

# THE “BOSS” Spray Gun

Operators Manual



**SPRAY FOAM  
EQUIPMENT**  
*& Manufacturing*




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# WARNINGS

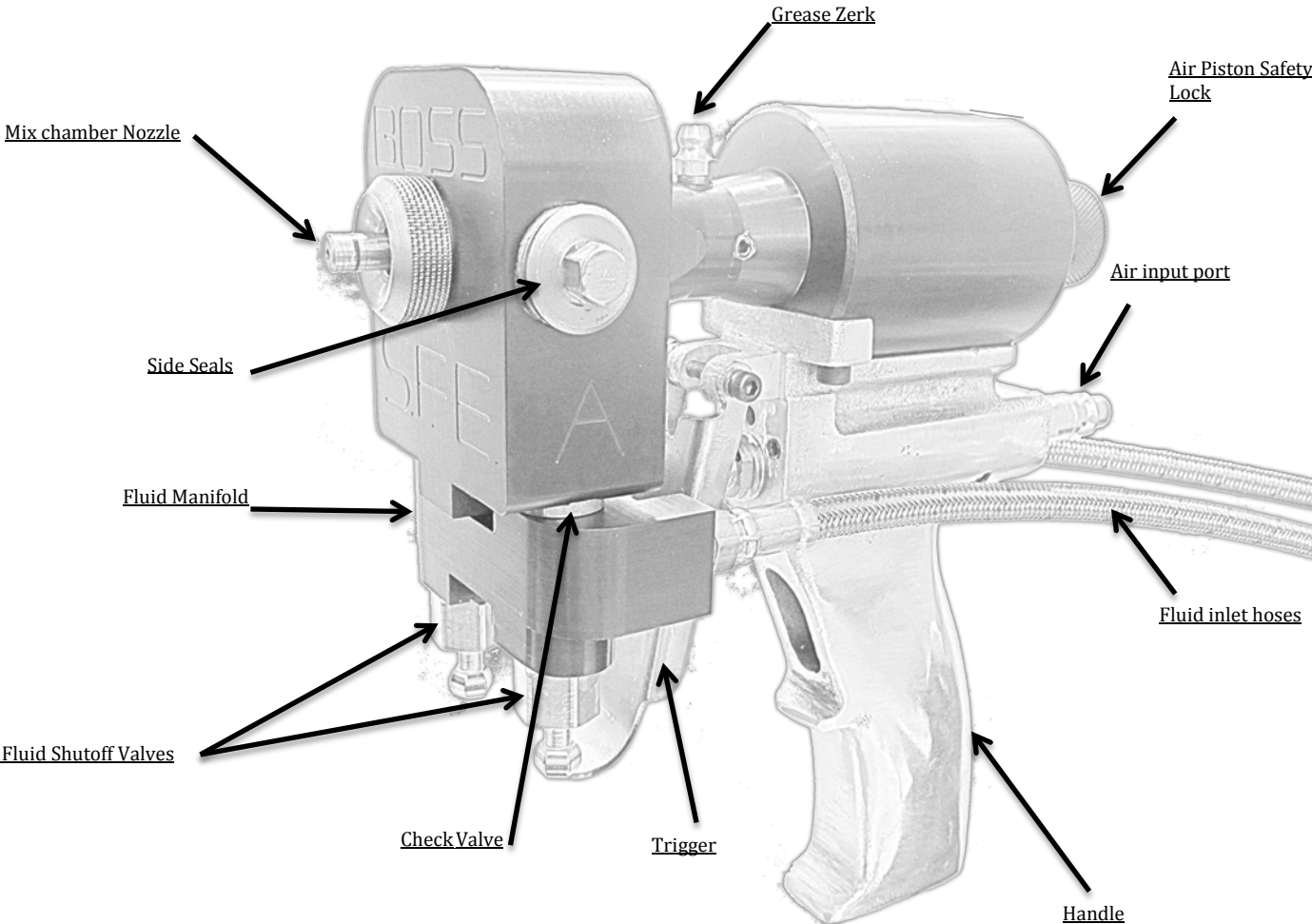
- Read and understand complete owner's manual before using the Boss Spray Gun!

	<p style="text-align: center;"><b>Fire, Electric Shock and Explosion Hazard</b></p> <p>High Voltage components can cause electric shock. Combustible materials and fumes in confined work areas can ignite and explode. To help prevent explosion, fire and electric shock:</p> <ul style="list-style-type: none"> <li>• Use equipment in well-ventilated areas.</li> <li>• Eliminate all ignition sources.</li> <li>• Keep work areas free of solvents, rags, gasoline and other debris.</li> </ul>
	<p style="text-align: center;"><b>Skin Injection Hazard</b></p> <p>High pressure fluid from spray gun, ruptured components, or leaks will pierce skin. This may look minor but is a serious condition. <b>Get immediate emergency treatment!</b></p> <ul style="list-style-type: none"> <li>• Do not point spray gun at anyone or any part of body.</li> <li>• Do not place hand or fingers over gun tip.</li> <li>• Use lowest possible pressure when troubleshooting or flushing equipment.</li> <li>• Check hoses, connections and fittings daily. Tighten or replace loose or worn or damaged parts immediately.</li> <li>• Relieve all pressure from proportioner and all components when you stop spraying and before cleaning or servicing equipment.</li> </ul>
	<p style="text-align: center;"><b>Personal Protective Equipment</b></p> <p>You must wear proper protective equipment when operating, servicing or when in the operating area of equipment. This will protect you from serious injury including but not limited to: eye injury, inhalation of toxic fumes, and loss of hearing.</p> <p>This equipment includes but is not limited to:</p> <ul style="list-style-type: none"> <li>• Protective eyewear</li> <li>• Respirator, gloves, and clothing recommended by fluid and solvent manufacturer</li> <li>• Hearing protection</li> </ul>

