

GX-7A™, GX-7® DI, and GX-7 400 Spray Guns

311321V
EN

For the application of non-flammable polyurethane foams, two-component coating systems (polyureas), and some two-component epoxy systems. For professional use only.

See page 3 for model information.

*3500 psi (24 MPa, 240 bar) Maximum Fluid Working Pressure
125 psi (0.86 MPa, 8.6 bar) Maximum Air Working Pressure*



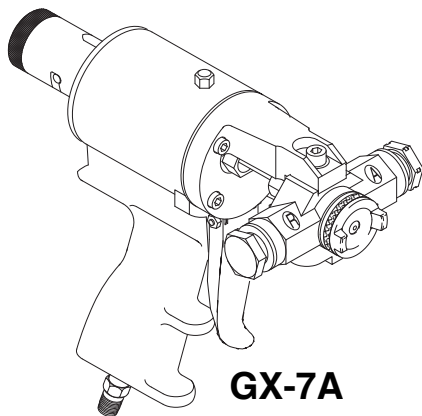
Important Safety Instructions

Read all warnings and instructions in this manual before using the equipment. Save these instructions.

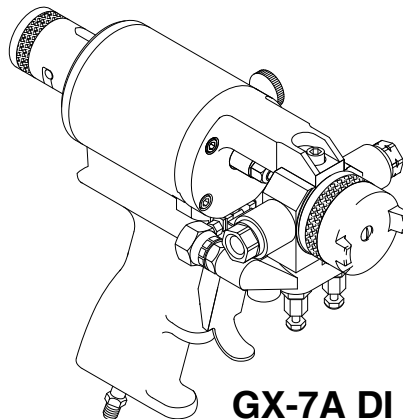


Important Medical Information

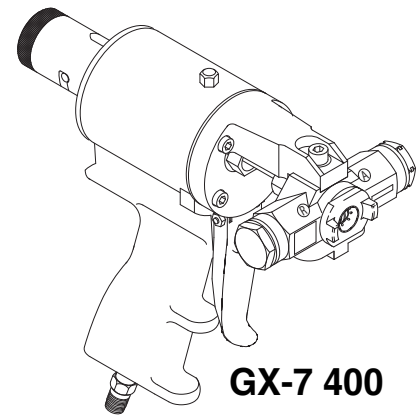
Read the medical alert card provided with the gun. It contains injection injury treatment information for a doctor. Keep it with you when operating the equipment.



GX-7A



GX-7A DI



GX-7 400

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Related Manuals

Manuals are available at www.graco.com









Manual in English	Description
311340	Gusmer [®] Gun Service Kits
311341	Gusmer Directional Valve Kit

Models

Part	Description	Includes:	
		Mix Module	Tip
295540	GX-7 400	296859 (451)	296853 (212)
295541	GX-7 DI - 4/213	296901 (4)	296706 (213)
295542	GX-7A - 1/90	296909 (1)	296712 (90)
295543	GX-7A - 10/210	296906 (10)	296704 (210)
295544	GX-7A - 3/70	296226 (3)	296710 (70)
295545	GX-7A - 5/70	296923 (5)	296710 (70)
25E217	GX-7A - A3 Slabjacking	296876 (A3)	Not included
25F046	GX-7A-A3 Slabjacking OEM	296566 (A3)	Not Included

Warnings

The following warnings are for the setup, use, grounding, maintenance, and repair of this equipment. The exclamation point symbol alerts you to a general warning and the hazard symbols refer to procedure-specific risks. When these symbols appear in the body of this manual or on warning labels, refer back to these Warnings. Product-specific hazard symbols and warnings not covered in this section may appear throughout the body of this manual where applicable.

 <h2 style="margin: 0;">WARNING</h2>	
	<p>TOXIC FLUID OR FUMES HAZARD</p> <p>Toxic fluids or fumes can cause serious injury or death if splashed in the eyes or on skin, inhaled or swallowed.</p> <ul style="list-style-type: none"> • Read Safety Data Sheets (SDSs) for handling instructions and to know the specific hazards of the fluids you are using, including the effects of long-term exposure. • When spraying, servicing equipment, or when in the work area, always keep work area well-ventilated and always wear appropriate personal protective equipment. See Personal Protective Equipment warnings in this manual. • Store hazardous fluid in approved containers, and dispose of it according to applicable guidelines.
	<p>PERSONAL PROTECTIVE EQUIPMENT</p> <p>Always wear appropriate personal protective equipment and cover all skin when spraying, servicing equipment, or when in the work area. Protective equipment helps prevent serious injury, including long-term exposure; inhalation of toxic fumes, mists or vapors; allergic reaction; burns; eye injury and hearing loss. This protective equipment includes but is not limited to:</p> <ul style="list-style-type: none"> • A properly fitting respirator, which may include a supplied-air respirator, chemically impermeable gloves, protective clothing and foot coverings as recommended by the fluid manufacturer and local regulatory authority. • Protective eyewear and hearing protection.
    	<p>SKIN INJECTION HAZARD</p> <p>High-pressure fluid from gun, hose leaks, or ruptured components will pierce skin. This may look like just a cut, but it is a serious injury that can result in amputation. Get immediate surgical treatment.</p> <ul style="list-style-type: none"> • Engage safety lock when not spraying. • Do not point gun at anyone or at any part of the body. • Do not put your hand over the spray tip. • Do not stop or deflect leaks with your hand, body, glove, or rag. • Follow the Pressure Relief Procedure when you stop spraying and before cleaning, checking, or servicing equipment. • Tighten all fluid connections before operating the equipment. • Check hoses and couplings daily. Replace worn or damaged parts immediately.

! WARNING



FIRE AND EXPLOSION HAZARD

Flammable fumes, such as solvent and paint fumes, in **work area** can ignite or explode. Paint or solvent flowing through the equipment can cause static sparking. 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 sparking).



- Ground all equipment in the work area. See **Grounding** instructions.
- Never spray or flush solvent at high pressure.
- Keep work area free of debris, including solvent, rags and gasoline.
- Do not plug or unplug power cords, or turn power or light switches on or off when flammable fumes are present.



- Use only grounded hoses.
- Hold gun firmly to side of grounded pail when triggering into pail. Do not use pail liners unless they are anti-static or conductive.
- **Stop operation immediately** if static sparking occurs or you feel a shock. Do not use equipment until you identify and correct the problem.
- Keep a working fire extinguisher in the work area.



EQUIPMENT MISUSE HAZARD

Misuse can cause death or serious injury.



- Do not operate the unit when fatigued or under the influence of drugs or alcohol.
- Do not exceed the maximum working pressure or temperature rating of the lowest rated system component. See **Technical Specifications** in all equipment manuals.
- Use fluids and solvents that are compatible with equipment wetted parts. See **Technical Specifications** in all equipment manuals. Read fluid and solvent manufacturer's warnings. For complete information about your material, request Safety Data Sheets (SDSs) from distributor or retailer.
- Turn off all equipment and follow the **Pressure Relief Procedure** when equipment is not in use.
- Check equipment daily. Repair or replace worn or damaged parts immediately with genuine manufacturer's replacement parts only.
- Do not alter or modify equipment. Alterations or modifications may void agency approvals and create safety hazards.
- Make sure all equipment is rated and approved for the environment in which you are using it.
- Use equipment only for its intended purpose. Call your distributor for information.
- Route hoses and cables away from traffic areas, sharp edges, moving parts, and hot surfaces.
- Do not kink or over bend hoses or use hoses to pull equipment.
- Keep children and animals away from work area.
- Comply with all applicable safety regulations.



BURN HAZARD

Equipment surfaces and fluid that is heated can become very hot during operation. To avoid severe burns:

- Do not touch hot fluid or equipment.



PRESSURIZED ALUMINUM PARTS HAZARD

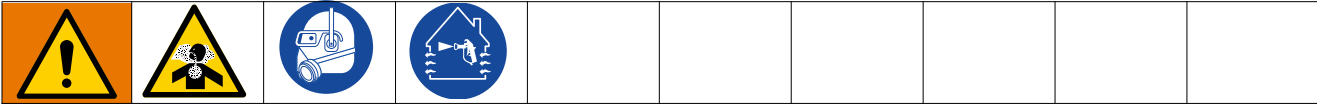
Use of fluids that are incompatible with aluminum in pressurized equipment can cause serious chemical reaction and equipment rupture. Failure to follow this warning can result in death, serious injury, or property damage.

- Do not use 1,1,1-trichloroethane, methylene chloride, other halogenated hydrocarbon solvents or fluids containing such solvents.
- Do not use chlorine bleach.
- Many other fluids may contain chemicals that can react with aluminum. Contact your material supplier for compatibility.

Important Isocyanate (ISO) Information

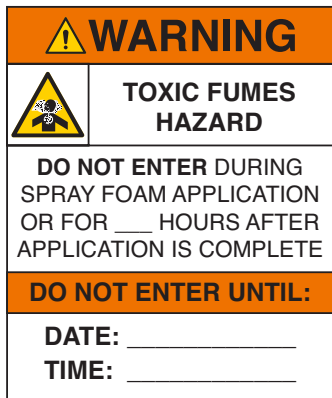
Isocyanates (ISO) are catalysts used in two component materials.

Isocyanate Conditions




Spraying or dispensing fluids that contain isocyanates creates potentially harmful mists, vapors, and atomized particulates.




- Read and understand the fluid manufacturer's warnings and Safety Data Sheets (SDSs) to know specific hazards and precautions related to isocyanates.
- Use of isocyanates involves potentially hazardous procedures. Do not spray with this equipment unless you are trained, qualified, and have read and understood the information in this manual and in the fluid manufacturer's application instructions and SDSs.
- Use of incorrectly maintained or mis-adjusted equipment may result in improperly cured material, which could cause off gassing and offensive odors. Equipment must be carefully maintained and adjusted according to instructions in the manual.
- To prevent inhalation of isocyanate mists, vapors and atomized particulates, everyone in the work area must wear appropriate respiratory protection. Always wear a properly fitting respirator, which may include a supplied-air respirator. Ventilate the work area according to instructions in the fluid manufacturer's SDSs.
- Avoid all skin contact with isocyanates. Everyone in the work area must wear chemically impermeable gloves, protective clothing and foot coverings as recommended by the fluid manufacturer and local regulatory authority. Follow all fluid manufacturer recommendations, including those regarding handling of contaminated clothing. After spraying, wash hands and face before eating or drinking.
- Hazard from exposure to isocyanates continues after spraying. Anyone without appropriate personal protective equipment must stay out of the work area during application and after application for the time period specified by the fluid manufacturer. Generally this time period is at least 24 hours.
- Warn others who may enter work area of hazard from exposure to isocyanates. Follow the recommendations of the fluid manufacturer and local regulatory authority. Posting a placard such as the following outside the work area is recommended:



Material Self-Ignition

				
Some materials may become self-igniting if applied too thick. Read material manufacturer's warnings and Safety Data Sheets (SDSs).				

Keep Components A and B Separate

				
Cross-contamination can result in cured material in fluid lines which could cause serious injury or damage equipment. To prevent cross-contamination:				
<ul style="list-style-type: none"> • Never interchange component A and component B wetted parts. • Never use solvent on one side if it has been contaminated from the other side. 				

Moisture Sensitivity of Isocyanates

Exposure to moisture (such as humidity) will cause ISO to partially cure, forming small, hard, abrasive crystal that become suspended in the fluid. Eventually a film will form on the surface and the ISO will begin to gel, increasing in viscosity.

NOTICE
Partially cured ISO will reduce performance and the life of all wetted parts.
<ul style="list-style-type: none"> • Always use a sealed container with a desiccant dryer in the vent, or a nitrogen atmosphere. Never store ISO in an open container. • Keep the ISO pump wet cup or reservoir (if installed) filled with appropriate lubricant. The lubricant creates a barrier between the ISO and the atmosphere. • Use only moisture-proof hoses compatible with ISO. • Never use reclaimed solvents, which may contain moisture. Always keep solvent containers closed when not in use. • Always lubricate threaded parts with an appropriate lubricant when reassembling.

NOTE: The amount of film formation and rate of crystallization varies depending on the blend of ISO, the humidity, and the temperature.

Foam Resins with 245 fa Blowing Agents

Some foam blowing agents will froth at temperatures above 90°F (33°C) when not under pressure, especially if agitated. To reduce frothing, minimize preheating in a circulation system.

Changing Materials

NOTICE
Changing the material types used in your equipment requires special attention to avoid equipment damage and downtime.
<ul style="list-style-type: none"> • When changing materials, flush the equipment multiple times to ensure it is thoroughly clean. • Always clean the fluid inlet strainers after flushing. • Check with your material manufacturer for chemical compatibility. • When changing between epoxies and urethanes or polyureas, disassemble and clean all fluid components and change hoses. Epoxies often have amines on the B (hardener) side. Polyureas often have amines on the B (resin) side.

Component Identification

Model GX-7A

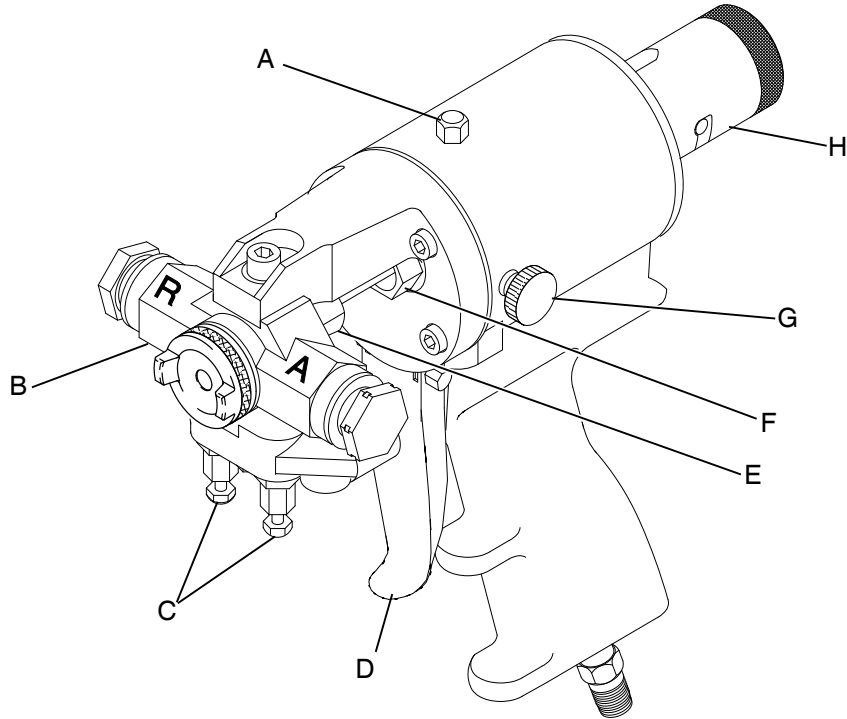


FIG. 1

Key

- A Forward Stop Locknut
- B Gun Block
- C Manual Valve
- D Trigger

Key

- E Rear Packing Nut
- F Valving Rod Forward Stop
- G Air Cap Adjustment Valve
- H Safety Lock

Model GX-7 DI

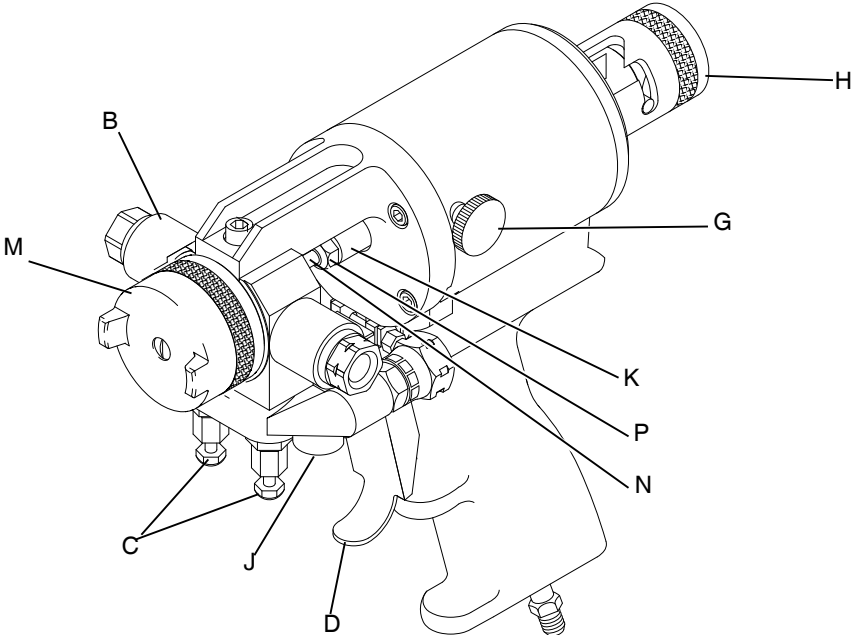


FIG. 2

Key

- B Gun Block
- C Manual Valve
- D Trigger
- G Air Cap Adjustment Valve
- H Safety Lock

