



# INSTRUCTIONS

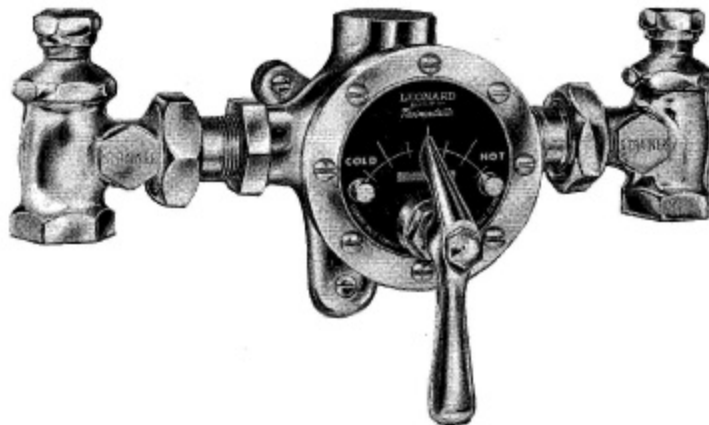
FOR

## ADJUSTMENT AND SERVICE

### TYPE T

THERMOSTATIC WATER MIXING VALVES  
 T-25, T-30, T-40, T-50, T-60, T-75, T-100, T-125, T-150

**IMPORTANT!** Provide valve serial number (stamped on cover of valve) when ordering parts!!



Leonard Type T valves are simplified in design and can be cleaned, adjusted and repaired by the plumber. If the installation is easily accessible, servicing can be done without disconnecting the valve. There are only two moving parts, the Thimble sliding on the Port Sleeve and Thermostat Group turning on the Coil Sleeve Stud.

IF THE VALVE DOES NOT DELIVER THE TEMPERATURE INDICATED BY THE POINTER, OR IF IT CHANGES ERRATICALLY, a deposit of sediment may be causing the parts to stick.

Try first moving the Pointer from COLD to HOT several times in

succession until a clicking sound is audible. If this does not correct the condition, follow instructions for dismantling the valve.

IF THE VALVE DELIVERS WATER TOO HOT (OR TOO COOL) WHEN POINTER IS IN "HOT" POSITION the Pointer may have been changed from its original position on the Pointer Rod. This would alter the high temperature limit.

TO RESET THE HIGH TEMPERATURE LIMIT: Remove the Pointer Rod Nut, and change the position of the Pointer on the Pointer Rod, replacing the Pointer TO THE LEFT for a higher temperature, or TO THE RIGHT for a lower temperature.

## GENERAL INSTRUCTIONS FOR DISMANTLING VALVE

1. Shut off hot and cold supplies to valve (and remove flange on concealed type valves).
2. Remove Pointer Rod Nut, Friction Spring, and Pointer.
3. Remove the 8 Cover Screws, then take off cover to which the Thermostat and Gears are attached.

WHEN RE-ASSEMBLING VALVE, insert new Flange Packing in base; replace Cover, tightening Cover Screws in rotation; put Friction Spring in place; then replace Pointer and Pointer Rod Nut.

After installing new parts, it will probably be necessary to reset Pointer to obtain correct temperature range from Cold to Hot. See above instructions "TO RESET THE HIGH TEMPERATURE LIMIT."

Drain Plug is provided for use if valve is to be subjected to freezing temperatures.