	<p style="text-align: center;"><b>Burn Hazard</b></p> <p>This equipment is used with heated fluid, which is hot and will cause some surfaces on equipment to become very hot. To avoid burns:</p> <ul style="list-style-type: none"> <li>• Do not touch fluid or equipment.</li> <li>• Allow fluid and equipment to completely cool before touching or servicing.</li> <li>• Wear gloves and protective clothing.</li> </ul>
	<p style="text-align: center;"><b>Toxic Fumes and Fluid Hazard</b></p> <ul style="list-style-type: none"> <li>• Read Material Safety Data Sheet (MSDS) to know specific hazards of fluid you are using.</li> <li>• Handle and store hazardous fluids according to applicable guidelines.</li> </ul>
	<p style="text-align: center;"><b>Misuse of Equipment Hazard</b></p> <p>Misuse can cause serious injury or death!</p> <ul style="list-style-type: none"> <li>• For professional use only.</li> <li>• Do not exceed the maximum temperature rating or working pressure of equipment.</li> <li>• Check equipment daily replacing worn or damaged parts immediately.</li> <li>• Read manuals, warnings, and labels before operating equipment.</li> <li>• Use only compatible fluids/solvents.</li> <li>• Keep hoses away from traffic areas, sharp edges and hot surfaces.</li> <li>• Comply with all safety warnings and labels.</li> <li>• Service of equipment should be done by qualified personnel only.</li> </ul>

# VIEW OF COMPLETE GUN

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# Isocyanate Warnings/Hazards



Warning: Spraying any material containing isocyanates creates mists or vapors that can be potentially harmful.

Read manufacturer's labels, warnings and MSDS sheets to know specific hazards and precautions that need to be taken related to isocyanates on their specific material!

Do not inhale mists, vapors or atomized particulates! Always provide sufficient ventilation in the work areas.

Wear protective equipment including boots, goggles, chemical impermeable gloves, and spray suits with hoods in the work area to prevent contact with isocyanates!

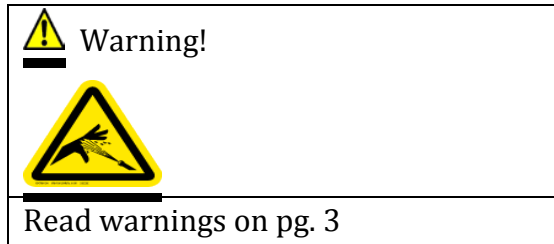
## ALWAYS KEEP A AND B COMPONENTS SEPARATE



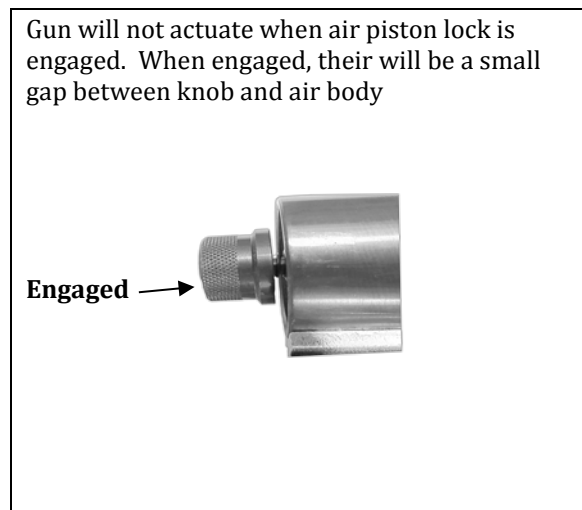
To prevent "cross-over" or cross contamination of guns "wetted" parts, never interchange A component(iso) and B component(resin) parts. All A component "wetted" parts are marked with an A from the factory and are on the left side of the gun.

## Air Piston Safety Lock

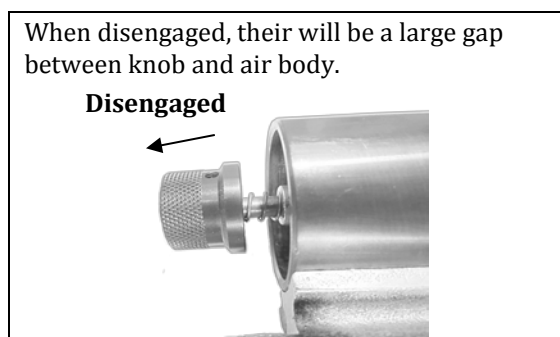
Always engage air piston safety lock each time you stop spraying to avoid accidental triggering, which could result in injury.

