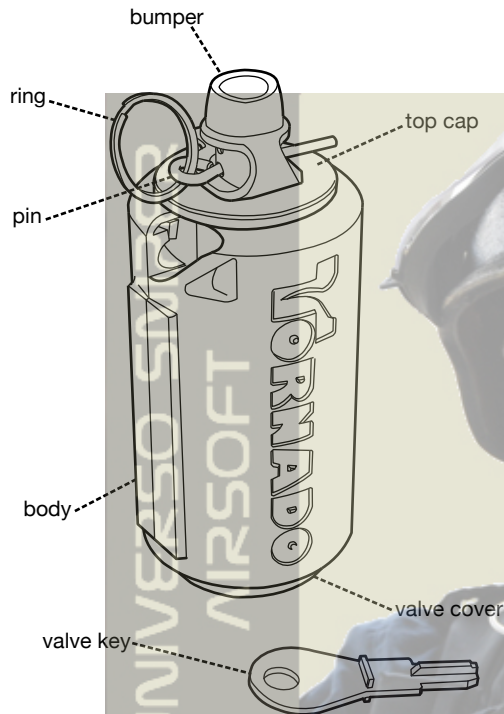




TORNADO



GRENADE USER'S MANUAL



PLEASE READ CAREFULLY

ASSUMPTION OF RISKS

THERE IS A SERIOUS RISK OF PERSONAL INJURY, DEATH OR PROPERTY DAMAGE ARISING OUT OF THE USE OR MISUSE OF THIS PRODUCT. BY USING THIS PRODUCT, YOU AGREE TO FREELY ACCEPT AND FULLY ASSUME ALL SUCH RISKS.

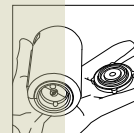
! PRIMARY WARNINGS

- Be considerate. Toss grenades gently. Do not throw grenades directly at other players.
- Do not fill or use grenade near open flames.
- This product has no safe direction, all players must wear full coverage goggles. Safety glasses are unacceptable eye protection.
- Do not handle armed grenades in safe areas. Disarm grenades by unscrewing bottom valve cover.

Armed:



Disarmed:



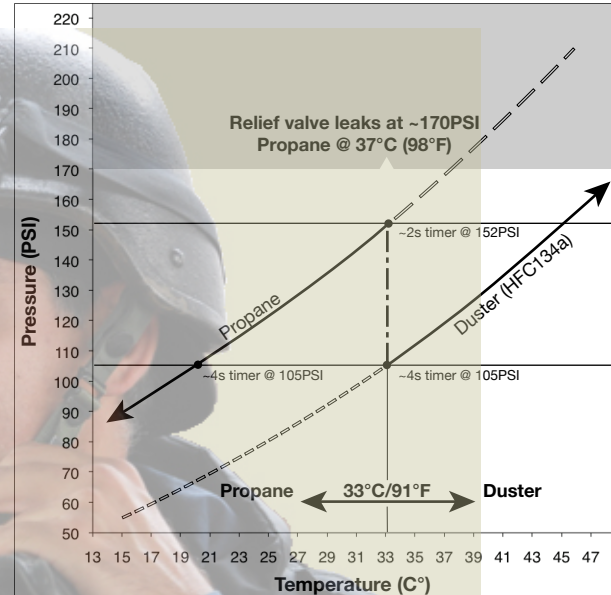
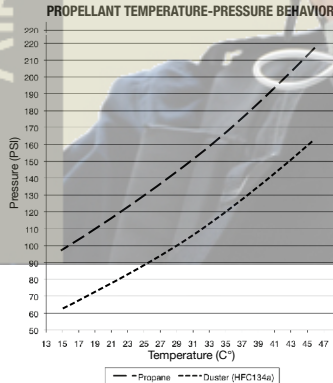
- Treat any grenade as a loaded and armed grenade. Loaded, unloaded, duds/malfunctioning and expended grenades must be disarmed before returning to the safe area.
- This product is not a toy. Familiarize yourself with this manual before use. Train others in safe grenade handling practices.
- Do not deploy this grenade in public places. Treat it as you would treat a realistic rifle replica.
- Do not modify this product or attempt to defeat its safety features. Over pressure failsafe measures are included in this product to protect YOU.
- Do not expose this product to temperatures exceeding 40°C/104°F.
- This product is intended for use with propane or HFC134a. Do not use high pressure propellants eg. CO₂, HPA.
- This product requires special tools to properly reassemble. **Do not disassemble this grenade.**

1 CHOOSE YOUR GAS

Airsofters use gas propelled products in a broad range of temperatures from 10°C up to a blistering 35°C. This upper end of the temperature range is further extended when we leave our products in direct sunlight. For example, the hood of your car can be as hot as 60°C on a 25°C day.

Most gas powered products vary in their performance when they are kept at different temperatures and this product is no exception. The timing delay is somewhat affected by temperature. It is possible to observe timings between 5s to 2s with propane between 20°C and 33°C. Solar heating can also significantly increase the internal temperature of this product. It is very important that this product is not left where sunlight can heat it. Core temperature measurements have risen as high as 40°C on a day when the air temperature was only 20°C.

