EBC 30LE
Draft Safety Monitor

USA

CAN

ⓘ *Product Information* .... *Chapter 1 + 2*

⚙ *Mechanical Installation* .... *Chapter 3*

⚡ *Electrical Installation* .... *Chapter 4*

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Job Name: _____

Installer: _____

Installation Date: _____

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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 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 Associations (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 any authorized EXHAUSTO representative.

Accessories, fans 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 The EBC 30LE is a true PID-based draft controller that is used to monitor the draft in a venting system and a pressure inside a mechanical room.

The intended use of the control includes, but is not limited to:

- Monitoring combustion air supply.
- Monitoring the draft in a venting system serving individual or multiple heating appliance systems.
- Monitoring the duct pressure in dryer venting systems.

The EBC 30LE can simultaneously monitor a venting system and a combustion air supply system whether this is based on gravity or mechanical exhaust/supply. Any two of these can be monitored simultaneously or they can be monitored individually.

The unit features "Plug-and-Play" that automatically monitors all terminals and registers components attached to the control during initial start-up. It comes pre-programmed from the factory, but can be further programmed in the field, if needed.

The control has an integrated safety system that assures the heating appliance is shut down in case of draft failure or control failure. A unique Priority Operation function will probe the operating conditions and allow as many appliances to operate provided the operation is considered safe by the integrated safety system. It has six (6) heating appliance interlock circuits as standard but can be expanded in multiples of four (4) with the use of an additional relay board or the ES 12, Relay Control.

The control can be operated with either a manual reset function (reset button) or an automatic reset function. A self-diagnostics panel with LED's monitors all connection terminals for easy service and troubleshooting. Provided the integrated safety system is satisfied, interlocked heating appliances are allowed to operate.

The EBC 30LE control is based on a micro-processor. It is designed to allow for installation of future software upgrades. It can also be upgraded to a fully functioning EBC 30 Pressure Controller.

Listings EXHAUSTO's EBC 30LE is tested and listed to the Standard for Industrial Control Equipment, UL Standard 508, 16th Ed. and CSA C22.2 No. 14-95 as well as UL378, Standard for Draft Equipment.

1.2 Shipping

The EBC 30LE contains the following:

- EBC 30LE control unit
- Silicone tubing
- Relay board (optional)
- Stack probe
- Pressure transducer (XTP)
- User manual

1.3 Warranty

Complete warranty conditions are available from EXHAUSTO, Inc.

EBC 30LE Control Components

The EBC 30LE control is built up around a main board that monitors all basic functions. In addition a relay board, is available for special functions. The main board monitors draft/exhaust and air supply/intake functions. It has an integrated Proven Draft Switch (PDS) function. An external PDS is therefore not required.

The main board layout is shown below in Fig. 1:

