CKD Corporation

SM-
192965-A

OPERATION MANUAL

Regulator
RA800 - ※

Please read this operation manual carefully before using this product, particularly the section describing safety.

Retain this operation manual with the product for further consultation whenever necessary.

For Safety Use

To use this product safely, basic knowledge of pneumatic equipment, including materials, piping, electrical system and mechanism, is required (to the level pursuant to JIS B 8370 Pneumatic System Rules).

We do not bear any responsibility for accidents caused by any person without such knowledge or arising from improper operation.

Our customers use this product for a very wide range of applications, and we cannot keep track of all of them. Depending on operating conditions, the product may fail to operate to maximum performance, or cause an accident. Thus, before placing an order, examine whether the product meets your application, requirements, and how to use it.

This product incorporates many functions and mechanisms to ensure safety. However, improper operation could result in an accident. To prevent such accidents, read this operation manual carefully for proper operation.

Thank you for purchasing CKD's RA-800-x regulator.
Please read this manual thoroughly to fully optimize the functions of the regulator.

INDEX

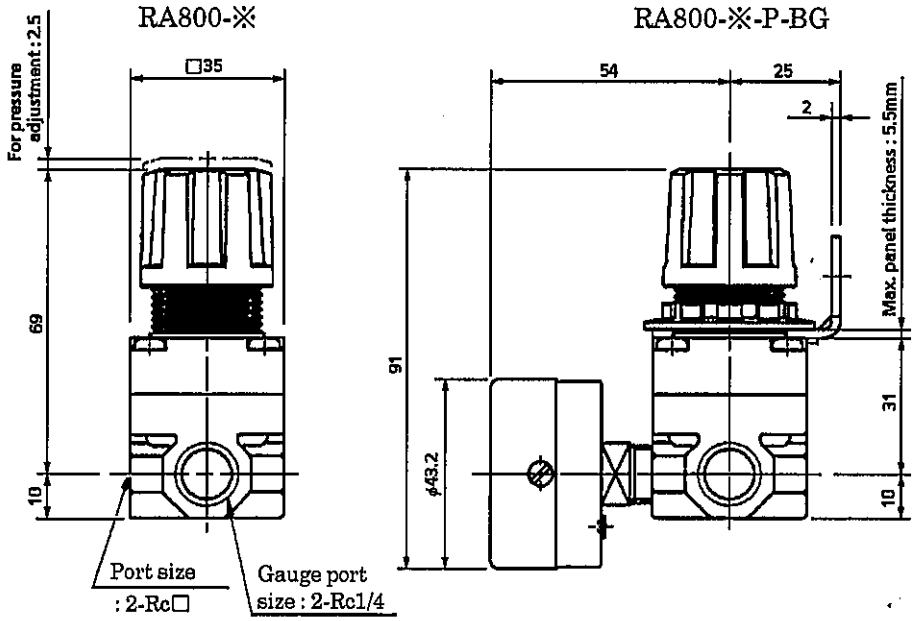
RA800-※
Regulator
SM-192965-A

1. SPECIFICATIONS AND EXTERNAL DIMENSIONS

1.1. Specifications

Model No.	RA800-※
Fluid to be Used	Compressed air
Maximum Operating Pressure	1.0MPa (10.2kgf/cm2)
Proof Pressure	1.5MPa (15.3kgf/cm2)
Temperature Range	5~60°C
Set Pressure Range	0.05~0.85MPa (0.5~8.7kgf/cm2)
Relief Pressure	Set pressure+0.07MPa (0.71kgf/cm2)
Port Size	Rc1/8, 1/4
Gauge Port Size	Rc1/4
Weight	110g

1.2. External Dimensions



2. PRECAUTIONS

1) Do not use the regulator in a place where the ambient temperature exceeds 60°C.
2) Do not use the regulator in a place where it is exposed to direct sunlight.
3) Do not use the regulator in a place where it is exposed to corrosive gases, corrosive fluids or chemicals.

3. OPERATION

3.1. Setting the Pressure

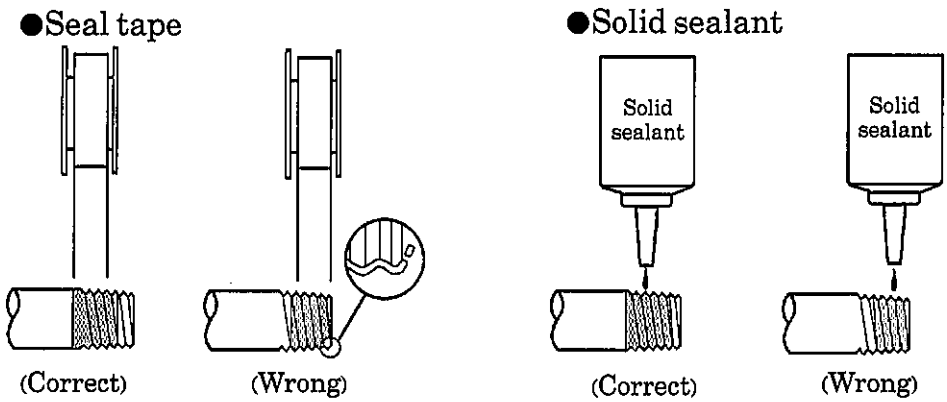
1) Before setting the pressure, make sure that the knob is pulled to unlock. Turn the knob to adjust the pressure.
2) Turning the knob in "H" direction increases the pressure, and turning it in "L" direction decreases the pressure.
3) To lock the knob, push the knob. The knob cannot be turned.

