



# **.17 HMR<sup>®</sup> MAGNUM**

## **OWYHEE TAKEDOWN MAGNUM**

Thank you for purchasing your new Tactical Solutions rifle. Please follow these instructions for proper use. THE FOLLOWING INSTRUCTIONS ARE DESIGNED TO HELP YOU WITH YOUR NEW OWYHEE .17 HMR<sup>®</sup> TAKEDOWN MAGNUM RIFLE.

### **LOADED WEAPON WARNING**

ALWAYS MAKE SURE YOUR GUN IS UNLOADED BEFORE ANY WORK IS STARTED  
NEVER CLEAN, LUBRICATE, DISASSEMBLE, REASSEMBLE OR WORK ON ANY FIREARM WHILE IT IS LOADED. KEEP ALL AMUNITION AWAY FROM THE WORK AREA.

### **EYE AND EAR PROTECTION REQUIRED**

WHEN SHOOTING YOUR GUN ALWAYS WEAR SHOOTING GLASSES AND HEARING PROTECTION!

### **LEAD EXPOSURE WARNING**

DISCHARGING FIREARMS IN POORLY VENTILATED AREAS, CLEANING FIREARMS, OR HANDLING AMMUNITION MAY RESULT IN EXPOSURE TO LEAD AND OTHER SUBSTANCES KNOWN TO THE STATE OF CALIFORNIA TO CAUSE BIRTH DEFECTS, REPRODUCTIVE HARM, AND OTHER SERIOUS PHYSICAL INJURY. HAVE ADEQUATE VENTILATION AT ALL TIMES. WASH HANDS THOROUGHLY AFTER EXPOSURE.

