

# **BINKS® MODELS 84-598 & 84-599 (OBS)**

## **REMOTE FLUID PRESSURE REGULATORS**

### **(30 OZ./MIN. & 100 OZ./MIN.)**

**INTRODUCTION**

The Binks Models 84-598 and 84-599 (obsolete) Remote Fluid Pressure Regulators are designed for use with Manual or Automatic Spraying Systems utilizing an I/P (current to pressure) or E/P (voltage to pressure) Transducer and where precise fluid pressure outputs to spray gun are required. The flow rate for model 84-598 is rated at 30 oz./min. The flow rate for model 84-599 (obsolete) is rated at 100 oz./min.

**ADVANTAGES**

1. Accurate and repeatable fluid flows with maximum control sensitivity.
2. Small plastic fluid cavity for rapid cleanout and color flush cycles.
3. Positive spring-loaded shut-off (no leakage).
4. Designed to protect electronic transducer control systems (independent vented air chamber).
5. Can be used on open and closed loop fluid pressure control systems.
6. Maximum corrosion and solvent resistance.
7. Contains air gap to permit indication of air or fluid diaphragm failure.
8. Contains carbide seats and valves.

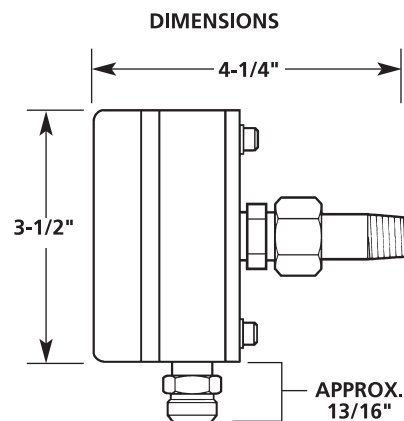
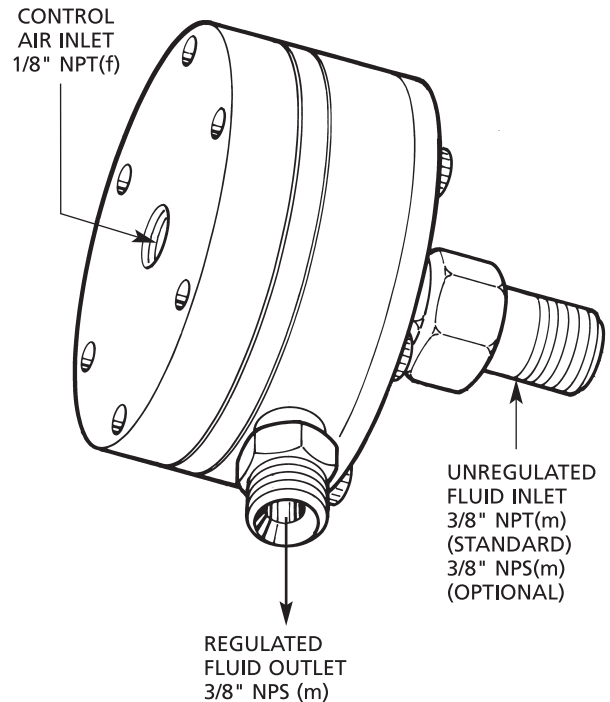
**SET-UP INSTRUCTIONS**

The fluid inlet is fitted into the regulator body with a 3/8" NPT(m) (standard), 3/8" NPS(m) (optional) swivel nut connection. The fluid outlet connection is 3/8" NPS(m). The control air inlet is 1/8" NPT(f).

The regulator may be mounted in either a horizontal or vertical position. As little as 4 PSI control air pressure will open this regulator depending on fluid pressure supply.

**PRESSURE AND FLOW DATA**

Regulation Range (Control Air)	4-100 psi	7.03 kg/cm <sup>2</sup>
Maximum Fluid Inlet Pressure	200 psi	14.06 kg/cm <sup>2</sup>
Control Ratio (approx.)	1:1	



APPROX. WT. 1.85 LBS.

