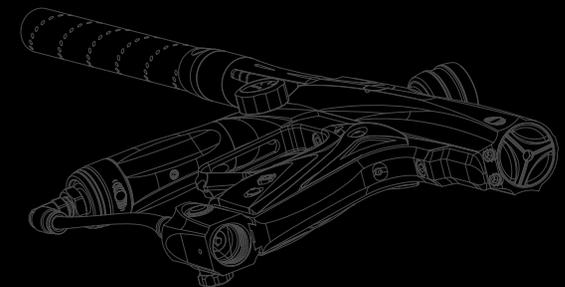
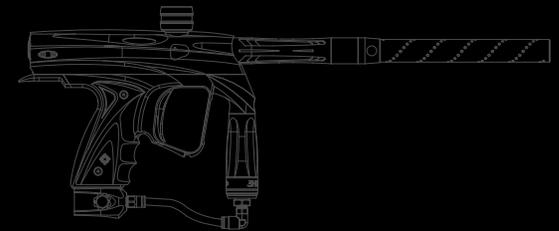
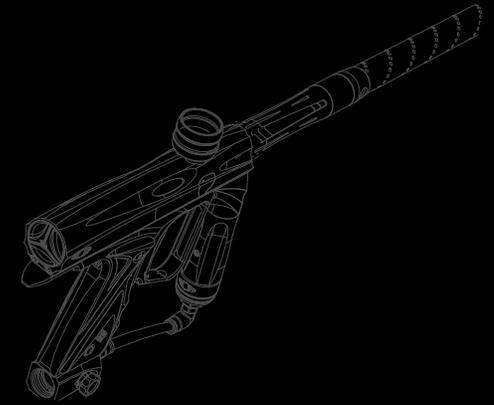
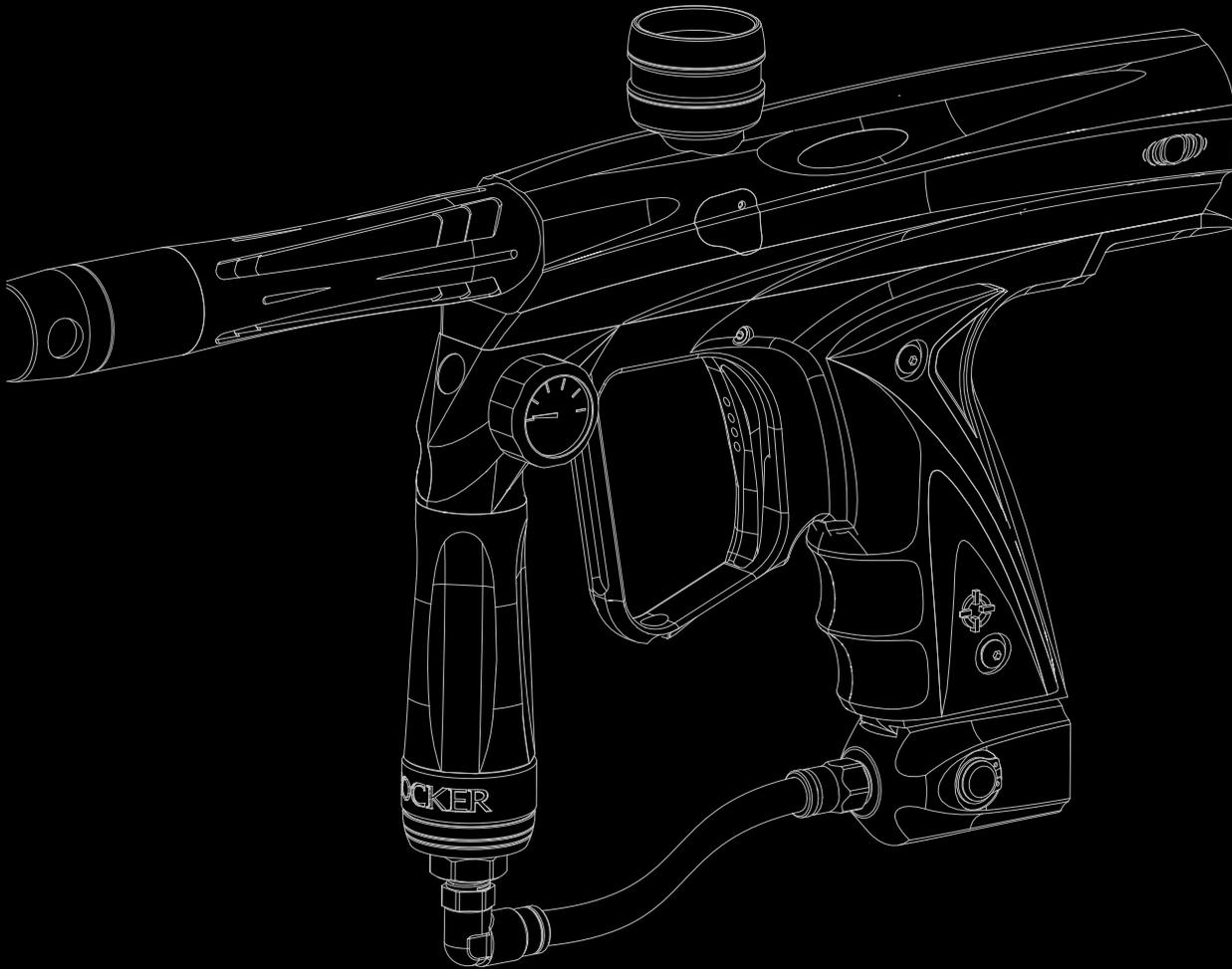


# SHOCKER NXT

## Operation and adjustment instructions

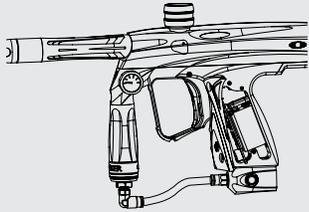


# QUICK START

## WARNING

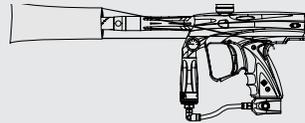
The SHOCKER NXT can be damaged by liquid CO<sub>2</sub>. Thoroughly read and understand the Gasses Section of the manual before using CO<sub>2</sub> to avoid damage.

### 01 BATTERY



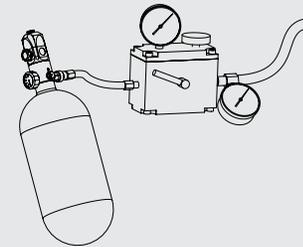
Using a 5/64-inch Allen wrench, remove the two screws from the left side of the rubber grip, and lift the panel open. Attach a fresh 9-volt alkaline battery to the battery clip. Position the battery in the grip frame, tucking the battery wires into the space above the battery. Close the grip and reinstall the screws.

### 02 BARREL BLOCKER



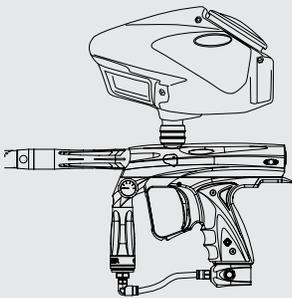
Screw the included barrel into the Shocker NXT. Put the supplied barrel blocker over the end of the barrel, securing its cord as far back on the Shocker NXT body as possible, and cinching it tight.

### 03 FILL TANK



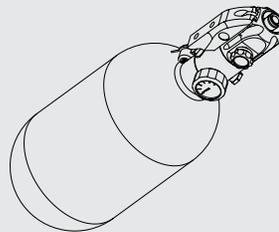
Have your compressed air (HPA) or CO<sub>2</sub> tank filled by a person who is properly trained to do so. If using an HPA system with an on/off valve, such as the Max-Flo or Max-Flo Micro, make sure it is in the OFF position. If using a screw-in style preset HPA tank, or CO<sub>2</sub> tank, an ASA with a built in on/off valve is recommended.

### 04 LOADER



Insert your loader into the feed-neck and make sure it is secure. Due to the high rates of fire that Shocker NXT can achieve, we recommend the use of a modern high-performance loader.

### 05 TURN ON AIR

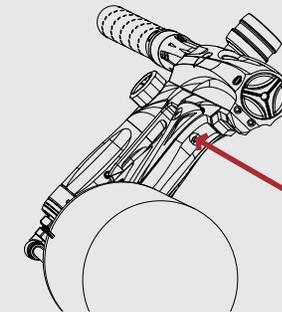


Gently gas up the Shocker NXT by slowly turning on the air system or ASA's on/off valve, or slowly screwing the CO<sub>2</sub> or compressed air system into the ASA.

## WARNING

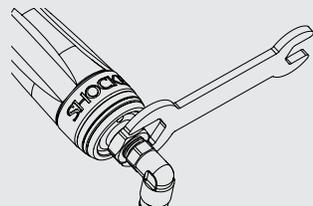
A gentle rise in pressure is important, as a sudden blast may reduce the service life of the Shocker NXT's internals.

### 06 TURN ON SHOCKER



Turn on the Shocker NXT by holding the power button down for approximately 1 second. The Shocker NXT will chirp and the power button will glow continuously to show that it is on and in Vision mode. If you need to disable Vision mode to fire gas without paint, push the button once again, and the power button will blink in a double-tap sequence. Press and hold the power button for approximately 2 seconds to turn the Shocker NXT off, this acts as an electronic safety.

### 07 ADJUST VELOCITY



Fill the loader with paint and turn it on. While wearing ASTM compliant paintball goggles in an area where all bystanders are protected, remove the barrel blocker and fire over a chronograph to measure the velocity. Using a 3/32-inch Allen wrench, loosen the velocity lock screw near the bottom of the vertical regulator and adjust it with a 5/8-inch open-end wrench or adjustable wrench. Turn clockwise to increase velocity/pressure, and counter-clockwise to decrease. Take three or four shots after every adjustment to allow the gas pressure inside the Shocker NXT to stabilize. Adjust until the Shocker NXT is firing consistently within the limits for the field where you are playing (for safety reasons, never adjust the Shocker NXT to fire at greater than 300 feet per second.) As you adjust, check the Shocker NXT's pressure gauge to be certain you stay within the Shocker NXT's operating limits of 180 to 220 psi. Lock the velocity setting by tightening the velocity lock screw. Depending on what modes of fire are allowed at the field where you are playing (semi-automatic, rebound, etc.) you may need to adjust the Shocker NXT's Rebound setting. See the Rebound Adjustment section for more information. Shoot out the competition, hang the



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## SHOCKER NXT INSTRUCTION MANUAL

### ///////⚠️WARNING

- THE SHOCKER NXT IS NOT A TOY
- MISUSE OF THE SHOCKER NXT MAY RESULT IN SERIOUS INJURY OR DEATH.
- EYE PROTECTION DESIGNED FOR PAINTBALL USE MUST BE WORN BY THE USER AND ANY PERSON WITHIN RANGE OF THE SHOCKER NXT.
- SMART PARTS RECOMMENDS THAT THE SHOCKER NXT ONLY BE SOLD TO PERSONS 18 AND OLDER.
- THOROUGHLY READ THE SHOCKER NXT OPERATION AND INSTRUCTION MANUAL BEFORE OPERATING.

