

## **Elster Jeavons J48K and KC**

Commissioning Instructions

General Arrangement

Parts List

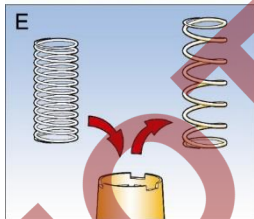
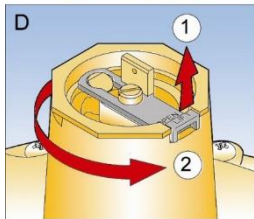
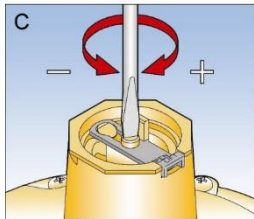
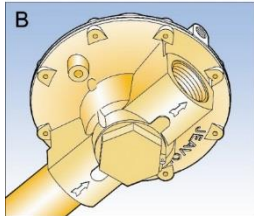
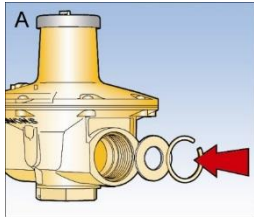
Maintenance Instructions

For: J48K Pressure Relief Valve 1" & 2"

J48KC Creep Relief Valve 1"



## J48K and KC: Commissioning Instructions



### 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.

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.

### J48KC CREEP RELIEF VALVE (A)

1. From the graph opposite choose the restriction washer that will give the appropriate flow at the relief pressure required.
2. Using the templates overleaf, identify the restriction washer required from the selection supplied with the relief valve.
3. Introduce the restriction washer to the inlet of the relief valve body and secure using the wire circlip.
4. To complete the commissioning follow the instructions below for J48K.

### J48K PRESSURE RELIEF VALVE

#### FITTING RELIEF VALVE INTO PIPEWORK (B)

1. Remove the plastic protection plugs from inlet and outlet (and breather if applicable).
2. Ensure that installation pipework is thoroughly clean.
3. The direction of the gas must be the same as the arrows on the relief valve body.
4. Install the relief valve into the pipework using a jointing compound approved to national standards.

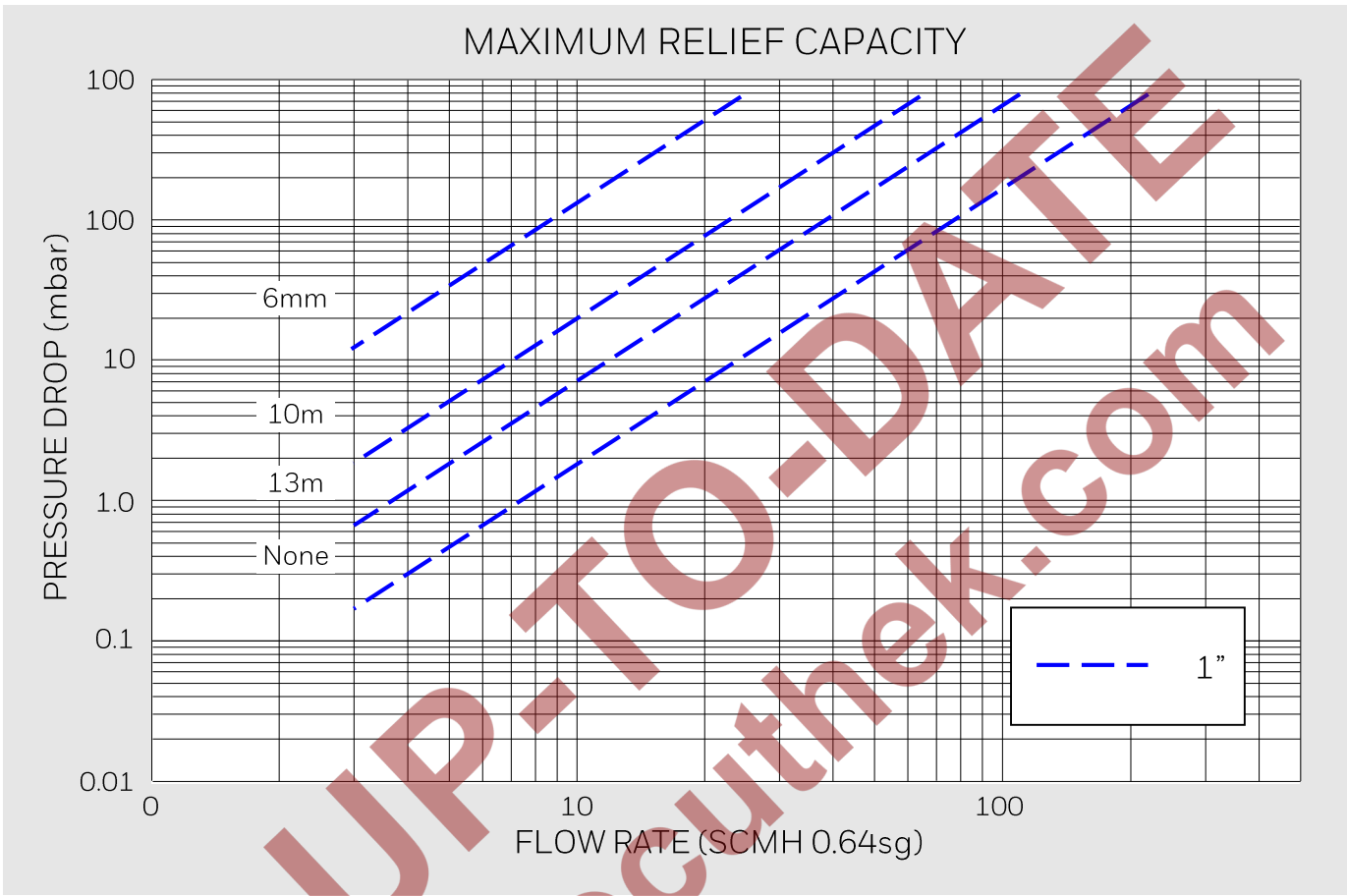
#### SETTING THE RELIEF PRESSURE. (C)

