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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.



**SLG**

**PATENTED SPOOL VALVE TECHNOLOGY**

U.S. Patent #5,613,483 and additional patents pending.

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# SLG™ OWNER'S MANUAL

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## INCLUDED WITH YOUR PROTO SLG™

- SLG™ Marker
- Allen tool set including 0.50, 1/16", 5/64", 3/32", 1/8", 5/32", 3/16" and 1/4".
- 1/4 oz. Slick Lube™
- Parts Kit
- Barrel Sock
- Owner's Manual
- Warranty Card
- 9V Battery

The SLG™ comes with the tools required to perform general maintenance and setting up. For a complete service, the following tools are required:

- 5/16" allen key
- #0 Phillips head screw driver
- A sharp pick to remove O-rings

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# W A R N I N G

IMPORTANT SAFETY INSTRUCTIONS AND GUIDELINES

- The SLG™ marker is not a toy. Misuse may cause serious injury or death.
- Please read, understand and follow the directions in the SLG™ owner's manual.
- Eye protection that is designed specifically for paintball and meets ASTM/CE standards must be worn by user and persons within range.
- Recommend 18 years or older to purchase. Person under 18 must have adult supervision.
- Do not put your finger inside the breech of the SLG. Moving bolt can cause a serious injury.
- Always treat the SLG™ marker as if it were loaded and able to fire.
- Only use compressed air or nitrogen gas in the SLG™ marker. DO NOT USE CO<sub>2</sub>.
- Do not exceed 850 psi input pressure.
- Only use .68 caliber paintballs that meet ASTM/CE standards.
- Ensure all air lines and fittings are tightened and secured before gassing up the SLG™.
- Never shoot the SLG™ marker at velocities in excess of 300 feet per second, or at velocities greater than local or national laws allow.



# W A R N I N G

IMPORTANT SAFETY INSTRUCTIONS AND GUIDELINES

- Always chronograph the SLG™ marker before playing paintball.
- Never look into the barrel or breech area of the SLG™ when the marker is switched on and able to fire.
- Compressed gas is dangerous, do not allow compressed gas to come in contact with your skin or try to stop a leak by covering it with your hand.
- Always fit a barrel blocking device to your SLG™ when not in use on the field of play.
- The owner's manual and any related warnings or instructions should always accompany the product for reference or in the event of resale and new ownership.
- Do not point the SLG™ marker at anything that you do not intend to shoot.
- Do not shoot at people, animals, houses, cars or anything not related to the sport of paintball.
- Do not fire the SLG™ without the bolt screwed in completely.
- If you read these instructions and do not fully understand them or are unsure of your ability to make necessary adjustments properly, call DYE Precision or your local pro shop for help.



## QUICK REFERENCE

### USING YOUR MARKER

#### QUICK START UP GUIDE

Before playing with your new SLG™ paintball marker there are a few important steps to take.

##### STEP 1. BATTERY INSTALLATION

- Remove three left hand side grip panel screws with a  $\frac{3}{32}$ " allen key.
- Open grip panel and install 9V battery into the connector inside the frame.
- Close grip panel and tighten the three screws back into place. When closing the panel observe that no wires get caught between the frame and the grip panel.



##### STEP 2. BARREL INSTALLATION

- Screw on the barrel to the front of the SLG™. Make sure it threads all the way in and has a snug fit.
- Attach the barrel sock so that it covers the tip of the barrel and secure the strap around the back of the SLG™.

##### STEP 3. LOADER INSTALLATION

- Press loader into feed neck. Loader should now be held in with a snug fit. For best performance, use a force feeding motorized loader.



## QUICK REFERENCE

### USING YOUR MARKER

##### STEP 4. ATTACHING GAS SOURCE

Be sure there are no paintballs loaded in the breech of the SLG. If the bolt is in the forward position, a ball can be fired when gas enters the marker.

Screw on a preset air system into the airport located on the bottom of the grip frame. Be sure the air system is screwed in all the way into the Airport. If there is a leak while screwing in the air system or if no gas enters the SLG™ when the air system is screwed all the way in, consult page 19 in this manual for pin depressor adjustment.

##### STEP 5. TURNING ON THE SLG™ AND CHECKING THE VELOCITY

- Make sure you and everybody around you is wearing ASTM/CE approved paintball masks.
- Press and hold the top button located behind the grip frame until the SLG™ turns on. **WARNING:** The SLG™ is now LIVE. Make sure barrel sock is in place and do not point the SLG™ towards anything you don't intend to shoot.
- Fill up the loader with .68 caliber paintballs.
- Shoot the SLG™ over a chronograph to check the velocity. If adjustment is needed adjust the velocity by turning the Hyper3™ velocity adjustment screw with a  $\frac{3}{16}$ " allen key. In (clockwise) will reduce the velocity and out (counter clockwise) will increase the velocity. After each adjustment it takes a few shots before the change can be seen on the chronograph. Never adjust the SLG™ to shoot faster than 300fps or what the field rules/local laws permit.



# SLG™ BOARD

## SETTINGS AND FUNCTIONS



### BUTTONS AND LED LIGHT INDICATOR

There are two buttons and an LED light indicator mounted inside the frame of the SLG™. These are accessible on the back side of the frame. The top button is used to turn the SLG™ ON and OFF. The bottom button is used to turn the eye feature of the SLG™ ON and OFF. To turn the SLG™ ON press and hold the top button until the LED light turns on. The eye feature is always on when the SLG™ is turned on, to turn off the eye feature press and hold the bottom button until the LED light starts blinking Red indicating the eye feature is turned off.

In normal operation mode the LED light indicator shows you the following information:

- Yellow:** Boot up Sequence
- Red:** No ball detected inside the SLG™, eye is turned on
- Green:** Ball detected inside the SLG™, eye is turned on
- Blinking red:** Eye is turned off
- Blinking green:** Eye blocked. Either the eye is dirty, the marker is not gassed up, there is bad connection between the board and the eyes or the battery is low.

### SETTINGS AND CONFIGURATION MODE

There are three settings that can be altered on the SLG™ circuit board.

1. Trigger sensitivity
2. ROF (Rate Of Fire)
3. Fire Mode

NOTE: The eye is always activated when you turn the marker on.

# SLG™ BOARD

## SETTINGS AND FUNCTIONS



DIP switch 1, is used for factory reset/tournament lock. When it's OFF the gun is always set back to stock settings (semiauto, 15 bps, trigger sensitivity 5).

To change the board settings you must turn ON the factory settings lock. To do this, turn DIP switch number 1 ON.

Settings 1-3 are changed from a configuration mode.

To change settings 1-3 you will need to activate the configuration mode. To activate the configuration mode, turn your marker off, open the three left side grip panel screws with a  $\frac{3}{32}$ " allen key and set DIP switch 2 to the ON position. Next, turn your marker on. The LED will cycle through all colors for one second to indicate that you have entered the configuration mode. To cycle through different settings, pull and release the trigger.

### GREEN - TRIGGER SENSITIVITY. VALUES 1 - 20 (factory default 5)

Trigger sensitivity is the amount of time that the trigger has to be released before the next trigger pull is allowed. In some situations with too low of a value, the marker may begin to shoot full-auto.



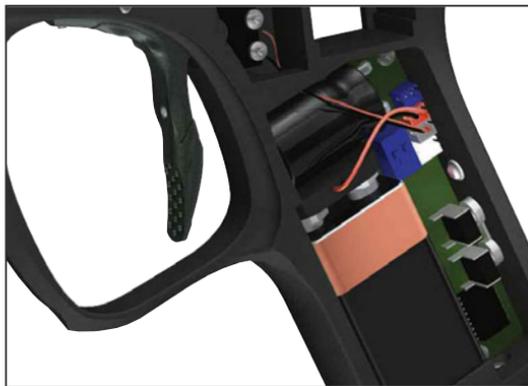
# SLG™ BOARD

## SETTINGS AND FUNCTIONS

### RED - RATE OF FIRE (VALUES 1-20)

The ROF setting is used to set the maximum rate of fire of the SLG™. The values do not correspond directly to a certain Balls Per Second (BPS) value. You will need to use the table below to locate your desired maximum ROF setting. The factory default is 8 (14.9 BPS). This setting is used both when the Eye function is turned on and off.

<b>1</b>	10 BPS	<b>11</b>	15.6 BPS
<b>2</b>	11 BPS	<b>12</b>	15.9 BPS
<b>3</b>	12 BPS	<b>13</b>	16 BPS
<b>4</b>	13 BPS	<b>14</b>	18 BPS
<b>5</b>	14 BPS	<b>15</b>	20 BPS
<b>6</b>	14.5 BPS	<b>16</b>	22 BPS
<b>7</b>	14.7 BPS	<b>17</b>	24 BPS
<b>8</b>	14.9 BPS	<b>18</b>	26 BPS
<b>9</b>	15.2 BPS	<b>19</b>	28 BPS
<b>10</b>	15.4 BPS	<b>20</b>	30 BPS



Normal Mode



Configuration Mode

Increasing ROF too high will increase probability of ball breakage. If this occurs decrease ROF setting.

# SLG™ BOARD

## SETTINGS AND FUNCTIONS

### YELLOW - FIRE MODE (VALUES 1-4)

The fire mode setting is used to select the fire mode of the SLG™. Factory default is semi automatic mode; one trigger pull shoots out one paintball. The Millennium mode and the PSP mode follow the rules of the paintball tournament series.

<b>Value 1</b>	-	Semi automatic mode
<b>Value 2</b>	-	Millennium™ Mode
<b>Value 3</b>	-	PSP™ mode
<b>Value 4</b>	-	NXL™

### TO CHANGE A VALUE OF A SETTING

1. While in the configuration mode choose the color you wish to change by pulling the trigger.
2. When the LED indicates the color you wish to change, pull and hold the trigger until the LED starts to flash.
3. The LED will flash as many times as the previous setting was and it will then turn off. Now pull the trigger as many times as you wish the new setting to be.
4. When done the LED will cycle through all the colors again to indicate setting was saved and turn back to green. You can now change another setting or quit the configuration mode.



# SLG™ BOARD

## SETTINGS AND FUNCTIONS

### BATTERY

The 9V battery will last for about 20,000 shots. Please be aware that there are substantial differences in performance between different brands of batteries. Use of high quality alkaline or lithium ion batteries is recommended for maximum battery life. If you plan not to use your marker for a long period of time (a month), it is recommended that you remove the battery from the marker. When the battery voltage starts to go too low, the marker will not fire with every trigger pull. For tournament use, it is recommended to change the battery for each tournament. When changing your battery, take special care to ensure the wiring harness is not pinched under the battery.

### CHANGING THE BATTERY

The battery is housed on the left side of the grip frame. To access the battery, remove the three screws holding the left side grip panel down. Use a  $\frac{3}{32}$ " Allen wrench. Carefully lift the battery out of the frame, taking care not to damage the battery lead wires. Clip a new battery into the 9V connector and carefully place it back into the frame making sure that no wires are pinched underneath the battery.



- A low battery will not be able to power both the ACE eye and the trigger switch, causing ACE eye failure.
- If the battery is low, the marker will not fire with every trigger pull.



# TRIGGER

## ADJUSTMENT



Fig. 1

The Trigger's forward travel and over travel are fully adjustable so that the user can fine-tune the trigger to his/her exact preference.

To adjust the trigger an .050 Allen key is needed. There are two adjustment screws located on the trigger.

The screw on the top front of the trigger controls the forward travel. Screwing it in will shorten the trigger's length of pull. Note: If this screw is screwed too far in, the switch will be depressed all the time causing the SLG™ to fire once immediately after turning it on and not firing after that! (Fig. 1)



Fig. 2

The screw on the back of the trigger controls the over travel. By turning this screw you can adjust how far back the trigger will travel. Note: If this screw is adjusted too far, the trigger will not be allowed to travel far enough to depress the switch and the marker will not fire. (Fig. 2)

The trigger spring used to return the trigger is located inside the frame. It is not suggested to remove this spring as it will cause excess wear on the microswitch and cause trigger bounce.



- Be sure the trigger is not adjusted to the point where it is too sensitive and may cause accidental discharge of the marker.
- Removing the trigger spring will cause premature wear on the microswitch, resulting in failure.
- **Be sure you do not pinch the wires between the frame and body when reattaching the frame to the body.**



# SLG™ BOLT ASSEMBLY



The SLG™ BOLT is the main component of the SLG™ marker. In order to achieve the best possible performance, it is essential that the SLG™ BOLT is kept clean, well lubed and in good working order.

The SLG™ BOLT should be cleaned and re-lubed every 10,000 shots or after breaking paint or playing in severe conditions.

The SLG™ bolt kit is composed of a 2 piece bolt, plunger, and back cap. To remove the bolt kit, unscrew the back cap using a 1/4" Allen key. Insert the Allen key into the back cap, while depressing the bleed button. If there is any air remaining in the SLG™, it will be purged when the bleed button is depressed. If air continues to leak from the bleed system, your air system is still feeding air into the SLG™.

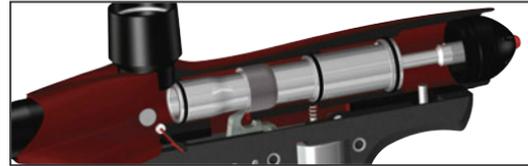
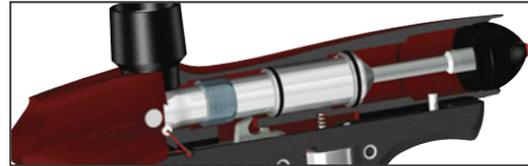
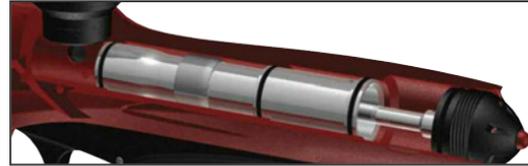
De-activate the air system and continue with the bolt maintenance. Once you have unscrewed the back cap and removed it from the body, the bolt should slide out. For regular maintenance there is no reason to disassemble the bolt kit any further.



# SLG™ BOLT OPERATION

## HOW IT WORKS

At rest, when the bolt is in the rear position, there is a positive forward force on the bolt from the air pressure in the shot chamber. The bolt is held in the rear position by the sear. When the SLG™ is fired, the sear is dropped by an electro-magnetic solenoid. The positive forward force drives the bolt forward until the bolt drops off the plunger and allows the shot chamber air to vent down the bolt and fire the paintball. Once the shot chamber has been fully vented, the air supplied to the bolt creates a positive rearward force that drives the bolt back and allows it to catch on the sear again. As the bolt travels rearward, the shot chamber is filled and the cycle is repeated.



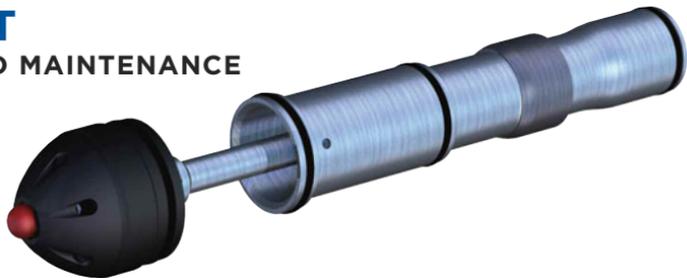
When servicing your marker:

- Make sure your hopper is removed from the marker.
- Make sure there are no paintballs in the breech of the marker.
- Always remove the air supply and relieve all gas pressure in the marker before disassembly.
- When using the marker in temperatures below 50° Fahrenheit it may be necessary to lube the SLG™ bolt more frequently.



# SLG™ BOLT

## OPERATION AND MAINTENANCE



### RE-COCKING / BLEED

The SLG™ is equipped with a Pneumatic re-cocking system in case the bolt becomes jammed (pinching a ball). The button in the center of the bolt back can be pressed to send the bolt rearward and reset it for the next shot. The bleed button also serves as a gas vent for the dump chamber. It can be used to de-gas the SLG™ after the tank is removed, or to confirm that the SLG™ has gas and is ready for play.

The bleed button is also a safety mechanism. You must depress the button with your Allen wrench when removing the bolt kit. If there is air retained in the gun it will be purged before you remove the bolt kit. The bolt kit should never be removed if there is an air supply feeding the SLG™.

### MAINTENANCE

The basic maintenance for the SLG™ BOLT is to clean all surfaces of dirt, broken paint or other debris. Also check for any wear and tear on the O-rings and change them if needed.

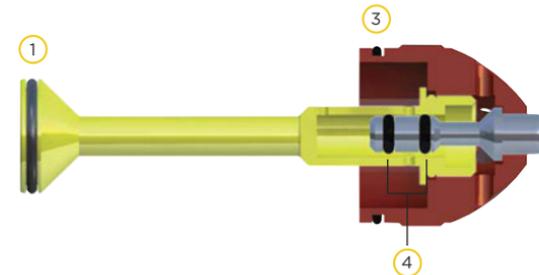
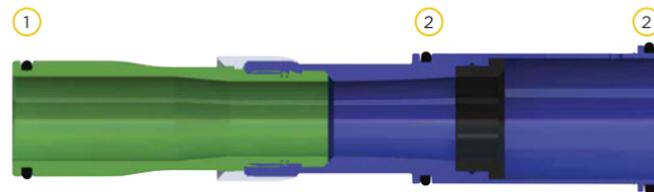
Remove the bolt kit with a 1/4" Allen. Apply a thin layer of lube to all o-rings on the bolt and plunger. Next, slide the bolt into the body. Make sure it moves smoothly. Screw the back cap into the body.

If the SLG™ BOLT is not kept clean and well lubed you will either start hearing leaks, or over long period of time physical damage to the SLG™ BOLT components.

To troubleshoot leaks and other bolt problems consult the troubleshooting section at the end of this manual.

# SLG™ BOLT

## O-RING TABLE



### SLG™ BOLT O-RING LIST

- |   |     |       |
|---|-----|-------|
| 1 | 014 | BN 90 |
| 2 | 016 | BN 70 |
| 3 | 020 | BN 70 |
| 4 | 005 | BN 70 |

# LOADERS AND FEED NECK

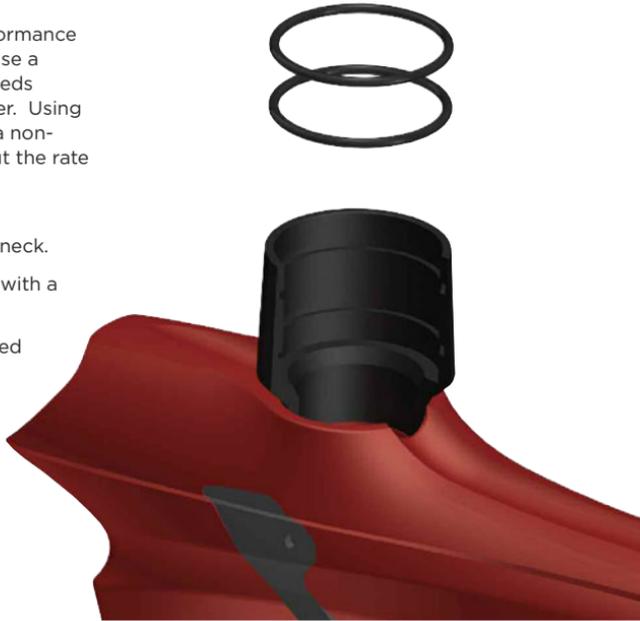
## LOADERS AND FEED NECK

To achieve the maximum performance of the SLG™ you will need to use a motorized loader that force feeds paintballs into the SLG™ marker. Using a slower motorized loader or a non-motorized loader will work, but the rate of fire will be reduced.

To fit a loader onto the SLG™, press the loader into the feed neck.

Loader should now be held in with a snug fit.

There is no maintenance needed for the feed neck besides keeping it clean of broken paint, dirt and debris. If O-rings become worn out they can be replaced with 023 BN-70 O-rings.

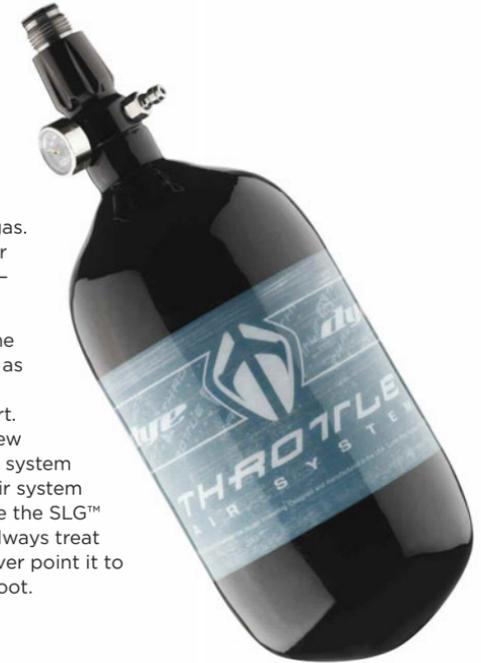


# AIR/NITROGEN OPTIONS AND INSTALLATION

## AIR / NITROGEN TANK OPTIONS AND INSTALLATION

The SLG™ will only work with Compressed air or Nitrogen air systems such as the DYE Throttle air system. Do not use CO<sub>2</sub> or any other compressed gas. The output pressure from the air system has to be between 400 - 850psi.

To install an air system, screw the tank into the airport all the way as far as it goes. To remove the air system, unscrew from the airport. There will be gas leaking for a few seconds while you screw the air system out. Notice that even with the air system removed there can be gas inside the SLG™ and it can still fire a paintball. Always treat the marker as being live and never point it to anything you don't intend to shoot.



## AIRPORT ASSEMBLY AND MAINTENANCE



### AIRPORT ADJUSTMENT AND MAINTENANCE

The location of the airport adapter can be moved approximately 1 $\frac{1}{4}$ " back or forward from the stock position to fit your individual preference. To change the position:

1. Open the three left side grip panel screws with a  $\frac{3}{32}$ " allen key.
2. Remove the 9V battery.
3. Using a  $\frac{3}{32}$ " allen key, loosen the airport locking screw until airport slides back and forth loosely.
4. Set the airport to the desired position.
5. Tighten airport locking screw,

install the 9V battery and tighten the three grip panel screws.

When screwing the air system into the airport, always check that the threads on the air system and the airport are clean and not worn out. If you think the threads are not in good condition, contact DYE Precision or a professional store before screwing in the air system.

## AIRPORT ASSEMBLY AND MAINTENANCE

### AIRPORT PIN DEPRESSOR

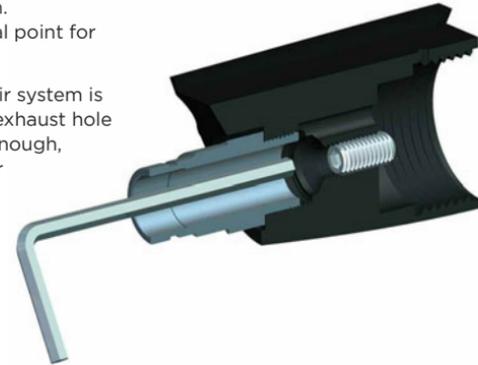
The airport on the SLG™ comes with an adjustable pin depressor. It's preset to work with most of the systems on the market, but if needed it can be adjusted.

To adjust the pin depressor remove the hose from the front of the airport by pushing the gray plastic housing towards the fitting and pulling the hose out. Next, use a  $\frac{5}{64}$ " allen key to move the set screw mounted inside the Airport. Turn the screw back a few turns so that the pin valve on the air system will never be pressed.

Next:

1. Screw the air system into the airport all the way, no air should come out.
2. Turn the pin depressor screw in until a small amount of air starts to come out.
3. Turn the air system out about half a turn, air leak should stop.
4. Screw in the pin depressor screw enough for air to start leaking again.
5. Screw out the air system and connect hose again.
6. Now the pin depressor screw is set to the optimal point for your air system.

If the screw is set too far out the pin valve on the air system is opened too early and air will leak out through the exhaust hole on the top of the airport. If the screw is not in far enough, the pin valve on the airport will never be opened or will be opened too little for good flow.



# HYPER3™ IN-LINE REGULATOR

## ADJUSTMENTS AND MAINTENANCE



### VELOCITY ADJUSTMENT

The velocity of the SLG™ is adjusted by adjusting the input pressure into the SLG™. This is controlled with the Hyper3™ regulator. The Hyper3™ on the SLG™ is factory set to 145 psi which will give you a velocity of about 285 FPS (Feet per Second). A  $\frac{3}{16}$ " allen key will be needed for this operation. Turning the adjustment screw in (clockwise) will decrease the pressure, and out (counterclockwise) will increase the pressure. To adjust the velocity:

1. Make sure you and everybody around you is wearing ASTM/CE approved paintball goggles.
2. Shoot the SLG™ over a paintball chronograph.
3. To lower the velocity turn the Hyper3™ adjustment screw in. To increase the velocity turn the screw out. Only turn the screw a quarter turn at a time and shoot over the chronograph again. Notice that a few shots are needed before the change can be seen on the chronograph.

### MAINTENANCE

For the SLG™ to function properly, it is essential that the input pressure into the marker stays consistent at all times. The general maintenance needed for the Hyper3™ regulator is to keep it clean of dirt and debris at all times. A more extensive service should be performed every 12 months by a trained Tech or if the output pressure of the regulator doesn't stay consistent. This can be seen as inconsistent velocity and verified with a regulator tester (sold separately). Notice that the Hyper3™ has a break in period of about 2000 shots before it achieves the best performance.

# HYPER3™ IN-LINE REGULATOR

## ADJUSTMENTS AND MAINTENANCE

### HYPER3™ REGULATOR DIS-ASSEMBLY INSTRUCTIONS

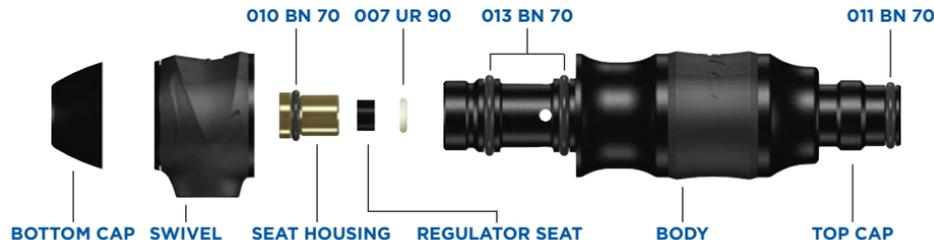
To disassemble the Hyper3™ regulator you will need a  $\frac{3}{16}$ " allen key and a  $\frac{5}{16}$ " allen key. Place the  $\frac{3}{16}$ " allen key inside the top cap and the  $\frac{5}{16}$ " allen key inside the bottom cap. Unscrew the bottom cap from the Hyper3 body.

Next unscrew the Brass seat housing from the body with a  $\frac{3}{16}$ " allen key. Slide the swivel from the body.

To change the seat, pull out the old seat from the housing with a sharp object. Insert the new seat in place and push it down with a flat object. Notice that it takes about 2000 shots for the seat to perfectly sit into the seat housing. This is called the break in period for the regulator.

Remember to apply lube to the O10 and O13's in the regulator before re-assembly.

Further disassembly to service the top section of the Hyper3 should be performed by a trained Tech.



## ANTI CHOP EYES/ BALL DETENTS

### MAINTENANCE AND CHANGING

#### ANTI CHOP EYES

The Anti Chop Eye (ACE) system will prevent the SLG™ from chopping paint by not allowing the marker to fire until a ball is fully seated in front of the bolt. The eyes use a beam across the breech. On one side there is a transmitter, and on the opposite side a receiver. In order for the marker to fire with the eyes turned on, the signal between the two eyes must be broken. After every shot, before the next ball drops in the breech, the eye transmitter and receiver must see each other. If the eyes are dirty and cannot see each other between shots, the LED on the board will start blinking green. This means that the eyes are dirty. This is an extremely reliable system as long as the eyes are kept clean. The most common reason for dirty eyes is broken paint. If the eyes become dirty the marker will default to a reduced rate of fire to prevent chopping. If this happens during game play, you can bypass this by turning the eyes off. Clean the eyes as soon as possible.

**NOTE: IF THE BATTERY IS LOW, THE MARKER MAY ACT AS IF THE EYES ARE DIRTY OR NOT FIRE AT ALL. IN THIS CASE, REPLACE THE BATTERY.**



## ANTI CHOP EYES/ BALL DETENTS

### MAINTENANCE AND CHANGING

#### CLEANING THE ANTI CHOP EYES

Quite often, just cleaning the breech out with a swab will clean the eyes well enough for them to read one another. For a thorough cleaning, the best method is to use air. Using an air hose or canned air (typically used for dusting keyboards) works best.

Blow the eyes clean from inside the breech. If you feel the eyes still need a more detailed cleaning, remove the eye cover to gain full access to the eyes.

To remove the eye cover, you will need a 1/16" Allen wrench.

NOTE: Regular eye cleaning is recommended even if no paint is broken. Clean the eyes every two months or 10,000 shots to eliminate any built up dirt. Excess grease from the front bolt O-ring can build up in front of the eyes. Remember to check for this after greasing the bolt and cycling the marker a few times.

**Do not remove grip frame without removing eye-plates first.**

#### CHANGING BALL DETENTS

The ball detents are also located under the eye cover. If you are experiencing double feeding or chopping, check the condition of the ball detents. They should come to a soft point. If they are flat or heavily rounded, they should be replaced. Ball detents should be replaced about every 40,000 shots.

**NOTE: TAKE CARE WHEN REPLACING THE EYE COVER TO NOT PINCH EYE WIRES, ALSO OVER-TIGHTENING THE RETAINING SCREW COULD RESULT IN STRIPPING THE THREADS.**

# TROUBLE SHOOTING GUIDE

## AIR LEAKS

### AIR LEAKING FROM THE AIRPORT

- Check the O-ring on the Air system. If needed change the O-ring and try again. The O-ring normally used is #15 but some manufacturers might use a different size. Consult the manual of the air system you are using.
- Check that the hose connector is tight. Remove the hose from the connector by pushing the gray plastic towards the connector and pull out hose. Insert a 3/16" allen key into the connector and tighten. If needed, remove and apply thread sealant to the thread and re-tighten. If unsure consult expert advice.
- Check that the end of the hose is cut straight and is not worn out. If needed cut a small piece off the hose with a razor blade and re-insert hose into the fitting. Make sure hose goes all the way to the end.
- Consult page 19 for pin depressor adjustment.