Key

- J Coupling Block
- K Piston Rod
- M Air Cap
- N Valving Rod
- P Lock Nut

Model GX-7 400

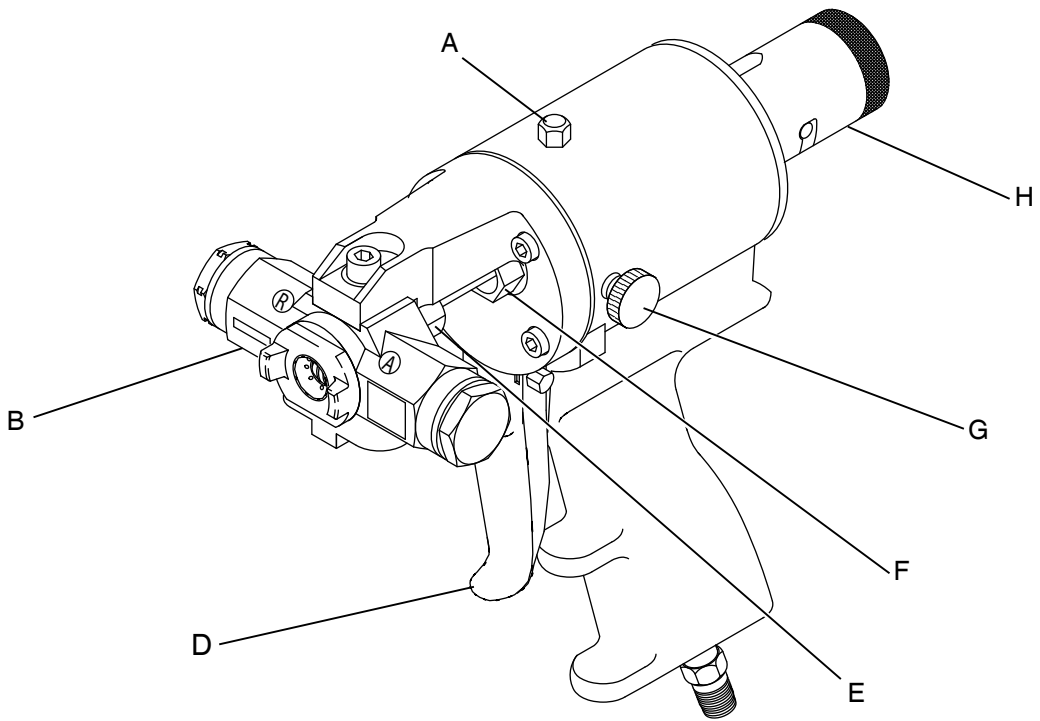


FIG. 3

Key

- A Forward Stop Locknut
- B Gun Block
- D Trigger
- E Rear Packing Nut

Key

- F Valving Rod Forward Stop
- G Air Cap Adjustment Valve
- H Safety Lock

Centerline Components

Model GX-7A

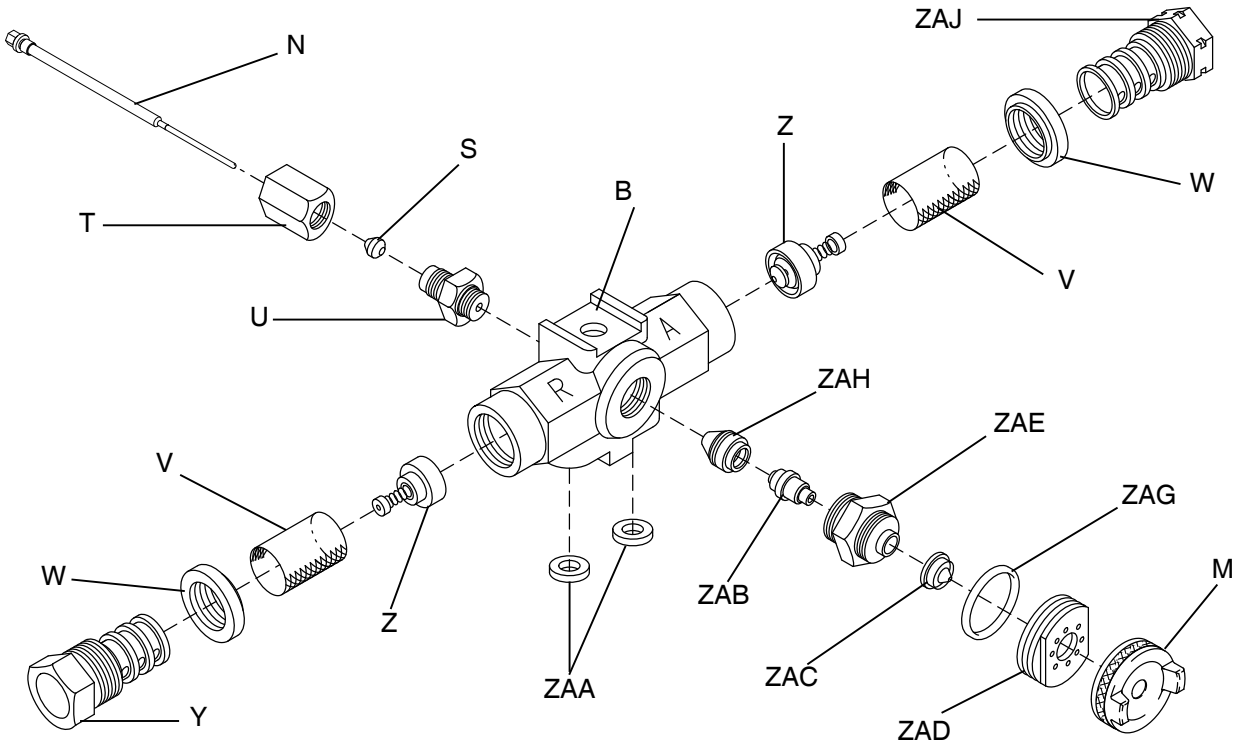


FIG. 4

Key

- B Gun Block
- N Valving Rod
- M Air Cap
- S Rear Packing
- T Rear Seal Retainer
- U Rear Packing Retainer
- V Screen
- W Screen Screw Seal
- Y R-Screen Screw

Key

- Z Check Valve
- ZAA Coupling Block Gasket
- ZAB Front Packing
- ZAC Pattern Control Disc (PCD)
- ZAD PCD Retainer
- ZAE PCD Body
- ZAG O-ring
- ZAH Mixing Module
- ZAJ A-Screen Screw

Model GX-7 DI

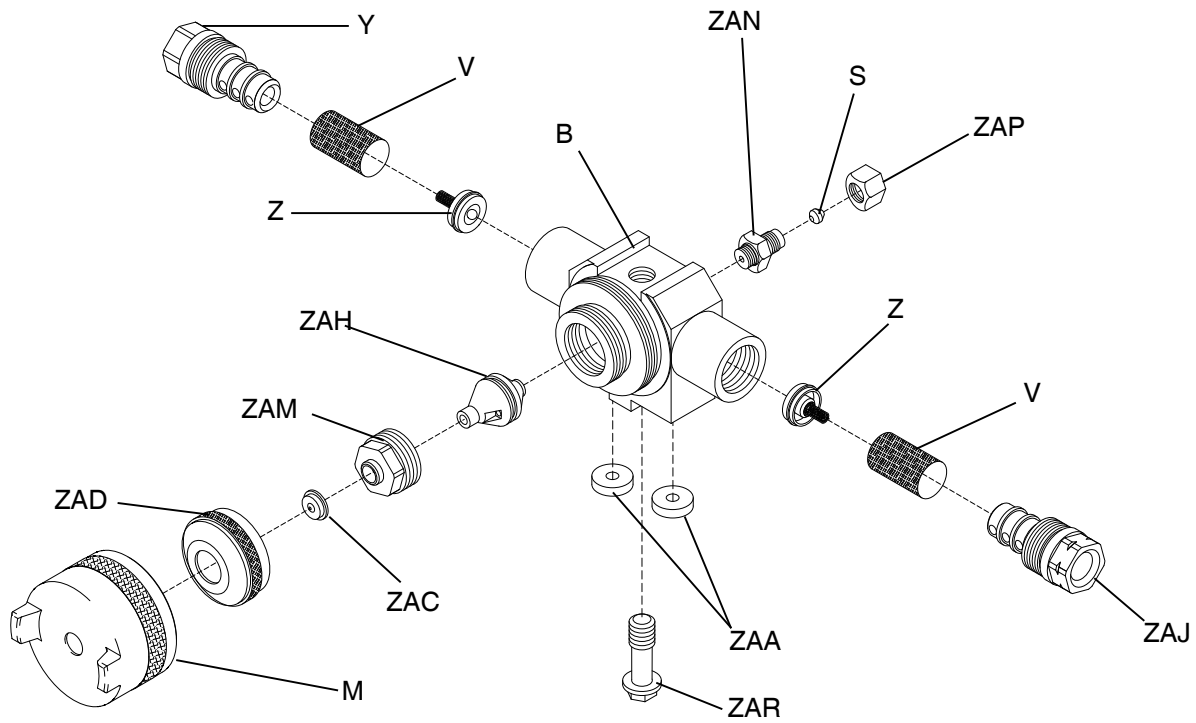


FIG. 5

Key

- B Gun Block
- M Air Cap
- S Rear Packing
- V Screen
- Z Check Valve
- ZAA Coupling Block Gasket
- ZAC Pattern Control Disc (PCD)

Key

- ZAD PCD Retainer
- ZAJ A-Screen Screw
- ZAH Mixing Module
- ZAM Mixing Module Retainer
- ZAN Rear Seal Gland
- ZAP Rear Seal Retainer Assembly
- ZAR Coupling Block Mounting Screw

Model GX-7 400

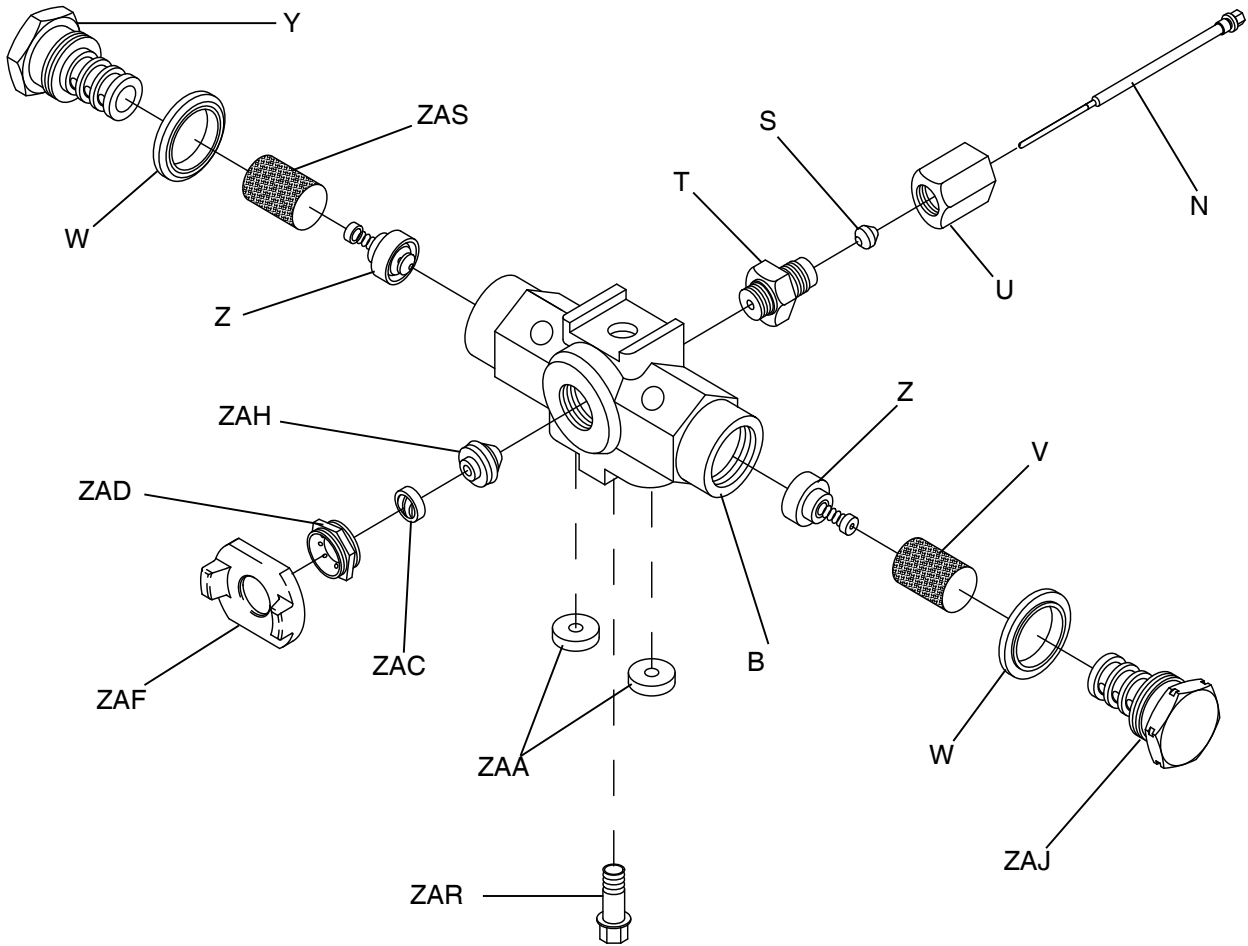


FIG. 6

Key

- B Gun Block
- M Air Cap
- N Valving Rod
- S Rear Packing
- T Rear Seal Retainer
- U Rear Packing Retainer
- V Screen
- W Screen Screw Seal
- Y R-Screen Screw

Key

- Z Check Valve
- ZAA Coupling Block Gasket
- ZAC Pattern Control Disc (PCD)
- ZAD PCD Retainer
- ZAH Mixing Module
- ZAJ A-Screen Screw
- ZAR Coupling Block Mounting Screw
- ZAS Spring

Mixing Module

All gun models employ the concept of impingement mixing through the use of a single-part MIXING MODULE. This system is cleaned by a mechanical self-cleaning process, eliminating the need for solvent or air purging between dispenses.

The gun can be assembled with either a round or flat mixing module, depending on the type of system used to spray. The Set-Up Charts on pages 48 and 50 show several of the more common sets of these configurations.

The Mixing Module, in combination with a Pattern Control Disc (PCD) (ZAC), produce a thoroughly mixed chemical and reliable spray patterns. The module can be set up to spray at its maximum rated output. Additionally, by changing to a smaller PCD the module can spray at the low outputs and pressures that are required for detail work.

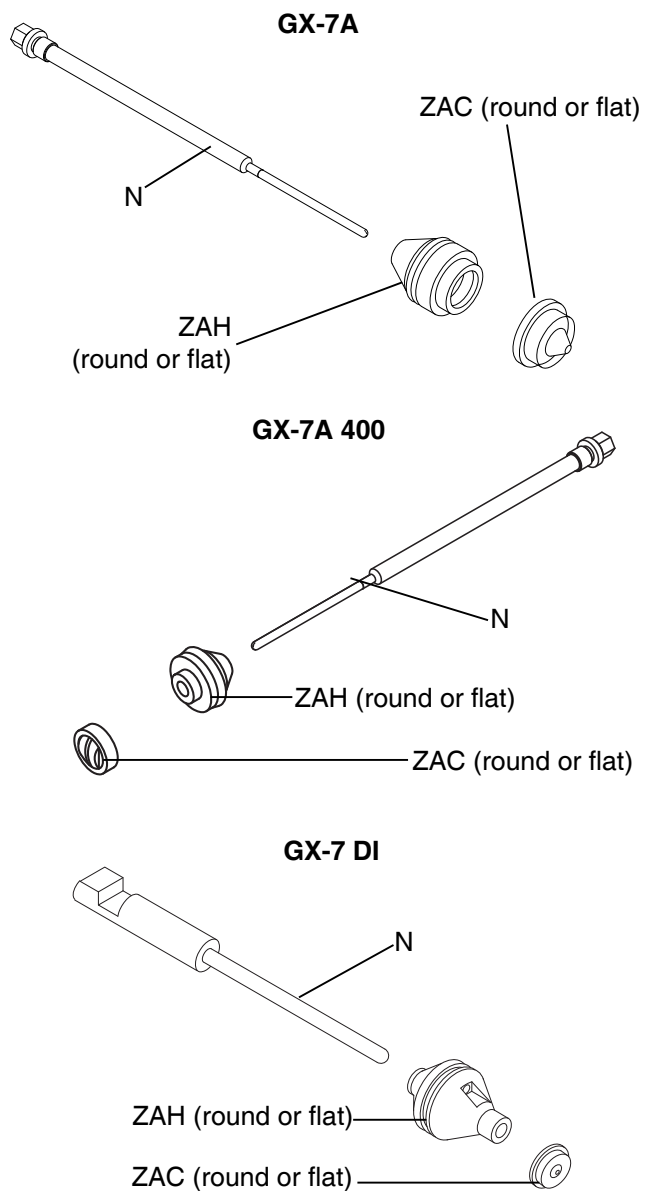


FIG. 7 Mixing Modules

Operation

To prevent accidental gun operation, always disconnect air supply before servicing gun or anytime gun is not in use.				

Grounding

The equipment must be grounded to reduce the risk of static sparking. Static sparking can cause fumes to ignite or explode. Grounding provides an escape wire for the electric current.				