1. Remove the top cap.
2. Insert a flat blade screw driver into slot in the end of the spring adjusting screw.
3. Turn clockwise to increase pressure on loading spring.
4. Slowly turn on inlet supply. If possible adjust supply pressure to the required relief pressure. (It is recommended that the relief pressure be set at a minimum of 1.2 times the system working pressure).
5. To set the relief valve turn the spring adjusting screw anti-clockwise until the valve starts to relieve pressure.
6. Reduce the supply pressure to normal working conditions.
7. Replace the top cap (and seal if necessary).

#### IF THE REQUIRED RELIEF PRESSURE CANNOT BE ACHIEVED WITH THE SPRING FITTED. (D) & (E)

1. Choose a loading spring from the catalogue that will give the required relief pressure.
2. Turn spring adjusting screw anti-clockwise (to reduce loading on spring).
3. Carefully lift protruding end of locking lever just clear of adjusting bush ☒, whilst in this position turn (octagonal shaped) adjusting bush assembly anti-clockwise until disengaged ☒. The adjusting bush assembly can then be removed from the top cover.
5. Remove the loading spring.
6. Insert the new loading spring.
7. Screw top spring holder anti-clockwise to within 10mm of underside of adjusting bush.
8. Position underside of top spring holder onto loading spring.
9. Align slots in top spring holder with splines in top cover and push adjusting bush assembly into top cover as far as possible.
10. Turn adjusting bush assembly clockwise until locking lever snaps into any of the three locking castellations in the top cover.
11. Adjust the relief pressure, as described above, until the required setting is found.
12. Replace the top cap (and seal if necessary).

J48K and KC: Commissioning Instructions



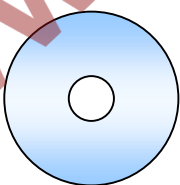
SELECTION OF RESTRICTION WASHER

Using the graph above choose which size of washer will pass the appropriate flow at the relief pressure required.

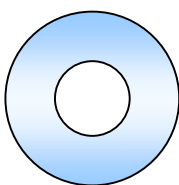
The desired washer can be identified using the templates below.

