

# NINJA OFV PIN PRO V2-V4 **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 PRO V2 PIN REGULATOR, YOU MAY EXPERIENCE CONNECTION / ACTIVATION DIFFICULTIES WITH CERTAIN MARKERS ASA. TO ELIMINATE SIMPLY REDUCE THE REGULATOR OUTPUT PRESSURE TO 450PSI BY REMOVING (3) BLUE SHIMS (#12) SEE PAGE 8, PRESSURE CONVER-SION. WE ALSO HAVE VIDEOS SHOWING ADJUSTMENT ON OUR YOU-TUBE CANNEL NAME IS NINJA PAINTBALL OFFICIAL.

MARNING: 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 PRO V2 - V4 REGULATOR SYSTEM

The NINJA PRO V2 Regulator system is equipped with the industry standard "QD Style" fill fitting #13, which allows your Ninja PRO V2 Regulator system to be refilled either on or off the marker. The Ninja PRO V2 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 rating shown on the cylinder's label.

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 Ninja PRO V2 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 PRO V2 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 PRO V2 - V4 REGULATOR**

# MARNING: Prior to every use if your Ninja PRO V2 air system please do the following.

- 1. Failure to follow these instructions can result in serious injury.
- 2. Inspect to make sure the bonnet screws #2 (3) and rotational sleeve #11 set screws X (3) are present and securely tightened. 3. Do not use the Ninja PRO Air system if any of the bonnet or rotational sleeve set screws #2 &
- #11 are missing or not securely tightened. 4. Never remove the set screws #2 & #11 or adjust the rotational sleeve #14 with pressure in the
- bottle.

# Rotational Adjustment

Do not adjust with air in your tank: Tank must be empty.

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

- 5-64 Allen Wrench

After connecting the Ninja PRO V2 Regulator system into your markers ASA fitting may wish to orient your NINJA PRO V2 Regulator. The NINJA PRO V2 Regulator has full 360-degree rotation. Follow these simple steps:

MARNING: Before proceeding, make sure your system has been completely degassed via the output pin valve #6, to ensure that no trapped compressed gas in present.

# / WARNING: Do not adjust with air in your tank. Tank must be empty.

- 1. Using a 5-64 allen wrench loosen (turn counterclockwise) the (3) Rotational collar set screws #11. DO NOT REMOVE THE SCREW.
- 2. Grasp the bottle and turn the NINJA PRO V2 Regulator to your desired location.
- 3. Tighten the (3) 8-32 rotational collar set screws #11 securely. Fill your air system and you are

#### **THE SAFETY SYSTEM**

The NINJA PRO V2 Regulator is equipped with an ASTM COMPLIANT bottle Burst Disk #12 required by the Department of Transportation (D.O.T)

In addition to the required safety burst disk #12, the regulator has a Low Pressure (LP) safety burst disk #16 (stamped 1.8K)

The LP (1.8K) safety burst disk #16 is there to protect you and your marker in the unlikely event your Ninja PRO V2 regulator fails.

### MARNING: Remember, most regulator failures are the result of contaminated air.

If the LP (1.8K) safety burst disk #16 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.

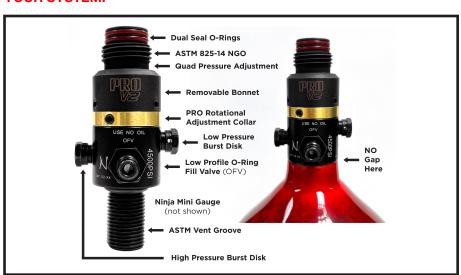
Install a new LP (1.8K) Burst disk, PER THE INSTRUCTIONS ON PAGE 6, Available at most paintball shops and refill the system.

If the LP (1.8K) burst disk #16 vents after rebuild see and air smith for help or call us at: 1(815)

NINJA PRO V2 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.

MARNING: ALWAYS CHECK TO MAKE SURE THERE IS NO GAP BETWEEN THE BOTTLE AND REGULATOR SEAL. SEE ILLUSTRA-**TION BELOW.** 

WARNING: IF THERE IS A GAP STOP!! DO NOT FILL OR USE



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

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### PRESSURE ADJUSTMENT - SLP is not adjustable

Unless ordered otherwise, all standard Ninja PRO V2 Regulators are factory shipped at a Standard 750-800 PSI output pressure (SHP at 1100 PSI), If you wish to adjust the output pressure, please follow these six steps. Video guides available using the QR code provided or the URL address on the front page of this manual.

