pin protruding from either side, the change is completed.

#### MAKING SMALL ADJUSTMENTS AT THE REAR OF THE RIB —

The rib is adjustable from the rear of the rib, in approximately 1/2" increments, by turning the rib elevator screw in or out. As you turn the screw you will hear and feel a click. Each click represents ap-

proximately 1/2" adjustment in point of impact at 40 yards. You may use the screwdriver blade found on the Invector-Plus choke tube wrench (supplied) to make the adjustment.

- 1 To set a specific point of impact, first set the front rib position (if necessary) to the range of adjustment you will need (see above).
- 2 Insert the screwdriver end of the Invector-Plus tool into the rear elevation screw (See Figure 22). Then turn the screw fully down (if it is not already in that position). This will put point of impact at 6" above (with front of rib set down) or 3" above (with front of rib set up). It makes it easier to turn the screw in by pressing lightly down on the rib when lowering it.
- 3 Turn the screw out (counterclockwise) to raise point of impact. Remember, each click represents 1/2" movement. Turning the screw in (clockwise) lowers point of impact. Do not force the screw after reaching its maximum up/down travel.

- 4 When your desired point of impact is achieved, the rib requires no further settings. The click mechanism is made to tightly hold point of impact at your desired setting.
- 5 Resetting the drop adjustment in the moveable cheek piece may be necessary whenever the plane of the rib is changed to alter the point of impact.

#### REMOVING AND REINSTALLING THE RIB -

It is never necessary to remove the rib for adjusting point of impact. To remove the rib for cleaning (if ever necessary), carefully perform the following to make sure no parts are marred or damaged:

- 1 Raise the rear of the rib by turning counterclockwise on the rear elevation screw until it is as high as it will go, as explained in step two under "Making Small Adjustments at the Rear of the Rib." Do not force.
- 2 Remove the roll pin at the front of the rib as explained in steps one and two under the sub-

heading "Changing the Position of the Rib at the Muzzle End."

- 3 Lift up on the muzzle end of the rib about 30°. Carefully lift the rib forward and out from the rear rib elevator housing. Never attempt to remove the rib by lifting on the front of the rib without the rear rib adjustment fully raised.
- 4 With the rib removed be careful not to lose the rib pivot. It is the circular part with a shoulder on each side that is fitted into the rib. It is easily removed and reinserted.
- 5 Removing the rib exposes the elevator detent spring which is inserted large end first into the groove in the rear rib elevator housing, with the bend facing up. It is unnecessary to remove this spring. Clean and lightly oil all rib components as necessary.
- 6 To reinstall, make sure the elevator detent spring is installed properly and the elevation screw is turned fully counterclockwise. Insert the rear of the rib into the rib elevator housing with the

front of the rib up about 30 degrees. Make sure that the shoulders on the rib pivot are aligned with the grooves in the rear rib elevator housing. Lower the front of the rib down onto the front rib post and secure the front of the rib with the pin at the appropriate setting as explained previously.

### Optional Barrel Porting

Your gun may or may not have optional barrel porting. The drilled holes in the top of the barrel are desired by some shooters for their tendency to reduce barrel jump and give a feeling of lower recoil against the face. They require only an occasional cleaning as described under "Cleaning Suggestions" later in this manual.

### Invector-Plus Choke Tube System

Your BT-99 Plus is provided with the Invector-Plus screw in choke tube system. You can confirm this by reading the inscription on the right side of the barrel. The words INVECTOR-PLUS mean your shotgun uses a choke tube system designed for use in

Browning 12 gauge shotguns with back-bored barrels. The extra length, combined with special tube tapers, gives you the finest possible patterns for target shooters. Plus, you retain the same choke switching convenience of the standard Invector system. Invector-Plus Tubes are fully steel and lead shot compatible. A special "Plus" choke tube wrench is provided to remove and tighten these tubes. This wrench also has a screwdriver end for performing rib adjustments.

CAUTION: Invector-Plus tubes are for use in Browning shotguns with Browning back-bored barrels only (.745" + 0 - .005), and are not interchangeable with regular 12 gauge Invector choke tubes. Do not use Invector-Plus tubes in barrels threaded for standard Invector tubes. Do not use standard Invector tubes in barrels threaded for Invector-Plus tubes. Failure to follow these warnings may cause damage to your gun and cause injury to yourself and others. DO NOT USE BROWNING INVECTOR CHOKE TUBES IN ANY SHOTGUN BARRELS NOT SUPPLIED BY BROWNING. ALSO, DO NOT USE ANY OTHER CHOKING DEVICE IN ANY SHOTGUN BARRELS SUPPLIED BY BROWNING. USE ONLY THE APPROPRIATE GAUGE AND TYPE OF CHOKE TUBES MARKED INVECTOR-PLUS.

CAUTION: WHENEVER HANDLING ANY SHOT-GUN FOR THE PURPOSE OF REMOVING OR INSTALLING A CHOKING DEVICE, MAKE ABSOLUTELY CERTAIN THE GUN IS FULLY UNLOADED, AND THE ACTION IS BROKEN OPEN! NEVER ATTEMPT TO REMOVE OR INSTALL A SHOTGUN CHOKING DEVICE ON A LOADED FIREARM!

