



Probler P₂ Delayed Air Purge / Dispense Counter

Guardian Series Options

For use with Probler P2 dispense gun.



Important Safety Instructions

Read all warnings and instructions in this manual. Save these instructions.



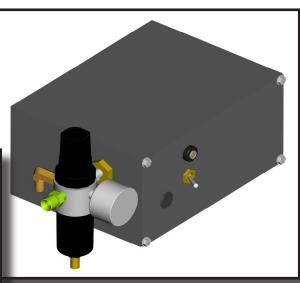






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For Your Reference IN	SIDE BACK COV	ΈR

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 symbol refers to procedure-specific risk. Refer back to these warnings. Additional, product-specific warnings may be found throughout the body of this manual where applicable.

MARNING



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.
- Always wear impervious gloves when spraying or cleaning equipment.



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



SKIN INJECTION HAZARD

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.



- 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.
- Close material shutoff valves and then shut off or disconnect air supply when not spraying.



 Follow Pressure Relief Procedure in this manual, when you stop spraying and before cleaning, checking, or servicing equipment.



BURN HAZARD

Equipment surfaces and fluid that's heated can become very hot during operation. To avoid severe burns, do not touch hot fluid or equipment. Wait until equipment/fluid has cooled completely.



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 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.
- If there is static sparking or you feel a shock, stop operation immediately. Do not use equipment until you identify and correct the problem.
- Keep a working fire extinguisher in the work area.



Warnings

AWARNING

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 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. For complete information about your material, request MSDS forms from distributor or retailer.
- Check equipment daily. Repair or replace worn or damaged parts immediately with genuine manufacturer's replacement parts only.
- Do not alter or modify equipment.
- 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.

PRESSURIZED ALUMINUM PARTS HAZARD



Do not use 1,1,1-trichloroethane, methylene chloride, other halogenated hydrocarbon solvents or fluids containing such solvents in pressurized aluminum equipment. Such use can cause serious chemical reaction and equipment rupture, and result in death, serious injury, and property damage.

Section 1 - Installation: Introduction

Before operating, maintaining or servicing any **GlasCraft** system, read and understand all of the technical and safety literature provided with **GlasCraft** products. If you do not have the proper or related manuals and safety literature for your **GlasCraft** system, contact your **GlasCraft** distributor.

In this **GlasCraft** technical and safety publication, the following advisories will be provided where appropriate:



Is information about the procedure in progress.



Is imperative information about equipment protection.

A CAUTION

Indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.

⚠ WARNING

Indicates a hazardous situation which, if not avoided, could result in death or serious injury.

♠ ELECTRICAL SHOCK HAZARD

Indicates a hazardous situation which, if not avoided, could result in electrical shock or serious injury.

The information in this document is intended only to indicate the components and their normal working relationship typical use. Each assembly should be directed by a **GlasCraft** distributor or made from the **GlasCraft** Assembly instructions provided.

This manual provides information for the assembly, operation, maintenance and service of this **GlasCraft** product as used in a typical configuration. While it lists standard specifications and procedures, some deviations may be found.

In order to provide our users with the most up-to-date technology possible, we are constantly seeking to improve products. If technological change occurs after a product is on the market, we will implement that technology in future production and, if practical, make it available to current users as a retrofit, up-date or supplement. If you find some discrepancy between your unit and the available documentation, contact your **GlasCraft** distributor to resolve the difference.

Careful study and continued use of this manual will provide a better understanding of the equipment and process, resulting in more efficient operation, longer trouble-free service and faster, easier troubleshooting.

Section 1 - Installation: Standard Equipment

Model - Delayed Air Purge

Standard Equipment		
GC1966	DELAYED AIR PURGE ASSEMBLY	
313286	USER MANUAL	

Model - Dispense Counter

Standard Equipment		
GC1967 DISPENSE COUNTER		
313286	USER MANUAL	

Section 1 - Installation: Specifications

DELAYED AIR PURGE FEATURES

When the control box receives a signal from the gun air purge is shut off via the Air Purge control Valve (APCV); this valve is held in with the Delay Spool Valve (DSV). When the trigger is released the gun signal is cancelled to the DSV and the DSV counts down to reset mode. Once complete the APCV is reset and air purge resumes.

The DSV is adjustable up to 15 seconds of delay. Factory set point is 2 seconds. To adjust the time delay of the DSV, remove the plug from cover. Using a small flat head screw driver, turn clockwise to increase delay time or counter-clockwise to decrease delay.

To ensure the gun does not prematurely set up, the operator is responsible for recognizing the air purge delay time verses gel time of materials being processed with this equipment. The Red eye on the front panel indicates when the APCV is open, allowing air purge to the gun. The on/off switch will by-pass the signal air to the DSV, allowing the gun to be operated normally with out the delay action of air purge.