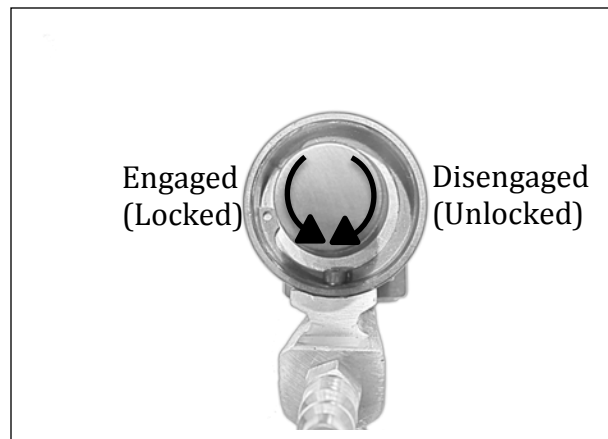


To engage air piston lock, which disables the gun from actuating, push knob in and turn counter clockwise.



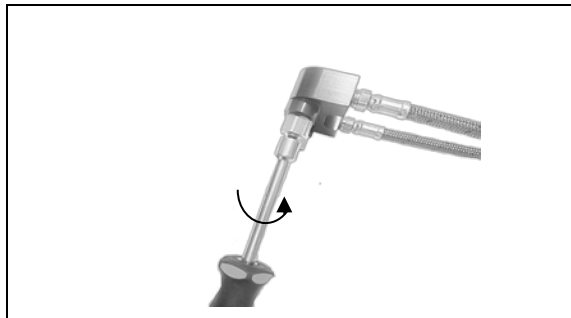
To disengage air piston safety lock, which enables gun to actuate, push knob in and turn clockwise.



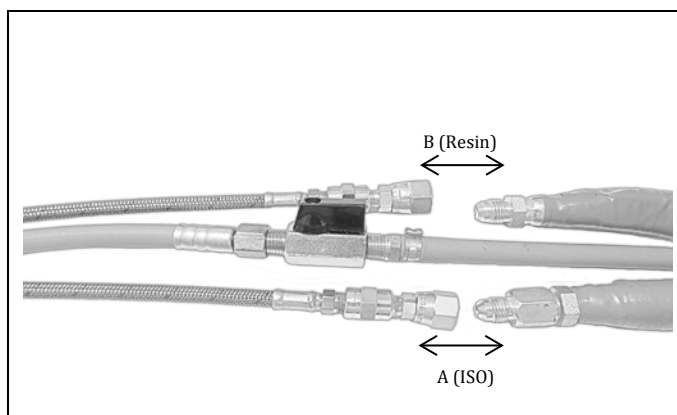


## Setup:

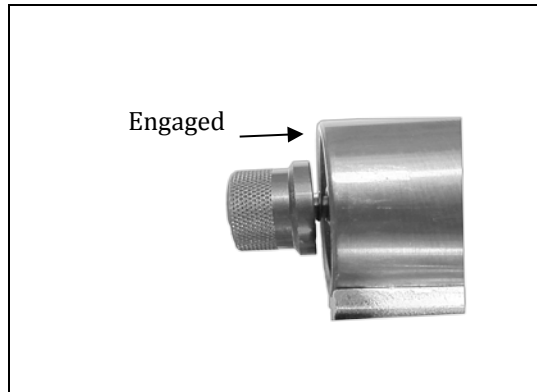
1) Close A and B shutoff valves on fluid manifold.



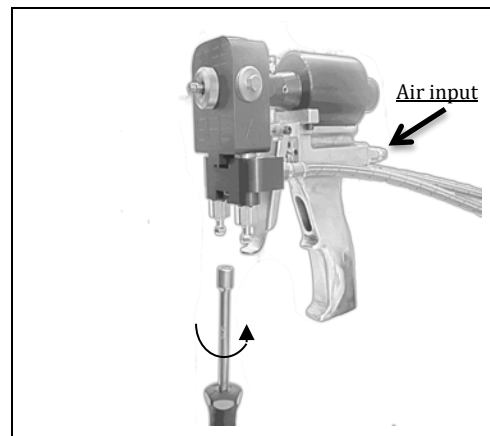
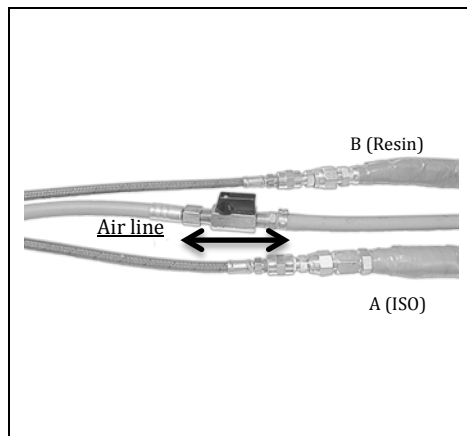
2) Connect fluid hoses from proportioner to fluid manifold A(Iso) and B(Resin)



3) Engage air piston safety lock (see p. 7)

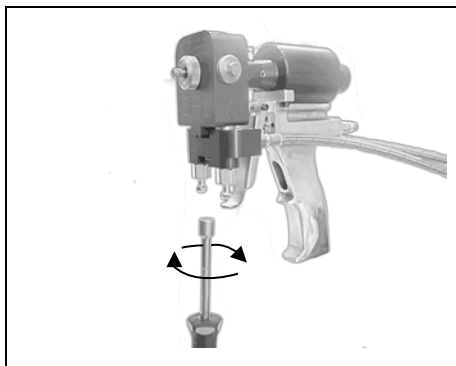


4) Connect air supply from hose to air whip provided.  
Attach fluid manifold to gun .

