

ENERVEX ES 12 RELAY BOX

3001521 08.17

Installation & Operating Manual



READ AND SAVE THESE INSTRUCTIONS!



The ES 12 Relay Box is ETL Listed in the U.S. and Canada: under file #302882A

Symbol Legend

The following terms are used throughout this manual to bring attention to the presence of potential hazards, or to important information concerning the product.



DANGER: Indicates an imminent hazardous situation which, if not avoided, will result in death, serious injury or substantial property damage.



WARNING: Indicates an imminent hazardous situation which, if not avoided, may result in personal injury or property damage.

How to use this manual

This installation manual does not contain any system design documentation. System design documentation is available from any authorized ENERVEX representative. Accessories, fans, and variable frequency drives are not covered by this manual. Please refer to these component's individual manuals.

TO REDUCE THE RISK OF FIRE, ELECTRICAL SHOCK OR INJURY TO PERSONS, OBSERVE THE FOLLOWING:

1. Use this unit in the manner intended by the manufacturer. If you have questions, contact the manufacturer at the address or telephone number listed on the front of the manual.
2. Before servicing or cleaning the unit, switch off at service panel and lock service panel to prevent power from being switched on accidentally.
3. Installation work and electrical wiring must be done by a qualified person(s) in accordance with applicable codes and standards.
4. Follow the appliance manufacturer's guidelines and safety standards such as those published by the National Fire Protection Association (NFPA), and the American Society for Heating, Refrigeration and Air Conditioning Engineers (ASHRAE), and the local code authorities.
5. This unit must be grounded.

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1. PRODUCT INFORMATION**1.1 FUNCTION**

ES 12 is a multiple-appliance control panel that is used to interlock multiple appliances with an ENERVEX Chimney Automation System or a Variable Combustion Air System. The control is used where intermittent operation is required.

Used with a Chimney Automation System, the ES 12 and the EBC 12 will start the chimney fan when one of the connected appliances calls for heat. When sufficient chimney draft has been achieved, the appliance(s) will be released. Should the chimney draft fall below the set-point, all boilers will be disconnected.

If used with a Variable Combustion Air System, the ES 12 and the EBC 12 will start the air supply ventilator when one of the connected appliances calls for heat. When sufficient boiler room pressure has been achieved, the appliance(s) will be released. Should the boiler room pressure fall below the set-point, all boilers will be disconnected.

ON and OFF operation of the appliances can take place independently.

All terminals have a LED for fail-safe supervision and easy troubleshooting.

Through the use of Opto-couplers, each terminal connection will accept 10-120V AC/DC, which makes the control extremely flexible. For example, a boiler with 24V DC control circuit can be connected next to the terminal serving a boiler with 120V AC control circuit without changing any relays.

1.2 SHIPPING

Standard Packing List:

The ES 12 contains the following:

- ES 12 Control Box

If other components are shipped, these will appear on the shipment packing list.

1.3 WARRANTY

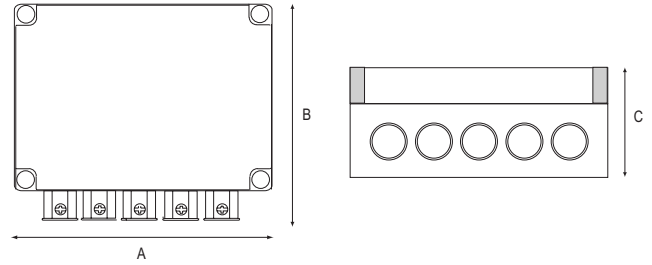
2-Year Factory Warranty. Complete warranty conditions are available from ENERVEX, Inc.

2. SPECIFICATIONS AND DIMENSIONS

2.1 DIMENSIONS AND CAPACITIES

Specifications

ES 12 Relay Box			
Power Supply		V	1x120V AC
Max. Contact Rating			8 Amp @ 230 VAC
Terminal Voltage Range			10-120 VAC DC
Operating Temperature		°F/°C	-4 to 122/-20 to 50
Dimensions	A	in/mm	6.9/175
	B	in/mm	5.6/143
	C	in/mm	3.0/75
Weight		lbs/kg	1.6/0.75



3. MECHANICAL INSTALLATION

3.1 LOCATION

The control must be installed inside, preferably in the boiler room. The control does not need to be installed in an enclosure. For ease of installation, it should be installed close to the EBC 12 control.


3.1 MOUNTING OF CONTROL

The control can be mounted directly on a wall or similar. Remove the clear cover. The mounting holes are located under the plastic screws that hold the cover in place.

4. ELECTRICAL INSTALLATION

4.1 GENERAL

DANGER



Turn off electrical power before servicing.
Contact with live electric components can cause shock or death.



ES 12 is designed for a 1x120 AC power supply only.

