



1172 Fendt Drive, Howell, MI 48843  
Phone: (517) 548-9096 Fax: (517) 548-9328

## **MAINTENANCE PROCEDURES**

### **MODELS: #840P / #840P-R / #840P-G / #880**

#### **DAILY CLEANING**

The hand spray gun should be flushed with solvent (or water) at the end of each shift. The flushing should be under low pressure (maximum 25 lbs.). The Air Cap should be removed, soaked, and brushed. Check for dirt particles in orifice. Also check the (#302) tip gasket for wear and breaks. Blowing tips and air caps dry with air is recommended

#### **REBUILDING GUN (REFER TO SCHEMATIC)**

1. Flush gun thoroughly
2. Remove air cap and tip from front of gun
3. Remove (#812) needle stop assembly
4. Remove (#811) needle spring
5. Remove the Needle from housing.
6. Determine which packing you have installed. If you see a white hex, you have the (#303) one-piece fluid packing, proceed to step 6a. If you see a gold hex you have the (#314) packing assembly, proceed to step 6b.
  - 6a. Unscrew (#303) one-piece fluid packing.
  - 6b. Unscrew (#311) packing screw from (#308) fluid tube. Using a curved dental pick, remove all (4) pieces, (1) brown leather packing and (3) white Teflon packings, of (#314) packing assembly.
7. Clean (#308) fluid tube with ½" diameter bottle brush and make sure tube is free of debris. Do not remove (#306-FM) fluid insert unless necessary.
  - 7a. If you remove the (#306-FM) fluid insert, remove all dried red thread locker from the external threads and internal threads of the (#308). Reapply new red thread locker to the external threads of the (#306-FM) fluid insert and screw into the (#308) fluid tube. Do not over tighten.
8. Replace:
  - a) (#302) Tip gasket
  - b) (#303) One-piece fluid packing or (#314) packing assembly & (#311) packing nut
  - c) (#811) Needle spring
  - d) (#813) Needle stop spring
9. Replace packing.
  - 9a. Screw (#303) one-piece fluid packing into (#308) fluid tube by hand. Apply non-silicone-based lubricant on needle past the taper. Insert needle. Tighten (#303) one-piece packing until just tight (overtightening will cause hex to break off).



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- 9b. Place (#314) packing assembly and (#311) packing nut in between (#308) fluid tube and gun trigger. Insert needle into back of gun handle through (#314) packing assembly, (#311) packing nut and (#308) fluid tube. Peel off outer wax coating from (#314) packing assembly and carefully push all (4) pieces into (#308) fluid tube with the (#311) packing nut. Screw in (#311) packing nut slowly and remove needle making sure (#314) packing assembly does not come out of (#308) fluid tube. Leave loose until the final step.
10. Reinstall tip to front of gun followed by (#811) needle spring and (#812) needle stop assembly.
11. Apply non-silicone based lubricant to exposed needle between (#303) one-piece packing or (#311) packing nut and body. Actuate trigger to make sure needle moves freely. Tighten (#311) packing nut until needle stops moving forward, then loosen (#311) packing nut slowly until needle goes forward.
- **NOTE:** Please do not use metal of rigid instruments to clean gun parts – this may cause permanent damage
  - **NOTE:** Fluid control in the low range (1 to 15 Lbs.). A lack of control will cause gun fluid fluctuation as well as premature packing wear
  - **NOTE:** A light grade lubricant that **DOES NOT** contain silicone should be used when reassembling gun packings, O-rings, fluid needles, and all threaded parts. Petroleum jelly is preferred

### EACH WEEK

- Flush gun once per week if using black or clear.
- Flush each shift if using metallic or Zinc rich
- Remove tip and air cap and clean same as above
- Check and adjust packing – use Vaseline if necessary

**NOTE:** Be sure to flush entire system from pot through gun if settling occurs

### EACH MONTH

- Same check list as weekly
- Check sizing on tips and wear on needle by feeling seating area of needle. Replace if necessary