3/4"

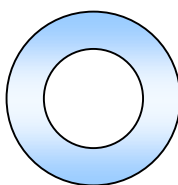
(Reference only)



6mm

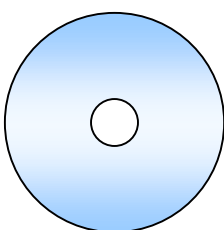


10mm

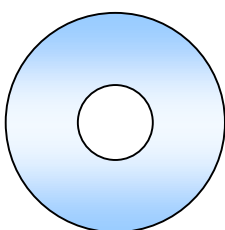


13mm

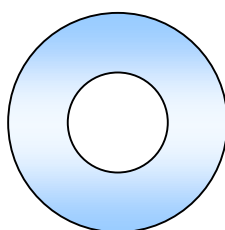
1"



6mm



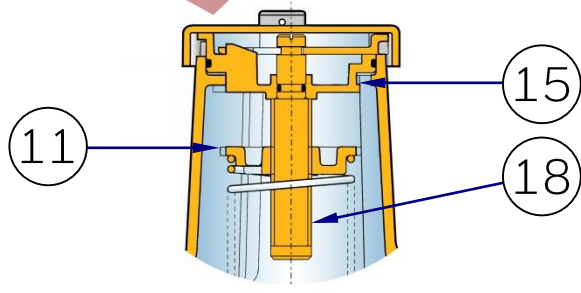
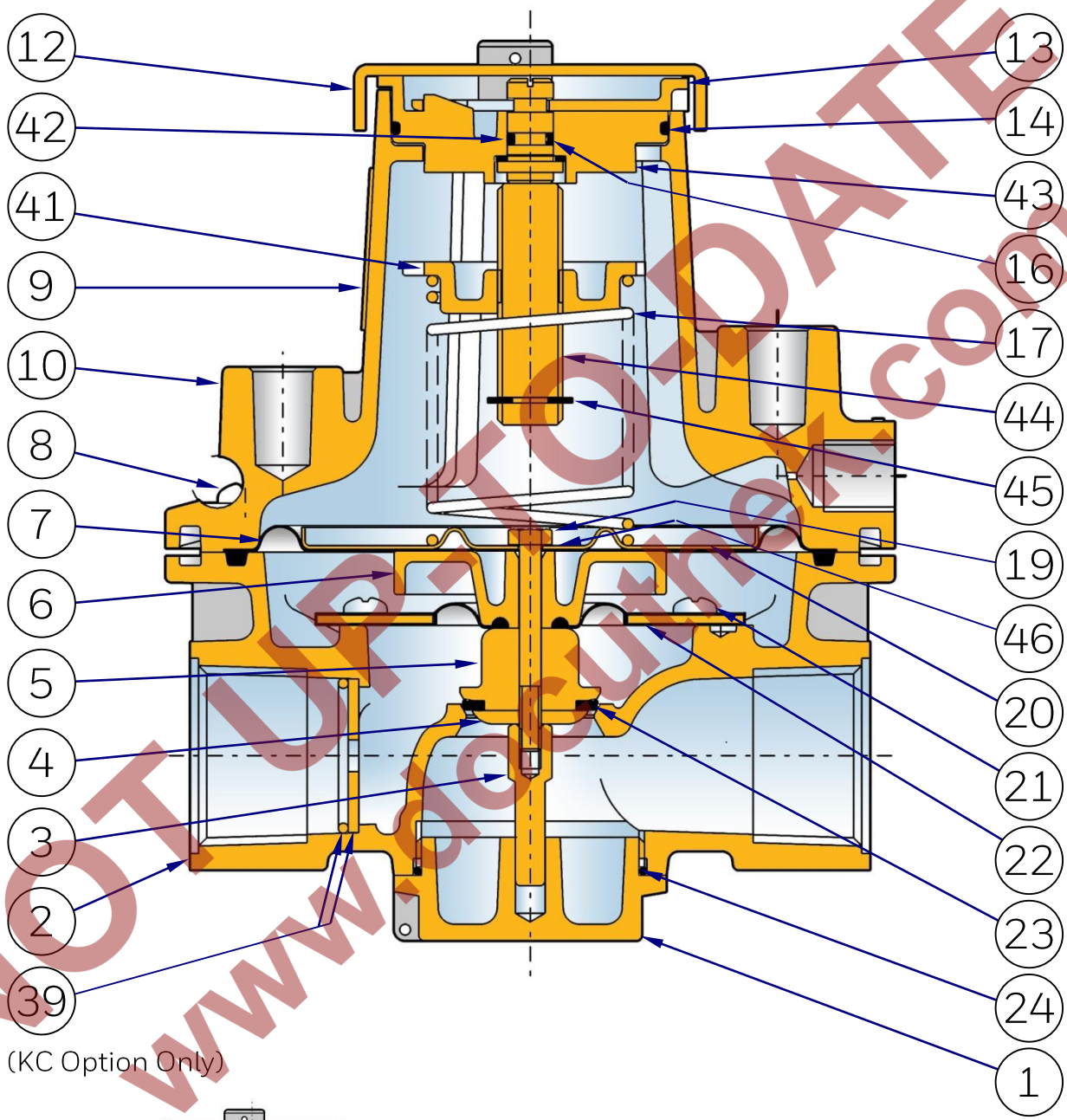
10mm



