



NINJA OFV PIN REGULATOR

OWNER’S MANUAL

STANDARD - SLP - SHP

For more information visit www.NinjaPaintball.com or please call us at (815) 477-0007



Visit our YouTube Channel for informational product videos
<https://www.youtube.com/user/ninja186>

Due to the high flow characteristics of the Ninja OFV Pin Regulator you may experience connection/activation difficulties with certain markers. To eliminate simply reduce the regulator’s output pressure to 500PSI by removing (2) Red Shims (#12) see page 4, Pressure Conversion.

⚠ WARNING: This is not a toy. Misuse may cause serious injury or death. Eye protection designed specifically for paintball must be worn by the user and persons within range. Recommend 18 years or older to purchase. Persons under 18 must have adult supervision. READ OWNERS MANUAL BEFORE USING.

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FILLING THE NINJA REGULATOR SYSTEM

The NINJA Regulator system is equipped with the industry standard “QD Style” fill fitting, which allows your regulator system to be refilled either on or off the marker/gun. The regulator system may be filled with clean dry compressed air or nitrogen.

⚠ WARNING: Under no circumstances should the regulator system be filled with pure oxygen. Oxygen will ignite causing injury or death.

When filling your regulator system do not exceed the pressure.

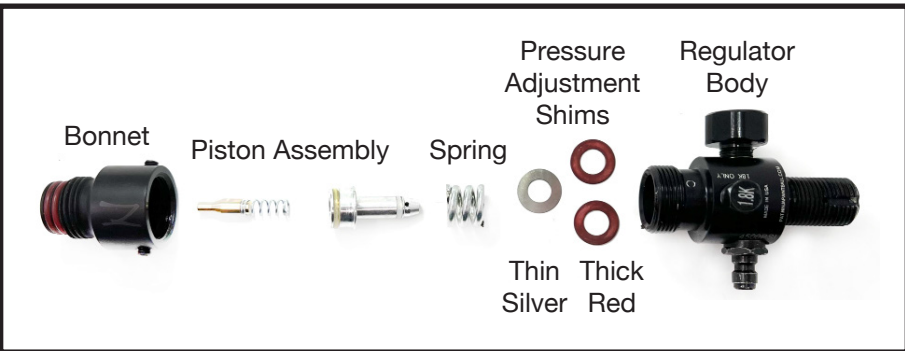
⚠ WARNING: Do not apply or inject oil of any type into the fill or burst disk ports. Oil will vaporize and possibly ignite during the fill procedure causing injury or death.

It is important to keep dirt, oil, and water out of your Regulator system. Most regulator failures are due to dirt or contamination. Always keep a cover on the fill nipple when you are not filling the Ninja regulator system. If you use compressed air, make sure that the compressor providing that air is equipped with working filters and moisture separators.

CONNECTING YOUR NINJA REGULATOR

Slowly screw your Ninja regulator system into your marker/gun ASA fitting. It is recommended that you apply lube on the Ninja regulator bonnet threads. This simple procedure will reduce bonnet and ASA thread wear. The Ninja regulator has a pin valve which shuts off the gas delivery when the system is removed from the marker/gun. With any output above 1100PSI install the system on the marker/gun empty and only fill once connected.

⚠ WARNING: Due to the high output of the new pin seal regulator you may experience connection/activation difficulties with certain marker/gun ASA. With any output above 1100PSI install the system empty and only fill once connected.



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THE SAFETY SYSTEM

The NINJA Regulator is equipped with an ASTM COMPLIANT bottle Burst Disk required by the Department of Transportation (D.O.T).

In addition to the required safety burst disk, the regulator has a Low Pressure (LP) safety burst disk (stamped 1.8K).

The LP (1.8K) safety burst disk is there to protect you and your marker in the unlikely event your Ninja regulator fails.

⚠ WARNING: Remember, most regulator failures are the result of contaminated air.

If the LP (1.8K) safety burst disk vents, it did so for a reason. We recommend you do the following:

Disassemble the regulator (refer to Service and Rebuild procedures), inspect the regulator for contamination and clean if necessary.

Install a new LP (1.8K) Burst disk, PER THE INSTRUCTIONS ON PAGE 6, Available at most paintball shops and refill the system.