Fig. 1

Main Board

1. Mainboard
2. Not used
3. Terminals
4. Fuse protection for mainboard
5. Quick-connect socket to keypad and display
6. Quick-connect socket to add-on board
7. Operating status indicators
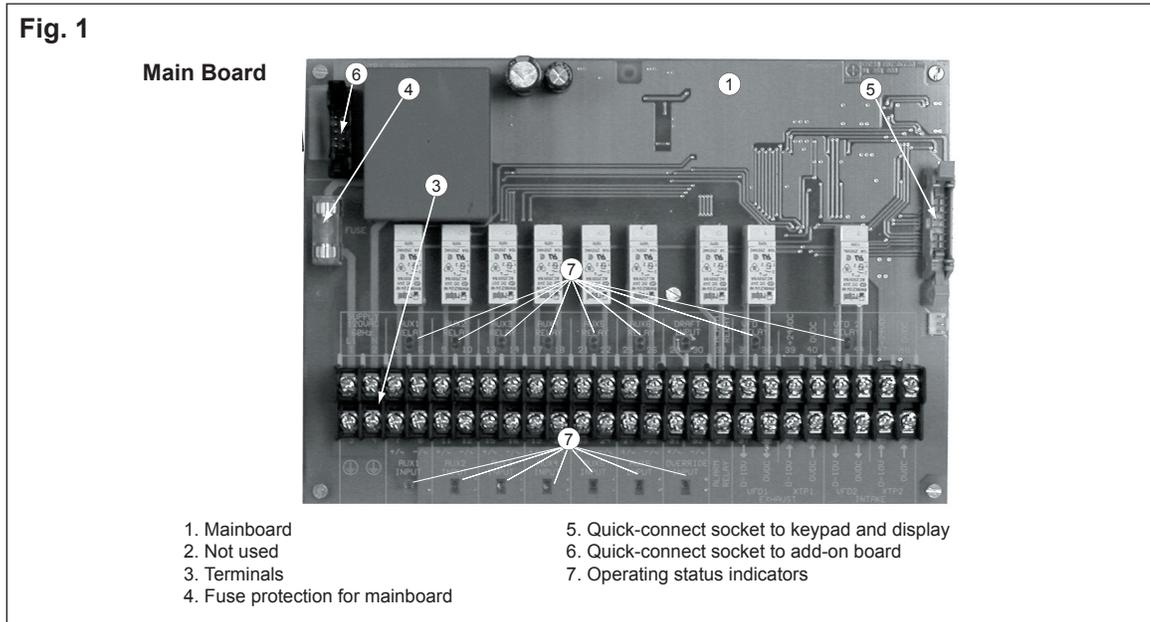
A Relay Board is available for applications with more than 6 appliances. The layouts for the Relay Boards is shown below in Fig. 2:

Fig. 2

Relay Board

1. Terminals
4. Quick-connect plug
5. Operating status indicators

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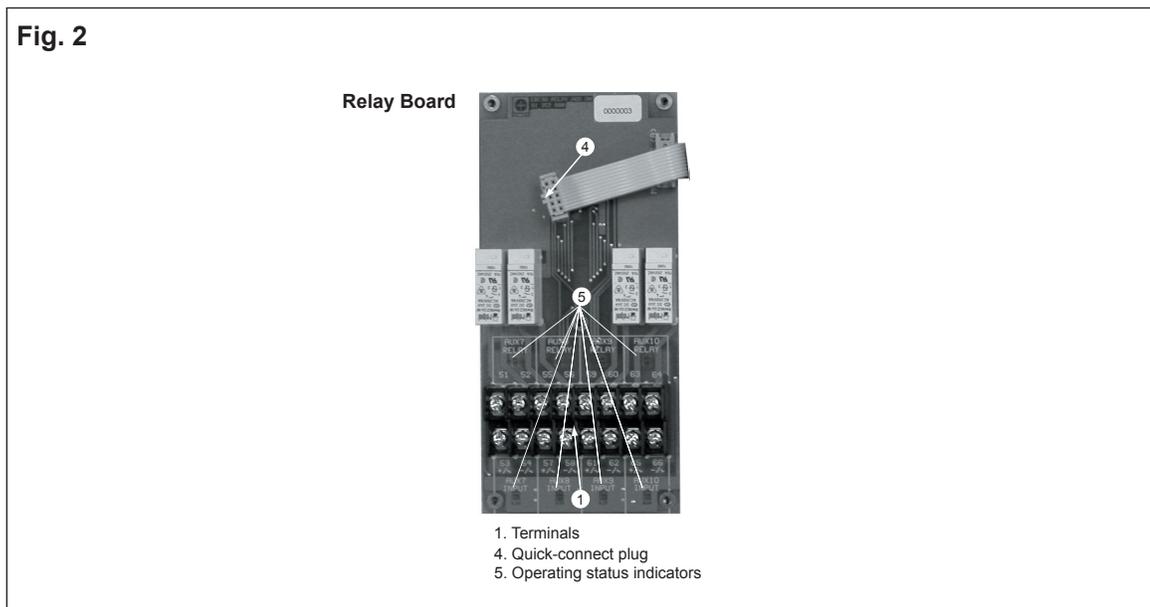
ⓘ 2. Specifications