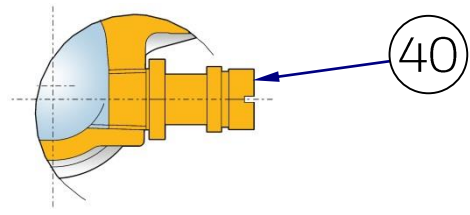
13mm

**J48K and KC:** General Arrangement  
All Sizes

Includes creep relief KC Option



Spring Adjustment  
Pre October 2000



Section showing details of  
Pressure Test Nipple (If Fitted)

## J48K and KC: Parts List

$\frac{3}{4}$ " and 1" Sizes

| ITEM | DESCRIPTION                            | $\frac{3}{4}$ "<br>Reference only | No. Off | 1"            | No. Off |
|------|--|-----------------------------------|---------|---------------|---------|
| 1    | BOTTOM PLUG                            | J4806-017Z03                      | 1       | J4806-017Z03  | 1       |
| 2    | BODY                                   | J4805-005+                        | 1       | J4806-094+    | 1       |
| 3    | VALVE SPINDLE GUIDE                    | J4806K-003                        | 1       | J4806K-003    | 1       |
| 4    | VALVE DISC CLAMPING WASHER             | J12006-014                        | 1       | J12006-014    | 1       |
| 5    | VALVE SPACER                           | J12006-013                        | 1       | J12006-013    | 1       |
| 6    | DIAPHRAGM SPACER                       | J4806-018                         | 1       | J4806-018     | 1       |
| 7    | MAIN DIAPHRAGM                         | J4806-011                         | * 1     | J4806-011     | * 1     |
| 8    | SCREW                                  | JSA520TPTM                        | 6       | JSA520TPTM    | 6       |
|      | SCREW (PRE MAY 2012)                   | JSA520XPTZ                        | 6       | JSA520XPTZ    | 6       |
| 9    | NAMEPLATE                              | J8112-124                         | 1       | J8112-124     | 1       |
| 10   | TOP COVER                              | J4806-103+                        | 1       | J4806-103+    | 1       |
| 11   | TOP SPRING HOLDER (Course thread)      | J4806-098                         | 1       | J4806-098     | 1       |
| 12   | TOP CAP                                | J4806-099                         | 1       | J4806-099     | 1       |
| 13   | LOCKING LEVER                          | J4806-105                         | 1       | J4806-105     | 1       |
| 14   | "O" RING SEAL                          | JO200032-4475                     | * 1     | JO200032-4475 | * 1     |
| 15   | ADJUSTMENT BUSH (Old Design)           | J4806-100                         | 1       | J4806-100     | 1       |
| 16   | "O" RING SEAL                          | JORM0051-16                       | * 1     | JORM0051-16   | * 1     |
| 17   | LOADING SPRING                         | SEE TABLE                         | 1       | SEE TABLE     | 1       |
| 18   | SPRING ADJUSTING SCREW (Course thread) | J4806-097                         | 1       | J4806-097     | 1       |
| 19   | VALVE SPINDLE                          | JSA440IPNZ                        | 1       | JSA440IPNZ    | 1       |
| 20   | TOP DIAPHRAGM PLATE                    | J4806-003                         | 1       | J4806-003     | 1       |
| 21   | SCREW                                  | JSA410TPTM                        | 6       | JSA410TPTM    | 6       |
|      | SCREW (PRE MAY 2012)                   | JSA410XPTZ                        | 6       | JSA410XPTZ    | 6       |
| 22   | SECONDARY DIAPHRAGM                    | J4806-095                         | * 1     | J4806-095     | * 1     |
| 23   | VALVE DISC                             | J4806-025                         | * 1     | J4806-025     | * 1     |
| 24   | "O" RING SEAL                          | JORM0376-24                       | * 1     | JORM0376-24   | * 1     |
| 39   | CREEP RELIEF ASSEMBLY                  |                                   |         |               |         |
|      | (FOR KC & KHC OPTIONS)                 | CK4806-01                         | 1       | CK4806-01     | 1       |
| 40   | PRESSURE TEST NIPPLE (If Fitted)       | JPTN01-0.71                       | 1       | JPTN01-0.71   | 1       |
| 41   | TOP SPRING HOLDER (Fine Thread)        | J4806-127                         | 1       | J4806-127     | 1       |
| 42   | WASHER                                 | J4806-134                         | 1       | J4806-134     | 1       |
| 43   | ADJUSTMENT BUSH (New Design)           | J4806-100Z01                      | 1       | J4806-100Z01  | 1       |
| 44   | SPRING ADJUSTING SCREW (Fine Thread)   | J4806-128                         | 1       | J4806-128     | 1       |
| 45   | CIRCLIP                                | JCIR1500-080Z                     | 1       | JCIR1500-080Z | 1       |
| 46   | SEALING WASHER                         | J7706A-044                        | 1       | J7706A-044    | 1       |

