⚠ **This is not a toy. Misuse may cause serious injury or death. Eye protection designed specifically for paintball must be worn by the user and persons within range. Recommend 18 years of age or older to purchase. Persons under 18 years of age must have adult supervision. READ THIS MANUAL BEFORE USING.**

⚠ WARNING!

- Paintball guns and paintball gun accessories are not toys!
- Careless use or misuse may result in serious bodily injury or death!
- Eye protection designed for paintball must be worn by the user and all persons within range.
- Not for sale to persons under 18 years of age.
- Must be 18 years of age or older to operate or handle any paintball gun and paintball gun accessories without adult or parental supervision.
- Read and understand all cautions, warnings, and operating manuals before using any paintball gun or paintball gun accessory.
- Do not aim paintball gun at eyes or head of people or at animals.
- Paintball guns are to be used with Paintballs only.
- To prevent fire or shock hazard, do not expose unit to rain or moisture.
- To prevent fire or shock hazard, do not immerse unit in liquids.
- To prevent fire or shock hazard, do not disassemble any electronic paintball device.
- The disposal of the battery used to power this product may be regulated in your area.
- Please conform to all local or state regulations with regard to battery disposal.
- Use common sense and have fun.
- Designed for Paintball use only.

Any tampering with the unit voids your warranty. The use of non-factory authorized components within this product may cause a critical failure, fire or shock hazard. In no event shall seller be liable for any direct, incidental or

consequential damages of any nature, or losses or expenses resulting from any defective product or the use of any product.

⚠**WARNING:** This product can expose you to chemicals including Lead, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

Read the full Operator's Manual for technical information, usage instructions, and maintenance tips for your SYX marker. The full manual can be found at www.paintballsolutions.com or by contacting Paintball Solutions at 1-800-220-3222 or at 866-685-0030 in Canada.

Rules for Safe Marker Handling
WARNING: Never carry your paintball marker uncased when not on a playing field. The non-playing public and law enforcement personnel may not be able to distinguish between a paintball marker and a firearm. For your own safety and to protect the image of the sport, always carry your marker in a suitable marker case or in the box in which it was shipped.

- Treat every marker as if it were loaded.
- Never look down the barrel of a paintball marker.
- Keep the marker in "Safe Mode" until ready to shoot, power Off and barrel blocking device installed in/on the marker's Barrel.
- Keep your finger off the Trigger until ready to shoot.
- Never point the marker at anything you don't wish to shoot.
- Keep the barrel sock or another ASTM approved blocking device installed when not shooting.
- Always remove paintballs and the air source before disassembly.
- After removing the air source, point marker in safe direction and discharge until marker is degassed.
- Store the marker unloaded and degassed in a secure place.
- Follow warnings listed on the air source for handling and storage.
- Do not shoot at fragile objects such as windows.
- The operator and every person within range must wear eye, face and ear protection designed specifically to stop paintballs and meeting ASTM standard F1776.
- Always measure your marker's velocity before playing paintball and never shoot at velocities in excess of 300 feet-per-second (91.44 meters-per-second).
- Read and understand this entire manual before loading, attaching a propellant source or in any way attempting to operate the marker

  ➢ Safety and safe marker handling are the most important aspects of paintball sports. Do not install compressed air or load paintballs into your SYX until you feel completely confident with your ability to handle your SYX safely.
  ➢ Keep your finger out of the Trigger guard and away from the Trigger; point the muzzle of the marker in a safe direction at all times. Keep the marker turned off until ready to operate. The SYX uses an On-Off button as one of its safety devices.
  ➢ Always keep your SYX pointed in a safe direction. Always use a barrel plug or barrel blocking device.
  ➢ Always use ASTM approved paintball specific eye protection in any areas where paintball markers may be discharged. Remember that the ultimate safety device is you, the operator.

SPECIFICATIONS
– Engine: Pressure controlled poppet
– Barrel: Driver XX 14" Aluminum Ported 2-piece .688
– Caliber: .68
– Action: Electro-pneumatic
– Air Source: Compressed Air Only
– Battery: One 9-Volt Alkaline
– Cycle Rate: 25.0 BPS
– Main Material: Aluminum
– Accuracy Range: 150+ ft

- Weight: 2.00 lbs. (908 grams)

Included with your Empire Syx
- 14" Aluminum 2pc Barrel (.688 bore)
- Hex Keys
- Spare Parts Kit
- Barrel Sleeve
- One 9-Volt Battery
- Marker Case

1. BASIC OPERATION

Barrel Installation
1. Make sure marker is degassed, loader removed, no paintballs in the feed port or breech and the marker is OFF.
2. Slide the longer barrel tip into the barrel back, turning the barrel tip clockwise until it stops (do not over tighten).
3. While pointing marker in a safe direction, thread the barrel into the front opening of the marker body.
4. Turn the barrel clockwise (when looking at the front opening) until it stops (do not over tighten).
5. Install a barrel blocking device. This can be a barrel bag or other such device that prevents the accidental discharge of a paintball.

Before Pressurizing your Syx
- Check to make sure that you and anyone within range are wearing eye protection designed specifically for paintball.
- Double check that all screws are tightened, and no parts are loose before installing your tank.
- Ensure you have a barrel sock or other specifically designed barrel-blocking device in place.
- Make sure there are no paintballs in the marker and that the Syx is turned OFF.

Notes:
- *Remember compressed air or nitrogen systems can be extremely dangerous if misused or improperly handled. Use only cylinders meeting D.O.T, TC. or regionally defined specifications. Do not perform any work to your tank or tank Regulator.*
- *Never disassemble your tank or tank Regulator. Only a qualified and trained technician should perform work on your tank and tank Regulator.*
- *Never add any lubricants or greases into the fill adapter on your tank Regulator*

Compressed Air Tank installation
The Empire SYX is designed to work with compressed air/nitrogen only. Do not use CO2, as it will damage your marker. The Empire SYX utilizes an On/Off ASA (Air Source Adapter) or receiver for a standard threaded preset output compressed air system.

PRESSURIZING THE MARKER
- Flip the On/Off ASA lever forward so it's pointing toward the front of the marker.
- Install a compressed air tank, by screwing it in clockwise; making sure it's fully threaded into the ASA.
- Flip the On/Off ASA lever back so it's flush with the regulator and pointing toward the rear of the marker. The marker will become pressurized.

DE-PRESSURIZING THE MARKER
- Flip the On/Off lever forward and allow the gas to vent from the regulator.
- Air may remain within the marker once the regulator is vented. While the barrel blocking device is still installed but the loader removed, turn your SYX on, turn the eyes off and pull the trigger a few times to deplete all remaining air.
- Remove your air cylinder by slowly and carefully unscrewing it counterclockwise.

Note: If you are using an adjustable Regulator system, the output pressure should be set between 500-750 psi.

Installing a Loader and Paintballs

The Empire Syx uses .68 caliber, water-soluble paintballs, readily available at paintball pro-shops, commercial playing fields, and many sporting goods stores. The paintballs feed from the loader through the feed-neck and into the breech of the marker.

