

### TECHNICAL DATA

Fluid: Compressed air  
 Inlet pressure range: 0,7 bar to 27,6 bar (10 to 400 psig). For best performance, inlet pressure should be at least 0,7 bar (10 psig) greater than the desired regulated pressure, but must not exceed the specified maximum.  
 Operating temperature: -20° to +80°C (0° to +175°F)  
 Air supply must be dry enough to avoid ice formation at temperatures below +2°C (+35°F).  
 Typical flow with a conventional pilot regulator at 6,9 bar (100 psig) inlet pressure, 6,3 bar (90 psig) set pressure, and a droop of 0,35 bar (5 psig) from set:

1/2" ports: 57 dm<sup>3</sup>/s (120 scfm)  
 1" ports: 142 dm<sup>3</sup>/s (300 scfm)

### Port sizes:

Main	Gauge	Pilot	Exhaust
1/4"	1/4"	1/4"	3/4"
3/8"	3/8"	1/4"	3/4"
1/2", 3/4", 1", 1-1/4"	1/2"	1/4"	3/4"

### Thread type:

Main and gauge ports: PTF, ISO G, or ISO Rc  
 Pilot port: PTF with PTF main ports, ISO G with ISO G and ISO Rc main ports  
 Exhaust port: PTF with PTF main ports, ISO G with ISO G and ISO Rc main ports

### Materials:

Body: Zinc  
 Bonnet: Aluminum  
 Bottom plug: Acetal  
 Valve: Brass  
 Elastomers: Nitrile

### REPLACEMENT ITEMS

Repair kit - items 3, 4, 5, 7, 10, 12, 13, 14, 15  
 1/4", 3/8" 1/2" regulators.....4158-01  
 3/4", 1", 1-1/4" regulators.....4158-02  
 Elastomer kit - items 3, 5, 7, 10, 13, 14, 15  
 1/4", 3/8" 1/2" regulators.....4158-03  
 3/4", 1", 1-1/4" regulators.....4158-04  
 Exhaust muffler, 3/4 PTF.....MB006A

### INSTALLATION

- Shut off air pressure. Install regulators in air line -
  - upstream of lubricators and cycling valves.
  - at any angle.
  - install the 11-042 pilot operated regulator as close as possible to the device being serviced.
  - install the pilot regulator at any convenient, accessible location.
- Use pipe thread sealant on male threads only when making the following pipe connections. Do not allow sealant to enter interior of regulator.
  - Connect inlet and outlet air lines to 11-042 main ports. Inlet port is marked **IN**.
  - Connect inlet and outlet air lines to pilot regulator main ports. The inlet port of the R40 and R41 is marked **IN**, and the outlet port is marked **OUT**. The direction of air flow thru the 11-104 pilot is indicated by an arrow on the bottom of the body.
  - Connect the outlet of the pilot regulator to the pilot port in the side of the 11-042 bonnet. This is the pilot pressure line.
- Special Instructions for a Feedback Pilot:**  
 Connect one end of the feedback line to the feedback port on the pilot regulator. The feedback port on the R41 is marked **FBK**. The 11-104 has two 1/8" PTF feedback ports. Plug the unused feedback port. Connect the other end of the feedback line to a gauge port on the 11-042 or, if maximum precision pressure regulation is desired, to the application point downstream of the 11-042. Keep the feedback line as short as possible and unrestricted. Use 1/4" or 3/8" OD copper tube for the feedback line. Plug unused gauge ports.

#### Warning - Feedback Pilot Regulators

Norgren manufactures two feedback pilot regulator types (the R41 and the 11-104). Use the R41, the 11-104-002, or the 11-104-003 feedback pilot regulator to control outlet pressures greater than 100 psig (7 bar). Use the Norgren 11-104-001 feedback pilot regulator to control outlet pressures at or less than 100 psig (7 bar).

The feedback line must sense 11-042 outlet pressure and must be connected before turning on air pressure. If the feedback line is not connected, 11-042 outlet pressure will rapidly increase to inlet pressure when the feedback pilot adjusting knob is turned clockwise.

- Install a pressure gauge in a gauge port on the 11-042, or to the application point downstream of the 11-042. Do not connect the gauge to the pilot pressure line, as this pressure is not the same as the 11-042 outlet pressure. Locate the gauge next to the pilot regulator. Plug unused gauge ports.
- Install a general purpose filter upstream of the regulator.
- Install a Norgren muffler (see **Replacement Parts**) in the exhaust port of the 11-042 regulator. Installation of a muffler will reduce work area noise and protect 11-042 internal parts from contamination.

#### Warning

Do not plug exhaust port. Relief feature will fail if exhaust port is plugged.