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# GETTING FAMILIAR

PLEASE READ CAREFULLY

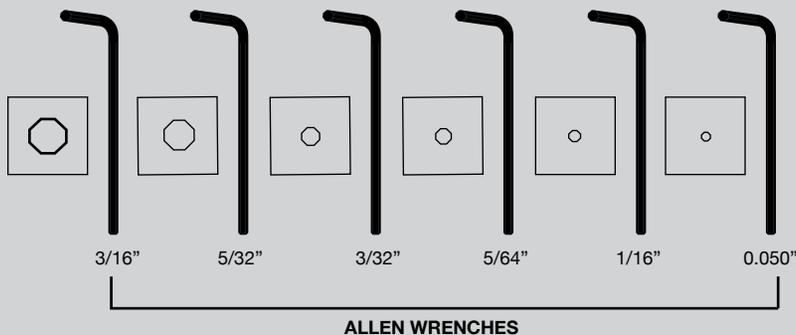
## → STATISTICS

LENGTH/HEIGHT/WEIGHT:	8 inches (without barrel) x 6 inches, 1 lbs. 14 oz.
OPERATING PRESSURE:	180—220 psi
POWER SOURCE:	Common 9 volt battery
PROPELLANT:	CO <sub>2</sub> or Nitrogen/Compressed air
RATE OF FIRE:	20+ balls per second, 1200+ balls per minute
OPERATION:	Low pressure electropneumatic
MODES OF FIRE:	Tournament legal semi-automatic and Rebound Modes
ANTI CHOP SYSTEM:	Break Beam Vision
BARREL THREAD:	Impulse
LUBRICANT:	For proper and consistent operation, the Shocker NXT should only be lubricated with SL33K lubricating grease.

## MAINTENANCE

The Shocker NXT has been designed with simplicity in mind so that you can concentrate on your game instead of your marker. It has a minimal number of moving parts and seals so that you can maintain the marker with little effort. This DOES NOT mean that you should neglect your Shocker NXT. If you take care of it off the field, your Shocker NXT will take care of you on the field. For best performance, clean and grease your Shocker NXT frequently. Many players clean their Shockers after every use. While this may seem a bit extreme, being vigilant in the upkeep of your Shocker NXT will extend its useful life considerably. Playing in the rain will not damage your Shocker NXT, but you should NEVER immerse it in water. If your Shocker NXT should become waterlogged, remove the barrel and rubber grips and allow it to dry out, then follow the disassembly instructions for full cleaning. Clean out mud and paint with a damp cloth and alcohol. Grease the Shocker NXT ONLY with SL33K pneumatic grease. Use high quality paintballs.

## → REQUIRED ITEMS FOR MAINTENANCE



### ALSO REQUIRED

- 5/8" OPEN END WRENCH
- NEEDLE-NOSED PLIERS
- SL33K PNEUMATIC GREASE
- 9/16" DEEP WALL SOCKET
- WOODEN KITCHEN SPOON OR ONE FOOT SECTION OF 3/8" DOWEL ROD
- SL33K SHOCKER LUBRICANT
- O-RING PICK



# BARREL BLOCKER/HOPPER

## BARREL BLOCKER

The Barrel Blocking Device is a critical piece of paintball safety equipment - nearly as important as paintball goggles. The Barrel Blocker serves to protect against accidental discharge of a paintball by catching it before it can cause harm. A Barrel Blocker is included with the Shocker NXT and must be used every time it is handled in an area where people or property are not properly protected by paintball goggles or paintball field netting. To use the Barrel Blocker simply slip it over the end of the barrel and stretch its cord back over the back of the Shocker NXT's gripper (the extension on the back of the body) or the rearmost part over which it can be securely looped. Use the strap's adjuster to cinch the strap tight, so that the Barrel Blocker can provide protection against accidental discharge of a paintball.

The Barrel Blocker should only be removed when the Shocker NXT is on a "live" paintball field and all persons involved are wearing proper paintball protection.

## HOPPER

The Shocker NXT is a high performance tournament grade paintball marker. The break-beam Vision system means that you won't need to worry about chopping paint because your trigger finger is faster than your hopper. However, if you want to realize the Shocker NXT's maximum firepower potential, you will need to use a high performance loader. High performance loaders, especially those which provide force-feeding, will yield the best results with the Shocker NXT.

Depending on the dimensions of your hopper you may choose to remove one or more of the friction o-rings from inside the Shocker NXT's feed tube, and or to sand down the hopper's feed neck. The fit should be snug, but not excessively tight. Always twist hoppers clockwise when installing or removing, to avoid unscrewing the feedtube from the Shocker NXT body.

PLEASE READ CAREFULLY

FIG. 1 → BARREL BLOCKER IN USE

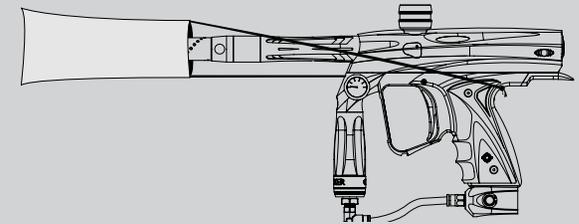
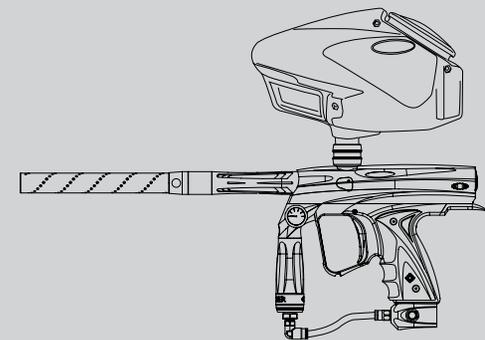


FIG. 2 → USE HIGH PERFORMANCE LOADER



# GASES

## GASES

The Shocker NXT is a low-pressure paintgun. It operates in the range of 180 to 220 psi, which means it can function well with either compressed air or CO<sub>2</sub> as a power source. Proper set up of your gas system will help you obtain the best possible performance from your Shocker NXT.

High Pressure Air systems (HPA) are the most common power source used with the Shocker NXT, as they are unaffected by temperature fluctuations and do not have the potential for liquid problems. HPA systems consist of a tank and a regulator, and are typically rated to store air or nitrogen (while nitrogen is almost never used in paintball, many players call compressed air “nitro” as air is made of more than 70% nitrogen) at pressures of 3,000 or 4,500 psi.

There are two main types of HPA systems, those on which the output pressure is adjustable, and those for which their regulator is pre-set to a fixed output pressure. HPA systems designed to screw into an ASA are usually pre-set to deliver either 400 psi (low pressure output) or 800 psi (high pressure output.)

**Never use oil or any petroleum based cleaner or lubricant in a compressed air regulator or tank. Exposure to pressurized air increases oil's flammability and can cause a serious safety hazard. Only use manufacturer recommended lubricants with compressed air systems, and follow the manufacturer's maintenance and operation instructions explicitly.** If you are using your Shocker NXT with an adjustable output compressed air system, it should be adjusted to deliver about 650 psi to the Shocker NXT's vertical regulator. The Shocker's regulator can accommodate a wide range of input pressures, so exact adjustment of the air system is not critical, and either low output, or high output pre-set HPA systems may be used as well.

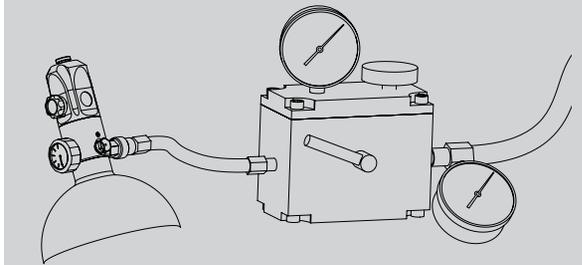
While CO<sub>2</sub> can also be used, it is less popular, since its pressure fluctuates with temperature and use. The important thing to remember when using CO<sub>2</sub> is that liquid CO<sub>2</sub> must not be delivered to the Shocker NXT. If liquid CO<sub>2</sub> were to make it past the Shocker's regulator, it could expand into gas form inside the paintgun, raising the pressure levels high enough to cause damage to internal seals or the solenoid valve. Because liquid CO<sub>2</sub> is heavier than CO<sub>2</sub> gas, it is easily blocked through the use of gravity.

[ CONTINUED ]

### WARNING

Never put oil in a compressed air regulator or tank—only apply manufacturer specified lubricants.

FIG. 3 → HPA TANK BEING FILLED



# GASES

[ CONTINUED FROM PAGE 4 ]

Two easy ways to properly use CO<sub>2</sub> with the Shocker NXT are an anti-siphon tank or a remote line.

Anti-siphon tanks have a J shaped tube professionally installed inside. When the tank is screwed into a bottom line ASA, like the one that is standard on the Shocker NXT, with their anti-siphon side up, the tube delivers gas only. The anti-siphon tube works like a diver's snorkel, repositioning the gas intake from the valve to the top side of the tank.

A remote hose allows a standard (non-siphoned) CO<sub>2</sub> tank to be carried in a player's pack. Not only does this make the total weight of the Shocker NXT less, but it also allows the tank to be placed vertically, so that its valve is at the top, while gravity holds the liquid CO<sub>2</sub> at the bottom. It is important to note, that lying down on the field, or crawling while using a remote can cause liquid CO<sub>2</sub> to be fed to the paintgun as the tank is turned on its side.

Whether using compressed air or CO<sub>2</sub> it is important that the Shocker NXT is not exposed to sudden "pops" of pressure. If using a standard ASA with a screw in HPA system or CO<sub>2</sub> tank, screw the tank in slowly, so that the valve opens slowly, and the pressure rises gently. If using an ASA with a built in on/off valve, screw in the tank fully, then open the valve slowly. If using an HPA system or CO<sub>2</sub> tank with its own on/off valve, open that valve slowly. Be gentle to the internals of your Shocker NXT and they will reward you with a long service life.

