



byrna[®]

Technologies Inc.

LIVE SAFE[™]

BYRNA[®] TCR[®]



READ MANUAL IN ITS ENTIRETY BEFORE STORING OR USING YOUR DEVICE



REV 01.25.2022

TABLE OF CONTENTS

REGULATION AND PERMITTED USE	3
DISCLAIMER AND ASSUMPTION OF LIABILITY	3
USING YOUR TCR SAFELY	4
IMPORTANT SAFETY CONSIDERATIONS	5
GET TO KNOW YOUR TCR	6
SAFETY OPERATION	7
BARREL BLOCKING DEVICE INSTALLATION	8
INSTALLING CO₂ CARTRIDGE	8-9
REMOVING AN UNUSED CO₂ CARTRIDGE (NON-PUNCTURED)	10
REMOVING A USED CO₂ CARTRIDGE (PUNCTURED)	10
ADJUSTING THE BYRNA TCR FOR CO₂ CARTRIDGES	11
RELEASE PRESSURE FROM A LAUNCHER THAT WILL NOT FIRE	11
BYRNA PROJECTILES	12-13
REMOVING THE MAGAZINE AND LOADING	14
UNLOADING THE MAGAZINE	15
MAGAZINE DISASSEMBLY, REASSEMBLY AND TESTING	15-17
MAGAZINE INSTALLATION	18
BUTTSTOCK AND CHEEK REST ADJUSTMENT	18
FLIP-UP SIGHTS	19
VELOCITY SET POINT	19
LAUNCHER STORAGE	20
LAUNCHING PROJECTILES	20
TIPS FOR USING YOUR BYRNA TCR	21
TRAVELING WITH YOUR BYRNA TCR	22
MAINTENANCE & CLEANING	22-23
TROUBLESHOOTING	23-26
FIRST AID	27-28
WARRANTY	29-30
SERVICE NOTES	31-32

The Byrna TCR (Tactical Compact Rifle) launcher is a less-lethal self defense and personal security device. Byrna chemical irritant projectiles cause an immediate burning sensation in the attacker's eyes and respiratory system (hence the name "bur-nah") incapacitating an attacker. Byrna Kinetic projectiles can be used for self-defense and training.

REGULATION AND PERMITTED USE

The Byrna TCR is not a “firearm” under federal law. States and municipalities may regulate possession and use of the Byrna TCR launcher and Byrna projectiles, including its transportation in a vehicle, use by certain categories of persons, and use in certain venues. The use of chemical irritant projectiles for any reason other than self-defense is a crime. Possession of compressed CO₂ cartridges is regulated in certain venues, including airports. Always check applicable laws and regulations before transporting or using your Byrna TCR launcher.

THE USER ASSUMES ALL RESPONSIBILITY FOR ANY UNSAFE, IMPROPER, OR UNLAWFUL POSSESSION OR USE.

DISCLAIMER AND ASSUMPTION OF LIABILITY

Misuse of the Byrna TCR may cause serious injury or death and subject the user to criminal and civil liability. Byrna Technologies Inc. (“Byrna”) will not be liable for any injury, loss of life, or property damage resulting from the use of the Byrna TCR, whether resulting from its intentional, reckless, negligent, or accidental discharge.

SEEK LEGAL ADVICE OR ASK YOUR LOCAL POLICE DEPARTMENT IF YOU ARE UNSURE OF THE APPLICATION OF ANY LAW OR REGULATION. IF YOU ARE NOT WILLING TO ASSUME THIS LIABILITY DO NOT USE THIS DEVICE.



WARNING

May cause serious injury or death. The Byrna TCR personal security device is not a toy. Keep out of the reach of children. Byrna chemical irritant projectiles are filled with a powerful chemical irritant intended to provide a non-lethal option for self-defense and personal security where and in the manner permitted by applicable law. Keep safety on when not in use. Take all reasonable precautions you would take with a firearm to prevent unintentional injury to person or property.

PLEASE FAMILIARIZE YOURSELF WITH ALL STATE AND LOCAL LAWS RELATED TO AIR POWERED GUNS AND PEPPER OR TEAR GAS SPRAYS AND READ THIS MANUAL IN ITS ENTIRETY BEFORE USE OR STORAGE. CONTENTS ARE DANGEROUS. USE WITH CARE.

USING YOUR BYRNA TCR SAFELY

- Make sure you fully understand how the Byrna TCR functions before use.
- Careless use may result in serious injury or death. The Byrna TCR should not be used by anyone under the legal age or under the influence of drugs or alcohol.
- The Byrna TCR launcher is not a toy and should never be left without the safety on or within the reach of children.
- Never point a Byrna TCR launcher at any person or animal except in self defense.
- Never point a Byrna TCR launcher at anyone or anything you do not intend to shoot.
- Discharging a projectile to impact the head, neck, or spine may cause serious or permanent injury (including death).
- Byrna chemical irritant projectiles contain one or more of the following: oleoresin capsicum (OC), nonivamide (Capsaicin II / PAVA), ortho-chlorobenzalmalonitrile (CS / Tear Gas). These agents cause skin, eye, and respiratory irritation. Handle with care!
- Protective eye-wear should be worn when possible by the operator of the Byrna TCR and by all persons in or near the target area. Precautions should be taken to ensure that projectiles don't leave the target area and don't endanger any nearby person, animal, or property, including on adjoining lots and in any public walkway or road.
- Operational temperature range is from 20°F to 120°F. Do not leave the CO₂ cartridge, or a Byrna TCR launcher with a CO₂ cartridge installed, in temperatures below 20°F or over 120°F.
- Do not attempt any repair of your Byrna TCR. In case of malfunctions contact the Byrna customer service department, or visit www.byrna.com/service for assistance.
- This device may contain chemicals known to the state of California to cause cancer and birth defects, or other reproductive harm.
- Never rely on the launcher's mechanical safety to prevent an accidental discharge. A mechanical device can fail, so following safe handling rules and procedures is critical to avoiding accidents.

