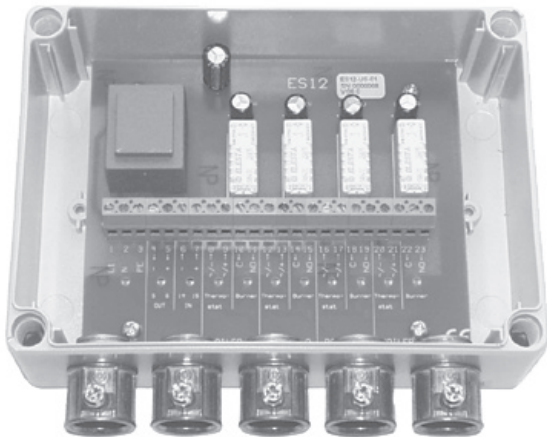







ES12 relay box



READ AND SAVE THESE INSTRUCTIONS!

-  **Product information** Chapters 1 + 2
-  **Mechanical installation** Chapter 3
-  **Electrical installation** Chapter 4
-  **Start up and configuration** Chapter 5
-  **Maintenance and troubleshooting** Chapter 6

USA

CAN

Job name: _____

Installer: _____

Installation date: _____

Distributor contact information:
ENERVEX Inc. • T: 800.255.2923
info@enervex.com • www.enervex.com



Contents

1. Product information	
1.1 Function	3
1.2 Shipping	3
1.3 Warranty	3
2. Specifications	
2.1 Dimensions and capacities	4
3. Mechanical installation	
3.1 Location	4
3.2 Mounting of control	4
4. Electrical installation	
4.1 General	5
4.2 Basic wiring of ES12 to EBC12	5
4.3 Basic wiring of ES12 to boiler	5
4.4 Example of wiring an ES12 to a boiler	6
Notes	7

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.



CAUTION

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



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's distributor 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.

How to use this manual

This installation manual does not contain any system design documentation. System design documentation is available from ENERVEX.

Accessories and variable frequency drives are not covered by this manual. Please refer to these component's individual manuals.

1. Product information

1.1 Function

Use

ES12 is a multiple-appliance control panel that is used to interlock multiple appliances with an **exodraft** 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 ES12 and the EBC12 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 ES12 and the EBC12 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 10-120 V AC/DC, which makes the control extremely flexible. For example, a boiler with 24 V DC control circuit can be connected next to the terminal serving a boiler with 120 V AC control circuit without changing any relays.

Listings

exodraft's ES12 is tested and listed to the Standard for Industrial Control Equipment, UL Standard 508 and CSA C22.2 No. 14-10.

1.2 Shipping

Standard Packing List

The ES12 contains the following:

- ES12 control box

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

1.3 Warranty

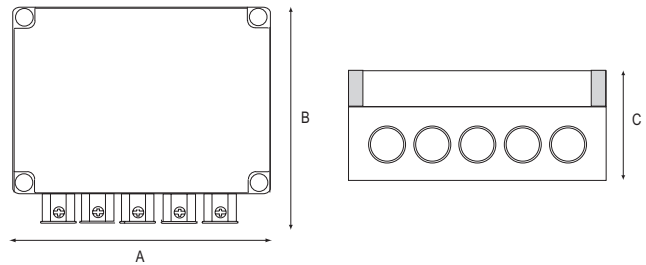
Complete warranty conditions are available from ENERVEX.

2. Specifications

4

2.1 Dimensions and capacities

exodraft ES12 relay box		
Power Supply	V	1 x 120 V 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.

3.2 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.



ES12 is designed for 1 x 120 V AC power supply only.