The Empire Syx comes equipped to accept standard-gravity feed loaders as well as most agitating and force-feed loaders. Open the clamp lever and place the loader neck directly into the marker feed neck. Align the loader in line with the marker so the nose points in the same direction as the barrel. Close the lever, noting that it might be necessary to adjust the feed-neck's clamping screw to get a snug fit on your loader.

Battery Replacement and Life Indicator

Confirm that the marker is OFF before changing or installing the battery. The Empire Syx requires a single 9-volt battery as the electronic power source. The use of brand-name alkaline batteries is highly recommended. The Empire Syx also has a battery life indicator visible on the screen in Live Mode. The battery icon will show the power level remaining in the battery.

- Remove the Barrel from the Syx.
- Locate the Locking Button at the bottom of the barrel opening in the Body (Fig. 1-1).
- While pressing and holding the Locking Button, pull the front section of the Foregrip forward and away from the rest of the Foregrip to access the interior and battery.
- Attach the 9-volt battery to the Battery Harness following the polarity markings and place within the Foregrip.
- Hold the Release Button and replace the Foregrip Front and then install the barrel.

Power On/Off

- Turn Marker ON - Press and hold the Bottom button until the screen lights up (Fig. 1-2).
- Turn Marker OFF - Press and hold Bottom button until you see word "SHUT DOWN" (approx. 3 seconds), release the button and the marker will turn Off after approximately 1 second.
- Automatic Off feature - The Empire Syx also has an automatic off feature. If you accidentally leave your marker powered up, it will shut itself off after approximately 10 minutes of inactivity.

    Note: The Auto Off time is adjustable in the SYSTEM Menu

Firing the Empire Syx

Keep your finger out of the trigger guard and away from the trigger, point the muzzle of your marker in a safe direction at all times during this process. Be sure your goggles are securely in place and make sure the Syx marker is turned OFF.

Warning: Everyone within firing range should always use ASTM approved eye and face protection in the presence of live paintball markers.

1. Place the empty loader onto the marker. Be sure that it is securely mounted in place
2. Install and apply the compressed gas, pressurizing the marker
3. Put the paintballs into the loader
4. Remove the barrel sock or barrel-blocking device
5. Aim the Syx in a safe direction.
6. Turn the Syx ON: Press and hold the Bottom button until the screen lights up
7. Aim the Syx at the target
8. Pull the trigger with a smooth squeezing motion

Caution: When the game you are playing is over, remember to place the barrel blocking device onto your barrel and turn the marker off.

Trigger Adjustment

There are four adjustments that can be made on the on the trigger (Fig. 1-3). Use the 5/64" hex wrench to make any desired adjustments:

A. Forward Travel – This adjusts the position of the trigger when not being fired
   ○ Turning the adjustment screws "in" or clockwise will decrease the trigger length of travel
B. Magnetic Tension – this affects how "hard" the pull of the trigger feels

- ○ Turning the adjustment screws "in" or clockwise will increase the force needed to pull the trigger
- C. Stop – This adjusts the farthest position the trigger will travel when depressed
  - ○ Turning the adjustment screws "in" or clockwise will decrease the travel of the trigger by having the trigger stop sooner
- D. Activation Point – This adjusts the position where the trigger pull registers a shot by activating the trigger switch
  - ○ Turning the adjustment screws "in" or clockwise will decrease the travel of the trigger needed before the Syx registers a shot

2. REGULATOR AND VELOCITY ADJUSTMENT

The Empire SYX utilizes a standard threaded pre-set input for a compressed air system or remote hose. The regulator controls the amount of air pressure going from your compressed air system into the marker.

The Empire SYX regulator should be factory pre-set for the best operating pressure for proper marker operation. However, if over time you do need to adjust the pressure, use the regulator adjuster screw on the bottom of your Air Source Adapter (ASA).

Regulator Adjustment

If air pressure adjustments are needed use a 3/32in. hex wrench and insert it into the regulator adjustment screw (the single hole closer to the front on the bottom of the ASA) (Fig. 2-1).

> - To Increase pressure, turn Counter-Clockwise.
> - To Decrease pressure, turn Clockwise.

> *Note: Do Not Use CO2!*

The input pressure affects the paintball velocity, so the same process listed above is used to adjust the velocity.

-To Increase Velocity
To Increase pressure, turn the regulator adjustment screw Counter-Clockwise using a 3/32in hex wrench. Move the screw in roughly 1/8 and 1/4 turn increments under the desired velocity is reached. Test fire several shots for confirmation.

-To Decrease Velocity
To Decrease pressure, turn the regulator adjustment screw Clockwise using a 3/32in hex wrench. Move the screw in roughly 1/8 and 1/4 turn increments until the desired velocity is reached. Test fire several shots for confirmation.

> *Notes:*
>
> - *This marker was designed with safety and safety standards in mind. If you attempt to shoot paintballs at a higher velocity than established safety standards, the marker may not function properly.*
> - *If you attempt to operate the marker at extremely high velocities, the internals will not function properly.*
> - *This marker is not designed to shoot above the safety limits established by industry standards but under certain conditions it may. It is therefore important to check the velocity each time before playing with your Syx.*

3. BOARD OPERATION

- Turn Marker ON - Press and hold the Bottom button until the screen lights up.
- Turn Marker OFF - Press and hold Bottom button until you see word "SHUT DOWN" (approx. 3 seconds), release the button and the marker will turn Off after approximately 1 second.
- Automatic Off feature - The Empire Syx also has an automatic off feature. If you accidentally leave your marker powered up, it will shut itself off after approximately 10 minutes of inactivity.

NOTE: The Auto Off time is adjustable in the SYSTEM Menu

LIVE MODE

Live Mode is the standard mode when firing the marker. The main display will show the Firing Mode, Game Timer, Eye Status, Tournament Lock, Battery Level and Trigger Activation. (See FIG. 3a)

- Firing Mode - The upper section of the display shows the current Firing Mode. (FIG. 3a) shows the marker in SEMI mode. The Redline offers eight different Fire Modes.
- Battery Level Indicator - On the upper left of the display, below the Firing Mode, is the Battery Level indicator. The indicator will flash when the battery is depleted. FIG. 3a shows the Battery Level at full.
- Tournament Lock - On the upper right of the display, below the Firing Mode, is the Tournament Lock indicator. The Tournament Lock can only be set by pressing a button on the board (see for more details).
- Eye Status– Eyes are electronic light beams that will not allow the marker to fire until a paintball is completely loaded into the breech and "seen". This feature limits the number of chopped paintballs.
  o Press and hold the Bottom button for 1 second to toggle Eyes ON or OFF. The display icon will show either empty breech, a ball in the breech, the EYES OFF, or EYE malfunction.
    1. EYES ON, empty breech
    2. EYES ON, ball in breech
    3. EYES OFF
    4. EYE malfunction

- Game Timer – Tap the Top button once to toggle the Game Timer ON. To reset the timer, enter then exit the Menu mode (See entering menu mode below) or turn marker Off.
- Trigger Status - The display will show the status of the trigger (depressed or released) in place of the Tournament Lock icon, when the trigger is activated.
- Press and Hold the Top button to cycle through the displays of more user data. The Game Timer will be replaced by Shot Counter or the Rate of Fire indicators as you scroll through the display screens.
- Shot Counter – Displays the current number of shots taken, as determined by solenoid cycles. You can reset the Shot Counter to zero from the System Menu.
- Rate of Fire – This screen displays the highest achieved Average Rate of Fire (AV) and the highest achieved Peak Rate of Fire (PK). You can reset the Shot Counter to zero from the System Menu.
- MAIN Menu – Press and hold both the Top and Bottom buttons enter the MAIN Menu (see below for more details).