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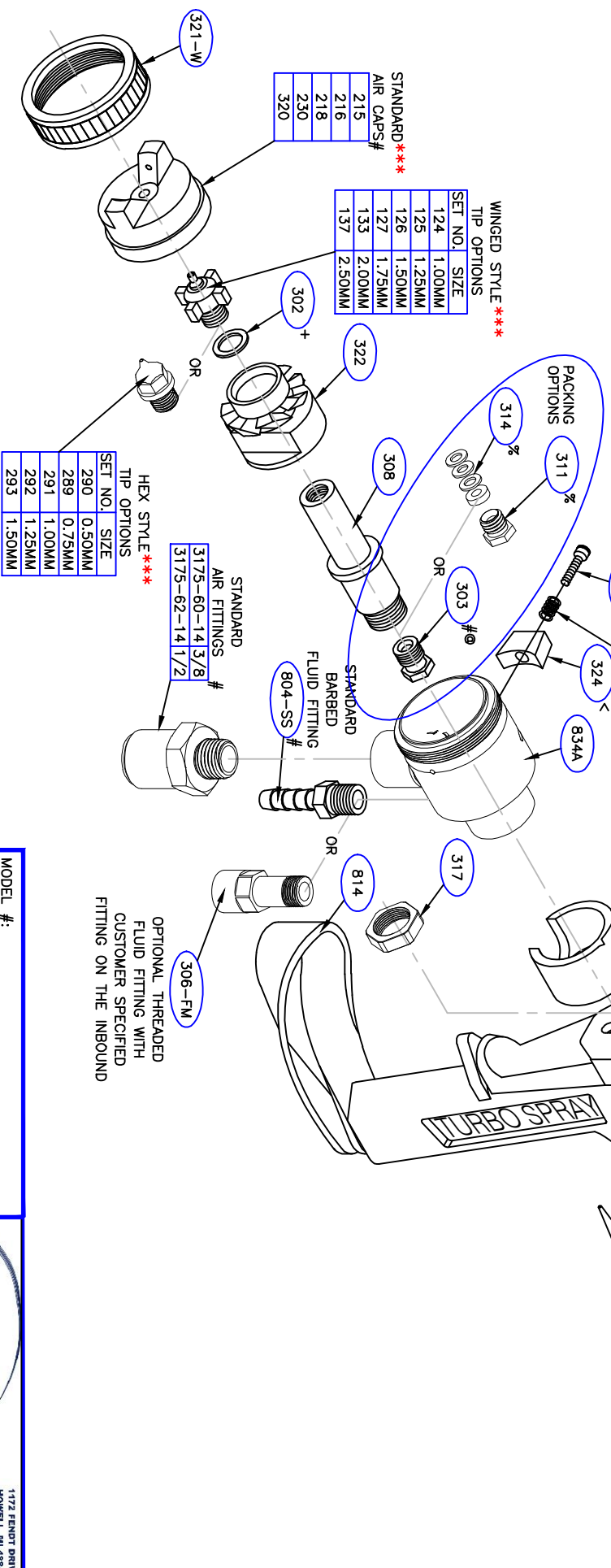
**NOTE:** If guns are cycled intensely (2-3 shifts per day), tips and needles should be replaced every month. They should be replaced every three months during regular use. This will help control the process. Be sure to replace as a set.

**EVERY THREE MONTHS**

- Rebuild guns

QTY	PART NUMBER	DESCRIPTION
1	321-W	AIR CAP LOCKING RING
1	302	TIP GASKET
1	322	DISTRIBUTOR
1	308	FLUID TUBE
1	303	PACKING
1	834	COLLECTOR BODY
1	804-SS	FLUID BARB
1	317	FLUID TUBE NUT
1	324	FAN CONTROL KNOB
1	326	FAN CONTROL SPRING
1	325	FAN CONTROL SCREW
1	841P	HANDLE
1	807	TRIGGER
1	808	TRIGGER AXLE
1	811	NEEDLE SPRING
1	812	NEEDLE STOP ASSEMBLY
1	813	NEEDLE STOP SPRING
1	814	LEATHER STRAP