DISPENSE COUNTER FEATURES

The control box receives a signal when the gun trigger is activated, which activates the timer. The timer counter receives signal from the change over switches. Pneumatic drive systems use a 3-way check valve and receive signal from both upper and lower switches, making the timer a "stroke counter". Hydraulic drive systems use a single signal, typically to the lower signal switch, making the timer a "cycle counter".

When the predetermined count is reached the timer activates the bimba cylinder in the back of the gun to overcome the trigger at the gun, the operator will need to recognize this "feel" of the trigger and release the trigger.

When the gun trigger is released the signal air is cancelled to a delay spool valve (DSV) located in box assembly. The DSV delays the reset of the counter for 3 seconds. The timer will reset to the set point and cancel the air to the actuation cylinder.

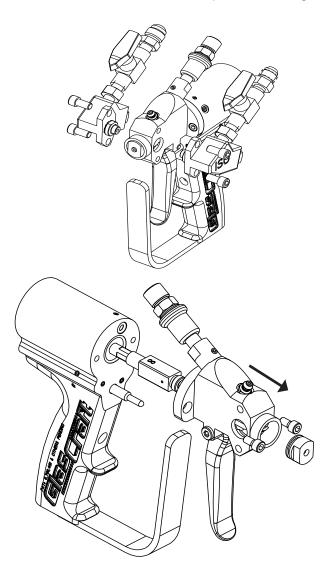
The on/off switch will by-pass the counter signal allowing the system to operated independent of the counter.

COUNTER CALCULATIONS

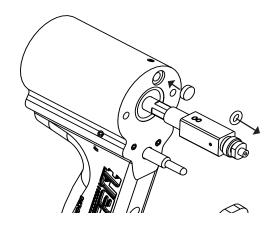
Stroke output = .021 gallon Cycle output = .042 gallons

Delayed Air Purge Gun Installation

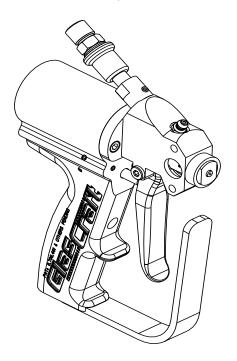
1. Remove the side blocks, air cap, and nose of gun.



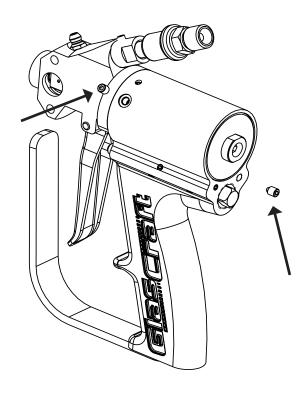
2. Remove o-ring from handle and install plug.



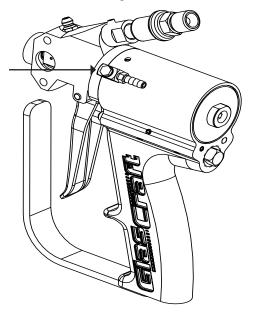
3. Re-install nose and air cap



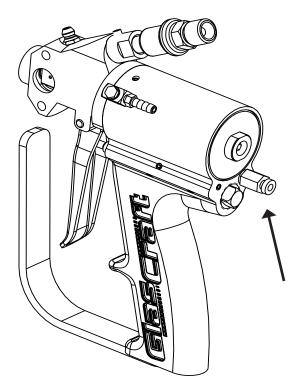
- **4.** Remove the two 10-32 plugs from gun handle.
 - a. Back right of handleb. Top left of barrel



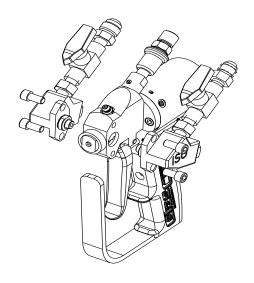
5. Install swivel fitting and hose fitting on the top of the gun barrel. Air trigger tubing (1/4 O.D., 0.170 I.D.) connects to this fitting.