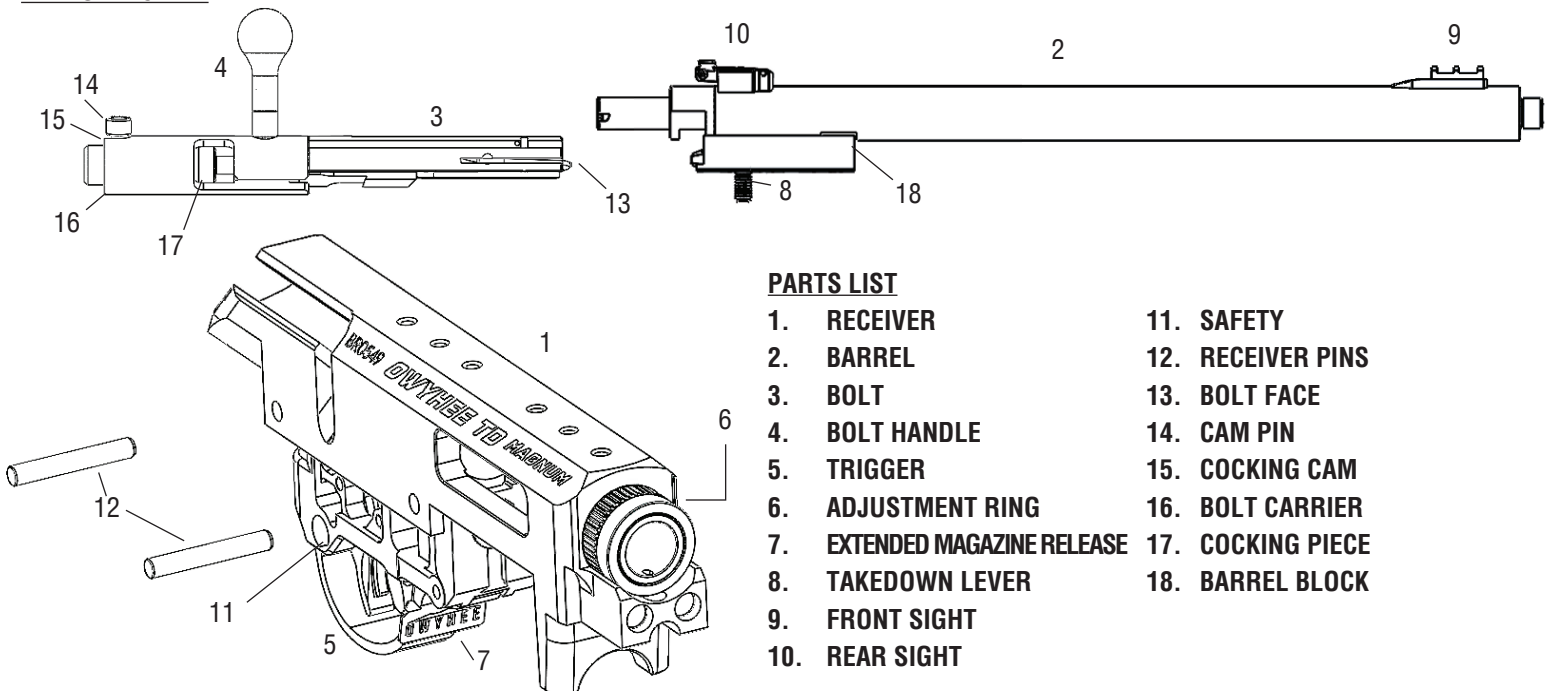
### **HANDLING WARNING**

IF DROPPED OR STRUCK WITH THE SAFETY "OFF", THE RIFLE MAY FIRE. KEEP CHAMBER EMPTY UNLESS ACTUALLY FIRING! KEEP SAFETY "ON" UNLESS ACTUALLY FIRING!

### **AMMUNITION WARNING**

DEATH, SERIOUS INJURY, AND DAMAGE CAN RESULT FROM THE USE OF WRONG AMMUNITION, BORE OBSTRUCTIONS, POWDER OVERLOADS, OR INCORRECT CARTRIDGE COMPONENTS. .17 HMR CASES ARE VERY THIN AND SOMETIMES SPLIT WHEN FIRED.

### **PARTS DIAGRAM**



### **PARTS LIST**

- |                              |                   |
|------------------------------|-------------------|
| 1. RECEIVER                  | 11. SAFETY        |
| 2. BARREL                    | 12. RECEIVER PINS |
| 3. BOLT                      | 13. BOLT FACE     |
| 4. BOLT HANDLE               | 14. CAM PIN       |
| 5. TRIGGER                   | 15. COCKING CAM   |
| 6. ADJUSTMENT RING           | 16. BOLT CARRIER  |
| 7. EXTENDED MAGAZINE RELEASE | 17. COCKING PIECE |
| 8. TAKEDOWN LEVER            | 18. BARREL BLOCK  |
| 9. FRONT SIGHT               |                   |
| 10. REAR SIGHT               |                   |

## **OPERATION**

The Owyhee rifle will fire if there is a cartridge in the chamber and the trigger is pulled, whether or not there is a magazine in place! Removing the magazine does not unload the rifle. Never assume the rifle is unloaded. Visually inspect the chamber and the magazine each time the rifle is handled to be certain there are no cartridges in either.

## **SAFETY**

The Owyhee rifle has a cross-button safety which is located in the rear portion of the trigger guard; behind the trigger. The safety is engaged when it protrudes fully from the right side of the trigger guard assembly. The safety should always be in the engaged position except when the shooter is actually firing the rifle. The safety is in the fire position when it protrudes from the left side of the trigger guard assembly. When the safety is in the fire position the red band shows on the safety button. The rifle will fire whenever the safety is in the fire position and the trigger is pulled. *Figure 1*

## **AMMUNITION**

The Owyhee TD Magnum rifle is designed to function with .17 Hornady Magnum Rimfire cartridges only [.17 HMR®].

Do not attempt to load any other cartridge into the rifle or magazine.

Use of any other cartridge in this rifle may cause injury or damage to the shooter or rifle. Each rifle will exhibit a preference for a particular ammunition; we recommend testing different types of ammunition to find the best match for your rifle. [ **Recommended Hornady® Ammunition:** .17 HMR 15.5 gr NTX®, .17 HMR 17 gr V-MAX®, .17 HMR 20 gr HP Varmint™ **Recommended CCI Ammunition:** V-Max® 17 HMR, Gamepoint 17 HMR, Full Metal Jacket 17 HMR 20 Grain ].