In this part sheet, the words **WARNING**, **CAUTION** and **NOTE** are used to emphasize important safety information as follows:

## **WARNING**

Hazards or unsafe practices which could result in severe personal injury, death or substantial property damage.

## **CAUTION**

Hazards or unsafe practices which could result in minor personal injury, product or property damage.

## **NOTE**

Important installation, operation or maintenance information.

## **WARNING**

### Read the following warnings before using this equipment.



#### READ THE MANUAL

Before operating finishing equipment, read and understand all safety, operation and maintenance information provided in the operation manual.



#### OPERATOR TRAINING

All personnel must be trained before operating finishing equipment.



#### EQUIPMENT MISUSE HAZARD

Equipment misuse can cause the equipment to rupture, malfunction, or start unexpectedly and result in serious injury.



#### LOCK OUT / TAG-OUT

Failure to de-energize, disconnect, lock out and tag-out all power sources before performing equipment maintenance could cause serious injury or death.



#### AUTOMATIC EQUIPMENT

Automatic equipment may start suddenly without warning.



#### PRESSURE RELIEF PROCEDURE

Always follow the pressure relief procedure in the equipment instruction manual.



#### KEEP EQUIPMENT GUARDS IN PLACE

Do not operate the equipment if the safety devices have been removed.



#### KNOW WHERE AND HOW TO SHUT OFF THE EQUIPMENT IN CASE OF AN EMERGENCY



#### WEAR SAFETY GLASSES

Failure to wear safety glasses with side shields could result in serious eye injury or blindness.



#### INSPECT THE EQUIPMENT DAILY

Inspect the equipment for worn or broken parts on a daily basis. Do not operate the equipment if you are uncertain about its condition.



#### NEVER MODIFY THE EQUIPMENT

Do not modify the equipment unless the manufacturer provides written approval.



#### NOISE HAZARD

You may be injured by loud noise. Hearing protection may be required when using this equipment.



#### PROJECTILE HAZARD

You may be injured by venting liquids or gases that are released under pressure, or flying debris.



#### PINCH POINT HAZARD

Moving parts can crush and cut. Pinch points are basically any areas where there are moving parts.



#### STATIC CHARGE

Fluid may develop a static charge that must be dissipated through proper grounding of the equipment, objects to be sprayed and all other electrically conductive objects in the dispensing area. Improper grounding or sparks can cause a hazardous condition and result in fire, explosion or electric shock and other serious injury.



#### WEAR RESPIRATOR

Toxic fumes can cause serious injury or death if inhaled. Wear a respirator as recommended by the fluid and solvent manufacturer's Safety Data Sheet.



#### TOXIC FLUID & FUMES

Hazardous fluid or toxic fumes can cause serious injury or death if splashed in the eyes or on the skin, inhaled, injected or swallowed. LEARN and KNOW the specific hazards of the fluids you are using.



#### FIRE AND EXPLOSION HAZARD

Improper equipment grounding, poor ventilation, open flame or sparks can cause a hazardous condition and result in fire or explosion and serious injury.



#### MEDICAL ALERT

Any injury caused by high pressure liquid can be serious. If you are injured or even suspect an injury:

- Go to an emergency room immediately.
- Tell the doctor you suspect an injection injury.
- Show the doctor this medical information or the medical alert card provided with your airless spray equipment.
- Tell the doctor what kind of fluid you were spraying or dispensing.



#### GET IMMEDIATE MEDICAL ATTENTION

To prevent contact with the fluid, please note the following:

- Never point the gun/valve at anyone or any part of the body.
- Never put hand or fingers over the spray tip.
- Never attempt to stop or deflect fluid leaks with your hand, body, glove or rag.
- Always have the tip guard on the spray gun before spraying.
- Always ensure that the gun trigger safety operates before spraying.



