



OPERATION AND MAINTENANCE MANUAL
FOR

5,500-300 PSI (379,2 – 20,6 BAR) ADJUSTABLE
PRESSURE REGULATOR

(PART NUMBERS: 22-895400G3 & 22-895400DG3)

5,500-150 PSI (379,2 – 10,3 BAR) PRESET
PRESSURE REGULATOR

(PART NUMBERS: 22-895401G3 & 22-895401DG3)

5,500-180 PSI (379,2 – 12,4 BAR) PRESET
PRESSURE REGULATOR

(PART NUMBERS: 22-895401G3-180 & 22-895401DG3-12)

02 SEP 2024

22-895433

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VALIDATION CERTIFICATE

TECHNICAL MANUAL TITLE

OPERATION AND MAINTENANCE MANUAL FOR 5,500-150 PSI ADJUSTABLE PRESSURE REGULATOR, 5,500-300 PSI ADJUSTABLE PRESSURE REGULATOR, 5,500-175 PSI PRESET PRESSURE REGULATOR, 5,500-150 PSI CART PRESSURE REGULATOR, 5,500-300 PSI CART PRESSURE REGULATOR

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I-VALIDATION

Except as stated in II, the technical manual identified above has been satisfactorily validated in accordance with all requirements of the applicable contract. The technical manual is hereby certified to be accurate and complete, and the information, instructions, text, and illustrations conform in all respects to the applicable general and detailed specifications.

II - EXCEPTIONS

EXCEPTIONS

NONE

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SIGNATURE OF PUBLICATIONS QUALITY ASSURANCE OFFICER

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QAP20/003/B

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1-1, BASIC SAFETY PRECAUTIONS:

- Equipment operation must always be conducted by trained personnel.
- Wear proper apparel (protective clothing, helmet, eye protection, gloves, footwear, etc.) during operation and maintenance of the pressure regulator.
- Follow instructions for full system setup, operation, and teardown in respective RSS and ALB manuals.
- The following are general safety precautions that are not related to any specific procedures, and therefore do not appear elsewhere in this publication. These are recommended precautions that personnel must understand and apply during many phases of operation and maintenance.
- Keep the work area clean when maintaining or repairing the pressure regulator.
- Personnel not directly involved in the operation or maintenance of the pressure regulator should keep a safe distance from the work area.
- The following warnings and cautions appear in the text of this manual and are repeated here for emphasis.

WARNING

Do not adjust the pressure regulator to exceed the maximum pressure rating recommended for the system (Page 2-1)



Proceed with extreme caution when dealing with high pressure air. Serious injury could occur if compressed air is directed against the skin. When working with high pressure air, always use chip guards, eye protection and other similar protective equipment. (Page 4-1)

WARNING

Serious injury could occur if compressed air is directed against the skin. Do not use compressed air unless the pressure is/has been reduced to 30 psi (2 bar) or less. When working with compressed air, always use chip guards, eye protection and other protective equipment. (Page 4-4)

WARNING

During any corrective maintenance procedure requiring pressure reading(s), be certain qualified personnel use proper tools and calibrated test gauges that are accurate to within $\pm 2\%$ of the indicated reading. If not available, return a pressure regulator requiring servicing to Paratech. (Page 4-1)

1-2. EQUIPMENT DESCRIPTION:

1-2.1 All G3 pressure regulators are self-contained, direct-acting, pressure regulating types utilizing spring-loading to balance the outlet pressure and thereby reduce the effect of decaying or variations in the inlet pressure. Each pressure regulator incorporates multiple disc springs acting upon a piston to provide sensitive pressure regulation over a range of varying inlet pressures. They are designed to reduce a variable inlet pressure of 5500 psi (379.2 bar) to reduced outlet pressures described below.

The adjusting mechanism (excluding the preset pressure regulators), activated by a hand adjusting knob provides the desired setting sensitivity while maintaining a low operating torque. A 10-micron internal filter is incorporated to prevent internal contamination problems from occurring.

1-2.2 22-895400G3 & 22-89540DG3, 300 psi (20,7 bar) Adjustable Pressure Regulators. For use with rescue support systems and portable pneumatic impact tools. outlet pressure up to 300 psi (20,7 bar).

1-2.3 22-895401G3 & 895401DG3, 150 psi (10.3 bar) Preset Regulators. For use with G2 air bag systems that require a constant outlet pressure of 150 psi (10.3 bar).

1-2.4 22-895401G3-180 & 895401DG3-12, 180 psi (12,4 bar) Preset Regulators. For use with G3 air bag systems that require a constant outlet pressure of 180 psi (12.4 bar).

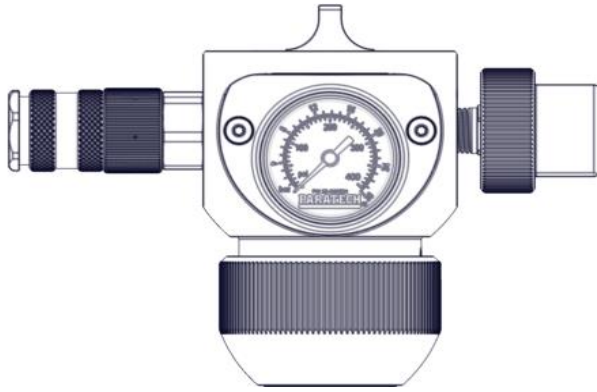
1-2.5 22-895400G3 & 22-89540DG3, 300 psi (20,7 bar) Adjustable Pressure Regulators, 22-895401G3, 22-895401DG3, 150 psi (10.3 bar) Preset Regulators, 22-895401G3-180, 22-895401DG3-12 180 psi (12,4 bar) Preset Regulators are designed to mate with a CGA-346/347 adapter fitting or DIN (D models) fitting. CGA-580 nitrogen, din bottle adapter is available as optional equipment. The standard nipple and knob assembly may also be replaced to permit an optional Euro nipple and nut assembly or a British nipple and knob assembly to be installed in order to interface the pressure regulator with alternate breathing air cylinders.

1-3. RELATIONSHIP OF UNITS.

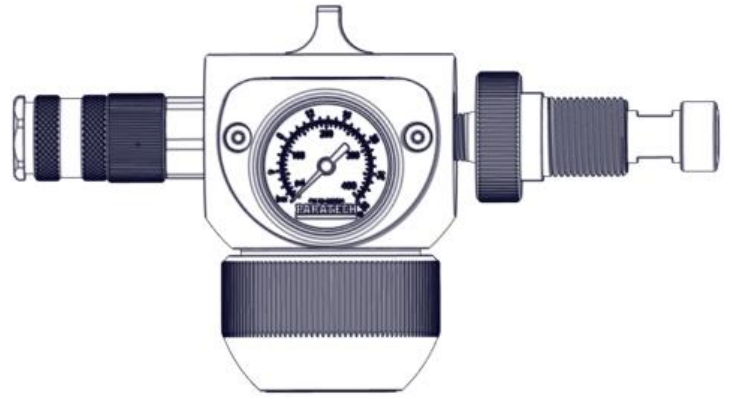
Refer to figure 1-1 for a pictorial illustration of each pressure regulator.

