

# NINJA PIN PRO REGULATOR OWNERS MANUAL

PRO or SLP or SHP

## 1.877.NINJAUSA (1.877.646.5287)



#### **PROUDLY MADE IN THE USA**

Due to the high flow characteristics of the Pin regulator you may experience connection / activation difficulties with certain markers ASA. To eliminate simply reduce the regulator output pressure to 500 psi by removing (2) red shims (#12) see page 4, Pressure Conversion. We also have videos showing adjustment on our YouTube channel name is NINJA PAINTBALL OFFICIAL

**AWARNING:** 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 **NINJA Regulator** system to be refilled either on or off the marker. The **NINJA Regulator** system may be filled with Clean, Dry Compressed Air or Nitrogen.

UNDER NO CIRCUMSTANCES SHOULD THE NINJA REGULATOR SYSTEM BE FILLED WITH PURE OXYGEN. OXYGEN WILL IGNITE CAUSING INJURY OR DEATH

When filling your NINJA Regulator system do not exceed the pressure rating shown on the CYLINDER'S LABEL.

#### DO NOT APPLY OR INJECT OIL OF ANY TYPE TO THE FILL OR BURST DISC 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 **PRO 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 **PRO Regulator** system .If you use compressed air, make sure that the compressor providing that air is equipped with <u>WORKING</u> filters and moisture separators.

## **CONNECTING YOUR NINJA REGULATOR**

PRIOR TO EVERY USE OF YOUR NINJA PRO V2 AIR SYSTEM PLEASE DO THE FOLLOWING:
FAILURE TO FOLLOW THESE INSTRUCTIONS CAN RESULT IN SERIOUS INJURY

- INSPECT TO MAKE SURE THE BONNET SCREWS X (3) AND ROTATIONAL SLEEVE SET SCREWS X (3) ARE PRESENT AND SECURELY TIGHTENED
- DO NOT USE THE NINJA PRO AIR SYSTEM IF ANY OF THE BONNET OR ROTATIONAL SLEEVE SET SCREWS ARE MISSING OR NOT SECURLY TIGHTENED.
  NEVER REMOVE THE SET SCREWS OR ADJUST THE ROTATIONAL SLEEVE WITH PRESURE IN THE BOTTLE.

## 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 1.8K safety burst disk is there to protect you and your marker in the unlikely event that the **NINJA Regulator** fails.



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 1.8K burst disc, PER THE INSTRUCTIONS SEE PAGE 6, available at most paintball shops and refill the system.

If the (LP) 1.8K burst disc vents after rebuild see an airsmith for help or call: 1.877.NINJAUSA (1.877.646.5287)

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

#### ALWAYS CHECK TO MAKE SURE THERE IS NO GAP BETWEEN THE BOTTLE AND REGULATOR SEAL. SEE ILLUSTRATION BELOW IF THERE IS A GAP



Safely Drain your system and wait for the system to FULLY DEGAS! Contact a qualified airsmith IMMEDIATELY OR CALL 1.877.NINJAUSA



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## PRESSURE CONVERSION

#### SLP is not adjustable

Unless ordered otherwise, all Standard PRO Regulators are factory shipped at a standard 750-850 PSI output pressure (SHP at 1100 PSI), if you wish to adjust the output pressure please follow these six steps. WATCH THE VIDEO AT NINJAPAINTBALL.COM

BEFORE PROCEEDING, MAKE SURE YOUR SYSTEM HAS BEEN COMPLETELY DEGASSED VIA THE OUTPUT PIN VALVE, TO INSURE THAT NO TRAPPED COMPRESSED GAS IS PRESENT!





ALWAYS WEAR EYE PROTECTION, GLOVES AND POINT THE AIR SYSTEM IN A SAFE DIRECTION AWAY FROM YOURSELF AND ALL BYSTANDERS PRIOR TO DEGASSING THE SYSTEM!

<u>NOTE:</u> THE FOLLOWING TOOLS MAY BE REQUIRED AND ARE AVAILABLE AT MOST HARDWARE STORES:

- 5/64" HEX KEY WRENCH TO REMOVE BONNET SET SCREWS
- 8-32 THREADED MACHINE SCREW 2" TO 4" LONG TO HELP REMOVE BONNET
- 1. Remove the three 8-32 set screws that lock the Bonnet (the top portion of the regulator) to the

## ROTATIONAL ADJUSTMENT: DO NOT ADJUST WITH AIR IN YOUR TANK: TANK MUST BE EMPTY

The following tools are required available at most hardware stores:

- 5-64 Allen Wrench
- 8-32 screw 2" to 4" long

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

#### BEFORE PROCEEDING, MAKE SURE YOUR SYSTEM HAS BEEN COMPLETELY DEGASSED VIA THE OUTPUT BALL VALVE, TO ENSURE THAT NO TRAPPED COMPRESSED GAS IS PRESENT!



