T1-Titanium

HVLP Pressure Feed Spray Gun

SHARPE

THE SPRAY GUN PEOPLE

FOR PRODUCT INFORMATION CALL:

1-800-742-7731

Important Safety Instructions
Read all warnings and instructions in this manual.
Save these instructions.

Maximum Air Inlet Pressure:100 psi (0.7 MPa, 7 bar)
Maximum HVLP Compliant Air Pressure:
***Part No. 5460, 5462, 5461, 5463, 5464, 5465** - 35 psi (241 kPa, 2.4 bar)*
***Part No. 5466** - 40 psi (287 kPa, 2.8 bar)*

CE Ex II 2 G

Gun Part No.	Needle/Nozzle Size	Air Consumption (CFM)	Recommended Usage	System Available†
5460	0.8 mm	12.5*	All automotive colors/clears	5490
5461	1.0 mm	12.5*	All automotive colors/clears	
5462	1.2 mm	12.5*	Primers, high viscosity materials including enamels	5495
5463	1.4 mm	12.5*	Primers, high viscosity materials including enamels	
5464	1.6 mm	12.5*	Primers, high viscosity materials including enamels	
5465	1.7 mm	12.5*	Primers, high viscosity materials including enamels	
5466	2.2 mm	13.9**	Industrial coatings, high viscosity materials	

* At 35 psi (241 kPa, 2.4 bar)
** At 40 psi (276 kPa, 2.8 bar)
† System includes the HVLP Spray Gun, 6680 Low Pressure Cup, and 1400 Air Pressure Regulator

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⚠ WARNING

FIRE AND EXPLOSION HAZARD

Flammable fumes, such as solvent and paint fumes, in work area can ignite or explode. To help prevent fire and explosion:

- Use equipment only in well ventilated area.
- Eliminate all ignition sources; such as pilot lights, cigarettes, portable electric lamps, and plastic drop cloths (potential static arc).
- Keep work area free of debris, including solvent, rags and gasoline.
- Do not plug or unplug power cords or turn lights on or off when flammable fumes are present.
- Ground equipment and conductive objects in work area.
- If there is static sparking or you feel a shock, **stop operation immediately.** Do not use equipment until you identify and correct the problem.

EQUIPMENT MISUSE HAZARD

Misuse can cause death or serious injury.

- Do not exceed the maximum working pressure or temperature rating of the lowest rated system component. See **Technical Data** in all equipment manuals.
- Use fluids and solvents that are compatible with equipment wetted parts. See **Technical Data** in all equipment manuals. Read fluid and solvent manufacturer's warnings.
- Check equipment daily. Repair or replace worn or damaged parts immediately.
- Do not alter or modify equipment.
- Use equipment only for its intended purpose. Call your Graco distributor for information.
- Route hoses and cables away from traffic areas, sharp edges, moving parts, and hot surfaces.
- Do not use hoses to pull equipment.
- Keep children and animals away from work area.
- Comply with all applicable safety regulations.

TOXIC FLUID OR FUMES HAZARD

Toxic fluids or fumes can cause serious injury or death if splashed in the eyes or on skin, inhaled, or swallowed.

- Read MSDS's to know the specific hazards of the fluids you are using.
- Store hazardous fluid in approved containers, and dispose of it according to applicable guidelines.

PERSONAL PROTECTIVE EQUIPMENT

You must wear appropriate protective equipment when operating, servicing, or when in the operating area of the equipment to help protect you from serious injury, including eye injury, inhalation of toxic fumes, burns, and hearing loss. This equipment includes but is not limited to:

- Protective eyewear
- Clothing and respirator as recommended by the fluid and solvent manufacturer
- Gloves
- Hearing protection

PRESSURIZED EQUIPMENT HAZARD

Fluid from the gun/dispense valve, leaks, or ruptured components can splash in the eyes or on skin and cause serious injury.

- Follow **Pressure Relief Procedure** in this manual, when you stop spraying and before cleaning, checking, or servicing equipment.
- Tighten all fluid connections before operating the equipment.
- Check hoses, tubes, and couplings daily. Replace worn or damaged parts immediately.

3 Year Limited Warranty

Sharpe warrants this product to the original user against defective material or workmanship for a period of 1 year from the date of purchase.

Sharpe reserves the right to determine whether the part or parts failed because of defective material, workmanship, or other causes. Failures caused by accident, alteration, or misuse are not covered by this warranty.

Sharpe, at its discretion, will repair or replace products covered under this warranty free of charge. Repairs or replacements of products covered under this warranty are warranted for the remainder of the original warranty period.

Sharpe or its authorized service representatives must perform all warranty repairs. Any repair to the product by unauthorized service representatives voids this warranty. The rights under this warranty are limited to the original user and may not be transferred to subsequent owners.

This warranty is in lieu of all other warranties, expressed or implied, including warranties of merchantability and fitness for a particular purpose. Some states do not allow the exclusion or limitations of incidental or consequential damages, so the above limitations may not apply to you.

