Quad Pressure Adjustment

Removable

Bonnet

Rotational Sleeve

**Dual Seal O-Rings** 

**ASTM** 825-14 NGO

Thread

Ninja Mini Gauge

**ASTM** Safety Vent Groove



## NINJA PRO V2 REGULATOR SERIES OWNERS MANUAL

1.877.NINJAUSA (1.877.646.5287)





#### 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 OWNER'S MANUAL BEFORE USING.



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!



Due to the high flow characteristics of the V2 ball seal regulator you may experience connection / activation difficulties with certain markers ASA. To eliminate simply reduce the V2 regulator output pressure to 550 psi by removing (2) shims see page 4, Pressure Conversion.

May 2015

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# THE SAFETY SYSTEM

Low Profile

Fill Valve

The NINJA PRO V2 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 PSI safety burst disk is there to protect you and your marker in the unlikely event that the NINJA PRO V2 Regulator fails.



REMEMBER, most regulator failures are the result of contaminated air.

If the (LP) 1.8K PSI 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 PSI burst disc, PER THE INSTRUCTIONS SEE PAGE 5, also available at NINJAPAINTBALL.COM and refill the system.

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



Failed burst disc is not serviceable; discard and replace. Burst discs are available at your local Ninja Paintball NINJA PRO V2 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.

Black High and Low

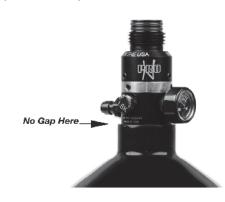
Pressure

Burst Disks

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

STOP!!! DO NOT FILL OR USE YOUR SYSTEM. Place the system on the ground and wait for the system to FULLY DEGAS! Contact a qualified airsmith IMMEDIATELY!

OR CALL 1.877.NINJAUSA (1.877.646.5287) for assistance



2

## **CONNECTING YOUR NINJA PRO V2 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 TIGHTÉNED
- DO NOT USE THE NINJA PRO V2 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.

#### **ROTATIONAL ADJUSTMENT:**

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 V2 Regulator system into your markers ASA fitting you may wish to orientate your NINJA PRO V2 Regulator. The NINJA PRO V2 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!



8 C'BCH'58 > IGH'K +1 < '5 + F'+B'MCIF'H5B?.'H5B?'A IGH'69'9 A DHM

- 1. Using an 5-64 allen wrench loosen (turnÁcounterclockwise) the (3) rotational collar set/screws. DO NOT REMOVE THE SCREWS.
- 2. Grasp the bottle and turn the NINJAAPRO V2 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 Aplay.
- **NEVER TAMPER WITH THE ROTATIONAL ADJUSTING COLLAR,**



#### THE COLLAR IS <u>NOT</u> REMOVEABLE!

The NINJA PRO V2 Regulator system is equipped with the industry standard "QD Style" fill fitting, 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 either Clean, Dry Compressed Air or nitrogen.

FILLING THE NINJA PRO V2 REGULATOR SYSTEM



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

When filling your NINJA PRO V2 Regulator system do not exceed the pressure rating shown on NINJA PRO V2 REGULATOR 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 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.

SLOWLY Screw your NINJA PRO V2 Regulator system into your markers ASA fitting. It is recommended that you apply Paintball Gun Lube on the NINJA PRO V2 Regulator bonnet threads. This simple procedure will reduce bonnet and ASA thread wear. The NINJA PRO V2 Regulator has a "ball valve"

output valve which shuts off the gas delivery when the power system is removed from the marker.

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#### PRESSURE CONVERSION

All Standard NINJA PRO V2 Regulators are factory shipped with (3) shims setting the regulator at 800 PSI output pressure, If you wish to adjust the output pressure please follow these six simple steps. WATCH THE VIDEO AT WWW.NINJAPAINTBALL.COM



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

### The following tools are required available at most hardware stores:

- 5-64 Allen Wrench
- 8-32 screw 2" to 4" long
- 1. Remove the (3) 8-32 set screws that lock the Bonnet #3 (the top portion of the regulator) to the Reg Body, REFER TO DIAGRAM ON PAGE 8.
- 2. Unscrew the Bonnet counter clockwise from the Reg Body. The bonnet should unscrew easily. Make sure there is no trapped air in the bonnet by depressing the ball valve.

