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I & M Mark CFR Series

Installation & Maintenance Instructions for the Mark CFR Series Supply Regulators

Warning: Jordan Valve Control Valves must only be used, installed and repaired in accordance with these Installation & Maintenance Instructions. Observe all applicable public and company codes and regulations. In the event of leakage or other malfunction, call a qualified service person; continued operation may cause system failure or a general hazard. Before servicing any valve, disconnect, shut off, or bypass all pressurized fluid. Before disassembling a valve, be sure to release all spring tension.

INTRODUCTION

These Installation Instructions provide installation and Start Up procedures for the Mark CFR Regulator.

INSTALLATION

It is recommended that only qualified or authorized personnel install and maintain the Mark CFR regulator.

Prior to installing, make sure there is no damage to the regulator, as well as foreign debris in all tubing or piping connections to the installation.

Ensure proper safety procedures are adhered to during installation and maintenance.

Warning:

Do not install any pressure equipment where service conditions exceed the manufacturer's specifications. Over pressuring of regulator may result in leakage, equipment damage or injury. Excessive pressure can cause the pressure containing parts to burst, or accumulated gas to explode. The Mark CFR Filter Regulator should not be used with hazardous gas unless vented to a safe area.

The Mark CFR regulators internal relief valve does not provide overpressure protection. The internal relief valve is designed for minor seat leakage only. Additional overpressure protection may be required should the inlet pressure exceed the maximum pressure rating of the downstream equipment, or maximum allowable outlet.

Periodically inspect the regulator for damage, and after an overpressure condition. Remove from service and replace or maintain the regulator as required.

1. Install the regulator so that the direction of flow is from the IN to the OUT, as marked on the regulators housing.

2. For best drainage, install the regulator so that the drain valve (12) is at the lowest possible point.
3. Prevent plugging of the spring case vent and keep the spring case from collecting moisture, corrosive chemicals or other materials by orienting the vent to the lowest possible point on the spring case. For panel mounted vented installations, the 1/4" NPT spring case vent may be remotely vented by installing tubing or piping.
4. To change the filter/drain orientation, rotate the filter cap with regards to the regulator body. Change the spring case/vent orientation by rotating the spring case in relation to the regulator body.

Warning

Never adjust the control spring to produce pressure beyond its highest outlet pressure range. Over pressuring the spring can cause bursting of pressure containing parts, or explosion of accumulated gas. If the range of the control spring does not reach the desired outlet pressure install a spring with the proper range according to the maintenance section.

5. Suitable means of venting the regulator inlet and outlet pressures for regulator shutdown may be achieved by installing upstream block and vent valves and downstream block and vent valves if required.
6. Apply pipe compound or suitable Teflon tape to the male pipe threads prior to making connections, take care not to get excess pipe compound inside piping or regulator.
7. Install 1/4" NPT supply tubing or pipe fitting to the inlet of the regulator body marked "IN". Proceed to install 1/4" tubing or pipe fitting to the other side of the regulator body marked "OUT".
8. The additional 1/4" NPT outlet may be used for an optional Jordan Valve pressure gauge. If a gauge is not being utilized, a 1/4" NPT plug must be used.

INSTALLATION CONTINUED,

- Should the Mark CFR regulator be installed in an existing installation, it may be necessary to install spacers on the mounting bolts to adapt to the installation. If mounting bolts are too long place a spacer on the mounting bolt and ensure at least two full threads of engagement.

