



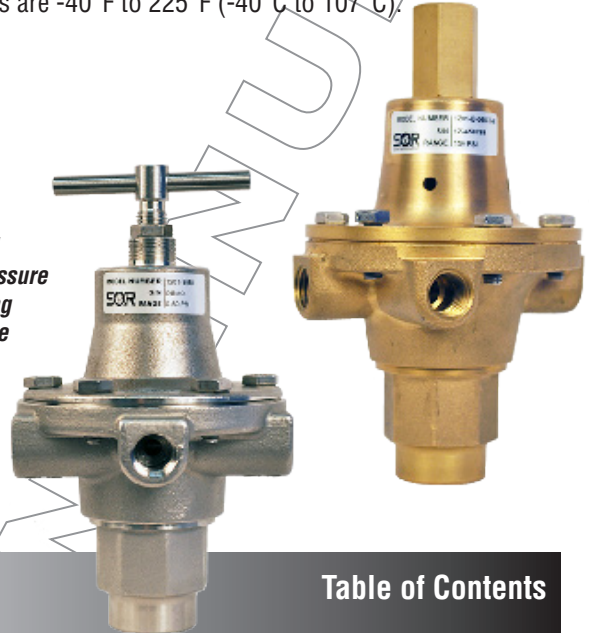
1201HPR High Pressure Regulator

General Instructions

The 1201HPR High Pressure Regulator is designed for air or gas service. It is an extremely durable regulator capable of handling a **max inlet pressure of 5000 psi (345 bar)**. Operating temperatures are **-40°F to 225°F (-40°C to 107°C)**.



The 1201HPR does not have internal relief. To avoid exceeding outlet pressure limits in service, a pressure-relieving or pressure-limiting device should be provided. Leakage, equipment damage, or personal injury can result from over-pressuring the regulator.



Design and specifications are subject to change without notice.

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NOTE: If you suspect that a product is defective, contact the factory or the SOR® Representative in your area for a return material authorization number (RMA). This product should only be installed by trained and competent personnel.

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All SOR instructions, as well as applicable local, state, and federal codes and regulations should be adhered to when performing installation, operation, or maintenance of a regulator. Personal injury, equipment damage, or leakage can occur if the regulator is over-pressured or physically damaged. To avoid physical damage the regulator should be installed in a safe location. The regulator shouldn't be installed in systems that could exceed the specified pressure limit of 5000 psi (345 bar). If leakage develops, then maintenance is required. Failure to remove the regulator from service immediately may create a hazardous situation.

Installation

- 1 If continuous operation is required during inspection or maintenance, a bypass must be installed.
- 2 Inspect the regulator for any damage, foreign substances, or blockages.
- 3 Clean all of the pipelines to remove dirt and scale prior to installation.
- 4 Apply pipe compound to the male pipeline threads.
- 5 (The regulator may be installed in any position.) Connect the inlet piping to the connection marked "IN" and the outlet piping to any of the connections marked "OUT".
- 6 All unused outlet connections require the installation of a pressure gauge or plug.



The 1201HPR may vent some gas to the atmosphere. If the regulator is integrated into a hazardous system, this vented gas could accumulate and if ignited it could cause personal injury, death, or equipment damage. For use in a hazardous system, the regulator must be vented to a remote and safe location. The exhaust vent must be protected from clogging and condensation. Do not use this regulator where pressure and temperatures can exceed 5000 psi (345 bar) or -40°F to 225°F (-40°C to 107°C).

Calibration

- 1 Before turning on air supply, loosen the adjusting screw by rotating it counter-clockwise. Do this until there is no compression in the control spring.
- 2 Apply air supply, and tighten adjusting screw by rotating it clockwise. Tightening the screw will increase the output pressure. Pressure should always be monitored during startup to ensure that the regulator isn't overpressured.
- 3 Once desired pressure setting is reached, tighten the locknut (T-handle only) to maintain the calibration or place tamper resistant cover over standard adjusting screw.



To avoid personal injury or equipment damage resulting from sudden release of pressure or ignition of accumulated gas, isolate the regulator from the system and bleed all of its internal pressure before attempting disassembly or maintenance.

Maintenance

Regulators accumulate general wear over time, and must be inspected/evaluated for the possible need to repair or replace the instrument in accordance with local, state, and federal rules and regulations.

