CAUTION: Read carefully before operation.

OPTIONAL LIFTING JACK
The tapered design of the valve plug, when used at low pressures, does not normally require the lifting of the plug before turning. However, for certain applications, particularly where special materials of the plug and housing are involved, a lifting jack assembly may be furnished. In this case, the parts and assembly illustrated in Fig. 3 are substituted for the standard parts and assembly illustrated in Fig. 1. Before each swing over of the valve, the lifting jack should be used to raise the plug off its seat and after swing over, it should be used to reseat the plug.

To assemble, adjust, and operate the lifting jack assembly, proceed as follows. Turn lifting jack nut (Fig. 3, Pc. 2) clockwise (looking down) all the way by hand. Assemble washer (Pc. 28B) and nuts (Pc. 28A) tightly by hand so that the washer does not rotate. Back nut off 1/4 turn. Lock with second nut. This procedure should establish adjustment so that 1/3 counter-clockwise turn of lifting jack nut will raise the plug.

IDENTIFICATION OF PARTS
PREFIX MODEL NUMBER OF UNIT BEFORE PART NUMBERS FOR COMPLETE IDENTIFICATION

![Diagram of valve with labels and part numbers]

CAUTION: Be sure pressure is equalized. Do not jack more than needed to turn valve plug. Over-raising may cause stop pin on plug to bind on valve cover (Pc. 23).
CAUTION: Read carefully before operation.

ASSEMBLY & OPERATION
Model 72AA and 72A-VA series transfer valves permit transferring flow from one of two parallel circuits to another without flow interruption. Once pressure is equalized (see below), to direct the flow from one circuit to the other, swing the valve handle (Fig. 1, P.c.1) 90° to its other extreme position. The side in use is shown by the indicator found on the handle. Normally, the handle swings over the single inlet port of the valve. A reverse handle which swings over the outlet port is also available. The handle is usually packed separately for shipment and should be assembled on the valve stem (Pc. 19) before operation. On standard models, place handle lug down between stops. See instructions on reserve side for handle assembly with models provided with lifting jack option.

PRESSURE EQUALIZATION
Kraissl valves have tapered valve plugs which are adjusted at the factory. In operation, one side of the valve is exposed to the fluid operating pressure and the other side may be exposed to the static pressure of the circuit not in use. With the valve properly adjusted, there will be only slow pressure equalization. The pressure on one side will tend to press the tapered plug against the low pressure side. If the pressure is great enough, this contact can cause the valve to lock in position. To remedy this condition, an external pressure equalization assembly should be provided. Pressure equalization is required when differential pressures exceed the following:

<table>
<thead>
<tr>
<th>SIZE</th>
<th>MODEL</th>
<th>PRESSURE</th>
</tr>
</thead>
<tbody>
<tr>
<td>3/4 to 1 1/2&quot;</td>
<td>72-31 to 37</td>
<td>100 psi</td>
</tr>
<tr>
<td>2 to 3&quot;</td>
<td>72-39 to 43</td>
<td>80 psi</td>
</tr>
<tr>
<td>4&quot;</td>
<td>72-47</td>
<td>15 psi</td>
</tr>
<tr>
<td>6&quot; &amp; Over</td>
<td>72-51+</td>
<td>All pressures</td>
</tr>
</tbody>
</table>

When it is desired to shift operation of the valve from one side to the other, first open the valve in the equalization line so that the pressure in both circuits is the same. Second, swing the valve, using the handle provided. The handle should move easily when the pressure is equalized. Third, close the valve in the equalization line and relieve pressure by venting or draining, before opening side not in use.

ADJUSTING THE VALVE PLUG
It is possible, even after pressure equalization described above, that under severe operating conditions, the valve plug assembly (Fig. 2, Pc. 19) may become locked in position because of unequal expansion of adjacent parts. This can also occur if the valve is accidentally hit or dropped on the valve stem. To free the valve plug, proceed as follows:

A. Loosen hex nuts (Pc. 2) slightly and be sure the set screw (Pc. 29) in the handle (Pc. 1) hub is tight.

B. Raise the tapered valve plug off the seat by external means.

C. To readjust the valve, tighten hex nuts (Pc. 2) evenly and a little at a time. While doing this, keep moving the valve plug assembly (Pc. 19) through its cycle of operation. When the action just begins to tighten, the valve is in its proper adjustment.

D. To hold the plug in position, turn the hex jam nuts (Pc. 4) up against the under side of the locking flange (Pc. 3) until tight. The unit is now ready for operation.

NOTE: DO NOT try to force the valve plug assembly through its cycle of operation. It should at all times, turn without the aid of any additional leverage other than the valve handle.

Each valve plug is individually mated with the valve seat to produce a close fit. Avoid putting pressure on the top of the valve plug assembly as this could force the tapered plug too firmly on its seat and could result in damaging the seat faces.