MAIN MENU

Press the D-pad to the UP or DOWN directions to scroll through the MAIN Menu options. Press and hold the Bottom button to make a selection.

- OFF – Turns Marker Off
- CONFIG – Enters User CONFIGurations Menu (see below)
- SYSTEM – Enters SYSTEM Settings Menu ()
- EXIT – Exits back to LIVE Mode

MENU QUICK EXIT

As long as you are not currently modifying a setting, you can exit any menu at any time by pressing and releasing the trigger. This will take you back to LIVE Mode.

USER CONFIGURATIONS MENU (CONFIG)

- Note – if the tournament lock is activated you will not be able to enter the CONFIG menu. The display with show "LOCKED" when trying to enter.
- Press the Top and Bottom buttons to scroll through the USER CONFIGURATIONS Menu options. Hold the Bottom button to enter the selected option and see the current setting.
- CONFIG - There are 3 fully customizable user configurations (or profiles). The current user CONFIG (Profile) is displayed near the top of the screen (C1, C2, or C3).
- Only the settings under CONFIG menu are linked to a User Configuration.
- Changing the values of a setting in the CONFIG menu will only affect the Configuration that is currently chosen. If the current configuration setting is C1, any changes to settings in the CONFIG menu will only affect C1.

FIRE MODE
Choose between the different pre-programmed firing modes.
- Press and Hold the Bottom button to see the current Firing Mode setting.
- Press UP or DOWN to cycle through Firing Modes
- SEMI - Semi automatic firing up to max ROF (Rate of Fire) setting
- RAMP – Semi auto shots (equal to Ramp Shot Start setting), then a Ramping rate of fire up to the max ROF setting (if Ramp Sustain TPS (Trigger Pulls per Second) is achieved)
- BURST – Semi auto shots (equal to Ramp Shot Start setting), then 3-shot bursts at the max ROF setting
- AUTO - Semi auto shots (equal to Ramp Shot Start setting), then Fully Automatic firing at the max ROF setting
- PSP B - Complies to 2011 PSP rules for Burst mode
- PSP R - Complies to 2011 PSP rules for Ramping mode
- MILL - Complies to 2011 Millennium Series Rules for Ramping Mode
- Press and Hold the Bottom button to save selection and return to the CONFIG menu

ROF Cap- Choose whether the Rate of Fire Cap is ON or OFF when Eyes are ON

- Press and Hold the Bottom button to see current setting of whether ROF CAP is On or OFF
- Press UP or DOWN buttons to cycle through ON or OFF
- Press and Hold the Bottom button to save the setting and return to CONFIG menu

ROF Eye On- The maximum Rate of Fire with Eyes On (ROF Cap must be ON for this setting to take affect)

- Press and Hold the Bottom button to see current ROF with EYES ON
- Press UP or DOWN buttons to increase/decrease the BPS setting (4.0-25.0BPS)
- Press and Hold the Bottom button to save setting and return to CONFIG menu

ROF Eye Off- The maximum Rate of Fire with Eyes OFF

- Press and Hold the Bottom button to see current ROF with EYES OFF
- Press UP or DOWN buttons to increase/decrease the BPS setting (4.0-25.0BPS)
- Press and Hold the Bottom button to save setting and return to CONFIG menu

Dwell- Is the amount of time the solenoid stays open to fire a ball. Setting the Dwell too high will decrease efficiency. Setting the Dwell too low will affect marker operation.

- Press and Hold the Bottom button to see current Dwell time (in milliseconds)
- Press UP or DOWN buttons to increase/decrease the Dwell setting (0.5-20.0ms)

- Press and Hold the Bottom button to save setting and return to CONFIG menu

Trigger Pull Debounce- Time in milliseconds the trigger pull must be held to be valid. This eliminates electronic noise and vibrations that the board may wrongly interpret as a trigger action (trigger pull) and fire the marker.

- Press and Hold the Bottom button to see current Trigger Pull De-bounce setting (in milliseconds)
- Press UP or DOWN buttons to increase/decrease the Pull Debounce setting (1-20ms)
- Press and Hold the Bottom button to save setting and return to CONFIG menu

Trigger Release Debounce- Time in milliseconds the trigger must remain released before next pull can be registered.

- Press and Hold the Bottom button to see current Trigger Release Debounce setting (in milliseconds)
- Press UP or DOWN buttons to increase/decrease the Release Debounce setting (1-20ms)
- Press and Hold the Bottom button to save setting and return to CONFIG menu

Ball in Place Time- Time in milliseconds the ball must stay in breech before it can be fired. Increase this setting for slower feeding loaders to avoid chopping balls in the breech. Decrease this setting for use with faster feeding loaders to increase max ROF.

- Press and Hold the Bottom button to see current Ball In Place setting (in milliseconds)
- Press UP or DOWN buttons to increase/decrease the BIP setting (1-20ms)
- Press and Hold the Bottom button to save setting and return to CONFIG menu

Anti-Bolt Stick Wait Time- Time that must expire after a shot before ABS is activated. Helps prevent first shot drop-off.

- Press and Hold the Bottom button to see current ABS Wait setting (in seconds)
- Press UP or DOWN buttons to increase/decrease the ABS Wait setting (10-60s)
- Press and Hold the Bottom button to save setting and return to CONFIG menu

Anti-Bolt Stick Dwell- Time that will be added to dwell after ABS Wait time to prevent bolt stick.

- Press and Hold the Bottom button to see current ABS Dwell setting (in milliseconds)
- Press UP or DOWN buttons to increase/decrease the ABS Dwell setting (0-10ms)
- Press and Hold the Bottom button to save setting and return to CONFIG menu

Ramp Shot Start - Number of Semi-Auto shots needed before ramping kicks in (affects all firing modes but Semi-Auto).

