Honeywell | Smart Energy

Elster Jeavons J90

Commissioning Instructions

General Arrangement

Parts List

Maintenance Instructions

For: J90 Regulator 1¼” and 2” screwed

J90 Regulator 3” (80mm) flanged

J90: Commissioning Instructions
1¼", 2" and 3" Sizes

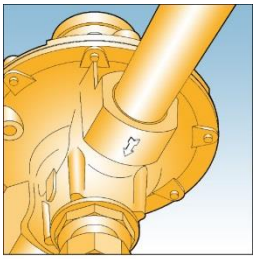


Fig. 1

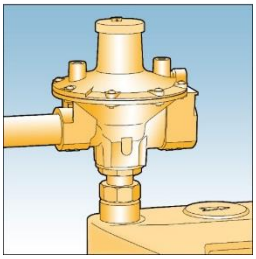


Fig. 2

OPERATING INSTRUCTIONS

- Ensure that this product is suitable for the chosen application.
- Installation, adjustment and maintenance by authorised, trained personnel only.
- When being fitted to an appliance, refer to the appliance manufacturers instructions.
- The unit should not be installed in a corrosive environment.
- The ambient temperature (surface temperature) should be within the limits stated on the regulator catalogue.

Warning! Incorrect installation, adjustment, modification, operation and maintenance may cause injury or damage.
Read the instructions before use. This control must be installed in accordance with the rules in force.

FITTING UNIT INTO PIPEWORK

Installations in the UK should comply with IGE/GM6 and IGE/GM8.

1. Remove the protection from the inlet and outlet ports if fitted.
2. Ensure that the installation pipework is thoroughly clean.
3. The direction of gas flow must be the same as the arrows on the regulator body. See Fig. 1.
4. Mount regulator to meter inlet and connect pipework to regulator inlet. See Fig. 2.
5. On threaded units use an approved jointing compound.
6. No jointing compound must be allowed to enter the gas pipe when fitting the regulator.

CHECK FOR SOUNDNESS

1. Apply pressure to inlet and outlet.
   Inlet: 1.1 x Pi max
   Outlet: 1.1 x Po max
2. Use soap at joints with pipes and meter.