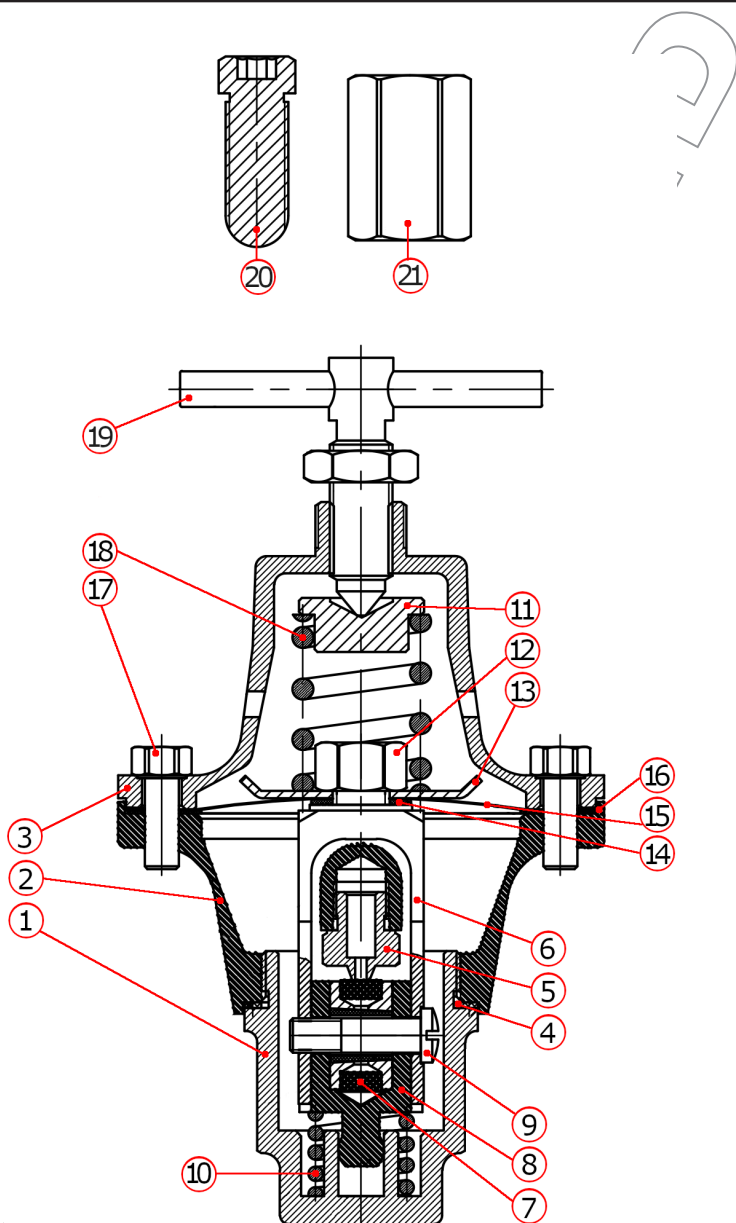
Disassembly

Complete only the steps needed to clean or replace the part(s) required.

- ❶ Take the tamper-resistant screw cap off (ignore if using a T-handle).
- ❷ Loosen the locknut (T-handle only).
- ❸ Rotate the adjusting screw clockwise to add compression to the control spring before proceeding.
- ❹ Remove the bonnet, bottom gasket, and valve spring.
- ❺ Unscrew the seat body holder from the diaphragm arm.
- ❻ Separate the seat housing and seat block assembly.
- ❼ Rotate the adjusting screw counterclockwise to relieve the control spring's compression before loosening the upper cover screws.
- ❽ Loosen the upper cover screws, and then lift the cap off the body.
- ❾ Extract the upper control spring seat and control spring.
- ❿ Unscrew the hexnut.
- ⓫ Extract the diaphragm plate, diaphragm, diaphragm gasket, and diaphragm washer.
- ⓬ Extract the diaphragm arm from the body.
- ⓭ Inspect the supply nozzle and seat block assembly for damage. Rotate the seat block to provide a new seat if necessary.

Assembly: Perform the disassembly procedure in opposite fashion and reverse order.

Parts List



1201HPR-B Parts List

Item	Description	Qty.	Material
1	Bonnet	1	Brass
2	Body	1	Brass
3	Cap	1	Brass
* 4	Bottom Gasket	1	PTFE
5	Supply Nozzle	1	Brass
* 6	Diaphragm Arm	1	Brass
* 7	Seat Block Assembly	1	Brass & Nylon
8	Seat Housing	1	Brass
9	Seat Body Holder	1	Brass
* 10	Valve Spring	1	Stainless Steel
11	Upper Control Spring Seat	1	1045
* 12	Hexnut	1	Stainless Steel
* 13	Diaphragm Plate	1	1045
* 14	Diaphragm Washer	1	PTFE
* 15	Diaphragm	1	Stainless Steel
* 16	Diaphragm Gasket	1	NBR
17	Upper Cover Screws	6	Stainless Steel
18	Control Spring (See Range descriptions below)	1	Stainless Steel
19	T-Handle	1	Brass
20	Adjusting Screw	1	Stainless Steel
21	Tamper-Resistant Screw Cap	1	Brass

