



instructions for

10/0.5.10

CONTROL VALVES

REPLACING DIAPHRAGMS IN DIRECT ACTING ACTUATORS
SIZE 35, 55, 55A, 85, 85A, 135, 270 and "U" CUP RING IN 270 ACTUATORS

INSTALLATION, OPERATION, AND MAINTENANCE

REMOVE ALL COMPRESSION FROM ACTUATOR SPRING(S) BY SCREWING SPRING ADJUSTOR DOWNWARD.

DISASSEMBLY

SIZE 35, 55, 55A, 85, 85A & 135

1. Remove nuts and bolts from upper diaphragm case. Remove upper case and diaphragm.

To examine, clean or replace parts other than diaphragm, remove diaphragm disc with stem attached, actuator spring(s), spring washer(s) and spring adjustor from adjusting sleeve.

REASSEMBLY

1. Clean and lubricate adjusting sleeve threads. Replace parts and install new diaphragm. Tighten nuts and bolts evenly. Size 135 - nuts should be tightened until the outer edges of upper and lower diaphragm cases just touch spacer housing.

Preforming Size 35 Actuator Diaphragm

Flat stock diaphragm material is used only for this size actuator and must be preformed to assure full rated travel of valve without undue resistance from a taut diaphragm.

1. Install diaphragm and upper case. Tighten nuts and bolts FINGERTIGHT.

2. Compress adjusting spring sufficiently to move diaphragm up against upper case stop. Tighten nuts and bolts evenly.

Disassembly of Size 270 Actuator

1. Remove nuts and bolts from upper diaphragm case. Remove connecting tubing, upper case and diaphragm.

2. Remove nuts and bolts from lower diaphragm case. Lift off spacer housing and diaphragm.

REPLACEMENT OF "U" CUP RING IN SPACER HOUSING GUIDE BUSHING

Disassembly of Spacer Housing Parts

1. Remove diaphragm disc plate external retaining ring from disc stem with pin pliers. Take off diaphragm disc plate and remove diaphragm disc complete with stem. Stem is pinned to disc and should not be removed.

2. Remove guide bushing from housing using a socket wrench. Lift out "O" ring.

3. Remove "U" cup ring from bushing. Clean bushing and groove. Clean and polish all parts.

4. Replace Nylon liner in guide bushing if worn or damaged.

5. Insert new "U" cup ring in bushing groove with lips of ring downward toward threaded section of bushing.

6. Lubricate "O" ring with Silicon Grease and place ring in spacer housing recess.

7. Replace guide bushing and tighten securely.

8. Carefully push diaphragm disc stem through hex head end of guide bushing. Place diaphragm disc plate over disc stem with plate recess toward end of stem. Install external retaining ring over end of stem making sure it fits snugly into stem groove.

Reassembly of Size 270 Actuator

DO NOT install connecting tubing when reassembling actuator until Spacer Housing Parts Alignment has been completed. Spacer Housing Parts Alignment Procedure MUST be followed whenever spacer housing is removed from actuator.

INSTALLATION OF ACTUATOR

1. Replace actuator on bonnet. Insert and tighten capscrews.

Play safe! Use only genuine Leslie replacement parts.

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