

# OWNER'S MANUAL



## MERKEL OVER & UNDER SHOTGUNS

SUHLER JAGD-UND SPORTWAFFEN

**READ THE INSTRUCTIONS IN THIS MANUAL  
CAREFULLY BEFORE USING THIS FIREARM!**

# Owner's Manual MERKEL OVER & UNDER SHOTGUNS

**Models: 2000E, 2001E, 2002E, 303E**

**This manual and the warnings contained herein must be read and understood before using your shotgun. This manual familiarizes the user with the function and the handling of the shotgun and warns of the potential dangers of misuse that may lead to accidents or injuries. This manual should always accompany this shotgun and be transferred with it upon change of ownership, or when the shotgun is loaned or presented to another person. THIS MANUAL IS NOT A SUBSTITUTE FOR A HUNTING SAFETY COURSE OR A FIREARMS SAFETY COURSE!**



**WARNING! TREAT EVERY FIREARM AS IF IT WERE LOADED AT ALL TIMES! REMEMBER, NO SAFETY IS FOOLPROOF! FIREARMS SAFETY IS THE RESPONSIBILITY OF THE PERSON WHO HANDLES FIREARMS AND AMMUNITION!**

Dear Customer:

Your Merkel Over & Under Shotgun is manufactured by Merkel to the highest standards. It has been produced to meet state-of-the-art requirements for today's hunter. You can expect unsurpassed performance, superb quality, optimum user comfort, and long service life.

As a result of our thorough quality assurance system, you can be certain that you have purchased a product of truly outstanding quality.

Please read this manual and the warnings contained herein carefully to familiarize yourself with the function and operation of this shotgun.



**IMPORTANT NOTE:**

This manual is for use with Merkel Over & Under Shotguns 2000E, 2001E, 2002E, 303E. **If you are unsure of the exact model of your Merkel Over and Under, please contact GSI, Inc. for identification.** Read this manual **thoroughly and completely familiarize** yourself with your Merkel Over & Under Shotgun to get the maximum enjoyment and safety from your new shotgun.

**Technical specifications of this shotgun may change without notice.**

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## ESSENTIAL PRECAUTIONS FOR THE HANDLING OF FIREARMS

**THE WARNINGS AND ADVICE GIVEN IN THIS MANUAL ARE FOR YOUR PROTECTION AS WELL AS THE SAFETY OF OTHERS. DISREGARDING INFORMATION IN THIS MANUAL MAY RESULT IN SERIOUS INJURY OR DEATH.**

Before you attempt to use or shoot your new Merkel Shotgun, learn and understand the following basic rules. Your safety and the safety of others depends upon your safe and careful handling of your new Merkel shotgun.

Any firearm must be considered a potentially dangerous object requiring particular caution in storage, handling and use.

Make sure to **ALWAYS** handle and treat every firearm as if it were loaded.

**NEVER** place your finger on the trigger unless you intend to fire a shot. **ALWAYS** load your Merkel shotgun so as to avoid any danger for by-standers. Adequate firearm safety can only be ensured with the firearm in clean and mechanically sound condition.

Inexpert handling as well as improper or negligent care may impair function and safety of the shotgun. Unauthorized alterations, modifications or adjustments to the shotgun as well as damage to the shotgun through carelessness will void any claims under the manufacturer's service agreement.

Any work on the shotgun must be done by qualified and authorized gunsmiths, armorers, or factory authorized service facilities.

Firearms must **ALWAYS** be stored out of the reach of persons not familiar with firearms, particularly children. **NEVER** store ammunition with a firearm.

In order to avoid damage during transport, the shotgun should **ALWAYS** be transported in the original packing carton or in a suitable

commercially available transport case.

**ALWAYS** keep the muzzle of your shotgun pointed in a safe direction. **NEVER** point any firearm at anything you do not intend to shoot. Stay alert and be aware of all persons and property within shooting range.

**NEVER** give a loaded firearm to another person. **ALWAYS** open the action and inspect the chamber for ammunition, and unload any firearm before giving the firearm to another person for inspection. **ALWAYS** ensure that the safety is in the "Safe" position. **ALWAYS** unload firearms after use to prevent the occurrence of an accidental discharge.

**KEEP** the barrel, chamber and bore free of all obstructions. Firing a firearm with a barrel, chamber or bore obstruction can cause damage to the firearm and injury to the shooter or other persons nearby, and could result in death. Keep the barrel, chamber and bore free and clean of mud, snow, cleaning patches, or any other materials which may clog the barrel.

**NEVER** drink alcohol or take medications while handling a firearm. Responsible firearm handling requires a state of mental alertness.

**ALWAYS** seek a doctor's advice if you are taking a medication to be sure you are fit to shoot and handle a firearm safely.

**DO NOT** totally and blindly rely on the mechanical safety devices on any firearm. The mechanical safety's function is to block sear engagement to prevent accidental discharge of the firearm. However, should this device fail, it is possible to fire a firearm even when the safety is in the "Safe" position. **NEVER** place your finger on the trigger when you do not intend to shoot. **NEVER** place your finger on the trigger or test any safety device when the muzzle of a firearm is pointed in an unsafe direction.

**NEVER** transport a loaded firearm.

**ALWAYS** wear and encourage others to wear protective shooting glasses. Flying particles could damage eyes and cause blindness. Protective shooting glasses could prevent such injury.

**ALWAYS** wear and encourage others to wear ear protection when shooting, especially on a range. Without ear protection, the noise

of even one shot from a firearm, or other firearms close to you, could leave a ringing in your ears for some time after firing while the cumulative long term effect could be permanent hearing loss.

**ALWAYS** use only clean, dry, original high quality commercially manufactured ammunition in good condition loaded in accordance with factory standards. Do not use ammunition that has been exposed to prolonged periods of dampness or moisture. Gun and ammunition manufacturers design their products within exacting engineering safety limits. Handloads and remanufactured ammunition are sometimes outside those limits and can be so unsafe as to blow up or otherwise damage a firearm, and cause injury, death or damage to property. If there are any questions concerning the proper ammunition for your Merkel shotguns call or contact GSI, Inc., 108 Morrow Avenue, P.O. Box 129, Trussville, Alabama 35173, Tel. (205)-655-8299. Merkel and GSI, INC. specifically disclaim any responsibility for damage or injury whatsoever occurring in connection with, or as a result of, the use of faulty, or non-standard, or "remanufactured" or handloaded (reloaded) ammunition.

**DO NOT** put your finger on the trigger while unloading, loading, or any other time before you are ready to shoot. **DO NOT** dry fire on an empty chamber - the chamber may not be empty even if you think it is not loaded! **TREAT EVERY FIREARM AS IF IT WERE LOADED!**

**KNOW** your target and backdrop area. **BE SURE** it is safe to fire at your target. **THINK!** What will you **HIT** if you **MISS** your intended target? **KNOW** the potential range of your shotgun and ammunition, and consider this danger for persons and property within that range. **NEVER** fire a firearm in the direction of people, non-game animals or property that could be injured or destroyed.

**MAKE SURE** your shotgun is unloaded before crossing fences, climbing trees, jumping over ditches, or passing through or across other obstacles. **DO NOT** place or lean a loaded firearm on or against a tree, fence, automobile, or similar objects.

**FAILURE TO FIRE:** If your shotgun fails to fire when you pull the trigger, keep the muzzle of the shotgun pointed toward the target or a safe open area and wait for at least two minutes. If a hangfire (slow ignition) has occurred, the round will probably fire within two minutes. If the round does not fire, open the breech of the shotgun and remove the shotshell. If the primer of the shotshell is indented, discard the shotshell in a safe manner. If the primer of the shotshell is not indented, or is lightly indented, or off-center, have the shotgun examined by a competent gunsmith before the shotgun is fired again.



**USE** caution to avoid dropping a loaded firearm. Dropping the shotgun may cause an accidental discharge even if the safety is in the “Safe” position. Be extremely careful while hunting or during any other activity to avoid dropping any shotgun. An accidental discharge could result in serious injury, or death.

**TAKE EVERY PRECAUTION** to prevent unsafe firearm handling practices around yourself and others. If you witness any unsafe gun handling practices by other shooters, politely suggest safe procedures for future use.

**NEVER DISCHARGE** a firearm near flammable material. Flame and sparks erupt from the firearm when discharged. They could start a fire or cause flammable liquids and gases to explode.

**NEVER SHOOT** at a hard surface such as a rock, or a liquid surface such as water. A projectile may ricochet and travel in any direction to strike you, or an object you cannot see, causing injury, death or damage to property.

**NEVER WALK, CLIMB OR FOLLOW** a companion with your shotgun loaded. When walking, climbing or following a companion, **MAKE SURE** the chamber of the shotgun is empty, and the safety is in the “Safe” position.

**ALWAYS** instruct children to respect firearms. If your children shoot, teach them or have them trained by a qualified instructor to treat and use firearms properly, and always supervise them closely.

**NEVER** abuse your shotgun by using it for any purpose other than shooting.

**NEVER** fire your shotgun near an animal unless it is trained to accept the noise. An animal’s startled reaction could injure it or cause an accident.

**READ, UNDERSTAND, AND PRACTICE** all safety procedures and warnings in this manual. **READ, UNDERSTAND AND PRACTICE** all safety procedures and warnings on commercial ammunition cartons and containers. It is **YOUR RESPONSIBILITY** to collect, understand and practice the most up-to-date safe handling procedures for your shotgun. **NEITHER MERKEL** nor **GSI, INC.** are responsible for injury, death or damage to property resulting from either intentional or accidental discharge of this shotgun, or from its function when used for purposes or subjected to treatment for which it was not designed.

**KEEP** this instruction manual on hand for future reference. Please include this manual with the shotgun in the event you lend, give or sell this shotgun to any other person.

### **BEFORE SHOOTING YOUR NEW SHOTGUN**

Usually, your Merkel franchised dealer will furnish your shotgun in completely assembled condition. You need only clean the barrel bore of oil and wipe the bore dry before shooting.

#### **BORE OBSTRUCTIONS WARNING!**

**ANY OBSTRUCTION IN THE BORE OF THE SHOTGUN MAY RESULT IN DAMAGE TO THE FIREARM OR INJURY OR DEATH TO THE SHOOTER AND OR OTHER PERSONS NEARBY. BEFORE LOADING THE FIREARM, MAKE CERTAIN THE BORE IS CLEAR AND UNOBSTRUCTED.**

If you suspect the shotgun may have a bore obstruction resulting from excess oil, grease, packing material, or cosmoline, or from condensation or rain, snow or mud in the barrel, or from any other source whatsoever, inspect the bore to be sure it is clear and unobstructed.

**WHENEVER YOU INSPECT THE BORE, MAKE CERTAIN THE SHOTGUN IS NOT LOADED, AND THAT THE CHAMBER IS EMPTY! THE BORE MAY BE CHECKED BY VISUALLY INSPECTING THE BARREL FROM THE RECEIVER END, NOT THE MUZZLE! REMEMBER, NEVER LOOK DOWN THE MUZZLE OF THE SHOTGUN!**

Also, remember that a lodged wad or shot column is a common form of bore obstruction. They may become lodged in the

bore if (assuming the trigger has been pulled with a live shotshell in the chamber) the shotshell contains no powder, or the powder fails to ignite, and only the primer charge ignites, resulting in insufficient force to propel the wad or shot column out of the bore. Whenever an obstruction occurs, keep the muzzle of the shotgun pointing in a safe direction and proceed as follows:

- Any shotshells should be removed.
- Insert a proper size cleaning rod (without a tip or brush) into the bore from the muzzle and remove the obstruction. If the obstruction does not readily dislodge, it may be necessary to lightly tap the handle end of the cleaning rod. Do not attempt to remove an obstruction using a blank shotshell, or a shotshell from which the shot or projectile has been removed, or by any other means other than the use of a cleaning rod. Be certain all loose powder has been removed from the bore and action before inserting the rod. If you are unable to remove the obstruction, take the shotgun to the nearest repair facility, or call GSI Inc., 108 Morrow Avenue, P.O. Box 129, Trussville, Alabama 35173, Tel. (205) 655-8299.
- After removing the obstruction, reinspect the bore to be certain it is free of powder particles or other debris. Clean the mechanism of unburned powder grains.

**REMEMBER! ALWAYS CHECK THE BORE FOR AN OBSTRUCTION IF YOU EXPERIENCE DIFFICULTY IN CHAMBERING A SHOTSHELL, EXPERIENCE A FAILURE TO EXTRACT, HAVE A MISFIRE, OR THE SHOTGUN DOES NOT MAKE A NORMAL LOUD REPORT ON FIRING. A MISFIRE OR UNUSUAL REPORT IS ALWAYS A SIGNAL TO CEASE FIRING. FOLLOWING A MISFIRE OR AN UNUSUAL REPORT, KEEP THE MUZZLE POINTED IN A SAFE DIRECTION AND WAIT TWO MINUTES BEFORE UNLOADING THE CHAMBER AND EXAMINING THE BORE OF THE SHOTGUN.**

**WARNING! IF A LOADED SHOTSHELL IS LODGED IN THE CHAMBER, DO NOT ATTEMPT TO REMOVE A LODGED SHOTSHELL BY USING A CLEANING ROD. TAKE THE SHOTGUN TO THE NEAREST REPAIR FACILITY, OR CALL GSI, Inc., 108 Morrow Avenue, P.O. Box 129, Trussville, Alabama 35173, Tel. (205) 655-8299.**

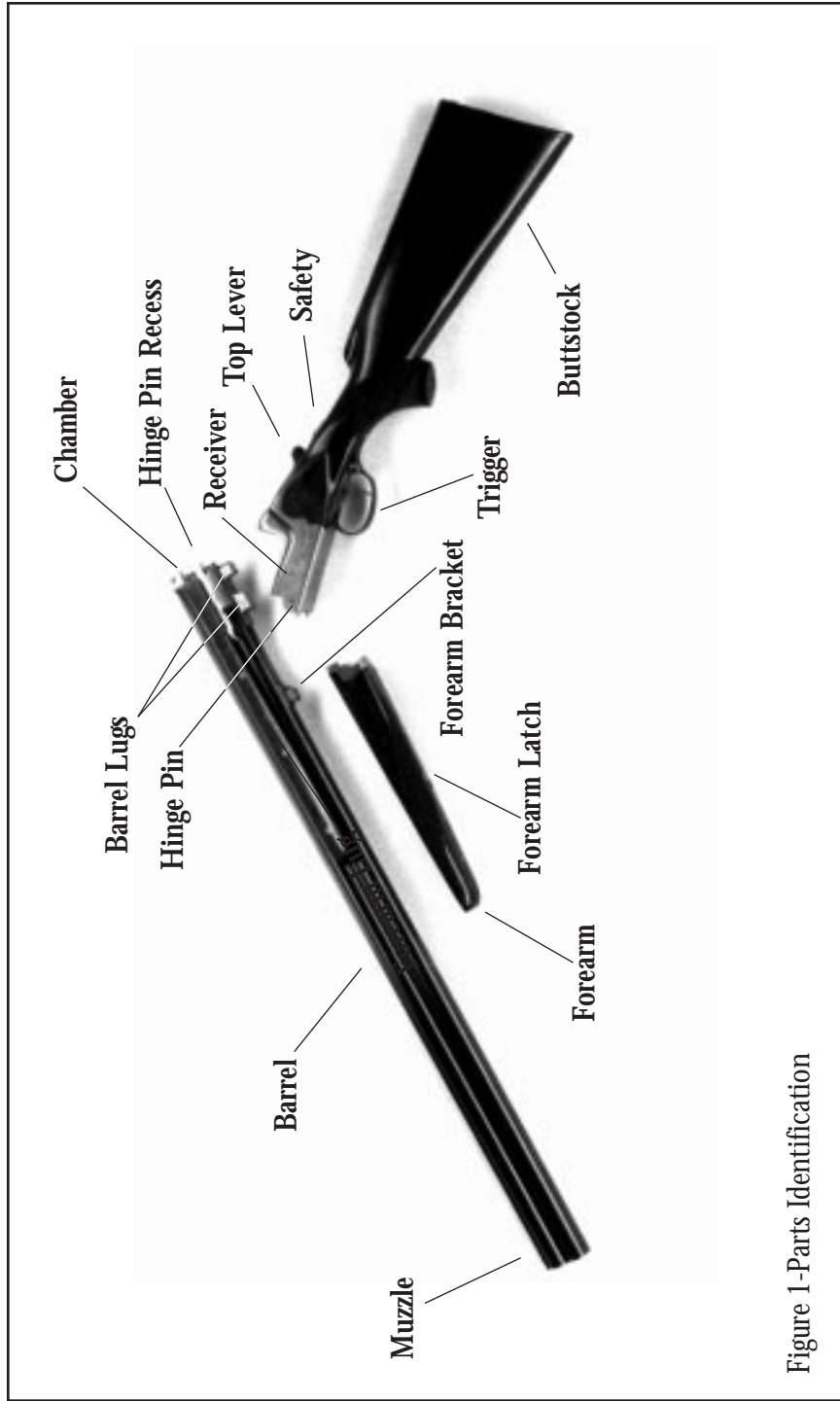


Figure 1-Parts Identification

# MERKEL

## Over & Under Shotguns

### **SPECIAL NOTE:**

Unlike most firearms, your Merkel shotgun is individually handcrafted by skilled gun makers who have inherited and acquired their skills from generations of the master gun makers in Suhl, Germany. Upon assembly you will notice that the working parts of your shotgun will have distinctive tight fitting characteristics and may therefore, be somewhat difficult to open, close, and lock the action.

These characteristics are typical of quality hand-fitted shotguns that are built to the highest standards of precision machining. After initial firing of 100-200 rounds the shotgun action will begin to work more smoothly and will be easier to operate.

### **SERIAL NUMBER**

The serial number of your Merkel Shotgun is engraved on the receiver and the barrel. It is a good practice to record the serial number in a separate ledger for future reference.

### **GENERAL SPECIFICATIONS**

Merkel Over & Under shotguns are two barreled firearms with the barrels aligned one over the other with the sighting rib positioned along the center of the top barrel. Traditional models are typically equipped with two triggers each of which correspond to its respective barrel. A single selective trigger model is also available.

### **OPERATION OF SHOTGUN "SAFETY" MECHANISM**

The shotgun safety mechanism is located on the tang of the receiver assembly just in front of the buttstock on the top side (See figure 2). The shotgun is in the "Safe" position when the safety is moved fully rearward and the letter "S" appears on the receiver tang directly in front of the safety. In this position sear engagement is blocked to prevent discharge under non-firing conditions.

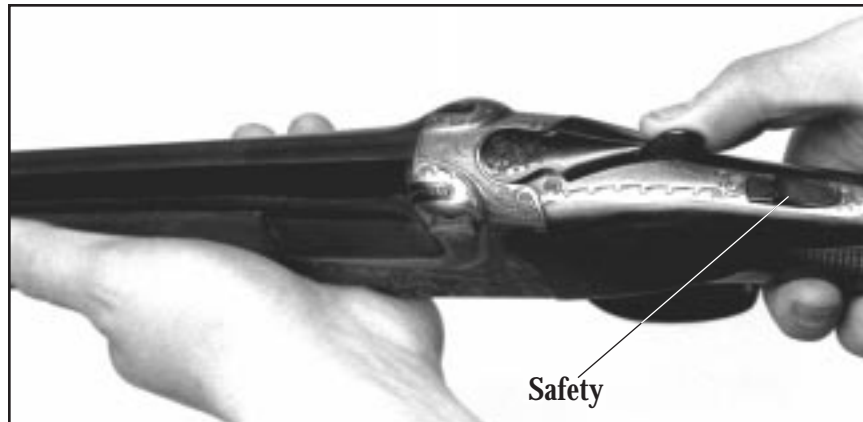


Figure 2 Over & Under Safety Mechanism

**WARNING! SAFETIES ARE MECHANICAL DEVICES THAT MAY FAIL OR MALFUNCTION LIKE ANY OTHER MECHANICAL DEVICE! ALWAYS HANDLE THE SHOTGUN CAREFULLY AND DO NOT PERMIT THE SHOTGUN TO POINT IN AN UNSAFE DIRECTION! ALWAYS TREAT THE SHOTGUN AS IF IT WERE LOADED AND READY TO FIRE! ALWAYS OBSERVE SAFETY RULES WHEN HANDLING THE SHOTGUN! THE SAFETY SHOULD ALWAYS BE IN THE "SAFE" POSITION EXCEPT WHEN THE SHOOTER IS ACTUALLY FIRING THE GUN. THE SAFETY SHOULD BE MOVED TO THE "SAFE" POSITION WHENEVER THE SHOOTER CEASES FIRING, EVEN TEMPORARILY. KEEP THE MUZZLE OF THE SHOTGUN POINTED IN A SAFE DIRECTION AT ALL TIMES!**

### **ATTENTION-MANUAL SAFETY MECHANISM!**

**THE SAFETY PROVIDED ON MERKEL OVER & UNDER SHOTGUNS IS MANUALLY OPERATED AND DOES NOT OPERATE AUTOMATICALLY. THE SHOOTER MUST MANUALLY MOVE THE SAFETY TO BOTH ITS SAFE AND FIRE POSITION. FAILURE TO MANUALLY MOVE THE SAFETY TO ITS DESIRED POSITION COULD CAUSE AN ACCIDENTAL DISCHARGE!**

When the safety is indexed forward to its most forward position the shotgun is in its firing mode. In this condition the trigger(s) can be pulled to fire the shotgun. The letter "S" inscribed on the tang of the receiver will be covered and obscured from view in this condition.

When you are not using your shotgun, be sure your gun is pointed in a safe direction, avoid contact with the trigger and make sure the safety is in its "Safe" position to prevent accidental discharge. Maintain the shotgun safety in the "Safe" position at all times, unless you are actually firing the gun.

### **DOUBLE TRIGGER SHOTGUNS**

On shotgun models equipped with two triggers each trigger operates its own barrel. The front trigger will fire the bottom barrel and the rear trigger will fire the top barrel. Do not pull both triggers at the same time in order to avoid excessive recoil or kick from simultaneous discharge of both barrels.

### **SINGLE SELECTIVE TRIGGER SHOTGUNS**

Shotguns with single triggers are equipped with a barrel selector located on the upper portion of the trigger assembly (See figure 3). The barrel selector can be indexed to the right or left with the firing finger. The position of the barrel selector controls the firing order of the two barrels. When the selector is positioned to the right the bottom barrel fires first and the top barrel will be subsequently discharged when the trigger is pulled a second time. The top barrel is fired first when the selector is positioned on the left side of the trigger. Ensure that the safety is in the "Safe" or "S" position, and be careful to avoid contact with the trigger mechanism when the barrel selector is being moved.



Figure 3 - Barrel Selector on Single Trigger Shotguns

### TOP LEVER

The top lever operates the locking bolt, which securely aligns and clasps the barrel assembly shut to the receiver for firing. The locking bolt and barrel lugs are designed for gradual wear of locking surfaces and may therefore exhibit tight fitting characteristics during initial use. The close tolerances of these locking surfaces ensure that the breech of the shotgun remains tight throughout use.

When closing the breech of the action let the top lever move freely to its locked (in line with the safety) position (see figure 5). Do not restrain its travel with your thumb.

It is recommended that the top lever be indexed to the left in its locked position with slight finger or thumb pressure to make sure that the bolt is fully closed. If the bolt does not fully close it is possible dirt or debris have accumulated to a level preventing full closure of the breech. In this condition open the action and unload the shotgun. Carefully inspect the action and remove any dirt or debris. Keep the breech surface clean and lightly lubricated.



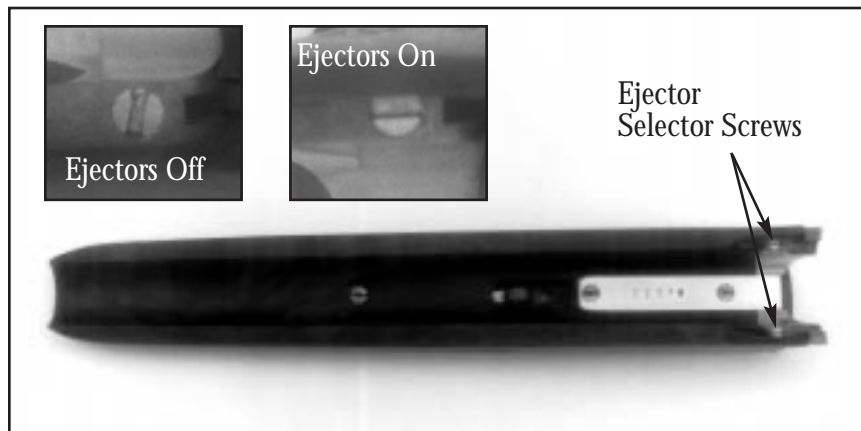


Figure 4 - Disconnectable Ejectors

### EJECTORS

Most Merkel Over and Under Shotguns are equipped with disconnectable automatic ejectors. The ejector springs on these models can be easily deactivated to convert the shotgun from its normal automatic ejector operation to that of extractors by turning two small slot headed screws that are located inside the forearm assembly (See Figure 4 ). When the action is opened in the extractor mode of operation spent shotshell casings are elevated above the chamber for removal by hand rather than being automatically ejected from the chambers.

To change the ejector operation mode to that of extractor operation, open the action and unload any ammunition that might be in the chamber. Remove the forearm from the barrel assembly. The ejectors springs are disengaged by turning the two small slot headed screws located inside the forearm assembly ninety degrees clockwise with a small slot headed screwdriver. In this position, the slotted screw heads are perpendicular to the axis of the barrel.

To change the shotgun back to ejector operation simply rotate the screws ninety degrees counterclockwise. In this position the slotted screw heads are parallel with the axis of the barrel. When set for automatic ejector operation, **Be careful to position the breech away from your face when unloading the shotgun to avoid being hit by ejected spent shotshell cases.**

## LOADING AND FIRING

Before loading the shotgun, visually inspect your safety and make sure it is in the “Safe” position. Never load the shotgun with the safety in the firing position. Avoid contact with the trigger mechanism while loading ammunition and at all times prior to firing.

To insert shotshells in the chamber, move the top lever to the right with the thumb of your firing hand and open the breech. Inspect the chambers and barrel bores to be sure they are free of any obstructions. Insert a shotshell in each chamber and close the action. Be sure the shotshell primer and rim is facing rearward when inserting shells in the chamber.

When you close the breech of the action, let the top lever move freely to its locked position. Do not restrain its travel with your thumb. It is recommended that the top lever be indexed to the left with slight pressure to make sure that the bolt is fully closed. (See figure 5).

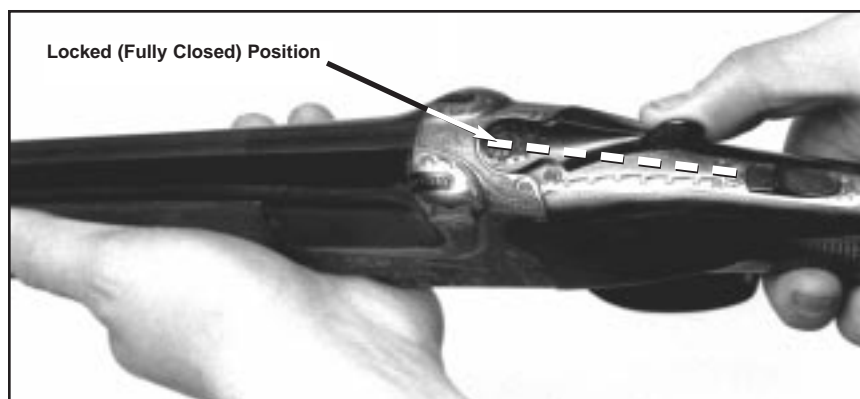


Figure 5 -Closing the Breech

# SHOTGUN ASSEMBLY

Before assembly, be certain there is no ammunition in either chamber and position the safety in the “S” or “Safe” position.

Remove all protective lubricants from your shotgun before initial assembly. Use a cleaning rod, patches and a light gun oil or solvent to clean the interior of the shotgun bore. Use a cleaning cloth and light gun oil to remove

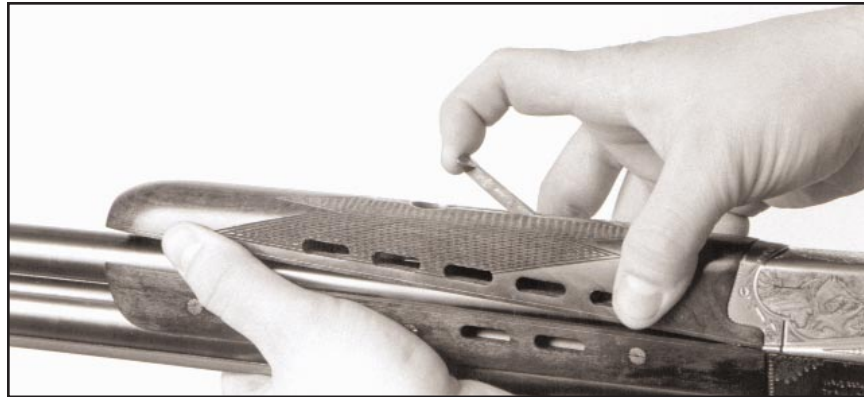


Figure 6 - Removal of Forearm

protective lubricants from metal parts on the receiver and barrel assemblies.

Remove the forearm from the barrels by pulling the forearm latch out and away from the underside of the forearm (See figure 6). Remove all protective lubricants from the exposed metal surfaces with light gun oil and a cleaning cloth. After cleaning, place a couple of drops of gun oil on the metal bearing surfaces of the hinge pin, barrel lugs and on the forearm bracket (see figure 1).

The barrels are attached to the action by grasping the stock grip with the firing hand and supporting the buttstock in between the firing elbow and body (See figure 7). Grasp the barrels with the non-firing hand and connect the barrel lug with the receiver hinge pin. Use the thumb of the firing hand to move the top lever sideways to its most right position.



Figure 7 -Barrel Assembly

Maintain pressure on the barrels to keep the hinge pin aligned with the barrel lug hinge pin recess, and rotate barrels upward to close the action. Release the top lever at this time.

Pivot the forearm assembly onto the barrels. Align the forearm in its proper position on the barrels and push the forearm lever upward into its housing. This locks the forearm back into its original position on the barrels.

**ATTENTION!** While assembling your shotgun, do not use excessive force when closing the action! If the action and barrels are not aligned properly, excessive force applied during assembly can deform or mar the fitted surfaces of the shotgun. If you perceive any interference while installing the barrels to the receiver repeat the assembly procedures from beginning, and be extra careful to align the barrel lug hinge pin recess and the receiver hinge pin properly. If you continue to experience difficulty in the assembly of your shotgun, call GSI or seek assistance from a qualified gunsmith.

## GAUGE, CHAMBER LENGTH AND CHOKE DESIGNATION

It is most important that the correct ammunition is used with your shotgun. Use of incorrect ammunition with your shotgun could cause injury or death to the shooter and damage to the shotgun. **Never use shotshells that do not match the corresponding gauge of the shotgun. For example, do not use 20 gauge ammunition in a 12 gauge gun. In addition, do not use shotshells with chamber lengths that exceed the chamber length of the shotgun barrel.**

**DANGER - AMMUNITION WARNING!**  
**SERIOUS INJURY OR DEATH OR PROPERTY DAMAGE  
MAY RESULT FROM ANY CONDITION WHICH CONTRIBUTES TO THE GENERATION OF EXCESSIVE PRESSURE, OR THE UNCONTROLLED RELEASE OF GAS, WITHIN A SHOTGUN. THE FOREGOING ADVERSE CONDITIONS CAN BE CAUSED BY BORE**

**OR CHAMBER OBSTRUCTIONS, PROPELLANT POWDER OVERLOADS, OR BY DEFECTIVE, INCORRECT(GAUGE OR LENGTH), OR IMPROPERLY LOADED AND ASSEMBLED SHOTSHELL COMPONENTS. IT IS EXTREMELY DANGEROUS TO USE A SHOTSHELL WHOSE PRESSURE IS GREATER THAN THAT DEVELOPED BY SHOTSHELLS LOADED TO FACTORY STANDARDS. EVEN THE STRONGEST SHOTGUN CAN BE BLOWN UP AS A RESULT OF EXCESSIVE PRESSURE.**

The following information describes the identification system used to designate the gauge, chamber length and choke on your Merkel shotgun. Be sure you understand this identification system before loading your shotgun, and only use the correct ammunition. If there is any question in regard to the proper ammunition for your shotgun, feel free to call GSI at 205-655-8299 for assistance.

Shotgun gauge, chamber and choke designations are engraved on the underside of the barrels where they interface the breech block of the receiver (See figure 8). A typical example of a gauge/chamber length designation would be 12/76 which identifies a shotgun bore diameter of 12 gauge and 76 mm (3 inch) chamber length. Bore diameters are available in 12, 20 and 28 gauge.

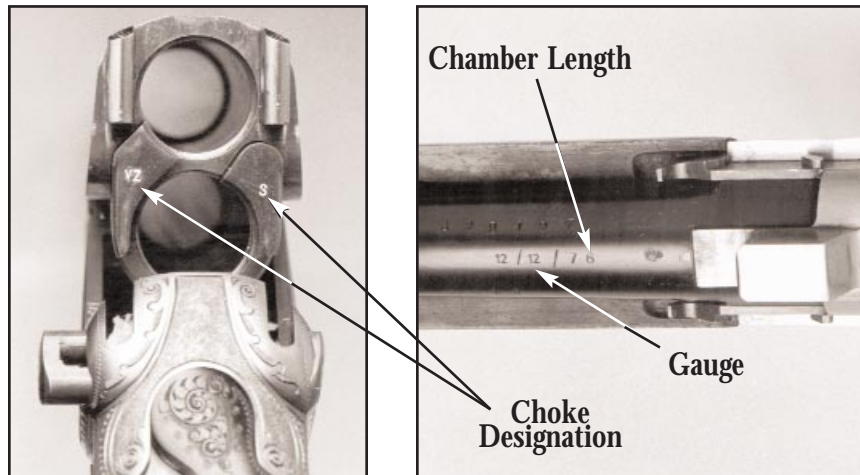


Figure 8 - Gauge, Chamber Length and Choke Designation

Chamber lengths are identified by the numeral 70 or 76. The numeral 76 designates a chamber length of 76mm which is equal to the English measurement of 3 inches. A barrel marked with the numeral 70 designates a chamber length of 70mm which is equal to the English measurement of  $2\frac{3}{4}$  inches.

Use of shotgun shotshells with lengths shorter than the shotgun chamber length is acceptable. **However, never use shotshells with chamber lengths greater than the length of the shotgun chamber. For example, do not use 3 inch shells in a shotgun chambered for  $2\frac{3}{4}$  inch ammunition.**

Chokes are identified for each barrel below the designation for gauge and chamber length on the underside of the barrels. Choke designation indicates the dispersion pattern characteristics of the shotgun bore. The following chart provides identification for choke and a pattern percentage of shot pellets within a 30 inch circle at specified ranges.

<u>Choke Identification</u>	<u>Description</u>	<u>Percentage</u>	<u>Distance</u>
1/1	Full Choke	70 - 75	35m
3/4	Improved Modified Choke	65 - 70	35m
1/2	Modified Choke	60 -65	35m
1/4	Quarter Choke	55 - 60	35m
VZ	Improved Cylinder Choke	45 - 50	35m
S	Skeet	70 - 75	20m

## **DRY FIRING**

ATTENTION!!!! Dry firing or pulling the triggers without live ammunition is not recommended without the use of snap caps. Snap caps absorb the inertia of the firing pins and protect internal parts from the full impact force of the hammers. Continuous dry firing can potentially damage the internal parts and render the gun inoperable.

## **DISASSEMBLY**

Remove loaded ammunition from the chamber before disassembling the shotgun. To disassemble the shotgun, grasp the shotgun barrel with the non-firing hand and rest the buttstock against the upper leg. Pull the forearm take down latch out and away from the forearm and pivot the forearm away from the barrels.

Push the top lever to the right and carefully open the action to rotate the barrel lug away from the receiver hinge pin and separate the barrels from the receiver. The forearm can be reattached to the barrels for storage.

Do not attempt further disassembly beyond barrel and forearm removal!!! Further disassembly is not necessary for routine maintenance. Any damage incurred due to further disassembly is not covered by your service agreement.

**FURTHER DISASSEMBLY BY UNQUALIFIED PERSONS COULD CAUSE DAMAGE TO THE SHOTGUN WHICH COULD RESULT IN INJURY OR DEATH TO THE SHOOTER.**

## CLEANING

Merkel shotguns require periodic maintenance and will perform more reliably over a longer period of time if properly cleaned and serviced. **Never clean a loaded shotgun.** Remove ammunition from the chambers before performing any cleaning procedures.

Always wipe the barrels and action with a lightly lubricated cloth to remove fingerprints, dirt and moisture from the gun after handling. Keep a light coat of gun oil on polished metal surfaces and moving parts. Clean inside the barrels periodically to remove fouling and residue caused by fired ammunition.

If the action seems unusually tight or if you are unable to close the breech to its locked position, disassemble the shotgun and give it a thorough cleaning. If functional problems continue, call the GSI Service Department or seek the assistance of a competent and qualified gunsmith.

A light cleaning consists of oiling and wiping down the shotgun. This can be accomplished without removing the barrels from the receiver. A full detailed cleaning will require disassembly of the barrels and forearm. General cleaning procedures are outlined as follows:

**Make sure** the chambers are **unloaded** on your shotgun. Wear protective safety glasses during assembly, disassembly and cleaning procedures. Keep ammunition away from the cleaning area. **Never** test the function of your shotgun with live ammunition.

Remove the barrels and forearm from the receiver according to disassembly instructions provided in this manual.

Use a cleaning rod with a tip and patch suitable for use in shotgun bores. Lightly oil the patch and place it on the tip of the cleaning rod. Insert the tip of the cleaning rod with the attached patch into the chamber end of the barrels and push the patch back and forth through both barrels several times. Inspect the bores from both ends of the barrels for residue caused by leading and plastic shot cups. This residue will form



streaks that run parallel to the inside of the bore. Slight residue streaks are common place and will not affect the performance of your shotgun. If lead or plastic residue appears to be excessive it can be removed by brushing the bores with a brass brush attached to the cleaning rod.

First apply gunpowder solvent to the brush end of the cleaning brush. Insert the cleaning rod into the chamber end of the bores. Push the brush completely through the shotgun bore before pulling it backwards to avoid breaking the bristles on the brush. Continue this scrubbing action until the bores are clean.

When all fouling and residue is removed, push a clean dry patch through both bores with the cleaning rod to remove any remaining debris or solvent. When the bores are free of all solvent and debris, insert a lightly oiled patch and lubricate the bores.

Wipe the metal surfaces of the barrels, forearms and receiver with a clean rag. Lightly oil the metal parts on the receiver hinge, barrel lugs and the forearm brackets.

## **Notes**

## Notes

**QUICK REFERENCE  
FOR YOUR MERKEL**

**MODEL NUMBER:** \_\_\_\_\_

**GAUGE:** \_\_\_\_\_

**BARREL LENGTH:** \_\_\_\_\_

**CHOKE:** \_\_\_\_\_

**SERIAL NUMBER:** \_\_\_\_\_

**DATE PURCHASED:** \_\_\_\_\_



**U.S. IMPORTER**

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