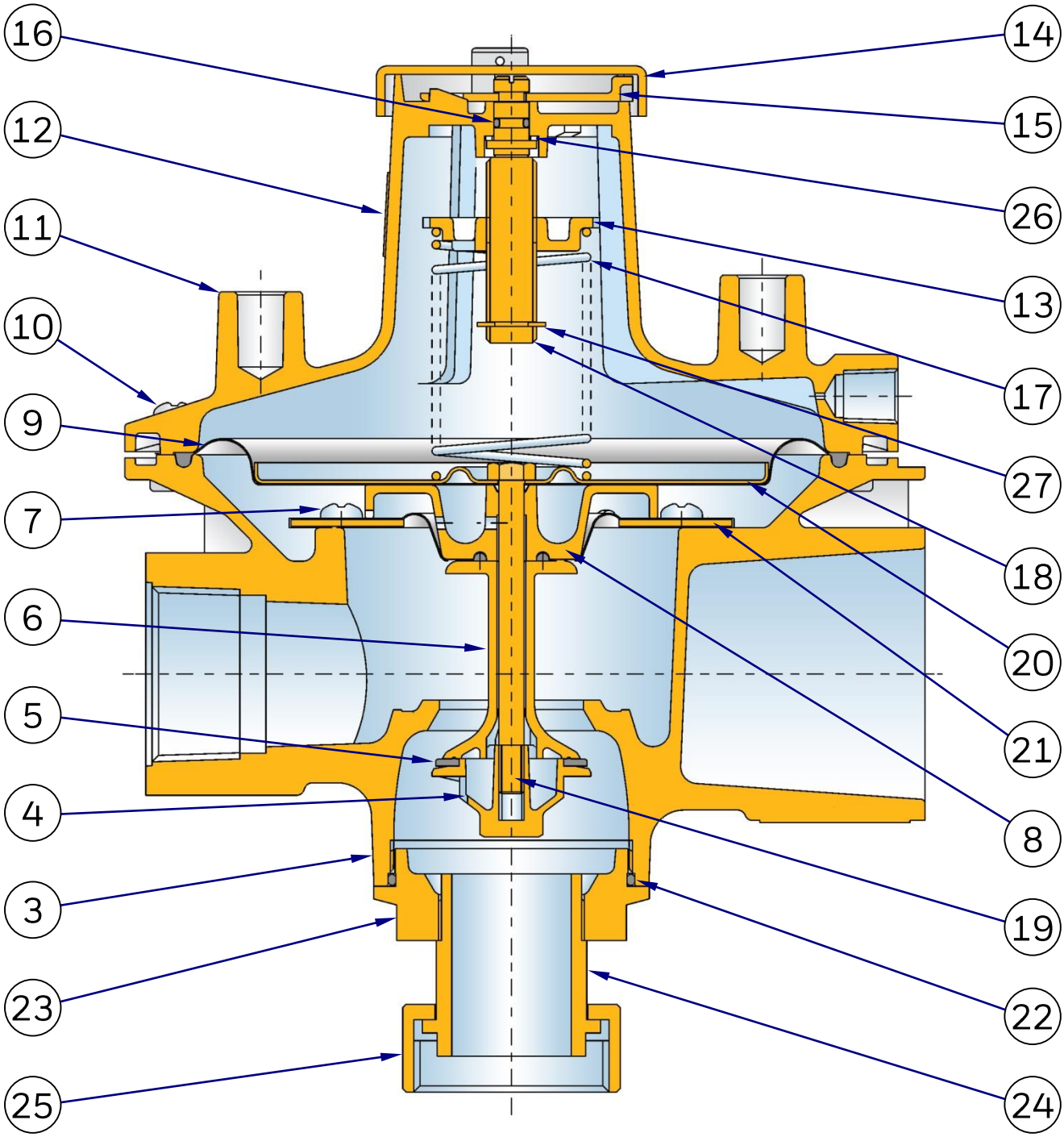
ESTABLISHING SUPPLY

1. Turn off downstream appliances.
2. Slowly turn on inlet supply.
3. Commission any downstream appliances.

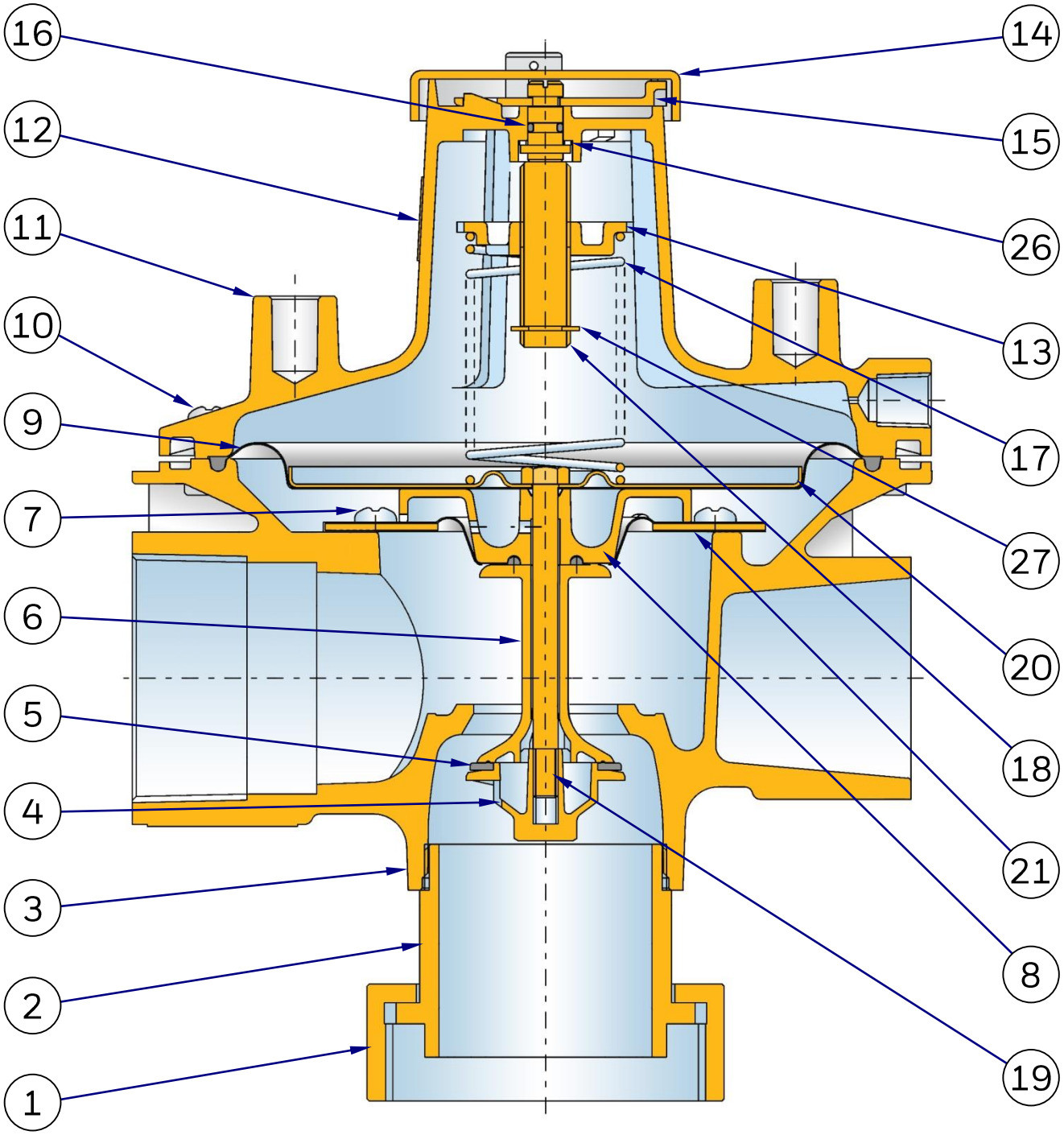
SETTING OF OUTLET PRESSURE

The outlet pressure of the J90 is set at the factory during manufacture. The selected set point of the regulator ensures that it performs within the requirements stated in specifications T/SP/PRS/33 and PRS/33/E. If required, the checking of the outlet pressure of the regulator in operation should be operating within the parameters laid down in this specification.

J90: General Arrangement
1¼" Size – Fig 3.



J90: General Arrangement
2” Size – Fig 4.



J90: Parts List

1¼" and 2" Sizes

For sectional views Fig. 3 and 4

ITEM	DESCRIPTION	PART NUMBER	No Off
1	METER UNION NUT (2" ONLY)	JNN100CB	1
2	METER UNION LINER (2" ONLY)	J4809-078	1