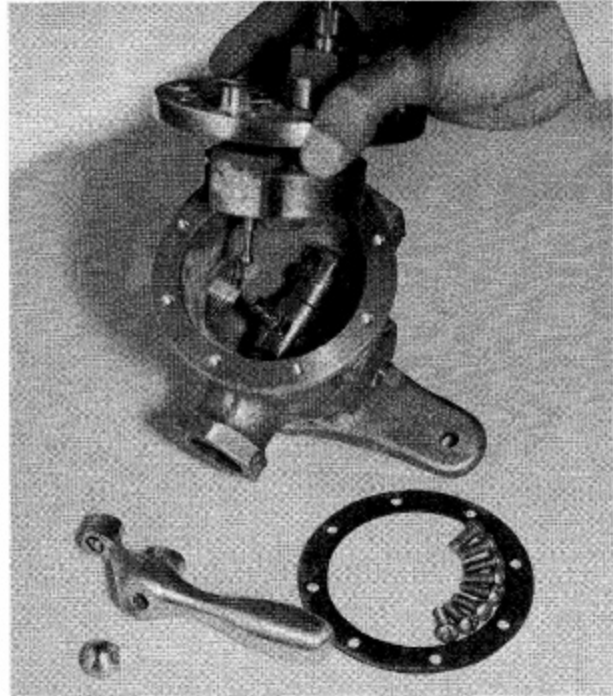


Photo #1

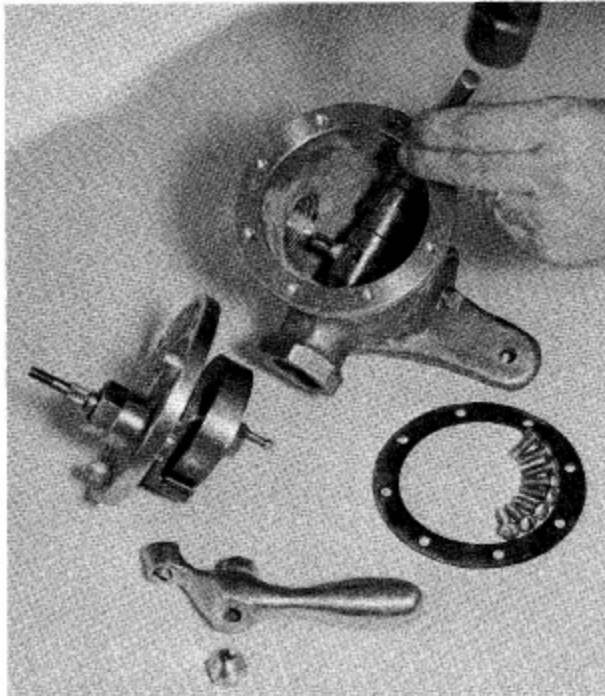


Photo #2

## TO CLEAN PORT SLEEVE ASSEMBLY

Failure to properly blend the water may be caused by a sticking condition in the Port Sleeve assembly. The Thimble should slide freely on the Port Sleeve.

1. If a deposit of lime or sediment prevents free movement, use a nail set or other tapered tool to unscrew the Check Nut as far as it will go, then screw the Port Sleeve Nut into the base. This will release the Port Sleeve and Thimble so they can be lifted out.
2. Clean with A NON-CORROSIVE CLEANING AGENT AND SOFT CLOTH — DO NOT USE ABRASIVES — then wash parts thoroughly, wipe with a dry cloth and re-assemble. The Port Sleeve should be assembled with the *shoulder* to the left. Tighten Port Sleeve Nut against end of Port Sleeve but be careful not to cramp sleeve in place. Tighten Check Nut.
3. When replacing front be sure DRIVING BALL is inserted in Ball Socket as shown in Photo #1.

### TO REPLACE POINTER ROD WITH GEAR

1. Remove Cover with parts attached from the front of valve.
2. Remove Pointer Rod Nut, Pointer, and Friction Spring.
3. Remove Coil Sleeve Stud and take off Thermostat Group.
4. Replace Pointer Rod with Gear and re-assemble.

### TO REPLACE (OR CLEAN) THERMOSTAT GROUP

Follow instructions for replacing Pointer Rod with Gear. If a deposit has collected on the Thermostatic Coil, clean it off with a brush in a non-corrosive grit-free cleaning solution.

### VALVE PARTS

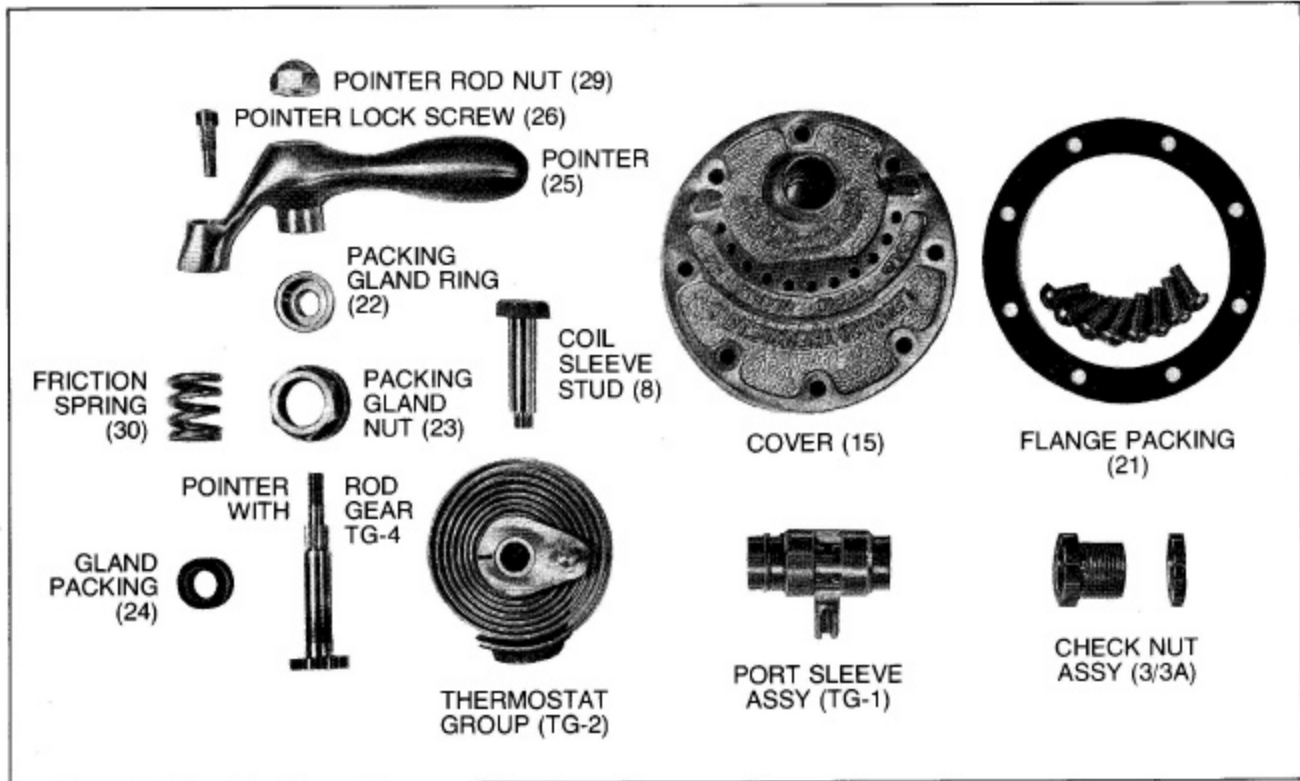
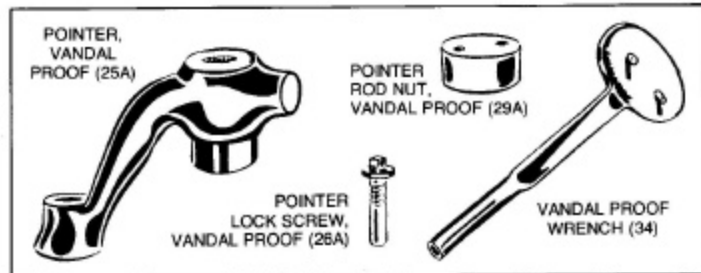