PLEASE READ CAREFULLY

FIG. 4 → COMPRESSED AIR

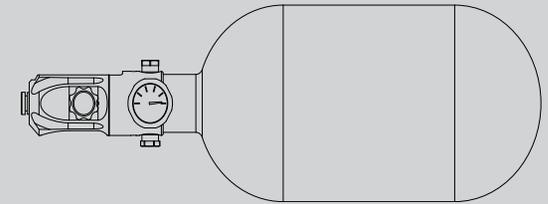
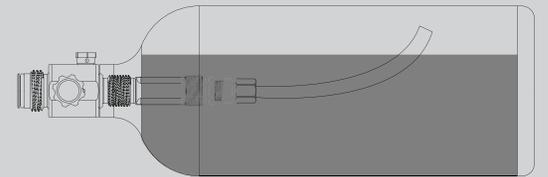


FIG. 5 → CO<sub>2</sub> WITH ANTI-SIPHON [CUTAWAY VIEW]



## IMPORTANT

CO<sub>2</sub> can also be used with remote hose without Anti-Siphon. [Not Shown]

# GAS SYSTEM MOUNTING

The Shocker NXT offers multiple options for mounting compressed air systems or CO<sub>2</sub> tanks. Located on the bottom of the grip frame are a pair of industry standard 10-32 screw holes which can be used to mount a bottom-line ASA, an S-Rail, or drop forward. Additionally, a 1/2-inch dovetail rail is machined into the bottom of the frame to allow direct mounting of dovetail accessories.

To use the dovetail rail, first use a 5/64-inch Allen wrench to remove two screws from the Shocker NXT's rubber grips, and open one side of the grip. Remove and unplug the 9-volt battery from inside the grip frame. Look into the forward screw hole on the bottom of the grip. A 10-32 set screw is included preinstalled in your Shocker NXT. If it has been removed, you may re-install it by screwing it into the hole from the bottom of the grip frame, head first. When the set screw is in too far to keep screwing it in by hand, use a 3/32-inch Allen wrench to screw it in further from the inside of the grip frame. Screw the set screw in, until its bottom is flush with the dovetail rail. Slide a Max-Flo Micro, or other accessory onto the rail, and then use your Allen wrench to lock the set screw, securing the accessory. Close up the grips and return their screws into place with the Allen wrench.

When mounting a different gas accessory or drop forward that uses dual mounting screws instead of the rail, the set screw will need to be removed by a similar process.

PLEASE READ CAREFULLY

FIG. 6 → BOTTOM OF GRIP FRAME

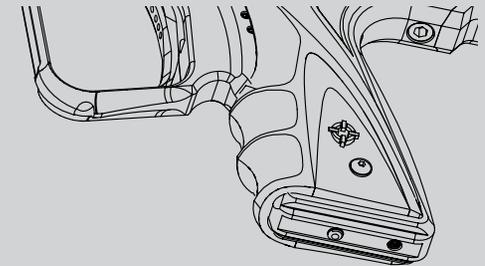


FIG. 7 → INSTALLING SET SCREW

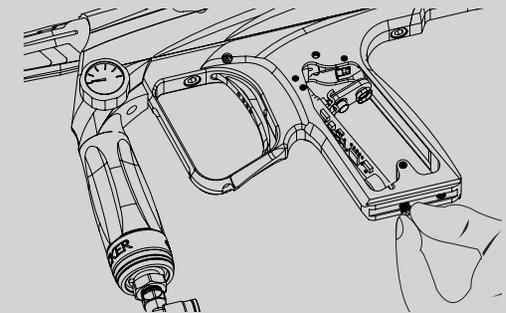
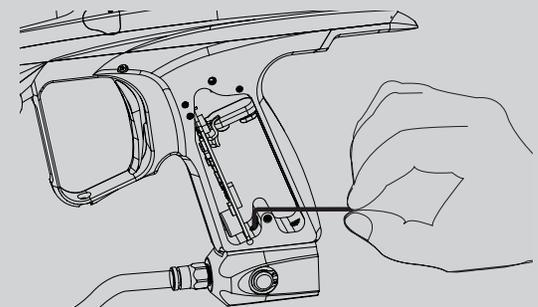


FIG. 8 → TIGHTENING SET SCREW



# PAINT/VELOCITY/VISION

## PAINT

Even the best quality paintballs will vary in size from one batch to the next and as weather conditions change. While your Shocker NXT will work well even with a poor paint to barrel fit, optimal performance will be achieved with a proper fit. Paintgun barrels are available in a variety of bore sizes to allow the user to select the best possible fit, and barrel kits like The Freak allow for easy adjustment to paint of different diameters.

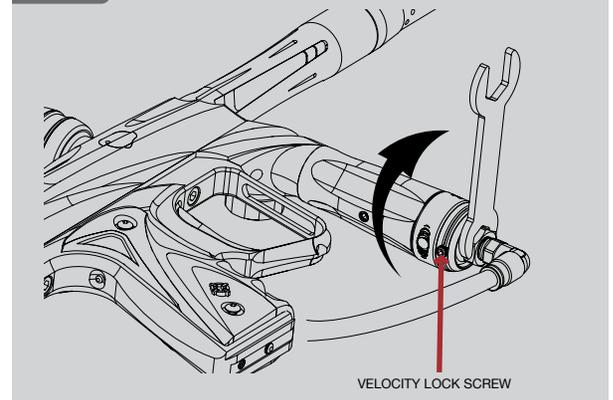
The ideal fit between the paintball and the barrel is when the ball is inserted in the bore (the end that screws into the Shocker NXT) and does not slip or roll through to the muzzle (the business end) on its own. The ball should sit in place, even when the barrel is pointed straight down. If the paintball can roll out on its own, the fit is too loose. The ball should be able to be expelled from the barrel by blowing it out, like a blowgun, using a minimal amount of breath. If the ball is difficult to blow through, the fit is too tight, which can lead to ball breakage.

## VELOCITY

The velocity, or speed at which the Shocker NXT fires a paintball, must be measured and adjusted to below the paintball field's velocity limit immediately before each day of play (for player safety.) If CO<sub>2</sub> is used, velocity should be checked and adjusted multiple times during the day. Using a 3/32-inch Allen wrench, loosen the velocity lock screw near the bottom of the regulator. Fire three or four shots over a chronograph and if necessary change the velocity by adjusting the vertical regulator with a 5/8-inch open-end wrench. Turn clockwise to increase velocity/pressure, and counter-clockwise to decrease. Take three or four shots after every adjustment to allow the gas pressure inside the Shocker NXT to stabilize. Adjust until the Shocker NXT is firing consistently within the limits for the field where you are playing. For safety reasons, never adjust the Shocker NXT to fire at greater than 300 feet per second. As you adjust, check the Shocker NXT's pressure gauge to be certain you stay within the Shocker NXT's operating limits of 180 to 220 psi. Once adjustment is complete, lock the setting in place by tightening the velocity lock screw.

PLEASE READ CAREFULLY

FIG. 9 → INCREASING VELOCITY



## VISION INSTRUCTIONS

When the Shocker NXT is turned on it will be in Vision mode. The internal infra-red eye will be used to detect whether or not a paintball is in the breech. This feature practically eliminates the possibility of a chopped paintball. Vision mode is indicated by a constant glow of the light in the power button. Vision mode can be de-activated by pressing the power button quickly while the Shocker NXT is on. Vision mode off is indicated by a double-tap blinking pattern on the power button light. Vision mode may be turned back on by once again pressing the power button.

# DWELL

The dwell and rate of fire adjustments are made using the Shocker NXT's two programming buttons. Removing the two grip screws on the left side of the Shocker NXT's grip frame and folding back the grip provides access to the programming buttons. The two buttons are small, gray and rectangular in shape. They are mounted on the front side of the circuit board facing the left edge for easy access. Notches in the board help to identify the buttons and make them easier to press. The upper button is located near the top of the board, just below the wiring harness plug, and the lower button is located near the bottom of the board, just above the round black speaker.

The dwell setting determines how long the Shocker NXT holds open its solenoid valve, which ultimately affects how much gas is released to fire each shot. It is important to balance the dwell and the operating pressure (the setting of the vertical regulator). Too high of a dwell with a low operating pressure will cause poor gas efficiency. Too low of a dwell will leave the Shocker NXT unable to cycle through a full firing sequence. Dwell setting changes should not be used to adjust velocity.

The dwell value can be adjusted between 3 milliseconds (1ms = 0.001 seconds) and 18ms in 20.5ms increments. To adjust the dwell, make sure the Shocker NXT is already turned on and press the upper dwell button once for every .25ms increase desired. The circuit board will chirp at each adjustment to provide feedback that the dwell value has changed. To lower the dwell value press the lower programming button once for every .25ms of dwell reduction. When either the lower or upper dwell limits are reached, the circuit board will chirp rapidly in a lower tone. To set an exact dwell value, cycle to either the upper or lower limit, and then step the dwell value the desired number of times.

To optimize your dwell setting, wear proper paintball protective goggles and gas up your Shocker NXT with a barrel blocker in place and with no paint or hopper. Turn on the Shocker NXT and press the power button once to de-activate Vision mode. Decrease the dwell time until the Shocker NXT can no longer complete a full firing cycle (bolt does not close all the way) each time you pull the trigger. Increase the dwell value one button press at a time, test firing after each change until you hear the Shocker NXT fire a full volume shot. Increase the dwell by an additional 10 to 15 button presses to reach the setting for best gas efficiency.

## WARNING

Example Dwell Setting: To set a dwell value of 8ms, first press the lower programming button repeatedly until it chirps rapidly indicating that the bottom value of 3ms has been reached. Then, press the upper programming button 20 times ( $20 \times 0.25\text{ms} = 5\text{ms}$ .)

FIG. 10 → REMOVE THE RUBBER GRIP

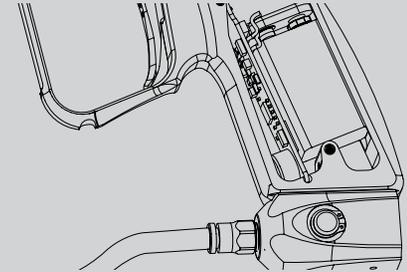


FIG. 11 → TOP PROGRAMMING BUTTON

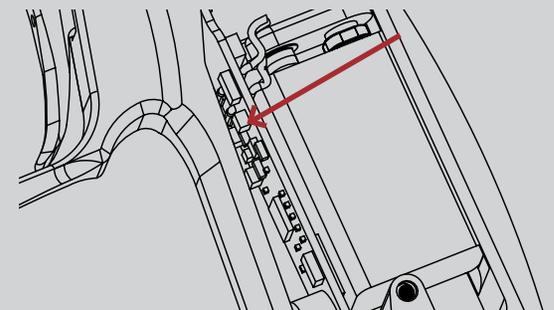
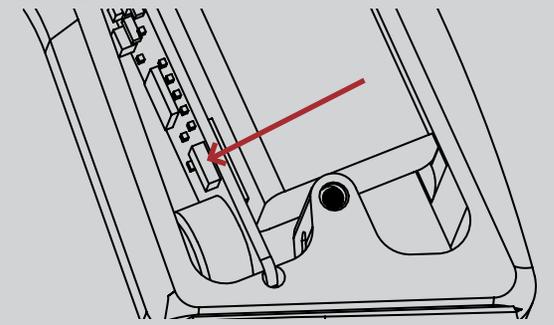


FIG. 12 → LOWER PROGRAMMING BUTTON



# RATE OF FIRE/REBOUND

## RATE OF FIRE

The Rate of Fire adjustment determines how long the Shocker NXT will wait after activating the solenoid valve before the next shot can be fired. This time allows the bolt to return to its rear position, gas pressure in the fire chamber to be recharged, and for a new paintball to fall into the breech. Increasing the rate of fire setting will decrease the maximum rate of fire the Shocker NXT is capable of achieving.