2.1 Dimensions & Capacities

EBC 30LE Control		
Power Supply	V	1x120VAC
Amperage	A	6.3
Operating Temperature	°F/°C	-4 to 104/-20 to 50
Range of Operation	inWC/Pa	0-0.6/0-150
Tolerance	inWC/Pa	0.01/3 +/-10%
Control Signal	mA	max. 10
Control Relay		Max. 120 VAC/8A
Output	VAC	10-120
	VDC	0-10
Dimensions	A in/mm	14.65/372
	B in/mm	11.03/280
	C in/mm	4.22/107
Weight	lbs/kg	8.9/4.0
EMC Standard	Emission	EN 50 081-1
	Immunity	EN 50 082-2
XTP Sensor		
Power Supply	VDC	0-24
Amperage	mA	<20
Output	VDC	0-10
Operating Temperature	°F/°C	-4 to 115/-20 to 60
Tolerance	inWC/Pa	0.01/3 +/-10%
Dimensions	D in/mm	4.7/120
	E in/mm	3.7/95
	F in/mm	5.3/134
	G in/mm	3.9/100
Weight	lbs/kg	.9/.4
Chimney Probe		
Dimensions	H in/mm	4.25/108
	I in/mm	3.50/89
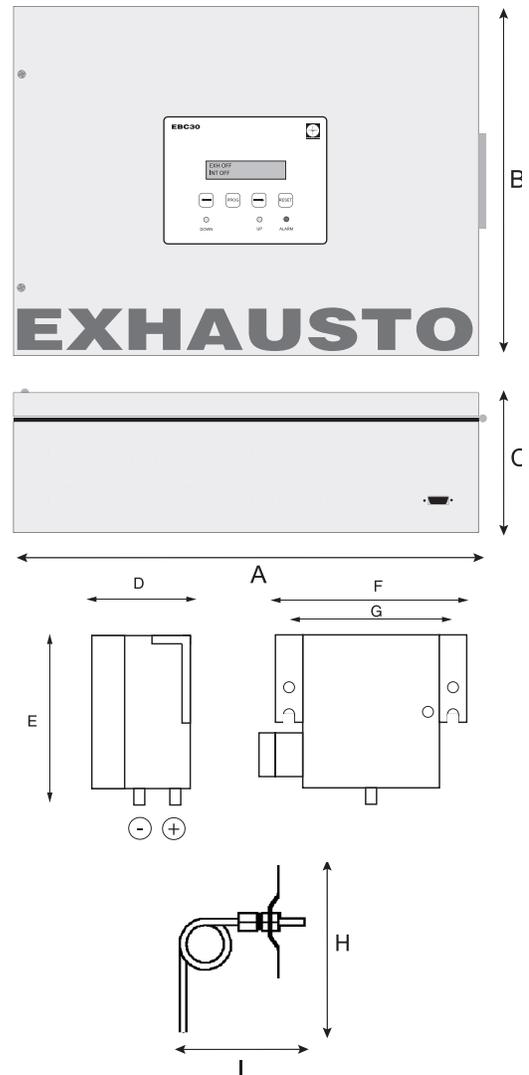
⚙ 3. Mechanical Installation

3.1 Location

The control and the transducer must be installed inside, preferably in the mechanical room (boiler room). The control does not need to be installed in an enclosure. Fig. 3 shows how the components are connected.

⚠ **The transducer cannot be mounted inside an airtight enclosure.**
It uses the boiler room pressure as reference pressure.

Fig. 3

Controller

Outdoor
Pressure Sensor

Silicone tube
or copper tube
Max. 50 feet (13 m)

Control wire
Max. 300 feet (100 m)

and / or

XTP-Sensor
exhaust

Stack Probe

Control wire
Max. 300 feet (100 m)