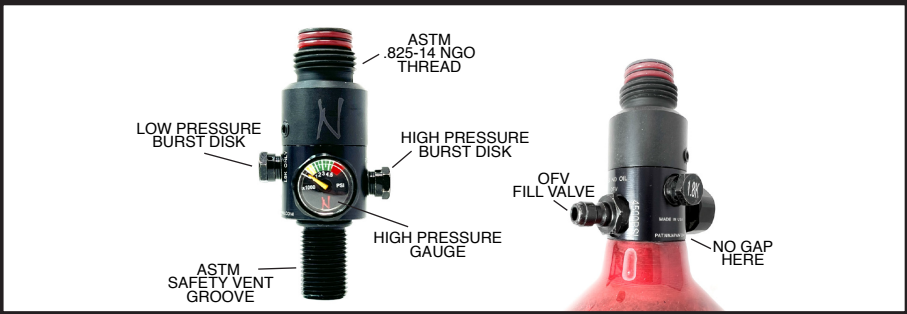
If the LP (1.8K) burst disk vents after rebuild see and airsmith for help or call us at: 1(815) 477-0007.

NINJA REGULATORS have a Safety Vent Groove on the stem (as shown in below image). This lifesaving feature allows for the venting of the bottle, in the event the regulator is unscrewed from the bottle with pressure present in the bottle.

⚠ WARNING: ALWAYS CHECK TO MAKE SURE THERE IS NO GAP BETWEEN THE BOTTLE AND REGULATOR SEAL. SEE ILLUSTRATION BELOW.

⚠ WARNING: IF THERE IS A GAP STOP!! DO NOT FILL OR USE YOUR SYSTEM.

Safely drain your system and wait for the system to fully degas. Contact a qualified Air smith immediatley or call us at: 1(815) 477-0007.



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PRESSURE ADJUSTMENT

Unless ordered otherwise, all Ninja Regulators are shipped at a Standard 750-800 PSI output pressure + - (100) PSI the (SHP at 1100 PSI), If you wish to adjust the output pressure please follow these steps. Video guides available using the QR code provided or the URL address on the front page of this manual.

⚠ WARNING: Always wear eye protection, gloves and point the air system in a safe direction away from yourself and all bystanders prior to degasing or adjusting the system!

NOTE: The following tools may be required and are available at most hardware stores:

- 3/32” Hex key wrench to remove bonnet set screws.
- 10-32” Threaded machine screws 2” to 4” long to help remove bonnet.

⚠ WARNING: Before proceeding make sure your system has been completely degassed via the output pin valve to ensure no trapped gas is present!

REFER TO THE NINJA REGULATOR PART DIAGRAM

1. Remove the two 10-32 #3 set screws that lock the Bonnet#2 (the top portion of the regulator) to the regulator body #16.
2. Unscrew the Bonnet #2 counter clockwise from the Reg body. Bonnet should remove easily. If not, Make sure there is no air trapped in the Bonnet by depressing the pin valve. Helpful Hint: Insert the 10-32 x 2” to 4” screw into one of the bonnet set screw holes to ease the removal and reinstallation of the bonnet. Insert the screw into one of the bonnet screw holes until it stops or bottoms out, unscrew 1/8 to 1/4 turn. This will prevent the screw from damaging the gas body bonnet threads. Use the inserted screw to remove the Bonnet. Be careful not to strip the Bonnet hole or damage the body threads.
3. PRESSURE ADJUSTMENT FOR THE STANDARD NINJA REGULATOR. The shims located in the bottom “pocket” of the gas distribution body. THE NUMBER OF SILVER OR RED SHIMS MAY VARY.
 - Remove 1 red shim #13 for an approximate output of 600-700PSI
 - Remove 2 red shims #13 for an approximate output of 450-550PSI
 - For the SHP remove 3 silver shims #12 for 900PSI
4. Reinstall the remaining shims first into the bottom pocket of the regulator body #16, the install the main spring #11 into the regulator body #16 on top of the shims.
5. Carefully screw the Bonnet #2 back onto the gas distribution body #16. Make sure the bonnet#2 is installed fully. The Bonnet #2 should be contacting the top of the gas distribution body #16. THERE SHOULD BE NO GAP. The 10-32 threaded machine screw will help with the install. DO NOT APPLY EXCESSIVE TORQUE SCREWING THE BONNET #2 TO GAS DISTRIBUTION BODY #16.
6. Replace the two 10-32 #3 bonnet set screws and tighten securely. DO NOT OVER TIGHTEN.