## J48K and KC: Parts List

1¼", 1½" and 2" Sizes

| ITEM | DESCRIPTION                      | 1¼"<br>Reference only | No.<br>Off | 1½"<br>Reference only | No.<br>Off | 2"<br>Reference only | No.<br>Off |
|------|----------------------------------|-----------------------|------------|-----------------------|------------|----------------------|------------|
| 1    | BOTTOM PLUG                      | J4808-017Z03          | 1          | J4808-017Z03          | 1          | J4809-017Z03         | 1          |
| 2    | BODY                             | J4807-011+            | 1          | J4807-011+            | 1          | J4809-071+           | 1          |
| 3    | VALVE SPINDLE GUIDE              | J4808K-003            | 1          | J4808K-003            | 1          | J4809K-003           | 1          |
| 4    | VALVE DISC CLAMP WASHER          | J12008-003            | 1          | J12008-003            | 1          | J12009-003           | 1          |
| 5    | VALVE SPACER                     | J12008-002            | 1          | J12008-002            | 1          | J12009-002           | 1          |
| 6    | DIAPHRAGM SPACER                 | J4808-021             | 1          | J4808-021             | 1          | J4809-018            | 1          |
| 7    | MAIN DIAPHRAGM                   | J4808-011             | * 1        | J4808-011             | * 1        | J4809-011            | * 1        |
| 8    | SCREW                            | JSA520TPTM            | 8          | JSA520 TPTM           | 8          | JSA520 TPTM          | 8          |
|      | SCREW (PRE MAY 2012)             | JSA520XPTZ            | 8          | JSA520XPTZ            | 8          | JSA520XPTZ           | 8          |
| 9    | NAMEPLATE                        | J8112-124             | 1          | J8112-124             | 1          | J8112-124            | 1          |
| 10   | TOP COVER                        | J4808-078+            | 1          | J4808-078+            | 1          | J4809-067+           | 1          |
| 11   | TOP SPR. HOLDER (Course thread)  | J4806-098             | 1          | J4806-098             | 1          | J4806-098            | 1          |
| 12   | TOP CAP                          | J4806-099             | 1          | J4806-099             | 1          | J4806-099            | 1          |
| 13   | LOCKING LEVER                    | J4806-105             | 1          | J4806-105             | 1          | J4806-105            | 1          |
| 14   | "O" RING SEAL                    | J0200032-4475         | * 1        | J0200032-4475         | * 1        | J0200032-4475        | * 1        |
| 15   | ADJUSTMENT BUSH (Old Design)     | J4806-100             | 1          | J4806-100             | 1          | J4806-100            | 1          |
| 16   | "O" RING SEAL                    | JORM0051-16           | * 1        | JORM0051-16           | * 1        | JORM0051-16          | * 1        |
| 17   | LOADING SPRING                   | SEE TABLE             | 1          | SEE TABLE             | 1          | SEE TABLE            | 1          |
| 18   | SPRING ADJ SCREW (Course thread) | J4806-097             | 1          | J4806-097             | 1          | J4806-097            | 1          |
| 19   | VALVE SPINDLE                    | JBA650HEXZG           | 1          | JBA650HEXZG           | 1          | JBA865HEXZG          | 1          |
| 20   | TOP DIAPHRAGM PLATE              | J4808-003             | 1          | J4808-003             | 1          | J4809-003            | 1          |
| 21   | SCREW                            | JSA510 TPTM           | 6          | JSA510 TPTM           | 6          | JSA510 TPTM          | 8          |
|      | SCREW (PRE MAY 2012)             | JSA510XPTZ            | 6          | JSA510XPTZ            | 6          | JSA510XPTZ           | 8          |
| 22   | SECONDARY DIAPHRAGM              | J4808-070             | * 1        | J4808-070             | * 1        | J4809-070            | * 1        |
| 23   | VALVE DISC                       | J4808-035             | * 1        | J4808-035             | * 1        | J4809-027            | * 1        |
| 24   | "O" RING SEAL                    | JORM0546-24           | * 1        | JORM0546-24           | * 1        | JORM0745-32          | * 1        |
| 39   | CREEP RELIEF ASSY (KC OPTION)    | N/A                   | 1          | N/A                   | 1          | N/A                  | 1          |
| 40   | PRESSURE TEST NIPPLE (If Fitted) | JPTN01-0.71           | 1          | JPTN01-0.71           | 1          | JPTN01-0.71          | 1          |
| 41   | TOP SPRING HOLDER (Fine Thread)  | J4806-127             | 1          | J4806-127             | 1          | J4806-127            | 1          |
| 42   | WASHER                           | J4806-134             | 1          | J4806-134             | 1          | J4806-134            | 1          |
| 43   | ADJUSTMENT BUSH (New Design)     | J4806-100Z01          | 1          | J4806-100Z01          | 1          | J4806-100Z01         | 1          |
| 44   | SPRING ADJ SCREW (Fine Thread)   | J4806-128             | 1          | J4806-128             | 1          | J4806-128            | 1          |
| 45   | CIRCLIP                          | JCIR1500-080Z         | 1          | JCIR1500-080Z         | 1          | JCIR1500-080Z        | 1          |
| 46   | SEALING WASHER                   | J7706A-044            | -          | J7706A-044            | -          | J7706A-044           | -          |

