Model Code

(F3) D G 4 S 4 *W - 01 * C - (U) - * - *** - 60 - LH - S491

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

1 Special Seals

Blank - Standard seals
F3 - Special seals

2 Directional Control Valve

3 Manifold or Subplate Mounted

4 Solenoid Operated

5 Sliding Spool

6 Flow Direction

4 - Four way

7 Electrical Accessories

Blank - For "U" type connectors
W - Wiring housing
LW - Wiring housing w/indicator lights

8 Inerface

01 - ISO-4401-AC-50-4-A
NFPA D05 ($^1/_8$ in. nominal size)

9 Spool Types

A models - 0, 2, 9
B models - 0, 2, 6, 8
C models - 0, 2, 6, 8

10 Spool/Spring Arrangement

A - Spring offset P to A
B - Spring centered solenoid "A" removed
C - Spring centered, three positon

11 Wet Armature Solenoid
(non-serviceable core tube)

Blank - Plug-in coils
U - DIN 43650 coils w/o electrical plug (non-rectified)
U1 - Connector fitted
U6 - Connector fitted w/lights
U11 - Connector fitted w/rectifier & lights
U12 - Connector fitted w/rectifier

12 Coil Indentification

13 Soft Shift Orifice

Blank - Standard (.047)
062 - (.062)
078 - (.078)

14 Design

15 Left Hand Assembly

(Omit for right hand assembly with solenoid "A" removed.)

16 Special Soft Shift Solenoids

VICKERS
A TRINOVA Company

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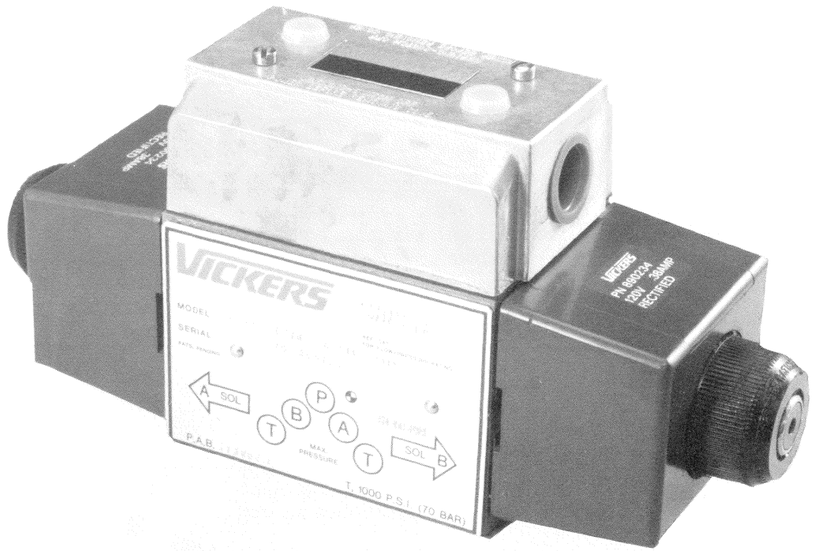
Rev. 6/93 HH

Printed in U.S.A.

VICKERS

Wet Armature Soft Shift Directional Control Valves

DG4S4-01-60-S491 Design



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I-3881-S

Orifice Changing Procedure

WARNING

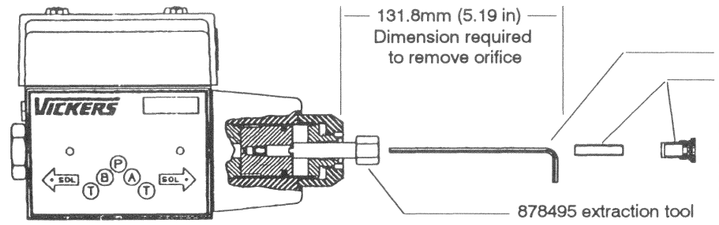
1. Before breaking a circuit connection make certain that power is off and system pressure has been released. Lower all vertical cylinders, discharge accumulators and block any load whose movement could generate pressure.Plug all removed units and cap all lines to prevent the entry of dirt into the system.

2. Using a $^{5}/_{32}$" hex key, remove manual actuator plug and spring from the end of solenoid (Tightening torque 6.2–7.3 N.m 55–65 lbf. in.)

