







Recommended Maintenance

 WARNING	
	<ul style="list-style-type: none"> • Before using product read and understand the installation instructions. • Save the installation instructions and these maintenance and replacement instructions for future reference.
	<ul style="list-style-type: none"> • All work must be performed by qualified personnel trained in the proper application, installation, inspection, and maintenance of HVAC systems in accordance with all applicable codes and ordinances. • To prevent electrical shock, do not touch or make contact with probe ends while the system is energized or activated.
	<ul style="list-style-type: none"> • When flushing control (blow down), hot water and steam will flow out. To prevent serious personal injury, connect a drain pipe to the control opening to avoid exposure to steam discharge. <p>Failure to follow this warning could cause property damage, personal injury or death.</p>

Inspect all controls annually, and replace, repair, or clean, as needed. All chambered units are to be blown down per manufacturers instructions and local code requirements. These requirements are to be determined by the local service company, and are based on water quality

and system operation variables. Refer to the installation instructions provided with the product for specific assembly and test procedures.

McDonnell & Miller products must also be maintained in accordance with the following ASME Code.

ASME Boiler and Pressure Vessel Code - Section VI Paragraph 7.07 G

Low-Water Fuel Cutoff and Water Feeder Maintenance. Low-water fuel cutoffs and water feeders should be dismantled annually, by qualified personnel, to the extent necessary to insure freedom from obstructions and proper functioning of the working parts. Inspect connecting lines to boiler for accumulation of mud, scale, etc., and clean as required. Examine all visible wiring for brittle or worn insulation and make sure electrical contacts are clean

and that they function properly. Give special attention to solder joints on bellows and float when this type of control is used. Check float for evidence of collapse and check mercury bulb (where applicable) for mercury separation or discoloration. Do not attempt to repair mechanisms in the field. Complete replacement mechanisms, including necessary gaskets and installation instructions are available from the manufacturer. After reassembly, test as per 7.05H.

Recommended Replacement Intervals

IMPORTANT	
<ul style="list-style-type: none"> • Product repairs made with non-McDonnell & Miller parts will invalidate our warranty as well as any agency recognitions. Without this recognition the product would no longer be eligible for use in listed end-use equipment and may not meet local code requirements. • Previously used controls should never be installed on a new system. Always install new controls on a new boiler or system. • A more frequent replacement interval may be necessary based on the condition of the unit at time of 	<p>inspection. ITT McDonnell & Miller's warranty is one (1) year from date of installation or two (2) years from the date of manufacture.</p> <ul style="list-style-type: none"> • Use of water treatment can diminish product life. In such cases, components should be replaced on a more frequent basis. • Visually inspect the inside of the float chamber during the annual inspection. Partial disassembly may be required.

Recommended Replacement Intervals (continued)

Product	Series	Recommended Maintenance	Recommended Replacement Interval (Maximum)
Low Water Cut-Offs	150, 150E, 157, 158, 159, 150S, 157S, 158S, 159S	Blow down and test daily inspect annually.	15 years
	69, 169, 269, 369, 469	Inspect and test annually.	10 years
	67, 767 70, 70-B	Blow down weekly. Inspect and test annually.	10 years
	61, 63, 64, 764	Blow down weekly. Inspect and test annually.	10 years
	42, 42S	Blow down daily. Inspect and test annually.	10 years
	93, 94, 193, 194	Blow down and test daily. Inspect and test annually.	15 years
	750, PS-800, PS-850, RB-120, RB-122	Inspect and test annually.	15 years
	RB-24	Inspect and test annually.	10 years
Water Feeders	WF2/Uni-Match®	Inspect and test annually. Replace filter annually.	10 years
	101-A	Inspect, test, and replace cartridge valve annually.	10 years
	21, 221, 25-A, 51-S, 53, 851-S, 3155	Inspect and test annually.	15 years
	47, 51, 247, 847, 551-S, 851	Blow down weekly. Inspect and replace cartridge valve annually.	10 years
Liquid Level Controls	LPC-2000, PCH, PCL, PFC, VFS	Inspect and test annually.	15 years
	18, 18-SS, 27-W, 118	Inspect and test annually.	5 years
Replacement Blow Down Valves	14-B	Inspect and test annually.	10 years
	14	Replace with 14-B blow down valve.	3 years
Replacement Probes	750-PA, PS-800, PS-850, RB-120, PCH, PCL, RB-122	Inspect annually.	10 years
Replacement Head Mechanisms for Commercial/Industrial Applications	25-A, 42, 42S, 51, 51-S, 53, 61, 63, 64, 67, 70, 93, 94, 150, 150S, 150E, 157, 157S, 193, 194	Inspect and test annually.	5 years

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