IMPORTANT SAFETY CONSIDERATIONS

- In the event of exposure to contents of chemical irritant projectiles, seek medical attention immediately. See First Aid section on pg. 26-27 of this manual for more information.
- Where possible avoid deploying chemical irritant projectiles in areas of intended egress.
- No product is 100% effective. The effects of Byrna chemical irritant projectiles may vary from person to person.
- In the event you must discharge your Byrna TCR in self-defense, get out of harm's way as quickly as possible.
- Store device in a secure, dry location.
- Be mindful that kinetic projectiles may rebound or change course on impact with hard surfaces.
- Be mindful of persons behind or around your intended target.
- Treat every Byrna TCR as if it were loaded and do not rely completely on the trigger safety. Never look into the barrel of a Byrna TCR.
- Keep your finger off the trigger until ready to shoot. Keep the trigger safety in SAFE mode until ready to shoot.
- Do not use the Byrna TCR with projectiles or CO₂ cartridges sold by any other company. They may not work properly, may damage your Byrna TCR, or may become permanently lodged in your Byrna TCR. Improper use in conjunction with non-Byrna products may void your warranty.
- Never use N₂ cartridges with your Byrna TCR. The Byrna TCR should only be used with Byrna CO₂ cartridges. Other gas cartridges may explode causing serious injury or death, as well as damage your launcher and void your warranty.
- Always remove projectiles and CO₂ before attempting any troubleshooting.
- Byrna chemical irritant projectiles contain micro-pulverized chemical agents designed to travel in the air upon impact. Wind conditions will affect performance.
- Discharge of the device, even without a projectile can cause serious injury, especially at close range. Never discharge a Byrna at someone's head even if empty.

GET TO KNOW YOUR BYRNA TCR

FAMILIARIZE YOURSELF WITH THE CONTROLS AND FEATURES OF THE DEVICE.

GETTING STARTED

- Do not pressurize a partially assembled launcher.
- Do not disassemble this launcher while it is pressurized.
- Read each step completely before performing the instruction.
- Review the image below to familiarize yourself with the location of features.

NOTE: Carefully tighten all threaded parts when assembling, and do not over-tighten, as this may potentially strip the threaded parts.



SAFETY OPERATION

WARNING

Never rely on the launcher's mechanical safety to prevent an accidental discharge. A mechanical device can fail, so following safe handling rules and procedures is critical to avoiding accidents.

Except when your Byrna TCR is in use, always make sure that the Trigger Safety is in Safe mode.

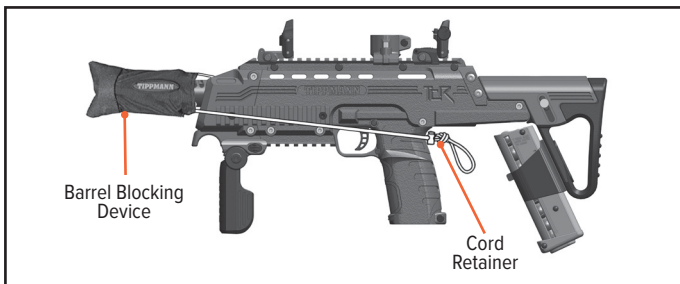


TO PUT INTO SAFE MODE: Push in the trigger safety button (where indicated by the arrow) as shown above.

TO GO TO FIRE MODE: Push in the trigger safety button from the opposite side of the receiver.

WARNING

Always keep the barrel blocking device installed except when your launcher is in use. Always make sure that the Trigger Safety is in the Safe mode and the barrel blocking device is properly installed on your launcher according to the instructions to prevent damage to property, serious injury, or death.



BARREL BLOCKING DEVICE INSTALLATION

- A. Place the barrel blocking device onto the barrel and loop the cord under the grip, and position at the back of the grip as shown.
- B. Push in the button of the cord retainer and pull the cord through it until the retainer is snug against the back of the grip. Release the cord retainer button. Keeping the cord as tight as possible, leave just enough cord elasticity to pull the cord retainer from the launcher to remove the Barrel Blocking Device for firing.
- C. After the cord length is properly adjusted, lock the cord length by tying a knot in the cord against the back of the retainer as shown.
- D. Before and after use, inspect the barrel blocking device. Replace the barrel blocking device if the device or cord is damaged, or there is a loss of cord elasticity.
- E. Clean the barrel blocking device with plain, warm water and store out of sunlight in a dry area when not in use.

INSTALLING CO₂ CARTRIDGE



WARNING: CO₂ CARTRIDGE SAFETY

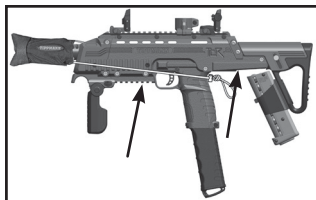
- When the CO₂ pressure falls below a certain pressure the Byrna TCR will cease firing or may begin to sputter. If the Byrna TCR is exposed to an increase in temperature, the pressure may increase enough for the launcher to be able to regain the ability to fire.
- Use only Byrna authorized 12g CO₂ cartridges in this device.
- Improper use, storage, or disposal of CO₂ cartridges may result in property damage, serious personal injury or death.
- Do not modify CO₂ cartridges in any way.
- Do not expose pressurized CO₂ cartridges to temperatures exceeding 120°F.
- Any CO₂ cartridge that has been exposed to fire or heated to a temperature of 120°F or more must be disposed of.
- Keep all CO₂ cartridges out of the reach of children.
- Keep exposed skin away from escaping gas when installing or removing the CO₂ cartridge, or if the launcher or CO₂ cartridges is leaking. Compressed CO₂ gas is very cold and can cause frostbite under certain conditions.

- A. Put the Safety in Safe mode (page 7) and install the barrel blocking device (page 8).
- B. Open the left side Picatinny Rail/CO₂ Access Door as shown.
- C. If applicable, tip the muzzle end of the Barrel downward to allow an existing CO₂ cartridge to clear the opening.
- D. If applicable, tilt the launcher to the left and raise the muzzle upwards. An existing CO₂ cartridge will fall from the launcher.
- E. Clean the small end of a full 12-gram CO₂ cartridge. Tip the muzzle downward and insert a new cartridge into the launcher oriented as shown by the arrow at right.
- F. Close the left side CO₂ Access Door to the launcher.



WARNING

Keep exposed skin away from gas escape points (arrows) when installing or removing a CO₂ cartridge, or if the launcher is leaking. Compressed CO₂ gas is very cold and can cause frostbite under certain conditions.