Follow local codes, regulations, and your proportioner manual for detailed grounding instructions.

Spray gun: ground the spray gun through connection to a properly grounded fluid hose and pump.

Air Hose Connection

To connect air hoses: pull back the sleeve of the female fitting, insert the male fitting and slide the sleeve forward to secure connection.

To disconnect air hoses: pull back the sleeve of the female fitting and pull out the male fitting.

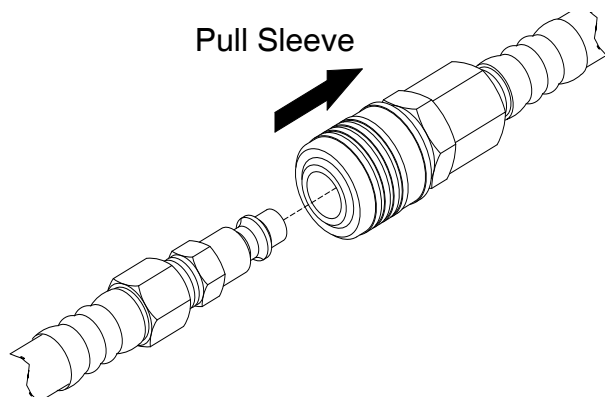


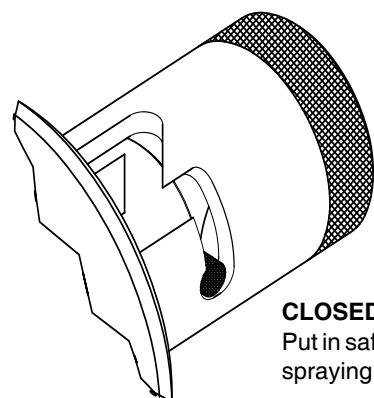
FIG. 8

Safety Lock

High-pressure fluid from dispensing devices can pierce skin. To help prevent serious injury from pressurized fluid, always engage the piston safety lock and close the material shutoff valves to avoid accidental triggering whenever you stop spraying.				

The CLOSED (SERVICE) position will not allow the gun to discharge. The OPEN position allows the gun to dispense. Whenever the gun is not spraying, set to CLOSED (SERVICE) position.

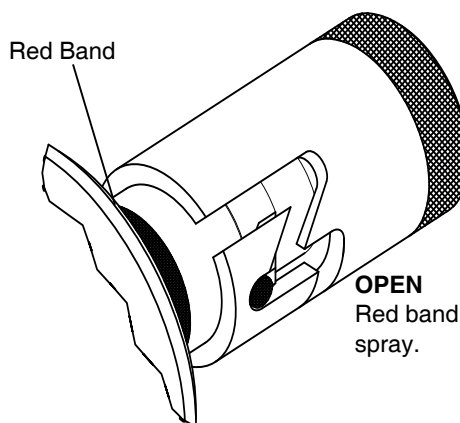
To engage safety lock: push in and turn the safety lock clockwise to place the gun in CLOSED (SERVICE) position.



CLOSED (SERVICE)
Put in safety position when not spraying.

FIG. 9: Safety Lock - Closed

To disengage safety lock: push in and turn the safety lock counterclockwise to place the gun in OPEN position (red band is exposed).



OPEN
Red band exposed to spray.

FIG. 10: Safety Lock - Open

Manual Valves

NOTE: Triggering the gun with the manual valves (C) closed may cause crossover if the gun ports contain residual chemical.

Closing the manual valves (C) prevents chemicals in heated hoses from entering the gun. Close the manual valves before servicing gun.

<p>Never open manual valves (C) unless coupling block (J) is secured to gun or exit port is directed into flush pail.</p>				

To open the manual valves (C): Use a 5/16 in. nut driver to turn the manual valve counterclockwise three full turns. Do not open until it bottoms out.

To close the manual valves (C): turn the manual valves clockwise until tight.

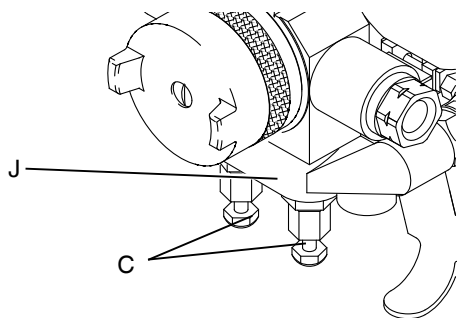


FIG. 11 Manual Valves

Coupling Block

Chemical hoses are joined to the gun block (B) by the coupling block (J) to ease installation and removal of the gun.

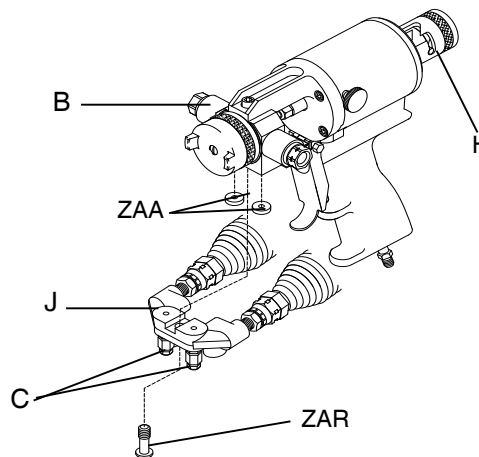


FIG. 12 Coupling Block

Install Coupling Block


1. Inspect the coupling block (J) gaskets for damage and wear. Replace if necessary.
2. With gaskets in place, fit the coupling block (J) to the gun block (B).
3. Insert the coupling block (J) mounting screw and tighten securely with a 5/16 in. nut driver.

Remove Coupling Block

<p>To prevent release of pressurized chemical, close both manual valves (C) before removing coupling block (J).</p>				

1. Set the safety lock (H) to CLOSED (SERVICE).
2. Disconnect the air hose.
3. Close both manual valves (C).
4. Remove the coupling block (J) mounting screw.
5. Separate the coupling block (J) from the gun.
6. Wipe the mating surfaces of the gun block (B) and coupling block (J) to remove residual chemical.
7. Cover exposed openings with grease.

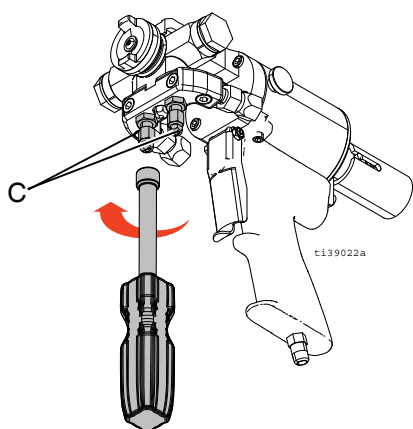
Pressure Relief Procedure

 Follow the Pressure Relief Procedure whenever you see this symbol.

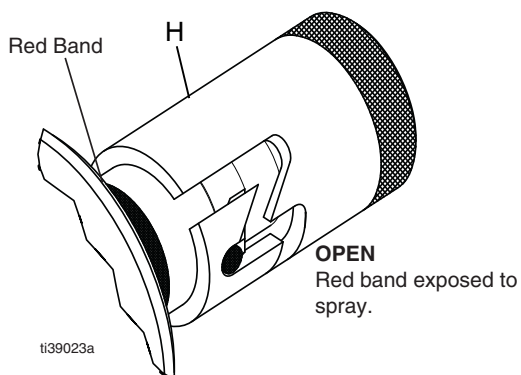


This equipment stays pressurized until pressure is manually relieved. To help prevent serious injury from pressurized fluid, such as skin injection or splashing fluid, follow the Pressure Relief Procedure when you stop spraying and before cleaning, checking, or servicing the equipment.

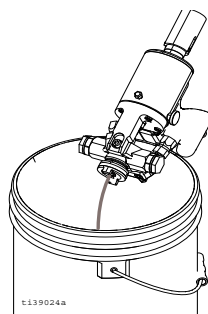
1. Close both manual valves (C).



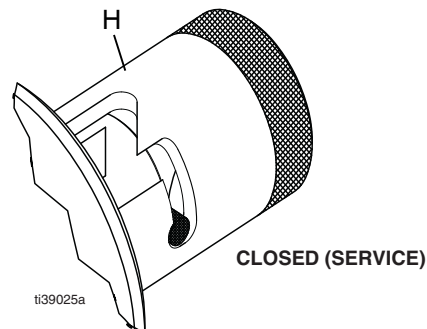
2. Set the safety lock (H) to OPEN.



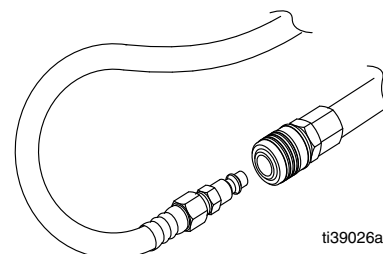
3. Trigger the gun once onto waste area to relieve fluid pressure in front end of the gun.



4. Set the safety lock (H) to CLOSED (SERVICE).



5. Disconnect the gun air supply.



NOTE: If the gun is removed from the coupling block (J), follow **Clean Spray Gun**, page 24.

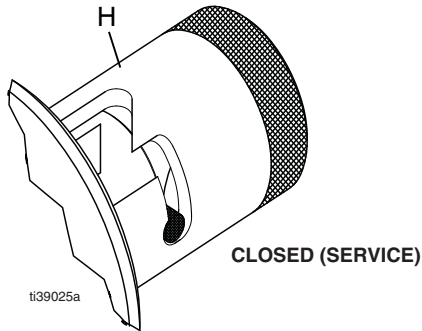
NOTE: After the pressure in the spray gun is relieved, the fluid in the hose and proportioner remains under pressure. Follow the **Pressure Relief Procedure** in your proportioner manual to relieve pressure in the system.

Flush Gun

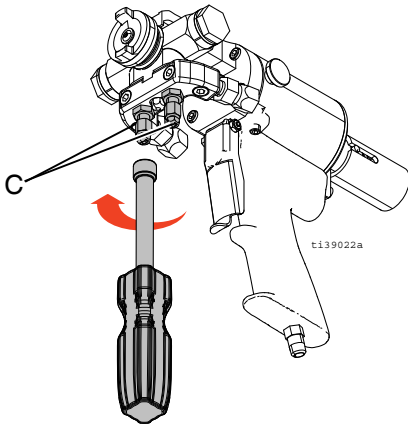


To avoid fire and explosion, always ground equipment and waste container. To avoid static sparking and injury from splashing, always flush at the lowest possible pressure.

1. Set the safety lock (H) to CLOSED (SERVICE).



2. Close both manual valves (C).

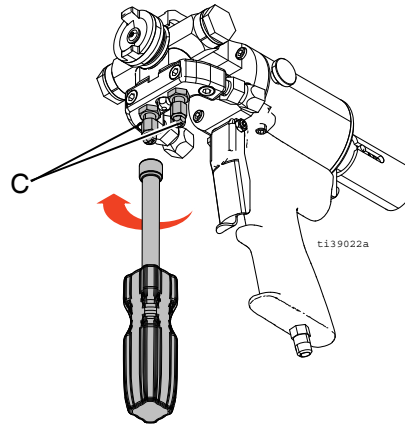


3. Loosen the R-screen screw (Y) and then remove by hand.
4. Use a flush can to thoroughly flush the screen screw and screen screw cavity.
5. Loosen the A-Screen screw (ZAJ) and then remove by hand.
6. Use a flush can to thoroughly flush the screen screw and screen screw cavity.
7. Service the gun by following **Maintenance** procedures, page 24.

Initial Set Up



1. Remove the coupling block (J) from the gun. Follow **Remove Coupling Block**, page 16.
2. Install the female quick disconnect fitting to the air supply hose bundled with the chemical supply hoses.
3. Connect A-isocyanate hose (red-taped) to the notched fitting on coupling block (J). Then connect B-resin hose (blue-taped) to the fitting without notches on coupling block.
4. Close both manual valves (C).

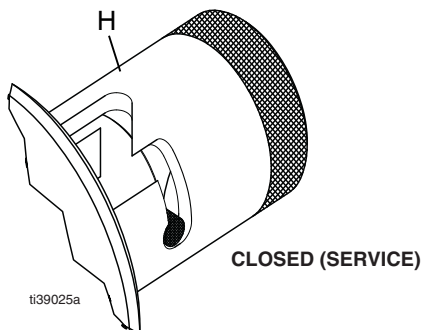


5. Pressurize the A and B chemical hoses and check for leaks. (Refer to your proportioning system manual.)
6. Bleed air from chemical hoses.
 - a. Use separate waste containers for A-ISO and B-Resin.
 - b. Hold the coupling block (J) with exit ports pointed into waste container.
 - c. Open the manual valves (C) one at a time to dispense into waste container.
 - d. Bleed each side until chemical leaving hoses is free of air.
 - e. Close both manual valves (C).

- Use a clean cloth soaked in gun cleaner to wipe clean the coupling block (J) and mating surfaces.

NOTE: To avoid accumulation of dirt and other contaminants, do not apply grease to mating surfaces of the coupling block (J).

- Set the safety lock (H) to CLOSED (SERVICE).



- Install the coupling block (J) to the gun. Follow **Install Coupling Block**, page 16.

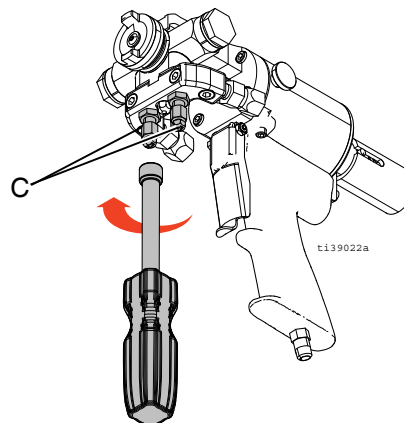
- Proceed with **Daily Start-up** and **Daily Shutdown** procedures on page 19.

Daily Start-up

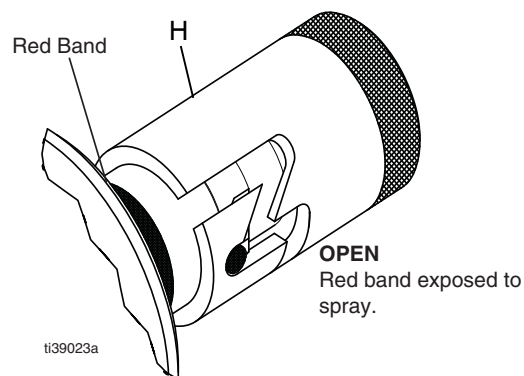


Ensure the gun is attached to the coupling block (J) and air hose, and the proportioning unit is at desired temperature and pressure.

- Connect the air supply to gun.
- Adjust the air cap (M) adjustment valve (G). Turn the knob counterclockwise to open valve and clockwise to close valve
- Adjust the rear seal retainer (T).
- Close both manual valves (C).

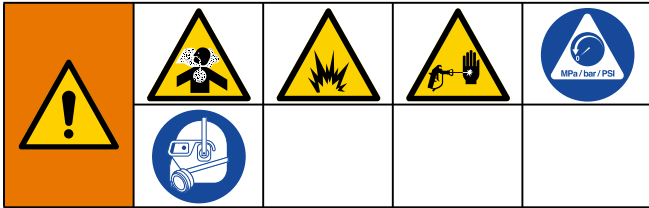


- Set the safety lock (H) to OPEN.



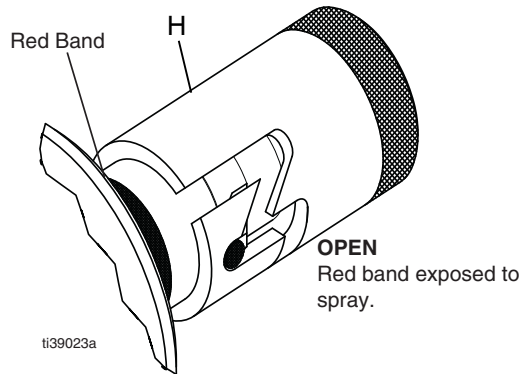
- Test spray on a disposable surface and adjust the spray pattern as needed.

Daily Shutdown



NOTE: Follow when gun is out of service for any length of time. Daily disassembly of gun for cleaning is not recommended if it has been operating properly. However, if you remove the gun from the coupling block (J), flush and clean thoroughly.

1. Perform the **Pressure Relief Procedure**, page 17.
2. Set the safety lock (H) to OPEN.



3. Disconnect the air supply from the gun.
4. Shutdown the proportioning unit as required. See your Proportioner manual, **Related Manuals**, page 2.
5. Clean the gun required. See **Clean Spray Gun**, page 24.

NOTE: Do not disassemble the gun daily for cleaning if it is operating properly. However, if the gun is removed from the coupling block (J), it must be flushed and cleaned thoroughly.

Optional Configuration



Refer to **Coupling Block Assembly (295383)**, page 46. If bottom-mount hose connection is desired, alternate the swivel fitting (2 and 3) with pipe plugs (1). Use pipe thread sealant. Do not cross-over which side each fitting is on.

Air Inlet Configuration

There are two configurations for the air inlet. In the standard configuration the air inlet is at the base of the handle, and in the alternate configuration the air inlet is at the rear of the gun.