+/@ = INCLUDED IN REBUILD KIT TSM-850-G-1\*\*\*  
 < = SOLD AS TSM-327 SET ONLY \*\*\*  
 +/% = INCLUDED IN REBUILD KIT TSM-850-G\*\*\*



**WINGED STYLE\*\*\* TIP OPTIONS**

SET NO.	SIZE
124	1.00MM
125	1.25MM
126	1.50MM
127	1.75MM
133	2.00MM
137	2.50MM

**STANDARD\*\*\* AIR CAPS#**

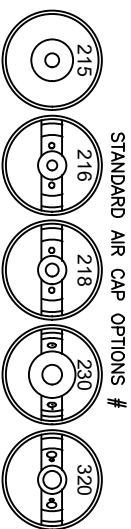
215
216
218
230
320

**HEX STYLE\*\*\* TIP OPTIONS**

SET NO.	SIZE
290	0.50MM
289	0.75MM
291	1.00MM
292	1.25MM
293	1.50MM

**STANDARD AIR FITTINGS#**

317S-60-14	3/8
317S-62-14	1/2



\*\*\* = RECOMMENDED SPARE PARTS TO PREVENT DOWN TIME  
 # = CONTACT FOR ADDITIONAL OPTIONS AVAILABLE

MODEL #: **840P**

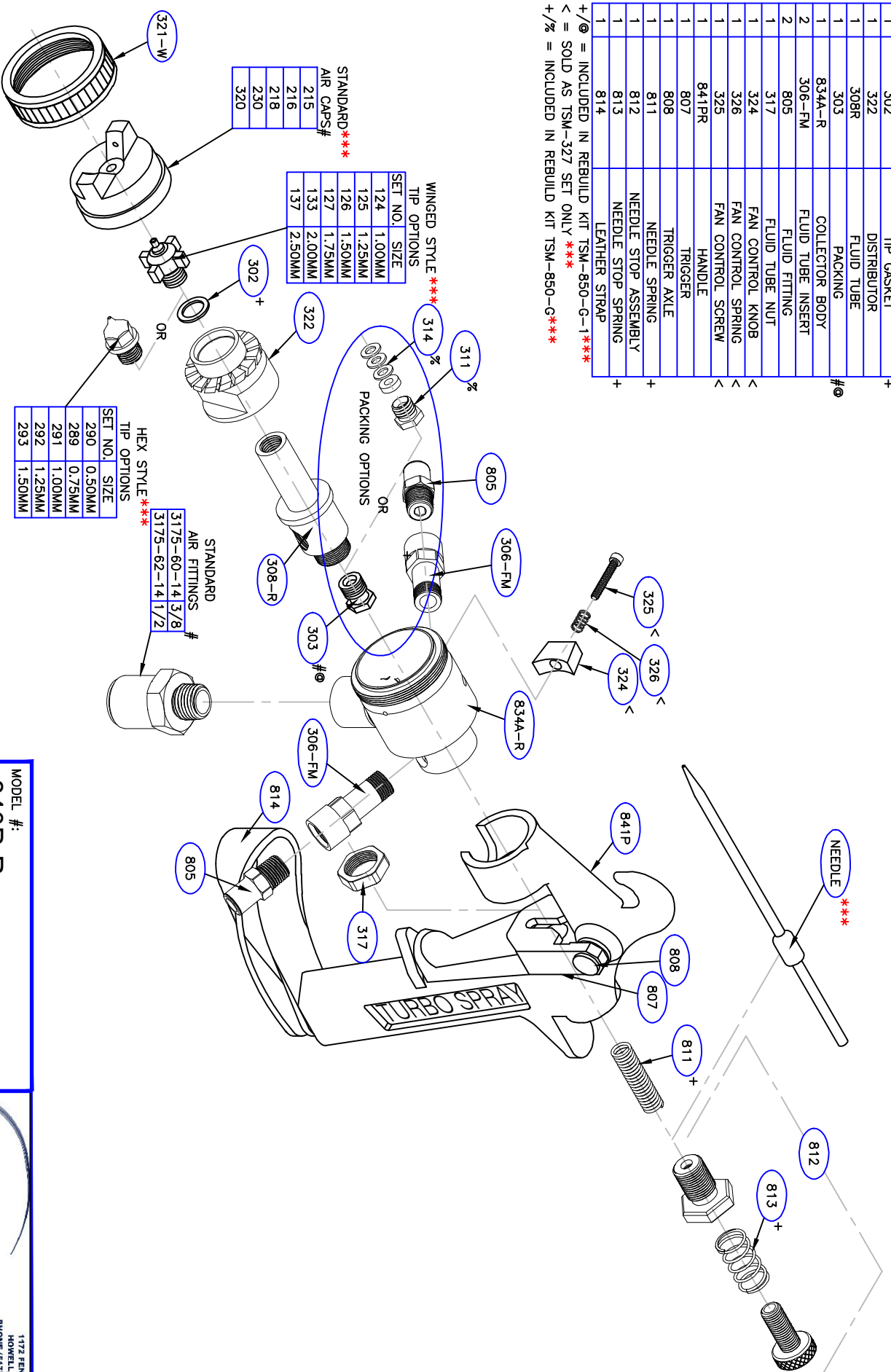
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 FAX (517) 548-9328