3. Insert extraction tool (878495) into solenoid via the manual actuator opening. Rotate tool until aligned and push into slot in armature.

4. Using $^{1}/_{2}$" wrench and tool to prevent the armature from rotating, insert $^{3}/_{32}$" hex key down the center of tool and remove orifice plug.

5. Replace by the same method, tightening orifice snug to ensure bottoming of threads. Smaller orifices increase response times. Larger orifices decrease response times. The .047 in. dia. orifice is standard in the valve.



Orifice & tool kit 02-119131

For fine tuning shift performance, orifices must be ordered separately. The kit includes (2) each of .047, .062, & .078 in. dia. orifices, (1) installation tool, (1) $^{5}/_{32}$" hex key and (1) $^{3}/_{32}$" hex key

COIL	VOLTAGE 60 HZ 50 HZ	COIL CODE	DIN COIL
890234	120/110 VAC rectified 105 DC	BB	890238
890235	240/220 VAC rectified 210 DC	BD	890239
02-155237	12V DC Non-rectified	G	02-155868
02-155238	24V DC Non-rectified	H	02-155867

ORIFICE (1 req'd per core tube)	
635138	Blank (Std 047)
524588	062
524589	078

SPRING	SPOOL TYPE	COLOR CODE
691417	A	RED
691416	2B/C	BLUE
568617	0/6/B/C	BLACK
02-155885	8B/C	WHITE

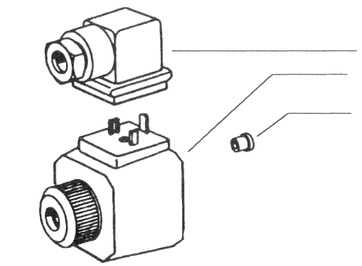
Type 'A' Spool Assembly Notes

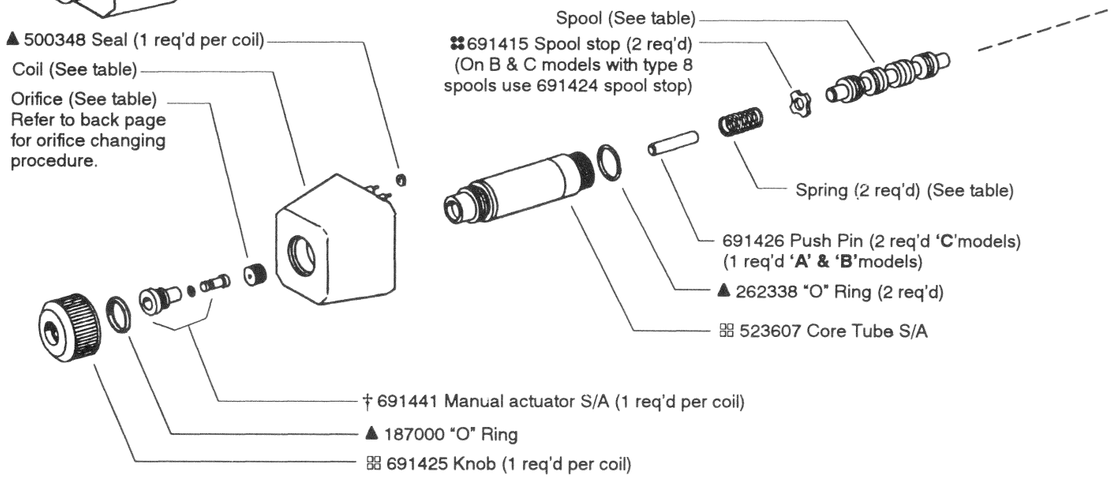
Assemble type 'A' spools with narrow shank towards actuator

Type 'B' & 'C' Spool Assembly Notes

For type 8 spools, solenoid designations are reversed.

