

COMPLETE WATER TEMPERATURE CONTROL STATION

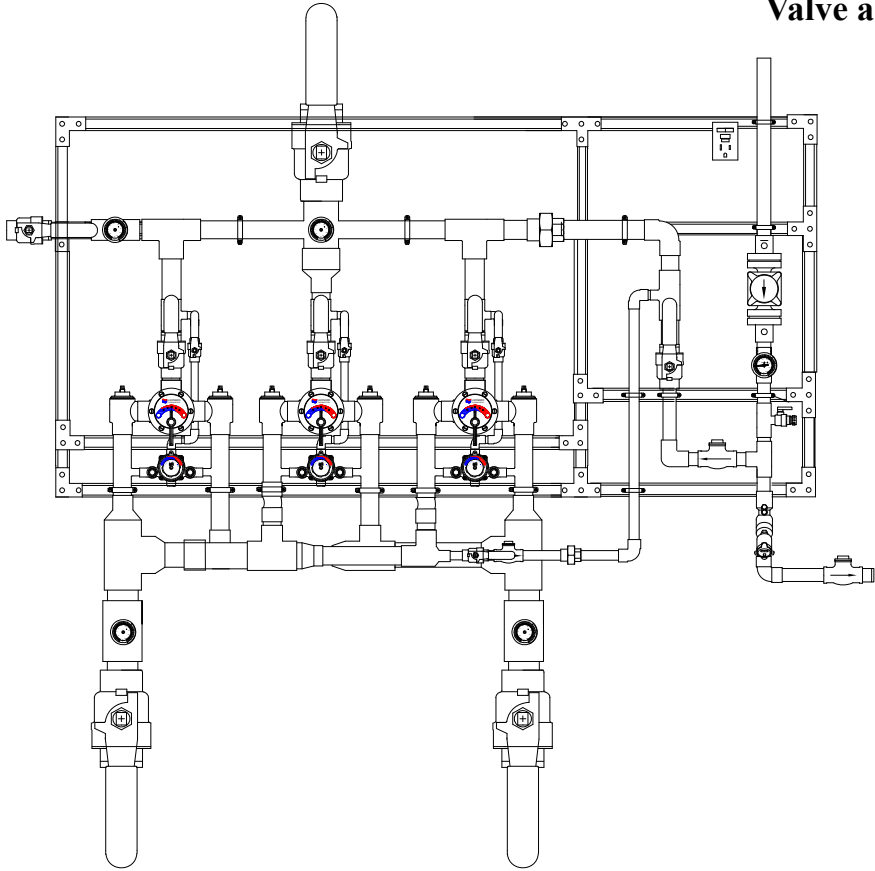
ECO-MIX™

MEGATRON® MODEL 10NB-LF

- 4" HOT & COLD INLETS
- 4" MIXED OUTLET
- 2" RETURN PIPING

Valve assemblies are ASSE 1017 listed

Valve assemblies are CSA B125.3-12 listed



See page 2 for
Specification detail

See page 3 for
Drawing detail

See page 4 for
Flow capacity chart

See page 5 for
Options

Valve assembly is certified to meet Low-Lead requirements of wetted surface area containing less than 0.25% lead by weight. All other fittings and components, the sum total of which comprise the wetted surface of this product contains less than one quarter of one percent of lead by weight.



WARNING: This product can expose you to chemicals including lead, which is known to the State of California to cause cancer. For more information, go to www.P65Warnings.Ca.gov

Engineer's Approval	Job # _____
	Arch/Eng. _____
	Contractor _____
<p>Note: The models shown represent Leonard Products which are believed to be equivalent in type and function to items specified. Leonard Valve Company is not responsible for errors or omissions due to differences in interpretations of information provided.</p>	

Product is non-cancellable and non-returnable from date from order with factory. Signed submittal required with purchase order.



