

## Technical Bulletin 152-Updated O2 Settings for M-Series Boilers

The purpose of this technical bulletin is to communicate the proper O2 settings of the M-Series boilers.

**!** **IMPORTANT:** The information in this Technical Bulletin is intended to be performed by the Installer/Technician.

A trained and qualified professional must install, inspect, and leak test the boiler before use. The warranty will be voided due to any improper installation. The boiler must be commissioned by a licensed professional. The trained and qualified professional should have skills such as: gas sizing; connecting gas lines, water lines, valves, and electricity; knowledge of applicable national, state, and local codes; installing venting through a wall or roof; and training in installation of condensing boilers. Training for Rinnai boilers is accessible online at [www.trainingevents.rinnai.us](http://www.trainingevents.rinnai.us).

### **!** NOTICE

- The O2 percentage setting is required to be checked at commissioning, maintenance, faults, and adjusted if needed.
- Correct gas supply pressure must be confirmed before testing O2. Refer to the O2 testing procedures in the “Commissioning” section of the “M-Series Condensing Boiler Installation and Operation Manual.”
- Boiler front cover must be in place for accurate flue gas testing.

**!** **WARNING** The O2 percentage is required to be checked and adjusted after a conversion from Natural Gas to Liquid Propane, or from Liquid Propane to Natural Gas. Setting the O2 at maximum input must be performed with a calibrated combustion analyzer that is set to the correct gas type.

Boiler Model	Maximum Input		Minimum Input	
	Natural Gas	Liquid Propane	Natural Gas	Liquid Propane
M060C (Combi)	4.7% - 4.9%	5.0% - 5.2%	0.4% - 1.6% Higher Than Observed on Maximum Input	4.7% - 5.5%
M090C (Combi)				
M120C (Combi)	4.2% - 4.4%			
M160C (Combi)				
M060S (Solo)	4.7% - 4.9%			
M090S (Solo)				
M120S (Solo)	4.2% - 4.4%			
M160S (Solo)				

**EXAMPLE: Model M120SP (P=Propane)**

The boiler has been field converted to Liquid Propane. The maximum input O2 is observed to be 5.4%. This will need to be lowered. After adjusting maximum input O2 to 5.1%, minimum output is observed to be 5.2%. This is within the tolerance for minimum input.

**EXAMPLE: Model M060CN (N=Natural Gas)**

Maximum input from the factory is observed to be 4.7% O2. This is within the tolerance and will not need to be adjusted. The unit on minimum input is 5.8% and is within the 0.4% - 1.6% higher range.