3	BODY - 1¼"	J4807-012+	1
	BODY - 2"	J4809-076+	1
4	VALVE DISC HOLDER	J4808-092	1
5	VALVE DISC	J4808-035	1✷
6	VALVE SPACER	J4808-090	1
7	SCREW	JSA510XPTZ	6
8	DIAPHRAGM SPACER	J4808-091	1
9	MAIN DIAPHRAGM	J4808-011	1✷
10	SCREW	JSA520XPTZ	8
11	TOP COVER	J4808-089+	1
12	NAMEPLATE	J8112-124	1
13	TOP SPRING HOLDER	J4806-127	1
14	TOP CAP	J4806-099	1
15	LOCKING LEVER	J4806-105	1
16	"O" RING SEAL	JORM0051-16	1✷
17	LOADING SPRING	J4808-088	1
18	SPRING ADJUSTING SCREW	J4806-128	1
19	VALVE SPINDLE	JBA675HEXZG	1
20	TOP DIAPHRAGM PLATE	J4808-003	1
21	SECONDARY DIAPHRAGM	J4808-093	1✷
22	"O" RING SEAL (1¼" ONLY)	JORM0546-24	1✷
23	METER UNION BUSH (1¼" ONLY)	J4808-033Z02	1
24	METER UNION LINER (1¼" ONLY)	J4807-007Z01	1
25	METER UNION NUT (1¼" ONLY)	JNN020CB	1
26	ANTI - SEIZURE WASHER	J4806-134	1
27	CIRCLIP	03627128	1

Note: Part numbers marked + require thread or flange specification to be stated with order.