1-4. REFERENCE DATA.

Reference data pertaining to the pressure regulators are summarized for quick reference in table 3-1.



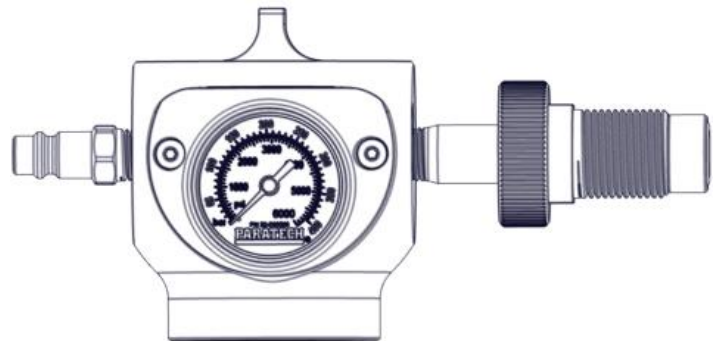
STRUT PRESSURE REGULATOR CGA
22-895400G3



STRUT PRESSURE REGULATOR DIN
22-895400DG3



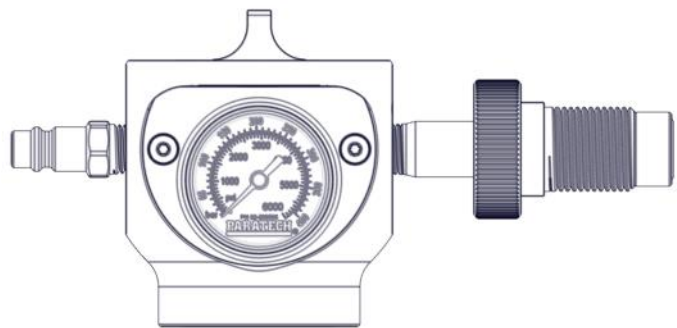
PRESET AIR LIFTING BAG
REGULATOR G3 CGA
22-895401G3



PRESET AIR LIFTING BAG
REGULATOR G3 DIN
22-895401DG3



PRESET AIR LIFTING BAG
REGULATOR G3-180 CGA
22-895401G3-180



PRESET AIR LIFTING BAG
REGULATOR G3-12 DIN
22-895401DG3-12

FIGURE 1-1 Pressure Regulator, Assembled View

G3 REGULATOR OPERATION:

2-1. PREPERATION FOR USE

NOTE: For safety purposes, all points of connection require the vented coupling Locking Ring to be rotated to the full lock position or the system will leak.

- Remove all dust, dirt, oil or grease from the pressure regulator. Do not use a pressure regulator without first cleaning off any contaminates.
- Inspect the inlet fitting and outlet nipple/coupling for any damage that will permit air leakage. Do not use the pressure regulator if an air leakage condition exists.
- Close the ON/OFF Knob valve assembly.
- If using an adjustable pressure regulator, turn the adjusting knob assembly full counterclockwise to prevent flow through the pressure regulator.
- Connect the pressure regulator to the working air cylinder supply. Be sure the hand tightening knob/nut is tightened sufficiently to prevent leakage.
 - Connect the delivery hose to the quick disconnect delivery nipple/coupling. Be sure the quick disconnect mechanism is fully engaged and locked into position to assure a leak-free connection.

2-2. CONTROLS AND INDICATORS.

2-2.1 CONTROLS. The only controls on the pressure regulator are the On/Off valve assembly on all regulators. There is a pressure adjusting knob on two adjustable regulators **22-895400G3** and **22-895400DG3**.

There are no other controls on the 4 preset regulators **22-895401G3**, **22-895401DG3 150 psi (10,3 bar)** and **22-895401G3-180**, **22-895401DG3-12 180 psi (12.4 bar)**. The On/Off valve assembly is either opened to permit regulated delivery air to pressurize the system or closed to prevent (seal off) regulated delivery air from pressurizing the system.

2-2.2 INDICATORS **22-895400G3** and **22-895400DG3 Adjustable Pressure Regulators** have delivery pressure gauges provided. The **22-895401DG3** and **22-895401DG3-12** preset regulators have supply pressure gauges.

2-3. NORMAL OPERATING PROCEDURE.

- Slowly open the working air cylinder supply to the pressure regulator. The supply pressure will be indicated on the supply pressure gauge in **22-895401DG3** and **22-895401DG3-12**.
- Open the delivery On/Off valve assembly to supply delivery air to the system. The delivery pressure should indicate 0 psi on the delivery pressure gauge in **22-895400G3** and **22-895400DG3**.

WARNING

Do not adjust the pressure regulator to exceed the maximum pressure rating recommended for the system

- **22-895400G3 and 22-895400DG3 Pressure Regulators Only.** Turn the pressure adjusting knob to obtain the desired regulated pressure to the system apparatus. Make the final adjustment in the increase direction to provide the most accurate and consistent pressure settings.
- To stop providing air to the system apparatus, turn the delivery On/Off valve to the closed position. Even though the valve is in the closed position, there will still be delivery pressure to the apparatus until the pressures is bled off (See 2-5 SHUTDOWN below).

2-4. SHUTDOWN.

At the conclusion of its use, shut off the external working air cylinder supply.

- **22-895400G3 and 22-895400DG3 Adjustable Pressure Regulators.** Reduce regulator to zero by turning the pressure adjusting knob counterclockwise until the gauge pressure reads zero.
- **22-895401G3, 22-895401DG3, 22-895401DG3-180, 22-895401DG3-12 Preset Pressure Regulators.** Bleed down the air through the controller. If the system uses hoses with vented couplings, unscrewing the coupling lock ring will vent any compressed air before disassembly.
- Disconnect the delivery hose from the regulator. Open delivery On/Off valve, turn adjusting knob clockwise to dissipate air in the supply line.
- The pressure gauges should be at zero. Disconnect the air supply line from the pressure regulator.