- Press and Hold the Bottom button to see current Ramp Start setting (in # of shots)
- Press UP or DOWN buttons to increase/decrease the Ramp Start setting (3-12 shots)
- Press and Hold the Bottom button to save setting and return to CONFIG menu

Ramp Sustain - Trigger Pulls per Second (TPS) that must be maintained to continue ramping (affects RAMP, PSPR and MILL modes).
- Press and Hold the Bottom button to see current Ramp Sustain setting (in trigger pulls per second)
- Press UP or DOWN buttons to increase/decrease the Ramp Sustain setting (3-12TPS)
- Press and Hold the Bottom button to save setting and return to CONFIG menu

Ramp Reset - Time in seconds after last trigger pull in which ramping will stay active (affects all modes except Semi).
- Press and Hold the Bottom button to see current Ramp Reset setting (in seconds)
- Press UP or DOWN buttons to increase/decrease the Ramp Reset setting (1-10s)
- Press and Hold the Bottom button to save setting and return to CONFIG menu

Back – Return to MAIN Menu
- Press and Hold the Bottom button when BACK is visible to return to the MAIN Menu.

SYSTEM MENU
- Press the UP or DOWN buttons to scroll through the SYSTEM Menu options. Press and hold the Bottom button to enter the selected option and see the current setting.

- These are global settings that will affect all user configurations (C1, C2, C3). These settings can be modified when tournament lock is On or Off.

Game Timer - Set the Game Timer countdown duration.
  - Press and Hold the Bottom button to see current Game Timer Countdown setting; MM = Minutes, SS = Seconds (MM:SS)
  - Press UP or DOWN to increase/decrease the Game Timer minutes (00-99)
  - Press and Hold the Bottom button to save minutes setting
  - Press UP or DOWN to increase/decrease the Game Timer seconds (00-59)
  - Press and Hold the Bottom button to save settings and return to SYSTEM Menu

Force Shot - When ON, forces a shot with no ball in the breech and Eyes ON if trigger is held for 1 second.
  - Press and Hold the Bottom button to see if Force Shot setting is On or OFF
  - Press UP or DOWN to cycle through ON or OFF
  - Press and Hold the Bottom button to save setting and return to SYSTEM menu

Dwell Lock - When selected ON, changing the Dwell Setting in any of the 3 user configurations (C1, C2, C3) will change the dwell for all 3 configurations. When OFF, the dwell in each user configuration can be changed independently.
  - Press and Hold the Bottom button to see if Dwell Lock setting is On or OFF
  - Press UP or DOWN to cycle through ON or OFF
  - Press and Hold the Bottom button to save the setting and return to SYSTEM Menu

Brightness - Adjustable brightness of the screen display when screen is not dimmed
  - Press and Hold the Bottom button to see current Brightness setting (A numerical value of 10-100, 100 is brightest setting)
  - Press UP or DOWN to increase/decrease the Brightness setting (10-100)
  - Press and Hold the Bottom button to save the setting and return to SYSTEM Menu

Dim Time - The elapsed time after the last button activation in which the screen will dim to save power.
  - Press and Hold the Bottom button to see current Dim Time setting (in seconds)
  - Press UP or DOWN to increase/decrease the Dim Time setting (5-30s)
  - Press and Hold the Bottom button to save setting and return to SYSTEM menu

Auto Off – The elapsed time after the last trigger activation in which marker will shut off to save power.
  - Press and Hold the Bottom button to see current Auto Off setting (in minutes)
  - Press UP or DOWN to increase/decrease the Auto Off setting (5-30min)
  - Press and Hold the Bottom button to save setting and return to SYSTEM menu

RST Shots - Reset Shot Counter: Resets the Shot Counter when YES is selected (also available through LIVE Mode menu)
  - Press and Hold the Bottom button to Reset Shot Counter
  - Press UP or DOWN to cycle from NO to YES
  - Press and Hold the Bottom button to reset counter if YES is set, then return to SYSTEM Menu

FCTRY RST - Factory Reset: Resets all settings to factory defaults when YES is selected
  - Press and Hold the Bottom button for FACTORY RESET
  - Press UP or DOWN to cycle from NO to YES
  - Press and Hold the Bottom button to activate RESET if YES is set
  - Screen will then display "Resetting" and then will shut down

Back – Selecting will return you to the MAIN Menu
  - Press and Hold the Bottom button to return the MAIN Menu

TOURNAMENT LOCK
  - Tournament Lock is engaged or disengaged by pushing a small button on the board. (Fig. 3b)
  - The button is located next to the Battery Harness port (accessed from battery compartment).
  - While in Live Mode the Tournament Lock symbol will indicate if the marker is locked or unlocked.

SOFTWARE VERSION

- On startup, the software version will display next to the logo.
- Press and Hold the Bottom button during startup to continuously display the logo and software version.

4. ASSEMBLY/DISASSEMBLY AND MAINTENANCE

CAUTION: Before attempting to perform any maintenance operations or any marker disassembly, make sure that all paintballs and propellant sources have been removed from the marker and that the Regulator gauge reads 0 psi. Install a barrel blocking device, and that the power is Off.

GENERAL MAINTENANCE

Keep your Syx clean and lubricated to eliminate the friction that would prevent reliable operation. Clean and lube the marker before each use, and do not put it away dirty. Only use lubricants designed for paintball. DO NOT USE OIL ON THE BOLT SYSTEM. Do NOT use petroleum-based lubricants in the lubrication of this marker. Under any circumstances, do **NOT** use a solvent-based lubricant. Teflon or silicone (Non-spray only) lubricants designed for use on O-rings may be used for lubrication for the bolt area only of the main housing. Only use Paintball specific marker grease, such as Empire Vitamin E grease. The following maintenance procedures described below should be performed before each day of use or every 10,000 shots, whichever comes first.

REMOVAL OF BOLT SYSTEM

- Grip the Back Cap and pull it upwards (Fig. 4a)
- Rotate the Bolt Guide/Back Cap clockwise until it stops and then pull it free of the Body removing the bolt system (Fig. 4b)

MAINTENANCE OF BOLT SYSTEM
- Slide the Bolt with Main Spring off the Bolt Guide Front.
- You may pull the Main Spring off the Bolt and clean both thoroughly
- To remove Bolt Guide Front, place a 5/64" hex completely through a set of holes between the O-rings.
- Using the leverage of the hex wrench, turn the Bolt Guide Front counter-clockwise and remove from the Bolt Guide Rear.
- Remove the Poppet from the Bolt Guide Rear. It may move freely if grasped or can be pushed from behind using a hex wrench.
- Clean and inspect the O-rings on the Bolt, Bolt Guide Front, Poppet and Bolt Guide Rear for any wear or damage. Replace damaged or worn O-rings if necessary.
- Lubricate all O-rings on Bolt, Bolt Guide Front, Poppet and Bolt Guide Rear with Empire marker grease, the supplied grease or paintball specific marker grease. Only a small amount is needed.

NOTE: The Poppet O-ring is the most critical O-ring in the Syx and should be kept well maintained.

- Place the Poppet (with Poppet Spring in place) into the Bolt Guide Rear with the Poppet O-ring and Spring towards the rear of the gun.
- Install the Bolt Guide Front by hand and carefully tighten by placing the hex wrench through the holes between the O-rings.
- Slide and snap the Main Spring onto the Bolt, one end of the spring is smaller and will lock onto the Bolt.
- Slide the Bolt with Main Spring onto the Bolt Guide Front.
- Insert the Bolt System assembly into the back of Body and lock into place. (Fig. 4e)
- Bolt System maintenance is now complete. Note that a velocity adjustment over a paintball chronograph may be necessary after performing Bolt System maintenance.

