

LAWLER MODEL 805[®]

Part of the 800 Series[®] of High-Low Master Controllers

Product Description

Lawler's Model 805[®] is a single valve high-low master controller that delivers precisely maintained tempered water over a wide range of flows. The 805[®] features Lawler's exclusive Three-Way Protection[™] that protects against runaway temperatures, thermal shock, or scalding should the thermostat, hot or cold water supply fail. The 805[®] is engineered to perform under both low- and high-flow conditions while eliminating the problems other valves and expensive manifold systems experience particularly under low-flow conditions. The 805[®] is the right choice for the capacities described in the chart below. Multiple 805[®] valves can also be installed in parallel – expanding your maximum and minimum flows.

CAPACITIES MODEL 805[®]

Pressure Drop-PSI	5	10	20	30	45	60	80	Minimum Flow*
GPM	64	96	133	165	200	230	265	5
LPM	242	363	503	624	757	870	1003	19

*1/2 GPM when properly installed in a recirculated system.

Product Performance

Lawler's Model 805[®] accurately maintains outlet temperature to ASSE 1017 standards. In addition, Lawler's Model 805[®] **exceeds** 1017 performance standards by shutting down upon thermostat failure (protecting against the risk of runaway temperatures).

PERFORMANCE CONDITIONS

- Reduction to 5 GPM
- 30° F change in hot water temperature
- 30° F change in cold water temperature
- 50% drop in inlet supply pressure

TEMPERATURE RANGE	SET POINT
70° F to 100° F	80° F
90° F to 120° F	110° F
110° F to 140° F	130° F



Feature	Benefit
Three-Way Protection [™] <ul style="list-style-type: none"> • Thermostat Protection • Hot Supply Protection • Cold Supply Protection 	Protects Against <ul style="list-style-type: none"> • Runaway Temperatures • Thermal Shock • Scalding
Single Valve Technology	Design Simplicity, Space & Cost Efficiency
Rugged Construction: <ul style="list-style-type: none"> • Powerful Liquid Motor • Stainless Steel Piston & Liner • Tamper Resistant Control Adjustment 	Ensures Dependability and Reliability
In-Line Maintenance	Repairs are Fast and Easy
Fully Rotatable Inlets (through 360°) & Outlets (through 360° in 90° increments)	Full Installation and Rough-in Flexibility
Patented Design Patent Numbers <ul style="list-style-type: none"> • 5,203,496 • 5,323,960 	Proven, Distinct Performance Advantages

Applications

- Nursing Homes
- Hospitals
- Hotels
- Schools
- Sports Facilities
- Prisons

Do not use Lawler's 805[®] for emergency applications.

Applicable Standards

- ASSE 1017
- CSA B125.3

Options

Lawler's 805[®] high-low master controller is available with stop & checks, thermometer, shut-offs, cabinet assemblies, and a range of finishes:

- Rough Brass
- Polished Chrome
- White Chrome
- PTFE Coating
- Nickel Coating
- Special



Typical Installation

Install the mixing valve below the hot water tank or heater. If this is not possible, pipe in a heat trap as shown in Figure 1 with an approximate 2' drop. Connect a tempered water return line as shown in Figure 1. This allows flow through both ports of the mixing valve during periods of no draw. If a dual temperature system is used, a separate recirculating hot water to the water heater. See Figure 2. Install an aquastat at the tempered water return pump. Install the water heater per manufacturer's instructions.

Setting The Mixing Valve To The System

1. After installations be sure to flush the system thoroughly.
2. Make sure the hot water supply is heated to normal design temperature.
3. Close and tag all fixtures to ensure they are not used during this procedure.
4. Turn off the recirculating pump.
5. Create a draw on the system greater than the minimum flow rating of the mixing valve. All open fixtures must be tagged to ensure they are not tampered with or used during this procedure.
6. Allow water to flow through the mixing valve until the water temperature is stable. If necessary, readjust the mixing valve in accordance with the TEMPERATURE ADJUSTMENT section of the installation manual.
7. Once the temperature is set, start the recirculating pump and allow the system to reach set temperature.
8. Measure the water temperature at the return pump and adjust the aquastat to shut off the pump should the return water exceed the set point by 2 degrees F. Set the low limit switch to restart the return pump when return water drops 5 degrees F below the set temperature.
9. Set the balancing valve in the full open position.
10. Shut off all fixtures and ensure there is no draw on the system. The cold inlet to the mixing valve should be warm.
11. Allow the system to run in this condition for at least 30 minutes.
12. In some cases, an increase in water temperature may occur during a no draw period. If this occurs, slowly close the balancing valve until the water temperature is back to the original set temperature.

Figure 1

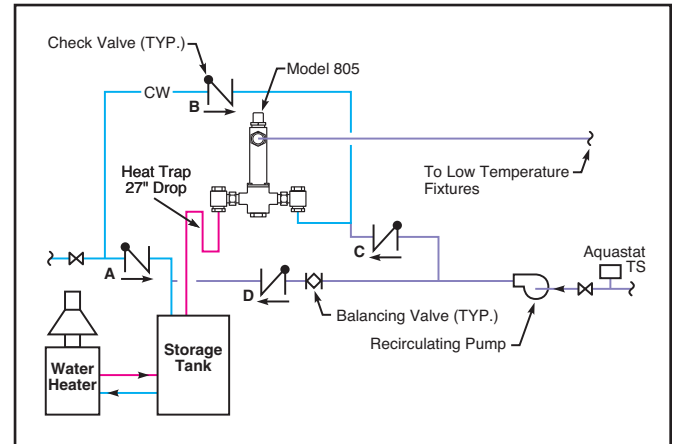


Figure 2

