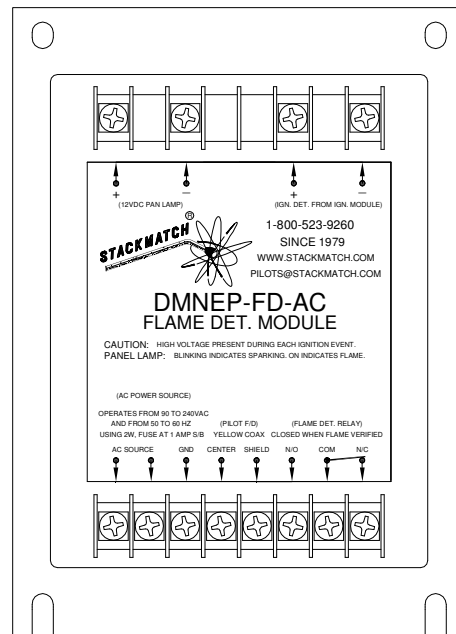
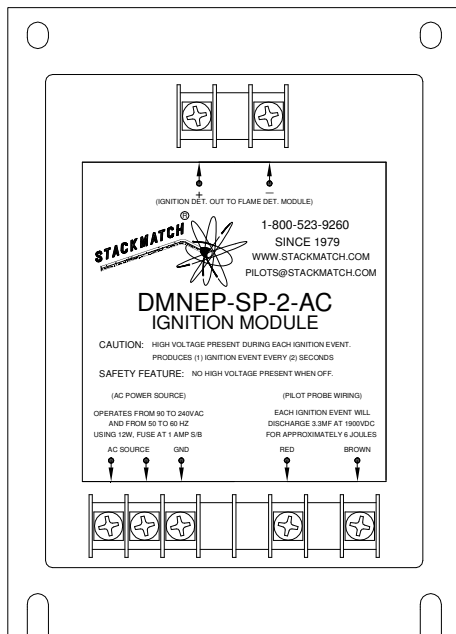


Ignition & Flame Detection Control for Stackmatch® Pilots

Installation and User's Manual

Model: DMNEP-SP-AC & DMNEP-FD-AC Controls



Stackmatch Flare Ignition, Inc.
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Key Features

- Utilizing a non-explosion proof enclosure with high impact ABS plastic and is encapsulated in a completely sealed UL94V-0 rated potting system. Tampering with the module voids the Stackmatch® warranty.
- Capacitive discharge system with solid state switching.
- Lead (Pb) and Mercury (Hg) free electronics.
- Utilizing terminal strip connections for easy installation.
- Flat steel mounting panel for ease of installation into other enclosures.
- Flame Detection Relay (dry contact relay) switch provided for remote monitoring of pilot flame.
- Terminals provided for external panel lamp for indication of pilot ignition events and flame detection.

Module Information

- Extended Range for AC power. Modules will operate properly from 90 to 240 VAC, without any operational changes.
- Automatically produces (1) ignition event every (Customer specified) second, as determined by the type of pilot utilized.
- With a voltmeter, ensure only power range specified is applied to this module. Connection to any other power source may cause irreparable damage and will void the Stackmatch® warranty.
- When the ignition component in the pilot or probe is connected to the ignition module, the spark avalanche clamps the output voltage to approximately 400 to 600VDC as the spark event occurs. This avalanche of current creating the spark will last approximately 50µs duration.
- The module can operate continuously for over 1 year without failure; however, utilizing the DMNEP-SP module for continuous ignition demand will eventually erode the high energy igniter component in the pilot or probe. Use this module only during pilot ignition requirement and terminate the module after the pilot flame is verified.



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Orderable Options DMNEP-SP-AC

Orderable Controls	Spark Rate
DMNEP-SP-2-AC	2 seconds
DMNEP-SP-5-AC	5 seconds
DMNEP-SP-10-AC	10 seconds
*For special Ignition Rates- Please contact Stackmatch.	

Orderable Options DMNEP-FD-AC

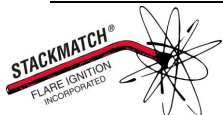
Orderable Controls
DMNEP-FD-AC

Technical Specifications DMNEP-SP-AC

Operating Voltage	90 to 240 VAC
Power Consumption	12 watts
Fuse Requirement	1 amp slo-blow (not provided)
Ignition Output Voltage	1900 volts DC at approximately 6 joules per event
Ignition Discharge Time	1 event every (customer Specified) second lasting approximately 50 μ s
Operational Temperature	(-22°F Min., +185°F Max.) (-30°C Min., +85°C Max.)
Weight	(Approx. 4 Lbs.) (Approx. 1.8Kg)
Dimension Information	See dimensional internal drawing