Table 3-1 Dimensions, Weights and Volumes

Quantity	Item Name or Nomenclature	CID Number RIC Number Unit Number	Dimensions Length, Depth, Height Inch (Centimeter)	Overall Weight Pounds (Kilograms)	Volume Feet³ (Meter³)
1	Adjustable Pressure Regulator	22-895400G3	L: 6.7 (17,0) D: 4.0 (10,2) H: 4.6 (11,7)	3.4 (1,5)	.014 (0,0004)
1	Adjustable Pressure Regulator	22-895400DG3	L:8.1 (20,6) D: 4.0 (10,2) H: 4.6 (11,7)	3.8 (1,7)	.014 (0,0004)
1	Preset Pressure Regulator	22-895401G3	L: 5.8 (14,7) D: 2.9 (7,4) H: 3.4 (8,6)	2.2 (1,0)	.010 (0,0003)
1	Preset Pressure Regulator	22-895401DG3	L: 7.1 (18,1) D: 4.0 (10,2) H: 3.4 (8,6)	2.6 (1,2)	.011 (0,0003)
1	Preset Pressure Regulator	22-895401G3-180	L: 5.8 (14,7) D: 2.9 (7,4) H: 3.4 (8,6)	2.2 (1,0)	.010 (0,0003)
1	Preset Pressure Regulator	22-895401DG3-12	L: 7.1 (18,1) D: 4.0 (10,2) H: 3.4 (8,6)	2.6 (1,2)	.011 (0,0003)

3-1. TROUBLESHOOTING

This chapter contains troubleshooting data in the form of a conventional troubleshooting chart. Troubleshooting is required only if malfunctions are detected either during normal operation or during periodic servicing of the pressure regulator. The pressure regulator troubleshooting guide given in table 3-1. Refer to figures 4-1 thru 4-6 for parts in the exploded view drawings.

Table 3-2. TROUBLESHOOTING

TROUBLE	PROBABLE CAUSE	REMEDY
Discharge Pressure Increases (indicated on low (discharge) pressure gauge) From Initial Setting.	Worn or otherwise defective Main Seat.	Install new Main Seat.
	Worn or otherwise defective Vent Seat (excludes preset pressure regulators).	Install new Vent Seat.
	Supply pressure decreasing.	Turn Adjusting Knob to decrease delivery pressure (excludes preset pressure regulators).
Discharge Pressure to System Apparatus Persists With On/Off Knob Closed.	On/Off Knob O-ring Seals worn or defective.	Replace O-ring Seals.
Working Air Discharging Between Housing and Knob (Adjustable) or End Cap (Preset).	Worn or otherwise defective Piston O-ring Seal.	Replace Piston O-ring Seal.
	Worn or otherwise defective Vent Seat.	Replace Vent Seat.
	Worn or otherwise defective Needle.	Replace Needle.
No Discharge Pressure.	Air cylinder empty.	Fill air cylinder.
	Air cylinder shut off.	Open air cylinder valve.
	Pressure Regulator shut off (Adjustable Pressure Regulator only).	Turn Pressure Adjusting Knob clockwise.
	Pressure Regulator On/Off Knob closed.	Open Pressure Regulator On/Off Knob.
Pressure Regulator Will Not Fit On Air Cylinder.	Wrong Outlet Valve on Air Cylinder.	Use Air Cylinder with correct outlet connection.
	Wrong type of Air Cylinder.	Use only Air Cylinder with correct outlet connection.
System Equipment Not Operating Properly.	Improper pressure setting (Adjustable Pressure Regulators).	Turn Pressure Adjusting Knob to obtain proper operating pressure for system equipment.
	Improper pressure setting (Preset Pressure Regulators).	Return Preset Regulator to Paratech for Repair.
	Defective discharge Pressure Gauge (Adjustable Pressure Regulators).	Test discharge Pressure Gauge and replace as required.
Pressure Regulator Leaks at Air Bottle Connection.	Defective Seal.	Replace Seal on the Nipple.
	Loose connection.	Tighten connection.
	Worn or damaged Seal on air bottle connection valve.	Replace air bottle connection Valve.