The Rate of Fire setting is adjustable from 15ms to 70ms in 1ms intervals. To change the rate of fire setting, while the Shocker NXT is turned on, hold down the trigger and press the upper button to increase the ROF setting and slow down how fast the Shocker NXT can shoot. Hold down the trigger and press the lower button to decrease the value and speed up how fast the Shocker NXT can shoot. As with the dwell settings a rapid chirp indicates you have reached the limit of adjustment.

## REBOUND

The Shocker NXT features five modes of fire, ranging from traditional semiautomatic (one shot per full trigger pull) to four levels of Rebound, an enhanced firing mode. The Rebound setting affects the electronic switch reset sensitivity. Essentially the higher the rebound setting, the less discriminating the marker is (and therefore easier to reach and maintain higher rates of fire.)

To adjust the rebound setting degas the marker and turn it on, then open the grip panels as though you were going to adjust the dwell. Press and hold the on/off button and immediately press either the upper or lower programming button to adjust the Rebound setting.

**NOTE: IF YOU DO NOT ENGAGE THE PROGRAMMING BUTTONS (WHILE HOLDING THE POWER BUTTON) WITHIN TWO SECONDS, THE SHOCKER NXT WILL TURN OFF.**

There are five possible rebound values, and they are adjusted similar to the dwell. Press the bottom programming button repeatedly until a rapid low chirp indicates you have reached a setting of 1, the lowest setting. From there, pressing the up button will result in a chirp, and an increase in the mode setting. At a setting of 1, Rebound is turned off, making the Shocker NXT legal at paintball fields that restrict play to semi-automatic only. Progressing from settings of 2 through 5, Rebound is activated, and becomes more sensitive, helping you achieve greater rates of fire. After the desired Rebound setting has been reached, release the power button.

## IMPORTANT

### RATE OF FIRE WARNING

It is important to remember that the ROF setting is not the same as a rate of fire cap, or the maximum rate of fire the Shocker NXT can achieve. The maximum rate of fire or Cycles Per Second (CPS) is calculated from a combination of the Dwell setting and the ROF setting.

→ **Cycle Time (milliseconds) = Dwell + ROF**

The length of time needed for one complete cycle equals the Dwell time plus the ROF time (time in milliseconds, not number of chirps.)

→ **Cycle Time (Seconds) =  
Cycle Time (milliseconds) / 1,000**

To calculate the maximum CPS, the cycle time will need to be converted from milliseconds to seconds. This is done by dividing it by 1,000.

→ **CPS = 1 Second / Cycle Time (seconds)**

The maximum cycle rate of a Shocker NXT, for any given Dwell and ROF settings can be easily calculated. Divide one second by the cycle time to arrive at the number of shots per second.

For fields or tournaments which require paintguns be limited to a maximum rate of fire, you will need to make sure the Dwell of your Shocker NXT is properly adjusted and then calculate the proper ROF value to create the desired CPS limit.

# TRIGGER

## ADJUSTMENT

The Shocker has four main points of trigger adjustment, providing you with the ability to set up the perfect trigger for your style of play. Adjustments in the pre-travel, post-travel, return tension, and switch activation are possible with a wide range of adjustment for each. It may be tempting to set your Shocker NXT to the shortest, lightest trigger pull possible, and that is easy to do. Many players, however opt for a slightly longer pull with enough resistance that the trigger resets more positively, allowing them to walk the trigger to higher rates of fire. No matter what kind of trigger pull suits your fancy, it's easy to get the Shocker NXT trigger balanced to your taste. All four adjustment points are located in a row, on the front face of the trigger.

**PRE—TRAVEL** determines how far the trigger is allowed to swing forward after it is released. The pre-travel screw is the bottom of the four adjustment screws on the trigger. To adjust your pre-travel, use your .050" Allen wrench and turn out (counter clockwise) to allow the trigger to reset further forward. Turn the set screw in (clockwise) to reduce pre-travel. Turning the pre-travel screw too far in will keep the trigger from resetting after each shot. This will cause the trigger not to activate. If you have adjusted your pre-travel and the Shocker will not fire; begin to turn the screw out until the Shocker will fire.

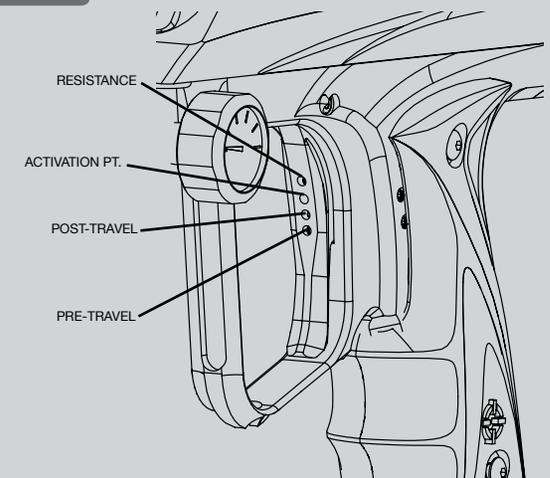
**POST—TRAVEL** determines how far back the trigger is allowed to move. The post-travel adjustment screw is the second up from the bottom, on the face of the trigger. To adjust post-travel, use your .050" Allen wrench and turn in (clockwise) to reduce the distance your trigger can be pulled. Turn the screw out (counter-clockwise) to increase the distance your trigger can be pulled. Turning the post-travel screw too far will prevent the trigger from moving far enough back to activate the switch. This will cause the Shocker NXT to not fire. If you have adjusted your post-travel and the Shocker will not fire; begin to turn the screw out until the Shocker will fire.

**THE TRIGGER ACTIVATION POINT** adjustment controls the point in the trigger pull where the switch is activated. The trigger activation point screw is located in the third hole from the bottom on the face of the trigger. To adjust the trigger activation point, use your .050" Allen wrench and turn in (clockwise) to make the trigger activate earlier in the trigger pull or turn the screw out (counter-clockwise) to activate later in the trigger pull. Turning the trigger activation point screw too far in OR too far out can and will cause the trigger not to activate.

### //////⚠️WARNING

Turning the trigger activation point screw in too far may cause SEVERE TRIGGER SWITCH DAMAGE. When you finish adjusting the pre-travel, post-travel and trigger activation point screws, the trigger should stop with the solid feel of the post-travel screw making contact with the grip frame. If the trigger activation point screw is adjusted in too far, the trigger will feel more "mushy" at the end of its stroke, and the trigger switch may be damaged by hard or rapid pulling.

FIG. 13 → TRIGGER ADJUSTMENT POINTS



# TRIGGER

**01**

Using a 1/16-inch Allen wrench, unscrew and remove the trigger pivot pin.

**02**

Slide the trigger upward, and forward. Move the bottom of the trigger forward.

**03**

The bottom most trigger adjustment screw – the pre-travel adjuster – may catch on the grip frame, preventing the trigger from being removed. If it does, simply unscrew it counter-clockwise for a few turns with a 0.050-inch Allen wrench, and try again.

**04**

When the trigger is out, pay attention to how cool it is, and comment to your friends that Smart Parts really cares about the player – providing them with a top-notch roller bearing adjustable trigger as standard equipment.

**05**

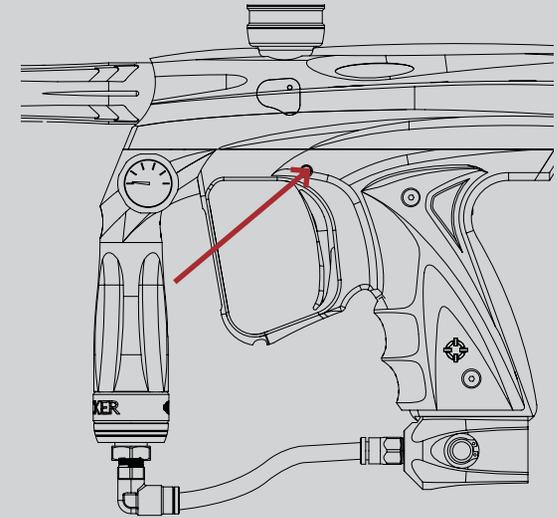
To reinstall the trigger, simply slide it back into place, top end first. Then move it around until the roller bearing lines up with the trigger pivot pin hole in the frame. Reinstall the trigger pivot pin, and use the 1/16-inch Allen wrench to secure it. Be careful not to over-tighten the trigger pin and cause the trigger to bind.

**06**

Check the trigger's operation, and adjust as needed to your preferred feel.