#### PROP 65 WARNING

WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

**IT IS THE RESPONSIBILITY OF THE EMPLOYER TO PROVIDE THIS INFORMATION TO THE OPERATOR OF THE EQUIPMENT. FOR FURTHER SAFETY INFORMATION REGARDING THIS EQUIPMENT, SEE THE GENERAL EQUIPMENT SAFETY BOOKLET (77-5300).**

## BINKS MODELS 84-598 & 84-599 (OBSOLETE) REMOTE FLUID PRESSURE REGULATORS

### RECOMMENDED MAXIMUM FLUID FLOWS

#### MODEL 84-598

##### For low and medium viscosity abrasive materials

(14-30 sec. Zahn 2, 10-70 centipoise):  
Use 84-537 seat, 84-538 valve, and  
84-526 gasket for 1/4" dia. valve  
(30 oz./min., 887 cc/min.).

#### MODEL 84-599 (OBSOLETE)

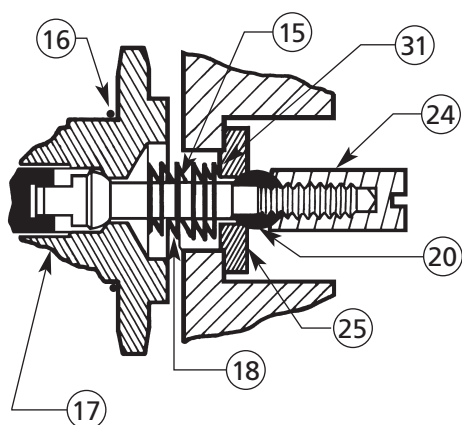
##### For high viscosity abrasive materials

(Over 30 sec. Zahn 2, over 70 centipoise):  
Use 84-523 seat, 84-524 valve, and  
84-470 cap nut, and 84-526 gasket for  
3/8" dia. valve (100 oz./min., 2957 cc/min.).

### SERVICE INSTRUCTIONS

#### TO REPLACE THE FLUID VALVE, SEAT AND GASKET

1. Flush the system with solvent and air.
2. Shut off all fluid and air supply lines and disconnect all hoses.
3. Remove the regulator from the system by loosening the swivel nut (29).
4. At the fluid inlet, remove (counter-clockwise rotation) slotted cap nut (24) with screwdriver. The valve (20) will slide off the rod (15).
5. Unscrew (counter-clockwise rotation) hexagon inlet (27). Valve seat (25), spring (18), and gasket (31) will be removed with inlet (27).
6. Remove the valve seat (25) and gasket (31) from the body (19). Replace seat (25) and gasket (31) if worn. The valve (20) may be reversed and reused unless both sides are worn.



#### TO REASSEMBLE

1. Mount spring (18) onto rod (15) and insert gasket (31) and seat (25) into body (19). NOTE POSITION OF SHOULDER ON SEAT (25).
2. Place valve (20) on rod (15) and screw on and tighten cap nut (24).
3. Screw inlet (27) into body (19) and tighten. DO NOT OVER-TIGHTEN. Doing so may strip threads. The regulator requires no adjustments.

### NOTE

Numbers in parenthesis ( ) refer to item numbers shown in Parts List on page 5.

#### TO REPLACE DIAPHRAGMS (AIR AND/OR FLUID)

1. Complete Steps 1 through 4 in section "To Replace Fluid Valve and Seat."
2. Remove bonnet (2A) by loosening all six socket head cap screws (23).
3. Clamp diaphragm assembly in vise, loosen nut (4) and remove diaphragms (5, 11, 13).