Setup

- 12.5 CFM shop air flow is recommended.
- Use a minimum 3/8” ID air supply hose.
- Set shop air pressure regulator (not supplied) according to paint manufacturer’s recommendation. See maximum pressures and compliant pressures on cover.
- Make sure no air restrictions, such as low-volume cheater-valves, obstruct the air flow. If an air adjusting valve is desired, use a SHARPE Air Adjusting Valve 24AAV (part no. 2210), 36AAV-HOV (part no. 3310) or HOV (part no. U04410).
- Install a shutoff valve (not supplied) downstream of the air regulator to shut off gun air.
- Install an inline air filter (not supplied) to clean and dry the air supply to the gun.

Assembling T1-HVLP System

1. Install air pressure regulator (201) to the gun air inlet (9). See FIG. 1.
2. Install pressure tube (110) firmly onto regulator safety valve (203) tee.
3. Install pressure tube into cup pressure inlet fitting (111) as far as it will go then tighten fitting clockwise. See FIG. 3, page 5.
4. Pull out the air pressure regulator (201) knob and turn it counterclockwise until it stops. This shuts off air pressure to the gun.
5. Connect a clean, dry, filtered air supply to the gun air regulator inlet (205).
6. If this is first time using the equipment, flush the spray gun.

Operation

Pressure Relief Procedure

WARNING

Follow **Pressure Relief Procedure** when you stop spraying and before cleaning, checking, or servicing equipment. Read warnings, page 2.

Never open cup before relieving pressure. Paint can erupt from a pressurized cup.

1. Turn off gun air supply.
2. Turn regulator (201) knob fully counterclockwise.
3. Relieve cup pressure by opening the cup pressure relief valve (112). See FIG. 2, page 4.
4. Trigger the gun to push paint back into cup.

Flushing

WARNING

Read warnings, page 2.

Flush before using the equipment, before changing colors, and when you are done spraying. Use solvent that is compatible with gun wetted parts and fluid that will be sprayed. Flush at lowest possible pressure.

Refer to **Compliant Cleaning Methods**, page 5, to comply with air quality laws if applicable.

1. Follow **Pressure Relief Procedure**.
2. Disconnect pressure tube (110) from cup pressure inlet elbow (111). See FIG. 1.
3. Dispose of any paint in cup.
4. Fill cup with small amount of solvent.
5. Remove and clean shield (108), then reinstall it.
6. Reinstall cup, and connect pressure tube (110).
7. Close pressure relief valve (112) and spray into grounded metal waste container until equipment is clean.
8. Follow **Pressure Relief Procedure**.

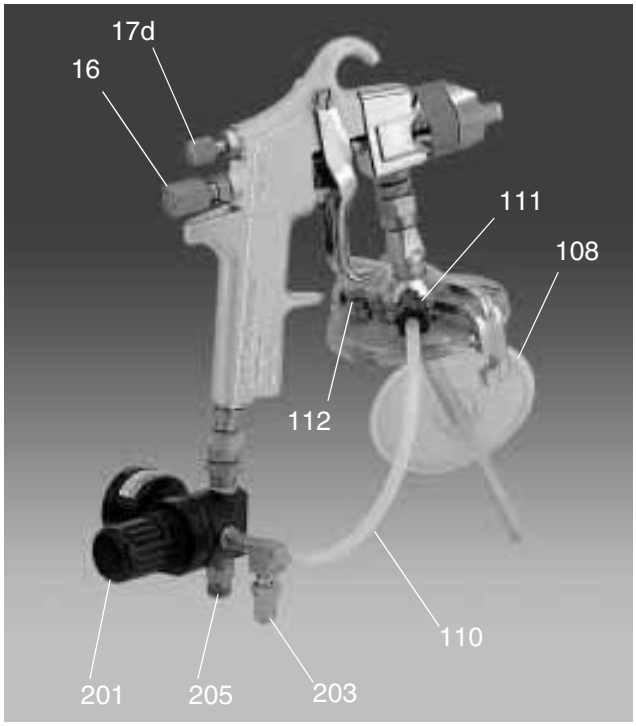


FIG. 1

Spraying

- The cup lid has a check valve (113) that prevents the cup from losing pressure until the relief valve (112) is opened.
- To achieve the desired cup pressure, start at a lower pressure and adjust up to the desired setting. Normal operating cup pressure is 3-6 psi (21 kPa, .2 bar) for most paints. Cup pressure of 10 psi (69 kPa, .7 bar) or greater may cause the cup to leak air or paint.

CAUTION
Excessive atomizing air pressure can increase over-spray, reduce transfer efficiency, result in a poor quality finish from dry spray. Regulatory agencies in certain states prohibit the operation of a spray gun above 10 psi (69 kPa, .7 bar) atomizing air cap pressure.