4-1. EXPLODED VIEWS

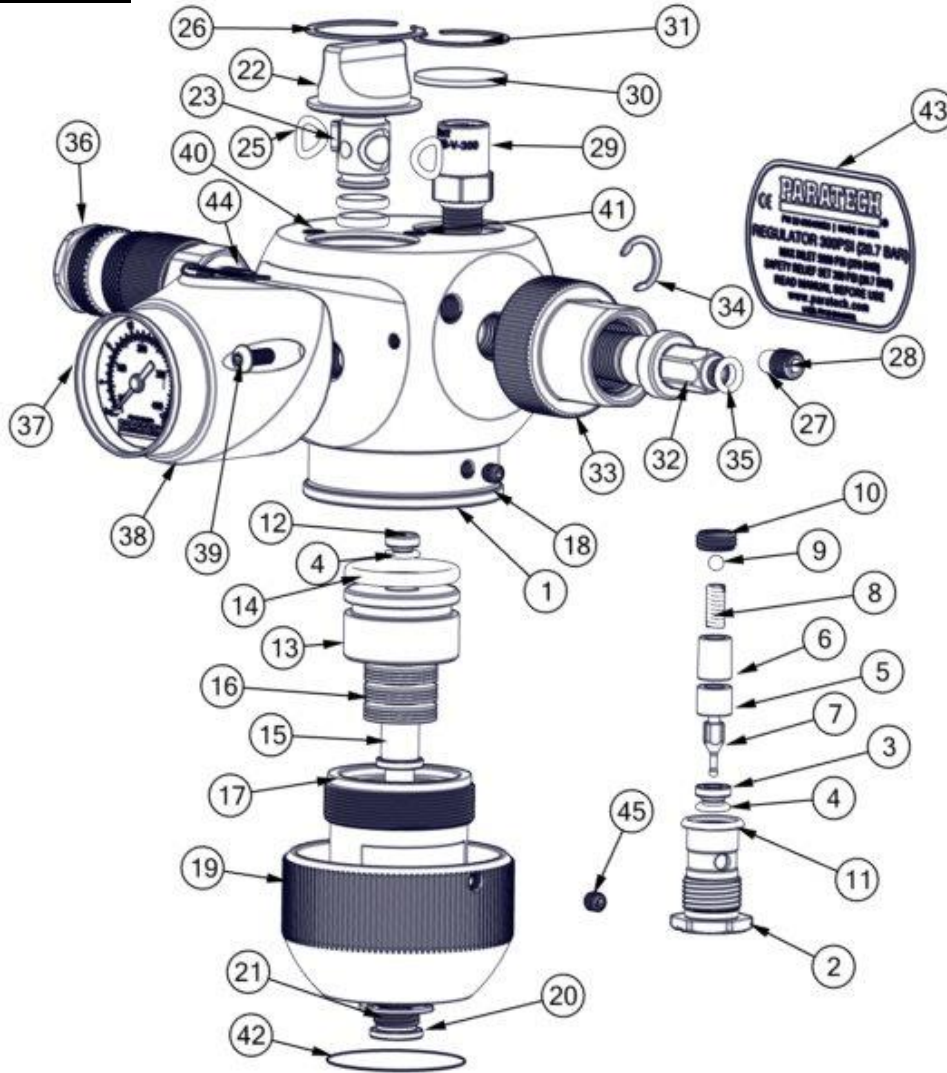


Figure 4-1 22-895400G3 Adjustable Pressure Regulator Exploded View

ITEM	QTY	22- P/N	DESCRIPTION
1	1	895396	BODY, STRUT REGULATOR G3
2	1	895413	CARTRIDGE HOUSING, REG.
3	1	895412	SEAT, MAIN, CARTR. REGULATOR
4	2	895513	O-RING AS-010 (1/4X.070) BN90
5	1	895414	SPACER FOR CARTRIDGE
6	1	895415	FILTER, SINTER. FOR REGULATOR
7	1	895411	NEEDLE, MAIN REG VALVE, CARTR.
8	1	895222	SPRING, NEEDLE VALVE
9	1	891135	BALL 5/32 440-C SS GRADE 24
10	1	895416	END CAP, CARTRIDGE
11	1	890252	O-RING AS-015 90BN (9/16X.070)
12	1	895418	SEAT, VENT, CARTR. REGULATOR
13	1	895217	PISTON, VENT REGULATOR G3.
14	1	895247	O-RING AS-121 1-1/16X.103 BN70
15	1	895322	PIN - 20MM DISC GUIDE
16	16	895273	DISC SPRNG 20X10.2X1MM L=1.55
17	1	895348	REAR CAP FOR DISC REGULATOR G3
18	1	895278	SET SCR #10-24 X .25 CONE P SS
19	1	895347	KNOB FOR REGULATOR G3
20	1	895327	SCR, PRESS, ADJ KNOB, REG G3
21	1	015778	RET. E-RING FOR 1/2" SHAFT
22	1	890498	KNOB, ON/OFF REGULATOR G3

ITEM	QTY	22- P/N	DESCRIPTION
23	1	890935	SPRING PIN 3/32 X 5/16 S.S.
24	2	550174	O-RING AS-013 (7/16X.070) BN70
25	2	890489	O-RING 5/16X.070 POLYURETH. 90
26	1	895218	Ø1.25 INT RETAINING RING SS
27	2	895419	Ø1/4" BRASS BALL
28	2	890893	5/16-24 X 5/16 SCH SET SCR SS
29	1	890589	VENT RELIEF VALVE, 300 PSI
30	1	796V48	Ø1" POROUS MEDIA DISC
31	1	796V43	Ø1 LD INT RET RING SS
32	1	895334	NIPPLE 5500PSI CGA 347 SHORT
33	1	895336	NUT, 5500PSI CGA 347 SHORT
34	1	015779	RET. CRESCENT RING 1/2" SHAFT
35	1	550195	O-RING 1/4X.070 POLYURETHANE90
36	1	890703V	CPLG 1/4 NPSM OPEN VENT ASM
37	1	890594	GAUGE 1.5" 400 PSI 1/8 BACK MT
38	1	890597	GAUGE HOUSING REGULATOR G3
39	2	670378	M4-.7 X 10 BTNHD TORX SS
40	1	895OFF	ROUND LABEL OFF, RED G3
41	1	895ON	ROUND LABEL ON, GREEN G3
42	1	895400G3Q	LABEL, QR CODE Ø1.5 REG KNOB
43	1	895400G3L	LABEL FOR G3 STRUT REGULATOR
44	1	895102	LABEL, OULET PRESSURE
45	1	550093	SET SCR 10-24 3/16 CUPSS W/NYL