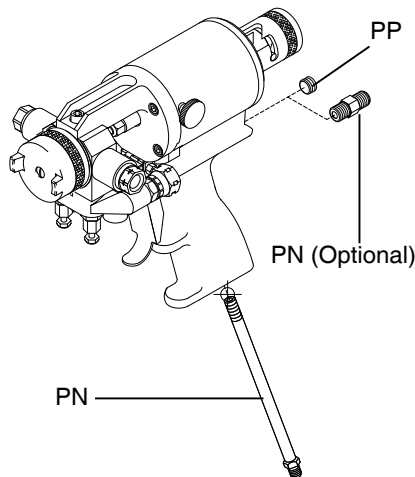


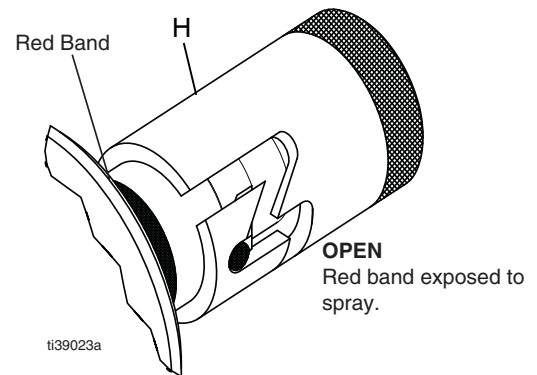
Fig. 13 Air Inlet Configurations

To change to alternate configuration:

1. Perform the **Pressure Relief Procedure**, page 17.
2. Remove the pipe nipple (PN).
3. Remove the pipe plug (PP) from rear of the gun.
4. Install the pipe plug (PP) in location previously occupied by the pipe nipple (PN).
5. Install the pipe nipple (PN) in location previously occupied by the pipe plug (PP).

Install Mixing Module

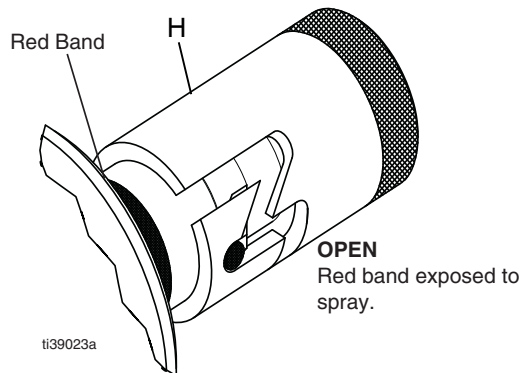
1. Perform the **Pressure Relief Procedure**, page 17.
2. Disconnect the gun from the coupling block (J). Follow **Remove Coupling Block**, page 16.
3. Connect the air supply to the gun.
4. Set the safety lock (H) to OPEN.



5. Pull the trigger (D) and place the module over the tip of valving rod (N). See , page 13.
6. **GX-7 DI model only:** Align keying pin with hole in gun block (B) and push in firmly.
7. **GX-7A model only:** Install front packing (ZAB) into module retainer.
8. **GX-7A model only:** Install PCD body (ZAE) and hand tighten. Release trigger (D).
9. **GX-7 DI model only:** Install module retainer and hand tighten. Release trigger (D).
10. **GX-7A model only:** Use wrench to strongly tighten PCD body (ZAE) (250 in.-lbs.).
11. **GX-7 DI model only:** use wrench to tighten module retainer (150 in.-lbs.). **DO NOT OVERTIGHTEN.**

Install PCD

1. Perform the **Pressure Relief Procedure**, page 17.
2. Disconnect the air supply from the gun.
3. **GX-7 model only:** Loosen the forward stop screw.
4. **GX-7 model only:** Turn the forward stop nut (A) clockwise (as viewed from front of gun) 1-2 turns. Make sure the valve rod is exposed.
5. Slightly loosen the rear seal retainer assembly (ZAP).
6. Remove the safety lock (H).
7. **GX-7 DI model only:** Use wrench to loosen the piston locknut. Turn the valving rod (N) rearward as far as it will turn.
8. Place and orient the PCD (ZAC) over the mixing module retainer (ZAM) or the PCD body (ZAE).
9. Connect the gun to air pressure. Adjust the valve rod (GX-7 DI) or cylinder front stop (GX-7) until the tip of the rod is just touching the PCD (ZAC). The PCD should be seated flat on the mixing module (ZAH) or PCD body (ZAE).
10. **GX-7 DI model only:** Install PCD retainer (ZAD) and hand tighten.
11. **GX-7 model only:** Install PCD retainer (ZAD) and wrench tighten.
12. Adjust the valving rod (N). Follow **Adjust Valving Rod**, page 23, for the appropriate gun model.
13. Set the safety lock (H) to OPEN.



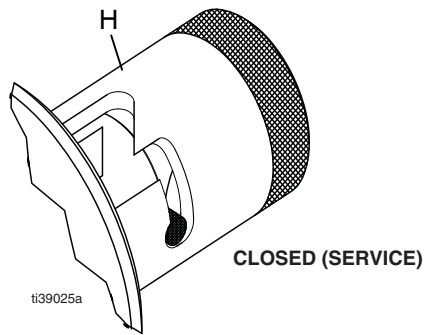
Check Adjustment of Valving Rod

1. With the air supply connected, pull the gun trigger (D) and loosen the PCD retainer (ZAD). Release the trigger.
2. Hand tighten the PCD retainer (ZAD).
3. While maintaining tightening torque, trigger the gun. The retainer should rotate approximately 1/10 of turn.
4. Release the trigger (D).

Adjust Valving Rod

GX-7A and GX-7 400 Models Only

1. Perform the **Pressure Relief Procedure**, page 17.
2. Set the safety lock (H) to CLOSED (SERVICE).



3. If attached, turn both manual valves (C) fully clockwise to close

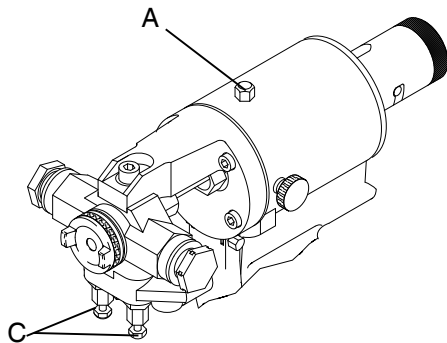


Fig. 14 Adjust the Valving Rod

4. Connect the air line from the gun to the air source to pressurize the air cylinder forward to the CLOSED position.
5. Loosen the forward stop locknut (A).
6. Completely loosen the forward stop locknut (A) by turning fully counterclockwise.
7. Slowly tighten the forward stop locknut (A) by turning clockwise until a snug resistance is felt.

8. Loosen the forward stop locknut (A) with approximately 1/6 of a counterclockwise turn.

NOTE: As a reference point, movement of one wrench flat corresponds to 1/6 turn.

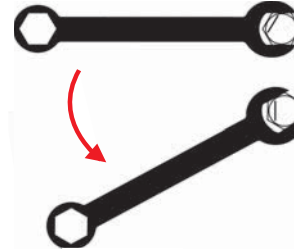


Fig. 15 1/6 Turn of Flat Wrench

9. Tighten the forward stop locknut (A). Do not overtighten. If locknut bottoms out before resistance is felt, replace friction plug.

GX-7 DI Model Only

The valving rod (N) requires adjustment in only the following instances:

- disassembly and service of the air cylinder
- changing the valving rod (N)
- changing the mixing module (ZAH)

1. Clean the gun according to **Clean Spray Gun**, page 24.
2. Connect the air supply to the gun.
3. Loosen the rear seal retainer assembly (ZAP) one or two turns.
4. Loosen the locknut from the valving rod (N) three or four turns.
5. Set the safety lock (H) to OPEN.
6. Use a 5/16 in. nut driver through rear of the gun to thread the valving rod (N) forward to engage the PCD (ZAC). When the valving rod contacts the PCD, tighten another 1/10 turn.
7. Carefully maintain position of the valving rod (N) and tighten the locknut against the piston rod (K).
8. Retighten the rear seal retainer assembly (ZAP).

Maintenance

Use supplied tool kit 296835. See **Tool Kit**, page 52.

Gun Service Kits

Use either the 1-Quart Gun Service Kit (296980) or 3-Gallon Gun Service Kit (296981) to perform daily flushing of spray gun without disassembly.

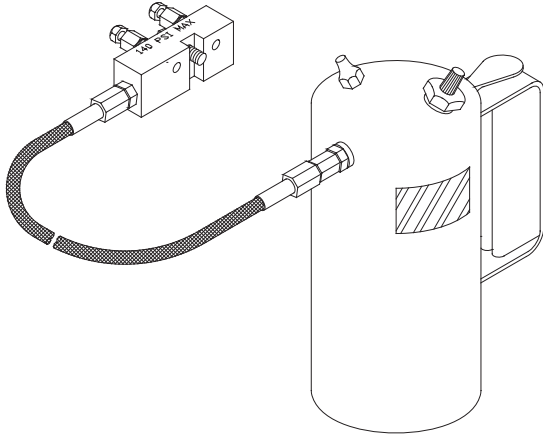


FIG. 16: 1-Quart Gun Service Kit

Refer to 1-Quart Gun Service Kit instructions in your Gusmer Gun Service Kits manual. See **Related Manuals**, page 2.

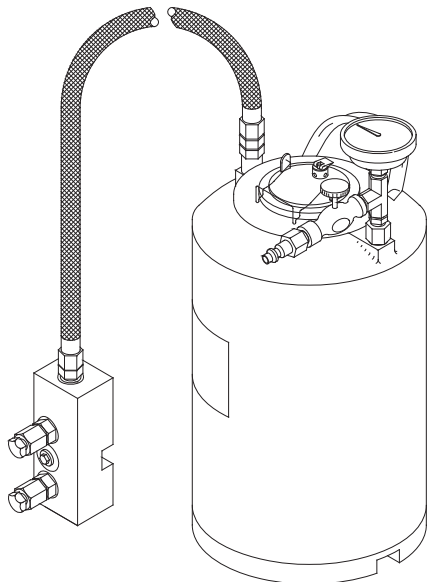
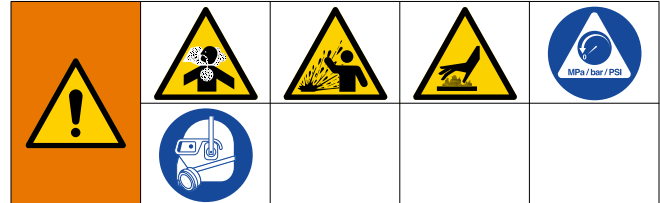


FIG. 17: 3-Gallon Gun Service Kit

Refer to 3-Gallon Gun Service Kit instructions in your Gusmer Directional Valve Kit manual. See **Related Manuals**, page 2.

Clean Spray Gun

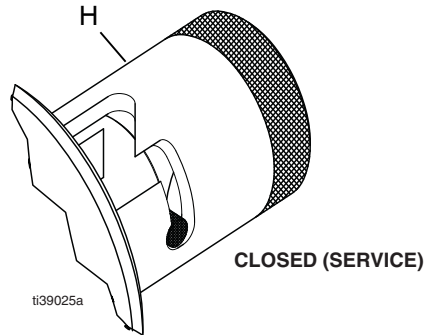


Chemicals used while spraying may cause the gun surface to become hot to touch. Thoroughly flush the gun block (B) with gun cleaner before removing the valving rod (N) or mixing components from the gun block. Also allow chemicals in the spray gun to cool before cleaning.

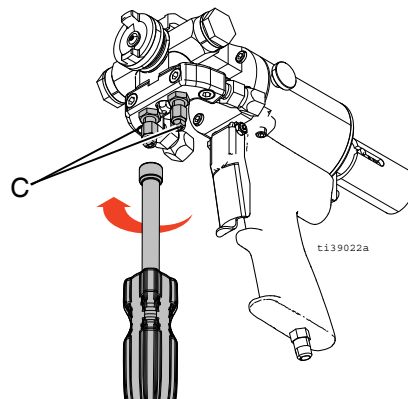
Thoroughly flush the gun block (B) with gun cleaner before removing the valving rod (N) or mixing components from the gun block. Also allow chemicals in the spray gun to cool before cleaning.

This procedure makes use of the 1-Quart or 3-Gallon Gun Service Kit.

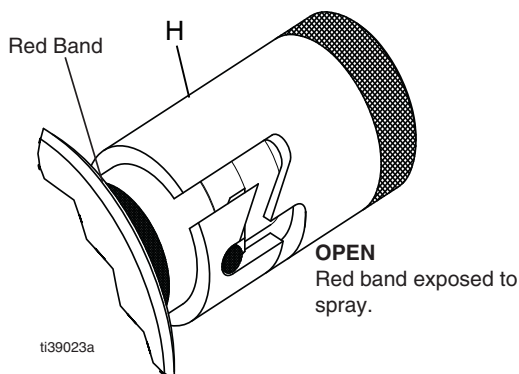
1. Perform the **Pressure Relief Procedure**, page 17.
2. Set the safety lock (H) to **CLOSED (SERVICE)**.



3. Close both manual valves (C).









4. Remove the gun from the coupling block (J). Follow **Remove Coupling Block**, page 16.
5. Attach the service block of the gun service kit to the spray gun, and then tighten using a 5/16 in. nut driver.
6. Pressurize Service Kit container up to 100 psi. **DO NOT EXCEED 100 psi (0.7 MPa, 7 bar)**.
7. Open one manual valve (C) on service block.
8. Connect air to the gun.
9. Set the safety lock (H) to OPEN.



10. Hold the gun against a grounded waste container.
11. Trigger the gun while holding against a grounded waste container until there is a fine, unobstructed mist of gun cleaner.
12. Release the trigger (D) of the gun and 1-quart kit, and close manual valves (C) on the service block.
13. Repeat steps 5-7 for other side of the gun.
14. After initial cleaning, remove the air cap (M), PCD retainer (ZAD), and PCD (ZAC). Flush a second time to ensure thorough cleaning.
15. Remove the service block of the gun service kit from the spray gun.
16. Set the safety lock (H) to CLOSED (SERVICE).
17. Disconnect the air supply.
18. Clean screens (V), check valves (Z) and screen screw (Y, ZAJ) as required. See **Service Screen Screw**, page 26.

NOTE: Inspect the air cap (M), mixing chamber, and gun block (B) for build up of material and clean as required. Do not use metal cleaning devices to clean plastic components.

Repair

Shut down the proportioner and allow chemicals to cool before performing any repair procedures.

NOTE: Clean A and B components in separate containers to avoid cross contamination.

Service Screen Screw

1. Flush the gun according to **Flush Gun**, page 18.
2. Unthread the screen screw (Y, ZAJ) from the gun block (B).
3. Remove the check valve (Z) from the screen screw (Y, ZAJ). Clean the valve with gun cleaner and inspect for damage. Replace if necessary.
4. Remove the screen (V) from the screen screw (Y, ZAJ). Soak in gun cleaner or replace if clogged or dirty.
5. Clean the screen screw cavity. If **any** particles are visible, clean with clean out drills and flush with gun cleaner.

NOTICE

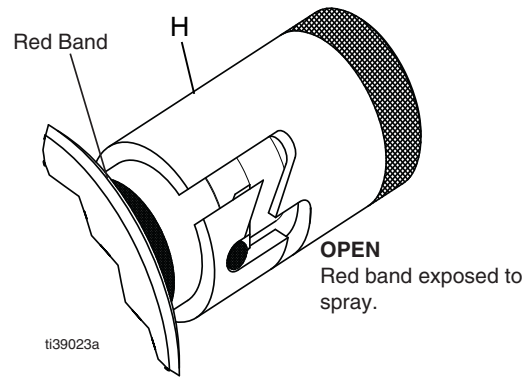
Any material left in the cavity on downstream side of screen (V) will clog the mixing module (ZAH).

6. Inspect the screen screw seal (W) for damage. Replace if necessary.
7. Reinstall the screen screw (Y, ZAJ) in gun block (B). Make sure it is tight.
8. Flush the gun with the mixing module (ZAH) removed.

Remove and Service Centerline Components

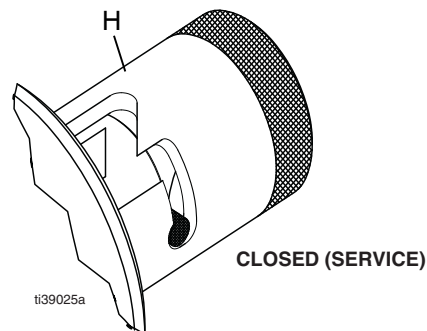
Refer to **Centerline Components**, page 11, for diagrams of centerline components for all gun models.

1. Flush the gun according to **Flush Gun**, page 18.
2. Connect the air supply to the gun.
3. Set the safety stop (H) to OPEN.



4. Remove the air cap (M).
5. Trigger the gun and hold it to relieve pressure on the PCD retainer (ZAD).
6. Remove the PCD retainer (ZAD) by turning it counterclockwise.
7. Remove the PCD (ZAC) from the mixing module retainer (ZAM).