## REMOVAL AND INSTALLATION

FIG. 14 → TRIGGER PIVOT PIN



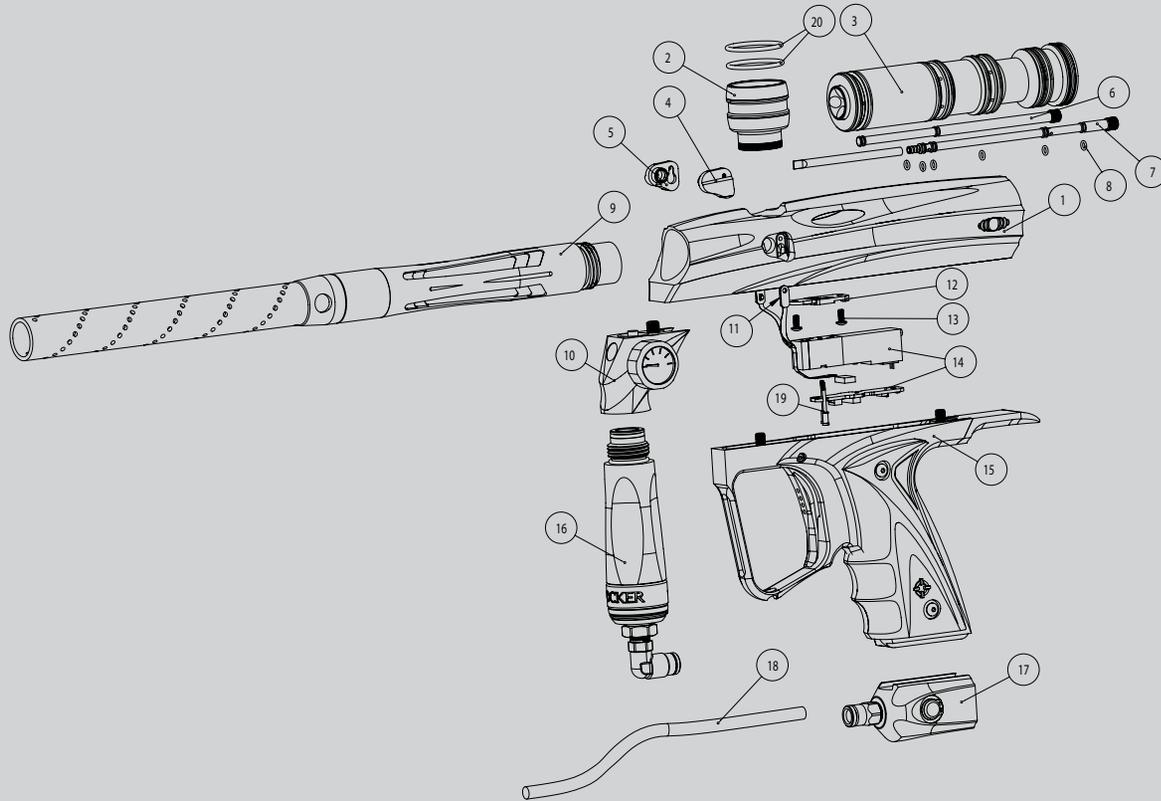
## TRIGGER RESISTANCE

Setting the trigger resistance of the Shocker NXT is achieved through the top trigger adjustment hole. Using your 0.050-inch Allen wrench, turning the trigger resistance screw in (clockwise) puts more compression on the trigger return spring, increasing the trigger resistance. Turning the adjustment screw out (counter-clockwise) will result in a lighter trigger pull.

# SHOCKER NXT PARTS

IMPORTANT

## → MAJOR SHOCKER COMPONENTS



- 1 SHKNXT101-Shocker NXT Body
- 2 SHKNXT103LO - Shocker NXT Low-Rise Feed Tube
- 3 Shocker High Efficiency Bolt Assembly
- 4 SHKNXT113L - Shocker NXT Vision Eye Cover - Left
- 5 SHKNXT113R - Shocker NXT Vision Eye Cover - Right
- 6 SHK111SLV - Shocker Port Insert - Right
- 7 SHK112SLV - Shocker Port Insert - Left
- 8 ORN0301070BU(8x) - Port Insert O-Rings
- 9 All American Barrel Assembly
- 10 Shocker NXT Vertical Adapter Assembly
- 11 SHK07119 - Shocker NXT Break Beam Vision Flex Strip
- 12 SHK114 - Manifold Plate
- 13 SCR0440X0250B - Manifold Mounting Screws (2x)
- 14 SOL4SHKRNRV - Solenoid Valve
- 15 Shocker NXT Grip Frame Assembly
- 16 Shocker NXT Vertical Regulator Assembly
- 17 VLVDTA - Dovetail On/Off ASA
- 18 HOS14BLK - Black Macroline
- 19 SHK115 - Shocker Solenoid Screw (2x)
- 20 ORN02552070BU (2x) – Feedneck O-Rings



# DEGASSING

PLEASE READ CAREFULLY

## //////⚠️WARNING

Even with no CO<sub>2</sub> or compressed air system attached, the Shocker NXT may still have enough gas pressure stored in the regulator and fire chamber to fire 2 or more shots. You must degas your Shocker NXT before performing any of these maintenance procedures.

At the end of each day's use and before performing maintenance work on your Shocker NXT, it will need to be degassed, and all paint will be removed. In an area where it is safe to shoot (the chronograph area at a paintball field) and while wearing paintball goggles, remove the hopper from the Shocker NXT. By turning the Shocker NXT upside down, you can empty any extra paintballs from the feedneck into your hand. Turn the Shocker NXT on, then de-activate Vision mode by pressing the power button momentarily. Dry-fire 2 or 3 shots in a safe direction to ensure that no paintballs remain in the Shocker NXT. Turn off the compressed air system or on/off ASA, or unscrew the compressed air system or CO<sub>2</sub> tank far enough to close its pin valve.

Continue to dry fire the Shocker NXT in a safe direction until all of the gas pressure inside has been released. At this point the only sound you should hear when you pull the trigger is the click of the solenoid valve. Turn off the Shocker NXT.

If using a CO<sub>2</sub> tank or screw in HPA system, unscrew it the rest of the way.

# BOLT/VALVE

## DISASSEMBLY

01

**WARNING**  
DEGAS THE SHOCKER AND MAKE SURE NO PAINT IS IN THE MARKER.

02

Remove barrel of Shocker NXT

03

Using a 3/16" Allen Wrench, unscrew the bolt guide (the rear of the bolt guide forms the end cap on the back of the Shocker NXT.)

04

Use a non-marring tool at least 7 inches in length to remove the fire chamber. The handle of a wooden spoon, a piece of wooden dowel, or even a plastic toothbrush will work well as long as it is made of a material soft enough that it will not scratch the Shocker NXT body or fire chamber. Insert the dowel from the front of the marker, angling it slightly towards the wall of the marker body so that it rests on the visible front section of the fire chamber. Push gently but firmly on the fire chamber until it emerges from the rear of the body. Set aside the dowel and pull the entire bolt assembly out.

05

Remove the bolt guide from the bolt assembly. Remove the bolt sleeve from the bolt. Set aside both parts.

06

Remove the fire chamber front from the fire chamber, by grasping it just behind its front o-ring and pulling steadily. For normal maintenance and cleaning the fire chamber body does not need to be removed from bolt. If you suspect a leak in the fire chamber's rear inner o-ring (the Shocker NXT will not fire but you can hear its solenoid click) or wish to replace this o-ring, remove the bolt's forward o-ring with an o-ring pick.

FIG. 15 → UNSCREWING THE BOLT GUIDE

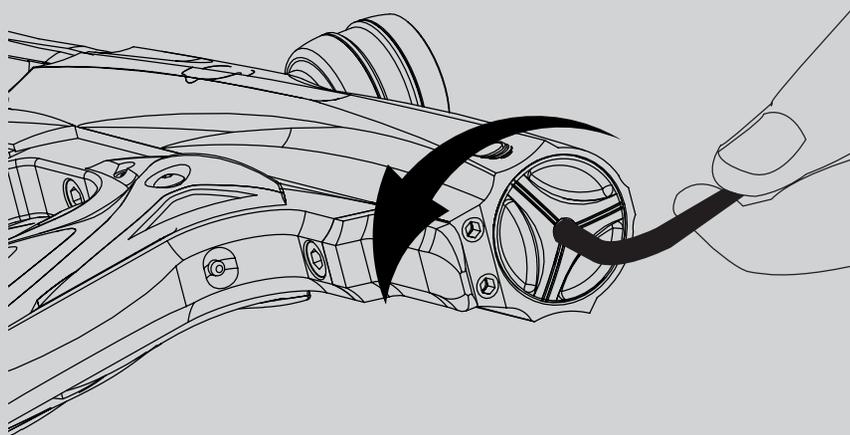
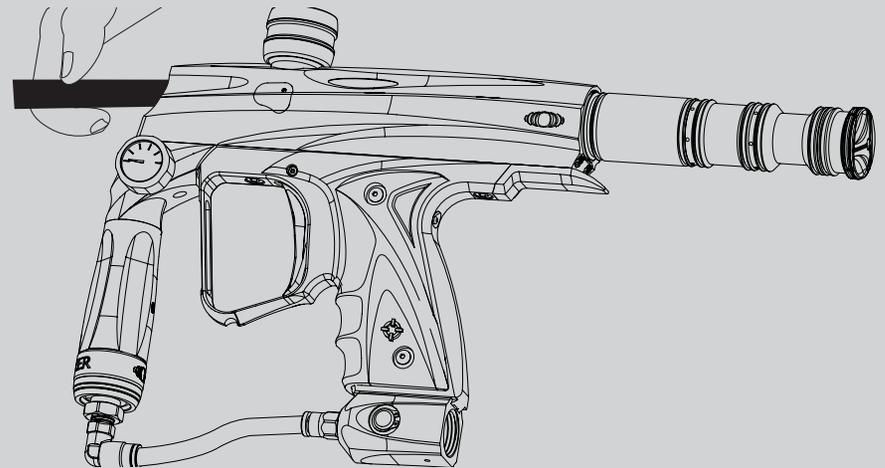


FIG. 16 → PUSHING OUT THE BOLT ASSEMBLY



### 01

Clean the fire chamber and fire chamber front, and inspect their o-rings for damage. Replace worn or damaged o-rings. Pay special attention to the two internal o-rings that seal against the bolt. Make sure they are clean and undamaged. Also be sure to clean the inside of the fire chamber to prevent dirt and grease buildup. Wiping both the external and internal surfaces with a paper towel or soft rag is ideal. Grease the outer and inner o-rings liberally with SL33K. If you removed the fire chamber from the bolt, place them back together and reinstall the front bolt o-ring. Thread the fire chamber front over the front of the bolt and snap it into the fire chamber. Set aside.

### 02

Clean and inspect the bolt and bolt sleeve, checking for o-ring damage. Wipe down both internally and externally before greasing liberally and reassembling. Slide the fire chamber forward and liberally grease the exposed section of the bolt before sliding it back into position. This will ensure that the rear inner o-ring on the fire chamber is properly lubricated. Reassemble by setting the bolt sleeve on a flat surface, flared end facing down. Apply SL33K pneumatic grease liberally to the external bolt o-ring and the inch or so behind it. Apply grease to the internal bolt sleeve seal, midway down the internal diameter of the bolt sleeve. Insert the bolt into the bolt sleeve with the four hole bolt face pointing up, and the flared end of the bolt sleeve facing down. Grease the four external bolt sleeve o-rings liberally. Lay the bolt guide on a flat surface, so the guide tip points up. Grease all three o-rings on the bolt guide. The two small o-rings on the shaft should be greased more liberally than the larger rear o-ring.