6. Install connector on the back right port. The signal air tubing connects to this fitting.



7. Reinstall side blocks after initial system start up is complete.

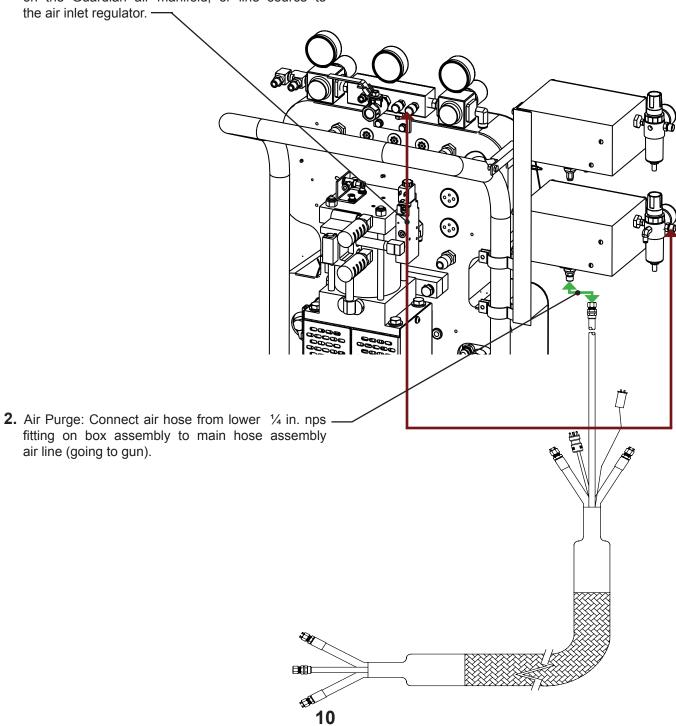


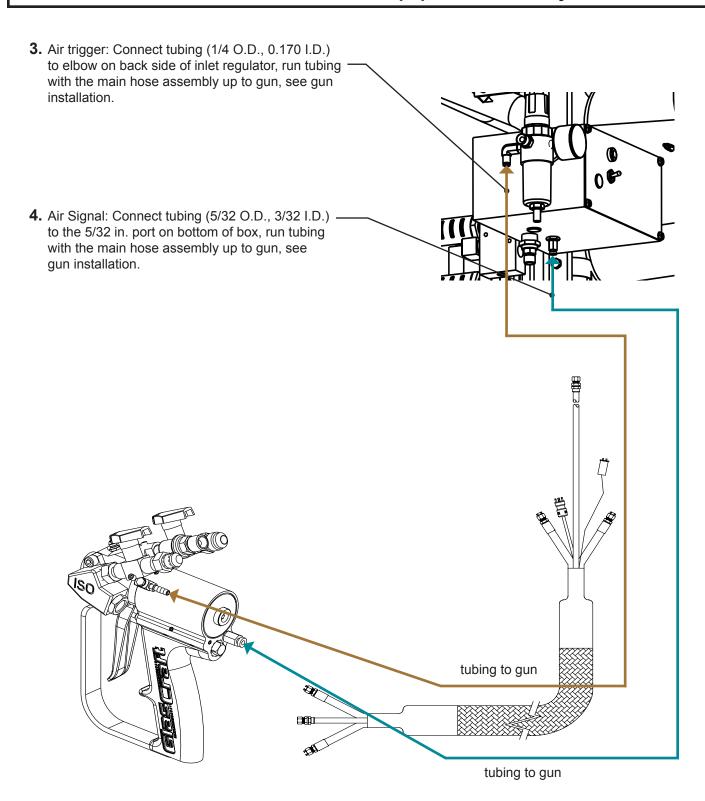


The box can be remote mounted to the operators discretion. Bracket kit GC1897 allows both the delay box and timer box to be mounted to Guardian series systems (refer to the options section of this manual to install the kit BEFORE beginning with step 1.).

HOSES

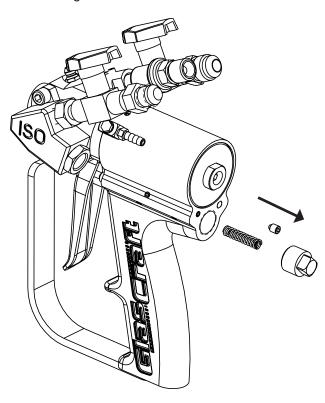
1. Main air: Connect air hose from an accessory port on the Guardian air manifold, or line source to



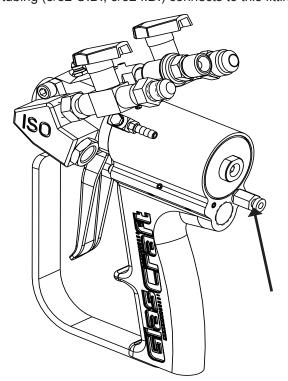


Dispense Counter Gun Installation

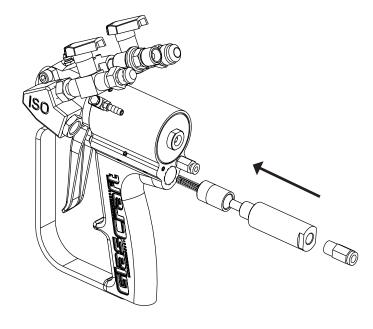
1. Remove trigger plug, spring, and 10-32 plug from back of gun.