SPOOL TYPE	PART
0A	522858
2A	522857
9A	522859
0B	522856
2B	522855
6B	691402
8B	854991 S/A
0C	522856
2C	522855
6C	691402
8C	854991 S/A





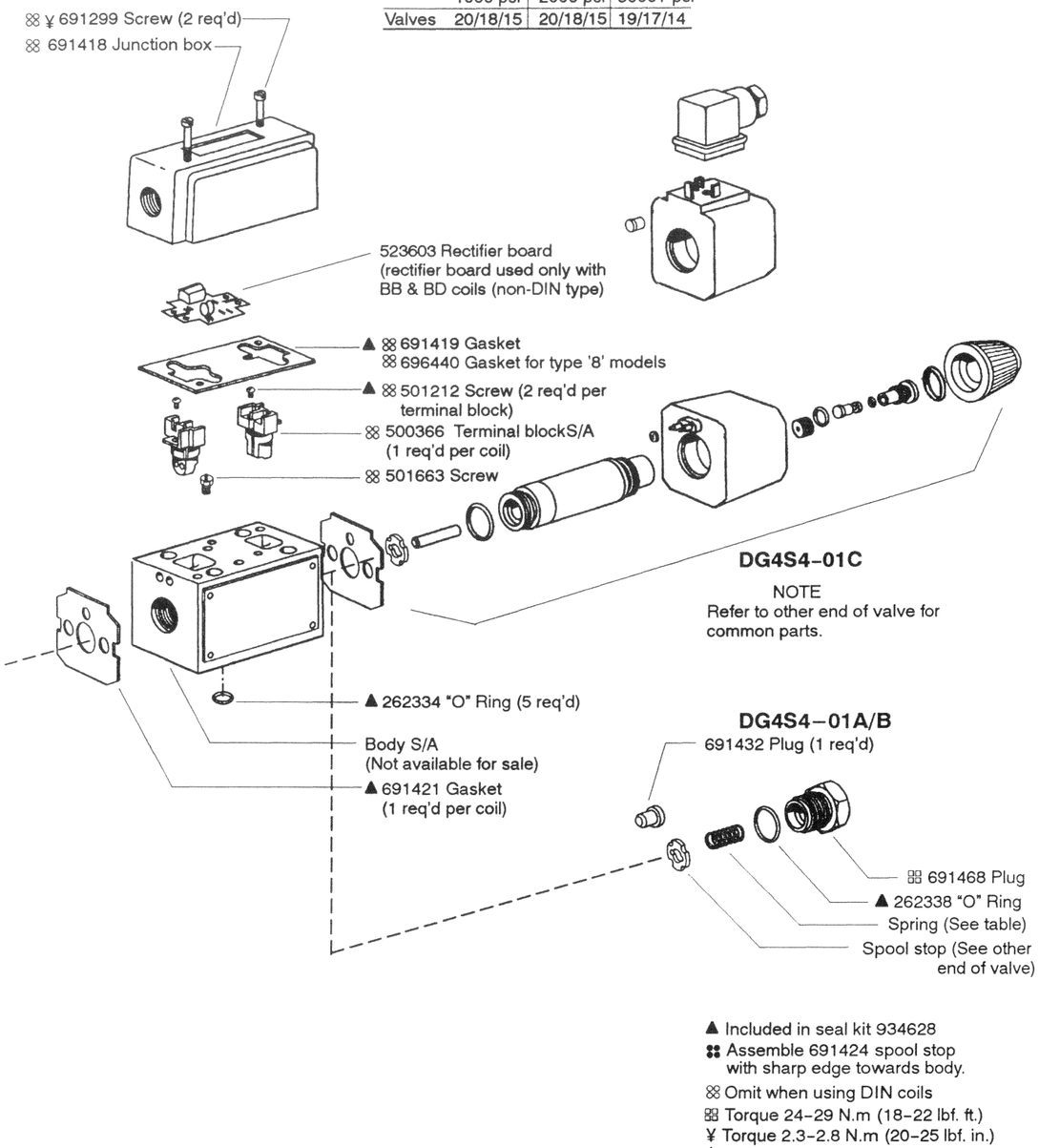
NOTE

Left hand assembly shown for A & B models. For right hand assembly all parts are reversed except body.

NOTE

For satisfactory service life of these components in industrial applications, use full flow filtration to provide fluid which meets ISO cleanliness code.

	System Pressure		
	1000 psi	2000 psi	3000+ psi
Valves	20/18/15	20/18/15	19/17/14



▲ Included in seal kit 934628
⁂ Assemble 691424 spool stop with sharp edge towards body.
⊗ Omit when using DIN coils
⁂ Torque 24–29 N.m (18–22 lbf. ft.)
¥ Torque 2.3–2.8 N.m (20–25 lbf. in.)
† Torque 6.2–7.3 N.m (55–65 lbf. in.)