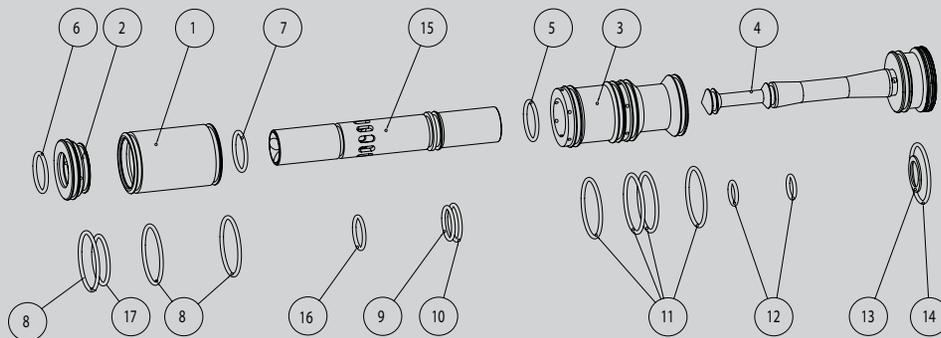
### 03

Install the bolt and bolt sleeve on the bolt guide by sliding both combined pieces over the bolt guide. The bolt and bolt sleeve should rest at the bottom of the bolt guide, directly touching the end cap section. Make sure that the flared end of the bolt sleeve is closest to the end cap section of the bolt guide.

### 04

Reinstall the whole assembly in the Shocker NXT by gently, but firmly pushing it into the body. Keep pushing in by hand until the fire chamber stops against the front of the body. Also make sure that the assembly goes in smoothly and that none of the external o-rings are displaced or cut as they pass the cut outs or threads in the body. Do not force the parts to go in, as this may cut o-rings. Instead, wiggle the parts slightly back and forth while applying light forward pressure to make the o-rings seat properly. At this point, only the threads on the bolt guide should be showing outside the Shocker body. Lightly tap the bolt guide from the rear with the palm of your hand, then screw bolt guide back in with your 3/16" Allen wrench.

FIG. 17 → VALVE AND BOLT COMPONENTS



- 1 SHK108ALACC01 – Shocker High Efficiency Fire Chamber
- 2 SHK108ALACC02 – Shocker HE Fire Chamber Front
- 3 SHK110 – Shocker Bolt Sleeve
- 4 SHKNXT102 – Shocker NXT Bolt Guide
- 5,6,7 ORN01770HN – Bolt Assembly Internal O-Rings
- 8 ORN02270BU – Fire Chamber External O-Rings
- 9 ORN010590CUR – Middle HE Bolt O-Ring
- 10 ORN01670UR – Rear HE Bolt O-Ring
- 11 ORN02270BU – Bolt Sleeve External O-Rings
- 12 ORN01270UR – Bolt Guide Forward O-Rings
- 13 BUM004 – Bolt Guide Bumper
- 14 ORN02270BU – Bolt Guide Rear O-Ring
- 15 SHK109ALACC01 – Shocker High Efficiency Bolt
- 16 ORN01590CUR – High Efficiency Bolt Front O-Ring
- 17 ORN02070UR – HE Fire Chamber Assembly O-Ring

# REGULATOR

## CLEANING AND REASSEMBLY

01

**WARNING**  
Degas the Shocker NXT, and remove the macroline hose from the regulator. Unscrew the regulator from the Shocker NXT's vertical ASA. Using a 3/32-inch Allen wrench, remove the velocity lock screw.

02

Remove the rubber cover from the lower part of the vertical regulator. This will expose the vertical safety screw slot.

**WARNING**  
Parts of the Shocker NXT's vertical regulator use left-handed threads. These parts must be turned counter-clockwise to screw them in, and clockwise to unscrew them – the opposite direction of normal screws.

03

Use a 5/8-inch open-end wrench, or adjustable wrench to turn the adjuster cap on the bottom of the regulator, as if you were adjusting velocity, until the safety screw is visible in the vertical safety screw slot. The safety screw ensures that the regulator will not be unscrewed too far during normal use. Use a 3/32-inch Allen wrench to remove the safety screw.

04

The adjuster cap is left-hand threaded. Turn it clockwise to unscrew it from the vertical regulator body. Use the open end or adjustable wrench to completely remove the adjuster cap.

05

Locate the lock screw halfway up the side of the regulator body, and remove it with a 3/32-inch Allen wrench. The lock screw secures the spring platform in place. Now that it is unlocked, use a 9/16-inch deep well socket and ratchet to remove the spring platform, by unscrewing it clockwise (the spring platform is also left-hand threaded.) The hex faces on the spring platform are short, so you will need to exert a steady pressure on the socket, to maintain contact.

06

The regulator spring and washer should fall easily out of the regulator body once the spring platform is removed.

**WARNING**  
The regulator piston may require light pressure from an Allen wrench through the top of the regulator body. Use a gentle hand here, as the brass of the regulator piston can be scratched by hard tools.

07

Clean all of the regulator parts with a soft cloth or paper towel. Inspect all o-rings and the regulator seat (the clear part on the end of the piston) for damage, and replace if necessary. Lubricate the o-rings on the piston assembly with SL33K.

**WARNING**  
Do not lubricate the regulator seat or the o-ring on the adjuster cap.

08

Place the regulator spring on the regulator piston assembly, followed by the regulator washer. Hold the regulator body nut side up, and slide these three parts into the body. Lower the spring platform into the regulator body nut side up, and use the 9/16-inch deep well socket to screw it into place with a counter-clockwise motion.

09

When the spring platform is fully seated, it will be visible through the lock screw hole in the side of the regulator. Lock it in place by reinstalling the lock screw. Reinstall the pressure adjuster cap by screwing it counter-clockwise into the regulator body. Turn it until the safety screw aligns with the safety screw slot. Put a small amount of blue Loctite 242 threadlocker or equivalent (even clear fingernail polish can do in a pinch) on the safety screw. Reinstall the safety screw.

**WARNING**

Be certain that the safety screw is fully seated and the adjuster cap can turn freely.

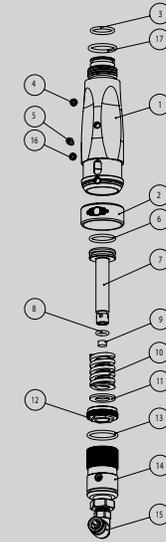
10

Reinstall the rubber guard over the safety screw slot, and reinstall the regulator into the vertical ASA of the Shocker NXT. Reconnect the macroline, and be sure to use a chronograph to re-adjust the Shocker NXT's velocity before use. Reinstall and lock the velocity lock screw.

**WARNING**

Service and adjustments to the regulator will cause changes in its output pressure. Adjust the regulator to deliver between 180 and 220 psi, then repeat the velocity adjustment procedure.

FIG. 18 → REGULATOR



- 1 IRGSHK101 - Shocker NXT Regulator Body
- 2 SHK07123 - Shocker NXT Regulator Cover
- 3 ORN01590UR
- 4 SCR1032X0125SCS - Regulator Lock Screw
- 5 SCR10440X0188CO - Regulator Safety Screw
- 6 ORN01670UR
- 7 IRG105 - Regulator Piston
- 8 ORN1070UR
- 9 IRG103 - Piston Seat
- 10 SPR022 - Regulator Spring
- 11 IRG107 - Shocker Regulator Spring Spacer
- 12 IRG102 - Regulator Spring Platform
- 13 ORN01890BU
- 14 IRG104 - Regulator Adjustment Cap
- 15 IMF110SASM - Swivel Elbow Assembly
- 16 SCR1032XO125SCS - Velocity Lock Screw
- 17 ORN01770BU - ASA Friction O-Ring



# BALL DETENT/VISION EYE

## INSPECTION AND CLEANING

01

Use a 1/16-inch Allen wrench to remove one of the Shocker NXT's ball detent covers. The wrench should be inserted into the small hole in the cover, where it will engage a screw. Fully unscrew the ball detent screw, and the entire cover can be lifted away. The ball detent cover screw fits into a key-hole slot in the ball detent cover, a small foam pad should prevent it from falling out, but keep a close eye on it just in case.

02

If your Shocker NXT is equipped with a reflective Vision eye, the LED/Sensor head will be sitting underneath the left side ball detent cover. If your Shocker NXT is equipped with a break-beam Vision eye, the LED head will be under one cover, while the sensor head will be under the opposite side cover. Both the Vision eye and the pathway between it and the breech should be clean and free from paint or debris. If they are fouled, clean them with rubbing alcohol and a cotton swab. Be extremely gentle, as the Vision eye is delicate. You do not need to remove the Vision eye to inspect it. Vision eye removal requires removal of the grip frame.

03

Inspect the ball detent assembly. The plunger should be round, and smooth. It should be able to depress into the ball detent cover under light finger pressure, and spring back instantly when released. Use a cotton swab and rubbing alcohol to clean the ball detent opening in the Shocker NXT body.

04

If the ball detent plunger or its spring are worn and need replacing, this is a relatively simple task. Look at the ball detent cover from the bottom, and press the plunger in and out. You should see one of the plunger's fingers moving back and forth across the detent release hole. Take your 1/16-inch Allen wrench, and reach it into the release hole. Use the Allen wrench to pry outward on the backside of the ball detent plunger. Once the plunger is popped loose, you may pull it out of the ball detent cover with your fingers or a pair of needle-nosed pliers. You will probably damage the ball detent spring in the process, and for this reason it is normal to replace both the plunger and spring at the same time. If you are careful to not put the wrench in any further than is needed to pry against the closest edge of the plunger, you can avoid damage to the ball detent spring.

05

Carefully clean the ball detent cover with rubbing alcohol and a cotton swab. Install the new ball detent plunger, with its spring beneath it, into the ball detent cover. You will need to pinch the plunger's fingers inward and wiggle it until it presses inside the cover and latches into place. Be careful, and make sure you are doing this in a clean work area – if you slip, the spring can jump away from you, and it is much easier to find on a nice clean work table than in deep shag carpet or between burger wrappers in the back seat of a car.

[ CONTINUED ]

06

### WARNING

The ball detent plunger is made of self-lubricating material. Do not oil or grease the plunger or spring.

When reinstalling the ball detent cover to the body, make sure that the retention screw lines up with the screw hole in the top of the Vision eye's flex strip. As you lower the ball detent cover into place, be certain that the Vision eye is also lining up properly and not being crushed. A gentle pull on the Vision eye flex strip from the bottom of the body may be necessary to keep the Vision eye in. Use the 1/16-inch Allen wrench to screw in the ball detent cover screw.