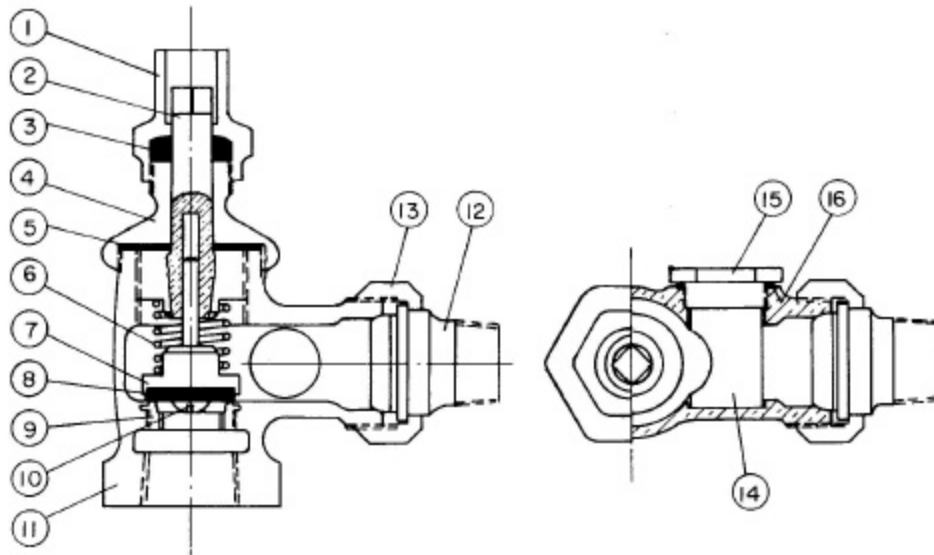
Photo #3

### VANDAL PROOF POINTER

Many Type T valves are furnished with vandal proof pointers. When ordering parts for such valves, use part numbers given in the illustration.



## UNION ANGLE STRAINER CHECKSTOP PARTS



NO.	LIST OF PARTS
1	STUFFING BOX
2	UPPER STEM
3	STEM PACKING
4	CAP
5	CAP WASHER
6	SPRING
7	LOWER STEM
8	SEAT WASHER
9	SEAT
10	SCREW FOR STEM
11	BODY
12	SWIVEL
13	SWIVEL NUT
14	STRAINER
15	STRAINER CAP
16	STRAINER CAP PACKING

## TROUBLESHOOTING INSTRUCTIONS

Parts Required:

PACKINGS & GASKETS	<ol style="list-style-type: none"> <li>1. Leak at packing nut.</li> <li>2. Leak between valve cover and base.</li> </ol>	#24, 21
PORT SLEEVE ASSEMBLY	<ol style="list-style-type: none"> <li>3. Valve delivers either all hot or all cold water, or will not mix consistently.</li> </ol>	#3/3A, TG-1 plus packings noted above
THERMOSTAT GROUP	<ol style="list-style-type: none"> <li>4. After cleaning or replacing port sleeve assembly, valve will not hold temperature.</li> </ol>	TG-2
CHECKSTOP	<ol style="list-style-type: none"> <li>5. Hot water bypass into cold line.</li> <li>6. Supplies cannot be shut off completely.</li> <li>7. Leak at checkstop bonnet.</li> </ol>	2 each: #3, 5, 6, 7, 9, 14, 16