#### TUBE REMOVAL—

1 Fully unload your BT-99.

#### ALWAYS UNLOAD YOUR SHOTGUN — FULLY. INSPECT THE CHAMBER TO MAKE SURE IT DOES NOT CONTAIN ANY SHELLS.

- 2 Open the action using the top lever as explained previously.
- 3 Use the Invector-Plus wrench to loosen the tube, turning it counterclockwise. Finger twist the tube the rest of the way out of the barrel.

#### TUBE INSTALLATION-

1 Fully unload your BT-99.

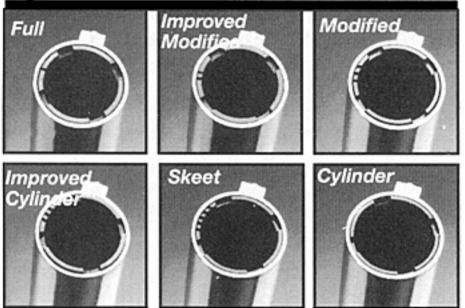
#### ALWAYS UNLOAD YOUR BT-99 PLUS — FULLY. INSPECT THE CHAMBER TO MAKE SURE IT DOES NOT CONTAIN ANY SHELLS.

- 2 Open the action.
- 3 Before installing a tube, check the internal choke tube threads in the muzzle, as well as the

#### DO NOT FIRE THIS SHOTGUN WITHOUT HAVING AN INVECTOR-PLUS CHOKE TUBE INSTALLED. PERMANENT DAMAGE MAY RESULT TO THE THREADS.

threads on the Invector-Plus choke tube to be sure they are clean. Lightly oil the threads with an oil like Browning Oil.

4 Using your fingers, screw the appropriate tube into the muzzle end of the barrel, tapered end first, notched end outward. When it becomes finger-tight, use the Invector-Plus choke tube wrench to firmly seat the tube.



THE INVECTOR CHOKE TUBE SHOULD BE PERIODICALLY CHECKED TO ASSURE THAT IT IS TIGHT AND FIRMLY SEATED. BEFORE CHECKING, FOLLOW THE SAFETY GUIDE-LINES OUTLINED ABOVE.

Replacement and additional tubes and wrenches are available from your Browning dealer, or by writing to the Browning Consumer Department, One Browning Place, Morgan, Utah 84050-9326. 801-876-2711.

Canadian customers please call or write to Browning Canada Sports Ltd./Ltee, 5617 Chemin St-Francois, St-Laurent, Quebec, Canada H4S 1W6. (514) 333-7261.

#### INVECTOR TUBE IDENTIFICATION -

To identify individual Invector tubes, refer to the abbreviated indications on the side of the tube, or use the identification notches located on the top rim of each tube. (See Figure 23).

#### SELECTING THE CORRECT INVECTOR CHOKE TUBE —

Although your BT-99 Plus is designed solely for target use with lead shot loads, the Invector-Plus choke system is fully compatible with factory steel shot loads as well. For your information only, on the chart below we have included steel shot information in addition to the lead shot choke/pattern specifications you will need. Both lead and steel designations have proven necessary for hunters using other Browning guns with standard Invector and Invector-Plus tubes because in any given tube, steel shot gives a different pattern than lead shot. In fact, even larger steel shot diameters result in different patterns than smaller steel shot sizes. Each designation is inscribed on each choke tube. *Remember*, *you will only need to refer to the lead shot designa-*

tions when selecting a proper tube for your BT-99 Plus, as your new shotgun is unsuitable for any bunting use.

12 Gauge Invector-Plus Tubes for back bored barrels.					
Rim Notches	Choke Designation With LEAD	Choke Designation With STEEL			
X on side of tube	X-Full Turkey Spcl.	*			
Ι	Full	*			
II	Improved Modified	Full <sup>1</sup>			
III	Modified	Full <sup>1</sup>			
IIII	Improved Cylinder	Modified			
IIIII	Skeet	Improved Cylinder			
no notches	Cylinder	Cylinder			

\* Do not use with steel shot. Using an over-tight choke constriction with steel shot will result in an ineffective, "Blown" pattern.

<sup>1</sup>When more than one choke designation is listed for a given steel shot pattern, use the more open choke listed for high velocity, larger shot size steel shot loads.

## **Cleaning Suggestions**

The BT-99 Plus is a target gun, and as such will function better and more reliably over a longer period of time if it is properly maintained and kept clean.

#### BEFORE PERFORMING ANY CLEANING PROCEDURES, ALWAYS MAKE CERTAIN THERE IS NO SHELL IN THE CHAMBER.

You should clean your BT-99 Plus after every day of shooting, and more often if it becomes excessively dirty. A minimum cleaning includes wiping down the action and oiling key parts. Most regular maintenance will also include cleaning the barrel. If you encounter a function problem (tight action when closing, etc.) be sure to give your gun a thorough cleaning, to see if it solves the problem, before seeking the services of a Browning Recommended Service Center or the Browning Service Facility in Arnold, Missouri, or a competent gunsmith.