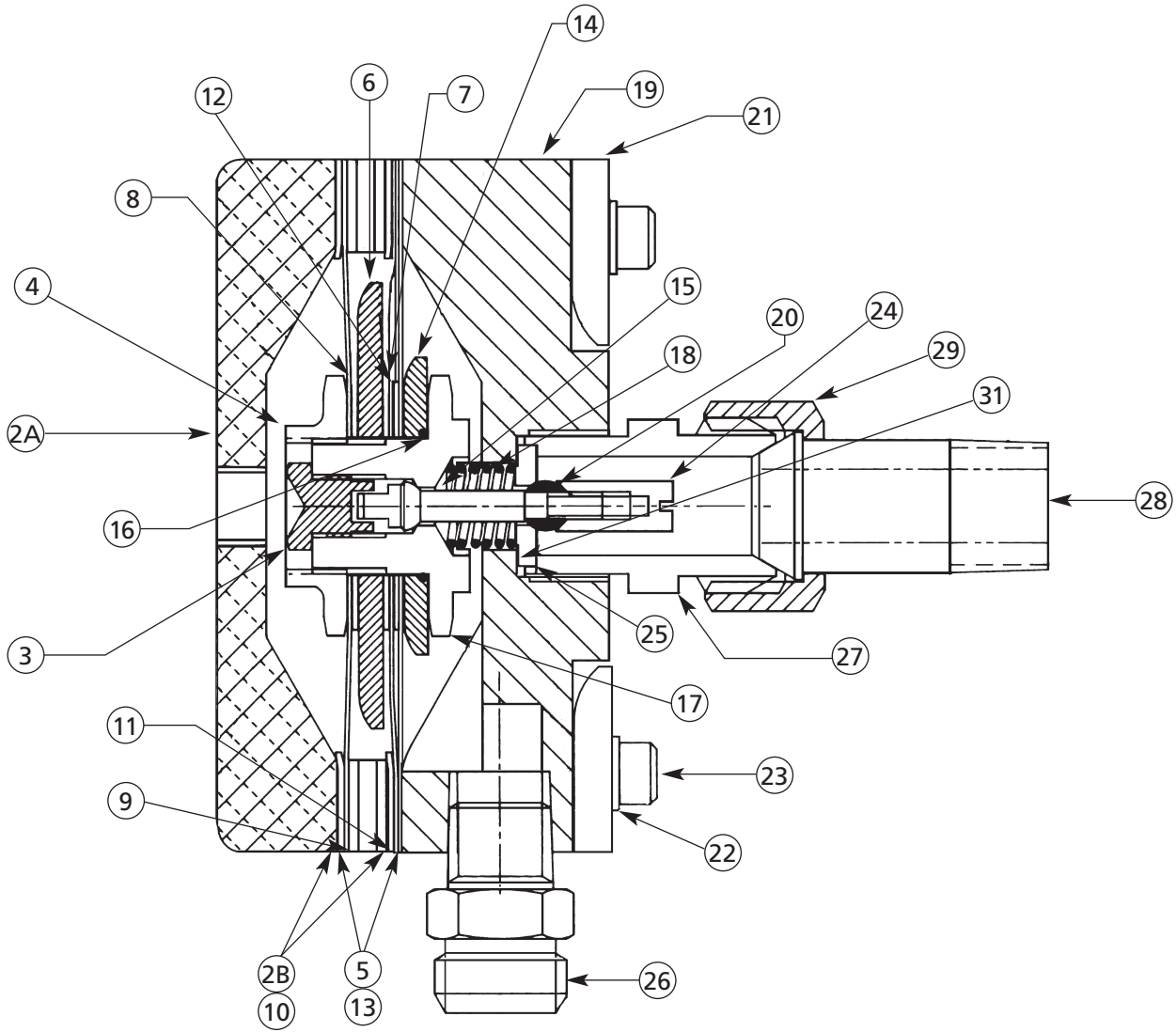
#### TO REASSEMBLE

Reverse the above procedure.

### NOTE

Make sure that the fastener holes on items 5, 11, and 13 are aligned before tightening item 4.