Technical Specifications DMNEP-FD-AC

Operating Voltage	90 to 240 VAC
Power Consumption	2 watts
Fuse Requirement	1 amp slo-blow (not provided)
Operational Temperature	(-22°F Min., +185°F Max.) (-30°C Min., +85°C Max.)
Ignition LED Relay Contacts	10 amp surge/ 7 amp continuous
Weight	(Approx. 4 Lbs.) (Approx. 1.8Kg)
Dimension Information	See dimensional internal drawing



Installation

The DMNEP'S requires an external enclosure that allows the control to be kept clean and dry; therefore, an instrument air purge is always recommended. All ignition wiring utilized with this module should be Stackmatch® SM-18-I-FD-G. Follow the wiring diagram provided.

Control Operating Instructions

1. With the installation complete, and wiring double-checked, apply AC power to the both DMNEP systems.
2. When the remote ignition switch is applied, ignition events will commence once every (customer specified) seconds causing the panel lamp to blink with each ignition event. Upon pilot ignition the panel lamp will remain lit to indicate flame at the pilot.
3. The remote Ignition switch must be held for no less than (10) seconds and can be terminated immediately upon detection of flame.
4. Upon detection of flame the flame detection relay contacts will change from the steady state to connect between common (C) and normally open (N/O). Upon loss of flame the common (C) will connect with normally closed (N/C) terminal.
5. Do not allow the ignition mode to remain for more than (30) minutes, as damage the control, pilot, or ignition probe may occur.
6. When AC power is off, or during ignition events when no flame is being sensed, the flame detection relay will be positioned as shown on the wiring schematic drawing. Upon loss of flame the common (C) will connect with normally closed (N/C) terminal

Troubleshooting

To test this module for proper operation, the Stackmatch® model PS-01 is required. See Ignition Simulator information enclosed.



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Warranty

Seller warrants only those new products manufactured by Seller against defective workmanship and/or materials, under normal and proper use for a period of twelve (12) months starting from shipment of the product, or after notification that the product is ready to ship, whichever first occurs: provided that this warranty will only be effective if the installation and start-up of the product in question is installed and operated as specified by Seller. Only Seller may modify or alter installation and/or operating instructions and/or start-up procedures of product in question.

Seller's obligation to remedy the product defect shall be limited to repairing or replacing the defective part or parts at the Seller's point of manufacture. No warranty allowance shall be granted for equipment where unauthorized repairs or alterations have been made by Purchaser without Seller's written approval.

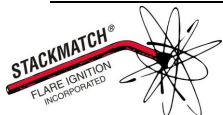
Seller's warranty does not apply to parts requiring replacement because of normal wear and tear, corrosion or erosion, from extreme environmental conditions.

Seller's warranty does not apply to parts requiring replacement because of improper storage prior to initial installation.

This warranty does not apply to products, components, accessories, parts or attachments manufactured by others, said products, components, accessories, parts, or attachments being subject to the actual manufacturer's warranty, if any, which Seller will pass on to Purchaser. Seller does not represent that the components manufactured by others are covered by any warranty whatsoever.

Seller makes no warranty or representation that its products will conform to any federal, state, or local laws, statutes, ordinances, regulations, codes or standards of any type or purpose, unless specifically agreed to in writing as a part of the contract between Purchaser and Seller.

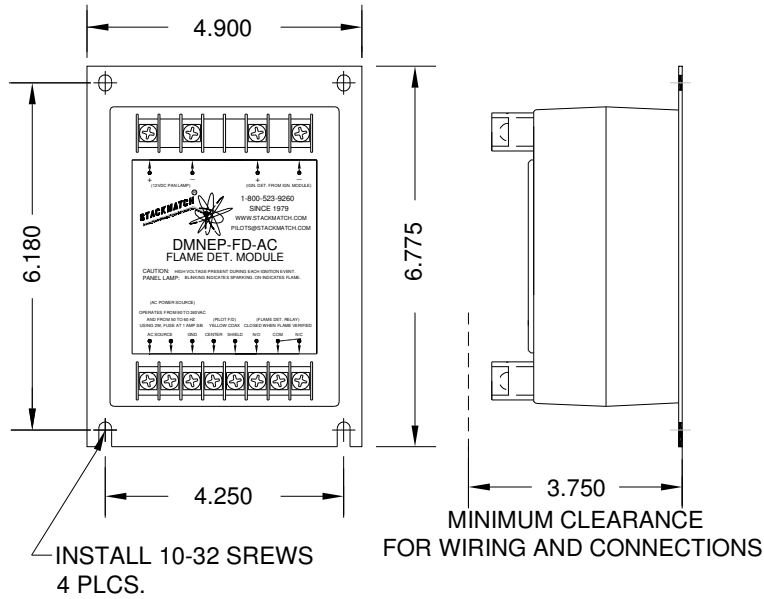
This warranty is in lieu of all other warranties, express or implied, arising by law or otherwise, including warranty of merchantability and liabilities of Seller, including direct, indirect, special and consequential damages or penalties, expressed or implied whether arising out of contract, negligence, and other tort.