NOTE: To remove the PCD (ZAC) that is stuck, set the safety lock (H) to OPEN, depress and release the gun trigger (D) to unseat it. Set the safety lock to CLOSED (SERVICE).



8. Remove the mixing module retainer (ZAM).

9. Set the safety lock (H) to OPEN. Depress and release the gun trigger (D) to unseat it. Remove the mixing module (ZAH) off end of the valving rod (N). Set the safety lock to CLOSED (SERVICE).

NOTICE

Do not use sharp objects or metal tools to remove mixing module (ZAH).

10. Loosen the rear packing nut (E) 1-2 turns.
11. Push the safety lock (H) partially forward, rotate it counterclockwise, and slide off the air cylinder.
12. Remove the valving rod (N).
 - a. Depress the trigger (D) lever and hold.
 - b. **GX-7 DI model only:** loosen the piston stop locknut until it disengages from thread on the valving rod (N).
 - c. Use a 5/16 in. nut driver to unthread the valving rod (N) from the rear of gun.
 - d. When threads disengage remove assembly by hand.

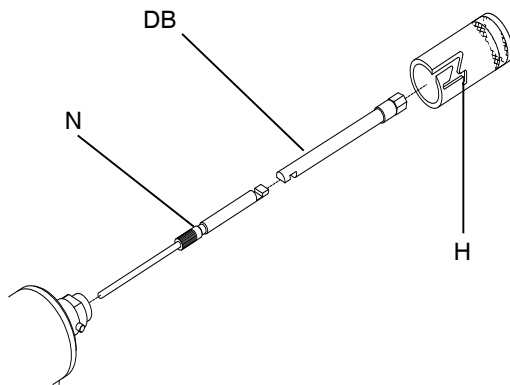


FIG. 18 Remove Valving Rod (GX-7 DI model)

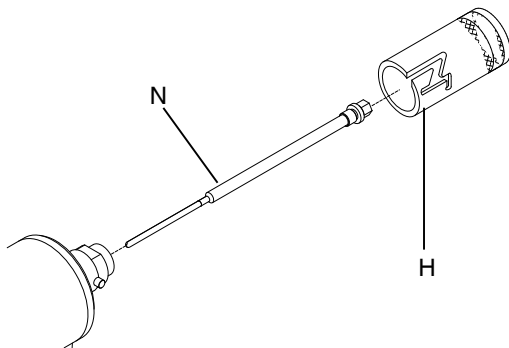


FIG. 19 Remove Valving Rod (GX-7A and GX-7 400 models)

13. Inspect the valving rod (N) for damage and replace as required. Clean and remove any buildup of mixed material from the rod using cloth soaked in gun cleaner or fine steel wool.

NOTE: If the valving rod (N) is replaced, it is recommended to reset the forward stop. See **Adjust Valving Rod**, page 23.

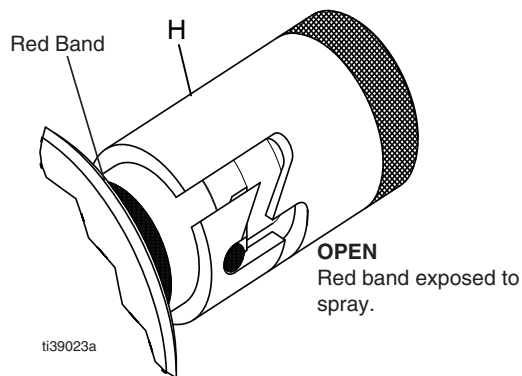
14. Disconnect the air supply.
15. Remove the gun block (B) retaining screw. Carefully slide the gun block away from the air cylinder. If dried chemical is built up on the gun block, remove dried chemical before you remove the gun block.
16. Clean all components thoroughly. Use brushes and clean-out tools to remove residual chemical from metal components. Use cotton swabs soaked in gun cleaner to clean plastic components.
17. Coat threads and mating surfaces of the gun block (B) and the gun block bracket with Lubriplate grease, and reassemble.
18. Inspect the gun block (B) for damage.

Install Centerline Components

GX-7 DI Model Only

Before installation, ensure all gun components are clean and dry. Lubricate all moving parts and threads.

1. Install the rear packing gland with a packing wrench. Tighten onto the gun block (B).
2. Install the rear packing retainer (U) loosely.
3. Install the valving rod (N). Use a 5/16 in. nut driver to thread assembly tight into the end cap.
4. **GX-7 DI model only:** thread rod until approximately 3/16 in. to 1/4 in. of thread protrudes from end of the piston rod (K).
5. Thread the locknut onto the valving rod (N) by hand.
6. Carefully slide the gun block (B) onto the valving rod (N) toward the air cylinder. Install the gun block onto the gun block mounting bracket.
7. Install the safety lock (H); leave in the OPEN position.



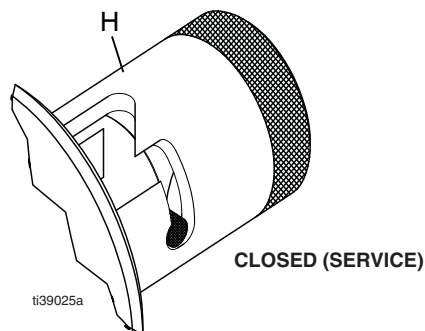
8. Connect the air supply to gun.
9. Depress the gun trigger (D) and slide the mixing module (ZAH) over end of the valving rod (N).

10. **GX-7 DI model only:** ensure the valving rod (N) alignment pin enters the alignment slot in the gun block (B). Keep the gun trigger (D) depressed.
11. With the gun trigger (D) depressed, thread mixing module retainer (ZAM) or PCD body (ZAE) with packing installed, by hand, and then wrench tighten.

NOTICE

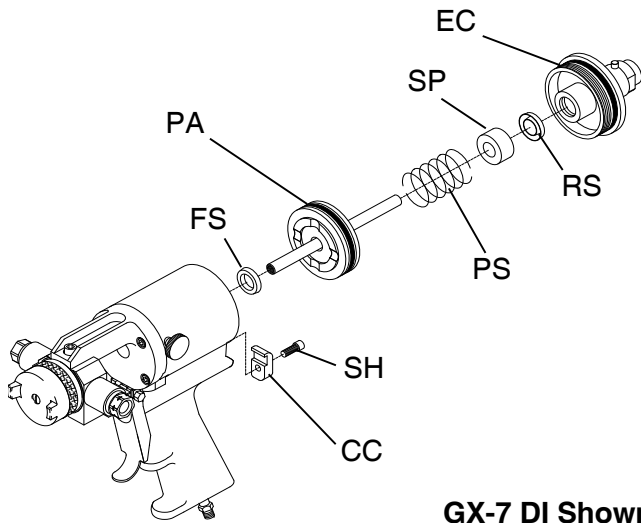
To avoid damage to module and gun block (B), do not over-tighten mixing module retainer (ZAM).

12. Release the gun trigger (D).
13. Install the PCD (ZAC) over end of the mixing module retainer (ZAM).
14. Thread the PCD retainer (ZAD) onto the gun block (B). Hand tight.
15. Rotate flat PCD (ZAC) to adjust orientation as required.
16. Adjust the valving rod (N). See **Adjust Valving Rod**, page 23.
17. Thread the air cap (M) into place; hand tight.
18. Slide the safety lock (H) onto rear of the air cylinder. Push the safety lock partially forward and rotate clockwise to set to OPEN.
19. Set the safety lock (H) to CLOSED (SERVICE).



Replace End Cap and Air Piston Assembly

1. Clean the gun according to **Clean Spray Gun**, page 24.
2. Loosen the rear packing nut (E) 1-2 turns.
3. Push the safety lock (H) partially forward, rotate counterclockwise, and slide the safety lock (H) off the air cylinder.
4. Remove the valving rod (N). See **Remove and Service Centerline Components**, page 26.
5. Disconnect the air supply from the gun.
6. Remove the rear head cap screw (SH) and cylinder clamp (CC) from the handle.



GX-7 DI Shown

Fig. 20 GX-7 DI End Cap and Air Piston Assembly

7. Remove the end cap (EC) from the air cylinder.
8. Inspect the end cap (EC) o-ring. Replace if damaged. Install a new end cap o-ring after lightly coating it with Lubriplate grease.
9. Inspect the rear U-cup seal (RS) or o-ring for damage. Replace if necessary. If removed, ensure "cup" faces front of the air cylinder when replacing.
10. By hand, pull the piston assembly (PA) out of the air cylinder and inspect the o-ring for damage. Replace if necessary. Apply Lubriplate grease prior to installation.
11. If air was escaping around piston rod (K) during operation, replace the front u-cup seal (FS) or o-ring. Apply Lubriplate grease and ensure "cup" faces rear of the air cylinder.
12. Insert the piston and rod assembly (PA) into the air cylinder. Take care to not damage the front cup seal as rod passes through.
13. Insert the piston spring (PS). (For GX-7 DI models, also insert a piston spacer.)
14. Reinstall the end cap (EC) into the air cylinder.
15. Retighten the rear socket head cap screw (SH) and cylinder clamp (CC) to handle.
16. Reinstall the valving rod (N). Connect the valving rod (N) to the draw bar (DB), see FIG. 19, page 27. Lubricate and thread into the end cap (EC).
17. Adjust the valving rod (N); see **Adjust Valving Rod**, page 23.
18. Slide the safety lock (H) onto the rear of the air cylinder. Push the safety lock partially forward and rotate clockwise to set to OPEN.
19. Set the safety lock (H) to CLOSED (SERVICE).
20. Tighten the rear packing nut (E).

Replace Trigger Valve O-Rings

1. Clean the gun according to **Clean Spray Gun**, page 24.
2. Disconnect the air supply from the gun.
3. Remove the mounting screw (TS) and locknut (TN) that hold the trigger (D) in place. Remove the trigger.

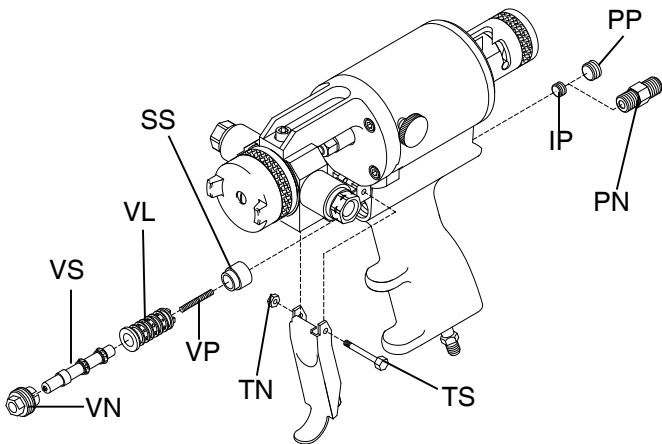


Fig. 21 Replace Trigger Valve O-Ring

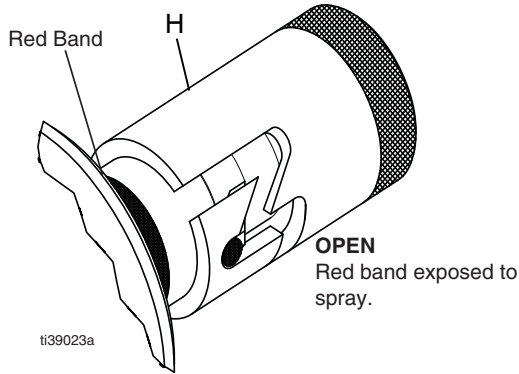
4. Remove the valve retainer nut (VN).
 5. Pull out the valve spool (VS) and valve spring (VP). Remove the old o-rings.
 6. Prior to installation, liberally lubricate all o-rings with lubricant provided in Rebuild kit.
- NOTE:** Follow steps 7-15 to replace o-rings on the valve liner (VL). If o-rings do not need to be replaced, go to step 16.
7. Remove the pipe plug (PP) from the rear of the gun handle.

NOTE: For guns configured with an air inlet at rear of the gun handle, the pipe nipple replaces the pipe plug. Remove the pipe nipple.

8. Remove the rear internal pipe plug (IP, under the pipe plug).
9. Use a pin punch and hammer to gently tap the spring seat (SS) until it and the valve liner (VL) push out the opposite end of the hole.
10. Remove 4 o-rings on the liner (VL).
11. Apply a thick coat of Lubriplate grease to the new o-rings and install.
12. Clean the valve hole. Remove any dirt and debris. Apply a thick coat of Lubriplate grease to inside of the valve hole.
13. Slide the spring seat (SS) into the gun handle air valve hole, tapered end first, until it bottoms out.
14. Push the valve liner in as far as it will go. Temporarily screw in the valve retainer nut (VN), which aligns the valve liner (VL) and the valve spool (VS). Remove the valve retainer nut.
15. With the valve spool spring (SP) in place, insert the valve spool (VS) into the valve liner (VL). Screw in the valve retainer nut. Do not overtighten.
16. Apply a small amount of pipe thread sealant to 1/16 in. pipe plug (IP) threads. Screw the pipe plug in place.
17. Apply a small amount of pipe thread sealant to 1/8 in. pipe plug (PP) (or 1/8 in. pipe nipple (PN)) and install.
18. Reinstall the trigger (D) using screw (TS) and locknut (TN).

Clean Mixing Module

1. Flush the gun according to **Flush Gun**, page 18.
2. Connect the air supply to gun.
3. Set the safety lock (H) to OPEN.



4. Remove the air cap (M) by hand.

NOTE: *GX-7A and GX-7 400 Models Only*
The air cap (M) and PCD retainer (ZAD) may be difficult to separate during disassembly due to overtightening or hardened mixed material. Fit the side of the stamped 5/8 in. wrench into the groove to separate. When reinstalling, apply lubricant to threads.

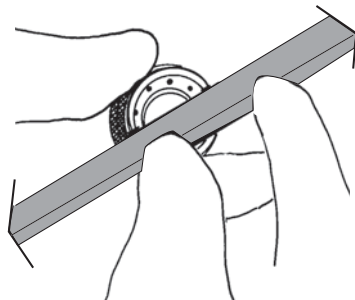


FIG. 22 Unthread Cap from PDC Body

5. Trigger the gun and hold it to relieve pressure on the PCD retainer (ZAD).
6. Remove the PCD retainer (ZAD) by turning it counterclockwise.

7. Remove the PCD (ZAC) from the mixing module retainer (ZAM).

NOTE: To remove the PCD (ZAC) that is stuck, set the safety lock (H) to OPEN, depress and release the gun trigger (D) to unseat it. Set the safety lock to CLOSED (SERVICE).

8. Remove the mixing module retainer (ZAM).
9. Set the safety lock (H) to OPEN. Depress and release the gun trigger (D) to unseat it. Remove the mixing module (ZAH) from end of the valving rod (N). Set the safety lock to CLOSED (SERVICE).
10. Inspect the valving rod (N) for damage and replace as required. Use a cloth soaked in gun cleaner or steel wool to clean and remove buildup of mixed material from the rod.

NOTE: If the valving rod (N) is replaced, the reset forward stop.

11. Clean the mixing module (ZAH).

NOTE: Ensure cleanout tool size matches module size used. See the Set-Up Charts on pages 48 and 50.

- a. Insert cleanout tool into the pin vise.
- b. Use the cleanout tool to clean module ports. Take care not to insert the tool too far causing damage to inside bore of module. Use a cotton swab soaked in gun cleaner to clean bore of module.

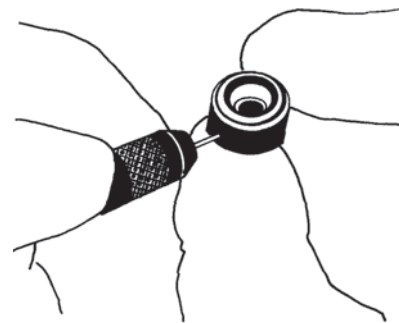


FIG. 23 Clean Module Parts

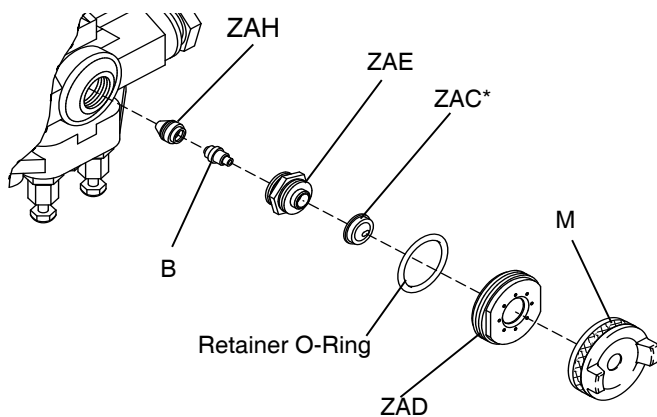
Install Mixing Module

1. Install the safety lock (H); leave in OPEN position.
2. Connect the air supply to gun.
3. Depress the gun trigger (D) and slide the mixing module (ZAH) over the end of the valving rod (N).
 - **GX-7 DI model only:** ensure the valving rod (N) alignment pin enters the alignment slot in the gun block (B). Keep the gun trigger (D) depressed.
4. With the gun trigger (D) depressed, thread the mixing module retainer (ZAM) or the PCD body (ZAE) with packing installed, by hand, and then wrench tighten.