Silicone tube
or copper tube
Max. 6 feet (2 m)
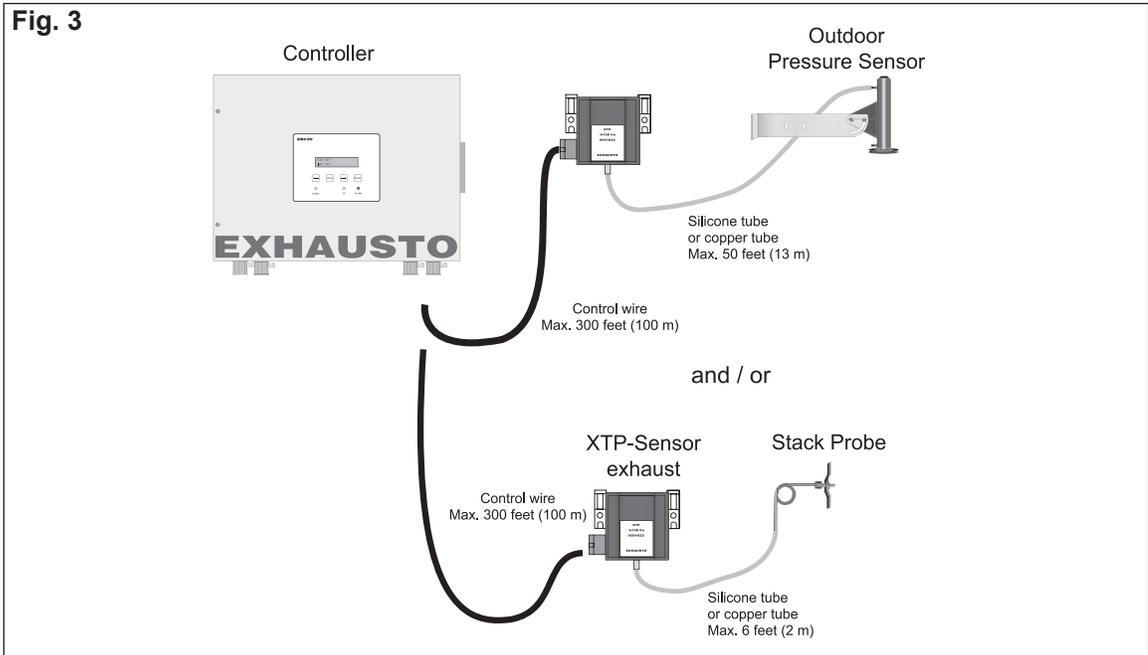
3.2 Mounting of Control

The control can be mounted directly on a wall or similar. The mounting holes are located inside the control as shown in Fig. 4. The distance between the control and the transducer should not exceed three hundred (300) feet.

Fig. 4

Mounting holes

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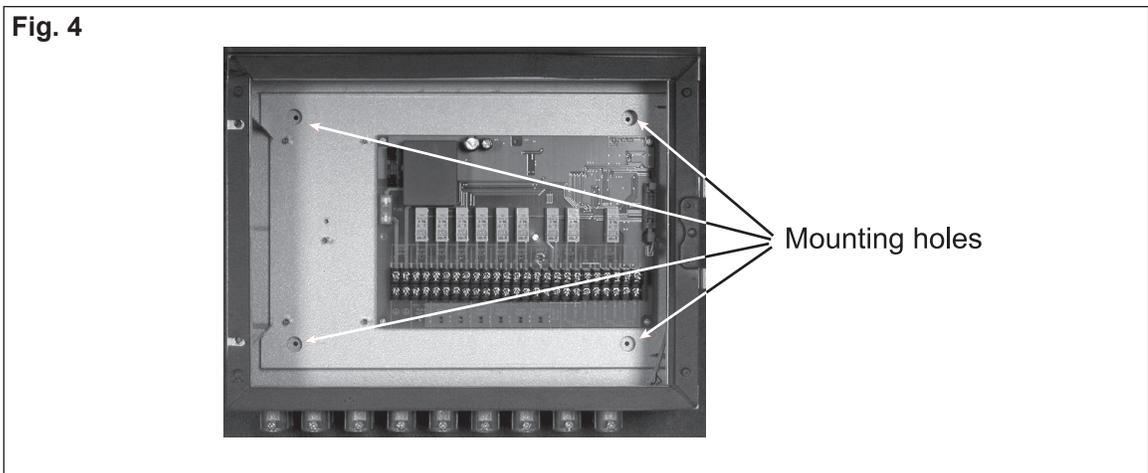
3.3 Mounting of Transducer

Attention must be paid to the position and location of the transducer. Fig. 5 shows the required position.
Failure to follow this instruction may result in an inoperable system.
An XTP-sensor used for sensing draft should be mounted within six (6) feet of the stack probe.
An XTP-sensor used for sensing room pressure should be mounted within fifty (50) feet of the Outdoor Pressure Probe.