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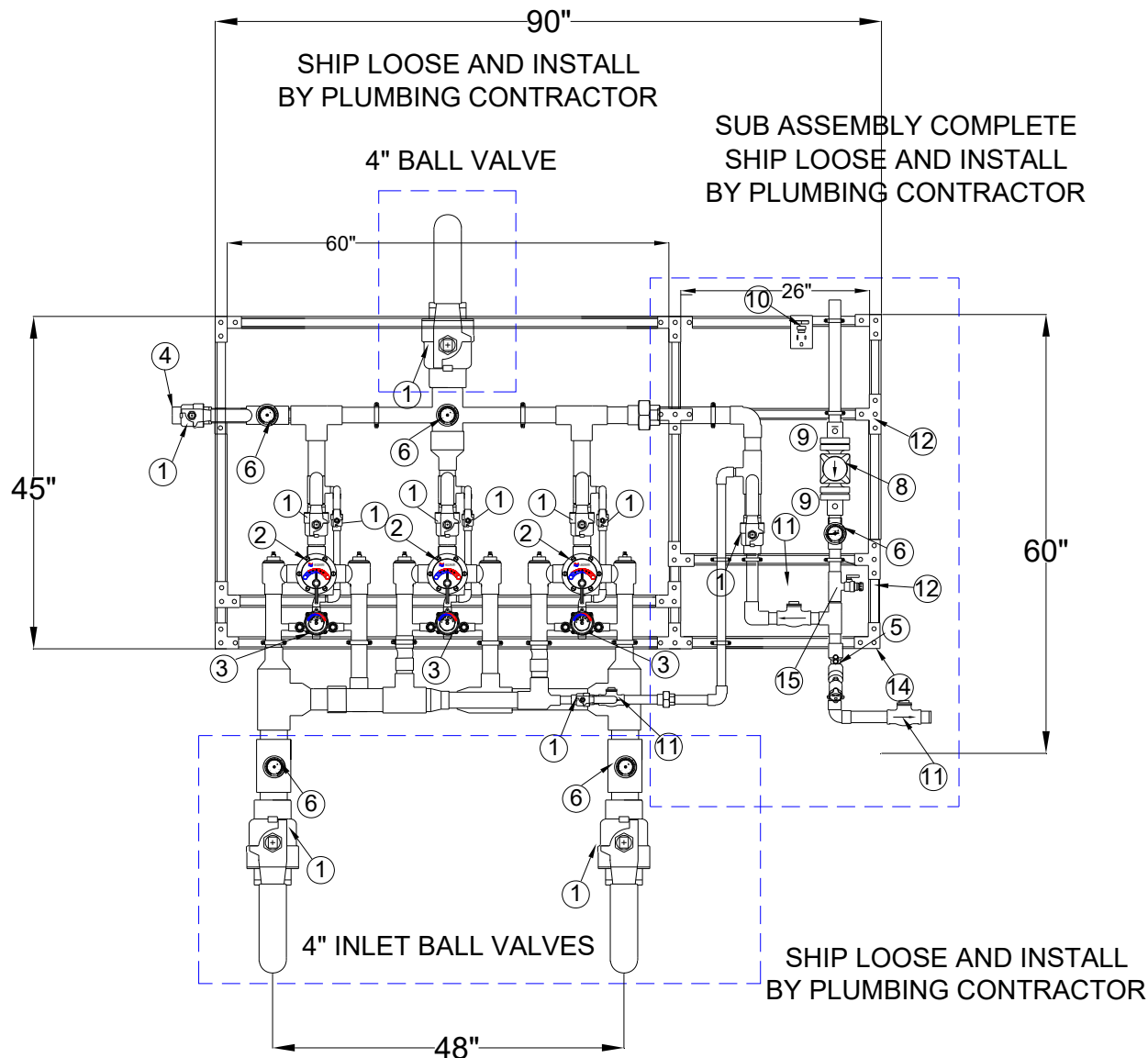
MEGATRON® MODEL 10NB-LF

LEONARD MEGATRON® MODEL 10NB-LF Complete Water Temperature Control Station to include:

- 4” bottom inlet connections (copper tube)
- 4” top outlet connection (copper tube)
- Large thermostatic water mixing valves with DURA-trol® solid bimetal thermostat (with Extended 7 Year Limited Warranty) directly linked to hot and cold valve porting, adjustable high temperature limit stop set for 120°F (49°C)*, color-coded dial: C-H, locking temperature regulator, inlet union angle strainer checkstops
- Full port ball valve, pressure gauge on mixed water outlet piping
- Small thermostatic water mixing valves with DURA-trol® solid bimetal thermostat (with Extended 7 Year Limited Warranty) directly linked to hot and cold valve porting, adjustable high temperature limit stop set for 120°F (49°C)*, color-coded dial: Cold-Hot, integral checkstops on inlets.
- Full port ball valve on outlet of small mixing valve
- Dial thermometer (range:0 to 140°F, -10 to 60°C) on mixed water outlet of the system.
- Outlet Test Connection with ball valve and 1¼” connection.
- Full port ball valve mounted downstream of test connection on mixed water outlet of the system
- Inlet piping manifold with full port ball valves and dial thermometers (20 to 240°F, -7 to 116°C on hot supply, 0 to 140°F, -10 to 60°C on cold supply) on hot and cold supply inlets
- Subassembly with return piping, 2”, Taco 2400-50-S circulator, dial thermometer (0 to 140°F, -10 to 60°C), balancing valve (with positive shutoff) to balance system, and check valve
- GFCI* switch. The GFCI switch will be used to turn the circulator on or off for setup. *Ground Fault Interrupter
- Bypass piping, 2”, with check valve and isolation ball valve to connect to 2” method # 5 piping
- Maximum operating pressure: 125 PSIG (860KPA)
- System mounted on 2 separate struts, galvanized. Struts shall be assembled with three hole flat angle plate on corners, four hole tee plates or two hole flat plate connectors on all other support pieces using 3/8” grip lock nuts and 3/8”x 1” hex head cap screws, washers and lock washers.
- All electrical connections to be completed by Electrical Contractor
- Standard pump is Taco 2400-50S