Note: The CO₂ cartridge is NOT punctured during installation. After you move the trigger safety to Fire mode, the first pull of the Trigger punctures the CO₂ cartridge without firing. You can hear the CO₂ cartridge pressurize the launcher. Your launcher is now ready to fire on the next Trigger pull.

IMPORTANT: If your launcher begins to leak gas, keep exposed skin away from the escaping gas (the arrows in the WARNING illustration above show gas escape points) and follow CO₂ Cartridge Removal instructions on page 10 and then go to Troubleshooting on pages 23-26.

Follow the CO₂ Cartridge Removal instructions on page 10 and contact the Byrna customer service department, or visit www.byrna.com/service for assistance.

REMOVING AN UNUSED CO₂ CARTRIDGE (NON-PUNCTURED)

If you installed a new CO₂ cartridge, but have not yet pulled the trigger once to puncture the cartridge, and decide you do not want the cartridge in the launcher, do the following:

- A. Eye protection must be worn by the user and any person within range. Always keep the Byrna TCR muzzle pointed away from you.
- B. Open the Picatinny Rail/CO₂ Access Door as shown on page 9.
- C. Tip the muzzle end of the Barrel downward to allow an existing non-punctured
- D. Tilt the launcher to the left so the CO₂ Access Door is downward and raise the muzzle upwards. The existing CO₂ cartridge will fall from the launcher. You may need to assist with removing the CO₂ cartridge by pulling it out of the launcher.
- E. Close the Picatinny Rail/CO₂ Access Door.

REMOVING A USED CO₂ CARTRIDGE

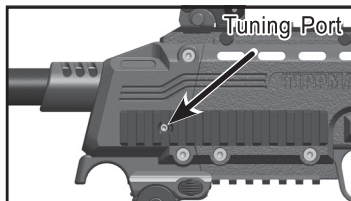
WARNING

- Even when there is insufficient CO₂ remaining in a cartridge to fire a projectile, your Byrna TCR will remain under pressure.
 - A punctured CO₂ cartridge must be emptied before it is removed.
- A. Eye protection must be worn by the user and any person within range. Always keep the Byrna TCR muzzle pointed away from you. Read CO₂ Cartridge Safety Warnings on page 8 before beginning the CO₂ cartridge removal process.
 - B. Point the launcher in a safe direction and fire until there is no CO₂ left in the cartridge. NOTE: If you have a punctured cartridge in your launcher and the launcher will not fire, follow the instructions on page 11, Release Pressure From a Launcher That Will Not Fire.
 - C. Open the Picatinny Rail/CO₂ Access Door as shown on page 9.
 - D. Tip the muzzle end of the Barrel downward to allow an existing punctured, empty CO₂ cartridge to clear the opening.
 - E. Tilt the launcher to the left so the CO₂ Access Door is downward and raise the muzzle upwards. The existing CO₂ cartridge will fall from the launcher. You may need to assist with removing the CO₂ cartridge by pulling it out of the launcher.
 - F. Close the Picatinny Rail/CO₂ Access Door.

ADJUSTING THE BYRNA TCR FOR CO₂ CARTRIDGES

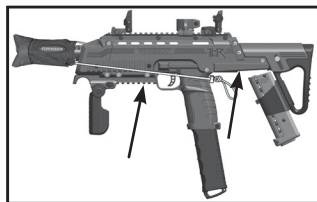
CO₂ cartridge lengths vary from brand to brand. The Byrna TCR is easily tuned to puncture a variety of cartridge brands. This adjustment also prevents CO₂ cartridge leaks in the puncture valve assembly.

- A. If the CO₂ cartridge is not punctured or is leaking, turn a 3/32" hex key clockwise in the tuning port to move the CO₂ cartridge closer to the puncture pin and increase the cartridge sealing pressure.
- B. To prevent a CO₂ cartridge from being punctured during installation, turn a 3/32" hex key counterclockwise to move the cartridge away from the puncture pin.



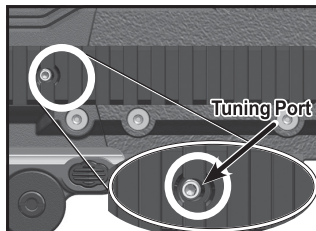
RELEASE PRESSURE FROM A LAUNCHER THAT WILL NOT FIRE

! WARNING Keep exposed skin away from gas escape points (arrows) when installing or removing a CO₂ cartridge, or if the launcher is leaking. Compressed CO₂ gas is very cold and can cause frostbite under certain conditions.



Only use this procedure if launcher will not fire and the CO₂ cartridge has been punctured. Put the trigger safety in Safe mode (see page 7) and install the barrel blocking device (see page 8).

Back out the CO₂ cartridge adjustment screw in the Tuning Port to empty CO₂ from the cartridge. Keep exposed skin away from escaping gas as it rushes out at the CO₂ release points (arrows in previous warning). Remove and dispose of the CO₂ cartridge. You will need to readjust the puncture setting for the next CO₂ cartridge (see instructions above).



BYRNA PROJECTILES

Make sure you understand the different types of projectiles and steps to be taken in the event of exposure before loading your Byrna TCR

Byrna chemical irritant projectiles contain one or more of the following in micro-pulverized form: oleoresin capsicum (OC), nonivamide (Capsaicin II/PAVA), ortho-chlorobenzalmalonitrile (CS / Tear Gas). They are designed to travel in the air and burst upon impact. Wind conditions will affect performance.

HANDLE WITH CARE!



WARNING



HARMFUL IF INHALED • CAUSES EYE IRRITATION • MAY CAUSE ALLERGIC SKIN REACTION

SUSPECTED OF CAUSING CANCER • MAY CAUSE RESPIRATORY IRRITATION

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Avoid breathing dust. Wash thoroughly after handling. Training with inert projectiles should be conducted outdoors or in a well-ventilated area. When cleaning an area contaminated with chemical irritant projectiles wear protective gloves, clothing, and eye-wear, and remove and contain contaminated clothing before leaving clean up area. If on skin: wash with plenty of soap and water.