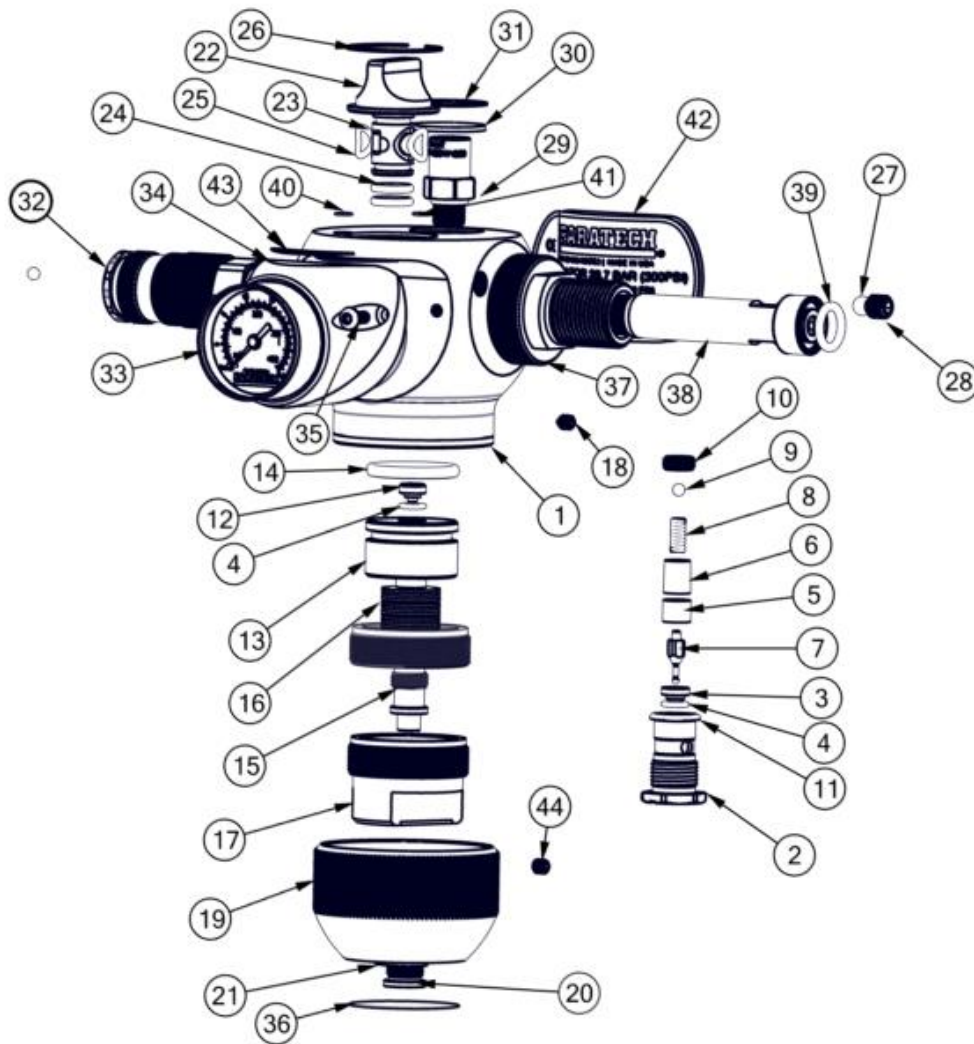


Figure 4-2: 22-895400DG3 Adjustable Pressure Regulator Exploded View

ITEM	QTY	22- P/N	DESCRIPTION
1	1	895396	BODY, STRUT REGULATOR G3
2	1	895413	CARTRIDGE HOUSING, REG.
3	1	895412	SEAT, MAIN, CARTR. REGULATOR
4	2	895513	O-RING AS-010 (1/4X.070) BN90
5	1	895414	SPACER FOR CARTRIDGE
6	1	895415	FILTER, SINTER. FOR REGULATOR
7	1	895411	NEEDLE, MAIN REG VALVE, CARTR.
8	1	895222	SPRING, NEEDLE VALVE
9	1	891135	BALL 5/32 440-C SS GRADE 24
10	1	895416	END CAP, CARTRIDGE
11	1	890252	O-RING AS-015 90BN (9/16X.070)
12	1	895418	SEAT, VENT, CARTR. REGULATOR
13	1	895217	PISTON, VENT REGULATOR G3.
14	1	895247	O-RING AS-121 1-1/16X.103 BN70
15	1	895322	PIN - 20MM DISC GUIDE
16	16	895273	DISC SPRNG 20X10.2X1MM L=1.55
17	1	895348	REAR CAP FOR DISC REGULATOR G3
18	1	895278	SET SCR #10-24 X .25 CONE P SS
19	1	895347	KNOB FOR REGULATOR G3
20	1	895327	SCR, PRESS, ADJ KNOB, REG G3
21	1	015778	RET. E-RING FOR 1/2" SHAFT
22	1	890498	KNOB, ON/OFF REGULATOR G3

ITEM	QTY	22- P/N	DESCRIPTION
23	1	890935	SPRING PIN 3/32 X 5/16 S.S.
24	2	550174	O-RING AS-013 (7/16X.070) BN70
25	2	890489	O-RING 5/16X.070 POLYURETH. 90
26	1	895218	Ø1.25 INT RETAINING RING SS
27	2	895419	Ø1/4" BRASS BALL
28	2	890893	5/16-24 X 5/16 SCH SET SCR SS
29	1	890589	VENT RELIEF VALVE, 300 PSI
30	1	796V48	Ø1" POROUS MEDIA DISC
31	1	796V43	Ø1 LD INT RET RING SS
32	1	890703V	CPLG 1/4 NPSM OPEN VENT ASM
33	1	890594	GAUGE 1.5" 400 PSI 1/8 BACK MT
34	1	890597	GAUGE HOUSING REGULATOR G3
35	2	670378	M4-.7 X 10 BTNHD TORX SS
36	1	895400DG3Q	LABEL, DN QR CODE Ø1.5 REG KNOB
37	1	895353	NUT, 5500 PSI DIN
38	1	895367	NIPPLE-DIN
39	1	891154	O-RING AS-111 7/16X.103 BN70
40	1	895ON	ROUND LABEL ON, GREEN G3
41	1	895OFF	ROUND LABEL OFF, RED G3
42	1	895400GD3L	LABEL FOR G3 DIN STRUT REG
43	1	895102	LABEL, OULET PRESSURE
44	1	550093	SET SCR 10-24 3/16 CP SS W/NYL