Note: Part numbers marked + require connection thread to be specified with order.

## SPARES KITS

Spares kit contents are marked \* on parts list

| SPARES KIT CODE | SIZE      |
|-----------------|-----------|
| SK4806-01       | ¾" – 1"   |
| SK4808-01       | 1¼" – 1½" |
| SK4809-01       | 2"        |



## J48K and KC: Loading Springs

| Spring Range |         | Part No Colour Code.         |                             |                                |
|--------------|---------|------------------------------|-----------------------------|--------------------------------|
| mbar         | "wg     | 3/4" & 1"                    | 1 1/4" & 1 1/2" (Ref only)  | 2"                             |
| 12 - 24      | 5 - 10  | J4808-004 Red / Yellow       | J4808-007 Red / Black       | J4809K-006 Silver / Yellow     |
| 22 - 37      | 9 - 15  | J4806K-011 Red / Silver      | J4809-004 Dark Blue / Black | J4809K-007 Silver / Black      |
| 37 - 62      | 15 - 25 | J4808-007 Red / Black        | J4808-031 Red / Gold        | J4809K-008 Silver / Gold       |
| 62 - 102     | 25 - 41 | J4809-004 Dark Blue / Black  | J4809-024 Dark Blue / Gold  | J4809K-005 Silver / Dark Green |
| 102 - 150    | 41 - 60 | J4809-005 Dark Blue / Orange | J4809-025 Dark Blue / Grey  | J4809K-005 Silver / Dark Green |