Spares Kits

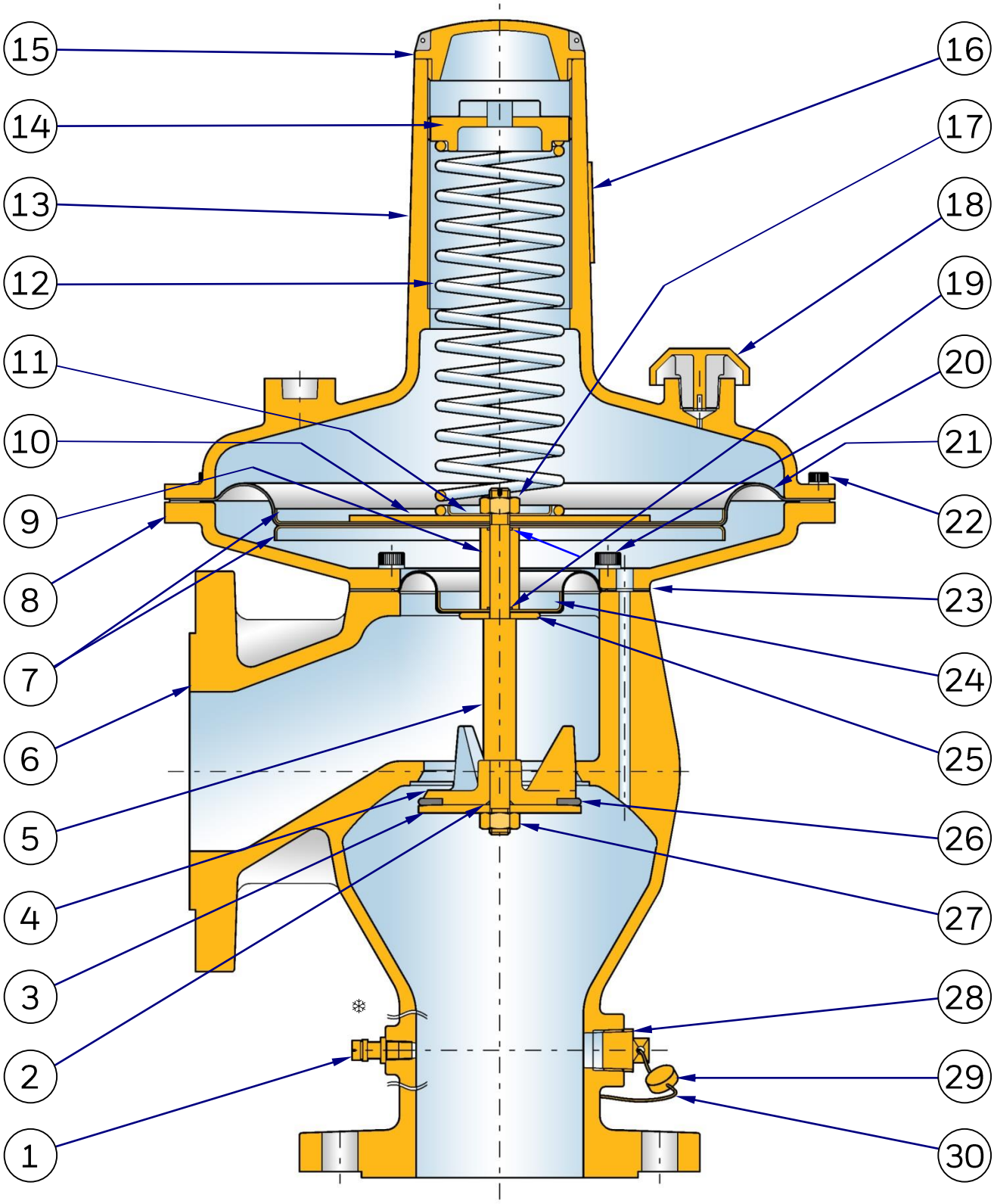
Spares kit contents are marked ✷ on parts list above.
Each Spares Kit comprises all diaphragms, valve seats, gaskets and "O" ring seals all packed in one plastic bag.