Helpful Hint: A 8-32 bonnet (2"- 4" long screw) available at any hardware store is helpful, simply screw the 8-32 screw into one of the bonnet set screw holes to ease the removal and reinstallation of the bonnet. Insert the 8-32 screw into one of the bonnet screw holes until it stops or bottoms out, unscrew (1/2) turn. This will prevent the 8-32 screw from damaging the gas body bonnet threads, use the long screw as a lever to remove the bonnet.

Be careful not to lose the Ball Valve or its spring.

3. PRESSURE ADJUSTMENT:

#### Quad Adjustable

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

The shims are located in the bottom "pocket" of the gas distribution body.

- 4. Reinstall the remaining shims first into the bottom pocket of the gas distribution body, then install the spring pack into the gas distribution body on top of the shims.
- 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. Use the 8-32screw as a lever to help with the install. Do not apply excessive torque screwing the Bonnet to the Gas Distribution body.
- 6. Replace the (3) locking set screws and tighten securely. **DO NOT OVER TIGHTEN.**

#### SERVICE & REBUILD PROCEDURES

FOR SAFETY AND RELIABILITY ONLY USE NINJA REPLACEMENT PARTS. WATCH THE VIDEO AT WWW.NINJAPAINTBALL.COM

For reference purposes, consult the exploded parts diagram page 8. SPARE PARTS & REBUILD KITS AVAILABLE AT YOUR LOCAL NINJA DEALER OR

NINJAPAINTBALL.COM



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!



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

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)

1. All internal parts are accessed by unscrewing the Bonnet from the Gas Distribution Body, see



DO NOT APPLY HEAT! If the bonnet does not easily unscrew, MAKE SURE THE SYSTEM IS COMPLETELY DEGASSED BY DEPRESSING THE BALL VALVE TO EXHAUST ANY **TRAPPED GAS** 

- 2. After separating the bonnet from the gas distribution body, remove the SRT piston with spring stack assembly. Ball Valve assembly and shims, 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
- 3. Clean the inside of the NINJA REGULATOR body and bonnet with a cotton swab.
- 4. To reassemble, lightly lubricate both SRT piston and "O" rings using paintball gun lube. DO NOT USE OIL!
- 5. Re-install the Ball Valve by dropping the Ball #6 into the Bonnet #3. Make sure the ball is seated and is located in the bonnet pocket. Insert the Pro V2 spring #7 into the piston #19.
- 6. Carefully push the Piston Assembly into the piston bore in the bonnet. 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 and the ball valve is protruding from the hole in the bonnet.
- 7. Reinstall the shims as described on page 4. Do not apply excessive torque when screwing the Bonnet and Gas Distribution together. Replace and securely tighten the (3) 8-32 bonnet retaining screws with the 5-64 allen wrench.

#### **BURST DISK REPLACEMENT**

FOR SAFETY AND RELIABILITY ONLY USE NINJA REPLACEMENT PARTS. WATCH THE VIDEO AT WWW.NINJAPAINTBALL.COM

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. Four (4) most common burst discs:

1800 PSI.

Used for downstream over-pressure safeties on regulators.

3000 PSI.

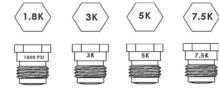
Used for the D.O.T. required safety on CO2 storage bottles.

5000 PSI.

Used for the D.O.T. required safety on 3000 PSI N2/HPA storage bottles.

7500 PSI.

These are used for the D.O.T. required safety on 4500 PSI rated N2/HPA storage





WARNING SERIOUS PERSONAL INJURY OR DEATH FROM IMPROPER DISC REPLACEMENT. IT IS ABSOLUTELY ESSENTIAL THAT YOU 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 gualified airsmith or call 877-646-5287 for assistance TO REPLACE A UNIFIED BURST DISK ASSEMBLY: TOOLS REQUIRED 3/8" BOX WRENCH

- 1. Unscrew (turn counterclockwise) the failed unit, and discard it. They are not serviceable.
- 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 5

#### If the Burst Disk Assembly does not seal at 95 inch-pounds, the valve should be inspected by an airsmith or call 877-646-5287 for assistance. NINJA FILL CHECK VALVE REPLACEMENT part #13 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:

3. Screw in the new replacement unit and torque to a minimum 55 inch-pounds and maximum 95 inch-pounds. UNIFIED BURST DISC MUST BE ASSEMBLED WITH AN INCH POUND TORQUE

BEFORE PROCEEDING, MAKE SURE YOUR SYSTEM HAS BEEN COMPLETELY DEGASSED VIA THE OUTPUT BALL VALVE, TO ENSURE 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!