1. Fill cup (109) with material. Do not fill past cup “shoulder” (A). See FIG. 2.
2. Screw cup (109) onto lid (104) securely. Press lever (103) fully clockwise to seal cup.
3. Ensure relief valve (112) is closed (turn clockwise).
4. Turn on shop air to gun
5. Slowly turn the air pressure regulator knob (201a) clockwise while pulling the gun trigger (6) completely back to adjust the atomization. When you have the desired atomization, push in knob to lock setting.

It is normal for the gauge pressure reading to be higher when the gun trigger is released.

6. To decrease paint flow, pull out the regulator knob (201a) and turn it counterclockwise to lower pressure. Open the relief valve (112) on the cup lid to relieve cup pressure.
7. Close relief valve (112). Regulator gauge (204) will show current cup pressure.
8. Adjust the pattern size and shape with the spray width adjustment knob (17d). Turn knob clockwise to reduce pattern size and counterclockwise to increase it.

See **Troubleshooting** guide if you experience an irregular pattern.

9. Fluid control knob (16) is factory set for maximum needle trigger travel and material flow. To decrease needle/trigger travel and decrease fluid flow, turn the knob clockwise.

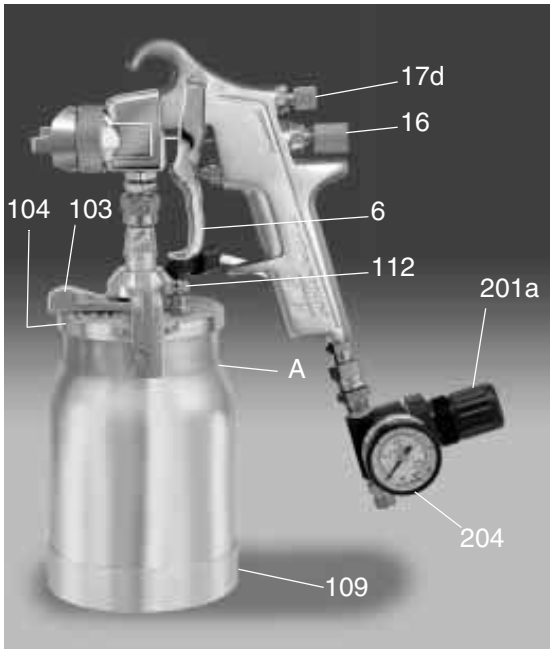


FIG. 2

Cleaning and Maintenance

WARNING

Follow **Pressure Relief Procedure** when you stop spraying and before cleaning, checking, or servicing equipment. Read warnings, page 2.

CAUTION

- Do not submerge gun in solvent. Solvent dissolves lubricant, dries out packings, and may clog air passages. You can immerse front end of gun in solvent just until cup connection is covered.
- Do not use metal tools to clean air cap holes as this may scratch them and distort the spray pattern.
- Use a compatible solvent.
- Remove air pressure regulator before placing spray gun and cup in a gun washer. See **CAUTION** below.

Clean air line filters as directed by the manufacturer.

Pressure Regulator

CAUTION

Regulator assembly will be damaged if paint or solvents enter the gauge, safety valve, or regulator body. Always remove regulator assembly from gun before placing gun in a gun washer. Never submerge the regulator in solvent.

The regulator requires no maintenance. Parts can be cleaned with warm water and soap.

Only disconnect the pressure tube (110) at the cup pressure inlet elbow (111). See FIG. 3.

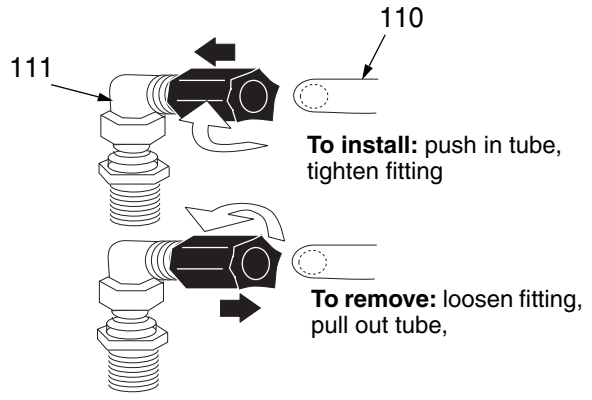


FIG. 3

Volatile Organic Compounds (VOC) Regulation

In certain states, spraying solvents that release VOC's into the atmosphere when cleaning a spray gun is prohibited. To comply with these air quality laws you must use a cleaning method that prevents the escape of VOC vapors into the atmosphere. See **Compliant Cleaning Methods** below.

Compliant Cleaning Methods

- Place spray gun in a gun washer that completely encloses the gun and components during cleaning, rinsing, and draining.
- Spray solvent through the spray gun into a closed gun cleaning station.

Cleaning Gun and Cup

Refer to **Compliant Cleaning Methods** to comply with air quality laws if applicable.