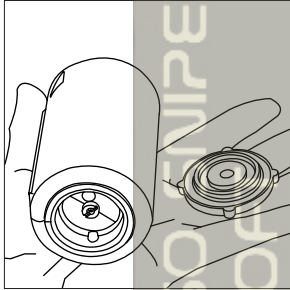
Safety features have been included in this product to prevent overpressurized operation above 170psi which occurs with propane heated to 38°C. We recommend that users switch to duster gas (HFC134a) at temperatures exceeding 33°C for consistent time delay performance and safer operation.



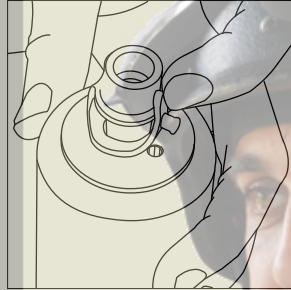
PROPELLANT SELECTION CHART DEALY

Propane is recommended for internal temperatures below 33°C/91°F. As your playing environment warms and as direct sunlight becomes a factor, switch to duster gas (HFC134a). Running propane above 33°C will negate the delay and may cause the over-pressure relief valve to release gas. Do not defeat this necessary feature to extend the operating temperature range of this product, this is properly accomplished by switching propellants.

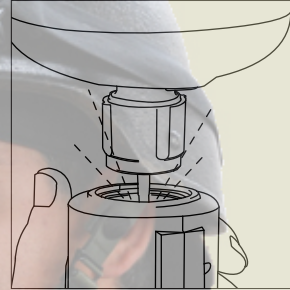
2^o LOADING INSTRUCTIONS



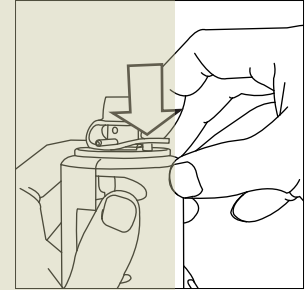
1. Remove end cap.
Grenade is now made safe.



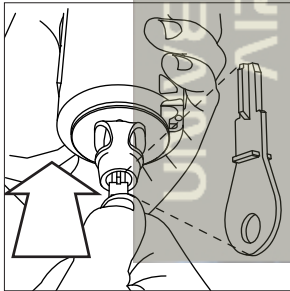
2. Remove plug.



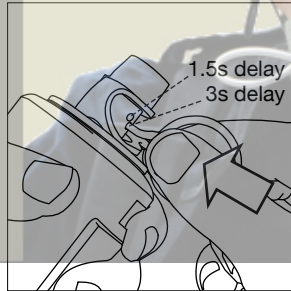
5. Fill gas.



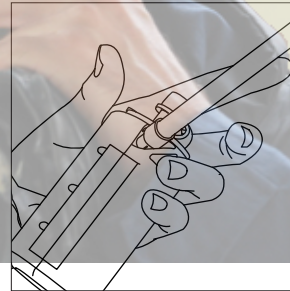
6. Set plug.



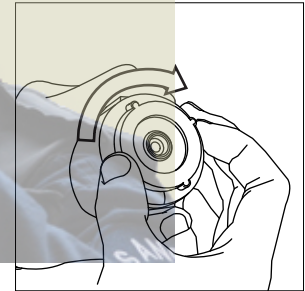
3. Reset valve.



4. Choose delay and set pin.



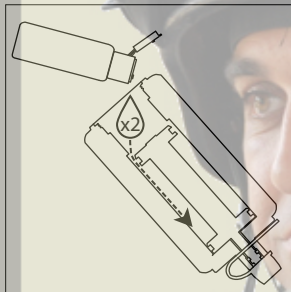
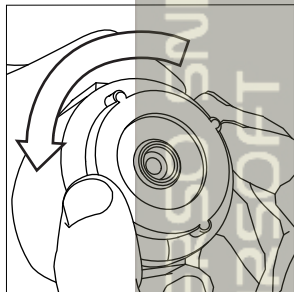
7. Load BB's.



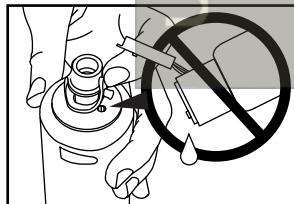
8. Screw on valve cover when entering play area.
Grenade is **ARMED**.

3 MAINTENANCE

Lubricate your AI grenade once every two deployments to maintain delay consistency. Use AI supplied Grenade Silicone Oil, other oils may affect the consistency of your grenade. A stiff shuttle that is difficult to reset when reloading is an indication that your grenade needs lubricant.



1. Remove end cap, exposing the shuttle.
2. Make sure the shuttle is in the valve open position.
3. Drip two drops of Airsoft Innovations Grenade Oil. Try to drip oil directly into the gas chamber.