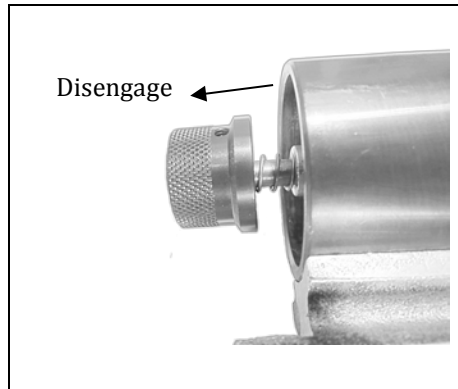


5) Connect quick connect air coupler to gun. Turn on air. Open air valve, which allows air to flow through gun and out of tip.

6) Open A and B fluid shutoff valves.



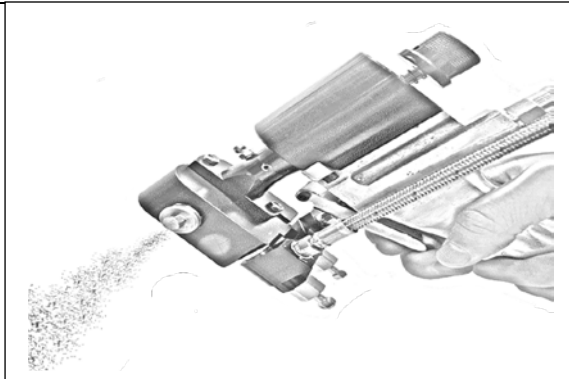
7) Disengage air piston safety lock.




8) Test Spray. Adjust pressure and temperature for desired results.

9) Gun is now ready to spray.



Notice:  
Air supply is required for gun actuation/lubrication.



## Relieving Pressure Procedure

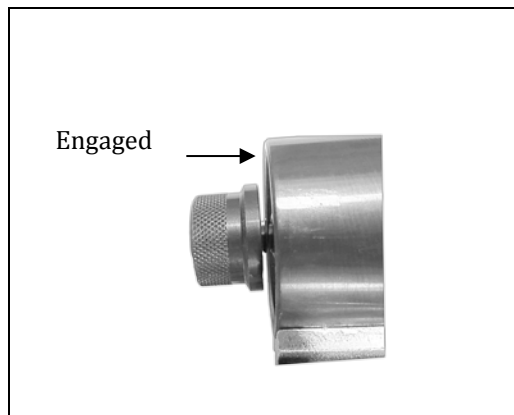


Warning!

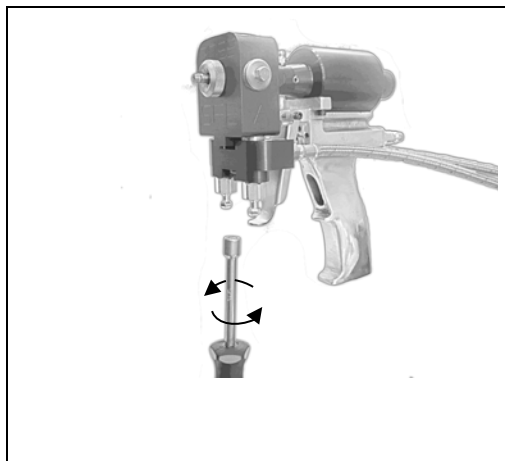


**Read all warnings on pgs. 3 and 4.  
Relieve all pressure before repairing or cleaning gun!**

1) Engage air piston safety lock. (see pgs. 7,8)





2) Close fluid shut off valves A and B.




3) Disengage air piston safety lock and trigger gun into a waste container to relieve excess pressure.

4) Engage air piston safety lock (See P 7.)

 **Warning!**

 **Elevated Temperatures**




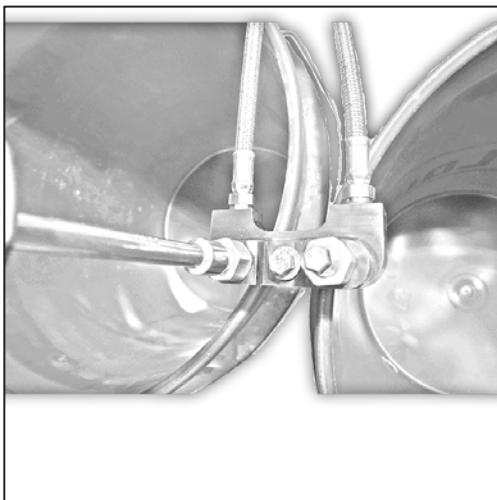
**Fluid in the proportioner is still under pressure.  
Relieve pressure from the proportioner before proceeding.  
Read all warnings on pgs. 3 and 4.  
Relieve all pressure before repairing or cleaning gun!**

5) Relieve pressure in the hose.

a.) Place the fluid manifold over a container with opening in the manifolds facing away from you in a safe direction.

b.) Slowly open the shut off valves.

-  If the fluid is under high pressure, it will spray sideways and down from fluid openings.



## **Gun Maintenance**

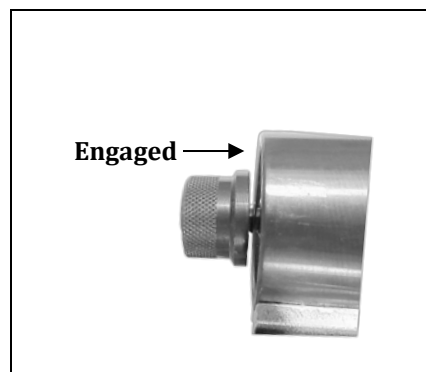
**Always lubricate all seals, threads and o-rings liberally!**

### **1) Preparing for shutdown at the end of each day**


- a) Close shut off valves on fluid manifold (see p. 8)**
- b) Actuate trigger with air connected and air valve in the “open” position to remove excess fluid**
- c) Pump grease into grease fitting until grease lightly sprays out of tip**
- d) Actuate trigger to remove contaminated grease**
- e) Disconnect air or turn air valve to the “closed” position.**
- f) Pump grease into grease fitting. Stop when grease is seen coming from tip**


### **1) Clean mixing Chamber nozzle tip**


- a.) Engage air piston safety lock(p. 7)**



**b.) Insert appropriate drill bit into tip and turn clockwise until clean**


 **Warning!**


 **Elevated Temperatures**



**Fluid in the proportioner is still under pressure.  
Relieve pressure from the proportioner before proceeding.  
Read all warnings on pgs. 3 and 4.  
Relieve all pressure before repairing or cleaning gun!**

## **2)Side seal assembly removal**

 **Warning!**



**\*Always make sure fluid shut off valves are completely closed before removing side seal assemblies! (see p. 11)  
\*Follow pressure relief procedure before doing maintenance on gun! (pgs. 11,12)**

**a) Always make sure fluid shut off valves are completely closed before removing side seal assemblies! (see p. 11)**


**b) Follow pressure relief procedure before doing maintenance on gun! (pgs. 11,12)**


**c) Remove fluid manifold with 5/16" nut driver**

- d) Disconnect air from gun
- e) Remove side seal assemblies with 5/16" nut driver or wrench
- f) Clean and inspect o-rings, side seals and springs(replace worn parts as needed)

\*\*\*You can access the side ports of the mixing chamber at this point(use the small drill bit to clean these ports).


### 3) Check valve assembly removal

 **Warning!**



**\*Always make sure fluid shut off valves are completely closed before removing side seal assemblies! (see p. 11)**  
**\*Follow pressure relief procedure before doing maintenance on gun! (pgs. 11,12)**

- a) Always make sure fluid shut off valves are completely closed before removing side seal assemblies! (see p. 11)
- b) Follow pressure relief procedure before doing maintenance on gun! (pgs. 11,12)
- c) Remove fluid manifold with 5/16" nut driver
- d) Disconnect air from gun
- e) Pry out check valve assemblies with small screw driver
- f) Remove mesh screen, clean and inspect all parts. (replace worn or damaged parts

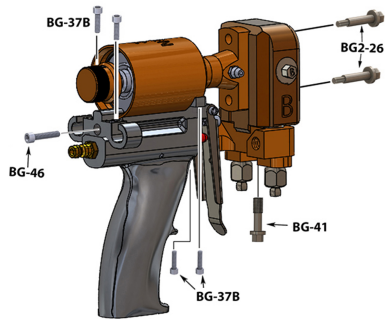
 **Warning!**

Worn or damaged o-rings may result in external leakage or spray.  
Always wear protective wear before servicing gun.

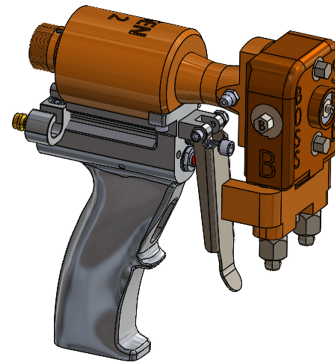
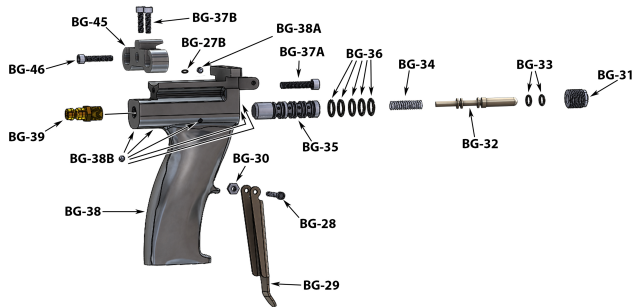
# BOSS GUN - GEN 2