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

IF EXPOSED OR CONCERNED: Get medical advice/attention. Call a poison center/doctor if you feel unwell. If skin irritation or rash occurs: Get medical advice/attention. If eye irritation persists: Get medical advice/attention. Wash contaminated clothing before reuse. Store in a well ventilated place. Keep container tightly closed. Store locked up. Dispose of contents/container in accordance with local/regional/national/international regulations.

Kinetic projectiles may rebound or change direction on impact. Protective eye-wear should always be worn by all persons in the area, and precautions should be taken to ensure that projectiles don't leave the target area when training or endanger any nearby person, animal, or property, including on adjoining lots and in any public walkway or road.



BYRNA MAX PROJECTILES

Byrna Max Projectiles contain one or more of OC, CS and PAVA chemicals.



BYRNA PEPPER PROJECTILES

Byrna Pepper Projectiles contains OC or PAVA or both chemicals.



BYRNA INERT PROJECTILES

Byrna Inert Projectiles do not contain any active ingredients.



BYRNA KINETIC PROJECTILES

Byrna Kinetic Projectiles are manufactured from hard plastic and do not contain any active or inert ingredients.



BYRNA ECO-KINETIC PROJECTILES

Byrna Eco-kinetic Projectiles are manufactured to be eco-friendly and do not contain any active ingredients. **These projectiles should be kept in the container until use and should not be stored in a magazine or launcher as they are designed to degrade.**

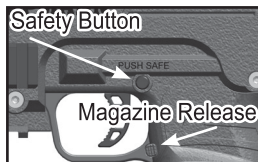
Store projectiles in a cool, dry place. The active ingredients in Byrna chemical irritant projectiles will maintain potency for 5 years. However the dispersion of the contents may be affected over time by exposure to external conditions. Based on data to date optimal dispersion shelf life is at least 18 months from package date.

REMOVING THE MAGAZINE AND LOADING

The Byrna TCR comes with both a seven and a twelve projectile Magazine.

MAGAZINE REMOVAL

The barrel blocking device must be installed (see page 8) and the trigger Magazine Release safety in Safe mode (see arrow below or see page 7).



To remove the Magazine, push in the Magazine Release button and the Magazine ejects out the bottom of the grip. You may need to pull down on the Magazine to remove it from the launcher.

NOTE: When removing the Magazine, two loose projectiles may drop from the grip. If desired, you can reload these loose projectiles back into the Magazine.

MAGAZINE LOADING

A. Eye protection must be worn by the user and any person within range.

B. For the 7 projectile magazine, use tabs on the side of the Projectile Carrier to pull it down until it locks into place at the bottom of the Magazine.

C. Keep the Magazine vertical as shown and insert one projectile at a time into the top of the Magazine until full. Projectiles in the 7 projectile Magazine are not under spring pressure until the Magazine is inserted into the launcher.

D. For the 12 projectile magazine, simply insert one projectile at a time into the top of the Magazine until full. When full, the 12 projectile magazine will lock down the Carrier at the bottom of the magazine so that the projectiles are not under spring pressure until the Magazine is inserted into the launcher.

E. To insert a loaded Magazine into the launcher, slide the Magazine into the grip until you hear it click and lock into place.



UNLOADING THE MAGAZINE

MAGAZINE UNLOADING

- A. Eye protection must be worn by the user and any person within range.
 - B. Remove the Magazine from the Byrna TCR launcher. When removing the Magazine, two loose projectiles might drop from the grip. Look up inside the grip to inspect the breech chamber for a projectile. Point the launcher in a safe direction and pull the trigger (dry fire) to clear the launcher of any remaining projectiles. Put the trigger safety in Safe mode (see page 7) and install the barrel blocking device (see page 8).
 - C. If desired, you can reload the loose projectiles back into the Magazine.
 - D. To remove all projectiles from the Magazine, press down on the top of the Carrier Release Armature with a flat object, and any remaining projectiles are pushed out the top of the Magazine. Catch any ejecting projectiles in your hand as they will be rapidly ejected from the Magazine.
-

MAGAZINE DISASSEMBLY, REASSEMBLY, AND TESTING

Read these instructions completely before attempting Magazine disassembly or reassembly. These instructions show the 7 projectile magazine, but also apply to the 12 projectile magazine. Some of the 12 projectile magazine parts are just longer than those for the 7 projectile magazine. Refer to the exploded view on page 17 for these instructions.

MAGAZINE DISASSEMBLY

- A. Eye protection must be worn by the user and any person within range.
- B. Set the Magazine on a workbench with the Left Shell side (7 projectile) facing up or the Right Shell side (12 projectile) facing up. If desired, you can reload the loose projectiles back into the Magazine.
- C. Remove four (7 projectile) or six (12 projectile) #4 x 5/8" Screws.
- D. Gently disengage the top latch (arrow in illustration on page 17), then separate both halves of the Magazine.
- E. Remove and clean the internal parts as necessary.

NOTE: If you clean the (7 projectile) Carrier Spring with water, prevent rusting by thoroughly drying it and applying a light coating of oil before reassembly.

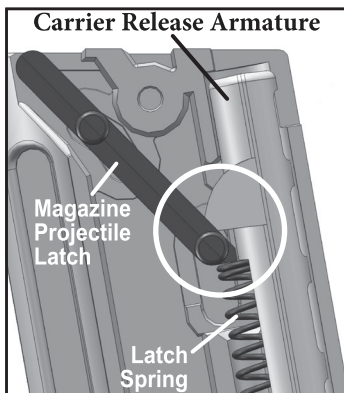
MAGAZINE REASSEMBLY

1. Place the Carrier Release Lever Spring into the Right Shell.
2. Properly orient the Carrier Release Lever onto the Carrier Release Lever Spring in the Right Shell. If desired, you can reload the loose projectiles back into the Magazine.
3. Place the Magazine Projectile Latch and Carrier Release Armature into the Right Shell.

4. Set the Latch Spring between the Magazine Projectile Latch and the Carrier Release Armature. The Latch Spring sets in a pocket formed by the two parts inside the Right Shell.

5. Confirm that the Magazine Projectile Latch and Carrier Release Armature are oriented as shown in the circled area at right. The flat surfaces of the Magazine Projectile Latch and the Carrier Release Armature fit together and must align correctly for the Magazine to operate properly.