#### 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. DO NOT REMOVE THE SCREWS.
- 2. Grasp the bottle and turn the NINJA PRO Regulator to your desired location.
- 3. Tighten the (3) 8-32 rotational collar set screws securely. Fill your air system and you are ready to play.

- Regulator Body, REFER TO DIAGRAM ON PAGE 8.
- Unscrew the Bonnet counter clockwise from the Reg Body. (It has normal right hand threads.) Bonnet should remove easily. Make sure there is no trapped air in the bonnet by depressing the pin valve.
- 3. PRESSURE ADJUSTMENT FOR THE STANDARD PRO REGULATOR. The shims are located in the bottom "pocket" of the gas distribution body, they are flat and blue in color.
- Remove 1 blue shim approximate output 700PSI
- Remove 2 blue shims approximate output 550 PSI
- Remove 3 blue shims approximate output 450 PSI
- For the SHP remove the 3 silver shims for 900-1050PSI
- 4. Reinstall the remaining shims first into the bottom pocket of the gas distribution body, then install the piston assembly into the gas distribution body on top of the shims.
- 5. Carefully screw the Bonnet back onto the Reg Body. Make sure the bonnet is installed fully. The bonnet should be contacting the top of the gas distribution body There Should Be No Gap. The 8-32 threaded machine screw will help with the install. Do not apply excessive torque screwing the Bonnet to the Gas Distribution body.
- 6. Replace the three locking set screws and tighten securely. DO NOT OVER TIGHTEN

**Helpful Hint:** Insert the 8-32 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.

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

## SERVICE & REBUILD PROCEDURES

FOR SAFETY AND RELIABILITY ONLY USE NINJA REPLACEMENT PARTS. WATCH THE VIDEO AT WWW.NINJAPAINTBALL.COM OR ON YOUTUBE. For reference purposes, consult the exploded parts diagram page 8.



#### SPARE PARTS & 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 SCREW 2" TO 4" LONG TO HELP REMOVE BONNET

#### PRIOR TO DISASSEMBLY FULLY DEGAS THE AIR SYSTEM

- POINT THE BOTTLE AWAY FROM YOURSELF AND BYSTANDERS. DEPRESS THE BALL OR PIN VALVE 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 1.877.NINJAUSA • (1.877.646.5287)
- All internal parts are accessed by unscrewing the Bonnet from the Gas 1. Distribution Body, see page 4 for details.
- After separating the bonnet from the gas distribution body the coil spring, shims, 2. SRT piston, and Pin Valve components can be removed. Helpful Hint: Do not use tools to remove the SRT piston as this may damage the piston. Firmly grip
- the end of the piston and wiggle the piston while pulling with your fingers. Clean the inside of the NINJA REGULATOR body and bonnet with a cotton 3.
- swab. 4.
- To reassemble, lightly lubricate the SRT piston "O" rings using Silicone Lube. Re-install the Output Pin Valve & Spring by dropping the Pin #5 into the bonnet #2 make sure the Pin #5 is seated and located in the bonnet pocket. 5.
- 6. Place the Pin spring #6 into the piston cavity. Then carefully push the Piston Assembly #8 into the piston bore in the bonnet #2. The Piston must be properly seated in the Bonnet before proceeding further. The Piston is properly seated when it cannot be pushed in any further.
- 7. Reinstall the coil spring #13 and shims as described on page 4. Do not apply excessive torque when screwing the Bonnet and Gas Distribution together. Replace and securely tighten the (2) 10-32 bonnet retaining screws with the 3/32" hex key wrench.

## **PIN VALVE SEAT REPLACEMENT**

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

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## NINJA FILL CHECK VALVE REPLACEMENT ONLY REPLACE WITH GENUINE NINJA FILL CHECK VALVE.

The Fill check valve assembly on your Ninja regulator is one of the items that will require periodic replacement, either due to leakage or mechanical damage to the OD portion, follow the procedure below:

- ALWAYS WEAR SAFETY GLASSES AND POINT THE FILL CHECK AWAY FROM YOUR 1. SELF AND ALL BYSTANDERS.
- MAKE SURE THE SYSTEM IS COMPLETELY DE-PRESSURIZED BY DEPRESSING THE 2. BALL VALVE UNTIL ALL AIR HAS BEEN RELEASED.
- Using a 7/16" wrench, remove the old Fill check assembly. 3.
- Clean any debris and old sealant out of the port. 4.
- Inspect the female 1/8" NPT fill check port threads on the gas distribution body for any 5. damage. IF THREADS ARE DAMAGED OR WORN STOP! DO NOT USE THE REGULATOR SEE AN AIRSMITH OR CALL 877-NINJAUSA It is recommended that a go/no-go thread gauge be used to verify these threads AVAILABLE AT WWW.MSCDIRECT.COM
- A thread sealant has been applied to the threads on the new NINJA Fill check. Do not use any 6. additional sealant or PTFE tape.
- Make sure the strut is inserted into the NINJA Fill check as show below, and screw the new 7. assembly into your regulator. Turn it in until it is hand tight, and then tighten a further 1 & 1 / 2 turns. It should not be necessary to exceed 100 inch-pounds of torque to achieve sealing. If the fill valve is still leaking STOP and contact an Airsmith or call877-NINJAUSA (646-5287)