**MAGAZINE** The Owyhee rifle was designed to function with a Ruger® factory 9-shot .17 HMR® rotary magazine.

## **LOADING THE MAGAZINE**

The magazine must be removed from the rifle to load. Before removing the magazine make sure first that your finger is off of the trigger, the chamber is empty, the rifle is on safe and the rifle is pointed in a safe direction. To remove the magazine press forward (towards the muzzle) on the magazine release and the magazine should drop free from the rifle. To load the magazine, press the rim of the cartridge against the magazine follower at the widest section of the steel feed lips until the cartridge enters far enough to be pushed to the rear of the magazine. Continue this process until all 9 cartridges are loaded into the magazine.

## **LOADING THE RIFLE**

1. Make sure the muzzle is pointed in a safe direction and set to the safe position.
2. Load magazine (refer to magazine loading instructions).
3. Insert the loaded magazine into the receiver with the bullet facing towards the muzzle of the rifle. The magazine will not insert into the receiver if the magazine is reversed.
4. Now raise the bolt handle and pull the bolt fully to the rear of the receiver. Once the bolt has traveled fully to the rear of the receiver it can be pushed forward in a smooth and consistent motion to load the cartridge from the magazine into the chamber. When the bolt is fully forward press down on the bolt handle to fully close the bolt.
5. The rifle is now charged and ready to fire. If the rifle is not being used or ready to fire the safety shall remain on until ready to fire.
6. After the first cartridge has been fired raise the bolt handle and draw the bolt to the rear of the receiver in a smooth and consistent motion. This will extract and eject the fired case. Repeat steps 4, 5 and 6 to fire additional cartridges.

## **UNLOADING YOUR RIFLE**

1. Point the muzzle in a safe direction.
2. Keep your finger off the trigger.
3. Place the safety to the on position.
4. Remove the magazine.
5. Open the bolt and move it in the rear position.
6. Inspect the chamber to insure that there is not cartridge in the chamber.

## **REMOVING THE BOLT**

1. Confirm that the rifle is unloaded.
2. Open the bolt and pull it back until it reaches the rearmost position.
3. Pull and hold the trigger to the rear. Safety must be in the “fire” position
4. The bolt can now be pulled out of the receiver. *Figure 2*

*Figure 1*

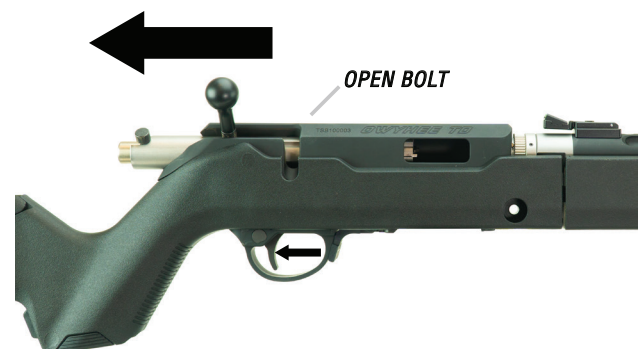
**BEHIND THE TRIGGER SAFETY**

**CLOSED BOLT**



**TRIGGER RELEASE**

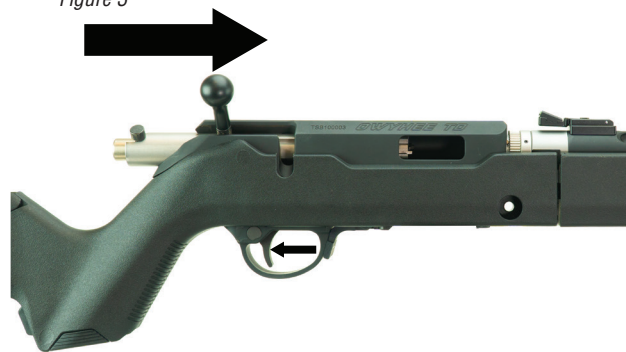
*Figure 2*



## INSERTING THE BOLT

1. Confirm that the rifle is unloaded.
2. Align the front of the bolt with the opening in the rear of the receiver.
3. Pull and hold the trigger to the rear. Safety must be in the “fire” position.
4. Push forward on the bolt until it stops in the forward position. *Figure 3*
5. Press down on the bolt handle to fully close the bolt.
6. Place the safety to the on position.