**BINKS MODELS 84-598 & 84-599 (OBSOLETE) REMOTE FLUID PRESSURE REGULATORS  
SERVICE INSTRUCTIONS**

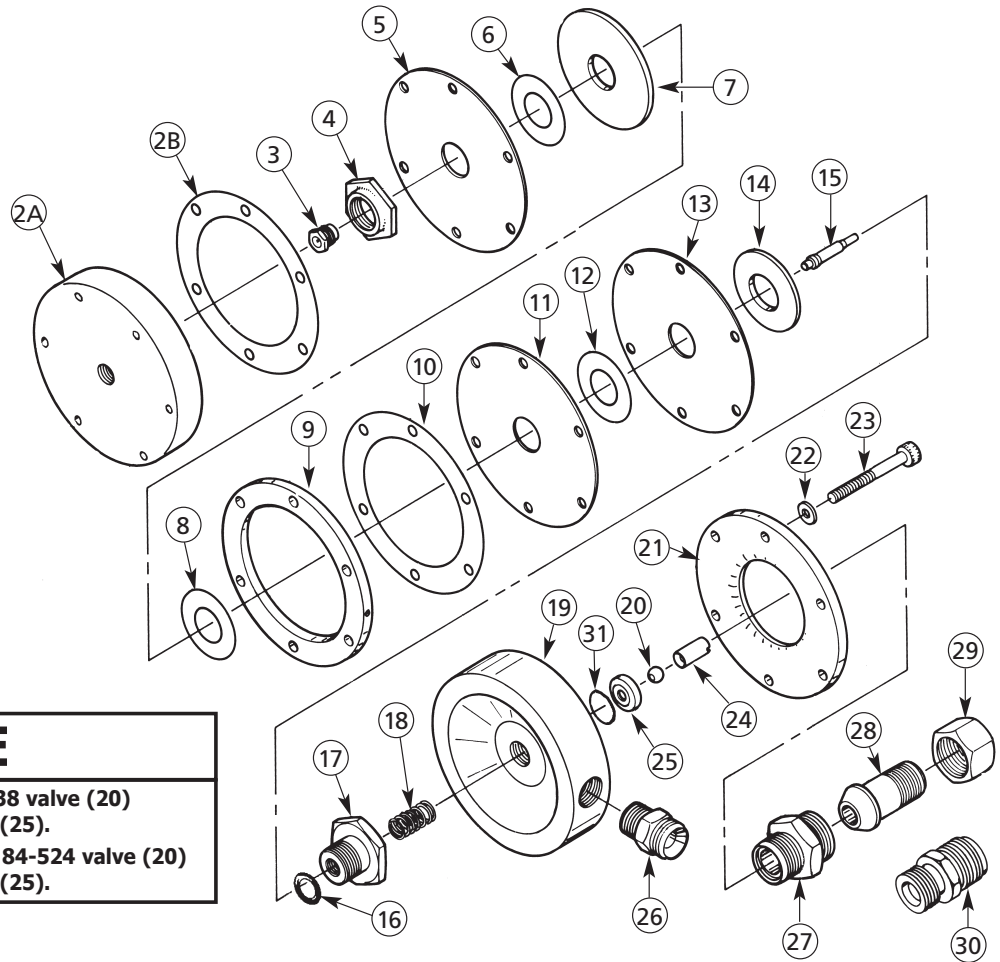


**NOTE**

Use PTFE tape on threads of  
items 3 and 17.

<b>TORQUE SPECIFICATIONS</b>	
ITEM	TORQUE
3	100-110 in-lbs.
4	110-120 in-lbs.
22	35-45 in-lbs.

**BINKS MODELS 84-598 & 84-599 (OBSOLETE) REMOTE FLUID PRESSURE REGULATORS**



**NOTE**

Model 84-598 uses 84-538 valve (20) and 84-537 seat (25).  
 Model 84-599 (obsolete) uses 84-524 valve (20) and 84-523 seat (25).

**PARTS LIST**

When ordering, please specify Part No.