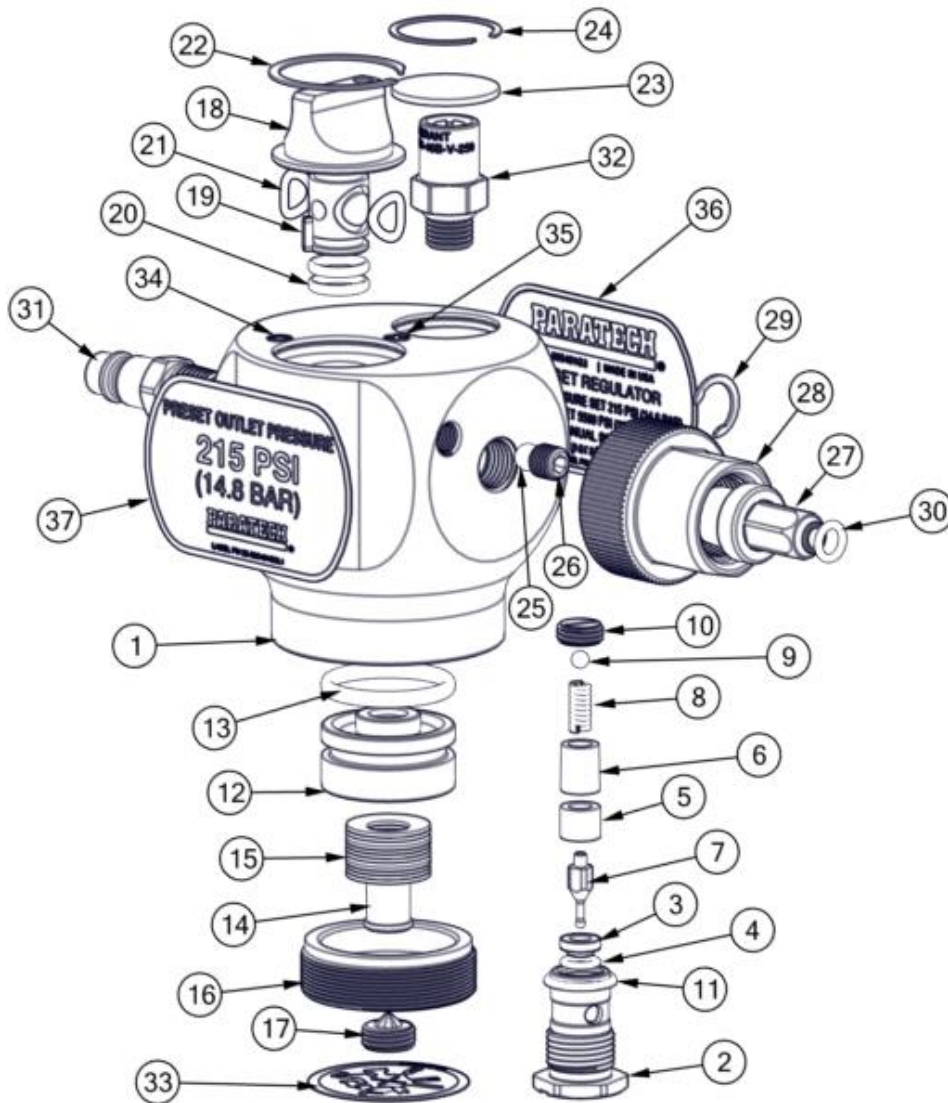


Figure 4-3: 22-895401G3 Regulator, ALB G3 Preset CGA Exploded View

ITEM	QTY	22-P/N	DESCRIPTION
1	1	895423	BODY, REGULATOR G3 PRESET ALB
2	1	895413	CARTRIDGE HOUSING, REG.
3	1	895412	SEAT, MAIN, CARTR. REGULATOR
4	1	895513	O-RING AS-010 (1/4X.070) BN90
5	1	895414	SPACER FOR CARTRIDGE
6	1	895415	FILTER, SINTER. FOR REGULATOR
7	1	895411	NEEDLE, MAIN REG VALVE, CARTR.
8	1	895222	SPRING, NEEDLE VALVE
31	1	891135	BALL 5/32 440-C SS GRADE 24
10	1	895416	END CAP, CARTRIDGE
11	1	890252	O-RING AS-015 90BN (9/16X.070)
12	1	895317	PISTON PRESET REG
13	1	895247	O-RING AS-121 1-1/16X.103 BN70
14	1	895325	PIN, DISC GUIDE REG
15	10	895273	DISC SPRNG 20X10.2X1MM L=1.55
16	1	895329	REGULATOR END CAP, PRESET G3
17	1	895321	ADJUSTING SCR, PRESET
18	1	890498	KNOB, ON/OFF REGULATOR G3
19	1	890935	SPRING PIN 3/32 X 5/16 S.S.

ITEM	QTY	22- P/N	DESCRIPTION
20	2	550174	O-RING AS-013 (7/16X.070) BN70
21	2	890489	O-RING 5/16X.070 POLYURETH. 90
22	1	895218	Ø1.25 INT RETAINING RING SS
23	1	796V48	Ø1" POROUS MEDIA DISC
24	1	796V43	Ø1 LD INT RET RING SS
25	2	895419	Ø1/4" BRASS BALL
26	2	890893	5/16-24 X 5/16 SCH SET SCR SS
27	1	895324	NIPPLE 5500PSI CGA 347 SHORT
28	1	895336	NUT, 5500PSI CGA 347 SHORT
29	1	015779	RET. CRESCENT RING 1/2" SHAFT
30	1	550195	O-RING 1/4X.070 POLYURETHANE90
31	1	890681	NIPPLE WITH 1/4 NPTM
32	1	890250	VENT RELIEF VALVE, 250 PSI
33	1	895328	LABEL Ø1.5" PLATE COVER
34	1	895ON	ROUND LABEL ON, GREEN G3
35	1	895OFF	ROUND LABEL OFF, RED G3
36	1	895401G3L	LABEL, ALB REG G3 , PRESET
37	1	895401G3L1	LABEL BACK PRESET

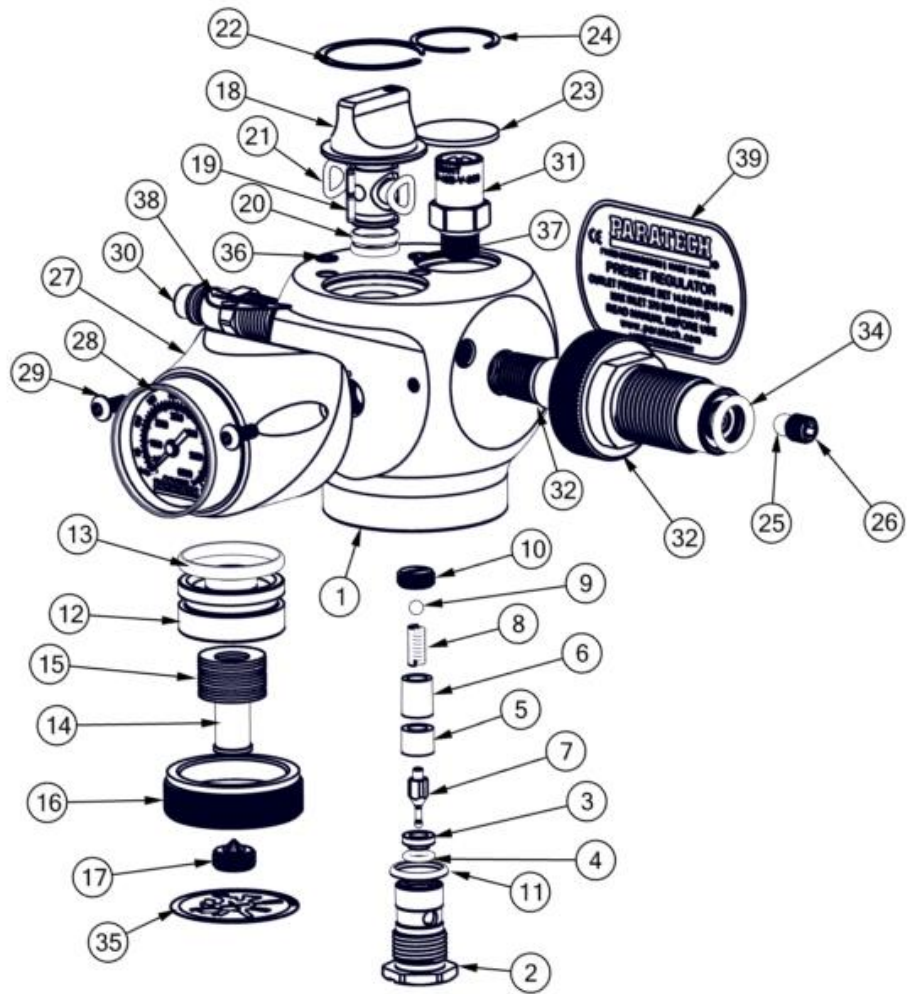


Figure 4-4: 22-895401DG3 Regulator ALB G3 Preset DIN Exploded View

ITEM	QTY	22- P/N	DESCRIPTION
1	1	895410	BODY,REGULATOR DG3, PRESET ALB
2	1	895413	CARTRIDGE HOUSING, REG.
3	1	895412	SEAT, MAIN, CARTR. REGULATOR
4	2	895513	O-RING AS-010 (1/4X.070) BN90
5	1	895414	SPACER FOR CARTRIDGE
6	1	895415	FILTER, SINTER, FOR REGULATOR
7	1	895411	NEEDLE, MAIN REG VALVE, CARTR.
8	1	895222	SPRING, NEEDLE VALVE
31	1	891135	BALL 5/32 440-C SS GRADE 24
10	1	895416	END CAP, CARTRIDGE
11	1	890252	O-RING AS-015 90BN (9/16X.070)
12	1	895317	PISTON PRESET REG
13	1	895247	O-RING AS-121 1-1/16X.103 BN70
14	1	895325	PIN, DISC GUIDE REG
15	10	895273	DISC SPRNG 20X10.2X1MM L=1.55
16	1	895329	REGULATOR END CAP, PRESET G3
17	1	895321	ADJUSTING SCR, PRESET
18	1	890498	KNOB, ON/OFF REGULATOR G3
19	1	890935	SPRING PIN 3/32 X 5/16 S.S.
20	2	550174	O-RING AS-013 (7/16X.070) BN70

