

**IMPORTANT SAFETY INSTRUCTIONS AND GUIDELINES**

**WARNINGS**

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!

**PRIOR TO EVERY USE OF YOUR AIR SYSTEM PLEASE DO THE FOLLOWING:**

- FAILURE TO FOLLOW THESE INSTRUCTIONS CAN RESULT IN SERIOUS INJURY OR DEATH.
- INSPECT TO MAKE SURE TWO TOP CAP SCREWS ARE PRESENT AND SECURELY TIGHTENED.
- DO NOT USE THE DTS REGULATOR IF ANY OF THE TOP CAP SET SCREWS ARE MISSING OR NOT SECURELY TIGHTENED.

- NEVER REMOVE THE SET SCREWS OR ADJUST THE ROTATIONAL SLEEVE WITH PRESSURE IN THE BOTTLE.
- MAKE SURE THERE IS NO GAP BETWEEN THE BOTTLE AND REGULATOR.

**MOUNTING DYE DTS SYSTEM ONTO YOUR MARKER**

SLOWLY Screw your DYE DTS Regulator system into your marker's ASA fitting.

Take care not to cross thread the top cap and ASA. It is recommended that you apply Paintball Gun Lube on the ASA threads to help reduce top cap and ASA thread wear.

It is recommended to use the DTS system with an ASA that has an on/off air supply mechanism. Be sure the ASA is in the off position before screwing the DTS system in.

**FILLING THE DYE DTS SYSTEM**

DYE uses the industry standard Quick Disconnect fill valve. This allows the system to be filled on or off the marker.

DO NOT USE THE DTS REGULATOR IF ANY OF THE TOP CAP SET SCREWS ARE MISSING OR NOT SECURELY TIGHTENED.

MAKE SURE THERE IS NO GAP BETWEEN THE BOTTLE AND REGULATOR.

- The fill valve is located on the side of the regulator body opposite of the gauge.
- Make sure the fill station hose is fully locked on to the fill valve before starting the airflow. If you are not familiar, or uncomfortable with the filling procedure ask a trained technician to perform the filling procedure for you.
- Do not exceed the pressure ratings listed on bottle label.
- It is important to keep the fill nipple covered at all times when not actively filling your bottle. This will help prevent contaminants from being introduced into your DTS system, and potentially causing the regulator to fail.

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.

UNDER NO CIRCUMSTANCES SHOULD THE DYE DTS REGULATOR SYSTEM BE FILLED WITH PURE OXYGEN OR ANYTHING OTHER THEN COMPRESSED AIR. SPECIFICALLY, OXYGEN WILL IGNITE CAUSING INJURY OR DEATH.

**GAUGE ALIGNMENT**

The DTS allows you to adjust how the regulator indexes to your Marker's ASA. With this feature you can ensure the gauge and fill nipple are located where you want them.

**BEFORE PROCEEDING, MAKE SURE YOUR SYSTEM HAS BEEN COMPLETELY DEGASSED BY DEPRESSING THE PIN VALVE TO EXHAUST ANY TRAPPED GAS.**

**MAKE SURE THE SYSTEM IS COMPLETELY DEGASSED.**

**DO NOT ADJUST WITH AIR IN YOUR TANK. TANK MUST BE EMPTY.**

- With the DTS system fully degassed use a 3/23" Allen wrench and remove the two (2) locking set screws on the side of the top cap.
- Unscrew the top cap 1 and 1/6 turns. At this point the top cap is loose from the reg body.
- Each additional 1/6 of a rotation (indicated by a click) will rotate the gauge alignment by 60 deg.
- Once you have rotated the top cap the desired number of clicks screw the top cap back onto the reg body.
- Make sure the set screw holes align with the locking cavities in the body.

- Screw the set screws in and securely tighten the screws so that they are flush with the body.

The DTS utilizes a 6-leads thread system to provide multiple index positions. The click you will hear and feel when turning the top cap counter clockwise is the top cap threads dropping down into the next set of reg body threads. Each click is another index position.

**SAFETY SYSTEMS**

DYE DTS 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 DYE DTS Regulator fails.

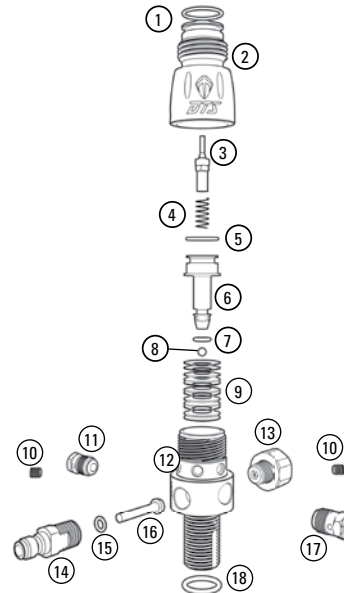
- Contaminated air is the most common cause of regulator failures.

DYE DTS reg also utilizes a vent hole and groove system on the reg stem threads. This is critical in the case the reg becomes unscrewed from the tank with air pressure in the bottle.

The DYE DTS fill valve has an integrated filter to help prevent dirt, oil, and water from entering the system. The filter will not stop all

contaminants from entering the system, it is important to keep the fill valve covered at all times when not actively filling your bottle.