ITEM NO.	PART NO.	DESCRIPTION	QTY.
2A	84-534	BONNET	1
2B	84-463*†	GASKET	1
3	84-604*†	SOCKET RETAINER	1
4	84-331	NUT	1
5	84-399*†	DIAPHRAGM	1
6	84-388*†	GASKET	1
7	84-398	DISK	1
8		(SAME AS ITEM 6)	1
9	84-532	SPACER	1
10		(SAME AS ITEM 2B)	1
11	84-329*†	DIAPHRAGM	1
12		(SAME AS ITEM 6)	1
13		(SAME AS ITEM 5)	1
14	84-603*†	DISC	1
15	84-395	ROD	1
16	20-5921*†	O-RING (TO PREVENT LEAKAGE)	1
17	84-467*†	RETAINER	1
18	84-535*†	SPRING	1
19	84-533	BODY (ALUM.)	1
20	84-524†	VALVE (TUNGSTEN CARBIDE)	1
20	84-538*	VALVE (TUNGSTEN CARBIDE)	1

ITEM NO.	PART NO.	DESCRIPTION	QTY.
21	84-493	FLANGE	1
22	20-1375	LOCKWASHER (#10)	6
23	20-3336	SOC. HD. CAP SCREW (10-24 X 1-3/4" LONG)	6
24	84-336	CAP NUT (MODEL 84-598, OBSOLETE)	1
24	84-470	CAP NUT (MODEL 84-599)	1
25	84-523†	SEAT (TUNGSTEN CARBIDE)	1
25	84-537*	SEAT (TUNGSTEN CARBIDE)	1
26	83-2484	D.M. NIPPLE (STAINLESS STEEL) (1/4" NPT X 3/8" NPS)	1
27	84-337	INLET	1
28	84-318	TAILPIECE	1
29	72-337	SWIVEL NUT	1
30	84-529■◆	INLET (3/8" NPS)	1
31	84-526*†	GASKET	1

\* Also available in Repair Kit 6-525 (Model 84-598, obsolete). Kit needs to be ordered separately.

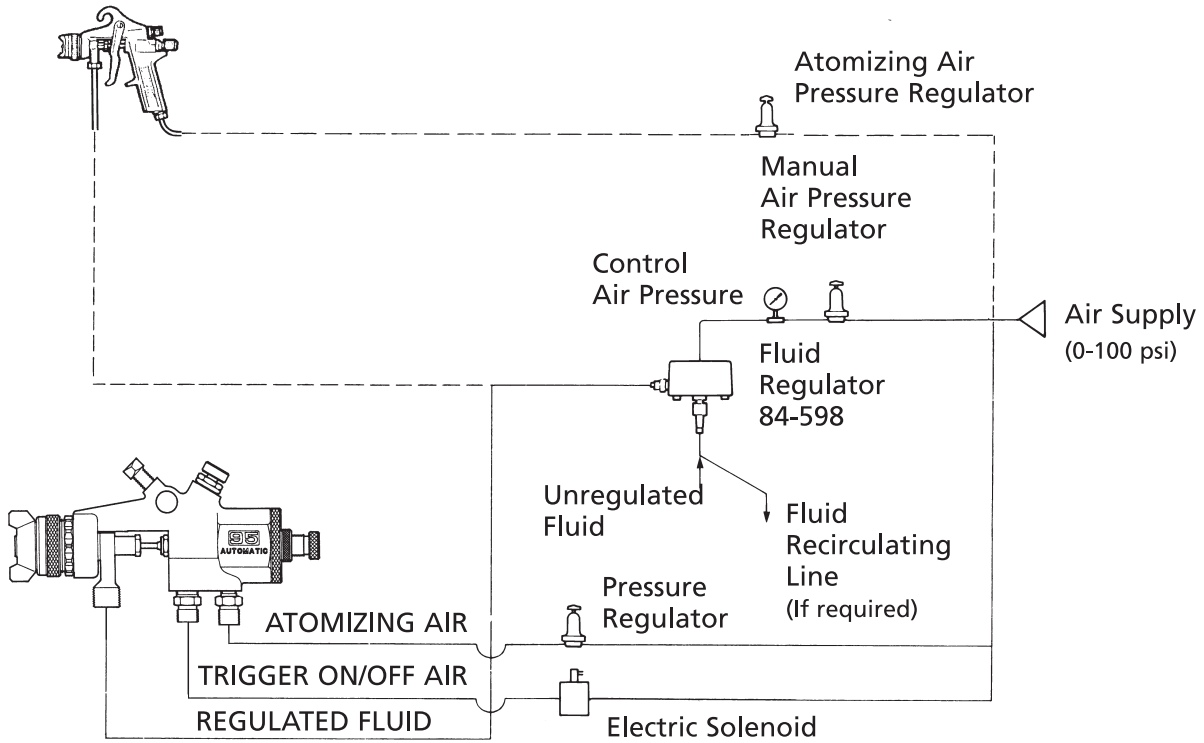
† Also available in Repair Kit 6-526 (Model 84-599). Kit needs to be ordered separately.