ITEM	QTY	22- P/N	DESCRIPTION
21	2	890489	O-RING 5/16X.070 POLYURETH. 90
22	1	895218	Ø1.25 INT RETAINING RING SS
23	1	796V48	Ø1" POROUS MEDIA DISC
24	1	796V43	Ø1 LD INT RET RING SS
25	2	895419	Ø1/4" BRASS BALL
26	2	890893	5/16-24 X 5/16 SCH SET SCR SS
27	1	890957	GAUGE HOUSING REGULATOR G3
28	1	890596	GAUGE 1.5" 6000PSI 1/8 BACK MT
29	2	670378	M4-.7 X 10 BTNHD TORX SCR SS
30	1	890681	180 NIPPLE WITH 1/4 NPT M
31	1	890250	VENT RELIEF VALVE, 250 PSI
32	1	895367	1NIPPLE - DIN
33	1	895353	NUT, 5500 PSI DIN
34	1	891154	O-RING AS-111 7/16X.103 BN70
35	1	895328	LABEL Ø1.5" PLATE COVER
36	1	8950N	ROUND LABEL ON, GREEN G3
37	1	8950FF	ROUND LABEL OFF, RED G3
38	1	895101	LABEL, INLET PRESSURE 12
39	1	895401DG3L	LABEL, ALB REG DG3 PRESET DIN

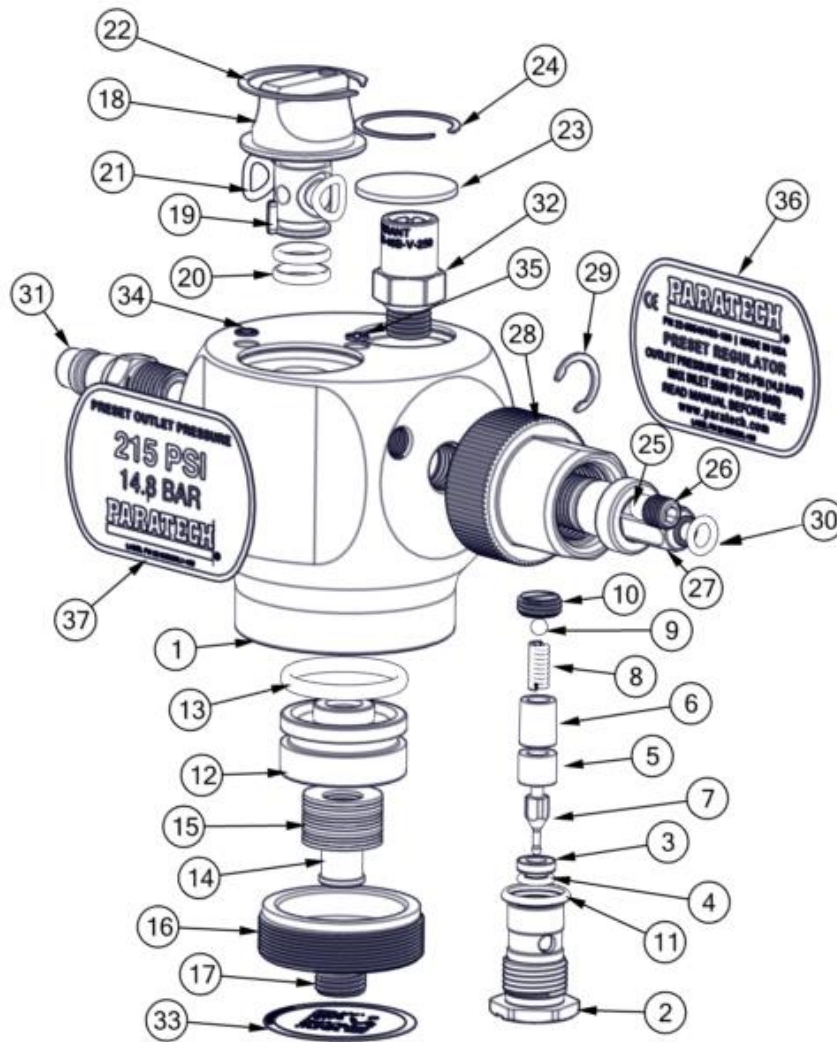


Figure 4-5: 22-895401G3-180 180 Regulator, ALB G3 Preset CGA Exploded View

ITEM	QTY	22- P/N	DESCRIPTION
1	1	895423	BODY, REGULATOR G3 PRESET LB
2	1	895413	CARTRIDGE HOUSING, REG.
3	1	895412	SEAT, MAIN, CARTR. REGULATOR
4	2	895513	O-RING AS-010 (1/4X.070) BN90
5	1	895414	SPACER FOR CARTRIDGE
6	1	895415	FILTER, SINTER. FOR REGULATOR
7	1	895411	NEEDLE, MAIN REG VALVE, CARTR.
8	1	895222	SPRING, NEEDLE VALVE
9	1	891135	BALL 5/32 440-C SS GRADE 24
10	1	895416	END CAP, CARTRIDGE
11	1	890252	O-RING AS-015 90BN (9/16X.070)
12	1	895317	PISTON PRESET REG
13	1	895247	O-RING AS-121 1-1/16X.103 BN70
14	1	895325	PIN, DISC GUIDE REG
15	10	895273	DISC SPRNG 20X10.2X1MM L=1.55
16	1	895329	REGULATOR END CAP, PRESET G3
17	1	895321	ADJUSTING SCR, PRESET
18	1	890498	KNOB, ON/OFF REGULATOR G3
19	1	890935	SPRING PIN 3/32 X 5/16 S.S.

ITEM	QTY	22- P/N	DESCRIPTION
20	2	550174	O-RING AS-013 (7/16X.070) BN70
21	2	890489	O-RING 5/16X.070 POLYURETH. 90
22	1	895218	Ø1.25 INT RETAINING RING SS
23	1	796V48	Ø1" POROUS MEDIA DISC
24	1	796V43	Ø1 LD INT RET RING SS
25	2	895419	Ø1/4" BRASS BALL
26	2	796V48	5/16-24 X 5/16 SCH SET SCR SS
27	1	895324	NIPPLE 5500PSI CGA 347 SHORT
28	1	895336	NUT, 5500PSI CGA 347 SHORT
29	1	015779	RET. CRESCENT RING 1/2" SHAFT
30	1	550195	O-RING 1/4X.070 POLYURETHANE90
31	1	890681-180	180 NIPPLE WITH 1/4 NPT M
32	1	890250	VENT RELIEF VALVE, 250 PSI
33	1	895401G3180Q	LABEL, 895401G3-180 QR CODE
34	1	895ON	ROUND LABEL ON, GREEN G3
35	1	895OFF	ROUND LABEL OFF, RED G3
36	1	895359L-180	LABEL, ALB REG G3 180, PRESET
37	1	895359L1-180	LABEL BACK PRESET