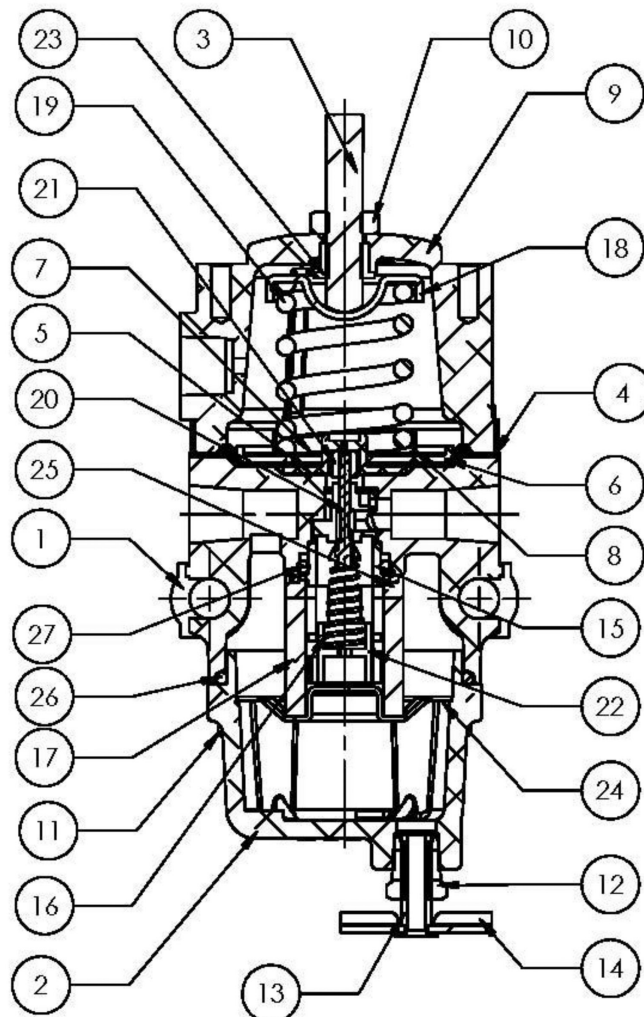
STARTUP AND ADJUSTMENT

- Once installation is complete and downstream equipment is properly adjusted, slowly open the supply and downstream shutoff valves (if installed) while using pressure gauges to monitor supply and outlet pressure.

- Should outlet pressure adjustment be required, install and monitor outlet pressure using a gauge during the start-up procedure. The Mark CFR regulator outlet pressure can be raised or lowered by loosening the locknut (10), and turning the adjustment screw (3), clockwise to increase outlet pressure, or counter clockwise to decrease outlet pressure.
- Tighten the locknut (10) once the desired outlet pressure has been properly set as required.
- Periodically inspect the regulator for signs or wear or damage, and repair or replace as necessary.

For more information or questions, please contact a Jordan Valve Representative.

MARK CFR ASSEMBLY



MARK CFR SERIES PRESSURE REDUCING SUPPLY REGULATORS

MARK CFR PARTS LISTING

Item	Description	Part Number	Qty
1	Body, Aluminum	T40643TORG2	1
2	Dripwell, Aluminum	T21040T0012	1
3	Adjusting Screw	T14061T0012	1
4*	Diaphragm ⁽¹⁾	T14119T0012-1	1
5	Push Post	T14119T0012-2	1
6*	Diaphragm Plate ⁽¹⁾	T14119T0012-3	1
7*	Diaphragm Ret. Ring ⁽¹⁾	T14119T0012-4	1
8	Lower Spring Seat	T14119T0012-5	1
9	Spring Case – 1/4" NPT Vent	T14070T0042	1
	Spring Case – Vent to atmosphere (drilled)	T140707T0012	1
10	Lock Nut	1A946324122	1
11	Flange Screw	1B784028982	10
12	Drain Valve Body	1K418918992-1	1
13	Drain Valve Plug	1K418918992-2	1
14	Drain Valve Handle	1D5604000A2-3	1
15	Valve Cartridge Body	T80434T0012	1
16	Valve Spring	T14105T0012	1
17*	Filter Element	GE32761X012	1
18	Upper Spring Seat	T14051T0012	1
19	Spring – 0 to 35 psig	T14059T0012	1
	Spring – 0 to 60 psig	T14058T0012	1
	Spring – 0 to 125 psig	T14060T0012	1
20*	Valve Plug	T14053T0042	1
21*	Soft Seat	T14055T0012	1
22	Valve Retainer	T14071T0012	1
23	Spring Case Insert	T14070T0052	1
24	Filter Retainer	T14052T0012	1
25	Filter Gasket	T14081T0012	1
26	O-Ring	T14380T0012	1
27	O-Ring	T14380T0012	1
⁽¹⁾ Items 4, 6 and 7 are included in Diaphragm Assembly		T14119T0022 Nitrile (no relief)	1
		T14119T0012 Nitrile (with relief)	1
*Included in Mark CFR Repair Kit		CFR-RK	1