### **BURST DISK REPLACEMENT**

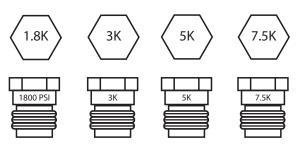
ASTM compliant Unified Burst Disks are used on paintball regulators and CO2 valves for both the D.O.T. (Department Of Transportation) required bottle protection and downstream over-pressure protection.

THE 3000 PSI (3k) BURST DISC IS FOR CO2 BOTTLES ONLY !!!

Four (4) most common bust disc.

- 1. 1800 PSI. Used for downstream over-pressure safeties on regulators.
- 3000 PSI. Used for the D.O.T. required safety on CO2 storage bottles. 2.
- 5000 PSI. Used for the D.O.T. required safety on 3000 PSI N2/HPA storage bottles and on 3. X PCP regulators as the downstream safety
- 4. 7500 PSI. Used for the D.O.T. required safety on 4500 PSI rated N2/HPA storage bottles.

WARNING SERIOUS PERSONAL INJURY OR DEATH FROM IMPROPER DISC REPLACEMENT IT IS ABSOLUTELY ESSENTIAL THAT YOU ONLY REPLACE FAILED UNITS WITH EXACT REPLACEMENTS!!! ASTM UNIFIED BURST DISC HAVE THE PRESSURE IDENTIFICATION STAMPED ON THE HEAD OF THE DISC. SOME DISC MAY HAVE THE PRESSURE IDENTIFIER ON THE SIDE OF THE DISC. SEE ILLUSTRATION above. If you are unsure do not guess see a qualified airsmith or call 815-477-0007 for assistance.



## TO REPLACE A UNIFIED BURST DISK ASSEMBLY:

- Unscrew (tum counterclockwise) the failed unit, and discard it. They are not 1. serviceable.
- 2. Visually inspect the female port on for damage or debris and blow out if necessary. If the port is damaged, do not replace the disc. Consult an airsmith or call 877-646-5287 for assistance. We recommend the female port be checked with a 3/8-24-UNF-2B go/ no go gauge available at www.mscdirect.com
- Screw in the new replacement unit and torque to a minimum 55 inch-pounds and 3. maximum 95 inch-pounds. UNIFIED BURST DISC MUST BE ASSEMBLED WITH AN INCH POUND TORQUE WRENCH!
- If the Burst Disk Assembly does not seal at 95 inch-pounds, the valve should be 4. inspected by an airsmith or call 877-646-5287 for assistance.

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- 1. Tank O rings (015-90U x 2)
- 2. Bonnet Screws\*
- 3. Bonnet
- Pin Seat 008\*\* 4.
- 5. 012 O ring\*
- 6. Pin\*\*
- Pin Spring\*\* 7.
- 8. Thin BLUE shims\*
- 9. Reg Seat\*
- 10.008 O ring\*
- 11. Collar Set Screws\*
- 12. High Pressure Burst Disk (5k for 3000 bottles) (7.5k for 4500 bottles)
- 13. Mini Fill Valve
- 14. Rotation Collar on Main Body (not removable)
- 15. Mini Gauge
- 16. Low Pressure Burst Disk\* (1.8k)



#### FOR ASSISTANCE.

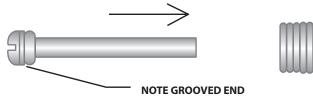
#### NEVER INJECT OIL INTO THE REGULATOR THROUGH THE FILL CHECK OR ALLOW OIL TO ENTER THE BOTTLE OIL DROPLETS WILL IGNITE DURING THE FILL PROCESS WHICH MAY LEAD TO INJURY OR DEATH.

NOTE: You will notice that the strut in our NINJA Fill check valve has a groove across the "O" Ring end. This groove is essential for proper gas flow. Always replace the complete assembly. Only replace with NINJA FILL CHECK ASSEMBLY

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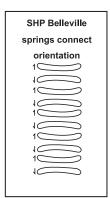
- 17. Mini Fill Valve Rivet 18. Belleville stack 19. Piston
- \*Included in PRORBK
- \*\* Not interchangeable with **Ball Regulators**

Do not alter the SLP or SHP spring stack Do not add shims to either Spring Stack





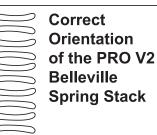
SLP Belleville springs connect orientation





**Quad Adjustable** 

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



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