* Included with SOR Repair Kit (P/N: 1201-BREP)

1201HPR-B Repair Parts

Description	Part No.
SOR Repair Kit - See pictures of included parts on GI Page 7. Includes: Bottom Gasket, Diaphragm Arm, Seat Block Assembly, Valve Spring, Hexnut, Diaphragm, and Diaphragm Plate, Washer, & Gasket	1201-BREP
T-Handle	1201-BHND
Control Spring - Blue (0-30 psig)	6231-300
Control Spring - Green (0-60 psig)	6231-301
Control Spring - Yellow (0-120 psig)	6231-302
Control Spring - Red (0-150 psig)	6231-303
Control Spring - Grey (0-225 psig)	6231-304

1201HPR-S Parts List

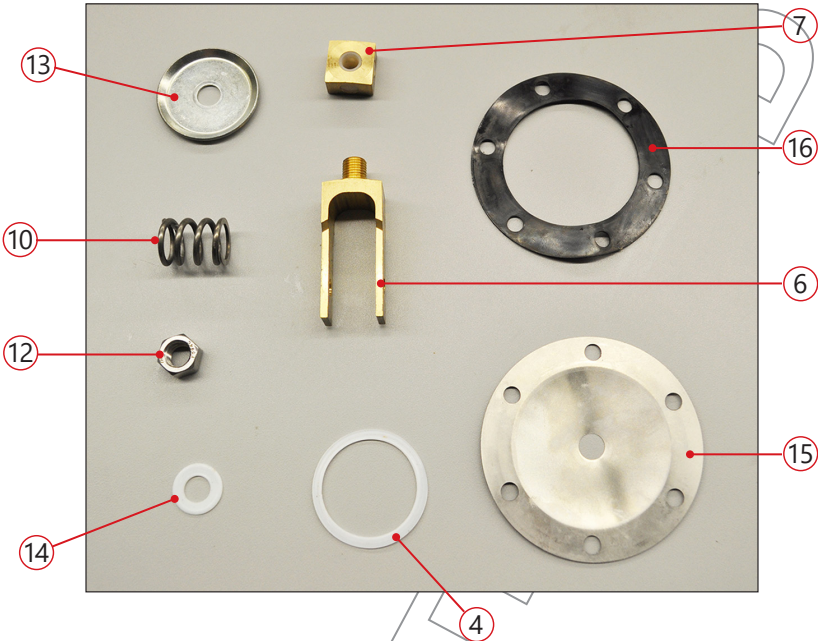
Item	Description	Qty.	Material
1	Bonnet	1	Stainless Steel
2	Body	1	Stainless Steel
3	Cap	1	Stainless Steel
* 4	Bottom Gasket	1	PTFE
5	Supply Nozzle	1	Stainless Steel
* 6	Diaphragm Arm	1	Stainless Steel
* 7	Seat Block Assembly	1	Stainless Steel & PTFE
8	Seat Housing	1	Stainless Steel
9	Seat Body Holder	1	Stainless Steel
* 10	Valve Spring	1	MP35N
11	Upper Control Spring Seat	1	Stainless Steel
* 12	Hexnut	1	Stainless Steel
* 13	Diaphragm Plate	1	1045
* 14	Diaphragm Washer	1	PTFE
* 15	Diaphragm	1	Monel 400
* 16	Diaphragm Gasket	1	Fluorocarbon
17	Upper Cover Screws	6	Stainless Steel
18	Control Spring (See Range descriptions below)	1	Stainless Steel
19	T-Handle	1	Stainless Steel
20	Adjusting Screw	1	Stainless Steel
21	Tamper-Resistant Screw Cap	1	Stainless Steel

* Included with SOR Repair Kit (P/N: 1201-SREP)