NOTICE

To avoid damage to module and gun block (B), do not overtighten mixing module retainer (ZAM).

5. Release the gun trigger (D).
6. Install the PCD (ZAC) over the end of the mixing module retainer (ZAM).
7. Thread the PCD retainer (ZAD) onto the gun block (B). Hand tight.
8. Rotate flat PCD (ZAC) to adjust orientation as required.
9. Adjust the valving rod (N). See **Adjust Valving Rod**, page 23.
10. Thread the air cap (M) into place; hand tight.
11. Slide the safety lock (H) onto the rear of the air cylinder. Push the safety lock partially forward and rotate clockwise to set to OPEN.

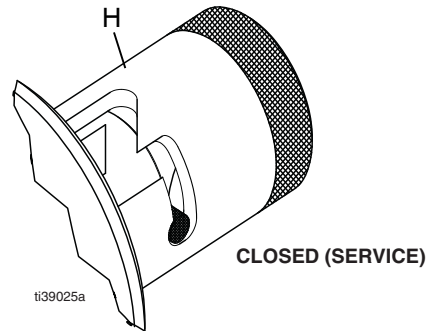


* Note the orientation of the fan tip.

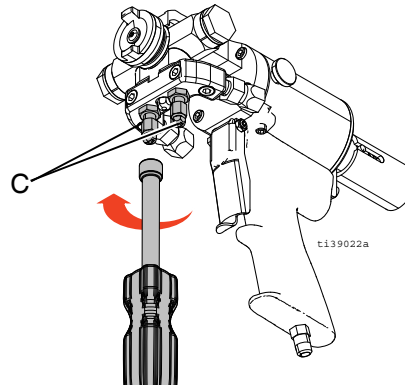
FIG. 24 Install Mixing Module

Clean Pattern Control Disc

1. Set the safety lock (H) to CLOSED (SERVICE).

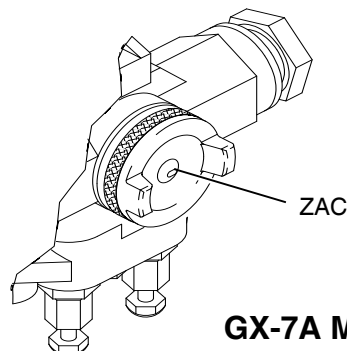


2. Close both manual valves (C).



3. Turn off air to the air cap (M).
4. Use a cotton swab soaked in gun cleaner to clean external surface of material build up. Light scrubbing with impinger cleanout brush may also be required.
 - a. Trigger the gun to the SERVICE position and clean orifice area

NOTE: It is not always possible to clean all material build-up from the PCD (ZAC) while assembled to the gun. In this case, remove the PCD and clean inside radius.



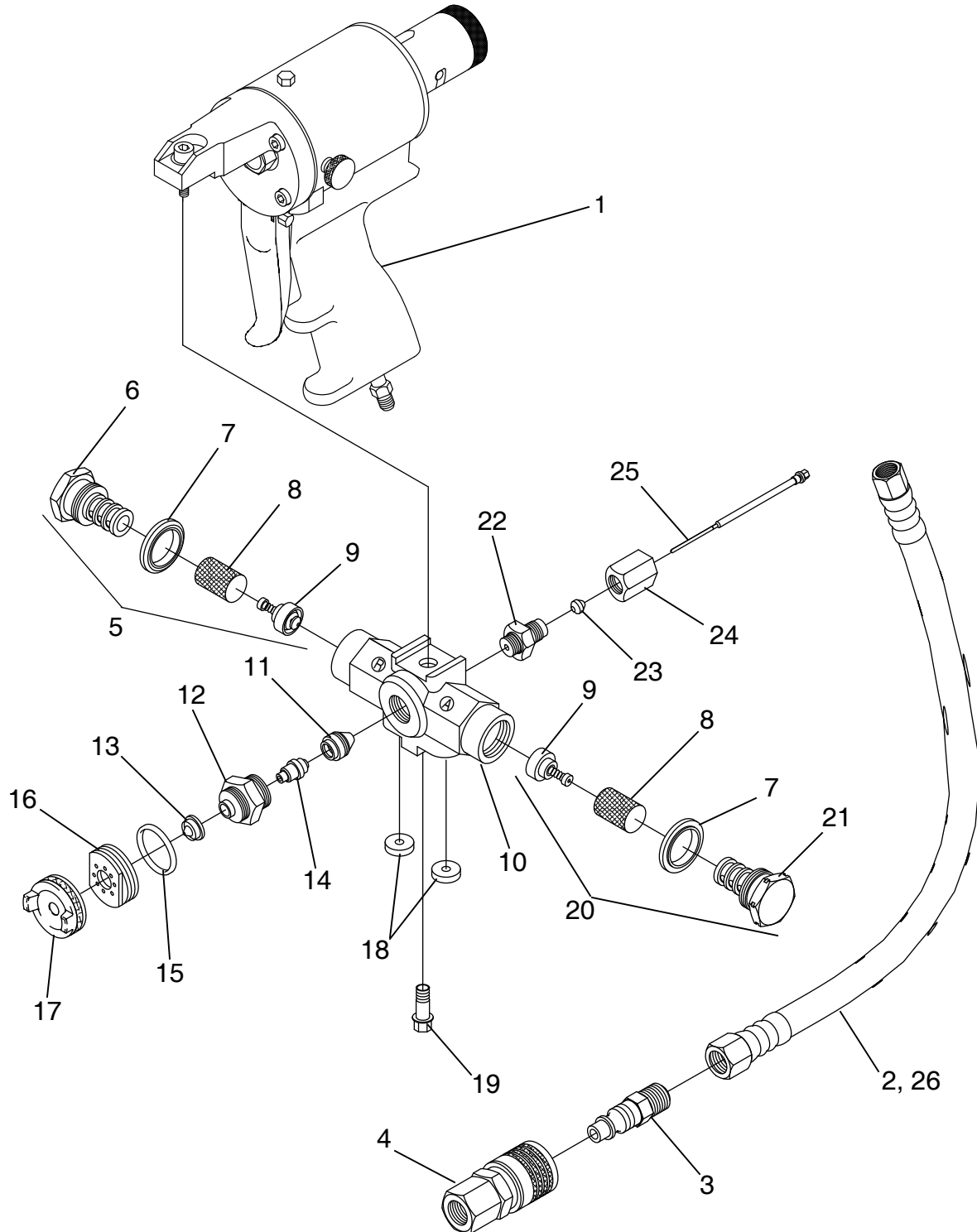
GX-7A Model Shown

FIG. 25 Clean Pattern Control Disc

Parts

GX-7A Assembly

295542, 295543, 295544, 295545, 25E217, 25F046



GX-7A Assembly Parts List

295542, 295543, 295544, 295545, 25E217, 25F046

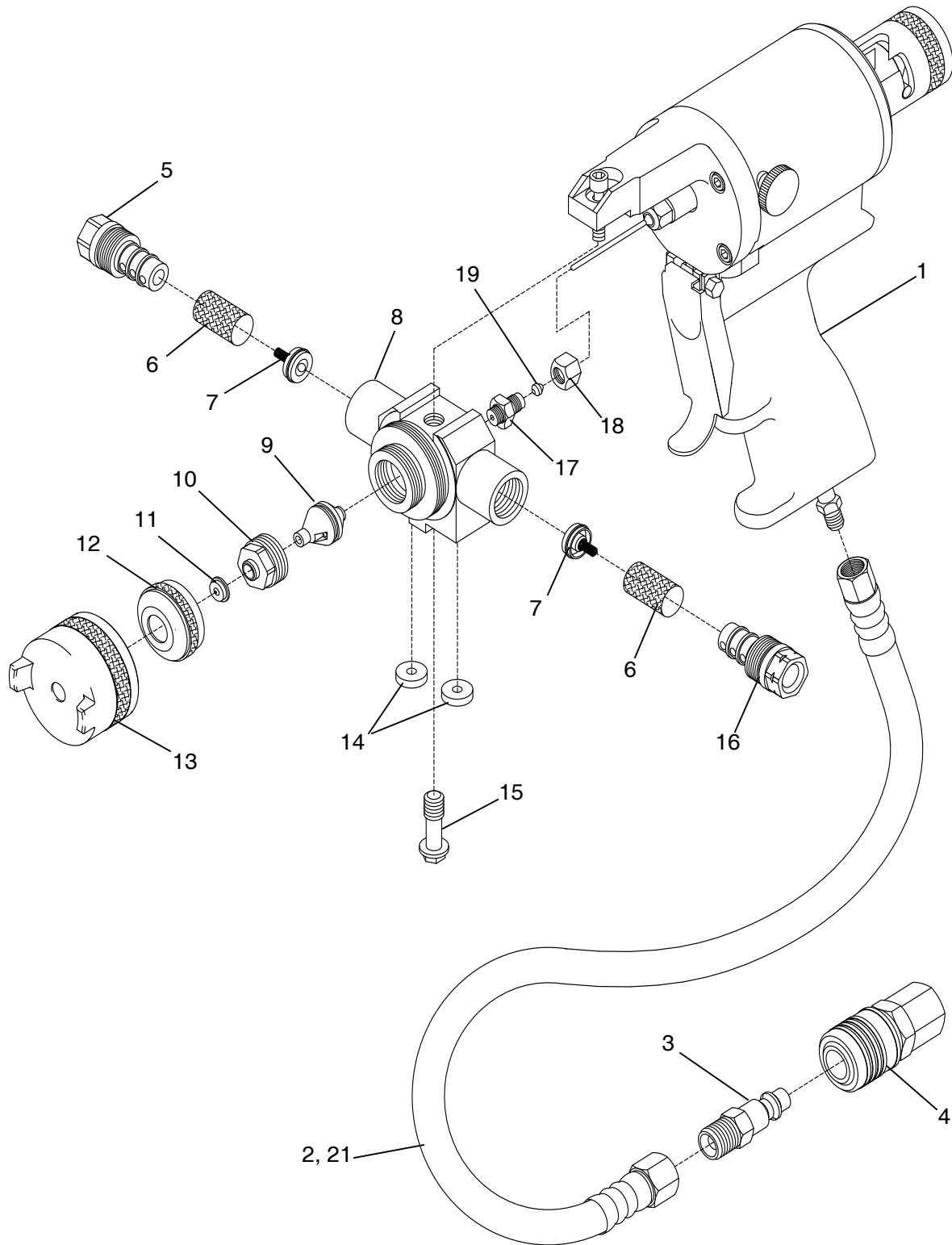
Ref.	Part	Description	Qty.
1	295810	Spray gun handle	1
2	15B772	Air hose	1
3	295596	Coupler plug	1
4	208536	Coupler	1
5	296834	R-gun block screen screw assembly (includes 6, 7, 8, 9)	1
6	----	R-gun block screen screw	1
7	296693	Screen screw seal (pack of 2)	-
	296723	Screen screw seal (pack of 10)	-
8	296792	Screen, 80 mesh (pack of 10)	-
	296724	Screen, 80 mesh (pack of 50)	-
9	296722	Check valve assembly (pack of 10)	-
10†	295384	Gun block	1
11	----	Module; see GX-7A Mix Module Kit , page 47	1
12‡	296976	PCD body	1
13†‡	----	Tip; see Tip Kits , page 52	1
14†‡	296978	Front packing (pack of 5)	1
15†‡	295868	O-ring	1
16†‡	296832	PCD retainer	1
17†‡	296831	Air cap	1
18	296128	Coupling block gasket (pkg 2)	1
19	295433	Coupling block mounting screw	1
	296979	Coupling block mounting screw kit (pack of 2)	-
20	296833	A-gun block screen screw assembly (includes 6, 8, 9, 21)	1
21	----	A-gun block screen screw	1
22	296828	Rear packing retainer	1
23	296829	Rear seal packing (pack of 5)	-
24	296830	Rear seal retainer	1
25	16K136	Valving rod	1
26	100030	Fitting	1
27▲	222385	CARD, medical alert (not shown)	1
28▲	172479	TAG, warning (not shown)	1

▲ Replacement safety labels, tags, and cards are available at no cost.

† Parts not included in 25E217 gun.

‡ Parts not included in 25F046 gun.

GX-7 DI Assembly (295541)

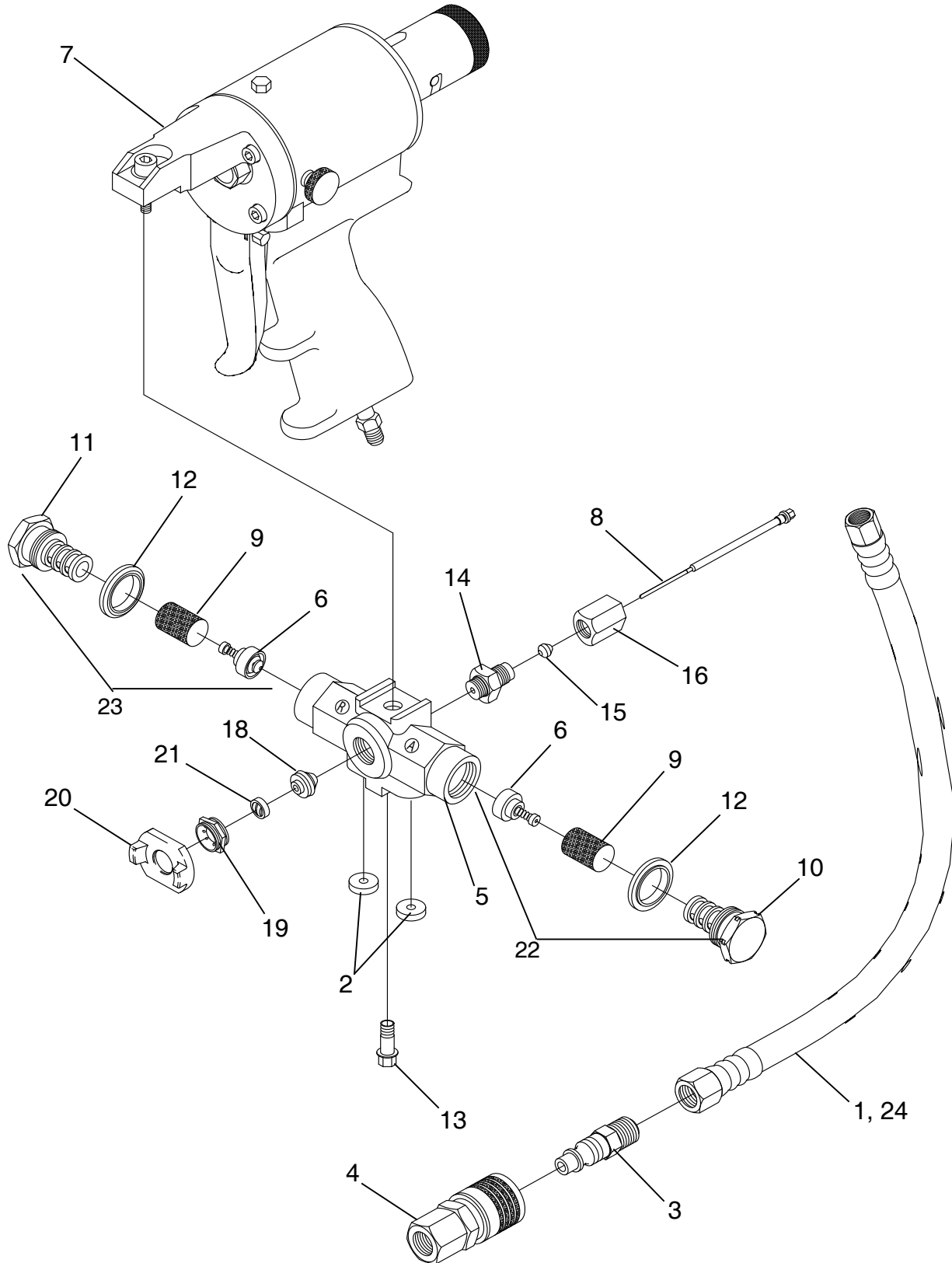


GX-7 DI Assembly (295541) Parts List

Ref.	Part	Description	Qty.
1	295809	Spray gun handle assembly	1
2	15B772	Air hose, 1/4 in. x 23 in. (FXF)	1
3	295596	Coupler plug	1
4	295597	Coupler	1
5	295835	R-screen screw	1
6	296792	Screen, 80 mesh (pack of 10)	-
	296724	Screen, 80 mesh (pack of 50)	-
7	296713	Check valve assembly (pack of 2)	2
8	295860	Gun block	1
9	----	Module; see GX-7 DI Model Specifications , page 51	1
10	295837	Module retainer	1
11	----	Tip; see Tip Kits , page 52	1
12	296865	Tip retainer	1
13	295838	Air cap	1
14	296128	Coupling block gasket (pack of 2)	-
15	295433	Coupling block mounting screw	1
	296979	Coupling block mounting screw (pack of 2)	-
16	295834	A-screen screw	1
17	295836	Rear seal gland	1
18	296864	Rear seal retainer assembly	1
19	296829	Rear seal packing (pack of 5)	-
20	295383	Coupling block (not shown)	1
21	100030	Fitting	1
22▲	222385	CARD, medical alert (not shown)	1
23▲	172479	TAG, warning (not shown)	1

▲ Replacement safety labels, tags, and cards are available at no cost.

