

# SURE SHOT® SPRAYERS

## INSTRUCTIONS



Refillable, reusable. Extra versatile.  
Pressurized by free air

	TOP LOAD WITH LIGHT LIQUIDS	PRESSURIZE WITH AIR CHUCK	SPRAY ANYWHERE
<b>MODEL A</b> 32 OZ.			

### DIRECTIONS FOR OPERATING MODEL "A" SPRAYERS

- 1) **ALWAYS DEPRESSURIZE SPRAYER BEFORE REMOVING ANY PARTS.** The pressure may be let out of the sprayer one of the two following ways:
  - a) Tip the sprayer upside down and depress the trigger until no pressure is left. If some liquid is left in the sprayer when you attempt this procedure make sure you aim the nozzle at a place where a little bit of liquid can be expelled.
  - b) Remove #122 black cap from filler cap and use small probe to depress #121 valve core until all the pressure escapes. **NOTE:** Make sure the sprayer is upright and the filler cap stem is pointing away from you when depressing the valve core.
- 2) Remove the 15/16" hex filler cap once all the air has been let out of the sprayer.
- 3) Fill sprayer 2/3 full (32 ounce maximum liquid capacity) with light, clean liquid. Make sure the liquid you are putting into the sprayer is **CLEAN** and **FREE OF FOREIGN PARTICLES**. See **ACCESSORIES** on page 4 for liquid filling/measuring device.
- 5) Charge sprayer with compressed air by holding standard air chuck on valve stem of the filler cap. Hold the air chuck on the filler cap until you hear the line pressure equalize with the sprayer. Working pressure is 80-150 psi. At least 80 psi is needed to spray the full 32 oz. without a recharge of air. **THE MAXIMUM PRESSURE SHOULD NOT EXCEED 200 PSI.**
- 6) The Model "A" sprayer is now ready to use.
- 7) For best results, the liquid to be sprayed should be lighter than a No. 10 motor oil. (If liquid is too heavy a pin stream will result). **DILUTE WITH A SUITABLE DILUENT UNTIL DESIRED SPRAY IS OBTAINED.**

**CAUTION:** Never point the nozzle of sprayer toward yourself or another person. Always point the nozzle of the sprayer away from yourself and toward your intended target before depressing the trigger.

**PLEASE NOTE:** NOZZLE IN THE OPERATING POSITION IS SET FOR REGULAR MIST. FOR PIN STREAM, REMOVE THE #303 SPIRAL WITH NEEDLE NOSE PLIERS.

THE #118 FILLER CAP NOW COMES WITH A SPECIAL CHEMICAL RESISTANT VALVE CORE AND USES A REGULAR **RIGHT HAND** THREAD.

**NOTE: ALWAYS CHECK WITH YOUR CHEMICAL SUPPLIER IF YOU ARE NOT SURE OF COMPATIBILITY. READ CAUTION LABEL ON SPRAYER BEFORE FILLING.**

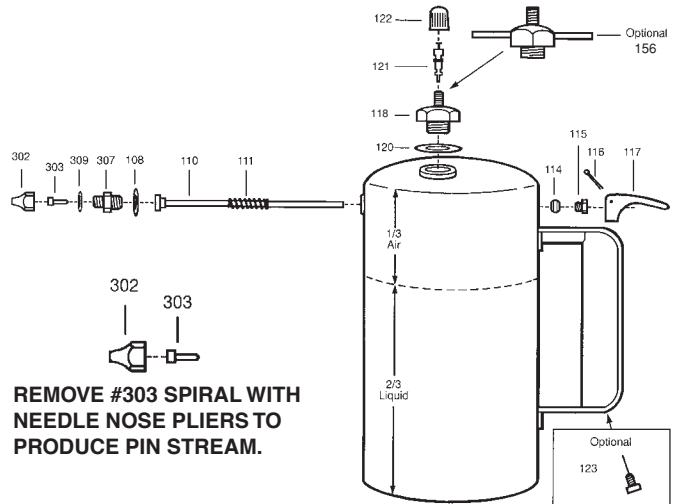
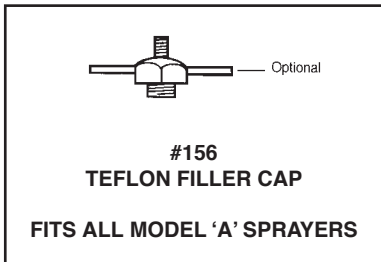
**NEVER USE ACIDS IN ANY SURE SHOT SPRAYER.**

- 4) Replace 15/16" hex filler cap and tighten.

