### **Pneumatic Division**

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**Installation & Service Instructions** 2R300C

1" Regulator Series

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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
- 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.



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.parker.com/safety

#### 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** 1720 250 17.2 **Ambient Temperature Range:** 0°C to 80°C (32°F to 175°F)

### **Symbols**





Adjustable

Relieving Regulator 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.). Mounting may be in any position.
- 3. Gauge ports are located on both sides of the regulator body. 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, turn the adjusting knob or "T" handle counterclockwise until compression is released from the control spring. Then turn on air supply and adjust regulator to desired secondary pressure by turning adjusting knob/handle clockwise. This permits pressure to build up slowly, preventing any unexpected operation of the valve, cylinders, tools, etc., attached to the line. Adjustment to desired secondary pressure can be made only with primary pressure applied to the regulator.
- 2. 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

Push the adjusting knob down to lock the pressure setting. On the "T" handle units, tighten the hex nut against the bonnet to lock setting.

#### Service

# /!\CAUTION:

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

# ∕!∖ 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.

1" Regulator Series 2R300C

#### CAUTION:

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

- Use the following procedure to service bonnet assembly and components.
  - (Adjustable Regulator only) Disengage the adjusting knob by pulling upward. Turn adjusting knob counterclockwise until the compression is released from the pressure control spring.
  - Disassemble and service as required. Refer to pictures for details.
  - 3. Reassemble Unit. Refer to pictures for details.

#### B. Servicing the Poppet Assembly

- (Adjustable Regulator only) Disengage the adjusting knob by pulling upward. Turn adjusting knob counterclockwise until the compression is released from the pressure control spring.
- 2. Remove bottom cap:
  - a) Remove screw
  - b) Turn cap and pull down counter clockwise.
- Disassemble parts and services as required. Refer to pictures for details.
- 4. Reassemble unit. Refer to pictures for details.

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

Adjust to desired secondary pressure as described in the operation section.

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

#### Service Kits Available

Description	Kit Number	Contains Items	
Regulator (Standard)		(1) Piston,	
Repair Kit (Relieving)	P3NKA00RR	<ul><li>(2) Lipseal,</li><li>(3) O-Ring,</li><li>(4) Poppet Assembly,</li><li>(5) O-Ring,</li><li>(6) Poppet Return</li><li>Spring, and (7) Seal</li></ul>	
Repair Kit (Non-Relieving)	P3NKA00RN		
Air Pilot Control Piston Kit	P3NKA00PD	(8) Piston, (9) Lipseal, (3) O-Ring	
Mounting Bracket Kit	P3NKA00MW	Not Shown	
Gauges: Low Pressure 0 to 410 kPa (0 to 60 PSIG)	K4520N14060	Not Shown	
Standard Pressure 0 to 1100 kPa (0 to 160 PSIG)	K4520N14160	Not Shown	
High Pressure 0 to 2070 kPa (0 to 300 PSIG)	K4520N14300	Not Shown	



