

WILKERSON®

Englewood, CO 80110

Installation and Service Instructions:
83-957-000

1/4" & 3/8"
H12 Pilot Controlled Regulator

ISSUED: September, 2002
Supersedes: November, 2001

ECN020442, Rev.2

⚠ WARNING

To avoid unpredictable system behavior that can cause personal injury and property damage:

- Disconnect electrical supply (when necessary) before installation, servicing, or conversion.
- Disconnect air supply and depressurize all air lines connected to this product before installation, servicing, or conversion.
- Operate within the manufacturer's specified pressure, temperature, and other conditions listed in these instructions.
- Medium must be moisture-free if ambient temperature is below freezing.
- Service according to procedures listed in these instructions.
- Installation, service, and conversion of these products must be performed by knowledgeable personnel who understand how pneumatic products are to be applied.
- After installation, servicing, or conversion, air and electrical supplies (when necessary) should be connected and the product tested for proper function and leakage. If audible leakage is present, or the product does not operate properly, do not put into use.
- Warnings and specifications on the product should not be covered by paint, etc. If masking is not possible, contact your local representative for replacement labels.

Introduction:

Follow these instructions when installing, operating, or servicing the product.

Application Limits

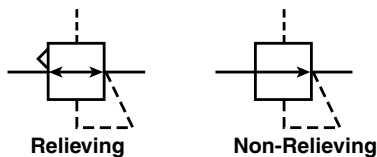
These products are intended for use in general purpose compressed air systems only.

Operating Pressure:

	kPa	PSIG	bar
Maximum Inlet Pressure	1734	250	17.3

Ambient Temperature Range: 0°C to 80°C (32°F to 175°F)

Symbols



Installation

1. The regulator should be installed with reasonable accessibility for service whenever possible – repair service kits are available. Keep pipe or tubing lengths to a minimum with inside clean and free of dirt and chips. Pipe joint compound should be used sparingly and applied only to the male pipe – never into the female port. Do not use PTFE tape to seal pipe joints – pieces have a tendency to break off and lodge inside the unit, possibly causing malfunction.
2. Install regulator so that air flow is in the direction of arrow. Installation must be on the upstream (high pressure) side and as close to the devices it is to service (lubricator, valve, cylinder or tool). Mounting may be in any position.
3. Gauge ports are located on both sides of the regulator body for your convenience. It is necessary to install a gauge or socket pipe plug into each port during installation.

4. For protection against rust, pipe scale and other foreign matter, install a filter on the upstream (high pressure) side as close to the regulator as possible.

Operation

1. Before turning on the air supply, turn the adjusting knob on the pilot (master) regulator until compression is released from the pressure control spring. Turn on air supply to the master regulator and the pilot controlled regulator. Adjust the downstream pressure by turning adjusting knob on the master regulator until the desired downstream pressure is obtained.
2. To decrease regulated pressure setting, always reset from a pressure lower than the final setting required. Example, lowering the secondary pressure from 80 PSIG to 60 PSIG is best accomplished by dropping the secondary pressure to 50 PSIG, then adjusting upward to 60 PSIG.

Service

⚠ **CAUTION:** SHUT OFF AIR SUPPLY and depressurize the unit. Turn the adjusting knob on the master regulator until pilot pressure is relieved on the pilot controlled regulator.

A. Use the following procedure to service the regulator piston:

1. Unscrew the threaded collar and remove the bonnet assembly.
2. Disassemble, clean and carefully inspect parts for wear or damage. If replacement is necessary, use parts from the service kits.
3. Lubricate bonnet bore with grease found in kit. Carefully install piston seals as shown in assembly drawing. The V side of each seal must be installed facing the end of the piston. Install vent seal if repairing a relieving regulator. Install piston assembly into bonnet
4. Assemble bonnet assembly to body and tighten threaded collar per Figure 1.

⚠ WARNING

FAILURE OR IMPROPER SELECTION OR IMPROPER USE OF THE PRODUCTS AND/OR SYSTEMS DESCRIBED HEREIN OR RELATED ITEMS CAN CAUSE DEATH, PERSONAL INJURY AND PROPERTY DAMAGE.