Fig. 5
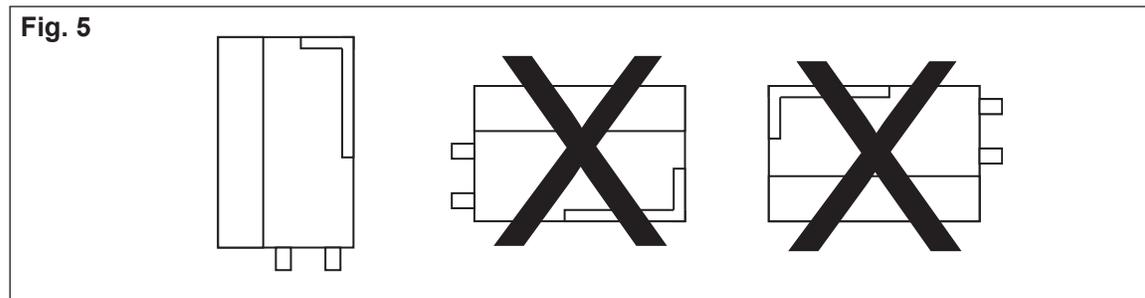
3.4 Installation of Stack Probe (if applicable)

The probe (page 5) is inserted into the chimney or stack at the point where the draft should be kept constant. This could be at the appliance outlet, in the vent or similar. Use a 1/2" drill bit to drill a hole in the side of the chimney for the probe. Acceptable positions are shown below.

Fig. 6

If possible, the distance "A" should be equal to 3 times
the diameter of the chimney. This will improve accuracy.
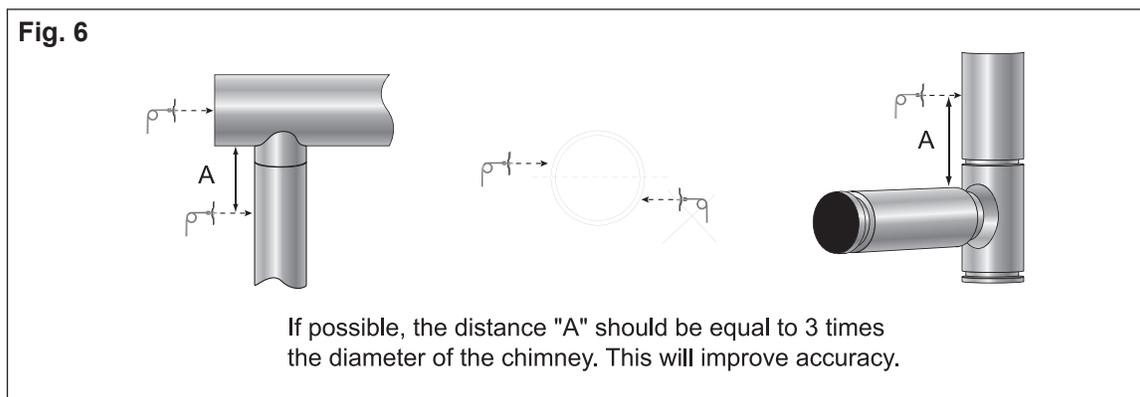
Connect the stack probe to the transducer using the silicone tube. Make sure the tube is connected to the proper transducer port as show in Fig. 7.