LEADERS IN LOW PRESSURE SINCE 1980

QTY	PART NUMBER	DESCRIPTION
1	321-W	AIR CAP LOCKING RING
1	302	TIP GASKET
1	322	DISTRIBUTOR
1	308R	FLUID TUBE
1	303	PACKING
1	834A-R	COLLECTOR BODY
2	306-FM	FLUID TUBE INSERT
2	805	FLUID FITTING
1	317	FLUID TUBE NUT
1	324	FAN CONTROL KNOB
1	326	FAN CONTROL SPRING
1	325	FAN CONTROL SCREW
1	841PR	HANDLE
1	807	TRIGGER
1	808	TRIGGER AXLE
1	811	NEEDLE SPRING
1	812	NEEDLE STOP ASSEMBLY
1	813	NEEDLE STOP SPRING
1	814	LEATHER STRAP

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WINGED STYLE \*\*\*  
TIP OPTIONS

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125	1.25MM
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127	1.75MM
133	2.00MM
137	2.50MM

STANDARD \*\*\*  
AIR CAPS #

215
216
218
230
320

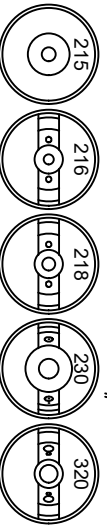
HEX STYLE \*\*\*  
TIP OPTIONS

SET NO.	SIZE
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289	0.75MM
291	1.00MM
292	1.25MM
293	1.50MM

STANDARD  
AIR FITTINGS #

3175-60-14	3/8
3175-62-14	1/2

STANDARD AIR CAP OPTIONS #



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MODEL #:

840P-R

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**TURBO  
SPRAY**

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LEADERS IN LOW PRESSURE SINCE 1980

QTY	PART NUMBER	DESCRIPTION
1	321-W	AIR CAP LOCKING RING
1	302	TIP GASKET
1	322	DISTRIBUTOR
1	830	FLUID TUBE
1	303	PACKING
1	834G	COLLECTOR BODY
1	829	FLUID TUBE INSERT
1	810	O-RING
1	317	FLUID TUBE NUT
1	324	FAN CONTROL KNOB
1	326	FAN CONTROL SPRING
1	325	FAN CONTROL SCREW
1	841P-G	HANDLE
1	807	TRIGGER
1	808	TRIGGER AXLE
1	811	NEEDLE SPRING
1	812	NEEDLE STOP ASSEMBLY
1	813	NEEDLE STOP SPRING
1	814	LEATHER STRAP