MARNING: 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:

- 5/64" Hex key wrench to remove bonnet set screws #2.
- 8-32" 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 PRO V2 - V4 REGULATOR PART DIAGRAM

- 1. Remove the three 8-32 set screws #2 that lock the Bonnet #3 (the top portion of the regulator) to the regulator body #20, refer to the Ninja PRO V2 - V4 regulator part diagram.
- 2. Unscrew the Bonnet #3 counterclockwise from the Reg body #20. (It has normal right-hand threads.) Bonnet #3 should remove easily. Make sure there is no trapped air in the Bonnet #3 by depressing the pin valve #6.
- 3. Pressure adjustment for the Ninia PRO V2 V4 regulator. The shims #8 are located in the bottom "pocket" of the regulator body #20, they are flat and blue in color #8.
- -Remove 1 blue shim #8 for an approximate output of 700PSI
- -Remove 2 blue shims #8 for an approximate output of 550 PSI
- -Remove 3 blue shims #8 for an approximate output of 450 PSI -For the SHP remove 3 silver shims for 900-1050 PSI
- 4. Reinstall the remaining shims #8 first into the bottom pocket of the regulator body, then install the piston #19 assembly into the regulator body #20 on top of the shims #8.
- 5. Carefully screw the Bonnet #3 back onto the Reg body #20. Make sure the bonnet #3 is installed fully. The Bonnet #3 shoud be contacting the top of the regulator body #20. There should be no gap. The 8-32 threaded machine bonnet screws #2 will help with the install. Do not apply excessive torque screwing the bonnet #3 to the regulator body #20.
- 6. Replace the three bonnet set screws #2 and tighten securely. Do not over tighten..

Helpful Hint: Insert the 8-32 x 2" to 4" screw into one of the bonnet #3 set screw holes to ease the removal and reinstallation of the bonnet. Insert the screw into one of the bonnet #3 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 #20 bonnet threads. Use the inserted screw to remove the Bonnet #3. Be careful not to strip the Bonnet hole or damage the body threads.

Be careful not to lose the brass Output Pin Valve or its spring #6 & #7.

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#### **SERVICE AND REBUILD PROCEDURES**

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

For reference purposes, consult the Ninja PRO V2-V4 regulator part 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:

- 5/32" Hex key wrench to remove bonnet set screws.
- 8-32" Threaded machine screws 2" to 4" long to help remove bonnet #3.

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.

- 1. All internal parts are accessed by unscrewing the Bonnet #3 from the Regulator Body #20 by removing the 3 bonnet set screws #2, see Ninja PRO V2-V4 part diagram.
- 2. After separating the bonnet #3 from the Regulator Body #20, the shims #8, piston assembly #19, and in Valve #6 & #7 components can be 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 #19 and wiggle the piston #19 while pulling with your fingers.
- 3. Clean the inside of the NINJA PRO V2 Regulator body #20 and bonnet #3 with a cotton swab and rubbing alcohol.
- 4. To reassemble, lightly lubricate the Piston O-rings #5 & #10 using a silicone lube.
- 5. Remove the old spring pack #18 & install on the new piston #19.
- 6. Re-install the Output Pin Valve #6 & Spring #7 by dropping the Pin #6 into the bonnet #3 and make sure the Pin #6 is seated and located in the bonnet #3 pocket.
- 7. Place the Pin spring #6 into the piston #19 cavity. The carefully push the Piston assembly #18 & #19 into the piston bore in the bonnet #2. The Piston #19 must be properly seated in the Bonnet #3 before proceeding further. The piston #19 is properly seated when it cannot be pushed in any further.
- 8. Reinstall the shims #8 as described on page 4. Do no apply excessive torque when screwing the Bonnet #3 and regulator body #20 together. Replace the securely tighten the (3) 8-32 Bonnet retaining screws #2 with the 5/64" hex key wrench.