■ Optional. Please order separately.

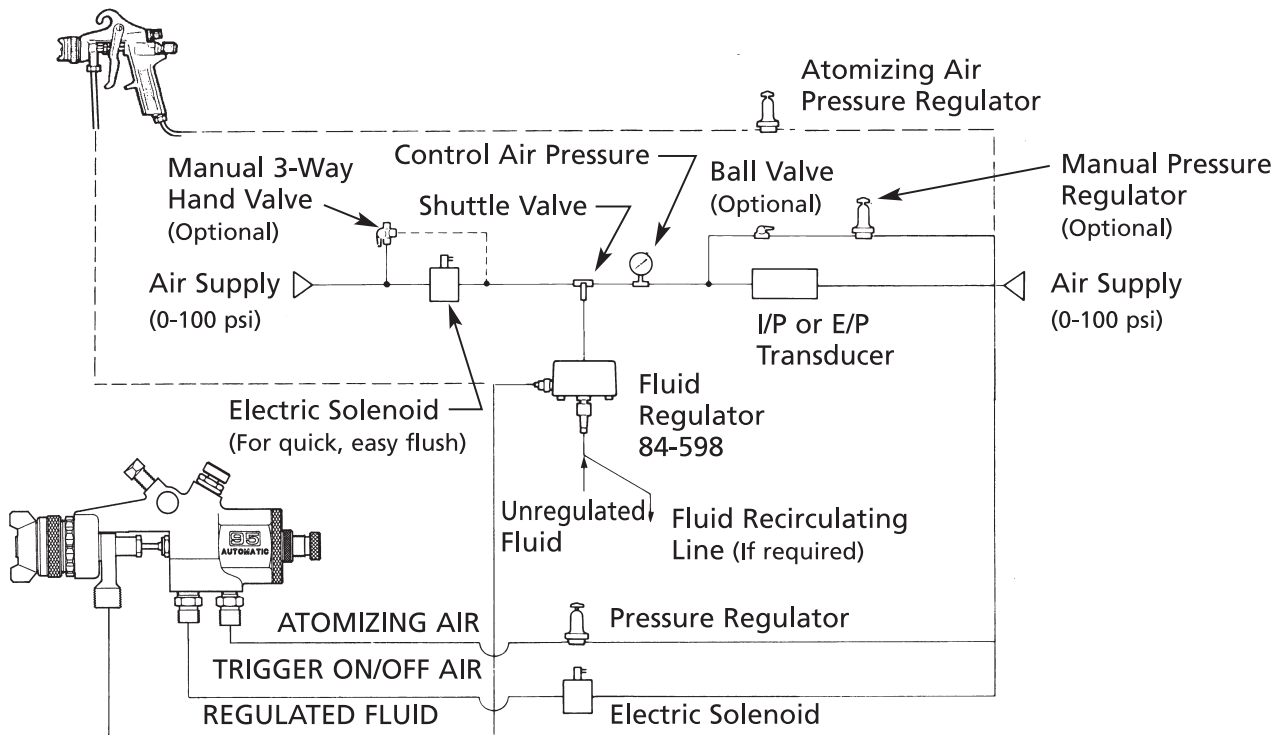
◆ Item 30, when used, replaces the three Items 27, 28, 29.