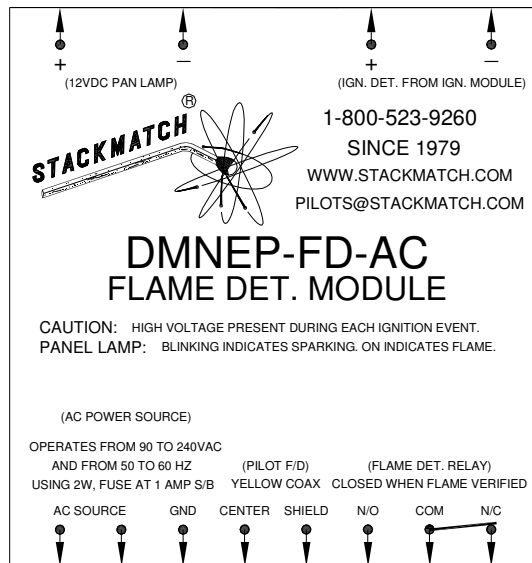
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STACKMATCH DMNEP-FD-AC CONTROL DIMENSIONAL DIAGRAM



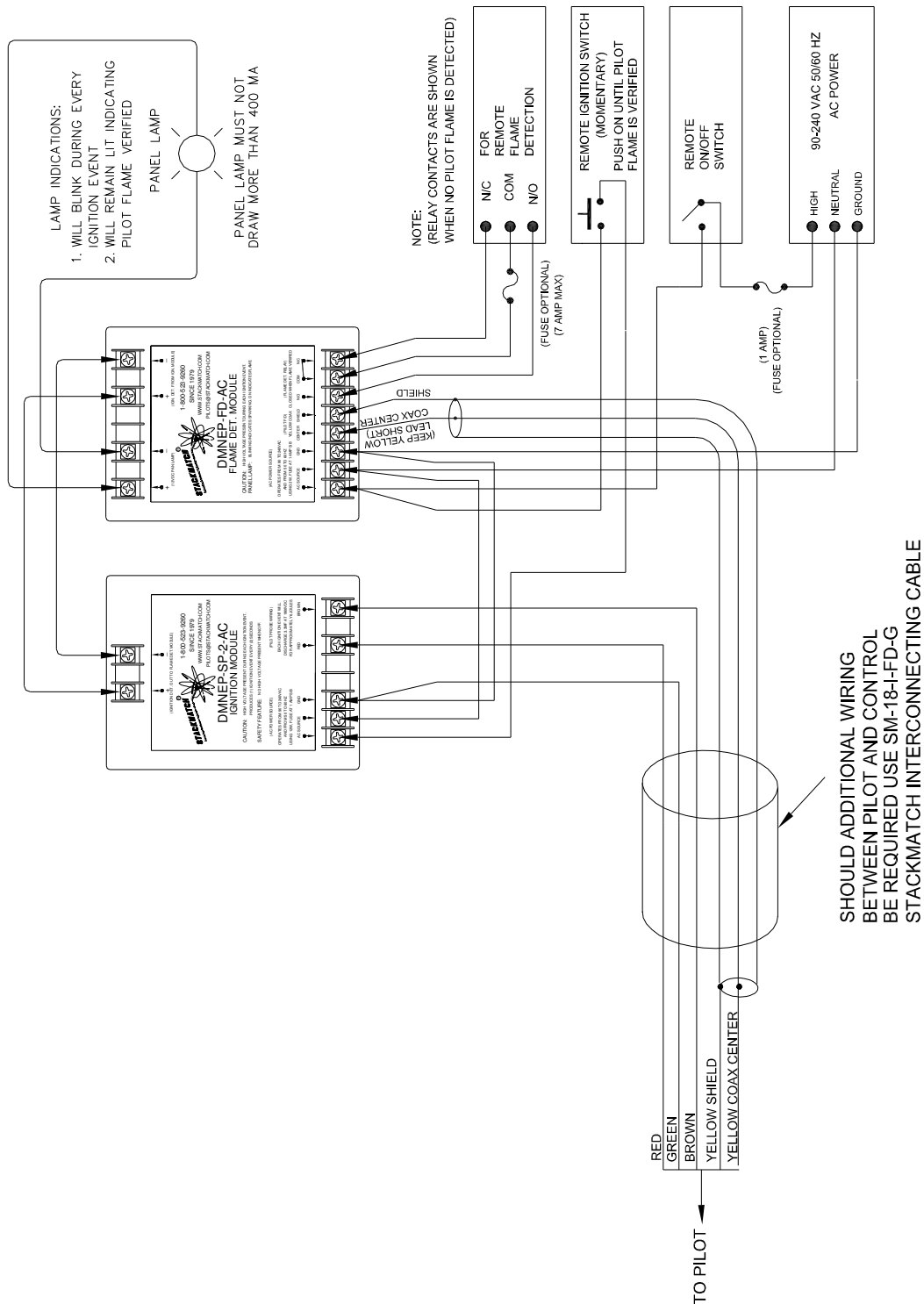
STACKMATCH DMNEP-FD-AC LABEL INFORMATION