Helpful Hint: Insert the 10-32 x 2” to 4” screw into one of the bonnet set screw holes to ease the removal and reinstallation of the bonnet. Insert the screw into one of the bonnet screw holes until it stops or bottoms out, unscrew 1/8 to 1/4 turn. This will prevent the screw from damaging the regulator body bonnet threads. Use the inserted screw to remove the Bonnet. Be careful not to strip the bonnet hole or damage the body threads.

Be careful not to lose the brass Output Pin Valve #5 or its pin spring #6.

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SERVICE AND REBUILD PROCEDURES

For safety and reliability only use Ninja replacement parts. Video guides available using the QR code provided on the front page of this manual.

For reference purposes, consult the Ninja regulator parts diagram.

⚠ WARNING: Always wear eye protection, gloves and point the air system in a safe direction away from yourself and all bystanders prior to degasing or adjusting the system!

Spare parts and rebuild kits available at your Ninja dealer.

NOTE: The following tools may be required and are available at most hardware stores:

- 3/32” Hex key wrench to remove bonnet set screws.
- 10-32” Threaded machine screws 2” to 4” long to help remove bonnet

⚠ WARNING: Prior to disassembly fully degas the air system. Point the bottle away from yourself and bystanders. Depress the pin valve #5 until no air remains in the bottle!

If you are not comfortable with disassembling the regulator, bring the regulator to a qualified air smith or call us at: 1(815) 477-0007.

REFER TO THE NINJA REGULATOR PART DIAGRAM

1. All internal parts are accessed by removing the Bonnet set screws #3 from the bonnet #2 from the Gas Distribution Body #16 using the 3/32” hex key wrench.
2. After separating the bonnet #2 from the Gas distribution Body #16. The coil spring #11, Shims #12 & #13, Piston #8, and Pin Valve #5 & #6 components canbe removed. Helpful Hint: Do not use tools to remove the Piston #8 as this may damage the piston #8. Firmly grip the end of the piston #8 and wiggle the piston #8 while pulling with your fingers.
3. Clean the inside of the NINJA Regulator body #16 and bonnet #2 with rubbing alcohol and a cotton swab.
4. To reassemble, lightly lubricate the Piston “O” rings #7 & #9 using a silicone lube.
5. Re-install the Output Pin #5 Valve & Spring #6 by dropping the Pin #5 into the bonnet #2. Make sure the Pin #5 is seated and located in the bonnet #2 pocket.
6. Place the Pin spring #6 into the piston #8 cavity. Carefully push the Piston #8 assembly into the piston bore in the bonnet #2. The Piston #8 must be properly seated in the Bonnet #2 before proceeding further. The piston #8 is properly seated when it cannot be pushed in any further.
7. Reinstall the coil spring #11 and shims #12 & #13 as shown in the Ninja Regulator Parts Diagram. Do no apply excessive torque when screwing the Bonnet #2 and Gas Distribution Body #16 together. Securely tighten the (2) 10-32 Bonnet retaining screws #3 with the 3/32” hex key wrench.

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“NEW” NINJAOFV O-RING FILL CHECK VALVE

- Innovative Desgin
- No need for thread tape or sealant
- Easy positive stop installation

⚠ WARNING: The NINJAOFV O-ring fill valve will only work with a compatible NINJAOFV series regulator. OFV is lasered above the fill port on the regulator body. See photo below.

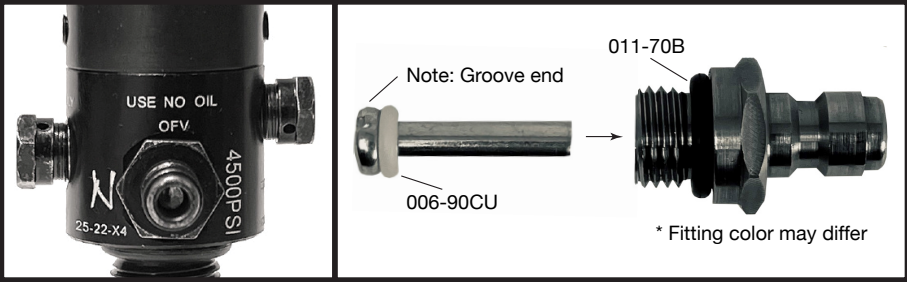
Do not use the NinjaOFV O-ring fill valve with older Ninja regulator versions or any NON OFV regulator.