- 1. Using a 7/16" wrench, remove the old Fill check assembly.
- 2. Clean any debris and old sealant out of the port.
- Inspect the female 1/8"-27 NPT fill check port threads on the gas distribution body for any damage. IF THREADS ARE DAMAGED OR WORN STOP! DO NOT USE THE REGULATOR SEE AN AIRSMITH OR CALL 877-646-5287 It is recommended that a 1/8-27 NPT go/no-go thread gauge be used to verify these threads AVAILABLE AT WWW.MSCDIRECT.COM
- 4. A thread sealant has been applied to the threads on the new NINJA Fill check. Do not use any additional sealant or PTFE tape
- 5. Make sure the strut is inserted into the NINJA Fill check as show below, and screw the new 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 leaks still occur STOP contact an Airsmith or call 877-NINJAUSA (646-5287) 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 part #13.





IF THE REGULATOR SHOULD BECOME "LOCKED" INTO THE MARKERS ASA

- DO NOT USE THE BOTTLE WITH THE REGUALTOR ATTACHED AS A "LEVER" TO REMOVE THE AIR SYSTEM / REGULATOR FROM THE ASA.
- DEGAS THE NINJA PRO SYSTEM BY FIRING THE MARKER UNTIL THE BOTTLE IS **COMPLETLY EMPTY.**
- REMOVE THE BONNET SET SCREWS AND BONNET FROM THE REGULATOR.
- THE BONNET AND YOUR MARKERS ASA WILL NEED TO BE REPLACED

IF YOU HAVE ANY QUESTIONS CALL NINJA @ 877-646-5287 FOR ASSISTANCE

#### NINJA PRO V2 SLP REGULATOR SYSTEM

- set to 300 PSI
- Belleville spring stack orientation, see figure 1a
- rebuild procedure remain same as Ninja PRO V2, see page 4

NOTE: THE SLP REGULATOR IS NOT ADJUSTABLE. DO NOT ADD SHIMS.



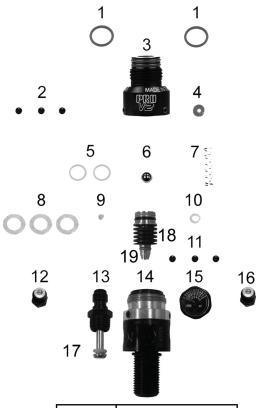


#### **NINJA PRO V2 SHP REGULATOR SYSTEM**

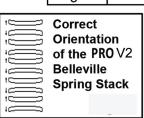
- factory set at 1100 PSI
- can be adjusted to 950 PSI with removal of all three internal shims
- Belleville spring stack has a different orientation than standard PRO V2 regulator, see figure 1b
- maintenance and rebuild procedure remain same as Ninja PRO V2, see page 4

**NOTE: THE SHP REGULATOR can only** be set at either 1100 PSI or 950 PSI. DO NOT ADD SHIMS.





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

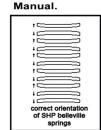


#### Correct Orientation of the SLP V2 Belleville **Spring Stack**

# PRO V2 REGULATOR **ASSEMBLY**

- 1. Dual Tank O-Rings
- 2. Bonnet Set Screws
- 3. PRO V2 Bonnet
- 4. Ball Valve Seat
- 5. Upper Piston O-Ring
- 6. Ball Valve
- 7. Pro V2 Spring
- 8. Pressure Adjustment Shims
- 9. Piston Ball Seat
- 10. Lower Piston O-Ring
- 11. Adjustment Collar Screws
- 12. 1.8K Burst Disk
- 13. Micro Fill Valve 14. Pro Rea Body
- 15. Micro Gauge
- 16. 7.5k Burst Disk 17. Micro Fill Valve O-Ring
- 18. Belleville Spring Stack (Al623132) X10
- 19. SRT Piston

Please refer to all safety and maintenance procedures referenced in the PRO Owner's



NOTE: The following parts DO NOT interchange from the Pro V2 to the PRO. Bonnet #3, Ball Valve Seat #4, Ball #6, Pro V2 spring #7

www.ninjapaintball.com

1.877.646.5287

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Figure 1b