

WILKERSON®

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Installation & Service Instructions
83-951-000

SR1 & SR2 Regulators

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⚠ 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.

⚠ WARNING

**Product rupture can cause serious injury.
Do not connect regulator to bottled gas.
Do not exceed maximum primary pressure rating.**

Safety Guide

For more complete information on recommended application guidelines, see the Safety Guide section of Pneumatic Division catalogs or you can download the **Pneumatic Division Safety Guide** at: www.wilkerсонcorp.com

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	2068	300	21.0

Operating Temperature Range:

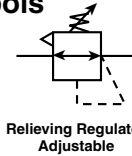
Plastic Knob	0°F to 150°F (18°C to 66°C)
Stainless Steel Knob	0°F to 180°F (18°C to 82°C)

Option "L" Minimum Operating Temperature*: -40°F (-40°C)

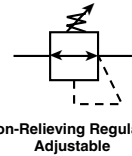
Note: Air must be dry enough to avoid ice formation at temperatures below 32°F (0°C).

***Note:** "Low Temperature" option is intended for applications where the ambient temperature may be down to -40° C/F. Air supply must be free of moisture to prevent ice formation and malfunction of units. These units contain EPDM seals. Make sure any oils in the airstream are compatible.

ANSI Symbols



Relieving Regulator
Adjustable



Non-Relieving Regulator
Adjustable

Installation

1. The regulator should be installed with reasonable accessibility for service whenever possible - repair service kits are available. Keep pipe and 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 unit, possibly causing malfunction.
2. Install regulator so that air flow is in the direction of arrow. Installation must be upstream (high pressure) side and as close to the devices it is to service (valve, cylinder, tool, etc.) as possible. 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 pipe plugs 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:
 - 1A. On SR1, disengage the adjusting knob by pulling upward. Turn adjusting knob counterclockwise until the compression is released from the pressure control spring.
 - 1B. On SR2, push down on the adjusting knob while turning knob counterclockwise until the compression is released from the pressure control spring. (Knob is locked when up.)
2. Then turn on air supply and adjust regulator to desired secondary pressure by turning adjusting knob clockwise. This permits pressure to build up slowly, preventing any unexpected operation of the valve, cylinders, tools, etc., attached to the line. Adjustment

⚠ 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.

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to desired secondary pressure can be made only with primary pressure applied to the regulator.

- To decrease regulator pressure setting, always reset from a pressure lower than the final setting desired. For example, lowering the secondary pressure from 550 to 410 kPa (80 to 60 PSIG) is best accomplished by dropping the secondary pressure to 350 kPa (50 PSIG), then adjusting upward to 410 kPa (60 PSIG).

Service

CAUTION: SHUT OFF AIR SUPPLY and exhaust the primary and secondary pressure before disassembling regulator unit. (Turning the knob counterclockwise reduces regulator's setting, but does not vent downstream pressure on non-relieving regulators.)

CAUTION: Lubricate parts with a mineral based grease / oil or silicone grease. DO NOT use synthetic grease / oils such as esters.

A. Servicing the Bonnet and Diaphragm Assembly-

1A. On SR1, disengage the adjusting knob by pulling upward. Turn adjusting knob counterclockwise until the compression is released from the pressure control spring.

1B. On SR2, push down on the adjusting knob while turning knob counterclockwise until the compression is released from the pressure control spring. (Knob is locked when up.)

- Unscrew the threaded bonnet assembly. Next, disassemble, clean, and carefully inspect parts for wear and/or damage. If replacement is necessary, use parts from service kits.
 - Install diaphragm assembly into body. Then install bonnet assembly to body. See Figure 1 for torque value.
- B. Servicing the Poppet Assembly-**
- Exhaust system air pressure as previously described. Then remove bottom cap by unscrewing it from body. Next, remove cap and o-ring, spring and poppet assembly.
 - Next, clean, and carefully inspect parts for wear and/or damage. If replacement is necessary, use parts from service kits.
 - Lubricate o-ring and sliding surfaces using grease supplied with service kit.
 - Lubricate cap's 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 for torque value.
 - Turn on air supply and adjust to desired secondary pressure as described in the **Operation** section.