1. Follow **Flushing** procedure, page 3.
2. Use a rag moistened in solvent to wipe cup lid, fluid tube, inside of cup, and outside of gun.
3. Blow dry gun inside and out. Lubricate gun - see **Spray Gun Maintenance**.
4. After each use, check to see that the check valve(113) in the bottom of the pressure inlet elbow (111) is free of paint and debris. See FIG. 4. If necessary, unscrew check valve brass retainer (E) ring, remove spring (D) and ball (C) and soak in compatible solvent. Reassemble with small end of spring facing ball when inserted into elbow (111).

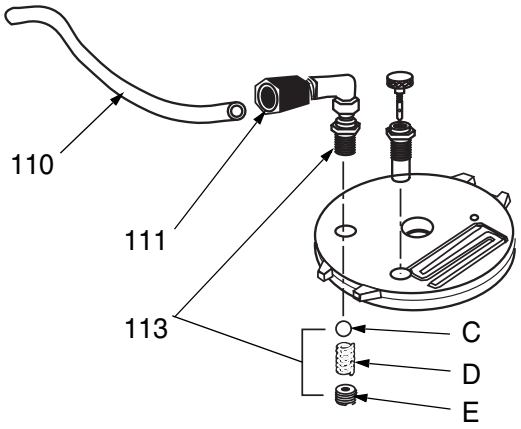
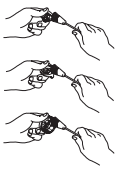


FIG. 4

Cleaning Nozzle and Air Cap

CAUTION
• Trigger gun and use nozzle removal tool 41160 whenever you tighten or remove nozzle to avoid damaging needle seat and nozzle.
• Do not use metal tools to clean air cap holes as this may scratch them and distort the spray pattern.

To clean the air cap and nozzle, remove and soak them in a compatible cleaning solution. Clean them and front of gun with a soft-bristle brush dipped into compatible solvent. Do not use a wire brush or metal tools. To clean out air cap holes, use a soft implement, such as a toothpick.



Spray Gun Maintenance

- Frequently lubricate the gun moving parts with a drop of non-silicone oil (part no. 8255). See FIG. 5.
- Do not disassemble the spray gun if you are having a spray pattern problem. Check **Troubleshooting**, page 7, for information on how to correct the problem.
- Check for fluid leakage. Tighten fittings or replace equipment as needed.

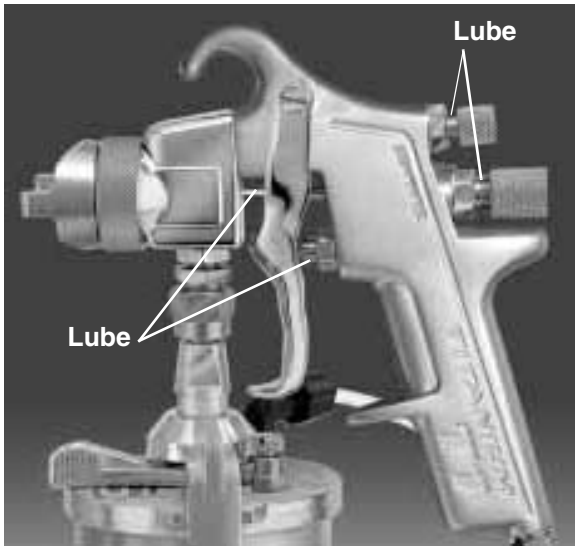


FIG. 5

Technical Data

Maximum Air Inlet Pressure: 100 psi (0.7 MPa, 7 bar)

Maximum HVLP Compliant Air Pressure: see front cover (delivers 10 psi (69 kPa, 0.7 bar) spraying pressure at air cap)

Air Consumption: 12.5 CFM at 35 psi (241 kPa, 2.4 bar)

Wetted Parts: stainless steel, carbon steel, aluminum, PTFE, low density polyethylene

Weight: 3 lb. 2 oz. (1.42 kg)

Spray Gun

- 1/4 npsm (R1/4-19) air inlet
- 3/8 npsm (R3/8-19) fluid inlet
- Converts main line pressure to low-pressure HVLP spray (less than 10 psi (69 kPa, 0.7 bar) at air cap)

Pressure cup:

- 1 qt. (.95 liter) cup
- Includes relief valve
- Includes check valve to maintain cup pressure and prevent fluid from entering pressure tube when cup is inverted

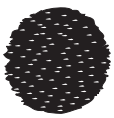
Air Regulator:

- 1/4 npsm (R1/4-19) air inlet
- Self-relieving diaphragm
- 0-10 psi (0-69 kPa, 0-0.7 bar) regulated pressure to cup
- 10 psi (69 kPa, 0.7 bar) air pressure safety valve
- 0-30 psi (0-207 kPa, 2.1 bar) air pressure gauge
- Push-in knob to lock pressure setting