REMOVAL, INSTALLATION AND CLEANING OF BALL DETENTS AND EYES
- Using a 5/64" hex wrench, insert hex wrench into the screw hole of the Eye Cover and turn counter-clockwise. (Fig. 4f)
- Using the end of the hex wrench, carefully pry the Ball Detent from the Body
- Clean the detent with a damp cloth or with warm water if covered with paint
- Place the Detent back into its socket within the Body

- Using the end of the hex wrench, carefully pry the Eye from the Body using care not to damage the eye wires
- Clean the Eye with a dry cloth
- Carefully replace the Eye into the socket in the Body
- Install the Eye Cover making sure the Eye is safely in its socket. Tighten the screw with a 5/64" hex wrench using care not to strip the threads.

Note: Be careful not to lose the detents as they are small and unattached.

ADVANCED MAINTENANCE

The following procedures only need to be performed if a part inside the marker needs to be inspected, cleaned or replaced. These procedures do not need to be done on a regular basis.

REMOVAL OF THE ASA AND MAIN GRIP
- To remove the ASA, use a 9/64" hex wrench to remove the two screws at the bottom.
- Once the screws are removed, pull the ASA straight down away from the Syx marker. Note that the Reg Spring and the Reg Piston may come out with the ASA or may stay within the Grip Frame.
- Slide the Rear Grip Bottom off the Grip Frame.
- There are 2 screws holding the Rear Grip RH and Rear Grip LH to the Grip Frame, remove them using a 5/64" hex.
- Lift the Rear Grip RH and Rear Grip LH free of the Grip Frame.

REMOVAL OF FOREGRIP
- Remove the Foregrip Front to access the Battery compartment as described on Page xx.
- Remove the 9-volt battery from the Battery Harness, suing care not to damage the wires.
- Locate the screw at the bottom for the Foregrip and remove with a 9/64" hex.
- Tilt the Foregrip Back rearward and then downward to remove from marker. Use care to prevent damage to the screen and buttons of the Circuit Board.

REMOVAL OF GRIP FRAME AND TRIGGER GUARD
- Four screws hold the Grip Frame to the Body and must be removed to split them.
    1. On each side of the Foregrip, remove the screw using a 5/64" hex wrench.
    2. Use a 3/32" hex to remove the screw in front of the Trigger Guard, near the Foregrip
    3. The screw behind the Grip area can be removed using a 3/32" hex wrench.
- With these four screws removed, the Body can be carefully pulled free of the Grip Frame. Use care not to damage the Solenoid wires.
- Remove the two screws that hold the Trigger Guard to the Grip Frame using the 3/32" hex, then pull free.

REMOVAL OF SENSOR BOARD
- Remove Foregrip, ASA and Grip Frame as described in the steps above.
- Unscrew and remove the two Eye Covers from each side of the Body using a 5/64" hex.
- Gently pry the Eyes out of their sockets in the Body.
- Remove the Eyes from the Sensor Board by unplugging each Eye Harness, using caution to prevent damaging the Eyes as they slide through the holes in the Body.
- Unplug the Solenoid from the Board.
- Remove the 3 screws on the Board using a 1/16" hex wrench.
- Gently remove the Sensor Board from the Body (Fig. 4l)
- If paint is on the board, use a dry cloth to wipe paint off the board.
- Rubbing alcohol may be used if deep cleaning is needed. Do not use water on any electronics.

INSTALLATION OF SENSOR BOARD
- Make sure the Eye Covers are removed from the Body.
- Confirm the Eyes are not attached to the Sensor Board.
- Install the Board back onto the main Body, securing the three screws with a 1/16" hex.
- Feed the Eyes through the slots in the Body and then attach the Eye Harnesses.
- Place the Eyes into their respective sockets and install the Eye Covers (along with Detents).

INSTALLATION OF GRIP FRAME AND TRIGGER GUARD
- Attach Trigger Guard to Grip Frame by the two screws using a 3/32" hex wrench, one on top of the Grip Frame the other on the Grip area.
- Attach the Body to the Grip Frame. Four screws hold the Grip Frame to the Body and must be reinstalled.
    1. One screw each side of the Foregrip, install using a 5/64" hex wrench.
    2. Use a 3/32" hex to install the screw in front of the Trigger Guard, near the Foregrip
    3. The screw behind the Grip area can be installed using a 3/32" hex wrench.

INSTALLATION OF THE ASA AND MAIN GRIP
- Slide the Rear Grip RH onto the right side of the Grip Frame, under the lip of the Body and secure with a 5/64" hex.
- Repeat with the installation of the Rear Grip LH on the opposite side of the Grip Frame.
- Slide the Rear Grip Bottom on the Grip Frame and press tight to the Rear Grip RH and LH sections.
- Confirm all the parts are replaced into the Regulator (Reg Spring, Reg Piston).
- Place the ASA onto the bottom of the Grip Frame, matching the orientation of the ports.
- Secure the ASA using the two screws and a 9/64" hex wrench. Do not overtighten.

5. Empire Regulator Service Guide

WARNING: Remember to remove all gas and ensure marker is discharged before servicing Regulator.

WARNING: The following service should be performed by an experienced user. If you are not comfortable performing the steps below, please contact Empire customer service at www.paintballsolutions.com

For ASA/Regulator service you will need the following tools: 5/64" hex wrench, tweezers, O-ring pick, Dow 33 type grease

1. Remove the ASA as described in the previous section of this manual.
2. Use a pair of Tweezers to grasp and remove the Reg Piston, using care not to damage the Piston face.
3. Remove the Reg Housing from the ASA. It should be hand-tight, but an adjustable wrench can be used if needed. Note the flat section for using the wrench.
4. Use a 5/64" hex wrench to push the brass Reg Seat Housing through and out of the Reg Housing.
5. Inspect the Reg O-rings on the Piston, Reg Housing and Reg Seat Housing for damage.
6. Clean and lube or replace and lube any O-rings that need maintenance. DO NOT get grease on the Reg Seat.

REASSEMBLY

1. Place the brass Reg Seat Housing into the Reg Housing, with the hex facing into the Reg Housing.
2. Screw the Reg Housing assembly into the ASA. Only hand tightening is needed.
3. Place the Piston Main Spring onto the Reg Piston and then slide both onto the Reg Housing which is on the ASA.
4. Slide the ASA with complete Reg assembly onto the Grip Frame.
5. Secure the ASA to the Grip Frame using the two ASA screws and the 5/64" hex wrench

WARNING: Before applying air to marker unscrew Regulator adjustment screw to set pressure to zero as pressures may have changed during service.