- 1 SHK07113 (L or R) - Shocker NXT Ball Detent Cover
- 2 SPR029 - Shocker NXT Detent Spring
- 3 SHK07126 - Shocker NXT Detent Plunger
- 4 SCR0348X0156BS - Detent Screw
- 5 BUM007 - Shocker NXT Vision Bumper

FIG. 19 → REMOVING BALL DETENT COVERS

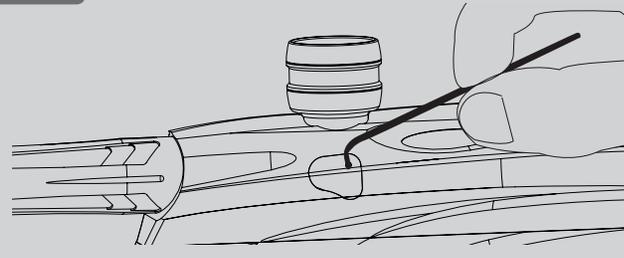


FIG. 20 → PRYING OUT DETENT

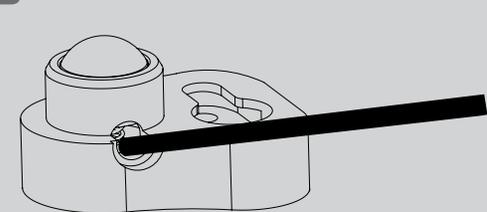


FIG. 21 → BALL DETENT ASSEMBLY

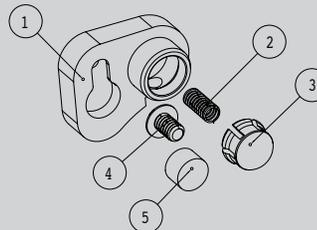
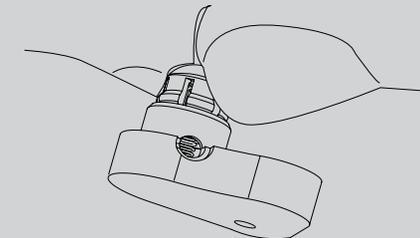


FIG. 22 → PINCHING THE PLUNGER



# GRIP FRAME REMOVAL

01

## WARNING

Degas the Shocker NXT. Disconnect the macroline running from the ASA or compressed air regulator to the Shocker NXT's vertical regulator.

02

Remove the four screws that hold the rubber grip on the grip frame, and remove the rubber grip.

03

It is not necessary to remove the 9-volt battery from the grip frame, but you may find it easier to complete the next step if you first remove the 9-volt battery and unplug it from the battery clip.

04

The wiring harness carries electrical signals between the Shocker NXT's lower (grip frame) circuit board and the Vision circuit board which is mounted on the solenoid valve. Remove the wiring harness by getting as close to the lower circuit board as possible and gently removing the wiring harness plug in a careful side to side motion until the harness plug comes free.

05

Using the 5/32" Allen wrench, unscrew and remove the two grip frame screws.

## WARNING

CAREFULLY separate the grip frame from the body, paying careful attention to the wiring harness attached to the circuit board at the midway point of the grip frame. Pull wiring through grip frame gently and set aside grip frame assembly.

06

Use caution while handling the Shocker NXT Body. Excess strain on the solenoid valve can damage the fine threads of its mount screws. The Solenoid valve should not be removed during normal maintenance.

## INSTALLATION OF PORT INSERTS

Located below the Bolt Guide on the rear of the Shocker NXT are the threaded ends of two port inserts. The Port Inserts are slender rods equipped with very fine o-rings. They serve to divide gas passages inside the Shocker NXT. Correct installation of the Port Inserts requires the use of specialized pneumatic alignment equipment at the Smart Parts factory. Improper installation can damage the Port Insert seals and misalignment will prevent the Shocker NXT from functioning. The Port Inserts and their o-rings are non-wear items and do not ever need to be removed for the Shocker NXT for anything short of body milling or anodizing. Even if someone offers you free beer and pizza, do not remove the Port Inserts.

## WARNING

Due to the internal gas filtering built into the Shocker NXT, removal and or disassembly of the solenoid valve is not required during regular maintenance and may actually shorten its service life. Leave it where it is and lead a happy life.

FIG. 23 → WIRING HARNESS

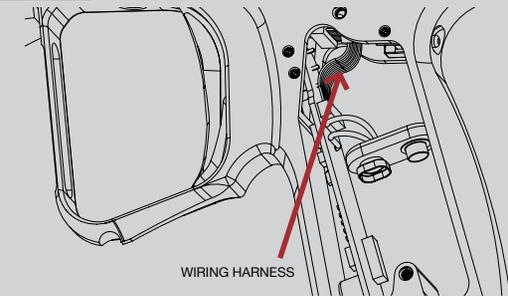


FIG. 24 → REMOVING GRIP FRAME

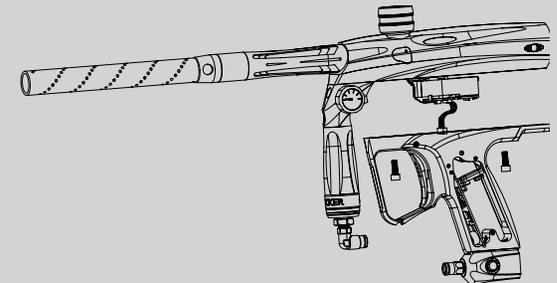
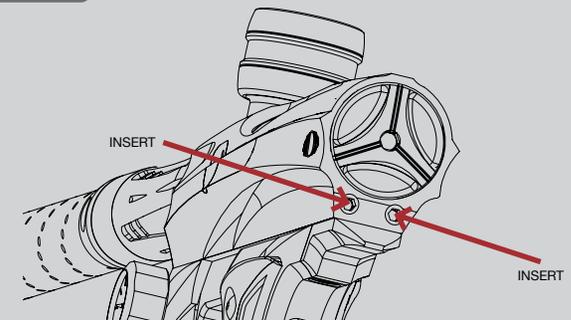


FIG. 25 → PORT INSERTS



# VISION EYE REMOVAL

01

The Vision eyes are what the Shocker NXT's circuits use to determine if a paintball has been loaded into the breech.

To remove or install a Vision eye, remove the grip frame from the body. Reflective Vision eyes are located under the right side ball detent cover, and beam-break eyes are positioned under both ball detent covers. Remove the appropriate cover(s) for your type of eye.

02

Reflective Vision eyes are on a single flex-strip, and break-beam eyes have a Y-shaped strip. Unplug the bottom end of the strip from the solenoid (upper) circuit board. Remove a reflective Vision eye by grasping its eye end and gently wiggling the flex strip up and out of the body. Remove a break-beam Vision eye by first lifting each eye out of its recess in the body. The 1/16 inch Allen Wrench may be helpful in this task. Then gently pull the bottom end of the flex strip and carefully guide the two eye ends into the body and out the bottom one at a time. Inspect the Vision eye flex strip for damage. The eyes must be removed one at a time, as they may be damaged by trying to pass them through the opening together. Damage to the infra-red LED and detector, scratches across its circuit traces, or cracks or sharp bends in the flex strip can all cause Vision failure, and are signs to replace the flex strip.

03

To install a reflective Vision eye, thread its tail into the Vision slot next to the right side ball detent opening. Guide the flex strip out the bottom of the body. For a break-beam Vision eye, install from the Vision opening in the bottom of the receiver. One at a time, carefully guide the eyes up to the ball detent openings. This will require some gentle wiggling of the flex strip to achieve. Here again, your 1/16 inch Allen Wrench may be helpful in guiding the eyes to their appropriate channels.

04

Plug the bottom end of the flex strip into the solenoid circuit board. The metal contacts on the flex strip should be facing away from the Shocker NXT body.

05

Reinstall the ball detent covers and grip frame, then congratulate yourself on a job well done.

## SELECTING VISION MODES

The Shocker NXT circuit board features 3 Vision modes: Break-Beam Vision, Toggle Vision and Reflective Vision.

Break-Beam Vision is the standard Vision mode for the Shocker NXT, and works with Shocker Break-Beam Vision eyes. In Vision mode the Shocker NXT will not fire unless a paintball is in the breech, breaking the beam between the infrared emitter and detector.

If the ball detent plungers become excessively worn, or improperly fitting aftermarket ball detents, or an aftermarket body is used, it is possible for the Shocker NXT to be loaded, and for the paintball to roll forward of the Vision beam. In this case, Vision can still be used by switching to Toggle Vision Mode. In Toggle Vision mode the Shocker NXT will fire after the break beam has detected a paintball, even if the ball has rolled forward and the beam is no longer broken. Toggle Vision mode will automatically bypass the Vision eyes if they become blocked by debris, defaulting to limited rate of fire.

Reflective Vision Mode allows the Shocker NXT to be backwards compatible with older Shocker SFT custom bodies, which only have room for a Reflective Vision eye. Reflective Vision should only be used when a Reflective Vision eye is installed.

## REMOVAL AND INSTALLATION

FIG. 26 → BREAK BEAM EYE

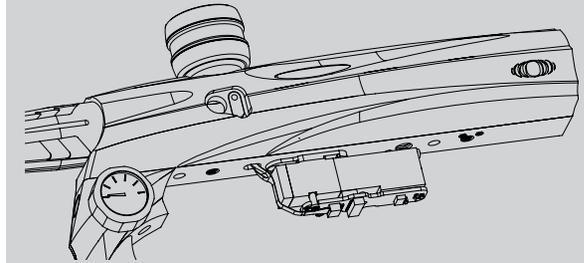
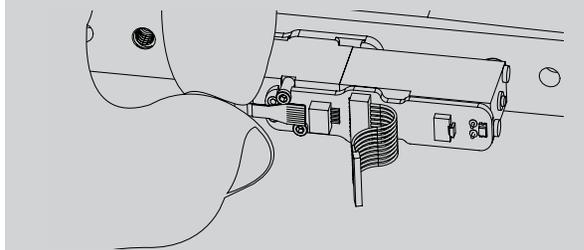


FIG. 27 → UNPLUGGING FLEX STRIP



## IMPORTANT

The type of Vision the Shocker NXT will use is selected by holding down the mode buttons and turning the Shocker NXT on. With the Shocker NXT unloaded and degassed, open the grip and hold down the top programming button, then turn the Shocker on to select Break-Beam Vision. Use the lower button to select Toggle Vision, or both buttons at the same time to select Reflective Vision.

# GRIP FRAME

## REASSEMBLY

01

To reconnect the grip frame, bring the body and grip frame close together, very gently inserting the wiring harness directly through the opening in the top of the grip frame, just above the battery. Now bring the grip frame and body all the way together, taking extra care not to allow any of the black wires to get wedged between the clear on/off button of the grip frame and the on/off switch located on the back end of the upper circuit board (the on/off button is small and gray, like the programming buttons.)

02

**WARNING**  
Getting the wires caught between the on/off switch and on/off button may cause severe damage to the wires and or the on/off button.

03

Thread in the two grip frame screws and tighten them with the 5/32-inch Allen wrench. Now reconnect the wiring harness to the lower board.