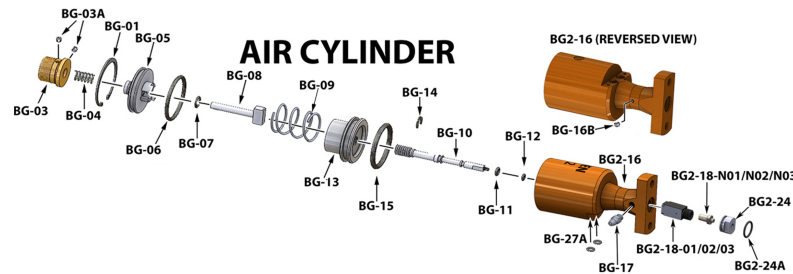
## BOLT REMOVAL



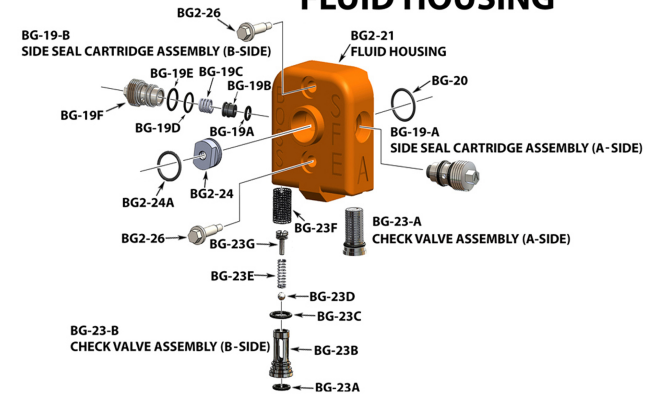
## GUN HANDLE



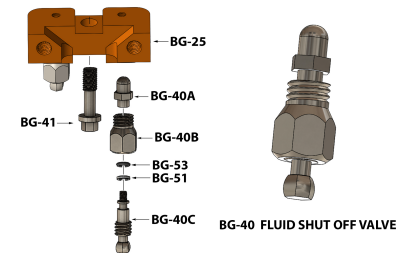
## AIR CYLINDER



## FLUID HOUSING



## FLUID MANIFOLD



### SCALE:

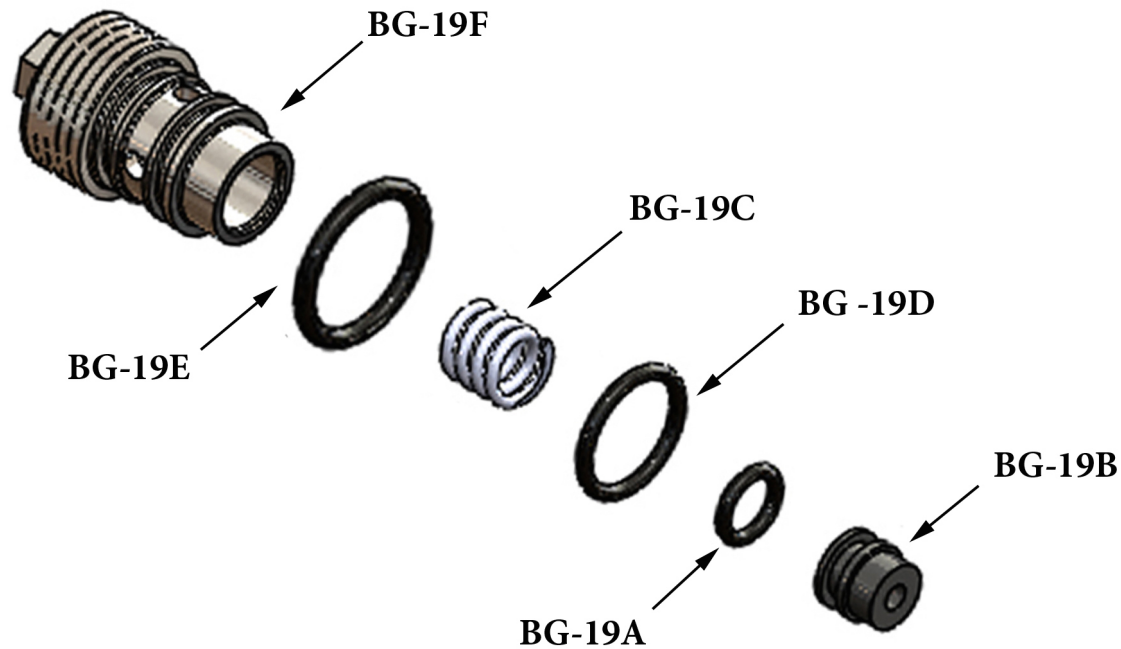
BG-01 = LARGE RETAINER CLIP  
 BG-03 = SAFETY SHUT OFF KNOB  
 BG-03A = (2) SET SCREW FOR SAFETY SHUT OFF KNOB  
 BG-04 = SAFETY SHUT OFF SPRING  
 BG-05 = AIR CYLINDER END CAP  
 BG-06 = END CAP O-RING  
 BG-07 = SAFETY PIN U-CUP SEAL  
 BG-08 = SAFETY PIN  
 BG-09 = AIR PISTON SPRING  
 BG-10 = PISTON SHAFT  
 BG-11 = PISTON SHAFT - LARGE O-RING  
 BG-12 = PISTON SHAFT - SMALL O-RING  
 BG-13 = AIR CYLINDER PISTON  
 BG-14 = SMALL RETAINER CLIP  
 BG-15 = AIR CYLINDER PISTON O-RING  
 BG2-16 = AIR CYLINDER HOUSING  
 BG-16B = OUTER AIR CYLINDER SET SCREW  
 BG-17 = GREASE FITTING