Part Number of Spares Kit for 1¼" and 2" J90 = SK9009-01

Precise details of contents will be on the outside of each bag.

J90: General Arrangement

3” Size – Fig. 5



❄ Note: Test nipple not shown in true position.

J90: Parts List

3” (80mm) Size

For sectional view Fig. 5

ITEM	DESCRIPTION	PART NUMBER	No Off
1	TEST NIPPLE	JPTN01-0.71	1
2	“O” RING SEAL	JOBS012	1✷
3	VALVE DISC CLAMPING WASHER	J4811-010	1
4	VALVE DISC HOLDER	J4811-057Z01	1
5	VALVE SPINDLE	J4811-059	1
6	BODY	J4811-058+	1
7	MAIN DIAPHRAGM PLATE	J4811-011	2
8	BOTTOM DIAPHRAGM CASE	J4811-003Z01	1
9	DIAPHRAGM SPACER	J4811-014	1
10	REINFORCING PLATE	J4811-015	1
11	LOWER SPRING GUIDE PLATE	J4811-018	1
12	LOADING SPRING	J4811-060	1
13	TOP COVER	J4811-004+	1
14	TOP SPRING HOLDER	J4811-052Z01	1
15	TOP CAP	J4811-017Z01	1
16	NAMEPLATE	J8112-124	1
17	M10 DIAPHRAGM SPINDLE NUT	JNA10FZD	1
18	BREATHER HOLE COVER	J12309-029	1
19	“O” RING SEAL	JOBS012	2✷
20	M8 x 20 CAP HEAD SCREWS	JSA820SANZI	6
21	MAIN DIAPHRAGM	J4811-005	1✷
22	M6 x 20 CAP HEAD SCREWS	JSA620SANSS	10
23	SECONDARY DIAPHRAGM	J4811-006	1✷
24	SECONDARY DIAPHRAGM PLATE	J4811-012	1
25	SECONDARY DIAPHRAGM WASHER	J4811-013Z01	1
26	VALVE DISC	J3311-035	1✷
27	M10 VALVE SPINDLE NUT	JNA10FZD	1
28	½” MALLEABLE PLUG	JMFP104T01	1
29	LEAD SEAL	JLSN24	1
30	SEALING WIRE	JLSWR1	1

Note: Part numbers marked + require thread or flange specification to be stated with order.

Spares Kits

Spares kit contents are marked ✷ on parts list above.
Each Spares Kit comprises all diaphragms, valve seats, gaskets and "O" ring seals all packed in one plastic bag.

Part Number of Spares Kit for 3” J90 = SK9011-01

Precise details of contents will be on the outside of each bag.

J90: Maintenance Instructions
1¼" and 2" Sizes

Drawing Reference: Figs. 3 and 4

NOTE: Numbers in brackets identify items on drawings

Dismantling Procedure.

1. If fitted remove seal from top cap (14).
2. Pull off top cap (14).
3. Turn spring adjusting screw (18) anti-clockwise (to reduce loading on spring).
4. Remove top cover screws (10) then carefully remove the top cover (11).
5. Take loading spring (17) from centre of diaphragm plate (20).
6. Lift keyhole end of locking lever (15) over sloping peg on top cover (11), slide forward until disengaged from spring adjusting screw (18), and remove.
7. Pull spring adjusting screw (18) from inside of top cover (11), together with anti seizure washer (26).
8. Remove the circlip (27) from spring adjusting screw (18). With slotted end of screw facing up, turn top spring holder (13) anti-clockwise and remove.
9. On 1¼" size unscrew meter union assembly (22, 23, 24 & 25) and remove from body. The meter union on the 2" size (2) is glued in position as does not need to be removed to service the unit.
10. On 1¼" size remove "O" ring seal (22) from meter union bush (23).
11. Restrain valve disc holder (4) with suitable 13mm A/F box spanner or socket and unscrew the valve spindle (19).
12. Withdraw the valve disc holder (4), valve disc (5) and valve spacer (6) through the outlet port.
13. Remove the valve spindle (19).
14. Remove the top diaphragm plate (20).
15. Carefully remove the main diaphragm (9).
16. Remove the diaphragm spacer (8).
17. Remove secondary diaphragm screws (7).
18. Carefully remove the secondary diaphragm (21).
19. Wipe valve seat and body clean of any dirt particles, taking care not to damage sealing surfaces in body.
20. Inspect all diaphragms and soft seals and replace where necessary (a spares kit is available for this purpose).