*Figure 3*



## BARREL REMOVAL

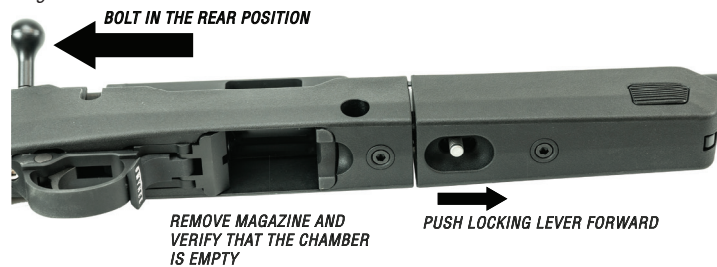
1. Point the muzzle in a safe direction.
2. Remove the magazine and open the bolt to the rear position.

*Figure 4*

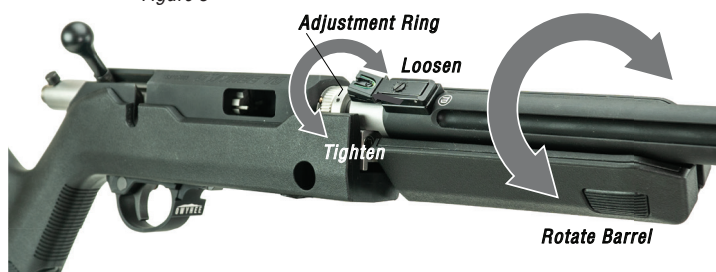
Once the magazine is removed verify the rifle is unloaded by visually inspecting the chamber. Note: if the bolt is not in the rear position, and the barrel is rotated, the extractor and breech face could be damaged

3. Push the locking lever forward towards the muzzle then rotate the barrel assembly counterclockwise. *Figure 5*
4. You can now pull the barrel assembly out of the receiver.

*Figure 4*



*Figure 5*



## BARREL INSTALLATION

1. Remove the magazine and open the bolt.
2. Slightly rotate the barrel assembly towards the left side of the rifle and insert the barrel shank into the receiver.
3. Rotate the barrel clockwise until it locks into place.
4. Tighten the adjustment ring by turning it counterclockwise until it is tight.
5. Your barrel is now installed.

## DISASSEMBLY

**Safety glasses are necessary to protect your eyes during this process.**

1. Starting with an unloaded rifle and the magazine removed (after following the aforementioned safety rules), turn the rifle upside down to expose the receiver screws. Turn both screws counterclockwise to remove them. Center the safety button, allowing it to clear the stock. Turn the rifle back upright, pivot the barrel slightly upwards, and raise the barreled action out from the stock. *Figure 6*
2. Follow the bolt removal process and remove the bolt.
3. Remove the barrel following the barrel removal process.
4. Gently tap out the two receiver pins with a 5/32” punch and remove the trigger group. *Figure 7*
5. The rifle is now ready for cleaning.

*Figure 6*



## CLEANING

1. Always make sure your gun is unloaded before any work is started.
2. A dirty .17 HMR® chamber can lead to difficult case extraction: we recommend cleaning your chamber and bore every 200 – 250 rounds.
3. With the rifle bolt and barrel removed from the receiver, start by wiping down the inside of the receiver with a clean shop rag and gun solvent. (Follow the manufacturer's instructions and warnings on any solvent or chemical that is used to clean your rifle.)
4. Once the receiver is clean, wipe down the bolt to remove any fouling. Then brush off the bolt face, making sure you get under the extractor. It is not necessary to disassemble the bolt for general cleaning.
5. To clean the trigger group use electrical contact cleaner to spray down the inside of the trigger group housing to remove any fouling and oil. Use compressed air to remove any residual fouling and oil as well as any remaining cleaner. Do not disassemble the trigger group for cleaning.
6. To clean the barrel you can either use a traditional cleaning rod and patch, or pull-through cleaning system to remove fouling from the chamber and barrel. With all rimfire rifles, it's important to clean any fouling from the chamber.
7. Wipe off any fouling on the barrel threads.
8. Wipe off any solvent used on the rifle parts before proceeding further.
9. Make sure to clean and lubricate the rifle after use or before storing for extended periods of time.