The NINJAOFV O-RING FILL VALVE # 18 on your NINJA OFV SERIES regulator is one of the items that will require periodic replacement, Either due to leakage or mechanical wearing damage to the QD portion of the fill nipple which will cause difficulties attaching the fill valve to a fill station.

TO REPLACE FOLLOW THE PROCEDURE BELOW

1. ALWAYS WEAR SAFETY GLASSES AND POINT THE REGULATOR AWAY FROM YOURSELF AND ALL BYSTANDERS.
2. MAKE SURE THE SYSTEM IS COMPLETELY DE-PRESSURIZED BY DEPRESSING THE PIN VALVE UNTIL ALL AIR HAS BEEN RELEASED.
3. Using a 1/2” wrench, turn counterclockwise. Remove the NINJAOFV #18.
- Note: OFV is lasered above the fill valve port on the regulator body as seen below.
4. Clean any debris out of the port.
5. Inspect the 3/8-24 female fill check port threads on the regulaor body for damage. IF THREADS ARE DAMAGED OR WORN STOP! DO NOT USE THE REGULATOR SEE AN AIR SMITH OR CALL US AT: 1(815) 477-0007. It is recommended that a 3/8-24 Class 2B go/no go gauge be used to verify these threads. This gauge is available at www.mscrect.com.
6. DO NOT USE THREAD TAPE OR SEALANT ON THE THREADS!! THE NINJAOFV WILL SEAL ON THE 011-70B O-RING, NOT THE THREADS.
7. Make sure the strut is inserted fully into the NINJAOFV #18 as shown below.
8. Install the NINJAOFV assembly turning clockwise until the OFV is hand tight, O-RING IS SEATED IN OFV PORT.
9. Use a 1/2” torque wrench and torque to 55-85 INCH POUNDS. Fill the bottle to verify no leaks.
10. If the fill valve is leaking STOP and contact an air smith or call us at: 1(815) 477-0007.

⚠ WARNING: Never inject oil into the fill port valve. Oil droplets can vaporize and ignite during the fill procedure causing injury or death.



The regulator body will be marked “OFV” as shown in image.

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PIN VALVE SEAT REPLACEMENT

1. The Pin Valve Seat (#4) sits inside of the Bonnet (#2) in the bonnet pocket. To replace the Pin Valve Seat (#4) remove the bonnet#2 as described above, use a small pick to gently pull the Pin Valve Seat from the Bonnet #2 taking care to not damage the Bonnet.
2. When Placing the Pin Valve Seat (#4) into the Bonnet (#2) place the seat within the inner Bonnet pocket and gently push it into place using the eraser end of a pencil or similar small blunt object.

BURST DISK REPLACEMENT

ASTM compliant unified burst disks are used on paintball regulators and CO2 valves for both the D.O.T. (Department of Transportation) required bottle protection and downstream over-pressure protection.

THE 3000 PSI (3K) BURST DISK IS FOR CO2 BOTTLES ONLY!

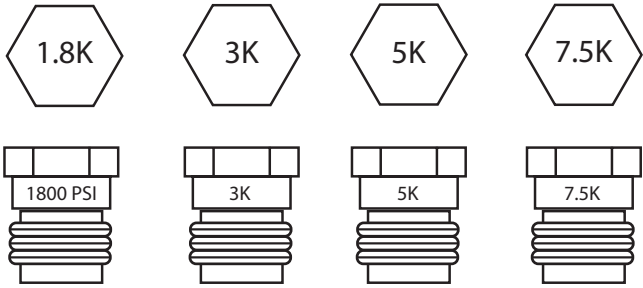
Four (4) most common burst disks:

- 1800 PSI. Used for down stream over-pressure safeties on regulators.
- 3000 PSI. Used for the D.O.T. required safety on CO2 storage bottles.
- 5000 PSI. Used for the D.O.T. required safety on 3000psi N2/HPA storage bottles and on “X” PCP/FLEX regulators as the downstream safety.
- 7500 PSI. Used for the D.O.T. required safety on 4500psi rated N2/HPA storage bottles.

⚠ WARNING: SERIOUS PERSONAL INJURY OR DEATH FROM IMPROPER DISK REPLACEMENT. IT IS ABSOLUTELY ESSENTIAL THAT YOU ONLY REPLACE FAILED UNITS WITH EXACT REPLACEMENTS!!