J90: Maintenance Instructions
1¼" and 2" Sizes

Rebuilding Procedure.

The use of Molykote 111 "O" ring lubricant is recommended during the rebuild.

1. Position secondary diaphragm (21) with convolution uppermost on to the body (3). Ensure that screw holes line up correctly.
2. Secure secondary diaphragm (21) into position using screws (7).
3. Place diaphragm spacer (8) onto secondary diaphragm (21) ensuring that diaphragm bead is located correctly in the groove.
4. Place main diaphragm (9) with convolution uppermost, ensuring that the bead is located in the groove in the body (3).
5. Position the top diaphragm plate (20) ensuring that raised edge is uppermost.
6. Insert the valve spindle (19) through the centre hole in the top diaphragm plate (20), main diaphragm (9) and diaphragm spacer (8).
7. Locate valve spacer (6) onto valve spindle (19) through outlet port.
8. Assemble valve disc (5) onto valve disc holder (4) with bead uppermost.
9. Screw valve disc holder (4) complete with valve disc (5) onto threaded end of valve spindle (19) through outlet port, DO NOT TIGHTEN.
10. Restrain valve disc holder (4) with suitable 13mm A/F box spanner or socket and tighten valve spindle (19).
11. On 1¼" size place "O" ring seal (22) into "O" ring seal groove on meter union bush (23).
12. On 1¼" size replace meter union bush assembly (22, 23, 24 & 25) into body (3) and screw tightly into position.
13. Slide "O" ring seal (16) over slotted end of spring adjusting screw 18) into second groove (i.e. groove nearest thread).
14. Fit anti-seizure ring (26) over slotted end of spring adjusting screw to rest against flange.
15. Carefully screw top spring holder (13) clockwise onto spring adjusting screw (18) with raised lettering facing away from slotted end when assembled (refer to drawing for correct arrangement).
16. Fit circlip (27) into groove at threaded end of spring adjusting screw (18).
17. Push spring adjusting screw (18) through hole inside top cover (11) until end of screw is clearly visible in centre of top cover chimney.
18. Position key hole slot in locking lever (15) over slotted end of the spring adjusting screw (18) and slide over sloping peg on top cover (11) until firmly locked in position.
19. By turning the spring adjusting screw (18) position the top spring holder (13) approximately 10mm from the underside of the top cover.
20. Insert loading spring (17) into top cover (11) from underneath and hold against top spring holder (13).
21. Position cover assembly over regulator body (3) and locate bottom of loading spring (17) over locating ridge in top diaphragm plate (20).
22. Ensuring that vent is in required orientation and that screw holes align, lower top cover (11) onto body (3).
23. Set unit to required outlet pressure.
24. Replace top cap (14) by aligning slot in cap with sealing wire lug on locking lever (15) and push over until it clicks into position. Seal if necessary.

J90: Maintenance Instructions
3” (80mm) Size

Drawing Reference: Fig. 5

NOTE: Numbers in brackets identify items on drawings

Dismantling Procedure.