Fig. 7

XTP-Sensor
exhaust

Stack Probe

XTP
1-150 Pa
0501022

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Fitting (-)
Connect tubing for
stack probe here
Fitting (+)
Leave open for
room pressure

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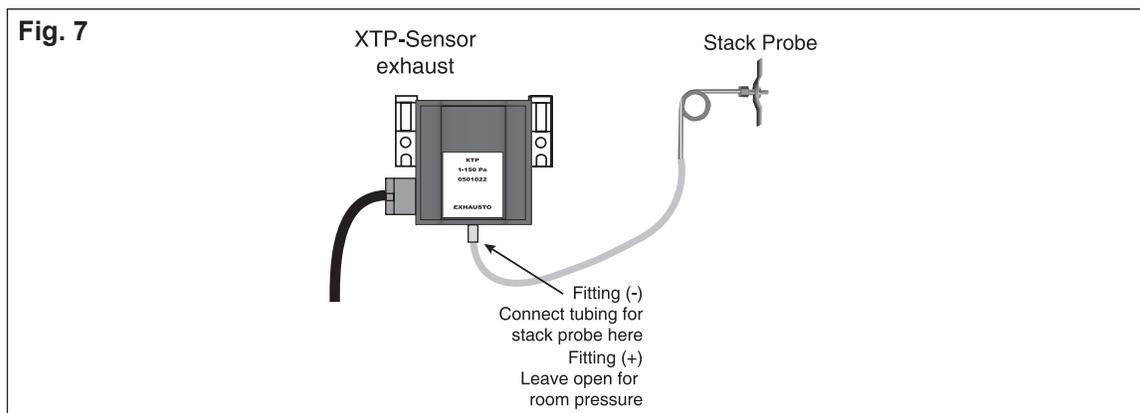
3.5 Installation of Outdoor Pressure Probe (if applicable)

Select a mounting location as free as possible from rooftop obstructions. The choice of location should also consider routing of silicone tubing into the building to minimize tubing run on the roof.

Install the probe on an existing structure like a pole, radio or TV antenna mast. Alternately, the "L" shaped bracket can be attached directly to any wall or rooftop.

It is recommended that the full length of tubing (50 feet) be used. Excess tubing should be coiled at some convenient location rather than be cut off. Longer lengths are available.

⚠️ **Obstructions such as trees, chimneys, signs and buildings can cause turbulence, which result in abnormal and thus inaccurate static pressure. Position the probe as far from the sources of turbulence as possible.**

The XTP sensor is connected to the outdoor pressure probe as shown below in Fig. 8.

Fig. 8

XTP-Sensor intake

Outdoor Pressure Sensor

XTP
1-190 Pa
0501022

EXHAUSTO

Fitting (+)
Connect tubing for outdoor pressure sensor here

Fitting (-)
Leave open for room pressure

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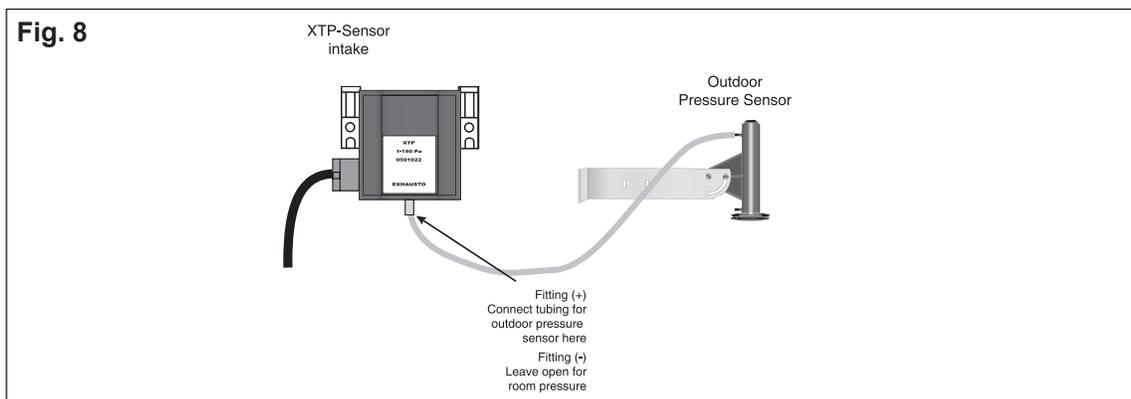
⚡ 4. Electrical Installation