6. Solenoid Service Guide

1. Gain access to the Sensor board using the instructions listed previously in this manual.
2. Unplug the Solenoid from the Sensor Board.
3. Unscrew the Solenoid from Manifold (counter-clockwise) and set the marker off to the side (see Figure 6b).
4. Inspect each O-ring at the bottom of Solenoid threads (labeled A) and the top of Solenoid (labeled B) for damage, replace as necessary (see Figure 6c).
5. Remove the 3 small screws on the top of the Solenoid using a 1/16" hex wrench (see Figure 6d).
6. Lift the top cap off the Solenoid to expose the Solenoid Piston. Be careful not to lose the small O-ring at the top of the Solenoid, it may be stuck to the top cap (labeled A in Figure 6e). If O-ring is damaged, replace it.
7. Lift the Piston from the Solenoid (see Figure 6f).

WARNING: If you are not comfortable performing this maintenance please contact Empire customer service by going to www.paintballsolutions.com

8. Use a Q-tip or clean cloth to clean the Piston and the cavity that holds the Piston. Also clean the rubber seals on both the top and bottom of the Piston (see Figure 6g & Figure 6h).

9. Once the Solenoid cavity and Piston have been cleaned, re-insert the Piston into the cavity as orientated in Figure 6i. The solenoid piston doesn't require lubrication, though a very light coat of paintball marker oil may be applied to the silver area of the piston if desired.
10. Replace the Solenoid cap and the 3 screws that secure the cap in place (see Figure 6j & Figure 6k). Do <u>NOT</u> over tighten the screws.
11. Screw the Solenoid back into the Manifold and plug the wire back into Sensor Board (see Figure 6L).
12. Solenoid maintenance is now complete.

WARNING: Solenoid may be in open position after service. Before gassing up marker, turn marker on, turn eyes off and pull trigger several times to close solenoid

STORAGE AND TRANSPORTATION

- Your Syx must be clear of all paint and propellant when not being used.
- Make sure the Syx marker is Off: Push the Bottom button and hold for over 2 seconds until the screen reads "Shut Down".
- Put the barrel blocking device in its place. Make sure the marker is clean.
- Store your Syx in a clean, cool, dry place.
- Keep your Syx away from unauthorized and unsafe users.
- It may be a good idea to remove the battery when storing your marker to prevent unauthorized use and to extend battery life.

Your Syx must be clear of all paint and any source of propellant during transportation to and from the playing field. Keep your barrel blocking device in place and keep the Syx Marker switched Off. Protect your marker from excessive heat during transportation.

Observe and obey all local, state and federal laws concerning the transportation of paintball markers. For information concerning any of the laws in your area, contact your nearby law enforcement agency. If you must ship your Syx for any reason, the box in which you purchased the marker should be used to protect your marker against rough handling during transport.

<u>Never</u> ship filled CO2 or pressurized HPA gas cylinders!

IMPORTANT: Never carry your Syx uncased when not on a playing field. The non-playing public and law enforcement personnel may not be able to distinguish between a paintball marker and firearm. For your own safety and to protect the image of the sport, always carry your Syx in a suitable marker case.
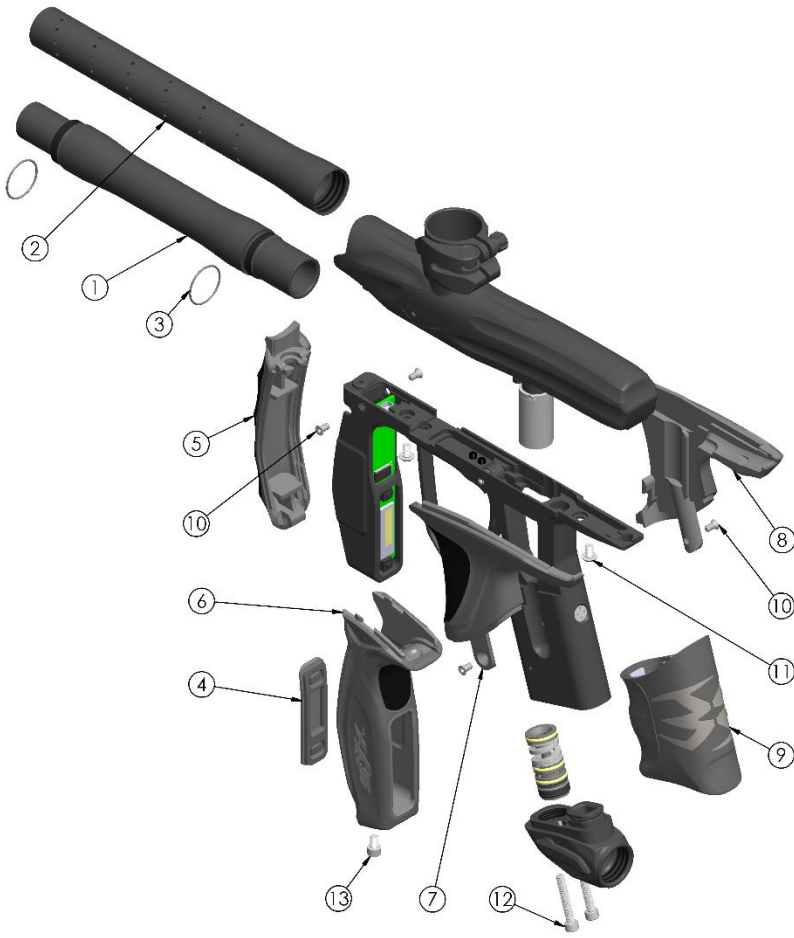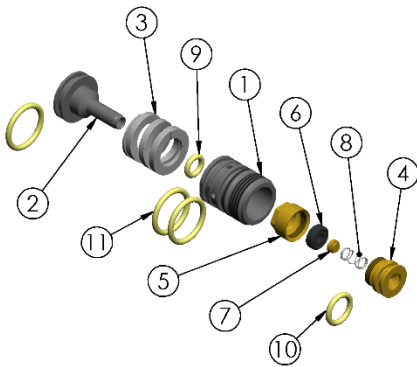
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2	73247	BARREL TIP	1
3	72488	O-RING BUNA-N 70 DUR 1MM X 19.5MM ID	2
4	73351	BUTTON PAD	1
5	73352	FOREGRIP FRONT	1
6	73353	FOREGRIP BACK	1
7	73354	REAR GRIP LH	1
8	73355	REAR GRIP RH	1
9	73356	REAR GRIP BOTTOM	1
10	17526	SCREW FHCS 6-32 X .250 SM HD	4
11	72515	SCREW BHCS 8-32 X .250	2
12	73357	SCREW SHCS 8-32 X 1.000	2
13	73358	SCREW SHCS 8-32 X .250	1
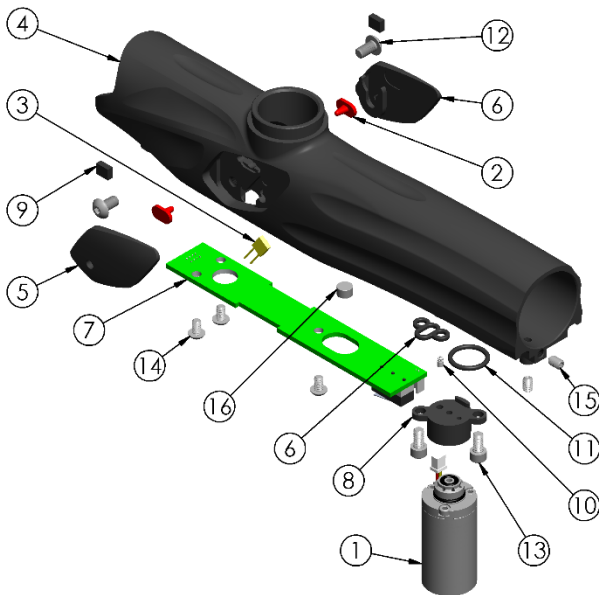
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1	17528	SOLENOID	1
2	72577	DETENT BALL -RUBBER CONE	2
3	74104	EYE HARNESS	1
4	73317	BODY	1
5	73318	COVER LH	1
6	73319	COVER RH	1
6	73320	GASKET	1
7	73321	SENSOR BOARD	1
8	73322	MANIFOLD WITH CHECK VALVE	1
9	N/A	ADHESIVE BACK FOAM TAPE	2
10	17531	CHECK VALVE	1
11	73323	O-RING BUNA-N 70 DUR 1.5MM X 10MM ID	1
12	17567	SCREW BHCS 6-32 X .250	2
13	72517	SCREW SHCS 5-40 X .250	2
14	73326	SCREW BHCS 4-40 X .188	3
15	73325	SCREW SET 5-40 X .1875 CUP POINT	2
16	73324	MAGNET 5MM DIA. X 3MM	1
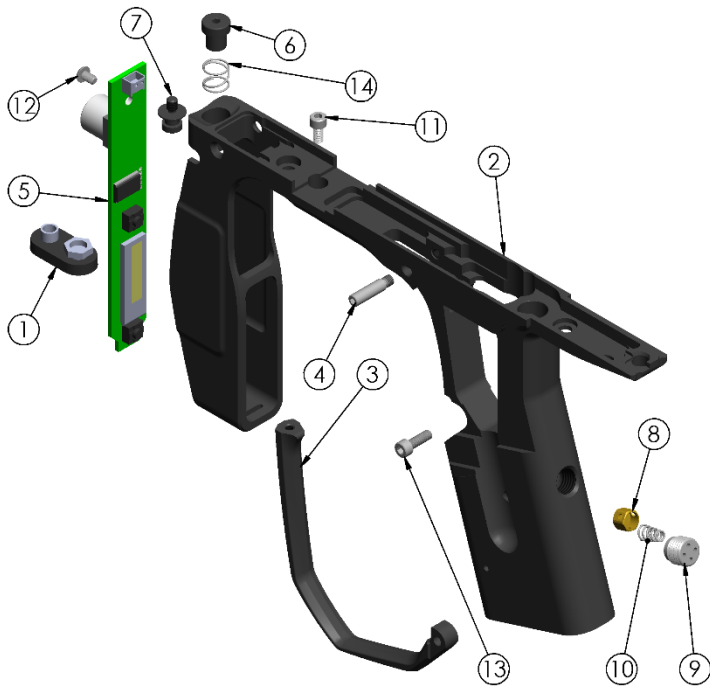
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1	17525	BATTERY CONNECTOR	1
2	73328	FRAME	1
3	73329	TRIGGER GUARD	1
4	73330	TRIGGER SCREW	1
5	73331	CIRCUIT BOARD	1
6	73332	RELEASE BUTTON	1
7	73333	RELEASE LOCK	1
8	72605	SEAL HOUSING	1
9	72610	COVER PLATE REGULATOR	1
10	72604	SPRING OPP REGULATOR	1
11	72517	SCREW SHCS 5-40 X .250	1
12	73336	SCREW BHCS 4-40 X .188	1
13	73335	SCREW SHCS 5-40 X .375	1
14	73334	RELEASE BUTTON SPRING	1