4.2 BASIC WIRING OF ES 12 TO EBC 12

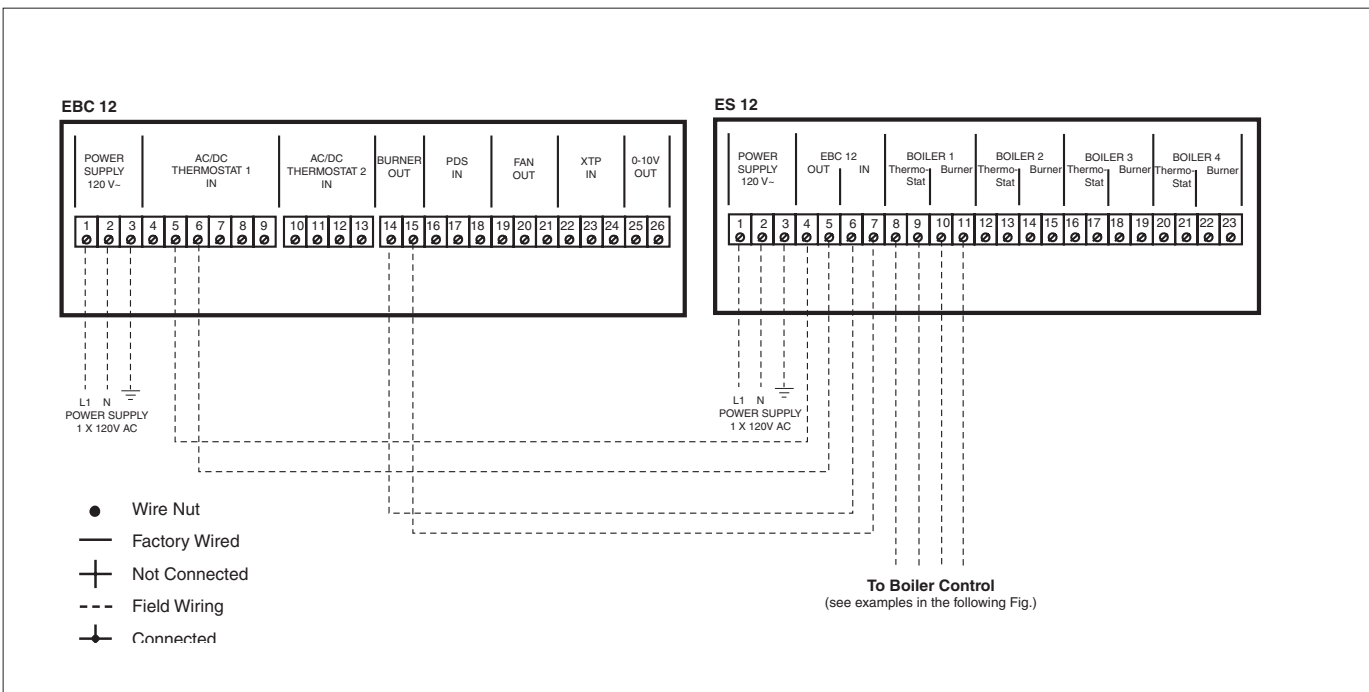


Fig 1

4.3 BASIC WIRING OF ES 12 TO BOILER

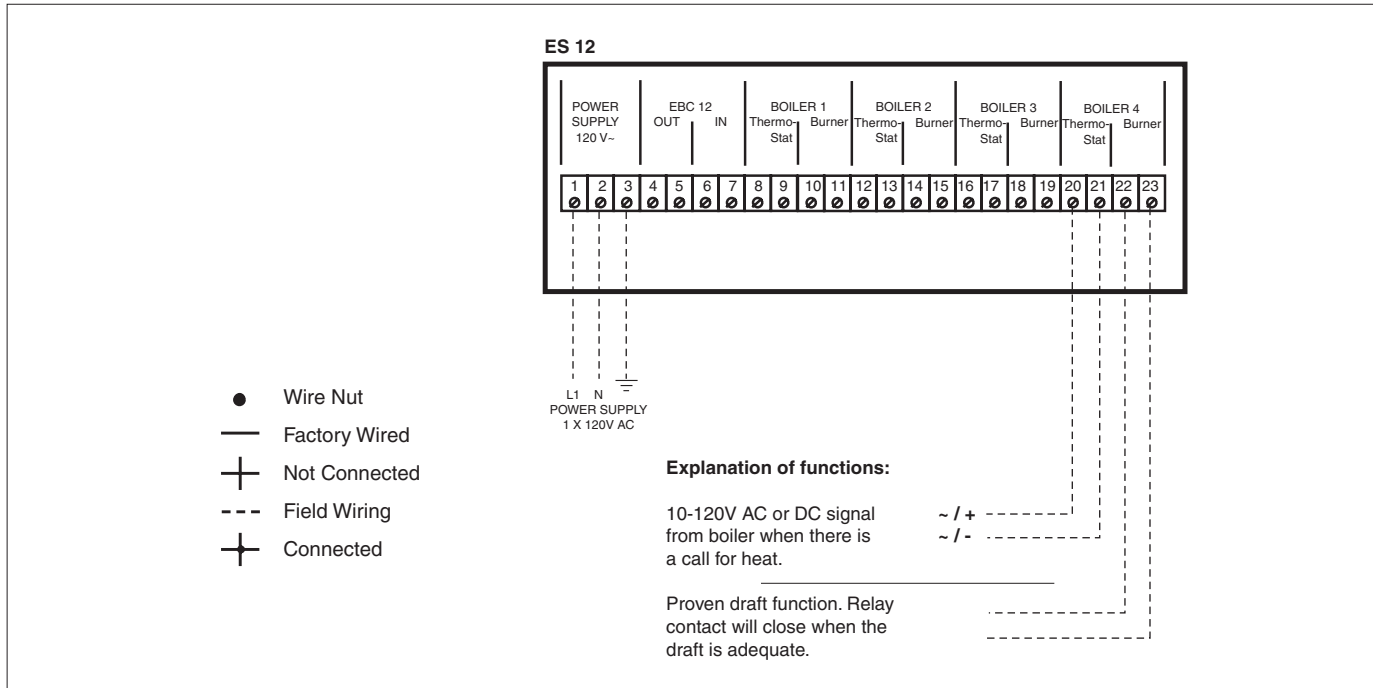


Fig 2

4.4 EXAMPLE OF WIRING AN ES 12 TO A BOILER