6. Place the Carrier Spring into the Right Shell.



7. Install the Left Shell onto the Right Shell, but do not fully press the two pieces together. Be sure the internal parts stay in their locations while putting the two shell halves together. The top latch (see arrow on next page) of the Right Shell does not engage at this time.

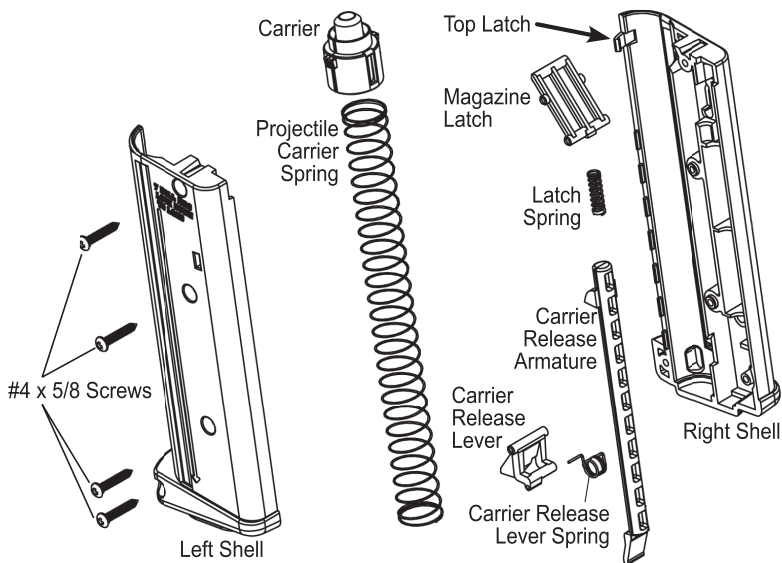
8. Install the bottom #4 x 5/8 Screw. Tighten it until snug.

9. Place the Carrier onto the Projectile Carrier Spring (aligning the two tabs on the Carrier with the slots in the Left Shell and Right Shell) and slide down into the top of the assembled shell halves. Push down on the Carrier until it snaps into place inside the Magazine. Note that the 12 projectile Carrier has a flat side that goes against the Magazine Projectile Latch.

10. Push the top of the Magazine together so the Top Latch engages (see arrow on next page).

11. Install the remaining #4 x 5/8 Screws. Tighten them until they are snug.

MAGAZINE DIAGRAM



MAGAZINE TESTING

- A. Push down the Carrier. Make sure the Carrier moves freely.
- B. While holding down the Carrier, push down on the Carrier Release Armature and ensure that the Magazine Latch moves freely.
- C. Push down the Carrier all the way to the bottom of the Magazine until it locks into place.
- D. Place a finger inside the top of the Magazine, then press down on the Carrier Release Armature to release the Carrier. Releasing the Carrier without a finger to stop it may result in the Carrier assembly breaking.
- E. Magazine testing is complete.

MAGAZINE INSTALLATION

INSTALLING THE MAGAZINE



WARNING

Make sure the Byrna TCR launcher is in the SAFE mode before installing a magazine.

- Align the top of the magazine with the magazine well, make sure the base of the magazine is facing the ground.
- Firmly insert the magazine into the magazine well of the launcher, pushing upward until you hear a click and the magazine locks in place.

NOTE: Do not install a full magazine when a projectile remains in the barrel, as this will cause your launcher to jam.

BUTTSTOCK AND CHEEK REST ADJUSTMENT



WARNING

Before adjusting the buttstock or cheek rest, verify that the barrel blocking device is installed and the trigger safety is in Safe mode. Always keep the Byrna TCR muzzle pointed in a safe direction and away from you.

BUTTSTOCK ADJUSTMENT

The Byrna TCR has a six-position adjustable buttstock to adjust the length of pull of the launcher to fit any user.

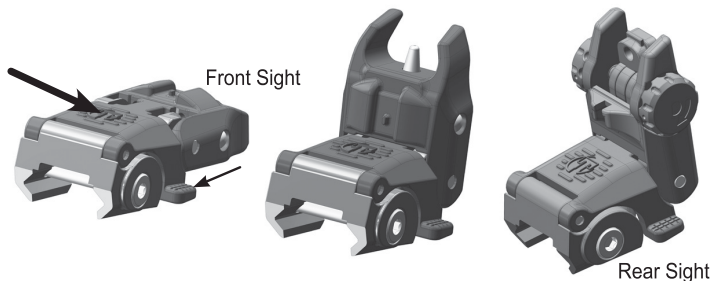
- To adjust the length of pull, firmly grip the launcher with one hand and depress the large black Buttstock Adjustment Button at the rear of the buttstock with your thumb on the opposing hand.
- While the Buttstock Adjustment Button is depressed, firmly pull outward or push inward on the rear of the buttstock until the buttstock slides to the desired position and locks into place.
- Push on the rear of buttstock to verify that buttstock is locked into place.

CHEEK REST ADJUSTMENT

- Loosen the Cheek Rest adjustment knob by turning it counterclockwise.
- Pull the Cheek Rest up or push it down to raise or lower to the desired height.
- To set the Cheek Rest height, tighten the Cheek Rest adjustment knob by turning it clockwise, **do not over tighten**.

FLIP-UP SIGHTS

The Front Flip-Up Sight and the Rear Flip-Up Sight can be in two positions. When flat against the Picatinny Rail, you can press the “T” (large arrow) or press the two tabs located on the sides of the sight (small arrow) to make them flip up for use.



VELOCITY SET POINT

The Byrna TCR launcher's velocity is pre-set at the factory to approximately 300 feet per second. This is the recommended velocity for this launcher. If you wish to adjust the velocity of your Byrna TCR, you are doing so against the manufacturer's recommendation.

Byrna shall not be held liable for any damages arising out of the increase in velocity above the factory settings of 300 feet per second.



! **WARNING** This launcher has a self-adjusting Regulator Pressure Relief Valve that vents excessive CO₂ pressure that could damage your launcher. It vents excessive gas pressure out the access point.

LAUNCHER STORAGE

Ensure the trigger safety is in Safe mode (see page 7), and the barrel blocking device is installed (see page 8). Always unload your launcher and remove the CO₂ cartridge (page 10) when not using your launcher. Store your launcher in a dry area. Before storing your launcher, make sure that the launcher is cleaned and lubricated so that it does not rust.