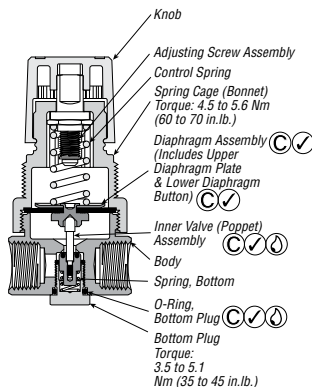
Turn on air pressure and check regulator for leakage. If leakage occurs, **DO NOT OPERATE** — conduct repairs again.

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

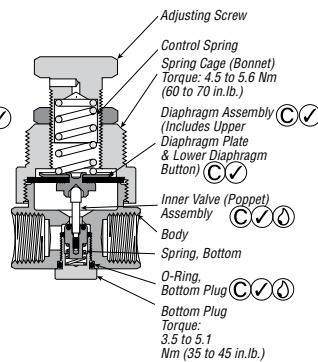
Service Kits Available

Description	SR1 Plastic Knob (1/4")	SR1 Adjusting Screw (1/4")	SR2 Knob (1/2")	SR2 T-Handle (1/2")
Spring Cage Assembly	SRP-96-017	CKR354YSS	SRP-96-018	CKR11YSS
Gauges	SRP-96-021	SRP-96-021	SRP-96-022	SRP-96-022
Panel Mount Nut	SRP-96-019	SRP-96-019	SRP-96-020	SRP-96-020
Regulator Repair Kit (Relieving)	SRP-96-013	SRP-96-013	SRP-96-011	SRP-96-011
Regulator Repair Kit (Relieving) Low Temp.	—	—	SRP-96-011	SRP-96-011
Regulator Repair Kit (Non-Relieving)	SRP-96-014	SRP-96-014	SRP-96-012	SRP-96-012
Regulator Repair Kit (Non-Relieving) Low Temp.	—	—	SRP-96-012	SRP-96-012
Spring, 0-25 PSIG	SPR-375-2-SS	SPR-375-2-SS	—	—
Spring, 0-60 PSIG	SPR-376-1-SS	SPR-376-1-SS	SPR-388-1-SS	SPR-388-1-SS
Spring, 0-125 PSIG	SPR-377-1-SS	SPR-377-1-SS	SPR-389-1-SS	SPR-389-1-SS
Spring, 0-250 PSIG	—	—	SPR-390-1-SS	SPR-390-1-SS

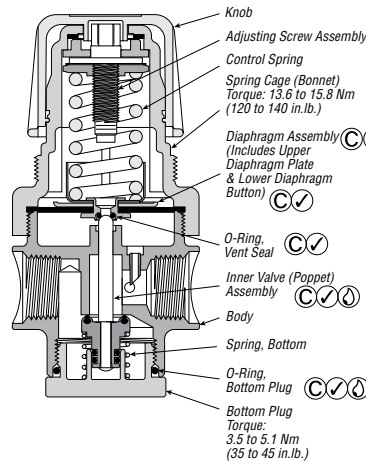
- Lightly grease with provided lubricant.
- Inspect for nicks, scratches, and surface imperfections. If present, reduced service life is probable and future replacement should be planned.
- Clean with lint-free cloth.



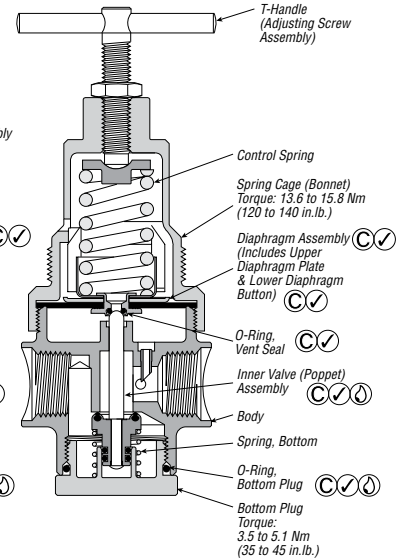
SR1 Regulator Plastic Knob (Non-Relieving Shown)



SR1 Regulator Stainless Steel Knob (Non-Relieving Shown)



SR2 Regulator - Knob (Relieving Shown)



SR2 Regulator - T-Handle (Relieving Shown)

Figure 1