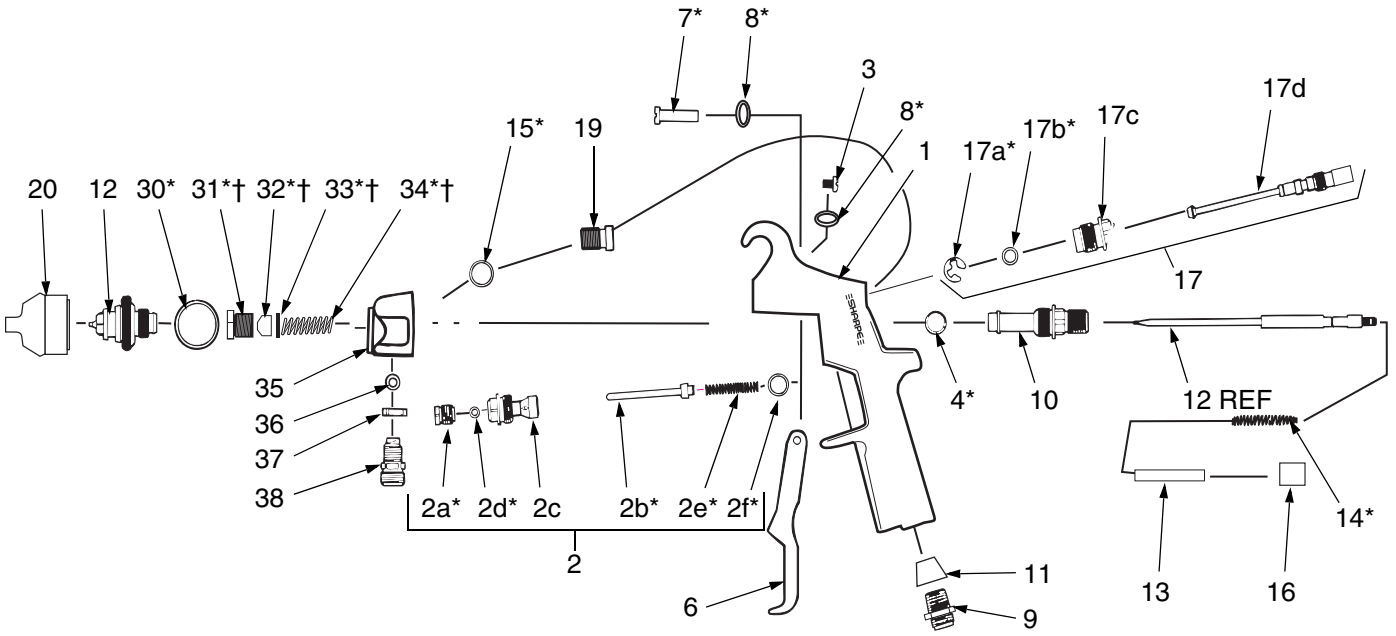
Troubleshooting

WARNING

Follow **Pressure Relief Procedure**, page 3, before troubleshooting or servicing. Read warnings, page 2.

Problem	Cause	Solution
 **Right**	Normal pattern	No action necessary
 **Wrong** Heavy top or bottom pattern	Dirty or damaged air cap or fluid nozzle.	Rotate air cap 180°. *If pattern follows air cap,* problem is in air cap. Clean and inspect. See page 5. If pattern is not corrected, replace air cap. *If pattern does not follow the air cap,* the problem is with the fluid nozzle. Clean and inspect the nozzle. See page 5. If the pattern is not corrected, replace nozzle.
 **Wrong** Split pattern	Pressure too high for viscosity of material being sprayed.	a. Reduce air pressure. b. Increase material viscosity c. Correct pattern by narrowing fan size with spray width adjustment knob.
 **Wrong**	Dirty or distorted air horn holes.	Rotate air cap 180°. *If pattern follows air cap,* problem is in air cap. Clean and inspect. See page 5. If pattern is not corrected, replace air cap.
Will not spray.	a. Cup is not tight b. Cup empty. c. Fluid adjustment knob (16) turned too far clockwise d. Air cap not seated. e. Check valve or pressure tube blocked. f. Relief valve not closed.	a. Tighten cup. b. Fill cup. c. Adjust knob (16) to the counterclockwise. d. Turn spray width adjustment knob fully counterclockwise. Tighten air cap. e. Disassemble and clean. See page 5. f. Close relief valve.
 **Wrong** Heavy pattern or orange peel	a. Air pressure too low. b. Gun held too close to surface.	a. Increase air pressure. b. Hold gun about 6-8 inches (150-200 mm) from surface.