## LUBRICATION [Please reference the detailed Parts Diagram below]

**Using a firearms grease, lightly grease the following areas:**

1. Between the bolt and bolt carrier.
2. The underside of the cocking piece where the sear and cocking piece interface.
3. The underside of the bolt where the bolt travels over the sear.
4. The cam pin and cocking cam.

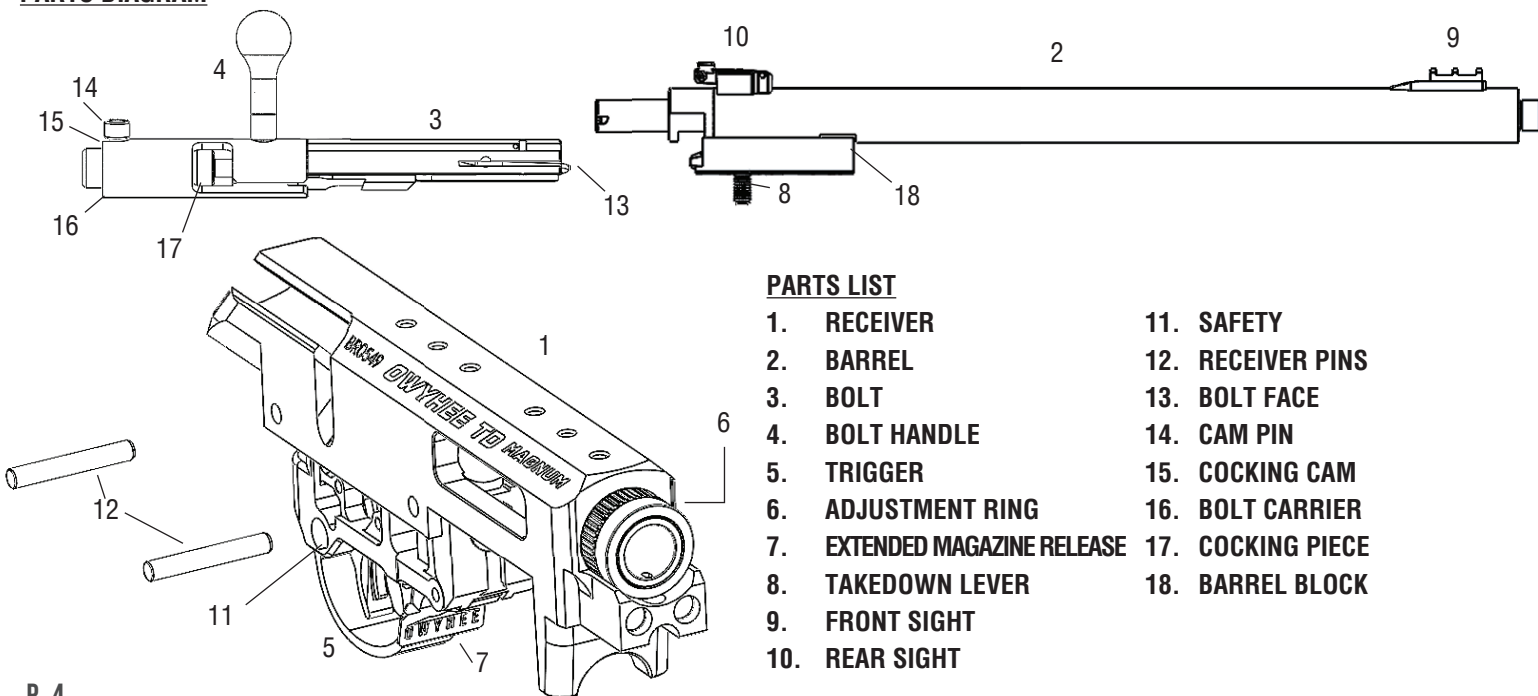
**Using a firearm oil, lightly lubricate the following areas:**