This document and other information from The Company, its subsidiaries and authorized distributors provide product and/or system options for further investigation by users having technical expertise. It is important that you analyze all aspects of your application, including consequences of any failure and review the information concerning the product or systems in the current product catalog. Due to the variety of operating conditions and applications for these products or systems, the user, through its own analysis and testing, is solely responsible for making the final selection of the products and systems and assuring that all performance, safety and warning requirements of the application are met.

The products described herein, including without limitation, product features, specifications, designs, availability and pricing, are subject to change by The Company and its subsidiaries at any time without notice.

EXTRA COPIES OF THESE INSTRUCTIONS ARE AVAILABLE FOR INCLUSION IN EQUIPMENT / MAINTENANCE MANUALS THAT UTILIZE THESE PRODUCTS. CONTACT YOUR LOCAL REPRESENTATIVE.

B. Servicing the Valve Assembly-

1. Exhaust system air pressure as previously described. Then remove bottom cap by unscrewing it from body. Next, remove valve assembly, o-ring, cap o-ring and valve return spring.
2. Next, disassemble, clean, and carefully inspect parts for wear and/or damage. If replacement is necessary, use parts from service kits.
3. Lubricate o-ring and sliding surfaces using grease supplied with service kit.
4. Install parts as shown in Figure 1.
5. Lubricate cap o-ring and install it in o-ring groove on cap. Then screw cap into body until the cap bottoms out in body (See Figure 1).
6. Turn on air supply and adjust to desired secondary pressure as described in the **Operation** section.

Turn on air pressure and check regulator for leakage. If leakage occurs, DO NOT OPERATE — conduct repairs again.

If you have questions concerning how to service this unit, contact your local authorized dealer or your customer service representative.

- Ⓓ Lightly grease with provided lubricant.
- ✓ Inspect for nicks, scratches, and surface imperfections. If present, reduced service life is probable and future replacement should be planned.
- Ⓒ Clean with lint-free cloth.

Service Kits Available

Description	1/4", & 3/8" H12 Pilot Controlled Regulator
Gauges:	
Low Pressure 0 to 414 kPa (0 to 60 PSIG)	RRP-96-664
Low Pressure 0 to 207 kPa (0 to 30 PSIG)	RRP-96-663
Standard Pressure 0 to 1103 kPa (0 to 160 psig)	RRP-96-665
Non-Relieving Regulator Repair Kit*	RRP-96-309
Relieving Regulator Repair Kit*	RRP-96-310

* Grease in kit is silicone free.

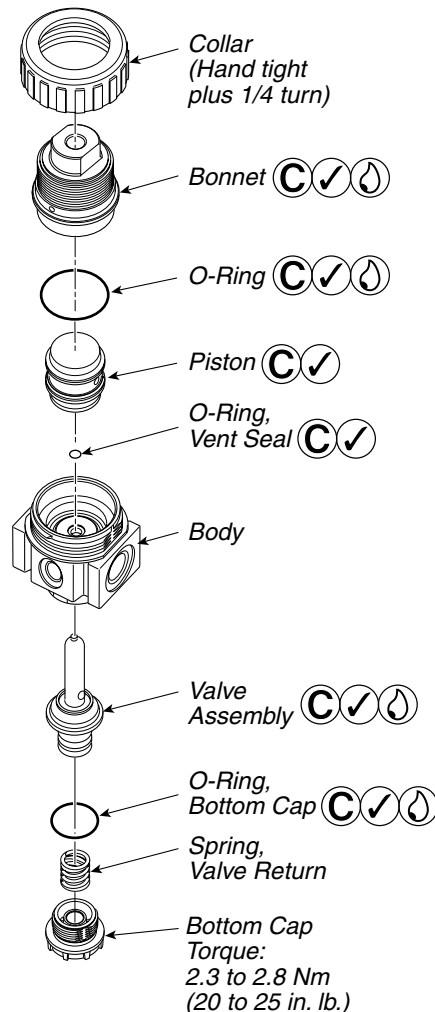


Figure 1