**ALWAYS DEPRESSURIZE THE SPRAYER BEFORE REMOVING ANY PARTS**  
**SPRAYER NOT RECOMMENDED FOR USE WITH PAINTS**  
**MAXIMUM PRESSURE 200 PSI**

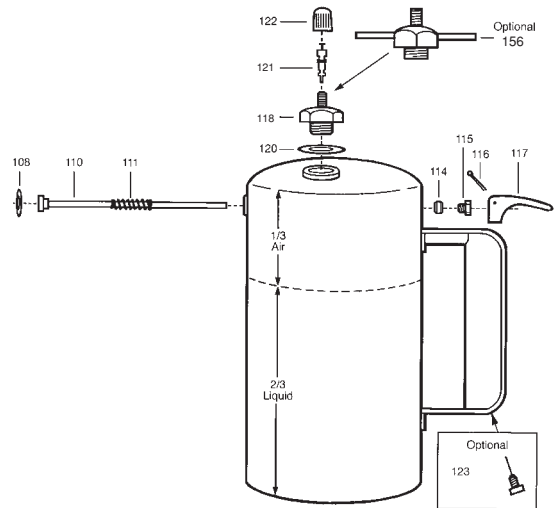
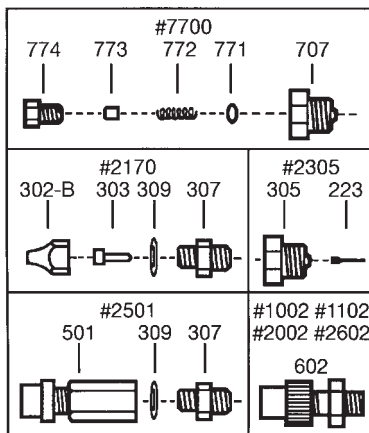
# MODEL A

#1000 - #1100 - #2000 - #2600



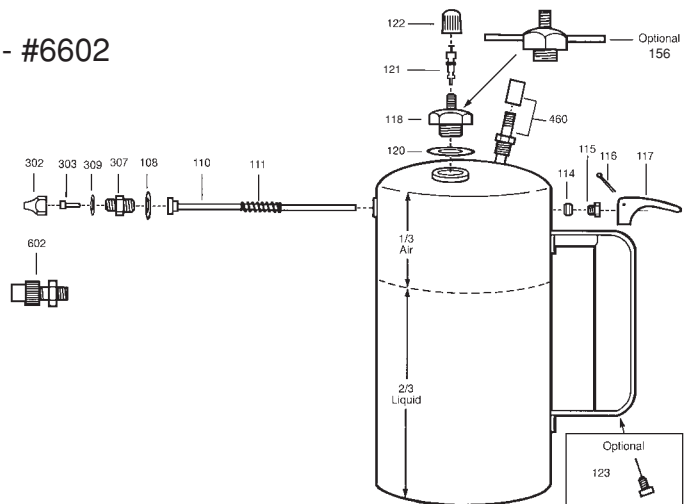
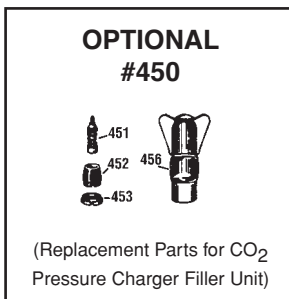
# MODEL A

#1002 - #1102 - #2002 - #2170  
#2305 - #2501 - #2602 - #7700



# MODEL A

#6100 - #6102 - #6200 - #6202 - #6600 - #6602



THIS UNIT IS EQUIPPED WITH A PRESSURE RELIEF VALVE #460. THE RELIEF VALVE HAS BEEN PRESET AT THE FACTORY TO 150 PSI - 180 PSI AND WILL NEED NO ADJUSTMENT. DO NOT REMOVE CAP.