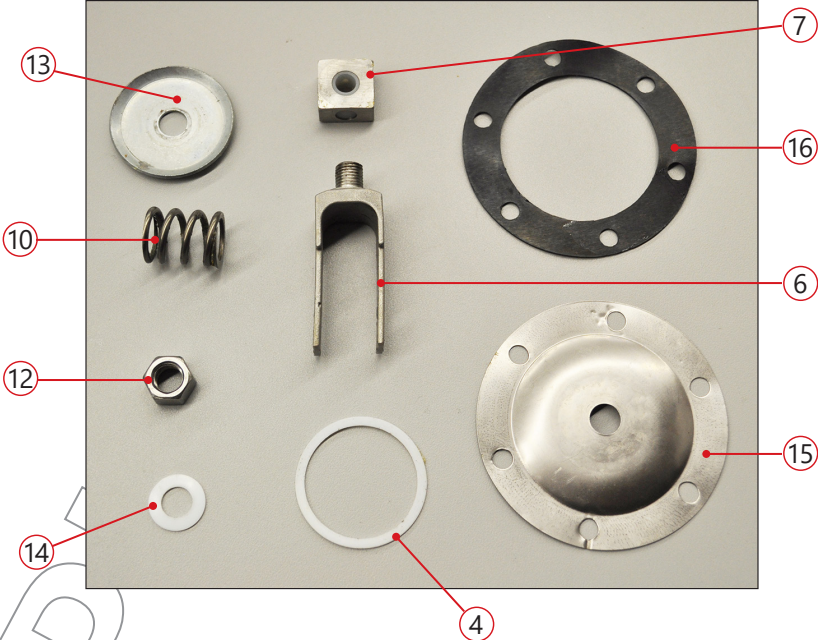
1201HPR-S Repair Parts

Description	Part No.
SOR Repair Kit - See pictures of included parts on GI Page 7.	1201-SREP
Includes: Bottom Gasket, Diaphragm Arm, Seat Block Assembly, Valve Spring, Hexnut, Diaphragm, and Diaphragm Plate, Washer, & Gasket	
T-Handle	1201-SHND
Control Spring - Blue (0-30 psig)	6231-300
Control Spring - Green (0-60 psig)	6231-301
Control Spring - Yellow (0-120 psig)	6231-302
Control Spring - Red (0-150 psig)	6231-303
Control Spring - Grey (0-225 psig)	6231-304

1201HPR-B Parts Included with SOR Repair Kit (P/N: 1201-BREP)

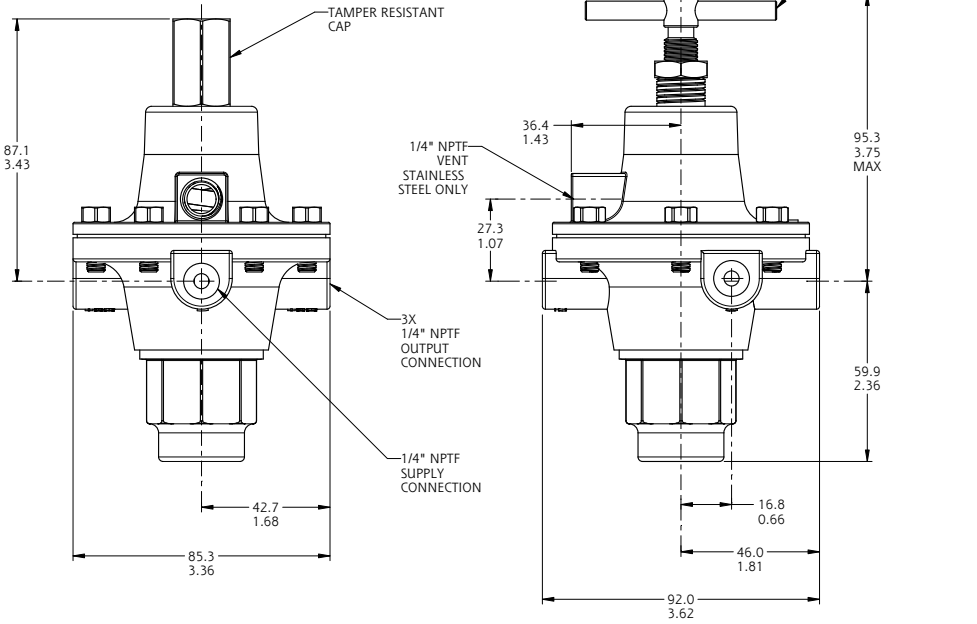


1201HPR-S Parts Included with SOR Repair Kit (P/N: 1201-SREP)



Dimensions

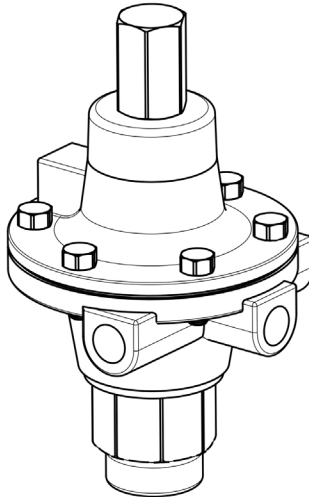
1201HPR-B / 1201HPR-S



Linear = mm/inches

Drawing 0091770

Dimensions are for reference only. Contact the factory for certified drawings for a particular model number.



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