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CUP OPTIONS

NO.	SIZE
SM	63ML
MD	300ML
LG	600ML

PACKING OPTIONS

WINGED STYLE \*\*\*

TIP OPTIONS

SET NO.	SIZE
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125	1.25MM
126	1.50MM
127	1.75MM
133	2.00MM
137	2.50MM

HEX STYLE \*\*\*

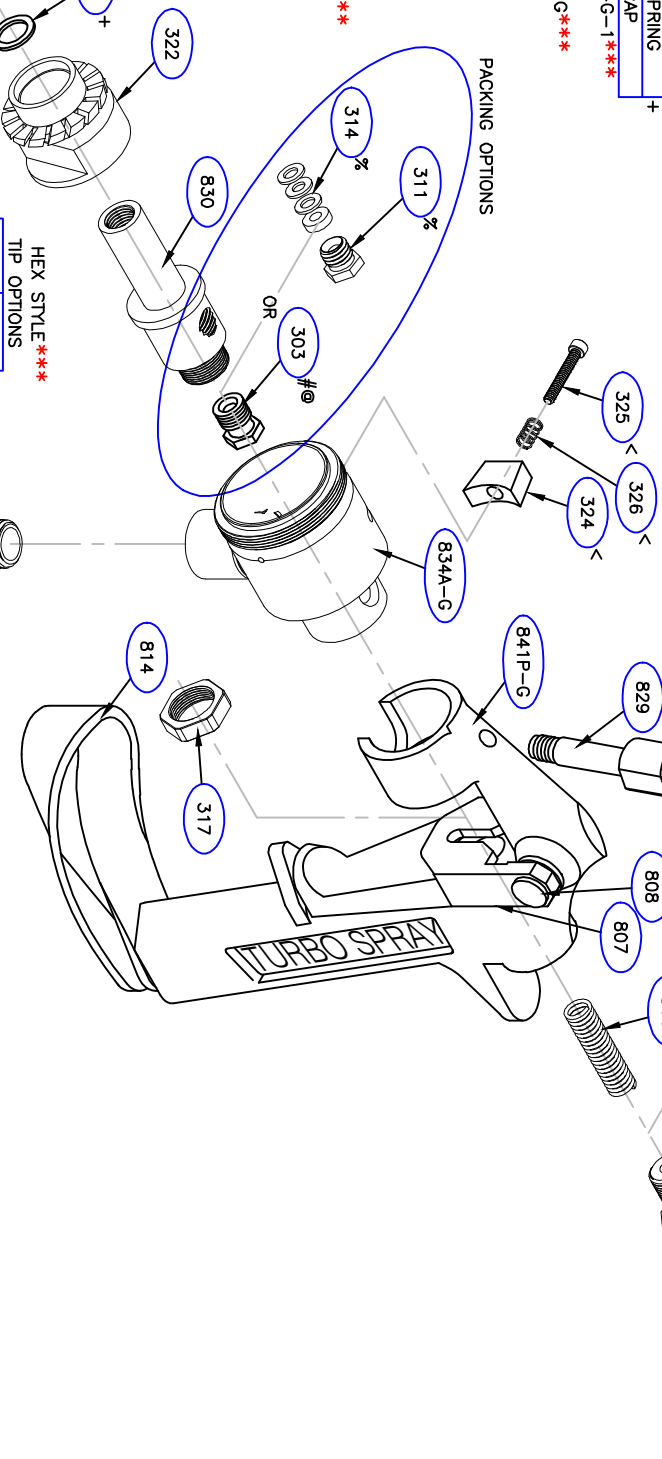
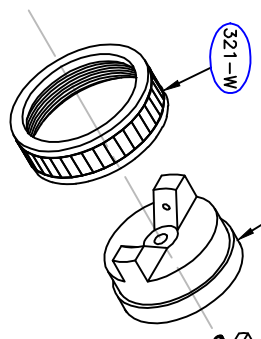
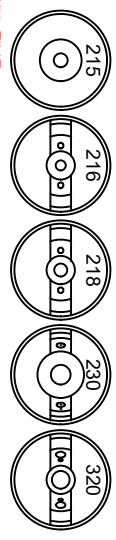
TIP OPTIONS