4.1 General

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

⚠️ **EBC 30LE is designed for 1x120VAC power supply only.**

The terminals are connected as shown (for additional information go to 5.1):

Terminal	Use
1	Power Supply-L1 (Phase)
2	Power Supply-N (Neutral)
3, 4	Ground
5, 6	AUX1 Dry Contact (Normally Open) Output to Appliance 1 (0-250V, 8A)
7	AUX1 Input - Boiler 1 Thermostat Input 10-250VAC/DC (Load, Pos.)
8	AUX1 Input - Boiler 1 Thermostat Input (Common, Neg.)
9, 10	AUX2 Dry Contact (Normally Open) Output to Appliance 2 (0-250V, 8A)
11	AUX2 Input - Boiler 2 Thermostat Input 10-250VAC/DC (Load, Pos.)
12	AUX2 Input - Boiler 2 Thermostat Input (Common, Neg.)
13, 14	AUX3 Dry Contact (Normally Open) Output to Appliance 3 (0-250V, 8A)
15	AUX3 input - Boiler 3 Thermostat Input 10-250VAC/DC (Load, Pos.)
16	AUX3 Input - Boiler 3 Thermostat Input (Common, Neg.)
17, 18	AUX4 Dry Contact (Normally Open) Output to Appliance 4 (0-250V, 8A)
19	AUX4 Input - Boiler 4 Thermostat Input 10-250VAC/DC (Load, Pos.)
20	AUX4 Input - Boiler 4 Thermostat Input (Common, Neg.)
21, 22	AUX5 Dry Contact (Normally Open) Output to Appliance 5 (0-250V, 8A)
23	AUX5 Input - Boiler 5 Thermostat Input 10-250VAC/DC (Load, Pos.)
24	AUX5 Input - Boiler 5 Thermostat Input (Common, Neg.)
25,26	AUX6 Dry Contact (Normally Open) Output to Appliance 6 (0-250V, 8A)
27	AUX6 Input - Boiler 6 Thermostat Input 10-250VAC/DC (Load, Pos.)
28	AUX6 Input - Boiler 6 Thermostat Input (Common, Neg.)
29	Draft Input - Supply to EXTERNAL switch (24 VDC)
30	Draft Input - Return from EXTERNAL switch (24 VDC)
31	Override Input - (positive) - 0-250VAC/DC
32	Override Input - (common)
33, 34	Alarm Relay - Dry Contact (Normally Open) Close on Alarm Condition, (0-250VAC, 8A)
35, 36	Not in use
37	Not in use
38	Not in use
39	Power Supply to Exhaust Transducer (positive) - 24VDC
40, 42	Output to Exhaust Transducer - (common)
41	Input from Exhaust Transducer - (positive) 0-10V
43, 44	Not in use
45	Not in use
46	Not in use
47	Power Supply to Intake Transducer (positive) - 24VDC
48, 50	Output to Intake Transducer - (common)
49	Output to Intake Transducer - (positive) 0-10V