When removing your launcher out of storage, make sure that the trigger safety is in Safe mode and keep the barrel blocking device installed (see page 8).

SPARE MAGAZINE STORAGE

The Byrna TCR has a spare magazine holder attached to the launcher's buttstock. The spare magazine holder will fit both the seven round and the twelve round magazine.

To use the spare magazine holder, grip the launcher with one hand and with the other hand depress the spare magazine retention tab and pull down on the lower half of the magazine to remove it from the holder

LAUNCHING PROJECTILES

Carefully read and understand all warnings and instructions before attempting to operate the device.

1. Eye protection must be worn by the user and any person within range.
2. Point the launcher in a safe direction.
3. Remove the barrel blocking device from the launcher.
4. Move the trigger safety from Safe mode to Fire Mode
5. Firmly pull the trigger all the way back to fire the launcher. Each pull of the Trigger fires one projectile.

NOTE: NOTE: If your launcher does not fire after you have successfully loaded and punctured your CO₂ cartridge, put the trigger safety into Safe mode, install the barrel blocking device, and go to the Troubleshooting section.

OPERATIONAL REVIEW

1. Place the device into SAFE mode (see page 7). Point the launcher in a safe direction.
2. Install a CO₂ cartridge (see page 8).
3. Load the magazines with the desired type and number of projectiles (see page 14).
4. Insert the magazine into the launcher (see page 18).
5. Point device at the intended target.
6. While pointed at intended target place launcher in FIRE mode (see page 7).
7. Pull trigger firmly to fire a projectile.
8. After using your launcher be sure to return it to safe mode before removing CO₂ cartridge, changing magazine, or storing.

TIPS FOR USING YOUR BYRNA TCR

1. A proper hold helps optimize reliability, accuracy, and comfort.
2. Only the first joint of your trigger-finger should be inserted into the trigger guard to fire; positioning the pad of your finger on the center of the trigger.
3. Do not put your finger on the trigger until the launcher is aimed at your intended target and you are ready to shoot.



TRAVELING WITH YOUR BYRNA TCR

The Byrna TCR is a gas-powered personal security device and is not regulated as a firearm under federal law but may be subject to state and local regulations related to use and carry. Always check your local laws before carrying a Byrna TCR outside of your home.

AIRLINE TRAVEL: While the Byrna TCR is not considered a firearm under United States federal law, it may be considered a firearm, or its possession may be otherwise prohibited in other countries. When traveling domestically with your Byrna TCR always check local regulation of gas-powered “air guns” at your points of departure and arrival as well as individual airline regulations. If you are traveling with chemical irritant projectiles also check local laws on tear gas weapons and pepper sprays. The Byrna TCR may not be carried on your person through airport security checkpoints, nor may it be packed in “carry-on” baggage. Subject to local law and individual airline regulations the Byrna TCR may be transported, unloaded, in checked baggage. A locked box may be required in some jurisdictions.

CO₂ CARTRIDGES: Never leave a CO₂ cartridge, punctured or unpunctured, in your Byrna TCR when you travel. FAA regulations permit up to four (4) cartridges/cylinders (less than 28 g each) containing nonflammable gas, but individual airlines and the TSA may further regulate or restrict. Always check current rules before traveling as laws may change.

TRANSPORTING YOUR BYRNA TCR IN A MOTOR VEHICLE: Some state and local laws regulate the transportation of gas-powered “air guns” and self-defense projectiles in motor vehicles. Always check local regulations in areas you intend to drive.

MAINTENANCE AND CLEANING

Basic maintenance should be performed every 500 shots, or as needed. The Byrna TCR features a 2-year limited factory warranty that may be voided if unauthorized service is attempted, the device is modified, or used with unauthorized projectiles or unauthorized gas cartridges. For factory service please contact Byrna Customer Service at info@byrna.com or visit www.byrna.com/service to obtain a return authorization number prior to shipping your device.

 **WARNING** Always remove CO₂ cartridge and magazine and clear breach before performing any maintenance.

LAUNCHER MAINTENANCE

- To reduce the chance of an accidental discharge, follow the CO₂ Cartridge Removal instructions (on page 10) before performing maintenance on your launcher.
- Eye protection must be worn.
- Do not disassemble the launcher, especially while it is pressurized.
- Do not pressurize a partially assembled launcher.
- Familiarize yourself with instructions and follow the warnings on CO₂ cartridge and/or CO₂ cartridge packaging for use, handling, storage, and disposal.
- Contact the CO₂ cartridge manufacturer with any questions.
- Petroleum based lubricants and aerosol products can damage the launcher's O-rings. Do not use any petroleum-based lubricants or cleaning solvents. Do not use any cleaning solvents that come in aerosol cans.

CLEANING YOUR LAUNCHER:

To clean the exterior of your launcher, use a damp towel to wipe off any powder residue, grease, and any debris.

BARREL AND BREECH CLEANING

To clean inside the barrel and breech, remove the Magazine. Insert a barrel swab into the breech going through the launcher's grip / Magazine well. Pull the barrel swab through the barrel to remove powder residue or debris.

ALTERNATIVE CLEANING METHOD

You can also remove the barrel to pull the barrel swab through it. To remove and clean inside the barrel, turn the barrel counterclockwise and remove. Push the cable of the barrel swab through the barrel, then pull the barrel swab through to remove debris.

MAGAZINE CLEANING

Clean the Magazines with a damp towel to wipe off powder, grease, or debris. Dry magazine springs immediately to help prevent rusting.

TROUBLESHOOTING



WARNING When attempting to resolve any performance issue make certain to keep the device pointed in a safe direction, engage the safety, eject the magazine and CO₂ cartridge, and confirm the breach is empty. Refer to the appropriate section of your Byrna TCR manual for specific instructions on attempting troubleshooting solutions.

IF RECOMMENDED TROUBLESHOOTING SOLUTION DOES NOT WORK OR CAN'T BE UNDERTAKEN SAFELY, PLEASE CONTACT CUSTOMER SERVICE.

