

# LAKEWOOD INSTRUMENTS

## MODEL 150

### BOILER WATER TREATMENT CONTROLLER



The Model 150 uses the latest in microprocessor capability, giving the user a high level of application flexibility. Multiple inputs and very easy setup characterize this new technology.

This controller can be used in the Continuous Sample, Sample/Cycle, or **Sample/Hold** modes to control the boiler water conductivity.

**PART NUMBER 1269089 SHOWN**  
Boiler Water Treatment Controller

#### FEATURES

- Use this Controller for conductivity control of boilers. It can be used for Continuous Sample, Sample/Cycle, or Sample/Hold control of boiler conductivity.
- Removable power cord and receptacles for simple conduit installations.
- One (1) water meter input, conductivity input, flow switch input, and 4-20 mA output are all standard features.
- Designed with a single circuit board for better reliability and lower cost.
- Large open shallow enclosure for easy wiring.
- The enclosure is rated NEMA 4X.
- Power selector switch for 115 or 230 vac operation.
- Heavy-duty stainless steel domed numeric keypad and illuminated graphical display allow for quick and easy programming. Steel domed switches improve the tactile sensing and life expectancy of the keypad.
- LED indicators for power, alarm and relay status.
- The display is lit by two LEDs when any key is pressed.

#### BENEFITS

- Easy to program, the Model 150 Controller uses an intuitive menu and a numeric keypad for programming.
- No add-on options. Flow switch input, 4-20mA output, and three boiler conductivity control methods; Continuous Sample, Sample/Cycle, and Sample/Hold are standard.
- Single circuit board design improves reliability.
- Multiple methods of chemical feed for application flexibility.

#### SPECIFICATIONS

<b>Conductivity Range</b>	100-10,000 $\mu$ S	<b>Water Meter Input</b>	Contact Head, Paddle Wheel, Or Turbine
<b>Conductivity Sensor</b>	2-Electrode	<b>Timer</b>	Max Blowdown Time Exceeded, Relay Time Exceeded
<b>Conductivity Resolution</b>	$\pm 10 \mu$ S	<b>Output Signal</b>	One 4-20 mA, non-Isolated Powered Output
<b>Accuracy &amp; Repeatability</b>	$\pm 1\%$	<b>Relay Ratings</b>	3A Each, 10A Total
<b>Deadband/Setpoint</b>	Adjustable	<b>Power</b>	120/240 VAC 50/60 Hz
<b>Auto/Manual Outputs</b>	Menu Selectable	<b>Ambient</b>	32°-120°F (0-49°C)
<b>Output Relays</b>	2 Selectable use 1 for Blowdown	<b>Enclosure</b>	NEMA 4X, ETL
<b>Keypad</b>	16 Tactile Push-Buttons		
<b>Display</b>	16 X 2 Character		



## ORDERING OPTIONS

### Boiler System Options



**1168374 SR2**  
Boiler Water Sensor with 20 Ft  
Cable and Conduit Elbow.  
3/4 INCH NPT Connection.



**1167244 Orifice Union**  
1/2 INCH NPT  
Orifice Plates, 1/2 in NPT  
**1166354** 1/8 inch opening  
**1166355** 1/16 inch opening



**1268608 MBV1**  
1/2 INCH NPT  
Motorized ball valve  
OR  
**1268614 MBV2**  
3/4 INCH NPT  
Motorized ball valve

PART NO.	CONDUCTIVITY BOILER WATER CONTROLLER ONLY	LIST	CD
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1269089	150 Controller only, no sensor
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PART NO.	CONDUCTIVITY BOILER WATER CONTROLLER SYSTEMS	LIST	CD
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#### The Following Systems Include Sensor and Plumbing Assemblies

1269092	150, SR2, 1/2 Union, Orifice plate,
1269260	150, SR2, 3/4 Union, Orifice plate,
1269093	150, SR2, PLKT

PART NO.	BOILER OPTIONS (AND/OR REPLACEMENT PARTS)	LIST	CD
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1168374	SR2, 2-electrode boiler sensor, conduit elbow, and 20 ft cable
1229843	SR2HD, 2-elec harsh duty sensor, conduit elbow, and 20 ft cable
1167244	Orifice Union, 1/2 inch NPT
1166355	Orifice Plate, 1/2 inch NPT, 1/16
1166356	Orifice Plate, 1/2 inch NPT, 1/4
1166354	Orifice Plate, 1/2 inch NPT, 1/8
1167972	Orifice Plate, 1/2 inch NPT, 3/8
1167245	Orifice Union, 3/4 inch NPT
1168998	Orifice Plate, 3/4 inch NPT, 1/16
1169000	Orifice Plate, 3/4 inch NPT, 1/4
1168999	Orifice Plate, 3/4 inch NPT, 1/8
1169001	Orifice Plate, 3/4 inch NPT, 3/8
1268608	MBV1 1/2 inch NPT Motorized ball valve
1268614	MBV2 3/4 inch NPT Motorized ball valve
1167295	PL5, 1/2 sample/cycle plumbing assembly
1168601	PL575, 3/4 sample/cycle plumbing assembly
1167297	PL6, 1/2 continuous plumbing assembly
1167296	PL675, 3/4 continuous plumbing assembly
1167520	GV, Globe valve with Position Indicator
1269395	GVN, Globe valve without Position Indicator
1233981	PLKT Plumbing kit. 1/2"sample/cycle and continuous sample kit Includes unions, orifice plates, cross, tee, and manual block valve only.

PART NO.	REPLACEMENT SENSOR	LIST	CD
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1167162	2 electrode boiler sensor
1229841	2 electrode harsh duty boiler sensor