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2" RETURN PIPING METHOD #5



Dimensions may vary with the addition of options see page #5

LEGEND

1. Full port ball valve	6. Dial thermometer	11. Flapper check
2. Large TM mixing valve	7. Pressure gauge	12. Galvanized Strut
3. Small TM mixing valve	8. Circulator-As specified by Engineer	13. Tee bracket
4. Test connection	9. Pump shut-offs	14. Corner Bracket
5. Balancing Valve	10. Circulator power switch	15. Boiler Drain

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Flow Capacity

TRIPLE FLOWRATE WHEN ALL VALVES ARE OPERATING
 SINGLE VALVE ASSEMBLY FLOWRATES SHOWN
 (MINIMUM FLOW RATE HAS BEEN TRIPLED TO 3 GPM)

MINIMUM FLOW (GPM) (l/min)	SYSTEM PRESSURE DROP (PSIG)										
	5	10	15	20	25	30	35	40	45	50	PSI
	.3	.7	.97	1.4	1.7	2.1	2.4	2.8	3.1	3.4	BAR
3.0	78	113	129	145	163	172	188	197	214	226	GPM
11.4	295	428	488	549	617	651	712	746	810	856	l/min

NOTE: Flowrates will vary depending on existing field conditions. Leonard Valve Company always recommends using CASPAK® sizing software for proper valve sizing and model number applications.

Note: The High Low model must be selected based upon the following:

Maximum system demand for mixed water

System pressure drop*

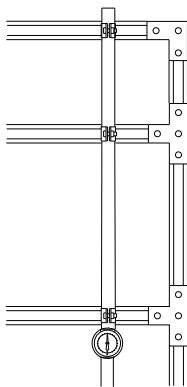
Designer's estimated minimum mixed water flow requirement

*System pressure drop= the pressure available at the inlet of the mixing valve unit minus the pressure required to operate the farthest fixture, i, e., Shower valves, in the building.

EXTENDED THERMOSTAT WARRANTY

Call the factory at 1-800-222-1208 for details on Leonard's exclusive Extended Limited Warranty for High Low System Thermostats. Note! Specifications are subject to change without notice!!!!

OPTIONS



LC

Megatron® furnished without a circulator. Tie return line here

OPTIONS *

- LC** Less circulator
- 265-1** Timer, Analog, 24 hour
- 265-3** Timer, Digital, 7 day
- HOA** HOA switch

OPTIONS (shown on next page) *

- AL** Audio Visual Alarm
- RDU** Remote Display Unit
- LMS-188-4P** Monitoring System
- LMS-188-4P-BMS** with BMS
- DA** Digital Aquastat
- DG** Digital Gauges
- User chosen pump**
(specify on next page)

* Any option chosen will alter pricing



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OPTION AL: Leonard Single Probe Digital Temperature Alarm

- Single Point Temperature Probe - Range: -148°F to 212°F Resolution: 1°F
- User adjustable high / low set points, initial alarm delay period, audible & visual alarms
- Remote alarm contacts (SPDT) with adjustable relay delay period
- AL option replaces analog outlet dial thermometer with a single digital display



OPTION RDU: Leonard Remote Display Unit

- Activation by Primary Alarm's (pictured above) remote alarm contacts
- Alarm Delay Module with yellow, red, green LED indicators
- Recommended maximum distance from controller to RDU is 500'



OPTION LMS-188-4P: Leonard 4 Point Digital Monitoring with Alarm

- Four (4) Temperature Probes - Range: -148°F to 212°F Resolution: 1°F
- User adjustable high / low set points, initial alarm delay period, audible & visual alarms
- Remote alarm contacts (SPDT) with adjustable relay delay period
- 10/100 Ethernet Connection, Web Server Interface for Setup & Commissioning
- Unit can send an E-mail of alarms / temperatures for up to 8 contacts daily
- LMS-188-4P option replaces analog dial thermometers with a single digital display for all 4 temperatures, incoming hot, incoming cold, outlet and return



OPTION LMS-188-4P-BMS: Leonard 4 Point Digital Monitoring System with Alarm & Enhanced Protocol Communication Interface Module

Primary Alarm Box includes:

- Same as above

ProtoNode Accessory Box includes:

- Interface Module to connect LMS-188-4P-BMS to Building Management System (-BMS) Network, Complete Protocol Package
- Supported protocols include BACnet MS/TP, BACnet IP, Modbus RTU, Modbus TCP/IP, SNMP, JC N2, available simply by selecting the proper DIP switches
- LMS-188-4P-BMS option replaces analog dial thermometers with a single digital display for all 4 temperatures, incoming hot, incoming cold, outlet and return



OPTION DA: Digital Aquastat

- Electronic digital aquastat with Nema 1 case and SPDT Relay Output



OPTION DG: Digital Gauges

- Replaces all analog gauges with digital gauges, inlet hot, inlet cold, outlet and return temperature

OPTION USER CHOSEN PUMP

Standard pump is TACO 2400-50-S, if another manufacturer is preferred please specify, but note that ANY change from standard pump will result in a **PRICE INCREASE**



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