

## SERIES 05-15

### 12VDC Spark Ignition Systems


(for gas appliances in recreational vehicles)


U.S. Patent Numbers 3,861,854; 3,853,455; 3,847,533.

### FEATURES

- Eliminates Pilots and Manual Lighting
- Operates Directly from Thermostat
- Sparking Stops Immediately upon Burner Ignition
- Provides "Proof-of-Flame"
- Safety Lockout
- Totally "Fail-Safe" System
- Purge Delay Models Available

 Design certified by A.G.A. ANS Z21-20 Automatic Ignition Systems.

 Recognized under the Component Program of Underwriters Laboratories, Inc.

 Canadian Standards Association Certification.

### GENERAL INFORMATION

This Fenwal electronic spark ignition system provides direct burner ignition and flame sensing for gas-fired appliances in recreational vehicles. The Series 05-15 operates from any 12-volt, negative grounded source and is controlled by the same thermostat that maintains living quarters temperatures. Current drain is less than 100 milliamps after the flame is established.

To ignite the burner, it is necessary only to open the manual gas supply valve and set the thermostat to call for heat. The thermostat supplies power to the ignitor which, in turn, opens the main burner (gas solenoid) valve and provides ignition spark. Sparking ceases immediately upon establishment of the flame, thus, minimizing radio and TV interference. Should no flame be established within a predetermined period, the system provides automatic safety shut-down by de-energizing the gas valve solenoid and going into lockout.

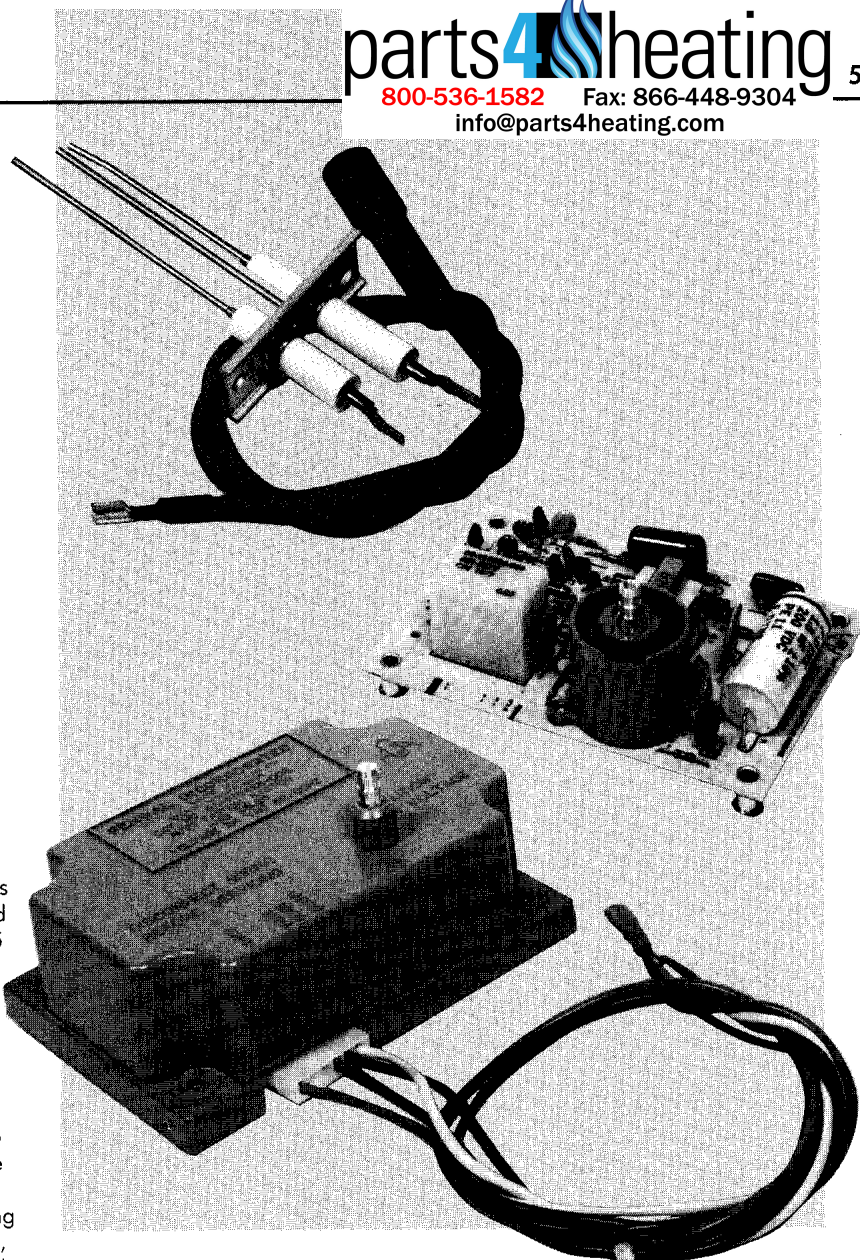
Electronic flame sensing circuitry in the ignitor detects the presence or absence of main burner flame. If the flame is extinguished during the duty cycle, the ignitor will provide one re-try for ignition before going into lockout. To reactivate the ignitor, one simply "resets" the thermostat by turning it down and then raising it to the desired setting again.