### AIR LEAKING FROM THE HYPER3™ REGULATOR

- First locate the position of the leak
- For dis-assembly instructions consult the technical section under Hyper3™ regulator
- If the leak is coming from the bottom of the regulator you will need to dis-assemble the regulator and change the #010 O-ring and the seat on the brass seat retainer mounted inside the Hyper3™ regulator.
- If the leak is coming from the swivel piece

where the hose connector mounts you will need to change the two #013 O-rings under the swivel piece or tighten the hose connector.

- If the leak is from the top of the regulator change the #012 O-ring on the outside of the cap.
- Otherwise consult a trained Tech to repair the Hyper3™.

### AIR LEAKING FROM THE ASA

- Change the #011 O-ring on the top cap of the Hyper3™ and apply a small amount of lube to the O-ring.

### AIR LEAKING BETWEEN BODY AND FRAME

- One of the gas passages could be leaking. Gas up the SLG™ without the frame attached and try to locate the exact point of leakage. If leak is coming from one of the blocked holes remove the screw, apply some thread sealant and re-attach screw to the body.

### AIR LEAKING FROM BACK OF THE SLG™

- Check that the bolt kit is tightened all the way into the SLG™. If the bolt kit is loose, it will start to leak.
- If above does not solve the leak, remove the bolt kit and change the #020 O-ring on the back part of the bolt.
- Replace the #012 O-ring on the plunger.
- If leak persists, replace the two #005 O-rings on the bleed button.

# TROUBLE SHOOTING GUIDE

## AIR LEAKING FROM FRONT OF THE SLG™

- Remove the Bolt kit from the marker and change the front #016 O-ring on the bolt and the #014 O-ring located on the plunger. Clean the gun bore, lube well and re-assemble.
- If above doesn't help, make sure that the bolt is screwed together snugly.

## PROBLEMS WITH ELECTRONICS

### SLG™ WON'T TURN ON

- Make sure battery is new and well charged.
- Check that battery is connected to the 9V clip inside the SLG™ and that the other end of the 9V harness is connected to the board.
- Make sure there is no dirt or debris blocking the button from being pressed.

### SLG™ WILL TURN ON / OFF BY ITSELF OR THE EYES WILL TURN ON / OFF BY THEMSELVES

- Both of these problems are caused because the button(s) are pressed all the time.
- Remove board from the frame by removing the grip panel on the left hand side, disconnecting the cables and pulling the board out. Carefully remove the two buttons and clean them well.
- Re-assemble and test. If problems persist, contact authorized service center for board replacement.

## EYES WILL NOT WORK, LED KEEPS

### BLINKING GREEN

- First change the battery. The eyes are normally the first thing to stop working when a battery is dying.
- Next try to clean the eyes. You can either use canned air and blow out the eye holes through the feed neck hole or remove the eye plates with a 1/16" allen key, pull out the eyes from the mounting holes carefully and clean them with q-tips. To test if the eyes work make sure there is nothing inside the breech and that the bolt is in the back position. Turn on the SLG™, the light should be red after the boot up sequence. If it is the eyes are working.
- Check that the eye wire is connected to the board so that metal clips are facing down.
- If nothing above helps contact a store or DYE Precision for eye replacement.

### SOLENOID WILL NOT ACTIVATE / TRIGGER NOT WORKING

- Check that the trigger adjustment is not set so that the microswitch cannot activate. You should hear a small click when pulling the trigger.
- If the SLG™ fires once when turned on but not after that your trigger is set so that the micro switch is always activated. Re-adjust the trigger.
- If the trigger is correctly adjusted but the SLG™ still won't fire check that the microswitch cable is well inserted into the board and to the



## TROUBLE SHOOTING GUIDE

correct connector (the microswitch connector is white and plugs into the white female connector on the board).

- Change the battery if not positive about it's charge.
- Check that the solenoid cable is attached to the blue female connector on the board.

### TRIGGER BOUNCE / SLG™ SHOOTING MORE THAN ONE BALL PER PULL IN SEMI AUTOMATIC MODE

- Raise the trigger sensitivity level in the configuration mode.
- Check that the trigger is not adjusted too short.
- Make sure there is a trigger spring inside the frame.
- Be sure the bolt is screwed together snugly.

### ERRATIC VELOCITY / SLG™ WON'T FIRE

#### SLG™ FIRES BUT BALLS ARE DROPPING OFF OR NOT EVEN COMING OUT OF THE BARREL

- Make sure the battery is good.
- Make sure bolt is clean, well lubed, and moves well. If there is too much friction in the bolt it will cause the SLG™ to shoot down.
- Make sure air system is screwed in all the way.
- Make sure airport screw is adjusted correctly.
- Make sure the front bumper O-ring is not blocking the inlet hole located on the back of the bolt.

#### SLG WILL NOT FIRE BUT SOLENOID CLICKS

- Press the bleed button on the back of the bolt several times, listen for bolt moving rear wards. If the bolt is still not moving, depressure the SLG and remove back and bolt, add lube to the bolt and reassemble.

#### FIRST SHOT IS TOO HIGH

- Change the Seat inside the Hyper3™ regulator. For dis-assembly instructions consult the technical section on page 21.