<b>PART #</b>	<b>DESCRIPTION</b>
108	Inner Adaptor Washer
110	Valve
111	Valve Spring
114	Stuffing Box Packing
115	Stuffing Box Nut
116	Cotter Pin
117	Valve Trigger
118	Filler Cap Assembly (incl. 120, 121FFKM, 122)
120	Filler Cap Gasket
121FFKM	Perfluoroelastomer Valve Core Exceptional Chemical Resistance
122	Black Cap
123	Clean Out Pick
*156	Filler Cap Assembly Includes 120, 121FFKM, 122 (Right Hand Thread)
223	Spray Jet Spiral (for 305)
302	Regular Spray Nozzle (incl. 303)  Remove #303 with needle nose pliers to produce pin stream.
302-B	Coarse Spray Nozzle (incl. 303)
302-C	Extra Fine Spray Nozzle (incl. 303)
303	Spray Jet Spiral (for 302, 302-B, 302-C)
305	Fine Spray Nozzle (incl. 223)
307	Valve Seat Adaptor - Male
***307-C	Valve Seat Adaptor - Female 1/8" NPT
***307 PT	Valve Seat Adaptor - Male 1/8" NPT
309	Outer Adaptor Washer
451	Piercing Pin Assembly
452	Bulb Neck Washer

<b>PART #</b>	<b>DESCRIPTION</b>
453	Retaining Ring
456	Bulb Holder
460	Relief Valve - Complete
501	Flat Spray Nozzle
550	Flat Spray Nozzle with 307-C Adaptor
567	Coarse Flat Spray Nozzle with 307-C Adaptor
602	Plastic Adjustable Nozzle with Adaptor
707	Extra, Extra Fine Spray Nozzle
771	Packing for 707 Nozzle
772	Spring for 707 Nozzle
773	Spiral for 707 Nozzle
774	Insert for 707 Nozzle

\* The #156 filler cap assembly enables you to tighten without a wrench. Just hand tighten using the pins protruding from the 15/16" hex. Use the same valve Core (#121FFKM) as the #118. Right Hand Thread.

\*\*\* The #307-C and #307 PT can be used in place of the #307 adaptor when the need to adapt to pipe thread fittings is necessary.

### **EXTENSIONS**

304	Nozzle Extension Washer (for 325 & 335)
320	3" Extension with Sprayhead
325	6" Nozzle Extension - Rigid Brass (for 302/302B/302C/501)
330	12" Nozzle Extension - Long Flexible Teflon® Tube (for 301/302/302B/302C/501)
331	12" Nozzle Extension - Long Flexible Teflon® Tube (for 305/550/567/602/707)
338	6" Nozzle Extension - Rigid Brass (for 305/550/567/602/707)
335	12" Nozzle Extension - Flexible Brass (for 302/302B/302C/501)
339	12" Nozzle Extension - Flexible Brass (for 305/550/567/602/707)
337	12" Plastic Pin Stream Extension
344	3" Long Hypodermic Tube Extension
345	3" Extension with Pin Stream Head

## **REPAIR PROCEDURES**

The following is the correct order and way to remove and replace all the parts on your Model "A" Sprayer.

- a) **ALWAYS DEPRESSURIZE SPRAYER BEFORE REMOVING ANY PARTS.** (See page 1, #1)
- b) Remove 15/16" hex filler cap. (See page 1, #2)
- c) Take a pliers and remove the #116 cotter pin from the #117 trigger.
- d) Remove the #117 trigger.
- e) Remove 1/2" hex nozzle from the #307 adaptor, or if your sprayer has no adaptor, remove 9/16" hex nozzle from the front of the sprayer.
- f) If your sprayer has a #307 adaptor, remove the 9/16" hex #307 adaptor from the front of the sprayer.
- g) Remove the 3/8" hex #115 stuffing box nut.
- h) Remove the #110 valve. Note that the #111 spring is assembled to the #110 valve.
- i) You will destroy the #114 by removing it. Be careful not to damage the inside threads when removing the #114. #114 stuffing box packing may be removed by taking a small thin straight edge screwdriver and working the #114 stuffing box packing loose.
- j) All the removable parts are now off of your Model "A" Sprayer.
- k) To reassemble start by taking a #114 and placing it into the position you just removed it from. Take #115 and just hand start thread.
- l) Take #111 valve spring and assemble it to #110 valve, place whole assembly into sprayer.
- m) Take a #108 washer and assemble to adaptor. Take assembly and push face of #110 back into sprayer until you can hand start thread. Tighten 9/16" hex adaptor until washer is seated.
- n) Snug 3/8" hex #115 stuffing box nut. Do not over-tighten.
- o) Replace #117 trigger. Line up holes in trigger with hole in back of #110 valve. Insert #116 cotter pin, bend with pliers.
- p) Press down on #117 trigger and apply a drop or two of lubricant to the valve stem of the #110 at the rear of the #115 stuffing box nut. Tilt the sprayer so that the lubricant runs into and around the #115.