SYMPTOM	POSSIBLE CAUSE	POSSIBLE SOLUTION
DEVICE DOES NOT FIRE	CO ₂ cartridge is missing or empty	Remove/ Install a fresh CO ₂ cartridge
	Safety is engaged	Disengage safety
TRIGGER STUCK IN FORWARD POSITION	Projectile jam	Remove CO ₂ then gently re-move obstruction using a barrel brush if safely possible
	Object in breach	Possible obstruction: remove if safely possible
DEVICE FIRES BUT NO PROJECTILE EXITS	Empty magazine	Remove empty magazine. Clear breach. Install loaded magazine.
	Magazine obstruction	Remove CO ₂ then make certain the ball pusher in the magazine slides freely and completely to the top of the magazine.
	Barrel obstruction or projectile jam	Remove CO ₂ then gently remove obstruction using barrel brush if safely possible
FULL MAGAZINE UNABLE TO BE INSERTED ALL THE WAY	Extra ball in breach	Remove magazine and remove the extra projectile from the breach
	Object in breach	Possible obstruction, remove if possible
	Magazine turned the wrong way around	Make certain the magazine is oriented properly with the magazine well
CO ₂ DOES NOT PUNCTURE WHEN THE TRIGGER IS PULLED	Launcher was not adjusted for the CO ₂ cartridge size	Follow the instructions on page 11 for Adjusting The Byrna TCR For CO ₂ Cartridges
	Puncture pin is stuck, obstructed, or malfunctioning	Please contact customer service
LAUNCHER CREATES HISSING SOUND AFTER PUNCTURING OF CO ₂ CARTRIDGE	Damaged CO ₂ seal	Please contact customer service

EXTENDED TROUBLESHOOTING

PROBLEM: You have successfully loaded and punctured a new cartridge, put the trigger safety in Fire mode. Your launcher will not fire, and you can't get the CO₂ cartridge out of the launcher.

POSSIBLE SOLUTION: Put the trigger safety in Safe mode (see page 7) and install the barrel blocking device (see page 8). Remove the Magazine as outlined in Magazine Removal (see page 14). Follow the instructions Release Pressure From a Launcher That Will Not Fire on page 11.

PROBLEM: CO₂ is leaking out of the gas vent hole(s) (see arrows).

POSSIBLE SOLUTION: The most common CO₂ leak is caused by a dirty or damaged puncture seal. Put the trigger safety in Safe mode (see page 7) and install the barrel blocking device (see page 8).



Open the left side Picatinny Rail/CO₂ Access Door and look inside toward where the small end of the CO₂ cartridge faces. Check the Puncture Seal for dirt or damage. If obstructed, remove the obstruction. If damaged, contact Byrna customer service for repair.

PROBLEM: Magazine will not feed projectiles correctly.

POSSIBLE SOLUTION: Ensure breech is clear by looking up into the launcher's grip and verify that there is no obstruction.

POSSIBLE SOLUTION: Clean the Magazine with a damp towel to wipe off powder, grease, and debris. Dry springs immediately, if necessary, to help prevent rusting.

PROBLEM: The 12 projectile Magazine fails to load properly.

POSSIBLE SOLUTION: Loosen the screws on the magazine by half a turn to prevent binding of the magazine spring.

PROBLEM: The Magazine catches in the magazine well or inserting and removing the magazines requires excessive force.

POSSIBLE SOLUTION: Loosen the screw at the bottom of the launcher's grip to provide more room for the magazines

EXTENDED TROUBLESHOOTING

PROBLEM: You pull the trigger, and the launcher does not pressurize.

POSSIBLE SOLUTION: Adjust the CO₂ cartridge travel (use hex key in circled Tuning Port at right to lengthen or shorten the amount of travel for the CO₂ cartridge, see page 11).

PROBLEM: The trigger will not move at all when trying to fire.

POSSIBLE SOLUTION: Verify that the trigger safety is in the FIRE position. The red O-ring should be on the left side of the launcher (PUSH SAFE is embossed on this side), and the black O-ring on the right side of the launcher (PUSH FIRE is embossed on this side).

PROBLEM: There is CO₂ leaking out of the barrel.

POSSIBLE SOLUTION: Contact Byrna Customer Service

PROBLEM: The regulator vents CO₂ constantly.

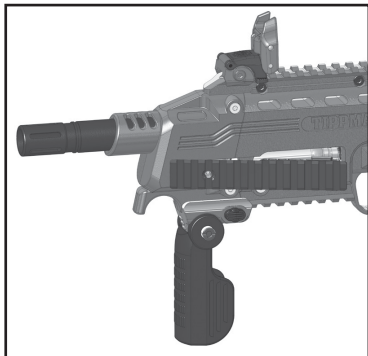
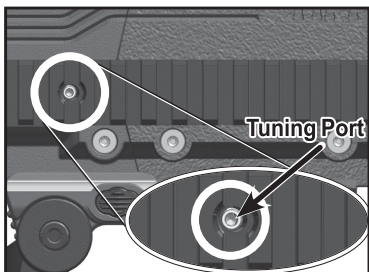
POSSIBLE SOLUTION: Contact Byrna customer service

PROBLEM: After installing a new cartridge you hear CO₂ leaking internally.

POSSIBLE SOLUTION: Contact Byrna customer service.

PROBLEM: When the trigger is pulled slowly, a short leaking sound is normal. The leak continues without the launcher firing.

POSSIBLE SOLUTION: Contact Byrna Customer Service



FIRST AID

Chemical irritants can cause severe injury, permanent disabilities, and in rare cases, death. Children, the elderly and those with chronic diseases are more vulnerable to the effects of chemical irritants. People with preexisting respiratory conditions such as asthma are likely to need medical attention and may sometimes require hospitalization or even ventilation support. Skin exposure to CS may cause chemical burns or induce allergic contact dermatitis. When people are hit at close range or are severely exposed, eye injuries involving scarring of the cornea can lead to a permanent loss in visual acuity.

IN CASE OF ACCIDENTAL DISCHARGE OR EXPOSURE TO CHEMICAL IRRITANTS SEEK MEDICAL ASSISTANCE IMMEDIATELY.

AFTER INHALATION

- Supply fresh air; consult a doctor in case of complaints.
- Provide oxygen treatment if affected person has difficulty breathing.

AFTER SKIN CONTACT

- Immediately wash with water and soap and rinse thoroughly.
- If skin irritation or rash occurs: Get medical advice/attention.