GX-7 400 Assembly (295540)

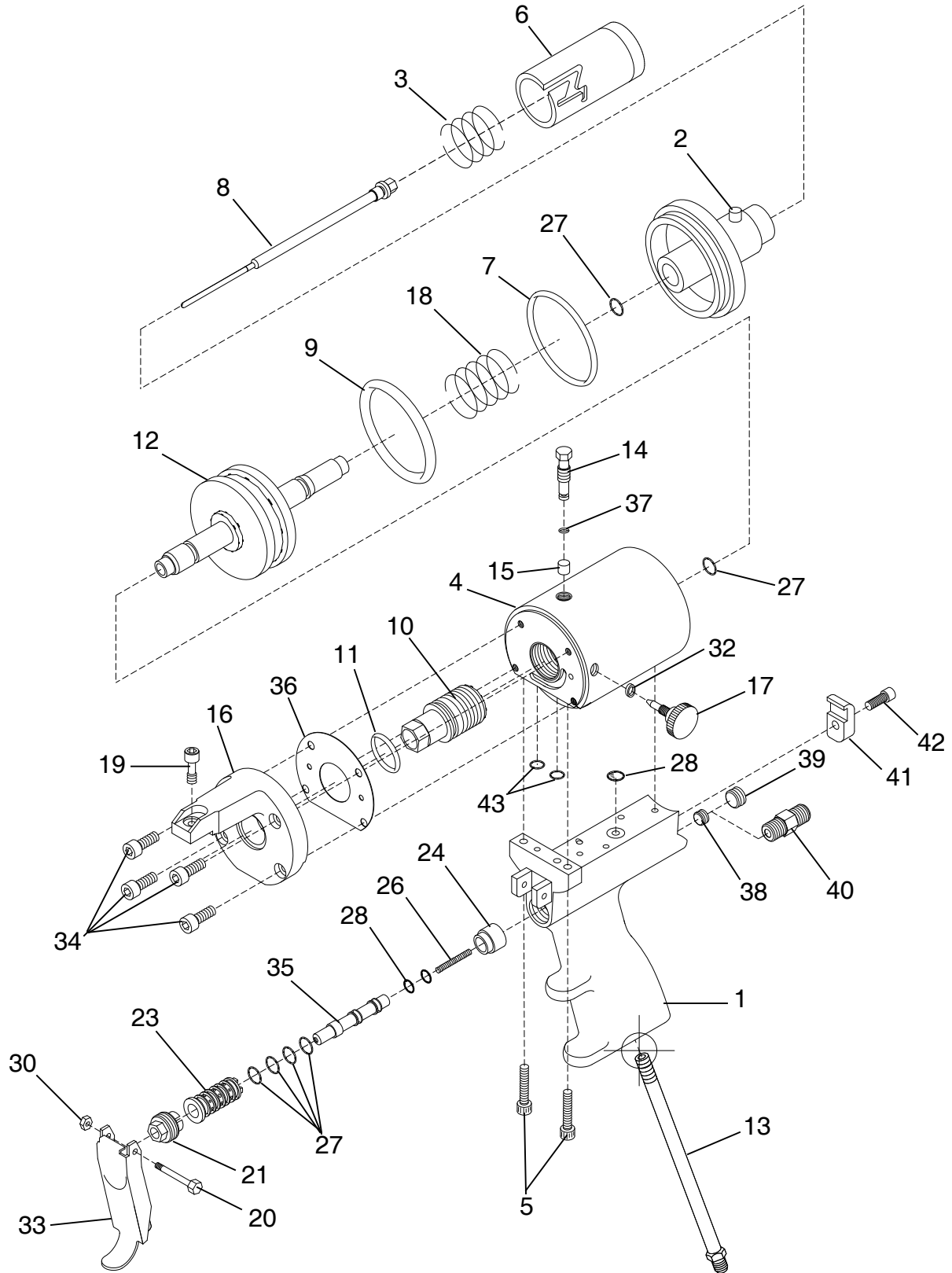


GX-7 400 Assembly (295540) Parts List

Ref.	Part	Description	Qty.
1	15B772	Air hose	1
2	296128	Coupling block gasket (pack of 2)	-
3	295596	Coupler plug	1
4	295597	Coupler	1
5	295384	Gun block (includes 13)	1
6	296722	Check valve assembly (pack of 10)	-
7	295799	Spray gun handle assembly	1
8	16K136	Valving rod	1
9	296792	Screen-80, mesh (pack of 10)	-
	296724	Screen-80, mesh (pack of 50)	-
10	----	A-Screen screw	1
11	----	R-Screen screw	1
12	296693	Screen screw seal (pack of 2)	-
	296723	Screen screw seal (pack of 10)	-
13	295433	Coupling block mounting screw	1
	296979	Coupling block mounting screw kit (pack of 2)	-
14	296828	Rear packing retainer	1
15	296829	Rear seal packing (pack of 5)	1
16	296830	Rear seal retainer	1
18	----	Module; see GX-7 400 Mix Module Kit , page 49	1
19	296836	Retainer	1
20	296837	Air cap	1
21	----	Tip; see Tip Kits , page 52	1
22	296833	A-gun block screen screw assembly (includes 6, 9, 10, 12)	-
23	296834	R-gun block screen screw assembly (includes 6, 9, 10, 12)	-
24	100030	Fitting	1
25▲	222385	CARD, medical alert (not shown)	1
26▲	172479	TAG, warning (not shown)	1

▲ Replacement safety labels, tags, and cards are available at no cost.

GX-7A Handle (24K734)



GX-7 Handle (24K734) Parts List

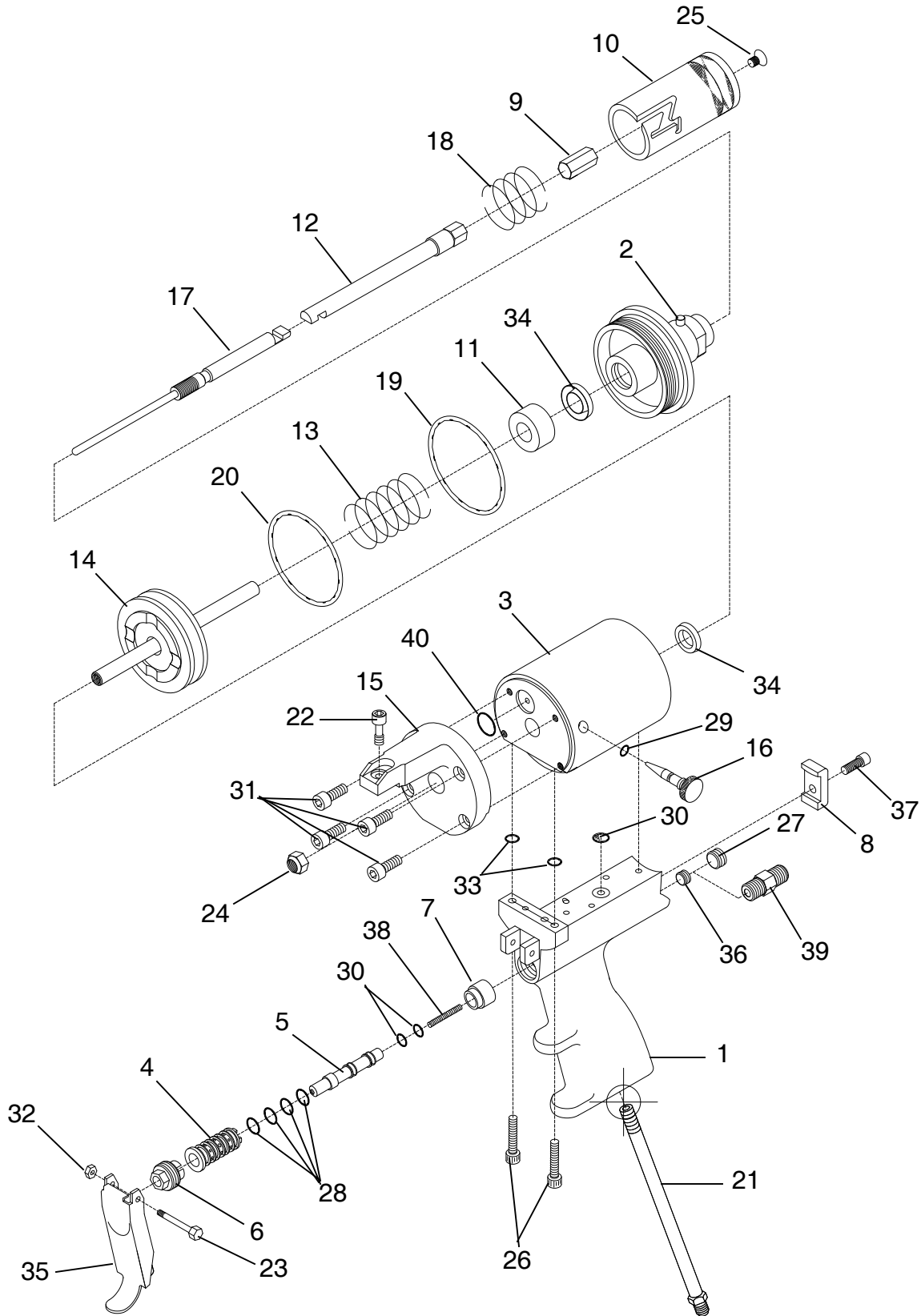
Ref.	Part	Description	Qty.	Ref.	Part	Description	Qty.
1	296862	Spray gun handle	1	26*	296971	Air valve spring	1
2	295678	Cylinder end cap assembly	1	27†*	106555	O-ring	6
3	295676	Spring	1	28†*	C20988	O-ring, fluoroelastomer	3
4	295675	Air cylinder	1	30	295438	Locknut, elastic stop nut, 5-40	1
5	295709	Socket head cap screw, 8-32 x 3/4 in.	2	32†	295405	Needle valve packing	1
6	295680	Two position stop	1	33	295692	Spray gun trigger	1
7†	295681	O-ring	1	34	295684	Socket head cap screw, 10-32 x 1/2 in.	4
8◆	16K136	Valving rod	1	35	295687	Spool valve	1
9†	295683	O-ring	1	36†	295674	Gasket	1
10	295663	Cylinder front stop	1	37†	295706	O-ring, Neoprene	1
11†	514279	O-ring	1	38	295693	Pipe plug, flush seal, 1/6 NPT	1
12	295664	Air piston assembly	1	39	295662	Pipe plug, flush seal, 1/8 NPT	1
13	295665	Pipe nipple	1	40	103656	Hex nipple, 1/8 NPT (optional)	1
14	295666	Stop clamp screw	1	41	295690	Cylinder clamp	1
15†	295667	Nylon pellet	1	42	C20003	Socket head cap screw, 10-32 x 1/2 in.	1
16	295673	Gun block mount	1	43†	295685	O-ring	2
17	295677	Air needle valve	1				
18	295668	Spring	1				
19	295669	Socket head cap screw, 1/4-28 x 5/8 in.	1				
20	295671	Trigger mounting screw	1				
21	295688	Valve nut	1				
23	295686	Spool valve liner	2				
24	295689	Spring seat	1				

† Parts included in Handle Seal Rebuild Kit 296895 (purchase separately).

* Parts included in Trigger valve rebuild kit 296897 (purchase separately).

◆ Valving rod 16K136 is shipped loose.

GX-7 DI Handle (295809)



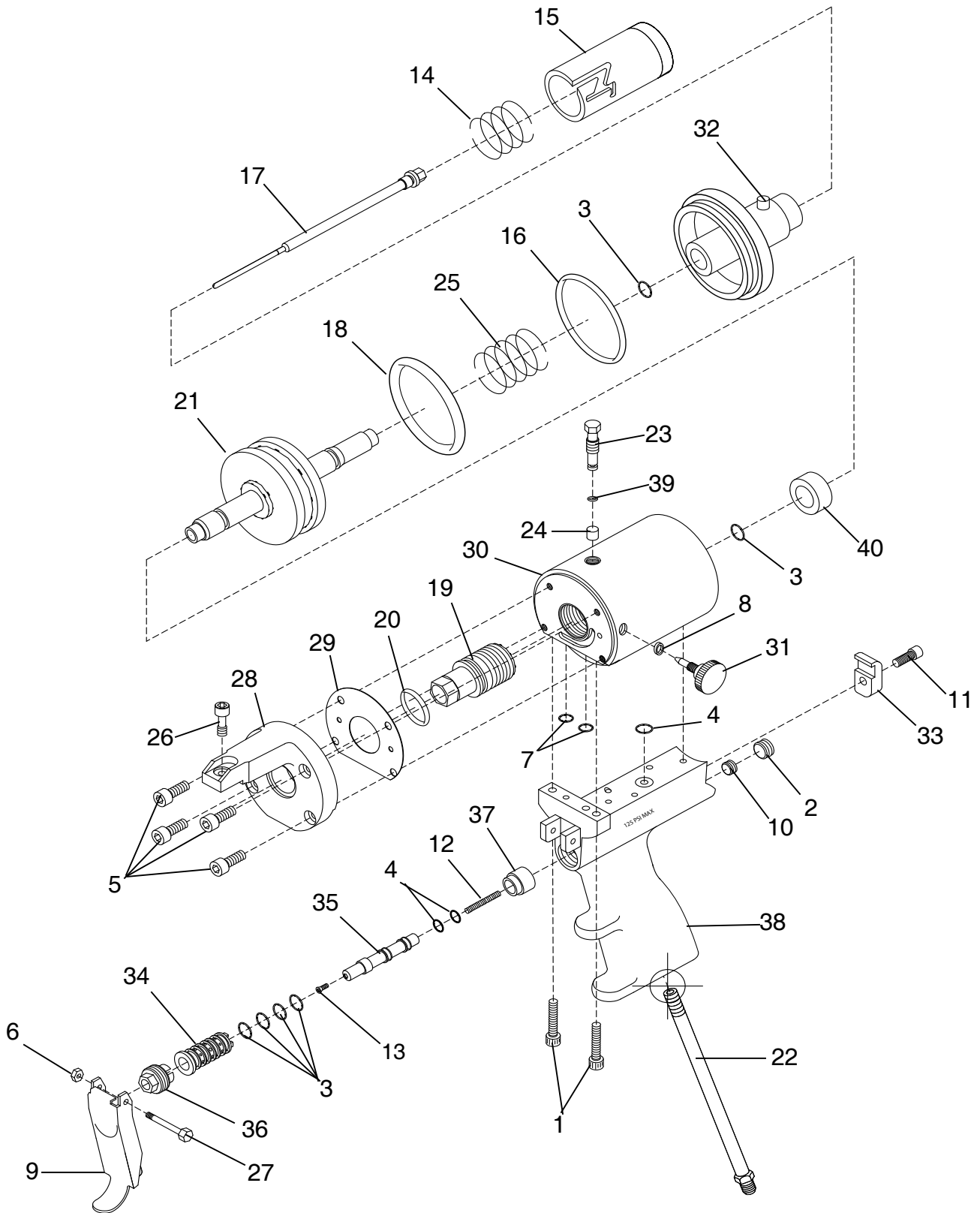
GX-7 DI Handle (295809) Parts List

Ref.	Part	Description	Qty.	Ref.	Part	Description	Qty.
1	296862	Gun handle	1	26	295709	Socket head cap screw, 8-32 x 3/4 in.	2
2	295714	Cylinder end cap assembly	1	27	295662	Pipe plug, flush seal, 1/8 in.	1
3	295715	Air cylinder	1	28*	106555	O-ring, fluoroelastomer	4
4	295686	Valve liner	1	29†	C20988	O-ring, fluoroelastomer	1
5	295687	Valve spool	1	30†*	103337	O-ring, fluoroelastomer	3
6	295688	Valve retainer nut	1	31	295684	Socket head cap screw, 10-32 x 5/8 in.	4
7	295689	Spring seat	1	32	295438	Stop nut, elastic	1
8	295690	Cylinder clamp	1	33†	295685	O-ring	2
9	295716	Stop, stroke, long	1	34†	295496	U-cup	2
10	295717	Two position stop body	1	35	295692	Trigger	1
11	295718	Stroke spacer	1	36	295693	Pipe plug, flush seal, 1/16 in.	1
12	296736	Valving rod holder kit	1	37	C20003	Socket head cap screw, 10-32 x 1/2 in.	1
13	295720	Piston spring	1	38*	295442	Spring	1
14	295712	Piston assembly	1	39	103656	Hex nipple (optional), 1/8 MPT	1
15	295721	Gun block mount	1	40†	103338	O-ring, fluoroelastomer	1
16	295713	Air needle valve	1				
17	296863	Valving rod, 125 SS	1				
18	295676	Spring	1				
19†	295681	O-ring	1				
20†	295683	O-ring	1				
21	295665	Pipe nipple	1				
22	295669	Socket head cap screw, 1/4-28 x 5/8	1				
23	295671	Trigger mounting screw	1				
24	295431	Locknut	1				
25	295722	Flat head cap screw, 10-32 x 1/4 in.	1				

