

Robertshaw. GAS IGNITION CONTROLS

780 SERIES HOT SURFACE IGNITION MODULE

The 780 Series Hot Surface Ignition Modules are designed for use on gas fired heating systems. The system acts on a demand for heat by a switch or thermostat to supply power to the ignition control. On non pre-purge models, the ignitor will be energized immediately and remain on for either of two optional selected ignitor heat-up times approximately 17 or 34 seconds. For models with the prepurge option, there is a time delay equal to the heat-up time selected before the ignitor is energized. At the end of the ignitor heat-up time the gas valve is opened supplying gas to the main burner. After several seconds, the ignitor is turned off and the sensor is energized. As long as flame is sensed, the system continues to operate. When the thermostat is satisfied, the gas control will be closed to shut off the main burner.

The 780 Series provides lockout and complete gas shut off if ignition is not proven after the trial for ignition sequences has been completed. To reset the system the thermostat or system switch must be opened for at least 10 seconds.



FEATURES

- Molded-in terminal barriers between terminals.
- Models available for local and remote sense application.
- Mounting screw provides a positive ground connection.
- Small compact size provides "no hassle" installation.

CROSS-REFERENCE

A complete in-depth cross-reference is on page C48.

SPECIFICATIONS

| | |
|--------------------------------|------------------------|
| Electrical Rating: | |
| Supply voltage | 120, 208/240 or 277VAC |
| | 50/60 Hz. |
| Control input voltage | 24VAC |
| Maximum ignitor current | 5 amps resistive |
| Maximum valve current | 1.5 amps @ 24VAC |
| Ambient temperature | -40 to 176°F |
| Operating humidity | 95% @ 104°F |
| Thermostat anticipator current | .1A + load |

ORDERING DATA

| UNI-LINE ORDER NO. | FACTORY MODEL NUMBER | PRE-PURGE/ IGNITOR WARM-UP TIMER | | PRE-PURGE | NON PRE-PURGE | SENSOR TYPE | | IGNITION ATTEMPTS (BEFORE LOCKOUT) | | | VALVE TRIAL TIME (SECONDS) | | | | MODULE SUPPLY VOLTAGE (VAC) | | | | REPLACES O.E.M. PART NO. |
|-----------------------|-----------------------------|--|-------|-----------|---------------|----------------|---------|---|---|---|----------------------------------|---|---|----|--------------------------------------|-----|---|--|---|
| | | REMOTE * | LOCAL | | | 24 | 120 | | | | | | | | 208/240 | 277 | | | |
| | | | | | | 17 SEC. | 34 SEC. | 1 | 2 | 3 | 4 | 6 | 8 | 12 | | | | | |
| 780-780 | HS780-34NR-308A | | • | | • | • | | | | • | | | • | | | • | | | AMANA PART NO. C64552-01 C64858-02 |
| 780-782 | HS780-34NR-308B | | • | | • | • | | | | • | | | • | | | | • | | AMANA PART NO. C64858-01 C64858-03 |
| 780-783 | HS780-34PL-308A | | • | • | | | | | | • | | | • | | | • | | | RHEEM PART NO. 62-22578-01 |
| 780-784 | HS780-34NL-108A | | • | | • | | • | • | | | | | • | | | • | | | |
| 780-785 | HS780-34NL-306A | | • | | • | | • | | | • | | • | | | | • | | | RHEEM PART NO. 62-22578-02 |
| 780-786 | HS780-34NL-304A | | • | | • | | • | | | • | • | | | | | • | | | MOR-FLO PART NO. 3200624 |
| 780-787 | HS780-34NR-306A | | • | | • | • | | | | • | | • | | | | • | | | |
| 780-788 | HS780-34PR-304A UNI-KIT† | | • | • | | • | | | | • | • | | | | | • | | | UNI-KIT REPLACEMENT FOR WHITE-RODGERS 50E47-50 |
| 780-790 | HS780-17NL-104A | • | | | • | | • | • | | | • | | | | | • | | | RHEEM – WATER HEATER P/N 41-AP10758 |

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| 780-781 | HS1000E | EXACT REPLACEMENT FOR AMANA D6997603, HS1000A, HS1000B & HS1000C |
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† White-Rodgers adaptor kit is available separately - order 1751-739.

* For replacement remote sensors see part and accessories - page C85.

**WANT A FAST, ACCURATE AND PROFESSIONAL WAY TO
TEST ELECTRONIC IGNITION MODULES? SEE PAGE C88.**