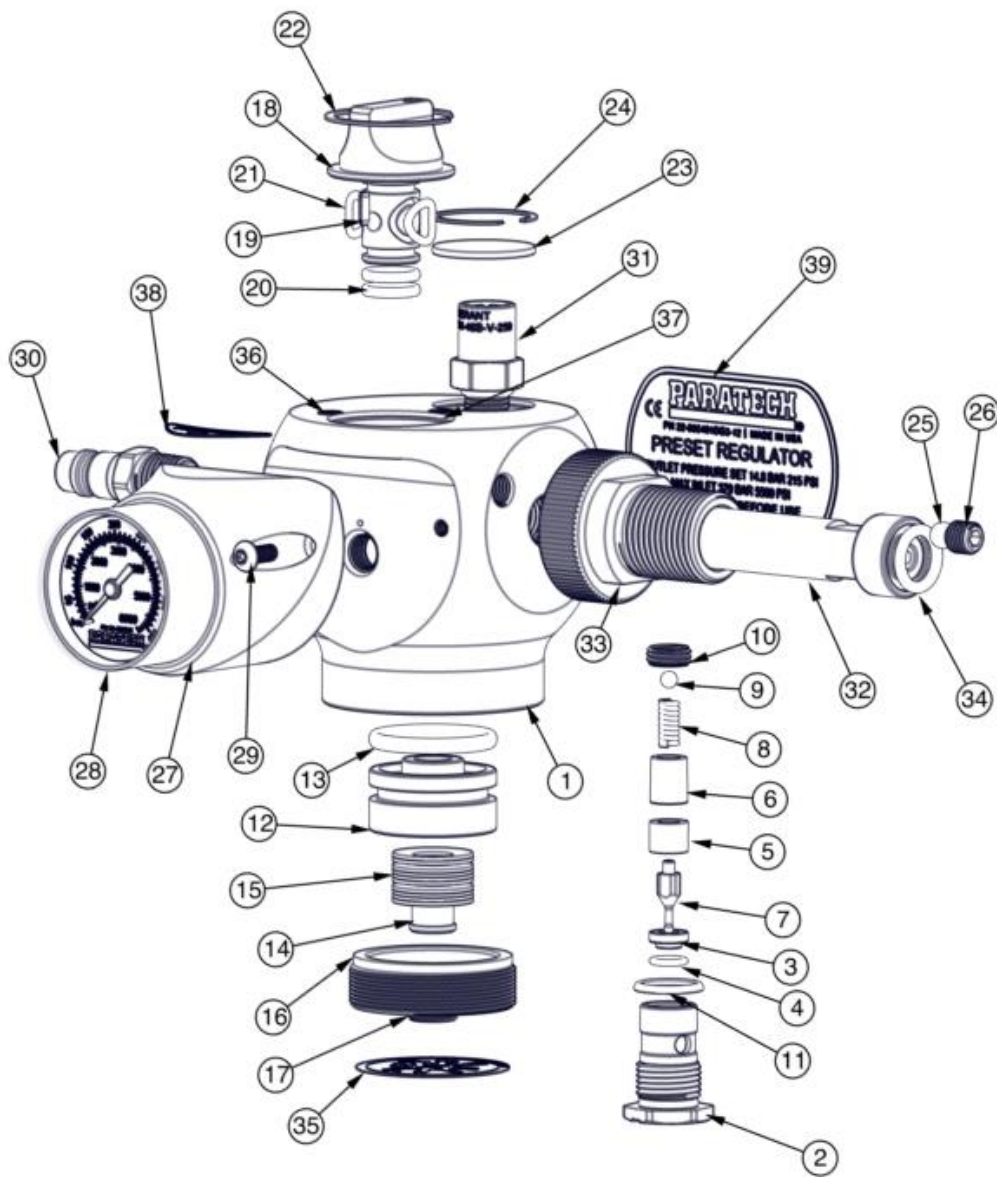


Figure 4-6 22-895401DG3-12 Regulator 12 ALB G3 Preset DIN Exploded View

ITEM	QTY	22-P/N	DESCRIPTION
1	1	895410	BODY,REGULATOR DG3, PRESET ALB
2	1	895413	CARTRIDGE HOUSING, REG.
3	1	895412	SEAT, MAIN, CARTR. REGULATOR
4	2	895513	O-RING AS-010 (1/4X.070) BN90
5	1	895414	SPACER FOR CARTRIDGE
6	1	895415	FILTER, SINTER. FOR REGULATOR
7	1	895411	NEEDLE, MAIN REG VALVE, CARTR.
8	1	895222	SPRING, NEEDLE VALVE
31	1	891135	BALL 5/32 440-C SS GRADE 24
10	1	895416	END CAP, CARTRIDGE
11	1	890252	O-RING AS-015 90BN (9/16X.070)
12	1	895317	PISTON PRESET REG
13	1	895247	O-RING AS-121 1-1/16X.103 BN70
14	1	895325	PIN, DISC GUIDE REG
15	10	895273	DISC SPRNG 20X10.2X1MM L=1.55
16	1	895329	REGULATOR END CAP, PRESET G3
17	1	895321	ADJUSTING SCR, PRESET
18	1	890498	KNOB, ON/OFF REGULATOR G3
19	1	890935	SPRING PIN 3/32 X 5/16 S.S.
20	2	550174	O-RING AS-013 (7/16X.070) BN70

ITEM	QTY	22-P/N	DESCRIPTION
21	2	890489	O-RING 5/16X.070 POLYURETH. 90
22	1	895218	Ø1.25 INT RETAINING RING SS
23	1	796V48	Ø1" POROUS MEDIA DISC
24	1	796V43	Ø1 LD INT RET RING SS
25	2	895419	Ø1/4" BRASS BALL
26	2	890893	5/16-24 X 5/16 SCH SET SCR SS
27	1	890957	GAUGE HOUSING REGULATOR G3
28	1	890596	GAUGE 1.5" 6000PSI 1/8 BACK MT
29	2	670378	M4-.7 X 10 BTNHD TORX SCR SS
30	1	890681-180	180 NIPPLE WITH 1/4 NPT M
31	1	890250	VENT RELIEF VALVE, 250 PSI
32	1	895367	1NIPPLE - DIN
33	1	895353	NUT, 5500 PSI DIN
34	1	891154	O-RING AS-111 7/16X.103 BN70
35	1	895401DG312Q	LABEL, 895401DG3-12 QR CODE
36	1	895ON	ROUND LABEL ON, GREEN G3
37	1	895OFF	ROUND LABEL OFF, RED G3
38	1	895101-12	LABEL, INLET PRESSURE 12
39	1	895359L-12	LABEL, ALB REG DG3 12, PRESET