Parts



Gun Part No.	Needle/ Nozzle Size (mm)	Air Cap Part No.	Needle/Nozzle Set Part No.
5460	0.8	41020	118771
5461	1.0	41020	118772
5462	1.2	41020	118773
5463	1.4	41020	118775
5464	1.6	41020	118777
5465	1.7	41020	118778
5466	2.2	41022	118779

Ref. No.	Part No.	Description	Qty.
1	41142	Gun Handle, HVLP	1
2	41120	Air Valve Assembly Includes items 2a-2f	1
2a*	26032	• Packing Nut	1
2b*	25066	• Air Valve	1
2c	34948	• Housing	1
2d*	16162	• Packing	
2e*	16167	• Air Valve Spring	1
2f*	16163	• Gasket	1
3*	34962	Trigger Screw	1
4*	16163	Gasket	1
6	34959	Trigger	1
7*	26044	Trigger Shaft	1
8*	34960	Spring Washer	2
9	26055	Air Inlet Fitting	1
10	41139	Fluid Control Bushing	1
11	118524	Pressure Limit Bushing	1

Ref. No.	Part No.	Description	Qty.
12	see table	Needle/Nozzle Set	1
13	41129	Needle Sleeve	1
14*	41134	Needle Spring	1
15*	10326	Gasket	1
16	41146	Fluid Control Knob	1
17	41122	Width Control Assembly Includes items 17a-17d	1
17a*	16175	• Retaining Ring	1
17b*	38120	• O-Ring	1
17c	26066	• Body	1
17d	41148	• Control Valve/Knob	1
19	16153	Screw; 7/16-27 UNS	1
20	see table	Air Cap	1
30*	38001	Nozzle Gasket	1
31*†	41130	Packing Nut	1
32*†	41124	Fluid Needle Packing	1
33*†	41126	Washer	1
34*†	41128	Fluid Needle Spring	1
35	41143	Gun Head	1
36	27058	Fluid Inlet Gasket	1
37	27076	Fluid Inlet Lock Nut	1
38	27075	Fluid Inlet Fitting	1

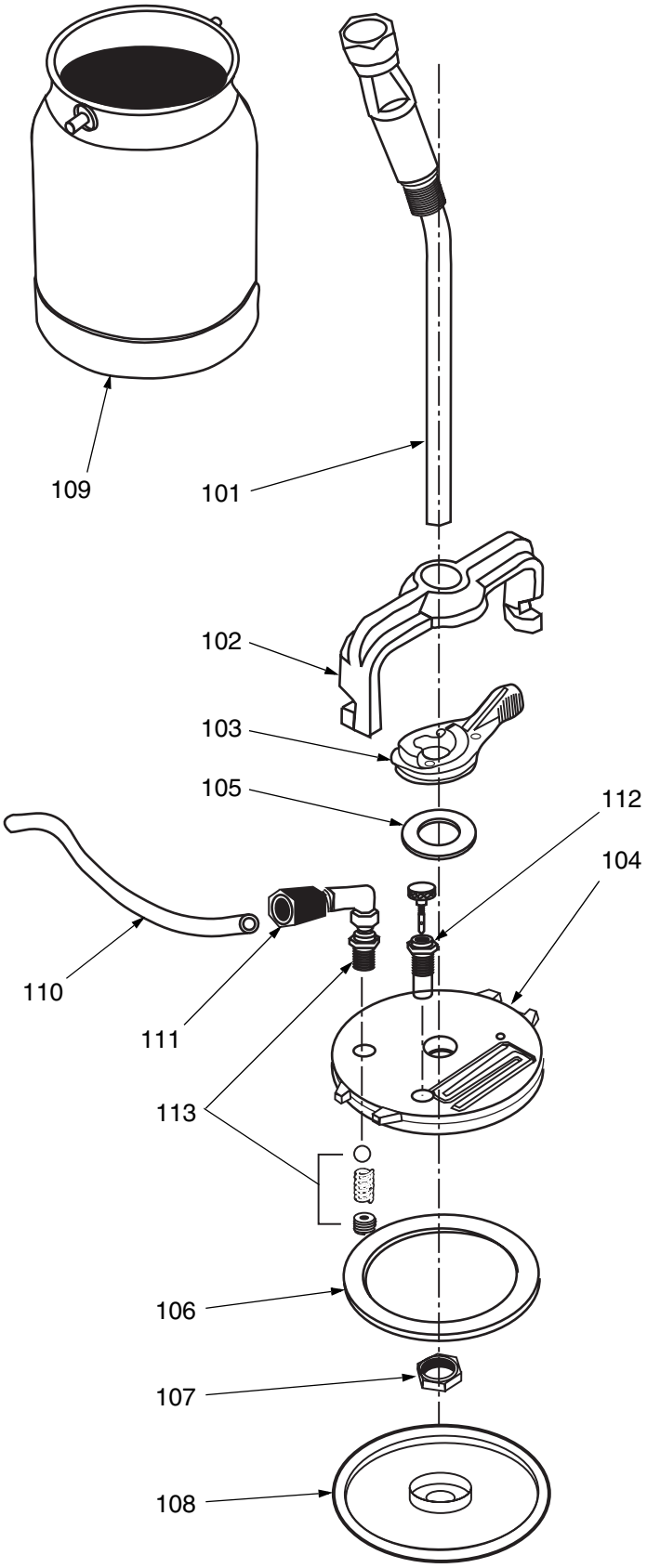
* *Parts included in Repair Kit 41165*

† *Parts included in Repair Kit 41132. Also includes Packing Nut Removal Tool 41155.*