AFTER EYE CONTACT

- Remove contact lenses if worn.
- Rinse opened eye(s) for several minutes under running water. If symptoms persist, consult a doctor.

AFTER SWALLOWING

- Rinse out mouth and then drink plenty of water.
- Do not induce vomiting; immediately call for medical help.

MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED:

- May cause respiratory irritation.
- Coughing.
- Breathing difficulty.
- Causes eye irritation.
- Allergic reactions.
- **DANGER:** Suspected of causing cancer. Route of exposure: Inhalation

INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED:

- Treat symptomatically.
- Contains N-vanillylnonanamide. May produce an allergic reaction.

SDS SHEETS FOR BYRNA CHEMICAL IRRITANT AND INERT PROJECTILES CAN BE FOUND AT WWW.BYRNA.COM/FIRST-AID.

**FOR ADDITIONAL INFORMATION CALL CHEMTEL 24/7
USA EMERGENCY RESPONSE AT 1.800.255.3924.
FROM OUTSIDE THE USA CALL 01.813.248.0585**

LIMITED FACTORY WARRANTY

The Byrna TCR personal security device is warranted by Byrna Technologies Inc., solely to the original retail purchaser, to be delivered free from factory defects in materials and workmanship, under normal use, for a period of two years from the original date of purchase. To obtain warranty coverage, the warranty holder must (i) provide proof of original purchase, and (ii) the defective device must be safely and securely packaged and shipped before the expiration of the warranty period to Byrna Technologies Inc.'s designated service center in accordance with instructions provided with the Return Merchandise Authorization. The buyer's remedy under this warranty is limited, at the sole option of Byrna Technologies Inc., to a refund or credit to buyer of the price, or replacement of the defective device or other product. Byrna Technologies Inc. shall have the sole authority to determine if a claim is covered by this limited warranty.

EXCLUSIVITY OF WARRANTY AND LIMITATION OF REMEDIES

The remedy set forth above is the exclusive remedy for breach of the foregoing warranty. Except for the limited warranty expressly set forth above, Byrna Technologies Inc. makes no express or implied warranties or representations with respect to any Byrna products, including any warranty of merchantability, warranty of fitness for a particular purpose, or warranty against infringement of intellectual property rights of a third-party. Buyers and owners are prohibited from making any warranty or representation regarding any Byrna product that is inconsistent with the express, limited factory warranty set forth above. To the extent that applicable law does not permit for a disclaimer of express or implied warranties, Byrna Technologies Inc. hereby limits all express and implied warranties to two (2) years from the date of the original retail purchase.

PROHIBITED USES, ALTERATION, VOIDABILITY OF WARRANTY

Owners should not attempt taking apart or repairing of the Byrna TCR, or using it with any unauthorized or incompatible accessories, projectiles, or gas cartridges. Any alteration, abuse, misuse, neglect, or attempt to disassemble the device or use or install any unapproved third party product may void the warranty. The warranty also may be voided if the Byrna TCR or any accessory or other product is improperly handled, stored or shipped.

END USER'S ASSUMPTION OF RISK

Before use, the user shall determine the suitability of the product for its intended use, read and understand all instructions, warnings and safety considerations provided in this manual, take all reasonable precautions to ensure its safe use, and assume all risks and liabilities in connection with the purchase, possession, and discharge of the Byrna TCR. Byrna Technologies Inc. shall have no liability nor shall it assume any obligation to the purchaser of any Byrna device or any third party for any special, non-compensatory, consequential, indirect, incidental, statutory, or other damages whatsoever, including, without limitation, punitive damages, lost profits, lost opportunities, lost revenue, loss of consortium, or other damage loss or injury whatsoever, regardless of the form of action and regardless of whether it sounds in contract, negligence, statutory or common law liability, or otherwise, known or unknown, even if foreseeable or explicitly informed, in any amount greater than the amounts paid by buyer to Byrna Technologies Inc. for the products, unless due to the gross negligence or willful misconduct of Byrna Technologies Inc.. The limitations set forth above shall be deemed to apply to the maximum extent permitted by applicable law and notwithstanding the failure of the essential purpose of any limited remedies. Any buyer who does not agree to this assumption of risk may return the products purchased, in their original packaging, unused, and in original condition within 7 days of purchase.



SERVICE NOTES



SERVICE NOTES

COPYRIGHT

All content included in this manual, such as text, graphics, logos, video and audio clips, images, digital downloads, data compilations, button icons, and software is the property of Byrna Technologies Inc. or its content suppliers and protected by United States and international copyright laws. The compilation of all content herein is the exclusive property of Byrna Technologies Inc. and protected by U.S. and international copyright laws.

TRADEMARKS

Byrna Technologies Inc., BYRNA, Byrna TCR, Byrna HD Max, Byrna HD Pepper, Byrna Technologies Inc. logo designs, BYRNA logo designs and any other trademarks and/or service marks displayed in this manual are either registered trademarks or common law trademarks of Byrna Technologies Inc. or its subsidiaries, in the United States and other countries. The entire contents of the manual, including without limitation, all information, software, code, data, text, displays, images, video and audio, logos, slogans, trade names, product/ service names, domain names, and the design, selection and arrangement of the website as a collective work and/or compilation is protected by United States and international laws regarding copyrights, trademarks, trade dress, unfair competition and other intellectual property or proprietary rights, and is owned, controlled and/or licensed by Byrna Technologies Inc. or its subsidiaries, in the United States and other countries. These trademarks and trade dress may not be used in connection with any product or service that is not manufactured for or by Byrna Technologies Inc. and/or Byrna or offered for sale by Byrna Technologies Inc. and/or Byrna in any manner that is likely to cause confusion among customers, or in any manner that disparages or discredits Byrna Technologies Inc. and/or Byrna. Any trademarks not owned by Byrna Technologies Inc. and/or Byrna or its subsidiaries that appear in this manual are the property of their respective owners, who may or may not be affiliated with, connected to, or sponsored by Byrna Technologies Inc. and/or Byrna or its subsidiaries.

PATENTS, PENDING PATENTS, DESIGN PATENTS AND REGISTERED DESIGNS

The Company has granted and pending patents, design patents and registered designs which are relevant to various of Byrna's products. See www.byrna.com/patents.



BYRNA.COM