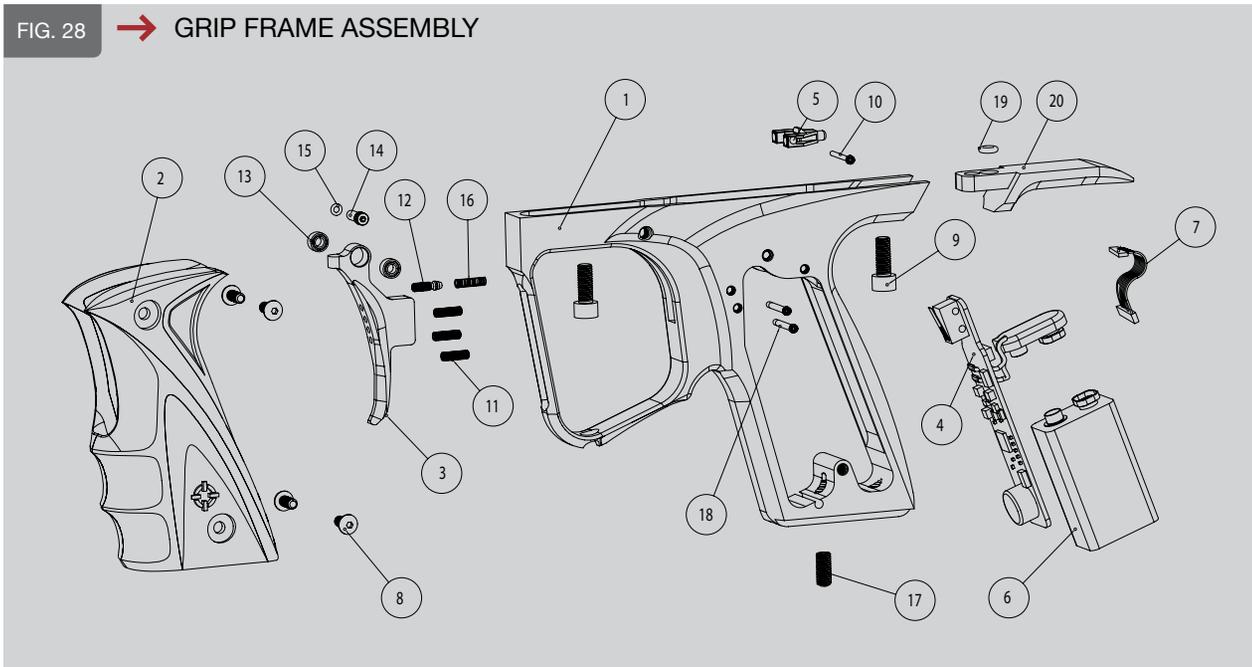
04

Look carefully at the wiring harness. There is a raised line on the side of the wiring harness plug that prevents it from being plugged in backwards. This line should be closest to the battery, on the side of the connector away from the circuit board. Push the harness plug in firmly until it stops. Use a thumbnail to make sure the plug is fully seated by pushing on its edges.

05

The rubber grip can be reinstalled, along with its four screws.

FIG. 28 → GRIP FRAME ASSEMBLY



- 1 SHKNXT107 - Shocker NXT Grip Frame
- 2 GRPSMTBLK - Black Smart Grip
- 3 SHK07107 - Shocker NXT Trigger
- 4 SHK07117VSN - Shocker NXT Break Beam Circuit Board
- 5 SHK116 - Shocker On/Off Push Button
- 6 9-volt Alkaline Battery
- 7 SHK122 - Wiring Harness
- 8 SCRNO632X0313BS (4x) Grip Screws
- 9 SCRNO1032X0500CS (2x) Grip Frame Screws
- 10 PIN017 - Threaded On/Off pin
- 11 SCRNO448X0375SCO (3x) Trigger Adjustment Screws
- 12 SHK07124 - Trigger Spring Adjustment Screw
- 13 BERSHKTRG - Trigger Bearing
- 14 PIN015 - Threaded Trigger Pivot Pin
- 15 ORN0201070BU - O-ring for Pivot Pin
- 16 SPR028 - Trigger Return Spring
- 17 SCRNO1032X0438SCS - Dovetail Set Screw
- 18 PIN016 - Threaded Trigger Switch Mounting Pins
- 19 ORN00690UR - O-Ring for Gripper
- 20 SHKNXT106ACC01 - Shocker NXT Gripper



# TROUBLESHOOTING

IMPORTANT

## SHOCKER IS DIFFICULT TO SWITCH ON/OFF.

- The battery is low or dead. Inspect and replace.
- Solenoid wiring harness is in the way of the on/off button and on/off switch. Remove the grip frame. Relocate wires away from switch and check for damage. Reassemble properly.

## BREAKING PAINT.

- Paint to barrel match is wrong. The paint you are using is too large for the barrel you are shooting it through. Get a Freak System and select the proper size insert, or find a paintball that fits your barrel properly.
- Ball Detents are damaged or missing. Check to make sure ball detent plungers are intact and reactive on both sides. Replace if damaged or missing.
- Paint is too low quality or too brittle. Switch to a name brand, high quality manufacturer.
- Turn on Vision eye (if so equipped).
- Check Shocker battery. It may be low, causing incomplete cycling.
- Loader may not be keeping up. Check loader batteries or use a faster loader.

## AIR LEAKS DOWN THE BARREL WHEN GASSING UP THE SHOCKER.

- The o-rings on the internal surface of the fire chamber are worn. Clean and inspect the bolt assembly and lubricate thoroughly.

## WHEN GASSED UP, LITTLE OR NO AIR SEEMS TO BE GETTING TO THE SHOCKER.

- Degas, then remove the internals. Check for o-ring binding, grease with SL33K, then reinstall.
- Bolt may be jammed, check for paint shell or debris.

## AIR IS LEAKING INSIDE THE SHOCKER.

- Manifold mounting screws are loose. Tighten screws to stop the leak but DO NOT OVERTIGHTEN.
- Solenoid screws are loose. Tighten screws to stop the leak but DO NOT OVERTIGHTEN.
- Solenoid may require servicing. Contact Smart Parts.

## THE SHOCKER IS GASSED UP, BUT WILL NOT SHOOT.

- Turn the Shocker NXT on.
- Battery may be dead. Replace with fresh name brand alkaline 9-volt battery.
- Check to see if solenoid wiring harness has come free from either end of the circuit board. Reconnect, if necessary.
- Vision eye is on but no paint is loaded. Add paintballs or turn Vision off.

# TROUBLESHOOTING

IMPORTANT

## SHOCKER NXT TURNS ON & CHIRPS BUT POWER LIGHT DOESN'T COME ON & GUN DOESN'T FIRE.

- Trigger activation screw is in too far.

## THE SHOCKER IS DROPPING OFF VELOCITY DURING RAPID FIRE.

- Clean and lubricate the Shocker NXT, making a careful inspection of the bolt and firing chamber o-rings.
- Reset the dwell for optimum efficiency, see the Dwell Section for more details.
- Change to a fresh name brand 9-volt alkaline battery.

## THE SHOCKER HAS LOW VELOCITY OR WON'T FIRE.

- Your battery is low. Replace with fresh name brand 9-volt alkaline battery.
- Turn the on/off valve on all the way.
- Check your operating pressure so that it's between 190-220psi. Increase pressure up to 220psi, if necessary.
- The Dwell setting may be too low, causing the bolt to return before enough gas has been released to get the paintball up to speed. Try increasing the Dwell setting, especially if the pressure is already as high as 190 psi.
- Clean and inspect regulator.
- Clean, inspect and lubricate the Shocker NXT's internals.
- Check paint to barrel match. Paint may be too large or too small for the barrel you are shooting it through. Consider a Freak Barrel System or find a paintball that fits your barrel properly.
- Replace the rear firing chamber o-ring.

## THE SHOCKER HAS FIRST SHOT DROP OFF (FSDO)

- If the Shocker NXT fires at low velocity or will not fire on the first trigger pull after sitting still for a few minutes, but fires at proper velocity on all subsequent shots, this first shot drop off may be caused by dirt or under lubrication. Degas, disassemble, clean and inspect the bolt assembly. Liberally lubricate the bolt assembly with SL33K Shocker Lubricant upon reassembly.
- If First Shot Drop Off continues after cleaning and lubrication, increase the dwell setting. See the Dwell Section for more details on Dwell adjustment.



# TROUBLESHOOTING

## THE VISION EYE IS NOT WORKING/THE SHOCKER WILL NOT FIRE IN VISION MODE.

- Make sure you are in Vision Mode. The power LED should be glowing steadily.
- Make sure the Vision Mode used matches the type of vision eye installed—see vision eye removal.
- Inspect, and if necessary clean the Vision eyes and breech.
- If the ball detent plungers are worn, or you are using aftermarket ball detents and or an after-market body, it is possible that the paintball in the breech is rolling forward of the Vision beam. If this is the case, either replace the detent plungers, aftermarket detent, or aftermarket body, or switch to Toggle Vision mode.

## DIFFICULTY SEPARATING BODY FROM GRIP FRAME.

- Aftermarket grip screws may be so long that they are catching on the upper circuit board. Use only Shocker NXT grip screws.

## OLDER MODEL SHOCKER BOARD WILL NOT FIT IN GRIP FRAME.

- Early model boards with the switch in the inverted position won't fit. As a solution either use a newer board, or have an airsmith invert the switch

## SHOCKER NXT SHOOTS FASTER THAN TOURNAMENTS ALLOW

- At some paintball fields or tournaments you may face rules that limit how fast a marker may fire. To slow down how fast the Shocker NXT can fire, you will need to rein it in by raising the ROF setting, which makes it wait longer after each shot. With the Shocker NXT degassed, unloaded and guarded with a barrel blocker, open the grip, turn on the Shocker and press the lower adjustment button while holding down the trigger. See the Rate of Fire/Rebound Section for details on ROF adjustment and calculating maximum cycle rates.

## IMPORTANT

### TECH SUPPORT

Our Technical Support Department is open Monday through Friday, from 10am to 6pm EST, and can be reached at 724-539-2660. Additional support and downloadable product manuals are available through our web site, [www.smartparts.com](http://www.smartparts.com).

### WARRANTY

Smart Parts warrants for one (1) year to initial retail purchaser that the paintball marker and regulator are free from defects in materials and workmanship. Disposable parts (batteries, o-rings, seals, etc.) are not warranted. The valve assembly is warranted for six (6) months. The solenoid and electronics on the marker are warranted for six (6) months, plus an additional warranty of six months for electronic parts only (installation and labor are not included.) This warranty does not cover surface damages (scratches and nicks), misuse, improper disassembly and re-assembly, attempts made to drill holes or remove metal from the external surfaces which could degrade performance and reduce pressure safety factors of the marker. Do not make changes to the basic marker parts without written approval. The only authorized lubricant for the marker is SL33K Lubricant. Use of any other lubricant could result in voiding your warranty. Paintball markers are non-refundable. This warranty is limited to repair or replacement of defective parts with the customer to pay shipping costs. This warranty is effective only if the customer returns the warranty registration card enclosed with the marker. The warranty is non-transferrable. Do not attempt to alter the trigger assembly in any way, as this will void your Smart Parts Inc. warranty. Trigger alteration of any kind may result in serious injury.



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