1. If fitted remove seal from top cap (15).
2. Remove top cap (15).
3. Remove top spring holder (14).
4. Take out loading spring (12).
5. Remove top cover retaining cap head screws (22) and carefully lift off top cover (13).
6. Unscrew the diaphragm spindle nut (17) with a spanner, using a screwdriver in the slot in the valve spindle (5) to stop the spindle rotating.
7. Remove the loading spring guide plate (11).
8. Remove the reinforcing plate (10) and the upper main diaphragm plate (7).
9. Remove the main diaphragm (21) and the lower main diaphragm plate (7).
10. Remove the diaphragm spacer (9) complete with two “O” ring seals (19).
11. Remove the secondary diaphragm plate (24).
12. Remove the six cap head screws (20) from the bottom diaphragm case (8).
13. Carefully lift off the bottom diaphragm case (8).
14. Remove the secondary diaphragm (23).
15. Remove the secondary diaphragm washer (25).
16. Withdraw the complete valve spindle assembly (5) through the outlet port.
17. Unscrew and remove the lower valve spindle nut (27).
18. Remove the valve disc clamping washer (3).
19. Take the valve disc (26) from the valve disc holder (4).
20. Remove valve disc holder (4) complete with “O” ring (2) from the spindle (5).
21. Unscrew breather hole cover (18) from top cover (13). Check that breather hole in cover is clear.
22. Check that impulse hole in body (6) is clear. If impulse tube (29) is fitted DO NOT REMOVE FROM BODY.
23. Wipe valve seat and body clean of any dirt particles, taking care not to damage sealing surfaces in body.
24. Inspect all diaphragms and soft seals and replace where necessary (a spares kit is available for this purpose.

J90: Maintenance Instructions
3” (80mm) Size

Rebuilding Procedure.

The use of Molykote 111 "O" ring lubricant is recommended during the rebuild.

1. Install the valve disc holder (4) complete with “O” ring (2) onto the valve spindle (5) - onto the end without the slot.
2. Replace the valve disc (26) in the valve disc holder (4).
3. Place the valve disc clamping washer (3) onto the valve disc (26) and secure in position with spindle nut (27) and tighten with spanner.
4. Ensure that the valve seat area is clean.
5. Insert the complete valve spindle assembly (5) through the outlet port.
6. Place the secondary diaphragm washer (25) onto the valve spindle (5).
7. Lower the secondary diaphragm (23) onto the valve spindle (5) ensuring the convolution is uppermost and that the impulse hole is aligned with the impulse hole in the body (6).
8. Place the secondary diaphragm plate (24) over the secondary diaphragm (23).
9. Install the diaphragm spacer (9) with “O” rings (19) on either end, onto the valve spindle (5).
10. Place the bottom diaphragm case (8) onto the secondary diaphragm (24) ensuring that the impulse hole is aligned with the impulse hole in the body (6).
11. Secure the bottom diaphragm case (8) to the body (6) using six cap screws (20).
12. Place one main diaphragm plate (7), with the flat side uppermost, onto the valve spindle (5).
13. Position the main diaphragm (21) onto the valve spindle (5) with the convolution uppermost.
14. Place the second main diaphragm plate (7) over the valve spindle (5) with the flat side against the main diaphragm (21).
15. Place the reinforcing plate (10) onto the valve spindle (5).
16. Place the lower spring guide plate (11) onto the valve spindle (5).
17. Align the holes in the main diaphragm (21) with those in the bottom diaphragm case (8).
18. Screw the diaphragm spindle nut (17) onto the valve spindle (5) and tighten (use a screwdriver in the slot in the spindle to prevent it from rotating).
19. Lower the top cover (13) into position on top of the main diaphragm (21) with the screw hole aligned with those in the bottom diaphragm case (8) and the vent positioned in the required orientation.
20. Secure the top cover (13) to the bottom diaphragm case (8) with ten cap screws (22).
21. Insert the loading spring (12) into the top cover (13) and ensure that it is located over the lower spring guide plate (11).
22. Screw the breather hole cover (18) into the top cover boss (13).
23. Screw the top spring holder (14), with slot uppermost, into the hole in the top cover chimney (13) and adjust for outlet pressure.
24. Replace top cap (15).

Honeywell is committed to a programme of continuous quality enhancement. All equipment designed and manufactured within Honeywell benefits from the groups quality assurance standards, which are approved to EN ISO9001.

Honeywell has a programme of continuous product development and improvement and in consequence the information in this leaflet may be subject to change or modification without notice.

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