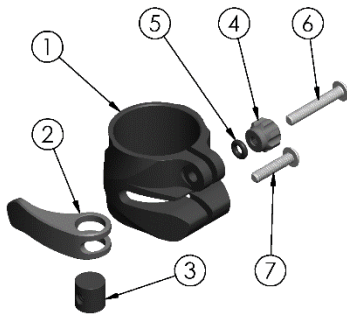| ITEM	SKU	DESCRIPTION	QTY
1	73337	REGULATOR HOUSING	1
2	73338	REGULATOR PISTON	1
3	73339	REGULATOR MAIN SPRING	1
4	73340	REGULATOR SEAT HOUSING REAR	1
5	73341	REGULATOR SEAT HOUSING FRONT	1
6	73342	REGULATOR SEAT	1
7	73343	REGULATOR EXHAUST VALVE	1
8	73344	REGULATOR EXHAUST VALVE SPRING	1
9	41015	O-RING URETHANE 70 DUR -008 (.176 ID)	1
10	10608	O-RING URETHANE 70 DUR -011 (.301 ID)	1
11	72553	O-RING URETHANE 70 DUR -014 (.489 ID)	3
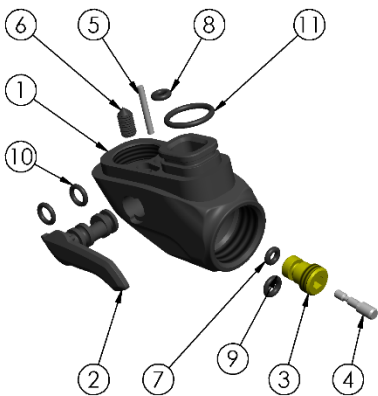
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1	73345	ASA BODY	1
2	73346	ASA LEVER	1
3	73347	ASA INSERT	1
4	73348	ASA PIN	1
5	73349	DOWEL PIN 2MM DIA X 16MM	1
6	73350	SCREW SET 10-32 X .375 CONE POINT	1
7	10254	O-RING BUNA-N 70 DUR -005 (.101 ID)	1
8	72489	O-RING BUNA-N 70 DUR -006 (.114 ID)	1
9	10258	O-RING BUNA-N 70 DUR -007 (.145 ID)	1
10	10761	O-RING BUNA-N 70 DUR -008 (.176 ID)	2
11	73359	O-RING BUNA-N 70 DUR 2MM X 11MM ID	1
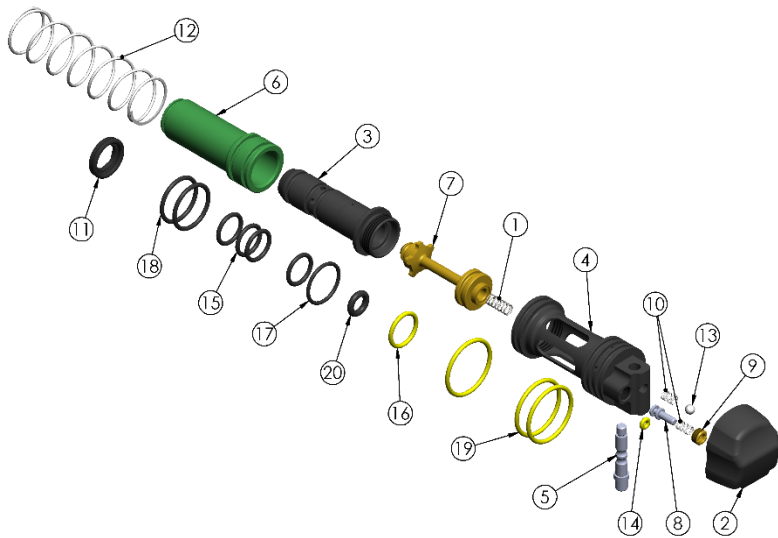
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1	17623	SPRING POPPET	1
2	73306	BACK CAP	1
3	73307	BOLT GUIDE FRONT	1
4	73308	BOLT GUIDE BACK	1
5	73309	BOLT GUIDE PIN	1
6	73310	BOLT	1
7	73311	POPPET	1
8	73312	LOCKING PIN	1
9	73313	LOCKING PIN RETAINER	1
10	73314	RELEASE SPRING	2
11	17533	TIP RUBBER VALVE	1
12	17535	MAIN SPRING	1
13	10130	BALL BEARING 5/32 SS	1
14	73315	O-RING URETHANE 70 DUR -004 (.070 ID)	1
15	17537	BOLT GUIDE SMALL ORING BUNA (CUSTOM)	4
16	72553	O-RING URETHANE 70 DUR -014 (.489 ID)	1
17	72664	O-RING BUNA-N 70 DUR -016 (.614 ID)	1
18	17534	O-RING BUNA-N 70 DUR -017 (.676ID)	2
19	72560	O-RING URETHANE 70 DUR -020 (.864 ID)	3
20	73316	O-RING BUNA-N 90 DUR -108 (.237 ID)	1
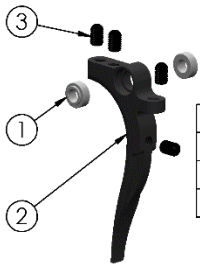
ITEM	SKU	DESCRIPTION	QTY
1	72816	TRIGGER BUSHING	2
2	73327	TRIGGER	1
3	72818	SCREW SET 8-32 X .250 FLAT POINT	4

