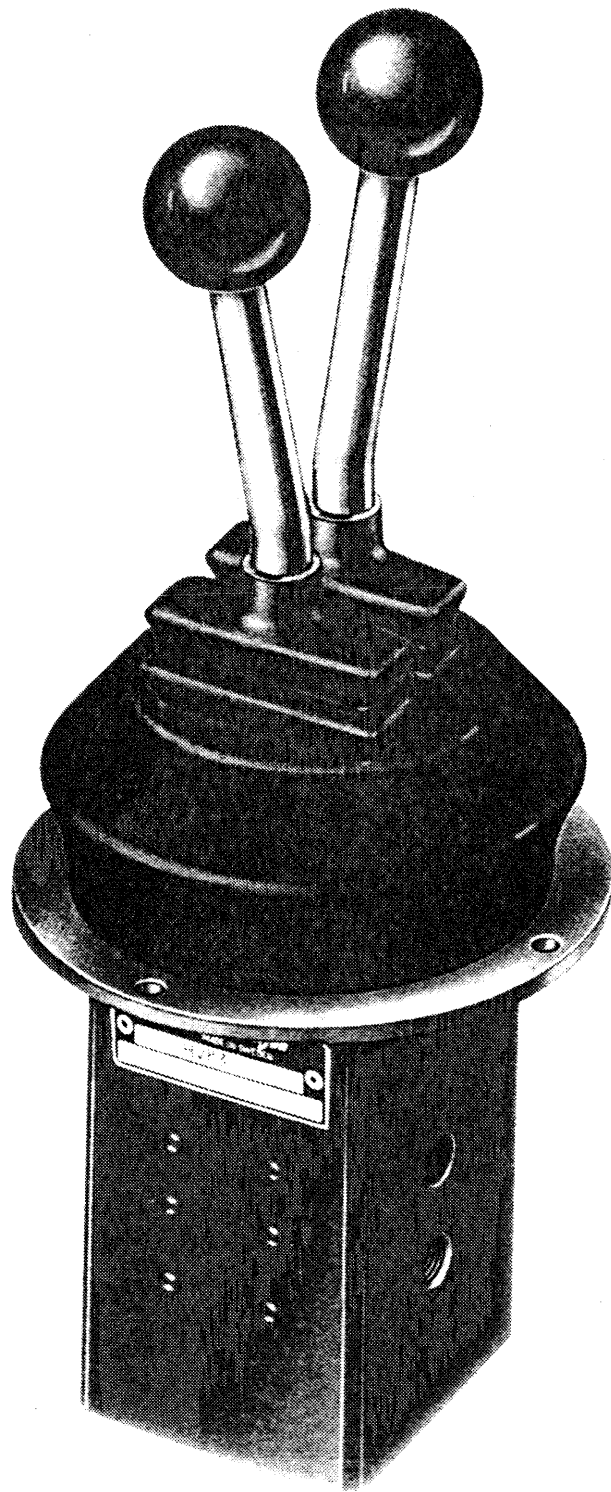


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# REMOTE CONTROL VALVE SERVICE INSTRUCTIONS



## SERVICE INSTRUCTIONS

### I. Hand Operated

#### A. Removal

1. Relieve hydraulic pressure by working the control lever several times with engine off.
2. Thoroughly clean the valve and surrounding area. Label the hydraulic lines for correct assembly. Disconnect and cap the lines. Plug the ports of the valve to help prevent entry of dirt.
3. Remove the valve. Take the valve to a clean work area for disassembly.

#### B. Disassembly (See parts list, FIGURE 1)

Important: The internal spring assemblies are individually fitted to their bores and must be returned to the same bores from which they were removed. If the assemblies are interchanged between bores, full stroke on the main control valve may not be attained.

1. Clamp the valve lightly in a vise. Mark the position of the mounting plate relative to the valve housing.
2. Peel back the protective boot from mounting plate groove.
3. Use a 4mm hex-key to remove the four (4) capscrews from the mounting plate. Remove the mounting plate.

Important: Before removing, note the position of each bushing/spring assembly relative to the valve housing. The assemblies are shimmed to match the individual spool/bore. If the bushing/spring assembly is being replaced, the shim pack must be transferred from the old assembly to the new assembly and returned to the same bore from which it was removed.

4. The internal spring assemblies can be removed as follows:
  - a. Lift out the bushing spring assembly. (Refer to "Seal Replacement" for disassembly instructions.)
  - b. Lift out the internal spring assembly. Do not disassemble.
  - c. To remove the lower spring and retainer assembly, remove the snap ring from bottom side of housing.
  - d. Push the spool out of the housing.

(Continued)

## C. Inspection and Repair

Clean parts in non-flammable solvent and dry thoroughly. Spring assemblies can be rinsed in non-flammable solvent. Do not disassemble them for cleaning purposes.

Inspect the valve spool and housing bore for scoring. If any is noted, the entire valve must be replaced. The spools are matched to the corresponding housing bores and are not serviced separately.

Service kits are available for rebuilding the valve. The only seal that could be a problem is the lip seal in the bushing/spring assembly. The other seals are static seals. To replace the lip seal, refer to seal replacement instructions.

## D. Assembly

Assemble valve in reverse order of disassembly. Be sure that the assemblies are returned to the same bores from which they were removed.

## E. Seal Replacement-Bushing/Spring Assembly (Applies to both hand and foot operated valves.)

1. Remove the O-ring from bushing
2. Remove the snap ring from bottom groove in pin. Remove the shim pack. Keep the shim pack together and retain for reassembly.

Important: The shims in the bushing/spring assembly control the override feature of the modulator valve. Always install the same number of shims as was removed. Do not interchange shims between the individual assemblies. When installing a new bushing/spring assembly, transfer the shim pack from the assembly being replaced. The shims are not included in the repair kits.

3. To remove the split retainer ring, lay the bushing/spring assembly upside down. Fit a 13/16 inch open-end wrench around the bushing, press down on wrench and remove the retainer ring.
4. Remove the spring guide pin, spring and snap ring. Remove and discard the lip seal.

Important: The spring guide pin must be free of any surface scratches. If any are present, replace the pin assembly. A kit is available. Also check the bushing for excessive wear and replace if necessary.

5. Press new seal into the bushing. The lip must face away from the bushing. Install the snap ring.