4.2 Basic wiring of ES12 to EBC12

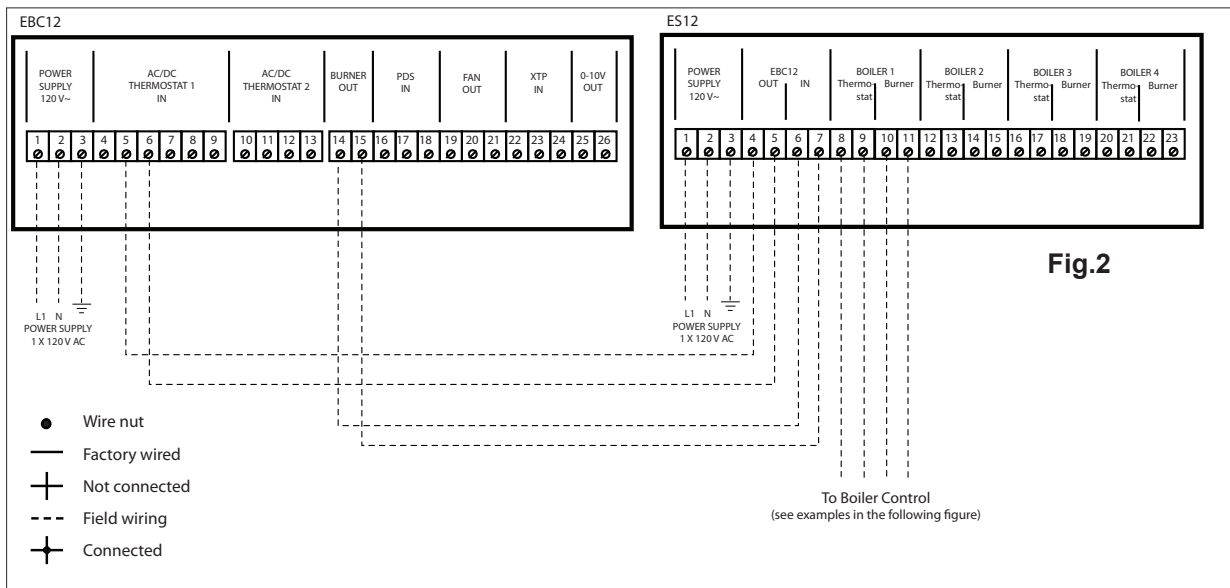


Fig. 1

4.3 Basic wiring of ES12 to boiler

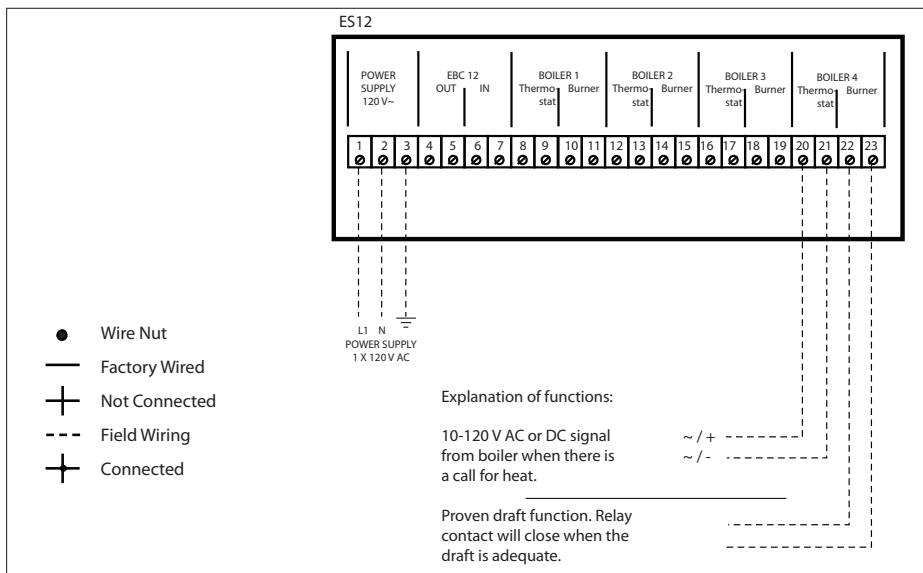
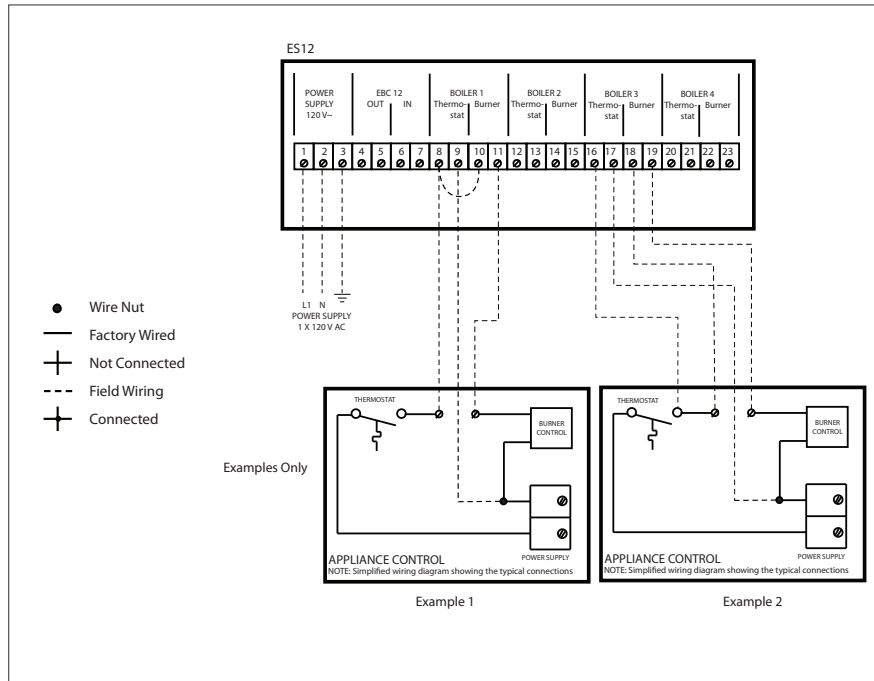


Fig.3

4.4 Example of wiring an ES12 to a boiler



Distributor in USA & Canada



ENERVEX Inc.
1685 Bluegrass Lake Parkway
Alpharetta
GA 30004

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