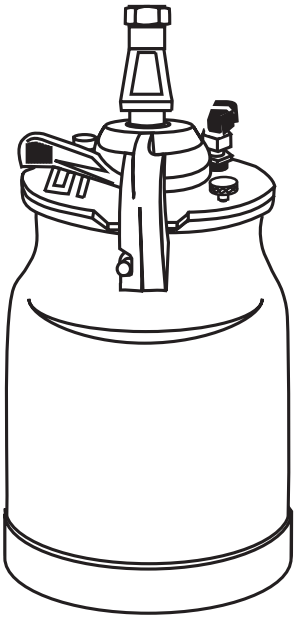
Gun Accessory Tools

Part No. 41155: Packing Nut Removal Tool
Part No. 41160: 1/2” Nozzle Removal Tool

MODEL 575 LOW PRESSURE CUP

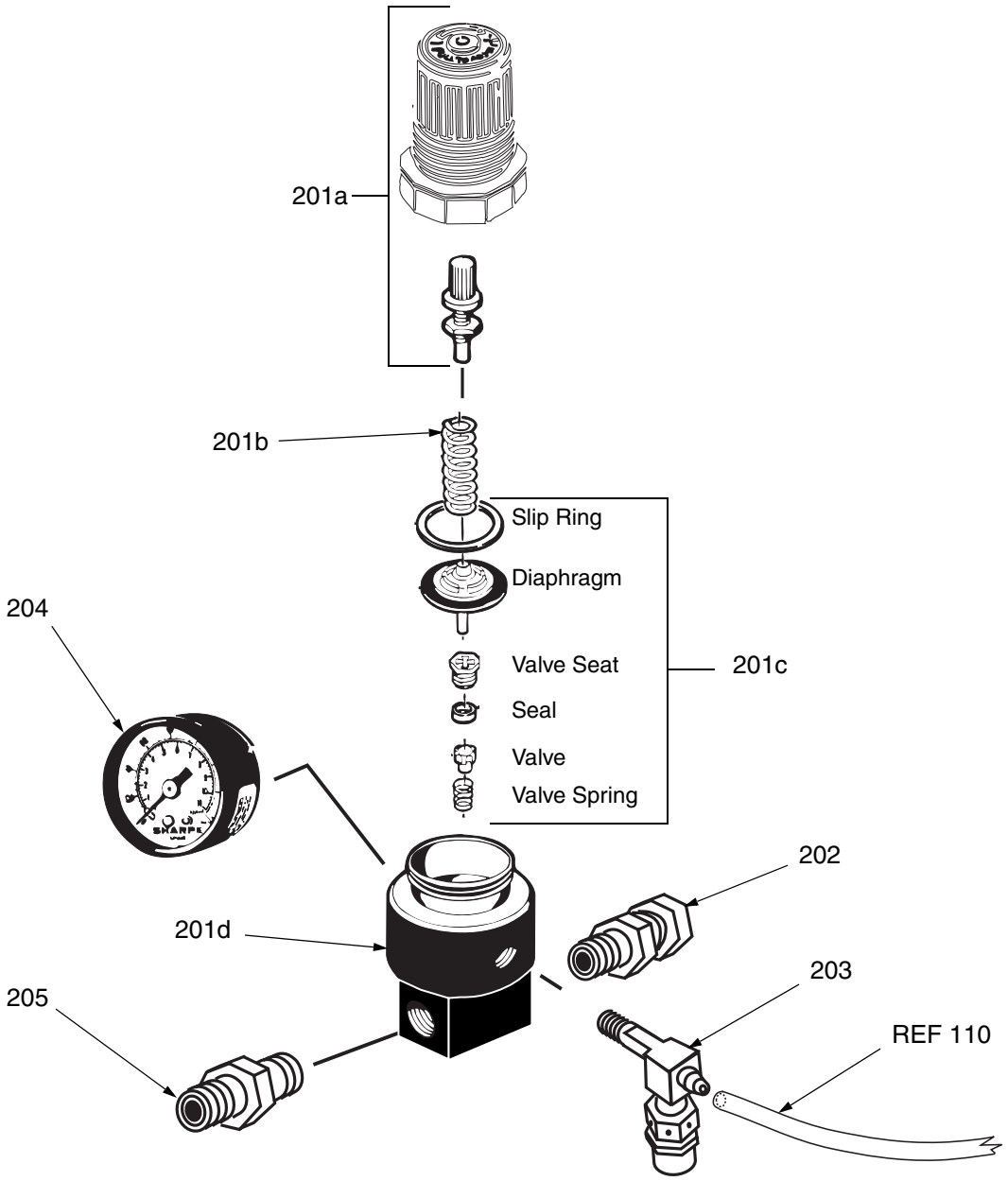


Part No. 6680

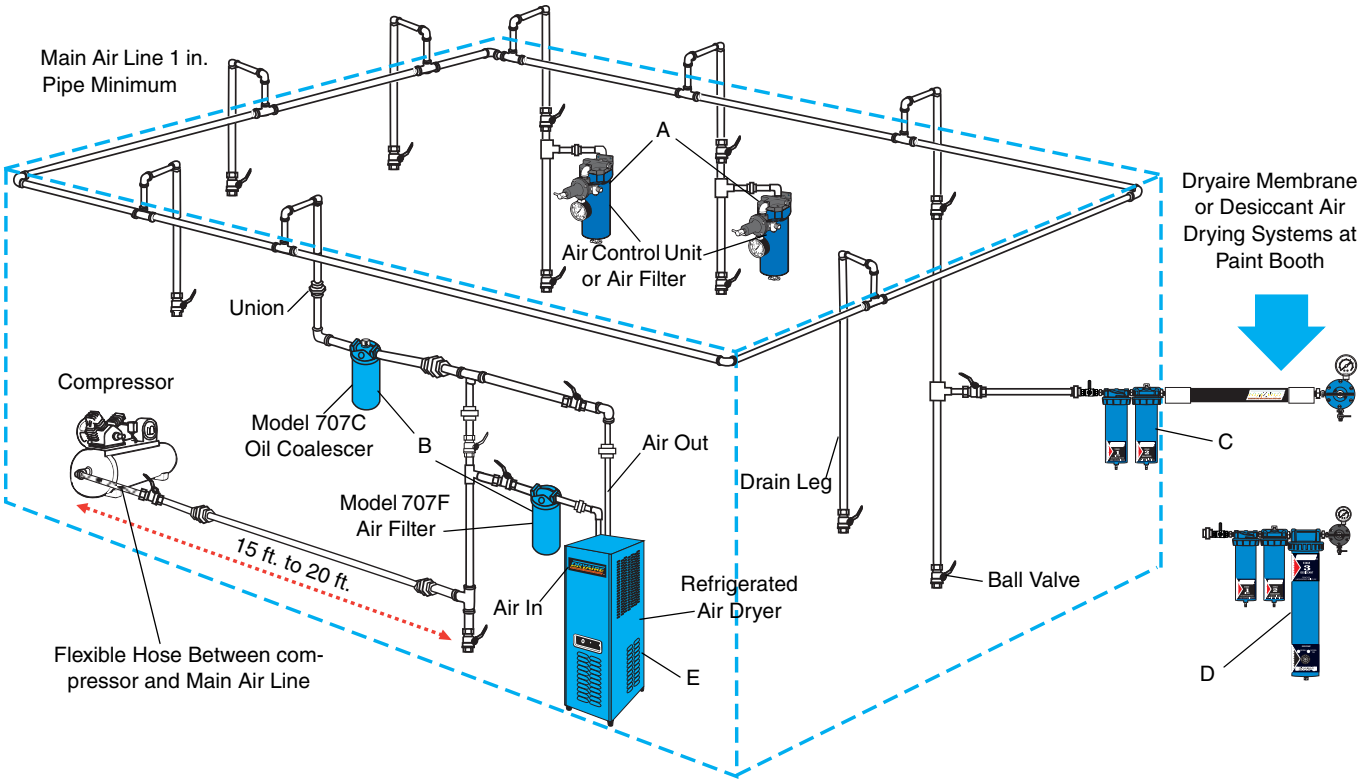


Ref. No.	Part No.	Description	Qty.
101	20985	Fluid Tube Assembly	1
102	20989	Bridge	1
103	20990	Lever	1
104	21855	Lid	1
105	20996	Washer; 1.25 dia.	1
106	20994	Gasket, 3.5 dia.	1
107	20995	Locking Nut	1
108	21860	No Drip Shield	1
109	6630	Canister	1
110	9997	Pressure Tube	1
111	21867	Elbow Fitting	1
112	21876	Relief Valve	1
113	21859	Check Valve Assembly	1

Part No. 1400



Ref. No.	Part No.	Description	Qty.
201	119077	Fluid Regulator Assembly Includes items 201a-201d	1
201a	9975	• Bonnet Assembly	1
201b	9978	• Top Spring	1
201c	9980	• Service Kit	1
201d		• Body	1
202	9995	Swivel Fitting	1
203	9990	Safety Valve	1
204	8205	Pressure Gauge	
205	9993	Inlet Fitting	1



Ref. Letter	Description	Model No.
A	Sharpe 606	U06710
	Sharpe 606A	U06720
	Sharpe 606B	6730
	Sharpe 880A	6950
	Sharpe F88	8130
B	707C	6930
	707F	6920
	707FC	6910
C	Dryaire Membrane	6770
D	Dryaire Desiccant	6760
E	Refrigerated Air Dryer	
	25CFM	6880
	35CFM	6885
	50CFM	6890
	75CFM	6895