1. The exterior of the bolt and bolt carrier. *Take care not to get oil into the firing pin channel or extractor cutouts on the bolt.*
2. The bolt handle bushing.
3. The magazine release pivot points.
4. Trigger component pivot points.
5. Magazine release pivot pin.
6. Barrel locking block.

**Using a patch with gun oil on it, coat the bore with a very light coat of gun oil.** (Any oil or obstructions must be removed from the bore prior to shooting the rifle.)

Additionally, add a drop of oil into the takedown block, to lubricate the plunger assembly.

## PARTS DIAGRAM

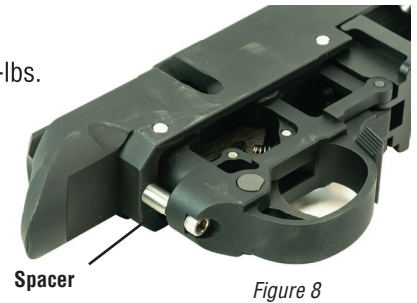
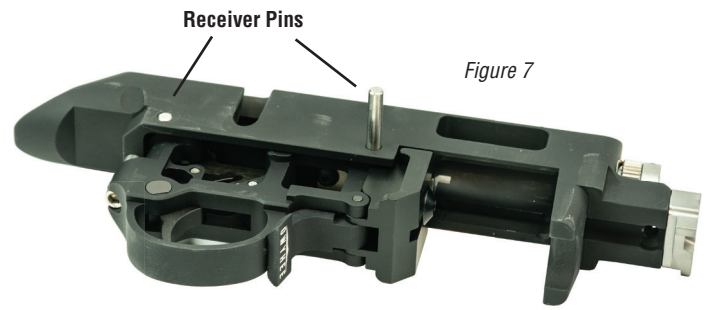


### PARTS LIST

- |                              |                   |
|------------------------------|-------------------|
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## **ASSEMBLY**

1. Align the trigger group with the receiver and insert the receiver pins.  
*Figure 7*
2. Install the barrel following the barrel installation instructions.
3. Insert the spacer between the trigger group and the bottom of the receiver. *Figure 8*
4. Push the trigger group's safety to the middle position.
5. Insert the rear of the receiver into the stock and pivot the barreled action down and rearward towards the stock. Make sure the receiver is completely seated in the stock before proceeding further.
6. Turn the rifle upside down and insert the 2 receiver screws. Tighten the receiver screws to 15 in-lbs.
7. Align the front of the bolt with the opening in the rear of the receiver.
8. Pull and hold the trigger to the rear. Safety must be in the "fire" position. Insert the bolt into the receiver.
9. Push forward on the bolt until it stops in the forward position.
10. Press down on the bolt handle to fully close the bolt.



## **SIGHT ADJUSTMENT** *Figure 9*

1. When adjusting the rear sight, move the sight in the direction you want the point of impact of the bullet to move. Use a screwdriver with a blade tip that exactly fits the screw-head of the sight screw you need to adjust.
2. Elevation can be adjust up or down by turning the elevation screw in or out.
3. Windage or lateral adjustment of the sight is accomplished by loosening the windage set screw and turning the windage screw to move the sight into the desired position.  
Retighten the windage set screw once the sight is in the desired position.



## **SCOPE BASE INSTALLATION**

1. Place a drop of thread locker on the scope base screws.
2. Place TacSol's Owyhee scope base onto the top of the receiver aligning the base holes with the holes on the receiver.
3. Insert the scope base screws into the threaded scope base holes.
4. Tighten the scope base screws to 18 in-lbs.