BG2-18-01/02/03 = MIXING CHAMBER  
 BG2-18-N01/N02/N03 = MIXING CHAMBER NOZZLE  
 BG-19-A = SIDE SEAL CARTRIDGE ASSEMBLY (A-SIDE)  
 BG-19-B = SIDE SEAL CARTRIDGE ASSEMBLY (B-SIDE)  
 BG-19A = (2) SIDE SEAL O-RING  
 BG-19B = (2) HARDENED SIDE SEAL  
 BG-19C = (2) SIDE SEAL HOUSING SPRING  
 BG-19D = (2) INNER SIDE SEAL HOUSING  
 BG-19E = (2) OUTER SIDE SEAL HOUSING O-RING  
 BG-19F = (2) SIDE SEAL CARTRIDGE HOUSING (A-SIDE OR B-SIDE)  
 BG-20 = FLUID HOUSING O-RING  
 BG2-21 = FLUID HOUSING  
 BG-23-A = CHECK VALVE ASSEMBLY (A-SIDE)  
 BG-23-B = CHECK VALVE ASSEMBLY (B-SIDE)  
 BG-23C = (2) CHECK VALVE FACE O-RING  
 BG-23B = (2) CHECK VALVE HOUSING  
 BG-23C = (2) CHECK VALVE HOUSING O-RING  
 BG-23D = (2) CHECK VALVE BALL BEARING

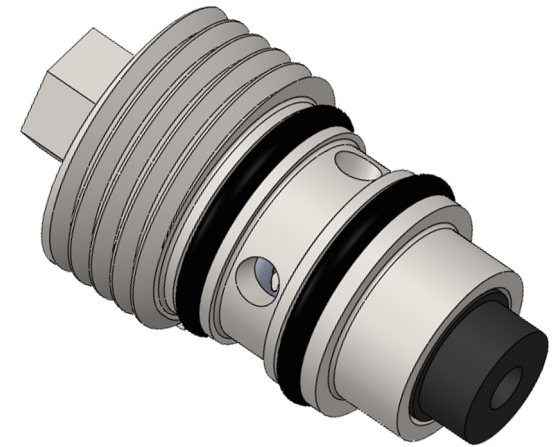
BG-23E = (2) CHECK VALVE HOUSING SPRING  
 BG-23F = (2) 40 MESH SCREEN  
 BG-23G = (2) SET SCREW FOR CHECK VALVE HOUSING  
 BG2-24 = AIR CAP  
 BG2-24A = AIR CAP O-RING  
 BG-25 = FLUID MANIFOLD  
 BG2-26 = (2) FLUID HOUSING SCREW  
 BG-27A = (2) FRONT HANDLE TO AIR CYLINDER O-RING  
 BG-27B = O-RING FOR TOP OF HANDLE  
 BG-28 = TRIGGER HANDLE BOLT  
 BG-29 = TRIGGER  
 BG-30 = NUT FOR TRIGGER BOLT  
 BG-31 = TRIGGER RETAINER VALVE  
 BG-32 = TRIGGER PIN  
 BG-33 = (2) TRIGGER PIN O-RING  
 BG-34 = TRIGGER PIN SPRING  
 BG-35 = TRIGGER PIN HOUSING  
 BG-36 = (5) TRIGGER PIN HOUSING O-RING

BG-37A = TRIGGER FRONT SCREW  
 BG-37B = (2) WHIP HANGER SCREW  
 (2) HANDLE TO AIR HOUSING SCREW  
 BG-38 = GUN HANDLE  
 BG-38A = TOP HANDLE SET SCREW  
 BG-38B = (5) SET SCREW FOR GUN HANDLE  
 BG-39 = AIR INLET FITTING  
 BG-40 = (2) FLUID SHUT OFF VALVE  
 BG-40A = (2) SHUT OFF VALVE TIP  
 BG-40B = (2) SHUT OFF VALVE BODY  
 BG-40C = (2) SHUT OFF VALVE THREADED SHAFT  
 BG-41 = 5/16" MANIFOLD CAPTURE BOLT  
 BG-45 = WHIP HANGER  
 BG-46 = BACK WHIP HANGER SCREW  
 BG-51 = (2) TEFLON O-RING FOR SHUT OFF VALVE (WHITE, 1 PER VALVE)  
 BG-53 = (2) VITON O-RING FOR SHUT OFF VALVE (BLACK, 1 PER VALVE)