2. Install connector in 10-32 port. the signal air tubing (5/32 O.D., 3/32 I.D.) connects to this fitting



3. Install spring, cylinder adapter, cylinder, and fitting. The actuator tubing (1/4 O.D., 0.170 I.D.) connects to this fitting.

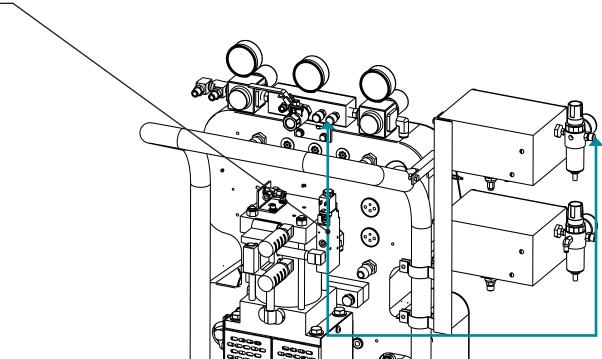




The box can be remote mounted to the operators discretion. Bracket kit GC1897 allows both the delay box and timer box to be mounted to Guardian series systems (refer to the options section of this manual to install the kit BEFORE beginning with step 1.).

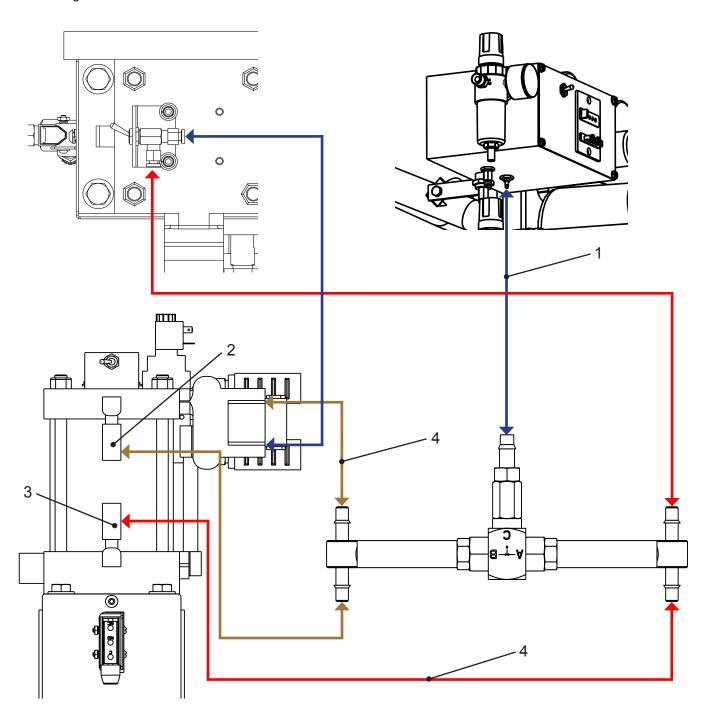
HOSES

1. Main air: Connect air hose from accessory port of Guardian air manifold, or line source to inlet regulator. —



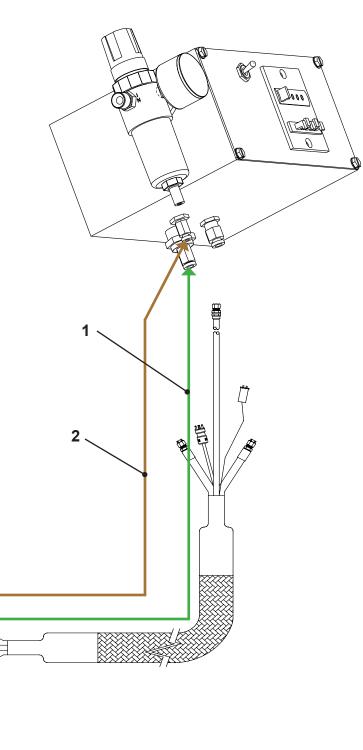
Pneumatic Unit Installation

- **1.** Counter input: Connect hose (1/4 O.D., 1/8 I.D.) from barb fitting on the bottom of control the box to the drive cylinder switches. See signal switch paragraph.
- **2.** Locate upper signal tubing (clear) and cut line 1.5 in. from signal valve.
- **3.** Locate lower signal tubing (blue) and cut line 1.5 in. from signal valve.
- **4.** Install counter stroke signal tee sub-assembly, in line of each signal valve line



Dispense Counter Installation

- **1.** Actuation cylinder: Connect hose (1/4 O.D., 0.170 I.D.) to fitting in bottom of box (*center*) route this hose with main hose assembly up to gun. See gun installation.
- **2.** Air Signal: Connect hose (5/32 O.D., 3/32 I.D.) to 5/32 in. port on bottom (*left*) of box, run hose with main hose assembly up to gun. See gun installation.