Note : Make sure that the pressure is set within the specified set pressure range. It is not possible to set the pressure higher than the primary pressure.

4. INSTALLATION

4.1. Piping

1) Position the regulator so that air flows in the direction of the arrow indicated on the regulator.
2) The regulator's port size must be larger than that of the air pipe to be used.
3) Attach an air filter (5μm) to the "IN" side of the regulator.
4) Attach a pressure gauge to the gauge port. If you do not use a pressure gauge, attach a pipe plug instead.
5) Before connecting the air pipe, flush it thoroughly.
6) Wind sealing tape around or apply sealant to the end of the pipe. Make sure that approximately two threads from the end of the pipe are left unsealed. Do not allow any tape bits or sealant to enter the pipe.



4.2. Installation

1) Fig. 1 shows installation dimensions when an optional bracket "B" is used.
2) When you use an optional panel mount "P", make a panel mount hole of 26.5 in diameter.
   Turn the mount nut counter-clockwise as shown in Fig. 2 to remove the knob and fit the regulator on the panel.
   If the screw comes off when removing the knob, insert the screw to the knob or cover as shown in Fig.3, then push the knob on the cover unntil it clicks.

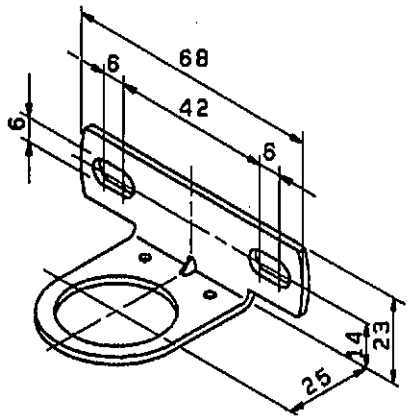


Fig. 1

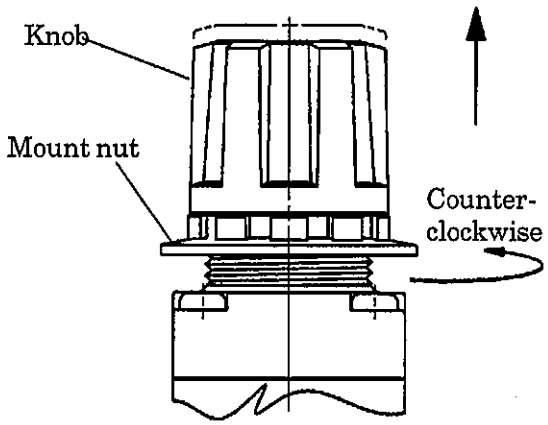


Fig. 2

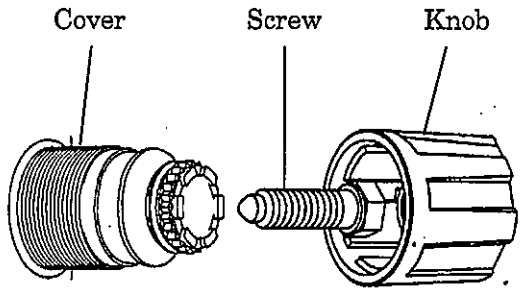


Fig. 3

3) Install the regulator as close as possible to the pneumatic equipment with which it is to be used.
4) Keep a space of more than 60mm at the pressure adjusting side so that parts can be removed when disassembling the regulator.

5. MAINTENANCE

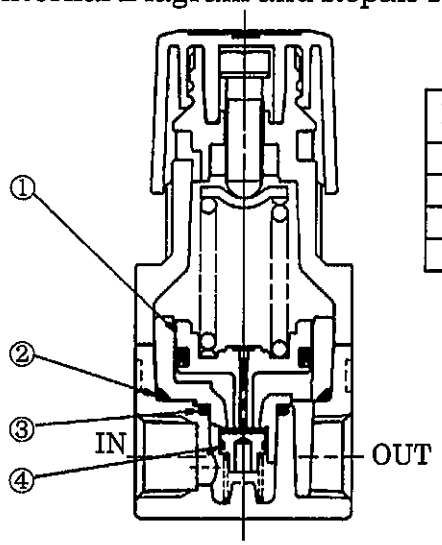
5.1. Breakdowns and Corrective Actions

Symptom	Main Cause	Corrective Action
Pressure cannot be adjusted.	Foreign material caught in the rubber lining of the valve element.	Stop the compressed air, disassemble the regulator and clean it.
Air leakage underneath the knob	Compressed air flows in the opposite direction.	Stop the compressed air, and re-install the regulator in the correct direction.
	Damage to the rubber surface of the valve element. Damage to the piston's small Y packing. Damage to the O-ring.	Stop the compressed air, disassemble the regulator and replace the faulty parts with new ones.

5.2. Parts Replacement

Before disassembling the regulator, make sure that no air pressure is exerted on the regulator. Refer to the internal diagram of the regulator when disassembling.

5.3. Internal Diagram and Repair Parts



No.	Part Name	Part No.	Remark
1	Piston assembly	F4-248477	
2	O-ring	AS568-022	Commercial product
3	O-ring	AS568-013	
4	Valve element	F4-247292	

6. MODEL CODE

RA800 – ◯ – ◯ – ◯

Ⓐ Ⓑ Ⓒ

Ⓐ Port size		Ⓑ Option		Ⓒ Accessory	
6	Rc1/8	No code	Basic	G	Pressure gauge
8	Rc1/4	P	Panel mount	B	Bracke
		L	Low pressure		
		N	Non-relief		