† *Parts included in Air Cylinder Rebuild Kit
296895 (purchase separately).*

* *Parts included in Trigger Valve Rebuild Kit
296897 (purchase separately).*

GX-7 400 Handle (24K733)



GX-7 400 Handle (24K733) Parts List

Ref.	Part	Description	Qty.	Ref.	Part	Description	Qty.
1	106245	Cap screw, SCH	2	25	295668	Spring	1
2	295662	Pipe plug	1	26	295669	Socket head cap screw, modified	1
3†*	106555	Packing o-ring	6	27	295671	Trigger mounting screw	1
4†*	103337	Packing o-ring	3	28	295673	Gun block base	1
5	295684	Socket head cap screw	4	29†	295674	Gasket	1
6	295438	Stop nut, elastic, 5-40	1	30	295675	Air cylinder	1
7†*	295685	O-ring	2	31	295677	Air needle valve	1
8†	295405	Needle valve, packing	1	32	295678	Cylinder end cap	1
9	295692	Spray gun trigger	1	33	295690	Cylinder clamp	1
10	295693	Pipe plug	1	34	295686	Valve liner	1
11	C20003	Socket head cap screw	1	35	295687	Valve spool	1
12*	295442	Spring	1	36	295688	Retainer valve nut	1
13	295695	Button head cap screw	1	37	295689	Spring seat	1
14	295676	Spring	1	38	296862	Gun handle	1
15	295771	Two-position stop	1	39†	295706	O-ring	1
16†	295681	O-ring	1	40	295708	Spacer	1
17◆	16K136	Valving rod	1				
18†	295683	O-ring	1				
19	295663	Front cylinder stop	1				
20†	514279	O-ring	1				
21	295664	Air piston	1				
22	295665	Pipe nipple fitting	1				
23	295666	Stop clamp screw	1				
24†	295667	Pellet	1				

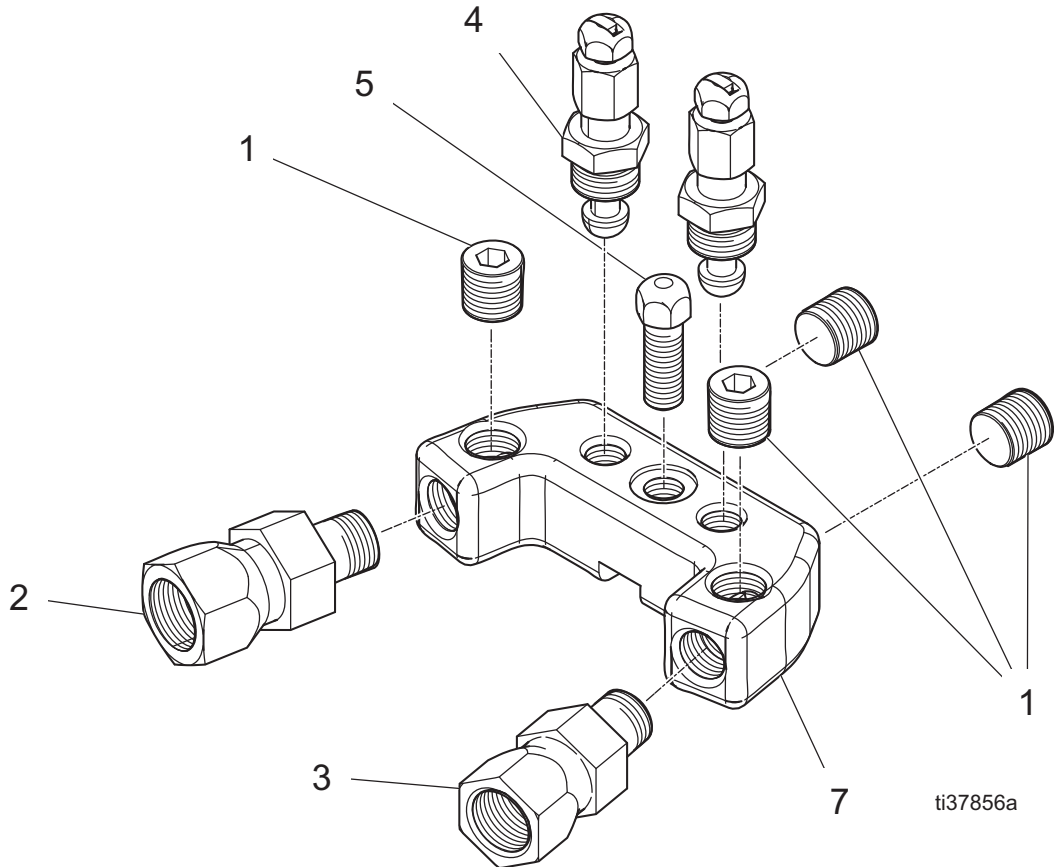
† Parts included in Air Cylinder Rebuild Kit 296895 (purchase separately).

* Parts included in Trigger Valve Rebuild Kit 296897 (purchase separately).

◆ Valving rod 16K136 is shipped loose.

Coupling Block Assembly (295383)

All models



Ref.	Part	Description	Qty.	Ref.	Part	Description	Qty.
1	295662	Pipe plug, flush seal, 1/8 in.	2	5	296970	Manual valve assembly	2
2	117634	R-swivel fitting	1	7	----	Coupling block	1
3	117635	A-swivel fitting	1				
4	295693	Pipe plug, flush seal, 1/16 in.	2				

Specifications

GX-7A Mix Module Kit

Module Kit†*		Module Only		Cleanout Tool			
Part	Size Ref.	Part	Size Ref.	(A) Iso Port Part	Diameter in. (mm)	(R) Resin Port Part	Diameter in. (mm)
296909	#1 Round	296907	#1 Round	246807	0.0320 (0.81)	246807	0.032 (0.81)
296916	#2 Round	296225	#2 Round	246816	0.018 (0.45)	246816	0.018 (0.45)
296919	#3 Round	296226	#3 Round	276984	0.0225 (0.57)	246816	0.018 (0.45)
296921	#4 Round	n/a	#4 Round	296290	0.035 (0.89)	246807	0.032 (0.81)
296923	#5 Round	296228	#5 Round	276984	0.0225 (0.57)	248892	0.028 (0.71)
296925	#7 Flat	296230	#7 Flat	248892	0.028 (0.71)	248892	0.028 (0.71)
296906	#10 Flat	296233	#10 Flat	296291	0.036 (0.91)	296291	0.036 (0.91)
296910	#12 Flat	296130	#12 Flat	296286	0.021 (0.53)	296286	0.021 (0.53)
296915	#16 Round	n/a	#16 Round	248892	0.028 (0.71)	248892	0.028 (0.71)
296917	#22 Round	n/a	#22 Round	276984	0.0225 (0.57)	276984	0.0225 (0.57)
296875	A2 Pour	n/a	A2 Pour	246816	0.018 (0.45)	246816	0.018 (0.45)
296876	A3 Pour	n/a	A3 Pour	248640	0.039 (0.99)	248640	0.039 (0.99)
296868	A5 Pour	n/a	A5 Pour	246807	0.032 (0.81)	246807	0.032 (0.81)
296870	A5-FS Pour	n/a	A5-FS Pour	246807	0.032 (0.81)	246807	0.032 (0.81)

NOTE: Each module has a specially sized cleanout tool. To avoid damage to module, use correct cleanout tool.

† Module Kits include one mix module and both cleanout tools. See following table.

* Some Module Kits also available in packs. See following table.

Mix Module Kit		
Part	Size Ref.	Qty. / Pack
296908	#1 Round	12 (with 2 drills)
296869	A5 Pour	12
296871	A5-FS Pour	12
296872	A10 Pour	12
296873	A20 Pour	12
296874	A2 Pour	12 (with 2 drills)
296911	STD Blank	5
296912	STD Blank	100
296913	PEEK Blank	5

Set-Up Chart for GX-7A Model

Pressure (psi)	Output (lbs/min)	Pattern Diameter (in.)	Module Part	Polyol Port Size	Number Orifices	Iso Port Size	Number Orifices	Tip
Round Spray Pattern								
1000	22	*22	296909 (#1)	0.0320	4	0.0320	4	296712
1000	12	*12	296919 (#3)	0.0180	4	0.0225	4	296710
1600	16	*14	296923 (#5)	0.0280	4	0.0225	4	296710
2000	30	*24	296909 (#1)	0.0320	4	0.0320	4	296694
3000	40	*24	296921 (#4)	0.0320	4	0.0350	4	296695
Pour Pattern								
600	3.5	N/A	296875 (A2)	0.0180	1	0.0180	1	296697
600	12	N/A	296876 (A3)	0.0390	1	0.0390	1	296697
Fan Spray Pattern								
1000	12	❖16 x 4	296925 (#7)	0.0280	2	0.0280	2	296704
1500	24	❖22 x 4	296906 (#10)	0.0360	2	0.0360	2	296703
1500	5	❖16 x 3	296910 (#12)	0.0210	2	0.0210	2	296705

* At 24 in. above substrate.

❖ At 18 in. above substrate.

GX-7 400 Mix Module Kit

Module Kits			Cleanout Drill			
Part	Size Ref.	Quantity	Iso Port Part	Diameter in. (mm)	Polyol Port Part	Diameter in. (mm)
296885	402 Round	1	246816	0.018 (0.45)	246816	0.018 (0.45)
296884		12				
296859	451 Fan	1	246816	0.018 (0.45)	246816	0.018 (0.45)
296860		12				
296888	452 Fan	1	246631	0.020 (0.51)	246631	0.020 (0.51)
296887		12				
296891	453 Fan	1	296287	0.025 (0.64)	276984	0.0225 (0.57)
296890		12				

NOTICE

Each module kit includes cleanout drills. To avoid damage to module, use correct cleanout drill.

Module Only

Part	Size Ref.
296316	451 Fan
295379	453 Fan

Set-up Chart for GX-7 400 Model

Pressure (psi)	Output (lbs/min)	Pattern Dia. (inches)	Module Part	Polyol Port Size	Number Orifices	Iso Port Size	Number Orifices	Tip
Round Spray Pattern								
1500	3.5	✖8	296885 (402)	0.0180	1	0.0180	1	296858
Fan Spray Pattern								
1500	3.5	❖16 x 3	296859 (451)	0.0180	1	0.0180	1	296853
1500	4.5	❖16 x 3	296888 (452)	0.0200	1	0.0200	1	296853
1500	8.0	❖16 x 3	296891 (453)	0.0225	2	0.0250	2	296855

✖ At 24 in. above substrate.

❖ At 18 in. above substrate.

Tip Kits (for GX-7 400 Gun)		
Part	Ref.	Quantity
296858	40 Round	1
296852	210 Fan	1

Tip Kits (for GX-7 400 Gun)		
296853	212 Fan	1
296854	212 Fan	5
296855	213 Fan	1
296856	213 Fan	5
296857	214 Fan	1
296892	TOM	1

GX-7 DI Model Specifications

Module/Tip Data for Chemical Sprayed at 2500 PSI				
*Module Kit	Cleanout Drill	Ref.	*Pattern	*Output (lbs/min)
Fan Spray Pattern				
296900 (#2)	246625 (0.086 diameter)	212	12 in. wide	12
		206	20 in. wide	22
		213	12 in. wide	12
		204	20 in. wide	21
296901 (#4)	248892 (0.028 diameter)	212	10 in. wide	8
		206	24 in. wide	11
		204	18 in. wide	10
296903 (#5)	246816 (0.018 diameter)	212	11 in. wide	4
		213	12 in. wide	4
		208	8 in. wide	4
Round Spray Pattern				
296903 (#5)	246816 (0.018 diameter)	40	4 in. diameter	8
		55	7 in. diameter	9.5
		70	8 in. diameter	9.75
		90	10 in. diameter	9.75

* Actual results may vary due to chemical system characteristics, temperature, pressure, and ratio.

* Includes appropriate cleanout drills.

Mix Module Kit		
Part	Size Ref.	Quantity
296898	PEEK 018/018	1
296899	PEEK 028/028	1

Module Only		
Part	Size Ref.	Qty / Pack
296902	#5	1
25M200	#5	12

Tip Kits

For GX-7A and GX-7 DI Models

Round Tip Kits		
Part	Size	Qty.
296708	40	1
296709	46	1
296717	55	5
296710	70	1
296718	70	5
296711	80	1
296719	80	5
296712	90	1
296720	90	5
296694	100	1
296714	100	5
296695	110	1
296696	110	5
296697	125	1
296877	140	1

Flat Tip Kits		
Part	Ref.	Qty.
296698	202	1
296699	203	1
296700	204	1
296701	206	1
296702	208	1
296703	209	1
296704	210	1
296715	210	5
296882	212.5 SPEC	1
296705	212	1
296716	212	5
296706	213	1
296883	213- SPEC	1
296707	215	1

Tool Kit

296835

GX-7A, GX-7 DI, and GX-7 400 models:

Part	Description
117642	5/16 in. Hex Nut Driver
117661	Pine Vise (dual reversible chucks)
296199	1/2 in. Combination Wrench
296188	5/8 in. Combination Wrench
295899	5/16 x 3/8 in. Open End Wrench
127748	Adjustable Wrench
296191	Gasket Removal Tool

Part	Description
---	Air Valve Tool
295898	Cleanout Brush
---	3/32 in, 9/64 in, 5/32 in. and 3/16 in. Allen Wrenches
---	#58 and #60 Mix Module Cleanout Drills (see Mix Module Specifications)
---	5/32 in., 1/8 in., and 6/64 in. Cleanout Drills (use varies depending on model)

Technical Specifications

GX-7A, GX-7 DI, and GX-7 400 Spray Guns		
	US	Metric
Maximum operating pressure	3500 psi	24 MPa, 240 bar
Maximum fluid temperature	200 °F	93 °C
Air supply	100-125 psi	0.7-0.9 MPa, 6.9-8.6 bar
Height	9 in.	23 cm
Length	9.5 in.	24 cm
Width	4.5 in.	11 cm
Weight	3.5 lb	1.5 kg
Maximum output		
GX-7A Model	4 lb/min.	1.8 kg/min.
GX-7 DI Model	4 lb/min.	1.8 kg/min.
GX-7 400 Model	3.5 lb/min.	1.6 kg/min.
Mixing		
GX-7A Model	Internal impingement, airless atomization, solvent-free, mechanically self cleaning	
GX-7 DI Model	Internal direct impingement, airless atomization, solvent-free, mechanically self cleaning	
GX-7 400 Model	Internal direct impingement, airless atomization, solvent-free, mechanically self cleaning	
Materials of Construction		
Wetted materials on all models	Stainless steel, acetal, UHMWP, aluminum, plated carbon steel, brass, fluorocarbon o-ring	
Notes		
All trademarks or registered trademarks are the property of their respective owners.		

California Proposition 65

CALIFORNIA RESIDENTS

 **WARNING:** Cancer and reproductive harm – www.P65warnings.ca.gov.

Graco Standard Warranty

Graco warrants all equipment referenced in this document which is manufactured by Graco 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 Graco, Graco will, for a period of twelve months from the date of sale, repair or replace any part of the equipment determined by Graco to be defective. This warranty applies only when the equipment is installed, operated and maintained in accordance with Graco's written recommendations.

This warranty does not cover, and Graco 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-Graco component parts. Nor shall Graco be liable for malfunction, damage or wear caused by the incompatibility of Graco equipment with structures, accessories, equipment or materials not supplied by Graco, or the improper design, manufacture, installation, operation or maintenance of structures, accessories, equipment or materials not supplied by Graco.

This warranty is conditioned upon the prepaid return of the equipment claimed to be defective to an authorized Graco distributor for verification of the claimed defect. If the claimed defect is verified, Graco will repair or replace free of charge any defective parts. The equipment will be returned to the original purchaser transportation prepaid. If 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.

Graco'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. Any action for breach of warranty must be brought within two (2) years of the date of sale.

GRACO 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 GRACO. These items sold, but not manufactured by Graco (such as electric motors, switches, hose, etc.), are subject to the warranty, if any, of their manufacturer. Graco will provide purchaser with reasonable assistance in making any claim for breach of these warranties.

In no event will Graco be liable for indirect, incidental, special or consequential damages resulting from Graco 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 Graco, or otherwise.

FOR GRACO CANADA CUSTOMERS

The Parties acknowledge that they have required that the present document, as well as all documents, notices and legal proceedings entered into, given or instituted pursuant hereto or relating directly or indirectly hereto, be drawn up in English. Les parties reconnaissent avoir convenu que la rédaction du présente document sera en Anglais, ainsi que tous documents, avis et procédures judiciaires exécutés, donnés ou intentés, à la suite de ou en rapport, directement ou indirectement, avec les procédures concernées.

Graco Information

For the latest information about Graco products, visit www.graco.com.

For patent information, see www.graco.com/patents.

TO PLACE AN ORDER, contact your Graco distributor or call to identify the nearest distributor.

Phone: 612-623-6921 **or Toll Free:** 1-800-328-0211, **Fax:** 612-378-3505

All written and visual data contained in this document reflects the latest product information available at the time of publication. Graco reserves the right to make changes at any time without notice.

Original instructions. This manual contains English. MM 311321

Graco Headquarters: Minneapolis

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