**BINKS MODELS 84-598 & 84-599 (OBSOLETE) REMOTE FLUID PRESSURE REGULATORS**

**MANUAL CONTROL METHOD – OPEN LOOP**

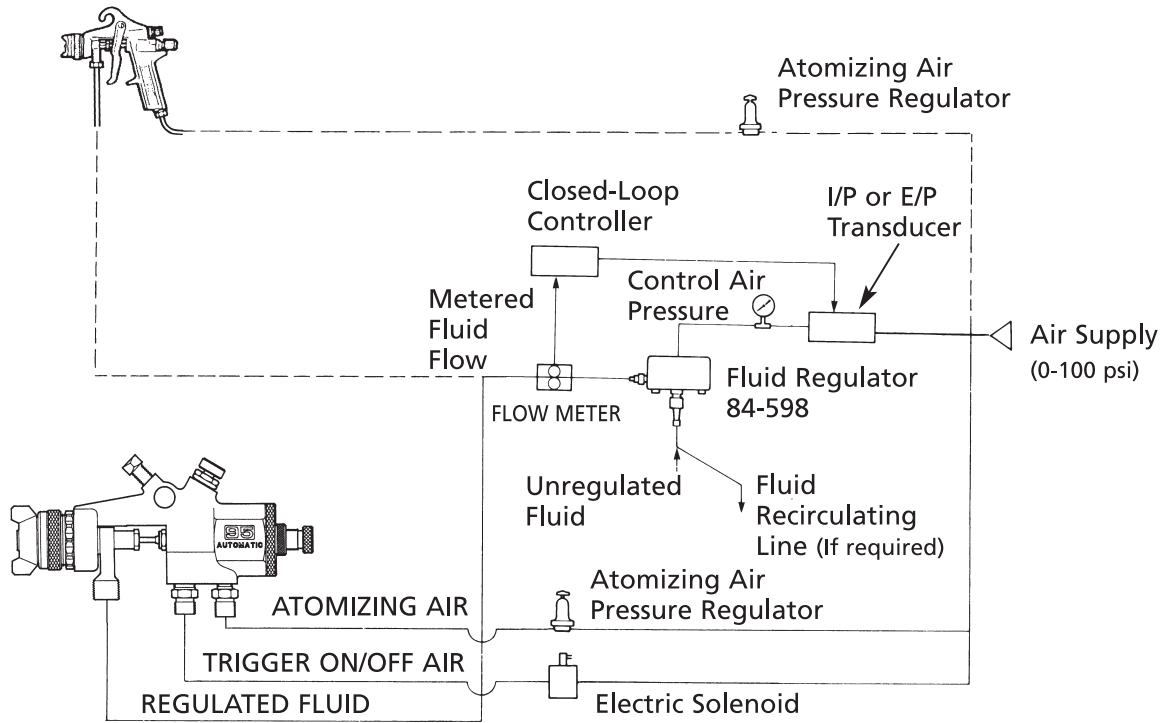


**AUTOMATIC CONTROL METHOD – OPEN LOOP**



**BINKS MODELS 84-598 & 84-599 (OBSOLETE) REMOTE FLUID PRESSURE REGULATORS**

**AUTOMATIC CONTROL METHOD – CLOSED LOOP**



**WARRANTY POLICY**

This product is covered by Carlisle Fluid Technologies’ materials and workmanship limited warranty. The use of any parts or accessories, from a source other than Carlisle Fluid Technologies, will void all warranties. Failure to reasonably follow any maintenance guidance provided may invalidate any warranty.

For specific warranty information please contact Carlisle Fluid Technologies.

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