- q) Take 1/2" hex nozzle and #309 washer and assemble to 9/16" hex adaptor. Tighten.
- r) Replace 15/16" hex filler cap. Tighten.
- s) Pressurize sprayer. (see page 1, #5).
- t) Check for leaks.

Partial and Complete Repair Kits can be ordered for all Model "A" sprayers. The following is the list of Kit Numbers and there corresponding Model Numbers.

## **REPAIR KITS**

K5	Partial Repair Kit - contains 108, 110, 114, 116, 120, 121, 302, 309 for Models 1000-1100-2000-2600-6100-6200-6600
K10	Complete Repair Kit - contains 108, 110, 111, 114, 115, 116, 117, 118, 302, 307, 309 for Models 1000-1100-2000-2600-6100-6200-6600
K300	Nozzle Assortment Kit - contains 302-B, 302-C, 305, 501, 602
K5-602	Partial Repair Kit for 1002-2002-2602-6102-6202-6602
K10-602	Complete Repair Kit for 1002-2002-2602-6102-6202-6602
K5-302B	Partial Repair Kit for 2170
K10-302B	Complete Repair Kit for 2170
K5-305	Partial Repair Kit for 2305
K10-305	Complete Repair Kit for 2305
K5-501	Partial Repair Kit for 2501
K10-501	Complete Repair Kit for 2501
K5-707	Partial Repair Kit for 7700
K10-707	Complete Repair Kit for 7700

## **ACCESSORIES**

450	CO2 Pressure Charger Filler Unit
455	CO2 Pressure Chargers



P07362 Filling/Measuring Device 32 ounce capacity - Heavy Duty Polyethylene Container with brass mesh screening

# TROUBLE SHOOTING

## CLEANING THE #110 VALVE

- 1) **ALWAYS DEPRESSURIZE SPRAYER BEFORE REMOVING ANY PARTS.** (See page 1, #1)
- 2) Remove filler cap assembly.
- 3) Remove nozzle and adaptor and clean.
- 4) The face of the #110 valve is now visible. The face should be clean and clear of all particles. You should see a circular depression caused by the back of the adaptor. This depression should be clean and clear of all debris also.
- 5) Replace adaptor and washer. Tighten.
- 6) Depress #117 trigger several times to reset seal between face of #110 valve and the back of adaptor.
- 7) Replace cleaned nozzle and washer. Tighten.
- 8) Replace filler cap assembly. Tighten.
- 9) Pressurize sprayer. (See page 1, #5)
- 10) If leak persists, replace #110 valve.

## CLEANING THE NOZZLE

- 1) **ALWAYS DEPRESSURIZE SPRAYER BEFORE REMOVING ANY PARTS.** (See page 1, #1)
- 2) Remove nozzle from operating position leaving adaptor in place.
- 3) Using a needle nose pliers, remove spiral from nozzle.
- 4) Rinse both nozzle and spiral with cleaner.
- 5) Make sure the nozzle orifice hole and the spiral grooves are clean and clear of all dirt before putting back together.
- 6) Put spiral back into nozzle and reassemble including washer. Tighten.
- 7) If nozzle still does not spray correctly it may need to be replaced.