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STACKMATCH DMNEP-SP-AC & DMNEP-FD-AC WIRING DIAGRAM



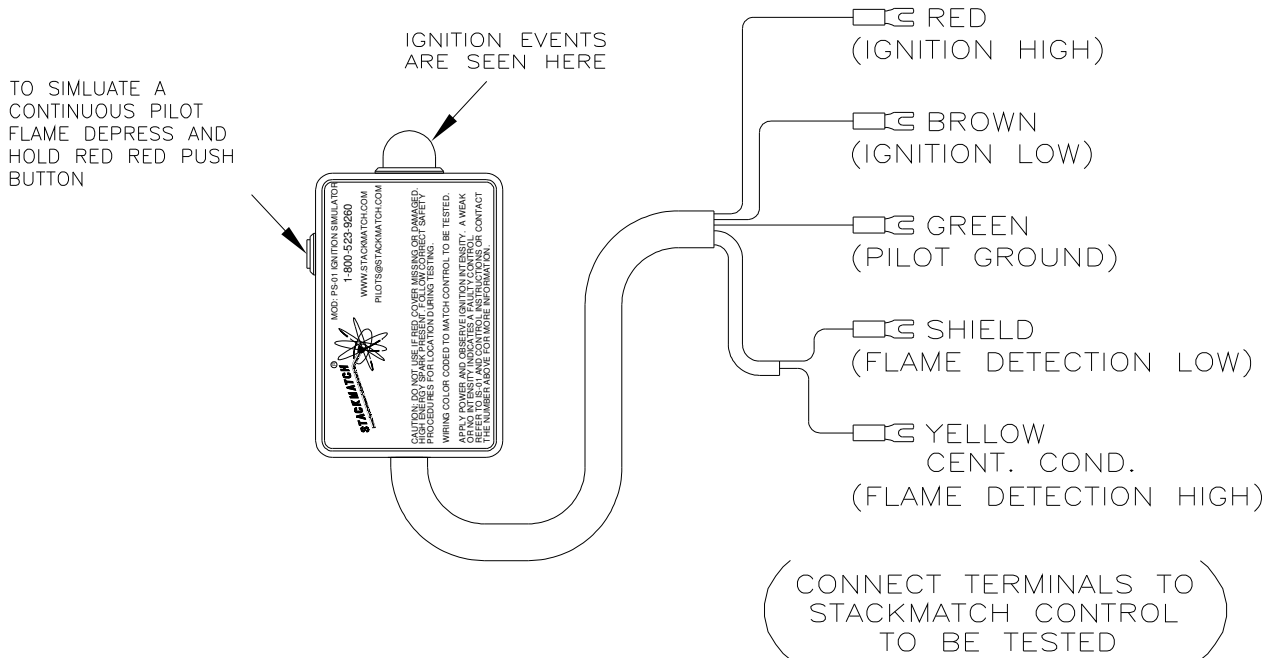
*The Ignition Rate on the picture is for informational use only. See your purchased module for proper ignition rate.



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STACKMATCH PILOT SIMULATOR MODEL (PS-01)



Using an oscilloscope or voltmeter to test the DMNEP Modules is not recommended, as the output voltage can destroy normal test equipment.

The (PS-01) was developed to easily test the functions of any Stackmatch ignition and Flame Detection module.

To install the (PS-01) to any Stackmatch control simply replace the pilot wiring with the (PS-01) wiring which uses the same color coded wiring.

After (PS-01) is installed refer back to normal operating instructions to implement a full diagnostic test.

The (PS-01) is fitted with the same type high energy igniter component employed into every Stackmatch pilot or probe. As each spark occurs, the energy discharged is easily seen through the red cover. Should weak, or no events, be seen, the ignition module is faulty. At this time you are able to check the timing of the ignition event as they occur.

The (PS-01) is also fitted with an internal generator which simulates pilot flame. This generator is engaged when the red push button is depressed.

The (PS-01) is epoxied and has no internal batteries or serviceable parts.



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