## **FIREARM SAFETY RULES**

The following rules must be used by gun users at all times. Safe gun handling is absolutely essential to your safety, the safety of others, and the continuation of gun ownership and sport shooting!

1. Learn the mechanics and handling uses of the firearm you are using.
2. Always keep the muzzle pointed in a safe direction.
3. Firearms should be unloaded when not in use.
4. Be sure the barrel is clear of any objects, mud, snow or excess grease or lubricant.
5. Wear shooting glasses and hearing protection when shooting or when around other people that are shooting.
6. Never climb a tree or fence when holding a firearm.
7. Do not shoot at a hard surface or at water.
8. Never transport a loaded firearm.
9. Do not consume alcohol when shooting.

### **STATE BY STATE FIREARM WARNINGS - IT IS THE USER'S RESPONSIBILITY TO KNOW AND ABIDE BY THEIR STATE'S FIREARM WARNINGS**

**CALIFORNIA:** "Children are attracted to and can operate firearms that can cause severe injuries or death. Prevent child access by always keeping guns locked away and unloaded when not in use. If you keep a loaded firearm where a child obtains and improperly uses it, you can be fined and sent to prison!" **ADVERTENCIA** "A los niños los atraen las armas de fuego y las pueden hacer funcionar. Ellos pueden causarse lesiones graves y la muerte. Evite que los niños tengan acceso a las armas de fuego guardándolas siempre con no las esté utilizando. Si usted tiene un arma de fuego cargada en un lugar en que un niño tiene acceso a ella y la usa indebidamente, le pueden dar una multa o enviarlo a la cárcel." **CONNECTICUT:** "Unlawful storage of a loaded firearm may result in imprisonment or fine." **FLORIDA:** It is unlawful, and punishable by imprisonment and fine, for any adult to store or leave a firearm in any place within the reach or easy access of a minor under 18 years of age or to knowingly sell or otherwise transfer ownership or possession of a firearm to a minor or a person of unsound mind." **MAINE:** Endangering the welfare of a child is a crime. If you leave a firearm and ammunition within easy access of a child, you may be subject to a fine, imprisonment or both. Keep firearms and ammunition separate. Keep firearms and ammunition locked up. Use trigger locks! **MARYLAND:** "WARNING: Children can operate firearms which can cause death or serious injury. It is a CRIME to store or leave a loaded firearm in any location where an individual knew or should have known that an unsupervised minor would gain access to the firearm. Store your firearms responsibly!" **MASSACHUSETTS:** "WARNING FROM THE MASSACHUSETTS ATTORNEY GENERAL: This Handgun is not equipped with a device that fully blocks use by unauthorized users. More than 200,000 firearms like this one are stolen from their owners every year in the United States. In addition, there are more than a thousand suicides each year by younger children and teenagers who get access to firearms. Hundreds more die from accidental discharge. It is likely that many more children sustain serious wounds, or inflict such wounds accidentally on others. In order to limit the chance of such misuse, it is imperative that you keep this weapon locked in a secure place and take other steps necessary to limit the possibility of theft or accident. Failure to take reasonable preventive steps may result in innocent lives being lost, and in some circumstances may result in your liability for these deaths." "It is unlawful to store or keep a firearm, rifle, shotgun or machine gun in any place unless that weapon is equipped with a tamper-resistant safety device or is stored or kept in a securely locked container!" **NEW JERSEY:** "It is a criminal offense to leave a loaded firearm within easy access of a minor." **NORTH CAROLINA:** "It is unlawful to store or leave a firearm that can be discharged in a manner that a reasonable person should know is accessible to a minor." **TEXAS:** "It is unlawful to store, transport, or abandon an unsecured firearm in a place where children are likely to be and can obtain access to the firearm." **WISCONSIN:** "If you leave a loaded firearm within the reach or easy access of a child you may be fined or imprisoned or both if the child improperly discharges, possesses, or exhibits the firearm." Please check with your licensed retailer or state police for additional warnings which may be required by local law or regulation. Such regulations change constantly, and local authorities are in the best position to advise you on such legal matters

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