

Direct Gas-Fired Heater Burner Maintenance



CAUTION: Read and understand this service bulletin thoroughly before starting. Only a trained, experienced service technician should attempt this service procedure.

Basic Instructions:

1. Clean the burner plates
2. Clear the burner gas and air ports
3. Inspect the spark rod igniter and replace if required
4. Insure the flame sensor is in good condition.

To clean the burner plates use a stiff wire brush. Scrub both sides of the stainless steel burner plates to remove any soot or other crud, which may be on the burner. All of the burner plate holes must be clear so air can pass through them unrestricted. The holes in the burner plate allow air to mix with the gas in increasing amounts, as the flame gets longer. After the burner plates have been cleaned, inspect them for cracking. Cracks occurring between one or two holes are normal and should be of no concern. If the cracking is more extensive, the affected plates should be replaced. With brush in hand, scrub the rust, soot and other foreign material from the burner orifice area. Clean the burner gas and air ports using a drill bit or piece of wire of the appropriate size. See the chart below for drill size. After the orifices are drilled to the correct size and using compressed air or a vacuum, remove any debris from the manifold. Debris left in the manifold will prematurely clog the orifices in the future.

Burner Sections		Gas Port Drill Size		Air Port Drill Size	
		Wire Gauge	Decimal	Wire Gauge	Decimal
HMA-1					
Straight, 1 row	Natural Gas	31	.120	42	.093
	Propane Gas	45	.082	42	.093
HMA-2	Natural / Propane	1/8"	.125	43	.089
HMA-2A	Natural / Propane	1/8"	.125	42	.093

After the burner plates and orifices have been cleaned inspect the spark rod. The tip should be clean and free of dirt and carbon. The porcelain must be intact. If it's cracked, replace it. While the spark rod is out pull the flame rod or ultraviolet scanner out as well. If the flame sensor is a scanner, clean the lens with a clean damp soft rag. A flame rod's metal rod should be clean and free of dirt and carbon. Like the spark rod igniter, the porcelain on the flame rod must be intact as well. Replace it if it's cracked.

Questions regarding this bulletin or burner servicing should be directed to the Sales Engineering Department of Midco International Inc. We can be reached by phone at 773 604-8700 or by fax at 773- 604-5355.



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AVOID ERROR IN PARTS SELECTION. When ordering use complete MIDCO Part Number and Description. Furnish Burner Model Number, if available.

IMPORTANT: Availability of parts as well as specifications are subject to change without notice. Please consult factory for item availability.

SAFETY INFORMATION TERMS: The following terms are used to identify hazards, safety precaution of special notations and have standard meanings throughout this manual. They are printed in all capital letters using a bold type face as shown below, and preceded by the exclamation mark symbol. When you see the safety alert symbol and one of the safety information terms as shown below, be aware of the hazard potential.



DANGER: Identifies the most serious hazards which will result in severe personal injury or death.

WARNING: Signifies a hazard that could result in personal injury or death.

CAUTION: Identifies unsafe practices which would result in minor personal injury or product and property damage.