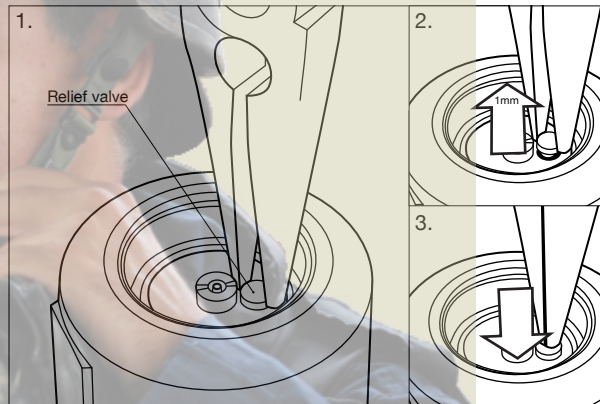


WARNING

Do not apply lubricants into the delay chamber. Contamination of delay chamber can adversely affect the consistency of your grenade's delay.

4 RELIEF VALVE RESET

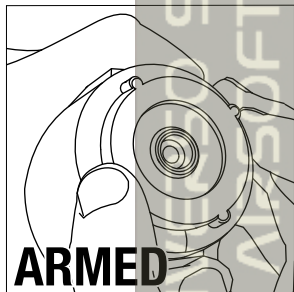
Your Airsoft Innovations Tornado grenade features several safety measures. If your grenade reaches an internal pressure of 170psi (propane at -40°C), it will trigger the over-pressure relief valve and safely release excess pressure. Filling your grenade with propellant afterwards will cause a small leak unless it is reset as shown below. If correct propellants are used, you will never need to reset your relief valve.



1. Firmly grasp the top of the over-pressure relief valve.
2. Gently pull the relief valve upwards by 1mm and ease the valve back down.
3. Securely reset the relief valve by applying a little downwards pressure to the top.

5 GENERAL USAGE

When filling grenades in the “safe” area, do not arm your grenade by screwing on the end cap. Armed grenades present a hazard to you and your fellow players if you are not wearing eye protection. Put on ASTM F1776-01 compliant eye protection before entering the play area and arming your grenade. Grenades without an end cap cannot pressurize their bb spirals and thus cannot propel projectiles because propellant is given an easy exit path out of the grenade.



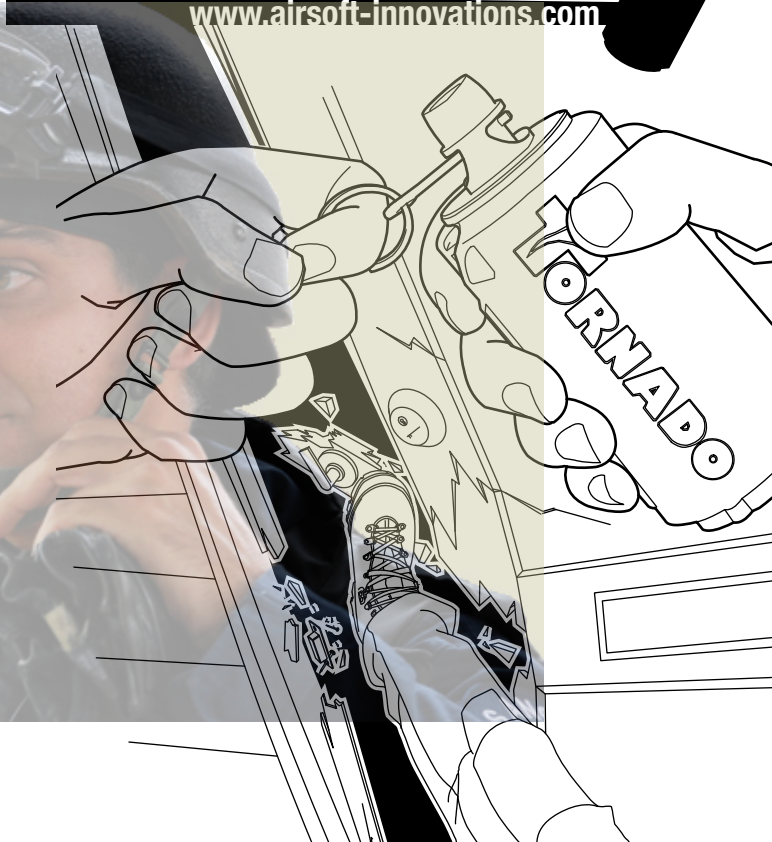
When recovering grenades from the field, immediately remove the valve cover even if you think that the grenade has been expended. Treat any grenade as if it were a live grenade before bringing it back into the safe area. “Oh boy! UXO* on the airsoft field...”

HANDY TIPS

1. Store your grenades upside down in their pouches for easier end cap removal.
2. Tornado grenades will fit standard double m16 magazine pouches.
3. Tie a bright ribbon to your grenade for easier recovery.
4. Allow your grenades 5 minutes or so to warm up for maximum power.
5. Mark your grenades with a metallic permanent marker.

*unexploded ordnance

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