ITEM	SKU	DESCRIPTION	QTY
1	73300	FEEDNECK	1
2	73301	FEEDNECK LEVER	1
3	73302	FEEDNECK BUSHING	1
4	73303	FEEDNECK ADJUSTER	1
5	72489	O-RING BUNA-N 70 DUR -006 (.114 ID)	1
6	73305	SCREW BHCS 6-32 X .875	1
7	73304	SCREW BHCS 6-32 X .625	1

WARRANTY

G.I. SPORTZ is dedicated to providing you with products of the highest quality and the industry's best product support available for satisfactory play.

Empire Paintball
11723 Lime Kiln Rd.
Neosho, MO 64850
www.empirepaintball.com

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Warranty Registration

To activate the Limited Warranty, you must register the Loader within thirty (30) days of the date of original retail sale by completing the form found of the Paintball Solutions website: *http://www.paintballsolutions.com/index.php/warranty-registration/*

The Limited Warranty for G.I. SPORTZ Accessories does not require activation or registration; by registering the Loader, you activate the warranty for the Accessories.

Limited Warranty

G.I. SPORTZ warrants to the original purchaser that it will make any repairs or replacements necessary to correct defects in material or workmanship, at no charge to you, for the Loader for a period of one (1) year from the date of original retail sale. All G.I. SPORTZ asks is that you properly maintain and care for the Loader and Accessories (collectively, the "Product") and that you have warranty repairs performed by G.I. SPORTZ or a G.I. SPORTZ Certified Tech Center. This Limited Warranty is non-transferable, and it does not cover damage or defects to the Product caused by (a) improper maintenance; (b) alteration or modification; (c) unauthorized repair; (d) accident; (e) abuse or misuse; (f) neglect or negligence; and/or (g) normal wear and tear. G.I. SPORTZ does not authorize any person or representative to assume or grant any other warranty obligation with the sale of this Product.

THIS IS THE ONLY EXPRESS WARRANTY GIVEN WITH THE PURCHASE OF THIS PRODUCT; ANY AND ALL OTHER EXPRESS WARRANTIES ARE DISCLAIMED. THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE LIMITED TO THE APPLICABLE LIMITED WARRANTY PERIOD SET FORTH HEREIN, AND NO WARRANTIES, WHETHER EXPRESS OR IMPLIED, SHALL APPLY AFTER EXPIRATION OF SUCH PERIOD.

Some states and nations do not allow limitations on the duration of implied warranties, so the above limitation may not apply to you. The sole and exclusive liability of G.I. SPORTZ and/or its authorized dealers under this Limited Warranty shall be for the repair or replacement of any part or assembly determined to be defective in material or workmanship.

G.I. SPORTZ SHALL NOT BE LIABLE FOR, AND YOU EXPRESSLY DISCLAIM, ANY DIRECT, INDIRECT, CONSEQUENTIAL OR INCIDENTAL DAMAGES (COLLECTIVELY, "DAMAGES") ARISING OUT OF THE SALE OR USE OF, OR YOUR INABILITY TO USE, THE PRODUCT. NO PAYMENT OR OTHER COMPENSATION WILL BE MADE FOR DAMAGES, INCLUDING INJURY TO PERSON OR PROPERTY OR LOSS OF REVENUE WHICH MIGHT BE PAID, INCURRED OR SUSTAINED BY REASON OF THE FAILURE OF ANY PART OR ASSEMBLY OF THE PRODUCT.

Some states and nations do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. This warranty gives you specific legal rights, and you may also have other rights that may vary from state to state or nation to nation.

Warranty and Non-Warranty Repairs

For Warranty parts, service, information or manuals in other languages, (where applicable) contact Paintball Solutions:

www.paintballsolutions.com
E-Mail: tech@paintballsolutions.com
US: 1-800-220-3222
11723 Lime Kiln Rd., Neosho, MO 64850

When shipping the Product to G.I. SPORTZ for warranty or non-warranty repair:

- If you have aftermarket parts on your Loader, please test the Loader with original stock parts before returning the Loader for service or repair.
- Always unload and remove the paintballs from the loader.
- Ship the Product to the G.I. SPORTZ address identified.
- You must pre-pay postage and delivery charges, use a carrier that provides tracking information.
- Provide the date of purchase for the Product.
- Briefly describe the repair requested.
- Include your name, return address and a telephone number where you can be reached during normal business hours, if possible.

G.I. SPORTZ makes every effort to complete its repair work within twenty-four (24) hours of receipt. G.I. SPORTZ will return the Product to you via regular ground UPS. If you wish to have it returned using a faster service, you can request NEXT DAY AIR UPS or SECOND DAY AIR UPS, but you will be charged for this service and must include your credit card number with the expiration date. Your credit card will be charged the difference in additional cost over regular ground shipping service.