### SPECIFICATIONS

#### IGNITION/DETECTION CONTROL MODULE—

##### 05-15243X-0XX -

Input Voltage:	12VDC nominal (negative ground)
Current Drain:	100 milliamps, excluding valve power
Ambient Range:	- 40 to 150°F
Flame Establishing Period: (Flame Failure Reignition Lockout Time):	-000-3.3 seconds -003-6.8 seconds -005-10.0 seconds



Ignition Means:	Interrupted
Flame Failure Response Time:	0.8 Seconds
Types of Gas:	Natural, LP, Manufactured
Terminalization:	Spark plug type connector for High Voltage. Molex connector for Flame Sensing, Valve, Power and Ground

##### 05-15243X-10X

Purge (Delay) Period	15 seconds Nominal
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##### ELECTRODE

05-100000-422*:	Gap between high voltage (spark) electrode and ground; 0.125 ± 0.032"
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##### LEAD WIRE

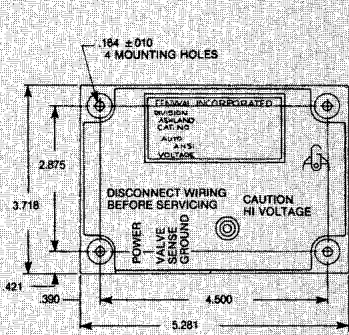
05-127328-0XX**:	High Voltage
05-127324-0XX**:	Low Voltage

\*For other electrode configurations, consult Factory.

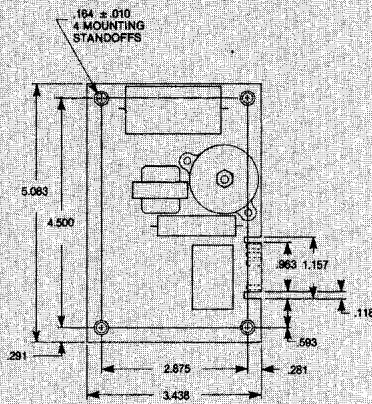
\*\*Standard length 24". Designed length required.

EX: 05-127328-024 = 24"

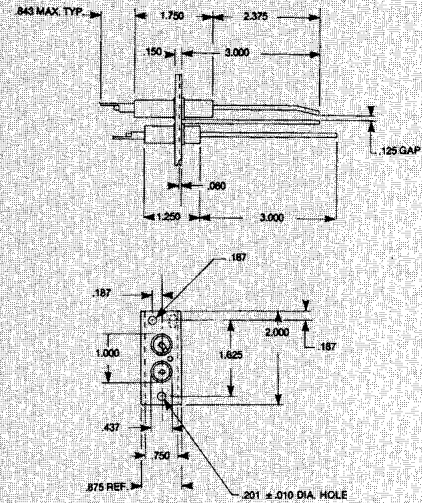
**OUTLINE DIMENSIONS**



**05-152436-XXX**



**05-152435-XXX**



**05-10000-422**

**HOW TO ORDER**

Fenwal's Series 05-15 gas ignition systems provide direct spark ignition/proof of flame for gas fired equipment in recreational vehicles and other equipment powered by 12 volt DC sources.

**TO ORDER THE IGNITION/DETECTION CONTROL MODULE**, use the appropriate model number from table below:

**05-15243X-X0X**

No Cover	5	Flame Establishing Period	0	3.3 Seconds
Plastic Cover	6		3	6.8 Seconds
No Purge Feature	0	Flame Establishing Period	5	10.0 Seconds
Purge Feature	1			

**TO ORDER ELECTRODE**, specify by part number:

05-10000-422: For other electrode configurations, consult Factory.

**TO ORDER CONNECTING TERMINAL AND/OR LEAD WIRES**, specify by part number:

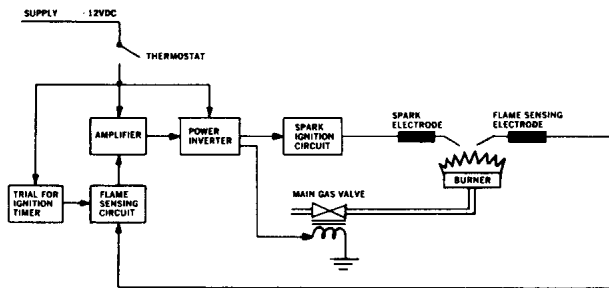
05-127324-0XX: **LOW VOLTAGE ASSEMBLY**  
6-pin plastic edge connector with 24" of four lead wires for input power, valve, ground and flame sensing. Assembled.

05-127328-0XX: **HIGH VOLTAGE ASSEMBLY**  
5mm stranded wire rated at 482°F/250°C. Supplied with 1/4" quick connect and spark plug-type terminals. Max. length, 48 inches. Assembled.

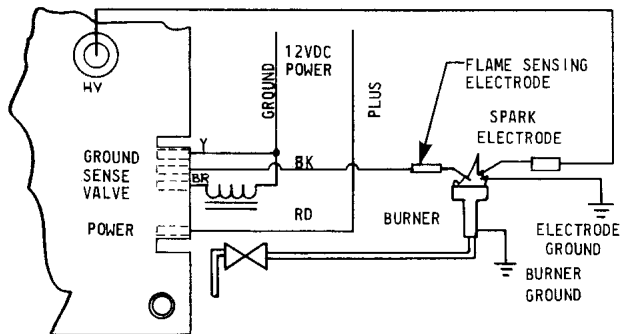
**NOTE:** Specify length of lead wire in last two digits of catalog number.

EX: 05-127328-024 = High Voltage Lead Wire, 24 inches long

**BLOCK DIAGRAM**



**WIRING DIAGRAM**



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"The information herein is to assist customers in determining whether our products are suitable for their applications. We request that customers inspect and test our products before use and satisfy themselves as to contents and suitability. NOTHING HEREIN SHALL CONSTITUTE A WARRANTY, EXPRESS OR IMPLIED, INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE."