

## **CASCADE DRAINBACK OG-300 LABELS**

Labels are to be permanently attached to the relevant valves and fitting in order to identify each component and its function.

### **BALL VALVE NO. 1 (BV1)**

COLD WATER SUPPLY LINE ISOLATION BALL VALVE

THIS VALVE IS NORMALLY OPEN AND ALLOWS POTABLE WATER TO FILL THE SOLAR STORAGE TANK. WHEN CLOSED THE SOLAR STORAGE TANK IS ISOLATED FROM THE PRESSURIZED MAINS WATER SUPPLY.

### **BALL VALVE NO. 5 (BV5)**

BV5 IS NORMALLY OPEN. BV5 MAY BE PARTIALLY CLOSED TO REDUCE THE FLOW RATE IN THE SOLAR LOOP WHEN THERE IS A RISK OF CAVITATION OCCURING IN THE PUMP.

### **BOILER DRAIN (BD)**

BD IS NORMALLY CLOSED. WHEN OPENED IN CONJUNCTION WITH PRV IT IS USED TO FILL AND DRAIN THE SOLAR COLLECTOR LOOP PIPING.

THE HEAT TRANSFER FLUID USED IN THIS SYSTEM IS WATER.

BE EXTREMELY CAREFUL WHEN DRAINING THIS FLUID. IT MAY BE DISCHARGED AT A VERY HIGH TEMPERATURE AND/OR PRESSURE.

NO OTHER FLUID SHALL BE USED THAT WOULD CHANGE THE ORIGINAL CLASSIFICATION OF THIS SYSTEM. UNAUTHORIZED ALTERATIONS TO THIS SYSTEM COULD RESULT IN A HAZARDOUS HEALTH CONDITION.

### **PRESSURE RELIEF VALVE (PRV)**

THE PRV WILL AUTOMATICALLY OPEN AND DISCHARGE FLUID OR AIR IN THE EVENT OF THE COLLECTOR LOOP PRESSURE EXCEEDING THE MAXIMUM WORKING PRESSURE OF THE SYSTEM.

WHEN FILLING OR DRAINING THE SYSTEM THROUGH BD, THE PRV IS MANUALLY OPENED OR REMOVED FROM THE COLLECTOR LOOP IN ORDER TO ALLOW AIR TO FLOW IN OR OUT OF THE COLLECTOR LOOP.

**FREEZE LABEL:**

THE CASCADE DRAINBACK SYSTEM IS PROTECTED FROM FREEZING BY AUTOMATICALLY DRAINING THE SOLAR COLLECTORS AND EXPOSED PIPING WHENEVER THE CIRCULATION PUMP SHUTS OFF. WHEN PROPERLY INSTALLED AND OPERATED THE SYSTEM IS PROTECTED TO TEMPERATURES AS LOW AS -50° F.

**ADDITIONAL TWO TANK SYSTEM VALVES**

**BALL VALVE NO. 2 (BV2)**

THIS VALVE IS NORMALLY CLOSED. WHEN OPENED IN CONJUNCTION WITH CLOSING BV3 AND BV4, IT WILL ISOLATE THE SOLAR STORAGE TANK FOR REPLACEMENT OR MAINTENANCE.

**BALL VALVE NO. 3 (BV3)**

THIS VALVE IS NORMALLY OPEN. WHEN CLOSED IN CONJUNCTION WITH OPENING BV2 AND CLOSING BV4, IT WILL ISOLATE THE SOLAR STORAGE TANK FOR REPLACEMENT OR MAINTENANCE.

**BALL VALVE NO. 4 (BV4)**

THIS VALVE IS NORMALLY OPEN. WHEN CLOSED IN CONJUNCTION WITH OPENING BV2 AND CLOSING BV3, IT WILL ISOLATE THE SOLAR STORAGE TANK FOR REPLACEMENT OR MAINTENANCE.