ASTM UNIFIED BURST DISKS HAVE THE PRESSURE IDENTIFICATION MARKED ON THE HEAD OF THE DISK. SOME DISKS MAY HAVE THE PRESSURE IDENTIFIER ON THE SIDE OF THE DISK.

IF YOU ARE UNSURE DO NOT GUESS! SEE A QUALIFIED AIRSMITH OR CALL US AT: 1(815) 477-0007.



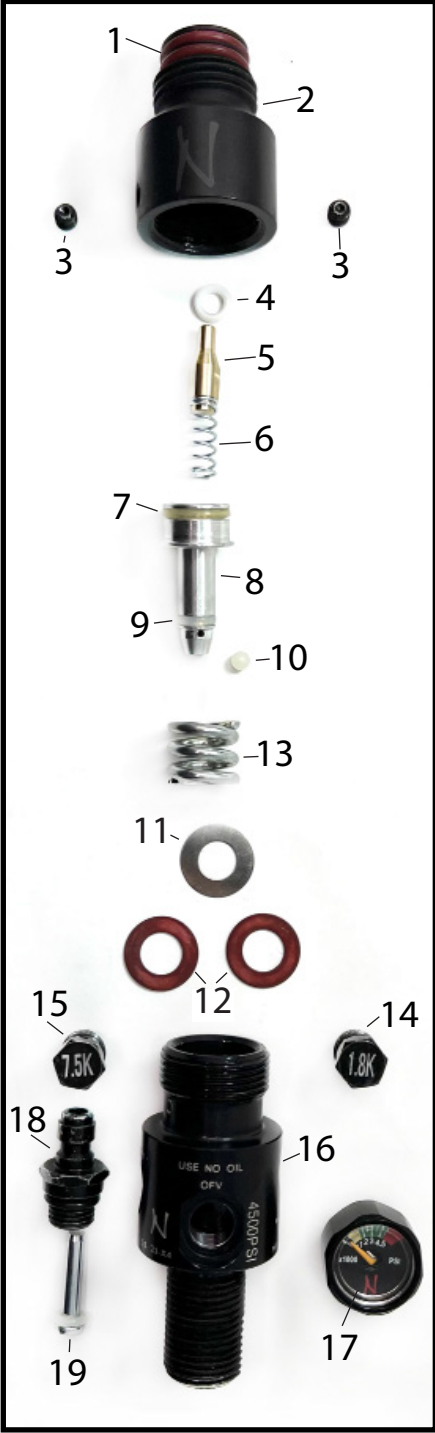
TO REPLACE A UNIFIED BURST DISK ASSEMBLY

1. Unscrew (turn counterclockwise) the failed unit and discard it. (They are not serviceable)
2. Visually inspect the female port for damage or debris and clean out if necessary. If the port is damaged, do not replace the disk. Consult an airsmith or call for assistance: 1(815) 477-0007. We recommend the female port be checked with a 3/8-24 UNF-2B go/no go gauge available at www.mscrect.com.
3. Screw in the new replacement unit and torque to a minimum 55 inch-pounds and a maximum 95 inch-pounds. UNIFIED BURST DISK MUST BE ASSEMBLED WITH AN INCH POUND TORQUE WRENCH!
4. If Burst Disk assembly does not seal at 95 inch-pounds, the valve should be inspected by an airsmith or call for assistance: 1(815) 477-0007.

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NINJA REGULATOR PARTS DIAGRAM

1. Tank O-Ring (015-90u X 2)
 2. Bonnet**
 3. 10-32 Bonnet Screws
 4. Pin Seat (008-PTFE)**
 5. Pin**
 6. Pin Spring**
 7. Piston O-Ring (012-90u)
 8. Piston*
 9. Piston O-Ring (008-90u)*
 10. Regulator Seat*
 11. Thin Silver Shims (QTY. may vary)*
 12. Thick Red Shims*
 13. Main Coil Spring
 14. Low Pressure Burst Disk (1.8K)*
 15. High Pressure Burst Disk (5K for 3000 bottles) (7.5K for 4500 bottles)
 16. Regulator Body
 17. Mini Gauge
 18. OFV Fill Valve
 19. Fill Rivet and O-Ring
- * Included in NINJARBK
- ** Not interchangeable with Ball regulator



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