A light cleaning means oiling and wiping down. It can be accomplished with the barrel still attached. A

full cleaning requires that you remove the barrel and forearm. To clean your firearm follow the general outline below:

#### CLEANING PROCEDURES -

BE CERTAIN YOUR GUN'S CHAMBER IS UNLOADED. ALWAYS WEAR PROTECTIVE SAFETY GLASSES DURING ALL ASSEMBLY, DISASSEMBLY AND CLEANING PROCEDURES. KEEP AMMUNITION AWAY FROM THE CLEANING AREA. DO NOT TEST THE FUNCTION OF YOUR FIREARM WITH LIVE AMMUNITION.

- Remove the barrel and forearm from the receiver as explained previously.
- 2 Using a shotgun cleaning rod, with tip and patch large enough for a snug fit in the bore, insert the rod and lightly oiled patch in the breech end of the barrel and run back and forth several times.

nant near the muzzle and just forward of the chamber. A normal amount of either is common and is not serious.

- 4 If leading or plastic residue seems excessive you can remove it by brushing the bore with a brass brush. Soak the brush or spray the bore with powder solvent first. Scrub until clean. To prevent bristles from breaking off, push the brush fully through each time before pulling it back through.
- 5 If your shotgun has barrel ports, carefully clean them with a rag soaked in powder solvent. You may need to scrape residues from the holes with something like a small screwdriver, pipe cleaner or small brush. If so, be careful not to mar the bluing on the barrel's outer surface, or scratch the inside of the barrel.
- 6 After all leading and residues have been removed run a clean dry patch through the bore. Follow this with a final, lightly oiled patch.
- 7 Wipe all metal surfaces of the receiver, forearm and barrel with clean rag. Then lightly oil your gun at the points described in step 1 under "Assembly Procedures." Regular, light oiling is extremely important to the durability and reliable operation of your shotgun.

Remember, the broad, polished, finely fitted surfaces of the receiver and forearm mechanisms (the ejector slide, the hinge pin, and on each side of the barrel receiver walls), must always have a thin film of oil. Use a quality oil like Browning Oil for this purpose.

8 Inspect the barrel and chamber **TO BE CER**-TAIN NO PATCHES HAVE INADVERTENTLY

3 Inspect the bore from both ends for leading and plastic residue. Plastic residue is often left in the bore from the shot cups in modern shotshells. Leading and plastic residue will appear as longitudinal streaks and are usually more predomi-

#### BEEN LEFT IN THEM. Remove any that remain.

9 Wipe all wood surfaces with Browning Oil or a quality furniture polish, but not both.

#### OTHER CLEANING SUGGESTIONS ---

 Never pour large quantities of oil into the receiver or other parts. It can drain down to the wood and soften it—and cause permanent damage and loosening of the stock.

- It is very important that the chamber of your shotgun be cleaned thoroughly and promptly after shooting plastic shotshells. DO NOT LEAVE A DISCHARGED (EMPTY) SHELL IN THE CHAMBER FOR ANY LENGTH OF TIME. The chemical composition of many plastic shells contains moisture which can "sweat" out of the shell and onto the chamber surface, and possibly cause corrosion and rust.
- The recoil reducer mechanism should never require any maintenance. In fact, attempting to oil it will wash away the lifetime lubrication already given it. Be sure to clean grit from in and around the mechanisms of the adjustable rib. Aerosol Browning Oil aids in keeping these parts clean.

 Occasionally remove the cheek piece and wipe the adjustment parts clean.

#### NEVER ATTEMPT TO TAKE YOUR BT-99 PLUS APART FURTHER THAN EXPLAINED IN THIS MANUAL.

This is a specialized, finely fitted mechanism. You may permanently mar it by attempting to disassemble the inner mechanism assemblies. If further disassembly for service or cleaning is required, take your gun to a Browning recommended Service Center or a competent gunsmith, or send it to our Arnold, Missouri Service Facility as explained under "Service or Repair."

## Service or Repair

If your firearm should require service or repairs, we suggest you first contact a local recommended Browning Firearms Service Center. Contact your Browning sporting goods dealer or call our Service Department for the address of the Service Center nearest you. Otherwise, you may send your firearm directly to our own Service Department. For technical questions about your firearm or service call our Service Department.

#### Browning Service Department 3005 Arnold Tenbrook Road Arnold, Missouri 63010-9406 Phone: 1-800-322-4626

Canadian Customers call or write:

Browning Canada Sports Ltd./Ltee, 5617 Chemin St-Francois St-Laurent, Quebec H4S 1W6 Phone: (514) 333-7261 When returning your firearm for servicing, you *must* do the following:

- a. Be sure it is completely unloaded.
- b. Package it securely in a cardboard container.
- c. Enclose a letter with your firearm that clearly describes the trouble experienced and the repairs or alterations desired.
- d. If convenient, send a copy of the letter to us separately.
- Never return ammunition with your firearm. It is against postal and most commerce regulations.

If you have any questions about this manual or about any other Browning products, call or write our Consumer Information Department:

Browning Consumer Information Morgan, Utah 84050 Phone: (801) 876-2711