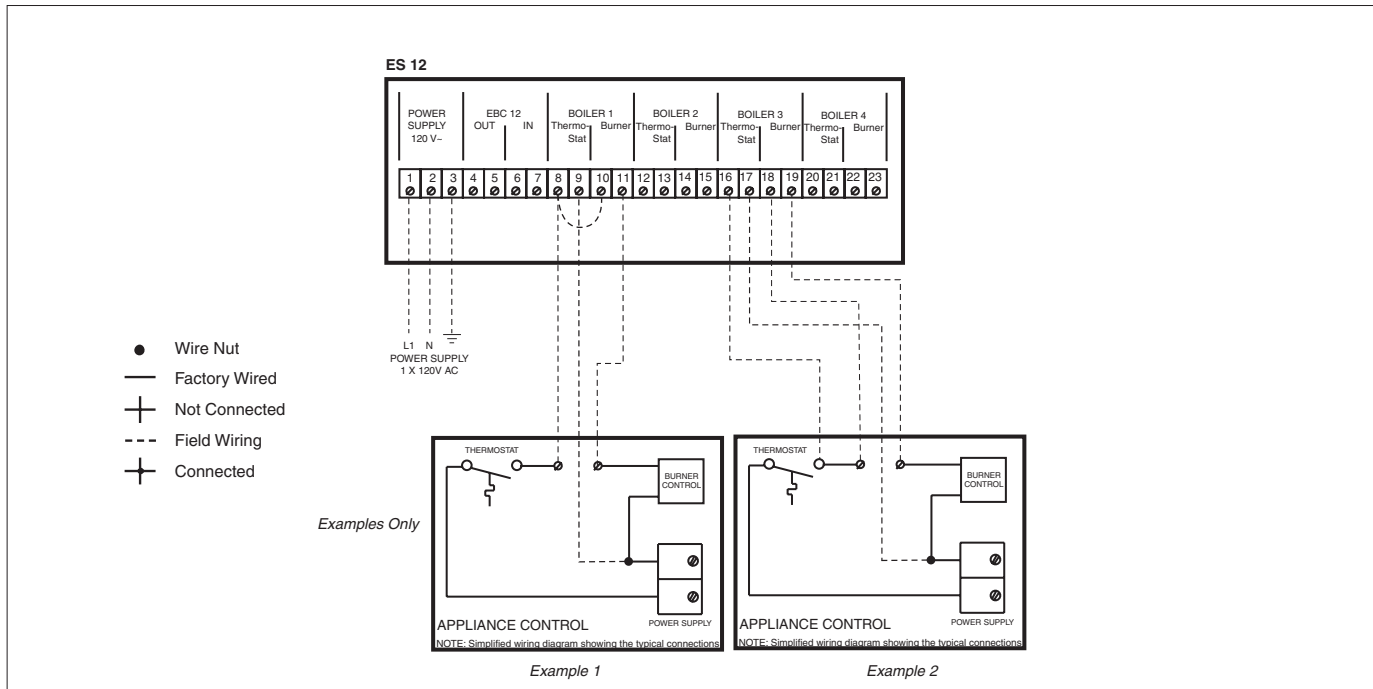


Fig 3

ENERVEX Inc.
1685 Bluegrass Lakes
Parkway
Alpharetta, GA 30004
USA

P: 770.587.3238
F: 770.587.4731
T: 800.255.2923
info@enervex.com
www.enervex.com

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