## **PROBLEM: SPRAYER WILL NOT SPRAY AT ALL**

Reason/Solution

- A) Sprayer is completely full of liquid. Only fill sprayer 2/3 full (32 ounces).
- B) No air pressure. Pressurize.
- C) Nozzle completely clogged. Clean or replace nozzle. (See Cleaning the Nozzle above)

## **PROBLEM: PIN STREAM ONLY**

Reason/Solution

- A) Liquid too thick. Thin until sprayable. Consult your liquid supplier for correct thinning procedures.
- B) Too little air pressure. Must have a minimum of 80 psi.
- C) Pin stream nozzle is in the operating position. Replace with spray nozzle.
- D) The spiral is missing from spray nozzle. Replace the spiral.

## **PROBLEM: LEAKS FROM #115 STUFFING BOX NUT**

Reason/Solution

- A) #115 stuffing box nut loose. Tighten #115 1/16th of a turn and apply a drop or two of lubricant to the #110 valve stem at the rear of the #115. Tilt the sprayer so that the lubricant runs into and around the #115. Depress trigger to work in oil.
- (B) Worn 114. Replace.

## **PROBLEM: STUCK OR DRAGGING TRIGGER ACTION**

Reason/Solution

- A) #115 stuffing box nut is too tight. Loosen #115 nut 1/16th of a turn and apply a drop or two of lubricant to the #110 valve stem at the rear of the #115. Tilt the sprayer so that the lubricant runs into and around the #115. Depress trigger to work in oil. Retighten for proper action.

## **PROBLEM: FILLER CAP WON'T ACCEPT AIR**

Reason/Solution

- A) Dirty or damaged filler cap. Replace.

## **PROBLEM: LEAKS FROM TOP OF FILLER CAP**

Reason/Solution

- A) Filler cap has been damaged. Replace.
- B) #121 is loose. Tighten.
- C) #121 is worn. Replace.

## **PROBLEM: LEAKS FROM BOTTOM OF FILLER CAP**

Reason/Solution

- A) #120 gasket is missing or dirty. Replace.

## **PROBLEM: LEAKS FROM NOZZLE**

Reason/Solution

- A) Dirty or worn face on #110 valve. (See Cleaning the #110 valve at left)
- (B) #115 stuffing box nut is too tight. See stuck or dragging trigger action above.

**WARNING \* WARNING \* WARNING**

Sprayer Units returned to the factory containing **ANY LIQUIDS** will be returned to sender at their expense.

**WARRANTY**

SURE SHOT® SPRAYERS, Parts and Accessories are guaranteed against defective materials and workmanship under normal conditions of use and service for a period of ninety days from date of sale to the consumer or nine months from date of shipment from the factory, whichever transpires first. The obligation of the Company (Milwaukee Sprayer Mfg. Co., Inc.) shall be limited to repairing or replacing any sprayer, part or accessory which is found by the Company to be defective, provided that a written claim covering such defect is submitted within the warranty period. The Company shall in no event be liable for consequential damages arising out of a defect or failure in any sprayer, part or accessory, or for any loss arising from the use or resale of any such materials, the Company's liability being limited to repair or replacement of defective components as aforesaid. This warranty shall not apply to defects resulting from accident, alterations, abuse or misuse, including the use of solutions containing ammonia in any Sure Shot® Sprayer. Although it shall be the policy of the Company to be liberal in making adjustments, the settlement of claims regarding product defects will be governed by the provisions of this warranty. No other warranty, expressed or implied, is made by Milwaukee Sprayer Mfg. Co., Inc. with respect to any sales or products referred to herein.

Suspect defective sprayers should be returned to the factory for examination. All sprayers returned to the factory for examination and/or repair must be sent to the address shown below with transportation charges prepaid. If the defects are covered by the above warranty, the least expensive inbound and outbound transportation charges in connection with repairing or replacing such defects will be borne by the factory. All returned repairable sprayers not covered by the warranty will be reconditioned in accordance with the following schedule of reconditioning charges.

**FACTORY RECONDITIONING AVAILABLE FOR "SURE SHOT" MODEL "A" SPRAYERS. CALL FOR CURRENT PRICING.**

**PLEASE NOTE: WE WILL NOT ACCEPT ANY SPRAYERS CONTAINING LIQUID. SPRAYERS SENT IN FOR FACTORY RECONDITIONING MUST BE NOTED ON PAPERWORK.**

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