### ADJUSTMENT

- Before applying inlet pressure to regulators, turn pilot regulator adjustment counterclockwise to remove all force on regulating spring.
- Apply inlet pressure, then turn pilot regulator adjustment clockwise to increase and counterclockwise to decrease pressure setting.
- Always approach the desired pressure from a lower pressure. When reducing from a higher to a lower setting, first reduce to some pressure less than that desired, then bring up to the desired pressure.

### DISASSEMBLY

- Regulator can be disassembled without removal from air line.
- Shut off inlet pressure to pilot regulator and to the 11-042. Reduce pressure in inlet and outlet lines to zero.
- Turn pilot regulator adjustment counterclockwise to remove all force on regulating spring.
- Disassemble the 11-042 in general accordance with the item numbers on exploded view.

### CLEANING

- Clean parts with warm water and soap
- Rinse and dry parts. Blow out internal passages in body (8) with clean, dry compressed air.
- Inspect parts. Replace those found to be damaged.

### ASSEMBLY

- Lubricate o-rings and surfaces in contact with o-rings with a light coat of good quality o-ring grease.
- Assemble the unit as shown on the exploded view. Apply increasing torque to the bonnet screws (1) in a crisscross pattern. Apply final torque of 5,6 to 7,9 Nm (50 to 70 inch-pounds). Tighten bottom plug (9) hand tight.

### WARNING

These products are intended for use in industrial compressed air systems only. Do not use these products where pressures and temperatures can exceed those listed under **Technical Data**.

If outlet pressure in excess of the regulator pressure setting could cause downstream equipment to rupture or malfunction, install a pressure relief device downstream of the regulator. The relief pressure and flow capacity of the relief device must satisfy system requirements.

The accuracy of the indication of pressure gauges can change, both during shipment (despite care in packaging) and during the service life. If a pressure gauge is to be used with these products and if inaccurate indications may be hazardous to personnel or property, the gauge should be calibrated before initial installation and at regular intervals during use.

Before using these products with fluids other than air, for non industrial applications, or for life-support systems consult Norgren.

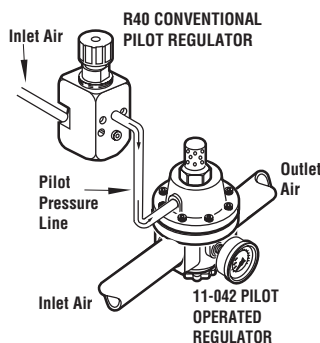
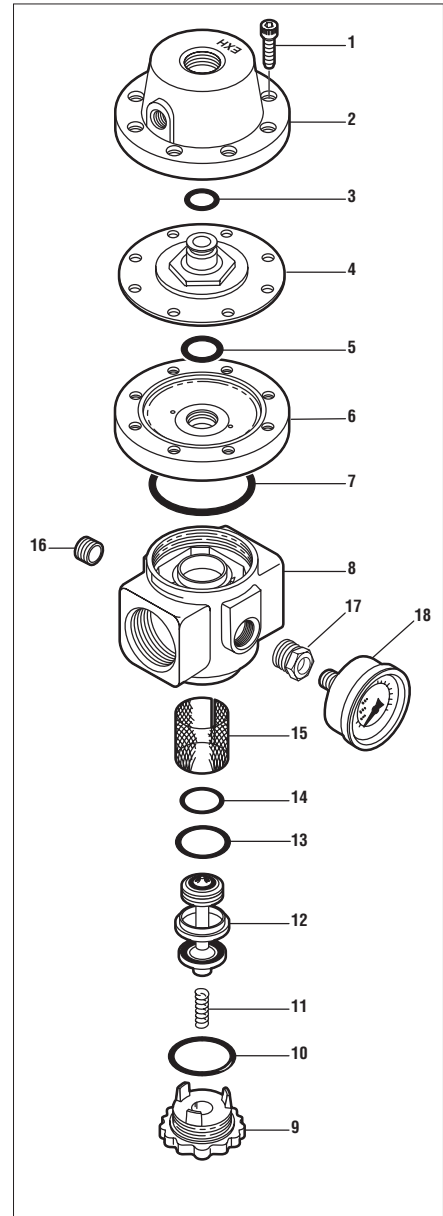


Figure 1. Conventional Pilot Installation

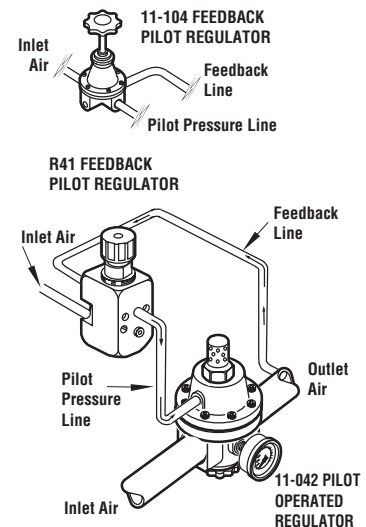


Figure 2. Feedback Pilot Installation