- 1 Top cap o-ring 0015 PU80
- 2 Top cap
- 3 Pin valve
- 4 Pin valve spring
- 5 Piston head o-ring 013 PU80
- 6 Piston
- 7 Piston shaft o-ring 008 PU80
- 8 Reg seat
- 9 Shim stack
- 10 Set screw 10-32 x 3/16" (2)
- 11 HP bust disc 7.5k
- 12 Reg body
- 13 Micro gauge
- 14 Fill valve
- 15 Fill valve seal 006 PU90
- 16 Fill valve piston
- 17 LP burst disc 1.8k
- 18 Tank seal 112 BN70



**SERVICE & REBUILD PROCEDURES**

MAKE SURE THE SYSTEM IS COMPLETELY DEGASSED BY DEPRESSING THE PIN VALVE IN ORDER TO EXHAUST ANY TRAPPED GAS.

DO NOT USE OIL WHEN SERVICING THE DTS REGULATOR ONLY USE DYE SLICK LUBE WHEN LUBING COMPONENTS OF THE DTS REGULATOR. ALWAYS WEAR EYE PROTECTION, GLOVES AND POINT THE AIR SYSTEM IN A SAFE DIRECTION.

IF YOU ARE NOT COMFORTABLE WITH SERVICING YOUR DTS REGULATOR CONTACT DYE OR A LOCAL CERTIFIED TECHNICIAN.

The DTS does not need to be disassembled for service unless the regulator has failed in some way (e.g., supplying an improperly regulated PSI). This will more than likely be due to contaminated air damaging the seat or o-rings.

- To access all internal components follow the gauge alignment instructions to remove the top cap from the DTS reg body.
- See expanded view of the DTS regulator in this manual for reference.
- Once you have removed the top cap, pull the piston with shim stack out.

- Take caution not to drop any shims from the shim stack mounted on the piston. See diagram for proper shim stack assemble.
- The pin valve is located in the top cap above the piston, be careful not to lose the pin valve spring, housed in the top of the piston.
- Gently clean the inside of the reg body and top cap with a soft cloth or cotton swab. Take care not to scratch any of the internal surfaces where o-rings ride.
- Wipe off the piston and inspect piston o-rings and reg seat for wear or damage, replace if needed.
- To reassemble, lubricate both piston o-rings with a thin layer of lube (DO NOT USE OIL).



## IT IS RECOMMENDED TO USE DYE SLICK LUBE. DO NOT USE ANY TYPE OF OIL

- Install the valve pin into the top cap so that the pin protrudes through the cap.
- Make sure the shims are properly stacked on the piston.
- Install the pin valve spring into the top of the piston.
- Carefully press the piston into the top cap. take care that the pin valve fits into the top of the piston.
- Thread the assembled top cap onto the reg body
- Make sure the set screw holes align with the locking cavities in the body.
- Screw the set screws in and securely tighten the screws so that they are flush with the body.

## THE DTS REG USES 3/8-24 THREADS FOR ALL SIDE PORTS. THIS INCLUDES BURST DISCS, FILL VALVE, AND GAUGE THREADS

### FILL VALVE REPLACEMENT

DYE uses the industry standard Quick Disconnect fill valve. This allows the system to be filled on or off the marker.

- Using a 5/16" or adjustable wrench, remove the old Fill valve assembly.
- Clean any debris and old sealant out of the port.
- Inspect the female port threads on the reg body for any damage.

### IF THREADS ARE DAMAGED OR WORN DO NOT USE THE REGULATOR

- Be sure to use a DYE certified replacement fill valve with 3/8-24 threads.
- Apply Teflon tape to the fill valve threads before threading into reg body.
- Securely tighten fill valve to prevent leak.

## DYE LIMITED WARRANTY

DYE Precision, Inc. warrants for one year to the initial retail purchaser, from the initial date of purchase, that the regulator is free from defects in materials and workmanship, subject to the requirements, disclaimers and limitations of this warranty. Disposable parts, normal maintenance and standard wear and tear parts such as O-rings and seals are not covered under warranty. This warranty does not cover scratches, nicks, improper disassembly, improper re-assembly, misuse, neglect or improper storage. Modification to the product will void the warranty. The only authorized lubricant for the DTS regulator is Slick Lube™. Use of any other lubricant will void your warranty. This warranty is limited to repair or replacement of defective parts. Freight is the responsibility of the customer. Proof of purchase must be submitted to DYE Precision for warranty to be in effect. This warranty is not transferable. This warranty does not cover performance. Paintball regulators are non-refundable.

A return authorization number is required prior to returning any item to DYE Precision. Please see contact information for details.

## TECHNICAL SUPPORT

Our Technical Support Departments are open Monday through Friday.

DYE Precision, Inc. USA can be reached at 858-536-5183 ext.0 or ext. 275 from 9am to 5pm PST.

DYE Europe can be reached at +44 (0) 20-8649-6330 from 9am to 5pm GMT.

DYE Asia can be reached at 886 (0) 4-2407-9135 from 9am to 5pm GMT +8 hours.

Additional support, copies of this manual and international contacts are available through our web site: [www.dyepaintball.com](http://www.dyepaintball.com)

## DISCLAIMER

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DYE Precision, Inc. U.S. Patent # 5,613,483, 7,594,503; 7,765,998. OTHER U.S. AND INT'L PATENTS PENDING. Covered by one or more of the following U.S. Patents, 5,613,483; 5,881,707; 5,967,133; 6,035,843 and 6,474,326. All rights will be strictly enforced.

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## OWNER'S MANUAL

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