#### VELOCITY IS NOT CONSISTENT

- Make sure the paintballs you are using fit the barrel good and are consistent in size. The stock barrel with the SLG™ is .690 size. You should be able to blow the paintball through the barrel but they should not roll through the barrel on their own.
- Remove the bolt kit and re-lube it. Change any o-rings causing a lot of friction. Make sure #014 O-ring in bolt tip is in place and in good condition.
- Change the battery.
- Check that the Hyper3™ regulator is working good and that the pressure is consistent. A separate regulator testing tool is available for this. If needed, dis-assemble and change worn out O-rings in the Hyper3™ regulator.

## TROUBLE SHOOTING GUIDE

### OTHER CATEGORIES

#### DOUBLE FEEDING

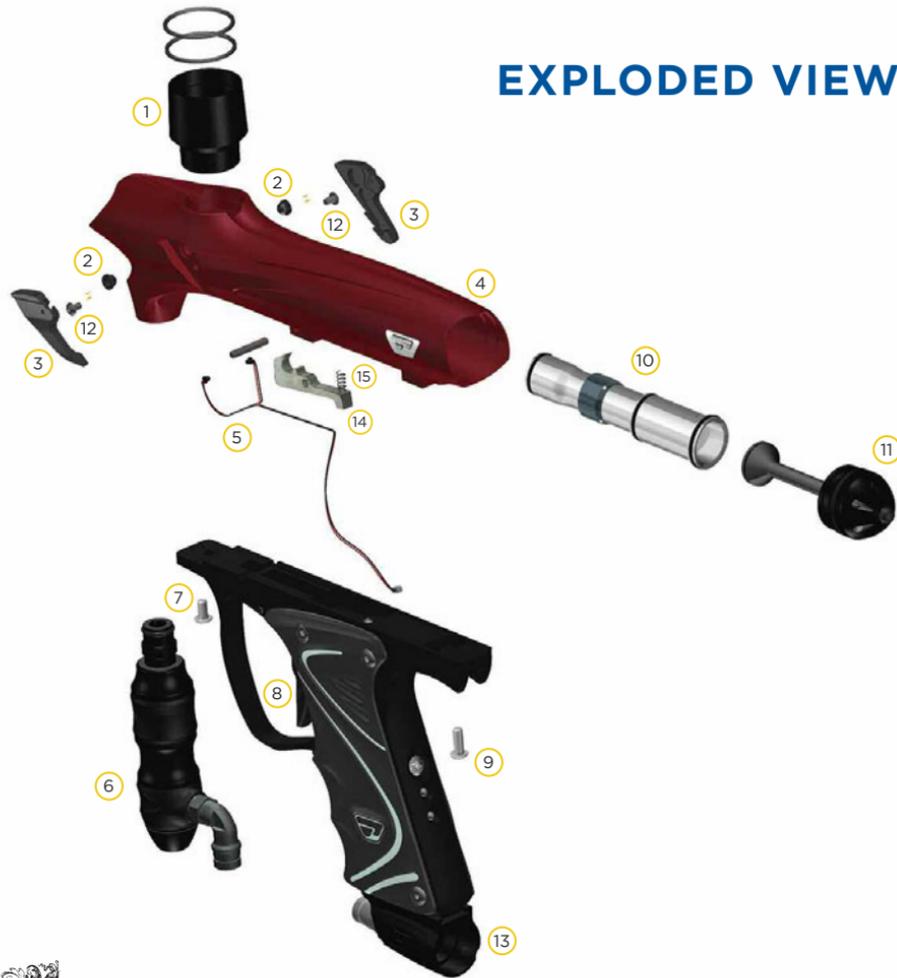
- If you get two balls firing at once change the ball detents by removing the eye plates, taking out the old ball detents and inserting new ones.

#### BREAKING PAINT

- Make sure you use high quality paintballs and that they are stored according to the manufacturers instructions.
- Check that #14 O-ring on bolt tip is in place and in good condition.
- Make sure your loader is working and that the rate of fire is not set higher than the maximum feed rate of the loader.
- Check that the barrel you are using is not too tight for the paintballs you are using.
- Eyes are clean/on.

### NOTES:

## EXPLODED VIEW



## PROTO WARRANTY INFORMATION WARRANTY AND LEGAL INFORMATION

### PARTS LIST

- 1 Feed Neck
- 2 Ball Detent
- 3 Eye Cover
- 4 SLG™ Body
- 5 "ACE" Eye
- 6 Hyper3™
- 7 Front Frame Screw
- 8 45 Frame
- 9 Rear Frame Screw
- 10 SLG™ Bolt
- 11 SLG™ Back cap
- 12 Eye Cover Screw
- 13 Airport
- 14 Sear
- 15 Sear Spring

#### WARRANTY

DYE Precision, Inc. Warrants for one year to the initial retail purchaser, from the initial date of purchase, that the paintball marker and regulator are 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 batteries, o-rings and seals are not warrantied. The solenoid and electronic components on the marker are warrantied for six months. 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 marker is Slick Lube™. Use of any other lubricant will void your warranty. This warranty is limited to repair or replacement of defective parts with the customer to pay shipping costs. Warranty card and 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 markers are non-refundable.

#### TECHNICAL SUPPORT

Our Technical Support Department is open Monday through Friday, from 9am to 5pm, PST, and can be reached at 858-536-5183. Additional support and international contacts are available through our web site, [www.protopaintball.com](http://www.protopaintball.com).

#### DISCLAIMER

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