# SIDE SEAL CARTRIDGE ASSEMBLY



**BG-19-A/BG-19-B**  
**SIDE SEAL CARTRIDGE ASSEMBLY-COMPLETE**



**SCALE:**

**BG-19A = SIDE SEAL O-RING**

**BG-19B = SIDE SEAL**

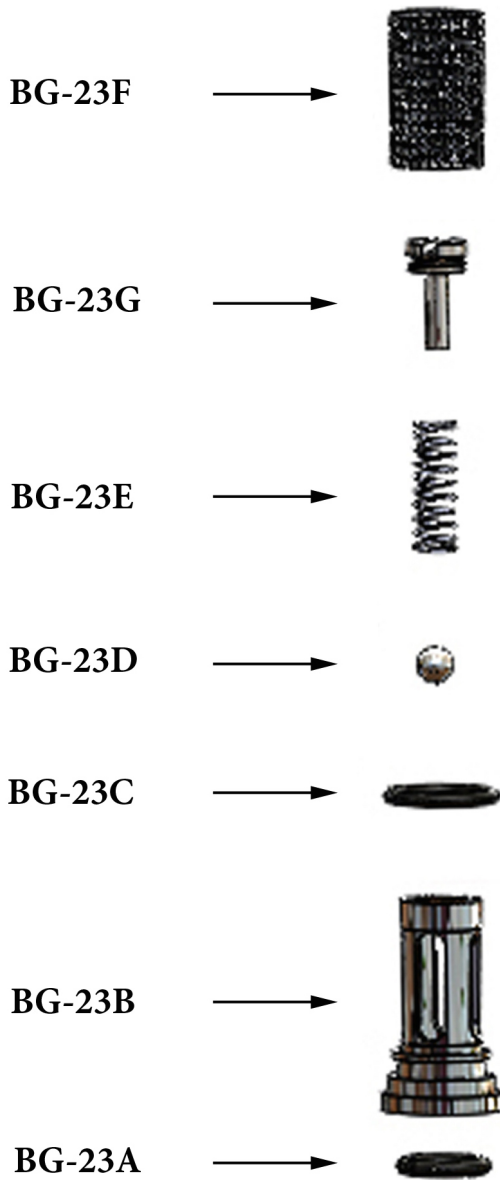
**BG-19C = SIDE SEAL HOUSING SPRING**

**BG-19D = INNER SIDE SEAL HOUSING O-RING**

**BG-19E = OUTER SIDE SEAL HOUSING O-RING**

**BG-19F = SIDE SEAL HOUSING**

# CHECK VALVE ASSEMBLY



BG-23-A/ BG-23-B  
CHECK VALVE ASSEMBLY-COMPLETE

**SCALE:**

BG-23A = FACE O-RING

BG-23B = CHECK VALVE HOUSING

BG-23C = HOUSING O-RING

BG-23D = BALL BEARING

BG-23E = CHECK VALVE SPRING

BG-23F = MESH SCREEN

BG-23G = SET SCREW

# Spray Foam Equipment & Mfg. Standard Warranty

Spray Foam Equipment warrants all equipment referenced in this document which is manufactured by Spray Foam Equipment and bearing its name to be free from defects in material and workmanship on the date of sale to the original purchaser for use. With the exception of any special, extended, or limited warranty published by Spray Foam Equipment, Spray Foam Equipment will, for a period of twelve months from the date of sale, repair or replace any part of the equipment determined by Spray Foam Equipment to be defective. This warranty applies only when the equipment is installed, operated and maintained in accordance with Spray Foam Equipment's written recommendations.

This warranty does not cover, and Spray Foam Equipment shall not be liable for general wear and tear, or any malfunction, damage or wear caused by faulty installation, misapplication, abrasion, corrosion, inadequate or improper maintenance, negligence, accident, tampering, or substitution of non-Spray Foam Equipment component parts. Nor shall Spray Foam Equipment be liable for malfunction, damage or wear caused by the incompatibility of Spray Foam Equipment with structures, accessories, equipment or materials not supplied by Spray Foam Equipment, or the improper design, manufacture, installation, operation or maintenance of structures, accessories, equipment or materials not supplied by Spray Foam Equipment.

This warranty is conditioned upon the prepaid return of the equipment claimed to be defective to Spray Foam Equipment for verification of the claimed defect. If the claimed defect is verified, Spray Foam Equipment will repair or replace free of charge any defective parts. The equipment will be returned to the original purchaser transportation prepaid. If the inspection of the equipment does not disclose any defect in material or workmanship, repairs will be made at a reasonable charge, which charges may include the costs of parts, labor, and transportation.

**THIS WARRANTY IS EXCLUSIVE, AND IS IN LIEU OF ANY OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO WARRANTY OF MERCHANTABILITY OR WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE.**

Spray Foam Equipment's sole obligation and buyer's sole remedy for any breach of warranty shall be as set forth above. The buyer agrees that no other remedy (including, but not limited to, incidental or consequential damages for lost profits, lost sales, injury to person or property, or any other incidental or consequential loss) shall be available.

**SPRAY FOAM EQUIPMENT MAKES NO WARRANTY, AND DISCLAIMS ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, IN CONNECTION WITH ACCESSORIES, EQUIPMENT, MATERIALS OR COMPONENTS SOLD BUT NOT MANUFACTURED BY SPRAY FOAM EQUIPMENT.** These items sold, but not manufactured by Spray Foam Equipment (such as electric motors, switches, hose, etc.), are subject to the warranty, if any, of their manufacturer. Spray Foam Equipment will provide purchaser with reasonable assistance in making any claim for breach of these warranties.

In no event will Spray Foam Equipment be liable for indirect, incidental, special or consequential damages resulting from Spray Foam Equipment supplying equipment hereunder, or the furnishing, performance, or use of any products or other goods sold hereto, whether due to a breach of contract, breach of warranty, the negligence of Spray Foam Equipment, or otherwise.

## Spray Foam Equipment & Mfg. Information

***TO PLACE AN ORDER***, visit our website or call our Spray Foam Equipment headquarters:

[www.sprayfoammfg.com](http://www.sprayfoammfg.com)

**(318) 644-5140**

**(888) 640-BOSS**

**SPRAY FOAM EQUIPMENT** 1705 BEULAH CHURCH RD, CALHOUN, LA 71225