## J48K and KC: Maintenance Instructions

### Dismantling Procedure:

1. Pull off top cap (12).
  2. Turn spring adjusting screw (44) anti-clockwise (to reduce loading on spring).
  3. Carefully lift protruding end of locking lever (13) just above adjusting bush (43) whilst in this position turn (octagon shaped) adjusting bush (43) assembly anti-clockwise until disengaged. The adjusting bush (43) can then be removed from the top cover (10).
  4. Remove the loading spring (17) from the top cover (10).
- NOTE: If adjusting bush assembly is to be dismantled for "O" ring replacement, follow procedure. If to be left assembled proceed to instruction number 9.
5. Lift keyhole end of locking lever (13) over sloping peg in adjusting bush (43), and slide forward, until disengaged from spring adjusting screw (44) and remove.
  6. Pull spring adjusting screw (44) from adjusting bush (43).
  7. Remove "O" rings (16) & (14) from spring adjusting screw (44) and adjusting bush (43) respectively.
  8. Lift washer (42) from spring adjusting screw (44) and remove.
  9. Remove top cover screws (8) then carefully remove the top cover (10).
  10. Unscrew bottom plug (1) and remove from body (2).
  11. Remove "O" ring (24) from bottom plug (1).
  12. Restrain valve spindle guide (3) with suitable box spanner and unscrew the valve spindle (19).
  13. Withdraw the valve spindle guide (3) and valve disc clamping washer (4) through the bottom plug opening.
  14. Remove the valve spindle (19).
  15. Remove the top diaphragm plate (20).
  16. Carefully remove main diaphragm (7).
  17. Remove diaphragm spacer (6).
  18. Remove secondary diaphragm screws (21).
  19. Carefully remove the secondary diaphragm (22).
  20. Remove valve spacer (5) and valve disc (23).
  21. Remove creep relief assembly (39) (if fitted) clean and inspect for damage.
  22. Wipe valve seat and body clean of any dirt particles, taking care not to damage sealing surface in body.
  23. Inspect all diaphragms and soft seals and replace where necessary (a spares kit is available for this purpose).

# J48K and KC: Maintenance Instructions

## Rebuilding procedure:

The use of Molykote 111 "O" ring lubricant is recommended during the rebuild- unless for use with oxygen when no lubricant should be used. Note: For creep relief KC model install creep relief assembly (39).

1. Assemble valve disc (23) onto valve spacer (5) with bead uppermost.
  2. Locate through top of body (2) valve disc (23) onto valve seat.
  3. Locate secondary diaphragm (22) with convolution uppermost on to the body (2). Ensure screw holes are aligned correctly.
  4. Secure secondary diaphragm (22) to body (2) using screws (21).
  5. Place diaphragm spacer (6) on secondary diaphragm (22) ensuring diaphragm bead is located correctly in the groove.
  6. Place main diaphragm (7) with convolution uppermost, ensuring that the bead is located in the groove in the body (2).
  7. Locate the top diaphragm plate (20) ensuring raised edge is uppermost.
  8. Insert the valve spindle (19) through the centre hole in top diaphragm plate (20), main diaphragm (7), diaphragm spacer (6) and valve spacer (5).
  9. Locate valve disc clamping washer (4) on to valve spindle (19) through bottom plug opening with flat side against valve spacer (5).
  10. Screw valve spindle guide (3) onto threaded end of valve spindle (19) through bottom plug opening.
  11. Restrain valve spindle guide (3) with suitable box spanner and tighten valve spindle (19).
  12. Place "O" ring seal (24) into "O" ring seal groove in bottom plug (1).
  13. Replace bottom plug (1) complete with "O" ring over centre shaft of valve spindle guide (3) into body (2) and screw tightly in position.
  14. Carefully replace top cover (10) to body (2) with vent facing outlet and secure with top cover screws (8).
  15. Insert loading spring (17) over spring location ridge in top diaphragm plate (20).
- NOTE: If adjusting bush assembly (43) has been dismantled follow procedure, if it has been left assembled then proceed to instruction number 21.
16. Slide "O" ring seal (16) over slotted end of spring adjusting screw (44) into second groove. (i.e. groove nearest thread).
  17. Replace washer (42) over slotted end of spring adjusting screw (44) and slide down until it sits on shoulder of adjusting screw.
  18. Slide "O" ring seal (14) into "O" ring groove on adjusting bush (43).
  19. Push spring adjusting screw (44) into hole in bottom of adjusting bush (43) until parts are firmly together.
  20. Position key hole slot in locking lever (13) over slotted end of spring adjusting screw (44) and slide over slopping peg in adjusting bush (43) until firmly locked in position.
  21. Screw top spring holder (41) anti-clockwise to within 10mm of underside of adjusting bush (43).
  22. Position underside of top spring holder (41) on to loading spring (17).
  23. Align slots in top spring holder (41) with splines in top cover (10) and push adjusting bush (43) assembly into top cover (10) as far as possible.
  24. Turn adjusting bush assembly (43) clockwise until locking lever (13) snaps into any of the three locking castellations in top cover (10)
  25. Commission relief valve.
  26. Replace top cap (12) by aligning slot in cap with sealing wire lug and push over until it clicks into position

Honeywell is committed to a programme of continuous quality enhancement. All equipment designed and manufactured within the Honeywell Group 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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