

DETROIT RADIANT PRODUCTS CO.

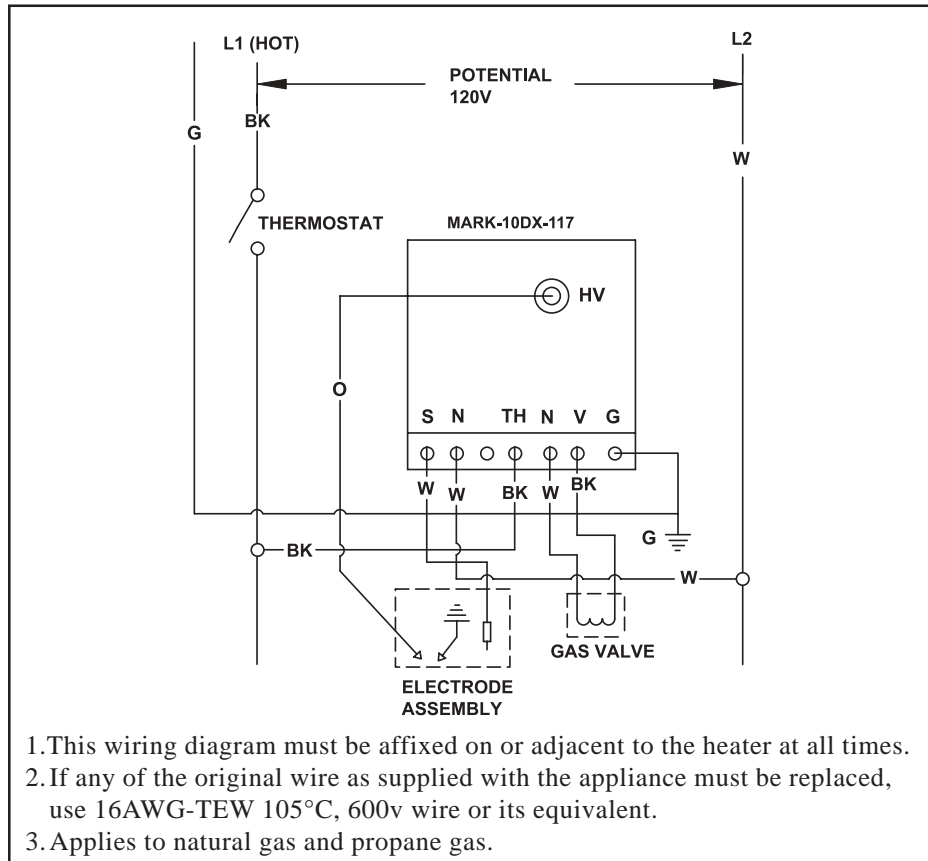
Wiring Diagram for Suffix NFS-2/PFS-2 120V

(Electronic Detection Direct Spark Ignition System)

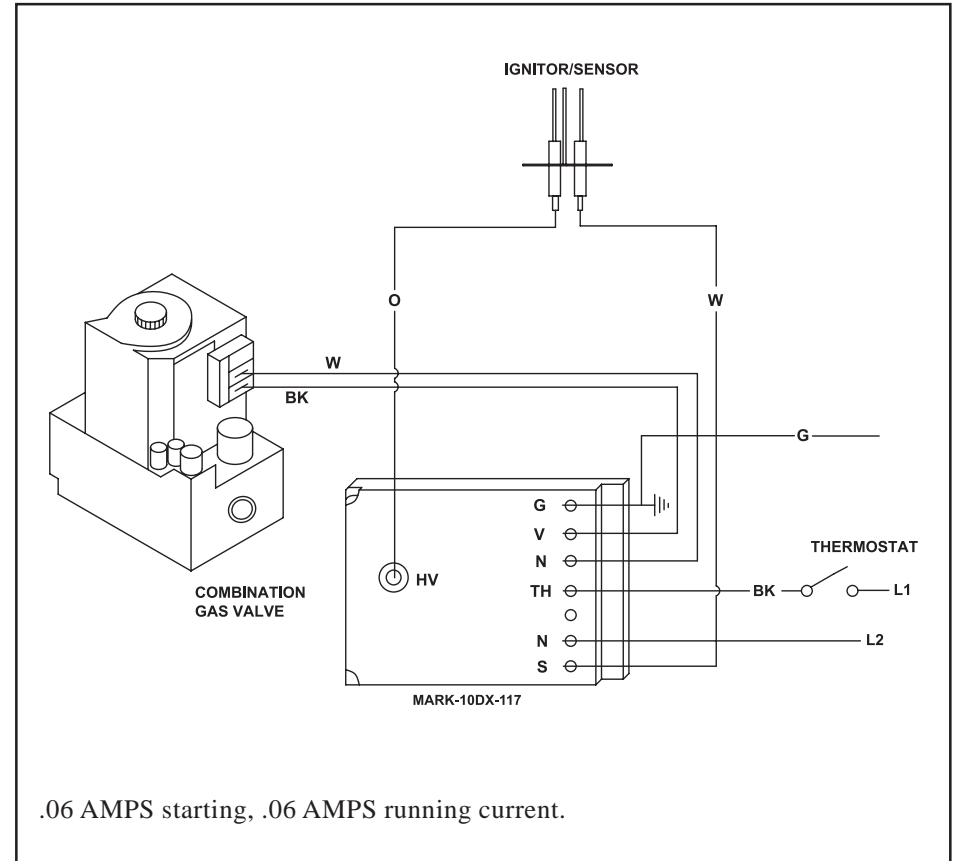
Flame Sensing Element

Solid state logic circuit in control board continuously monitors spark current and flame conductance to ground through spark electrode.

TYPICAL WIRING SCHEMATIC



TYPICAL BLOCK DIAGRAM



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(Electronic Detection Direct Spark Ignition System)

Normal Sequence of Operation

1. Thermostat contacts close.
2. Seven second pre-purge.
3. Power is applied to main burner electrode and gas valve.
4. Upon ignition of the heaters main burner(s), sparking will cease and sensor will continue monitoring until thermostat is satisfied.
5. If flame has not been established by the 15 second trial for ignition period, the heater will try an additional 2 times before going into safety lockout. The heater must be reset by an interruption in the power source.
6. Should flame outage occur during duty cycle, the system will reactivate the electrode to provide for reignition. The flame will be re-established or operation #5 will occur.



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