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291	1.00MM
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293	1.50MM

STANDARD AIR FITTINGS #

3175-60-14	3/8
3175-62-14	1/2

STANDARD AIR CAP OPTIONS #



STANDARD AIR CAPS #

215
216
218
230
320

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MODEL #: 840P-G

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LEADERS IN LOW PRESSURE SINCE 1980



QTY	PART NUMBER	DESCRIPTION
1	321	AIR CAP LOCKING RING
1	302	TIP GASKET
1	322	DISTRIBUTOR
1	308	FLUID TUBE
1	303	PACKING
1	834A-C	COLLECTOR BODY
1	306-FM	FLUID TUBE INSERT
1	306	FLUID FITTING
1	317	FLUID TUBE NUT
1	324	FAN CONTROL KNOB
1	326	FAN CONTROL SPRING
1	325	FAN CONTROL SCREW
1	841M	HANDLE
1	807	TRIGGER
1	808	TRIGGER AXLE
1	811	NEEDLE SPRING
1	812	NEEDLE STOP ASSEMBLY
1	813	NEEDLE STOP SPRING
1	814	LEATHER STRAP
1	887	CHECK VALVE ASSEMBLY
2	888	BARB FITTING
1	881	1 QT. PRESSURE CAP

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TIP OPTIONS

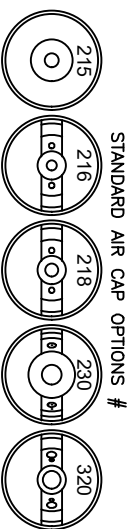
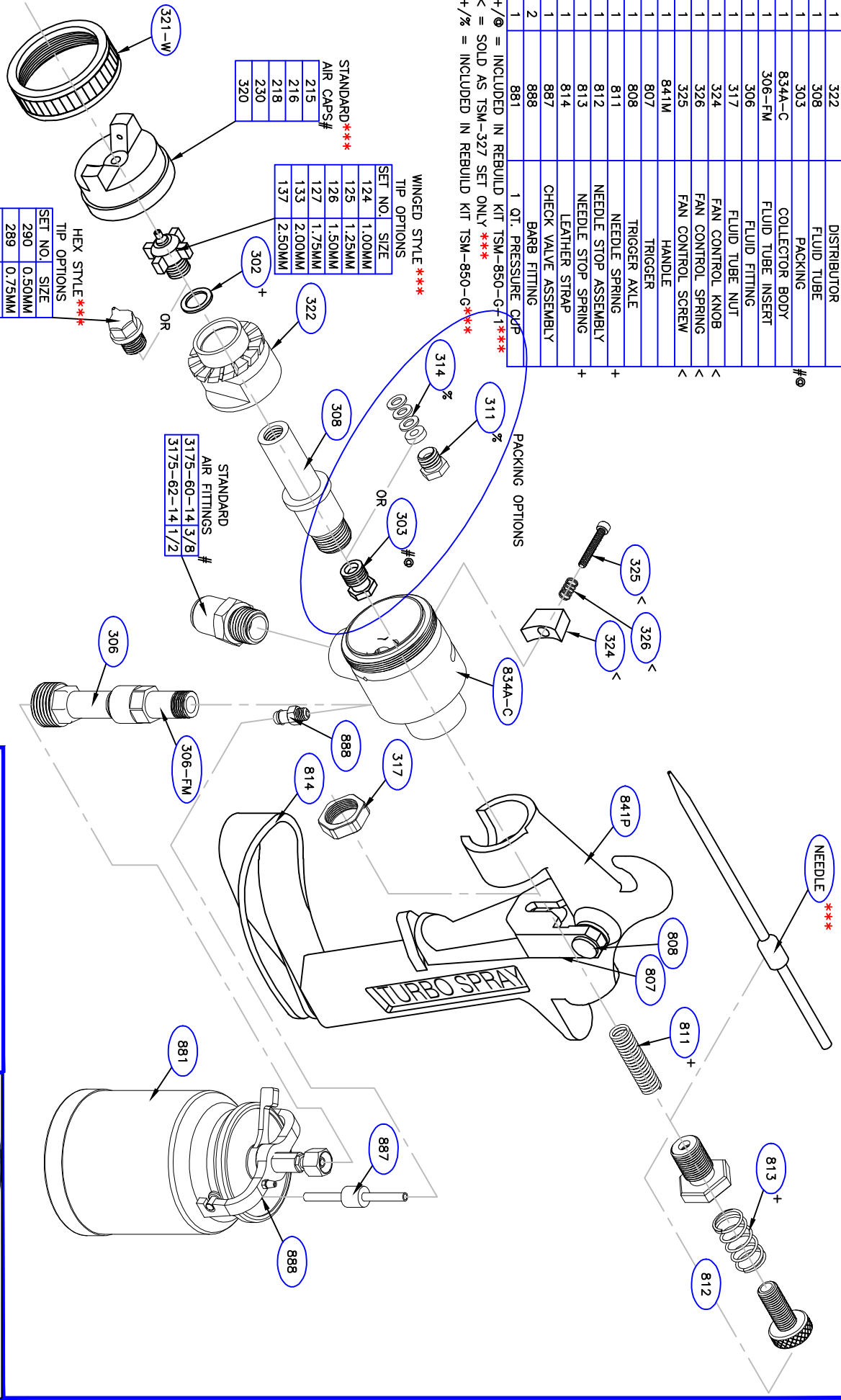
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**STANDARD \*\*\***  
AIR CAPS #