Section 2 - Operation: Start-Up Instructions

START UP DELAYED AIR PURGE

- 1. Prime system per system manual instructions.
- 2. Set air regulator to 120 psi (0.84 MPa, 8.4 bar); this is recommended operation pressure. The minimum recommended set point is 90 psi (0.63 MPa, 6.3 bar).
- **3.** Push slide valve to the "ON" position on the gun, air purge should be on.
- **4.** Trigger Gun and hold. The "Red eye" on the control box face should pull "off".
- **5.** Release gun trigger. Air purge should not be present and "red eye" should be "off" for 2 seconds.
- **6.** Air purge will resume and "red eye" will be "on".

START UP PNEUMATIC COUNTER

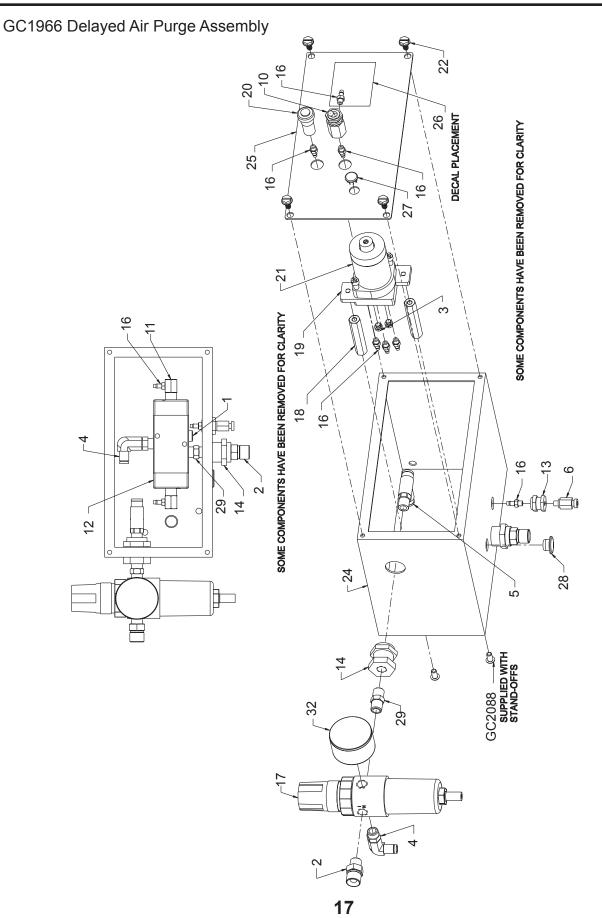
- **1.** Prime system per manual instructions.
- 2. Set air regulator to 100 psi (0.7 MPa, 7.0 bar); this is recommended operation pressure. The minimum recommended set point is 90 psi (0.63 MPa, 6.3 bar).
- Depress and hold set button (to left of counter face) depress each corresponding push button to set cycle count (I.E. 00015 = 15 pump cycles).
- **4.** It is recommended to test spray system before activating the timer box. During initial start up leave Timer box "on/off" switch to the "off" position.
- **5.** After determining set point of counter, switch unit "on" and begin operation.



The air purge requires at least 1 second of trigger "on" to fully engage the delay spool & deactivate the air purge.



The Timer requires at least 1 second of trigger "on" to fully engage the delay spool & activate the unit.



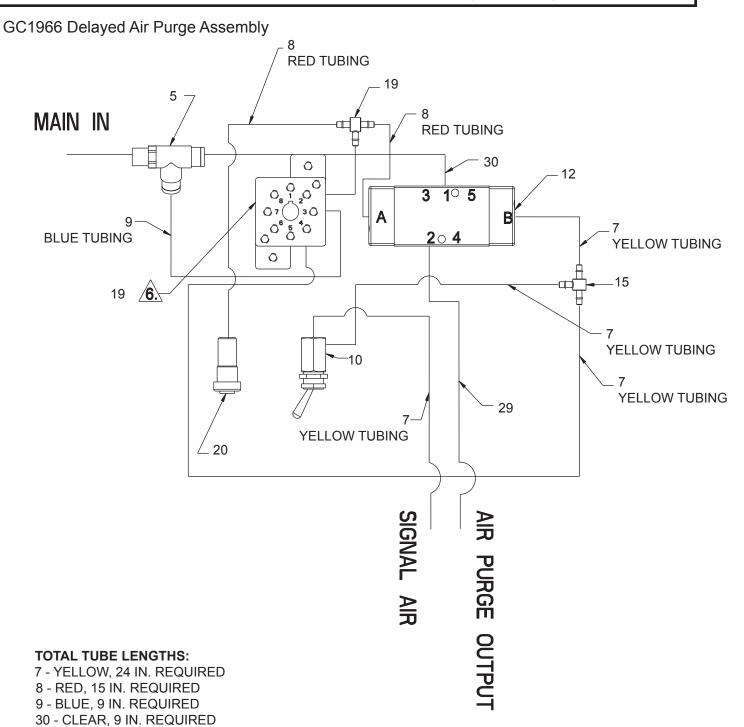


DIAGRAM:

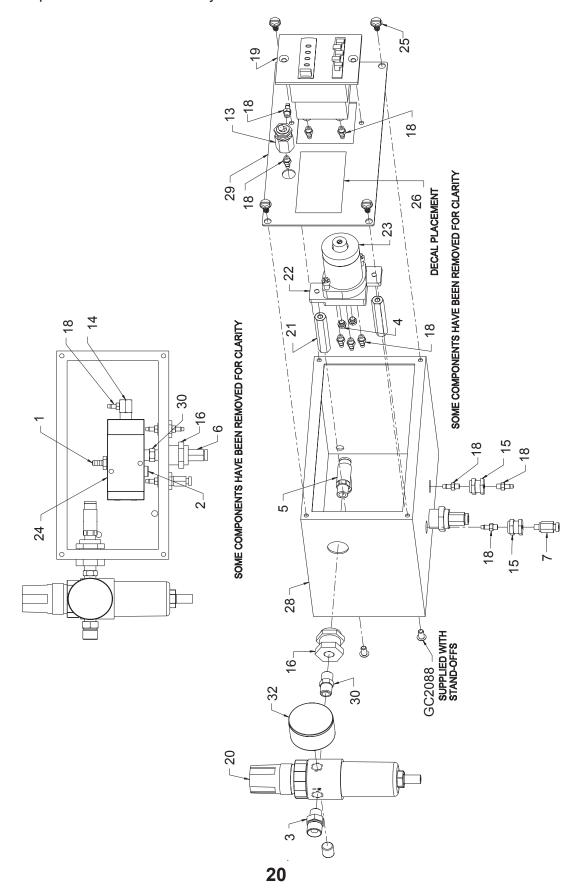
- 1. OPEN
- 2. GC1098 (Ref.)
- 3. GC1098 (Ref.)
- 4. GC1098 (Ref.)
- 5. OPEN
- 6. OPEN
- 7. GC0331 (Ref.)
- 8. GC0331 (Ref.)

GC1966 Delayed Air Purge Parts List

Ref.	Part	Description	Qty.
1	GC0024	PLUG, PIPE	1
2	GC0275	FITTING, HOSE	2
3	GC0331	FITTING, PLUG	2
4	GC0490	FITTING, ELBOW, SWIVEL; 1/8 NPTM X 1/4 TUBE	2
5	GC0496	FITTING, TEE, SWIVEL, MALE RUN	1
6	GC0500	FITTING, CONNECTOR	1
7 ☆		HOSE, TUBNG, POLYURETHANE, 1/4 IN., YELLOW; 2 FT.	
8 ☆		HOSE, TUBNG, POLYURETHANE, 1/4 IN, RED; 1.25 FT.	
9 ☆		HOSE, TUBNG, POLYURETHANE,1/4 IN., BLUE; 0.75 FT.	
10	GC0753	VALVE, CONTROL, 2-WAY	1
11	GC1089	FITTING, "L"; 1/8 NPT X 10-32	2
12	GC1093	VALVE, SPOOL; 1/8 NPT	1
13	GC1094	FITTING, BULKHEAD;15/32-32	1
14	GC1095	FITTING, BULKHEAD; 3/4-20	2
15	GC1096	FITTING, TUBE, TEE; 1/8 IN.	2
16	GC1098	FITTING, HOSE	9
17	GC1101	FILTER, REGULATOR, INTEGRATED	1
18		EXTENSION, STANDOFF, HEX; 3/8 X 2	2
19	GC1103	PLATE, MTG, VALVE	1
20	GC1104	INDICATOR, PRESSURE, PNEUMATIC	1
21	GC1105	VALVE, 3-WAY, DELAY	1
22	GC1258	SCREW	4
23	GC1895	KIT, DELAYED AIR PURGE, P2; NOT SHOWN	1
24 ☆		BOX, DELAY/COUNTER, P2	1
25 ☆		COVER, BOX, DELAY, P2	1
26 ☆		LABEL, P2 DELAYED AIR PURGE	1
27	GC2027	PLUG, HOLE, RETAINER	1
28	GC2029	PLUG, HOLE, LOCKING, PLASTIC; 7/16 IN.	1
29	GC2166	FITTING, PIPE, NIPPLE, HEX; 1/8 X 1/8	2
30 ☆		HOSE, TUBNG; 1/4 O.D., 0.170 I.D.; 0.750 FT.	
32	GC2300	GAUGE, POT, SOLVENT	1
		·	

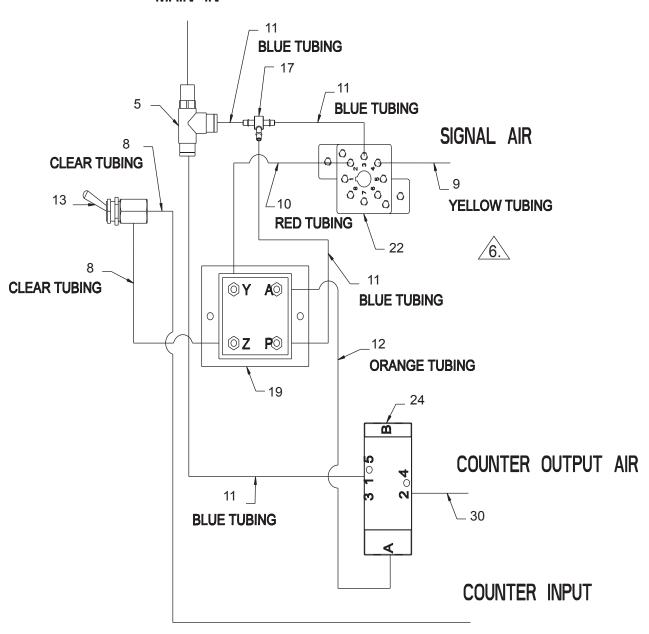
[☆] Purchase locally.

GC1967 Dispense Counter Assembly



GC1967 Dispense Counter Assembly

MAIN IN



TOTAL TUBE LENGTHS:

- 8 CLEAR, 16.5 IN. REQUIRED
- 9 YELLOW, 6 IN. REQUIRED
- 10 RED, 9 IN. REQUIRED
- 11 BLUE, 22.5 IN. REQUIRED
- 12 ORANGE, 9 IN. REQUIRED

DIAGRAM:

- 1. OPEN
- 2. GC1098 (Ref.)
- 3. GC1098 (Ref.)
- 4. GC1098 (Ref.)
- 5. OPEN
- 6. OPEN
- 7. GC0331 (Ref.)
- 8. GC0331 (Ref.)

GC1967 Dispense Counter Parts List

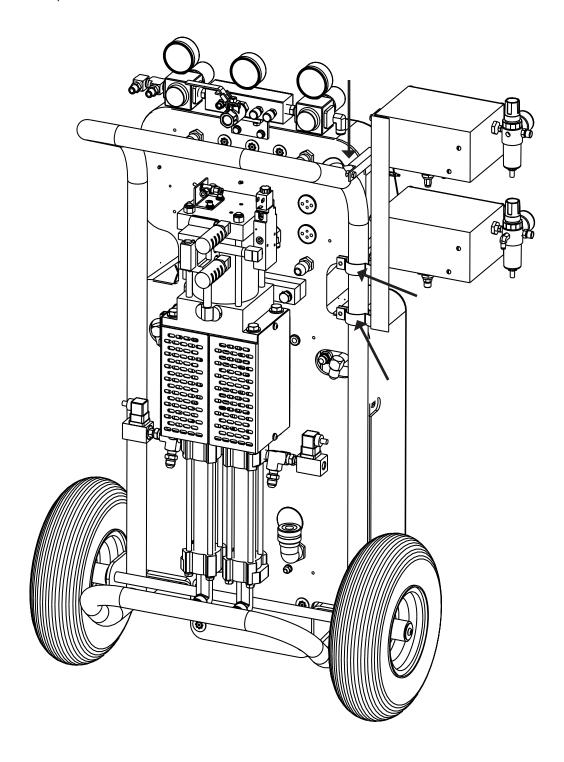
Ref.	Part	Description	Qty.
1	GC0018	FITTING, HOSE	1
2	GC0024	PLUG, PIPE,	1
3	GC0275	FITTING, HOSE	1
4	GC0331	FITTING, PLUG	2
5	GC0496	FITTING, TEE, SWIVEL, MALE RUN	1
6	GC0498	FITTING, CONNECTOR	1
7	GC0500	FITTING, CONNECTOR	1
8 ☆		HOSE, TUBNG, POLYURETHANE, 1/4 IN., CLEAR; 1.375 FT.	
9 ☆		HOSE,TUBNG, POLYURETHANE, 1/4 IN., YELLOW; 0.5 FT.	
10 ☆		HOSE, TUBNG, POLYURETHANE, 1/4 IN., RED; 0.75 FT.	
11 ☆		HOSE, TUBNG, POLYURETHANE, 1/4 IN., BLUE; 1.875 FT.	
12 ☆		HOSE, TUBNG, POLYURETHANE,1/4 IN., ORANGE; 0.75 FT.	
13	GC0753	VALVE, CONTROL, 2-WAY	1
14	GC1089	FITTING, "L"; 1/8 NPT X 10-32	1
15	GC1094	FITTING, BULKHEAD; 15/32-32	2
16	GC1095	FITTING, BULKHEAD; 3/4-20	2
17	GC1096	FITTING, TUBE, TEE, 1/8 IN.	1
18	GC1098	FITTING, HOSE	13
19	GC1099	COUNTER, PREDETERMINING	1
20	GC1101	FILTER, REGULATOR, INTEGRATED	1
21	GC1102	EXTENSION, STANDOFF, HEX; 3/8 X 2	2
22	GC1103	PLATE, MTG, VALVE	1
23	GC1105	VALVE, 3-WAY, DELAY	1
24	GC1223	VALVE, SPOOL, 1/8 NPT	1
25	GC1258	SCREW	4
26 ☆		LABEL, P2 DISPENSE COUNTER	1
27 ☆		KIT, DISPENSE COUNTER, P2; NOT SHOWN	1
28 ☆		BOX, DELAY/COUNTER, P2	1
29 ☆		COVER, BOX, COUNTER, P2	1
30	GC2166	FITTING, PIPE, NIPPLE, HEX; 1/8 X 1/8	2
32	GC2300	GAUGE, POT, SOLVENT	1

 $[\]Leftrightarrow$ Purchase locally.

Section 3 - General Information: Options

GC1897 Guardian Series Mounting Bracket

1. Install the mounting bracket by securing the band clamps to the frame as shown.



Section 4 - Warranty and Reference Information: Limited Warranty Policy

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

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

PARA EFETUAR ENCOMENDAS OU PARA ASSISTÊNCIA TÉCNICA, contate o seu distribuidor da Graco. POUR PLACER UNE COMMANDE OU DEMANDER DU SERVICE, contactez votre distributeur Graco. PARA REMITIR UN PEDIDO O SOLICITAR SERVICIO, póngase en contacto con el distribuidor de Graco.

Section 4 - Warranty and Reference Information: Technical Assistance

Thank You for selecting GlasCraft spray equipment

Should you have any questions or need technical assistance, contact your fa	actory a	authorized
GlasCraft distributor.		

For Air Powered Systems:

For any issues your distributor cannot address, the GlasCraft technical service department is always available to assist you with the operation of your spray equipment. To help our technical representatives expedite your call and better address your questions, please have the following information ready and available when you phone GlasCraft.

* If your questions are not urgent, please call 1-800-328-0211.

Model: Serial number:	Air compressor size:CFM generated:
Type of spray gun: Serial number:	Pressure at the system: Hydraulic Pneumatic
Is your equipment:	Dynamic fluid pressure:
Single phase: Three phase	ISO POLY
What is the inbound voltage to your equipment:	Spray gun chamber size:
Temperature setting ISO:	Viscosity: ISO POLY
Temperature setting POLY:	Approximate material temperature:
Temperature setting HOSE:	

For Your Reference



Date Purchased	
Distributor	
Contact	
Phone	
E-mail	

GlasCraft manufactures a complete line of polyurethane foam and polyurea coating spray systems. If your application is in-plant or a field contractor - GlasCraft has a system package to meet your requirements.

GUARDIAN - AIR POWERED / A5 & A6 SERIES EQUIPMENT

- . 6000 OR 12000 WATTS OF HEAT
- . 1600, 2200, OR 3000 PRESSURE SET-UPS AVAILABLE

MH, MH II, & MH III HYDRAULIC POWERED SYSTEMS

- . UP TO 45 LBS / MINUTE OUTPUT
- . EXCELLENT PERFORMANCE AND RELIABILITY

GUARDIAN MMH - MOBILE MODULAR HYDRAULIC SYSTEMS

- . SPECIFICALLY DESIGNED FOR ANY TYPE OF SPRAY RIG
- . GIVE COMPLETE UTILIZATION OF FLOOR SPACE IN MOBILE RIG

PROBLER P2 SPRAY GUN

- . IMPINGEMENT MIX / AIR PURGE
- . OPTIONAL NOZZLE FOR SPRAYING STUD WALLS, POURING & STREAM JET

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