#### **PIN VALVE SEAT REPLACEMENT**

- 1. The Pin Valve Seat #4 sits inside of the bonnet #3 in the bonnet pocket. To replace the Pin Valve Seat #4 use a small pick to gently pull the Pin Valve Seat #4 from the bonnet #3 taking care to not damage the bonnet #3.
- 2. When replacing the Pin Valve Seat #4 into the bonnet #3 place the Pin Valve Seat #4 within the inner bonnet #3 pocket and gently push into place using the easer end of a pencil or similar small blunt ended object.

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### "NEW" NINJAOFV O-RING FILL CHECK VALVE

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

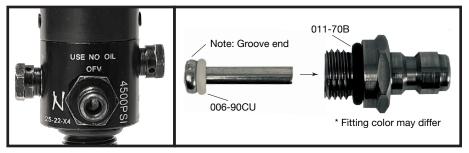
WARNING: The NINJAOFV O-ring fill valve #13 will only work with a compatible NINJAOFV series regulator. OFV is lasered above the fill port on the regulator body. See photo below. Do not use the NinjaOFV O-ring fill valve #13 with older Ninja regulator versions or any NON OFV regulator.

The NINJAOFV O-RING FILL VALVE # 13 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 #6 UNTIL ALL AIR HAS BEEN RELEASED.
- 3. Using a 1/2" wrench, turn counterclockwise. Remove the NINJAOFV #13.
- 4. Clean any debris out of the port.
- 5. Inspect the 3/8-24 female fill check port threads on the gas distribution body for damage. IF THREADS ARE DAMAGED OR WORN STOP! DO NOT USE THE REGULATOR SEE AN AIRSMITH 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.mscdirect.com
- 6. DO NOT USE THREAD TAPE OR SEALANT ON THE THREADS!! THE NINJAOFV #13 WILL SEAL ON THE 011-70B O-RING, NOT THE THREADS.
- 7. Make sure the OFV rivet #17 is inserted FULLY into the NINJAOFV #13 as shown below.
- 8. Install the NINJAOFV #13 assembly turning clockwise until the OFV #13 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 Airsmith or call for assistance 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.

#### PIN VALVE SEAT REPLACEMENT

- 1. The Pin Valve Seat (#4) sits inside of the Bonnet (#3) 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 (#3) 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!

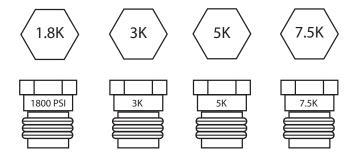
Four (4) most common burst disks:

- 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.



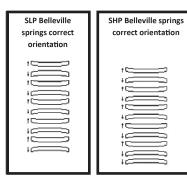
#### TO REPLACE A UNIFIED BURST DISK ASSEMBLY

- 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.mscdirect.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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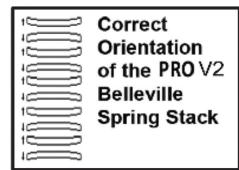
# NINJA PRO V2 - V4 REGULATOR PARTS DIAGRAM

- 1. Tank O-Ring (015-90u X 2)
- 2. Bonnet Set Screws\* (8-32 x 1/8)\*
- 3. Bonnet
- 4. Bonnet Pin Seat (008-PTFE)\*\*
- 5. 012 Upper Piston O-Ring (012-90u)\*
- 6. Pin\*\*
- 7. Pin Spring\*\*
- 8. Blue Shims\*
- 9. Nylon Ball\*
- 10. 008 Lower Piston O-Ring (008-90u)\*
- 11. Rotational Collar Set Screws with Patch (8-32 x 3/16)\*
- 12. High Pressure Burst Disk (5K for 3000 bottles) (7.5K for 4500 bottles)
- 13. OFV (O-Ring Fill Valve)
- 14. Rotational Collar on Main Body (Not Removable)
- 15. Mini Gauge
- 16. Low Pressure Burst Disk (1.8K)\*
- 17. OFV (O-Ring Fill Valve) Rivet
- 18. Belleville Spring Stack
- 19. Piston
- 20. Regulator Body
- \* Included in PRORBK
- \*\* Not interchangable with Ball regulator





Quad Adjustable	
Shims	Output Pressure
3	800psi
2	700psi
1	550psi
0	450psi



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