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218
230

**HEX STYLE \*\*\***  
TIP OPTIONS

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MODEL #:  
**880**

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LEADERS IN LOW-PRESSURE SINCE 1980.



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## **TROUBLE SHOOTING**

### **MODEL #840P / #840P-R / #840P-G / #880**

<b>PROBLEM</b>	<b>SOLUTION</b>
Tip Leakage	<p>Check fluid pressure. Should be in 4-8 Lb. range and constant Use fluid regulators where possible. Check #302 tip gasket. Check packings which may be dry or contaminated with paint. This will stop needle from seating in tip. Check tip for dirt. Check for bent needle. Check for excessive tip and needle wear</p>
Spray Skip	<p>Check tip for dirt. Remove tip and check needle travel - replace or lubricate packings if necessary. Check fluid pressure. Must be constant usually in the 4-8 lb. range Use fluid regulators where possible. Check paint fluid source - make sure all paint line fittings are tight. Make sure pump seal or siphon tube seals are not damaged and sealed tight. Special attention should be given to seal at the top of siphon tube. If paint is agitated, make sure agitator is turning slowly as not to aerate paint or force it above fluid tube.</p>
Fan Distortion	<p>Check side holes in air cap for obstructions. Check fluid flow, must be low and constant. Use fluid regulators where possible, especially in low ranges. Check paint viscosity. High viscosity causes smaller fans. Check ratio of air to fluid.</p>
Lack of Paint Break Up	<p>Lower fluid supply. Increase atomizing air. Increase heat. Decrease viscosity. Check air cap, tips and needles.</p>





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**PROBLEM**

**SOLUTION**

Bent Needle  
Packing "stick"  
Needle "Stick"

Replace needle  
Lube needle in gun "cut" area as it enters packings  
(P-M) each day  
Tighten packing after one week break in (1/2 turn)  
Replace if worn  
Move small I.D. packing ring to front to wipe needle better

\*\* Please note that fluid control in the low ranges (4-8 lb) is critical. A lack of control will cause gun fluctuation. To check, cut atomizing air, set fluid control, and check consistency of stream at the desired low PSI setting. Additional low pressure, sensitive fluid regulators (1-15 PSI) may have to be located close to the Turbo Spray guns. Use regulator #918 for robot.