Fig. 9
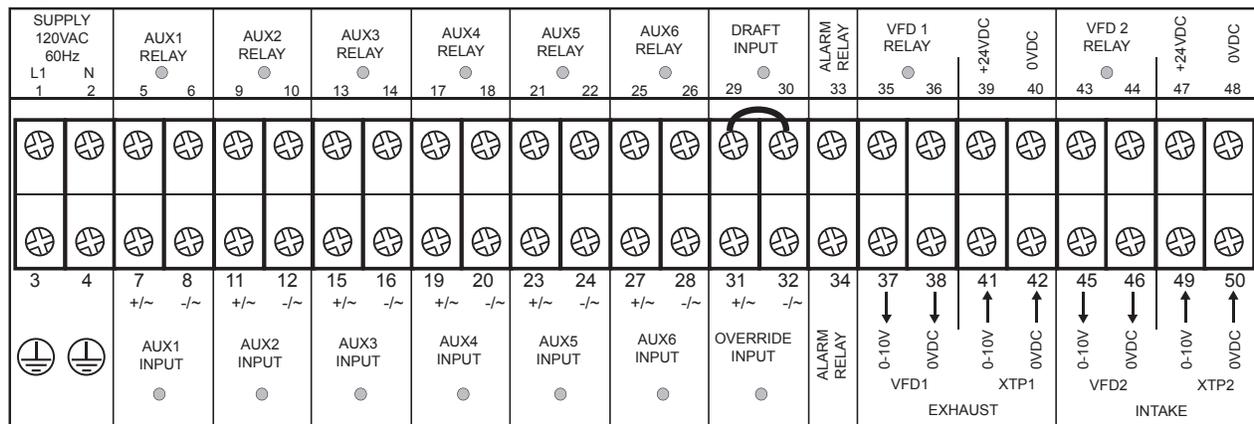
4.2 Relay Board Connections

If the optional Relay Board is used, the control can handle up to 10 appliances.
Connect the multi plug from the add-on board to the mainboard as show below in Fig. 10.

Fig. 10
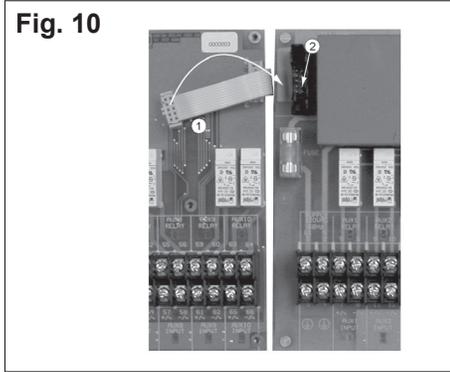
Connect the terminals as needed. The terminal layout is shown in Fig. 11:

Fig. 11
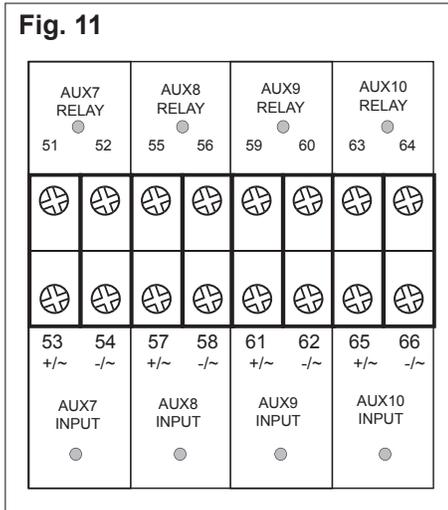
Terminal	Use
51, 52	AUX7 Dry Contact (Normally Open) Output to Appliance 7 (0-250V, 8A)
53	AUX7 input - Boiler 7 Thermostat Input 10-250VAC/DC (Load, Pos.)
54	AUX7 input - Boiler 7 Thermostat Input (Common, Neg.)
55, 56	AUX8 Dry Contact (Normally Open) Output to Appliance 8 (0-250V, 8A)
57	AUX8 input - Boiler 8 Thermostat Input 10-250VAC/DC (Load, Pos.)
58	AUX8 input - Boiler 8 Thermostat Input (Common, Neg.)
59, 60	AUX9 Dry Contact (Normally Open) Output to Appliance 9 (0-250V, 8A)
61	AUX9 input - Boiler 9 Thermostat input 10-250VAC/DC (Load, Pos.)
62	AUX9 input - Boiler 9 Thermostat Input (Common, Neg.)
63, 64	AUX1 Dry Contact (Normally Open) Output to Appliance 10 (0-250V, 8A)
65	AUX10 input - Boiler 10 Thermostat Input 10-250VAC/DC (Load, Pos.)
66	AUX10 input - Boiler 10 Thermostat Input (Common, Neg.)

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4.3 Wiring of XTP Sensor

The XTP sensor is wired as shown below. The wiring to the XTP sensor is always the same, while the wiring on the EBC 30LE control depends on whether it is to be wired for exhaust or intake operation:

Fig. 12
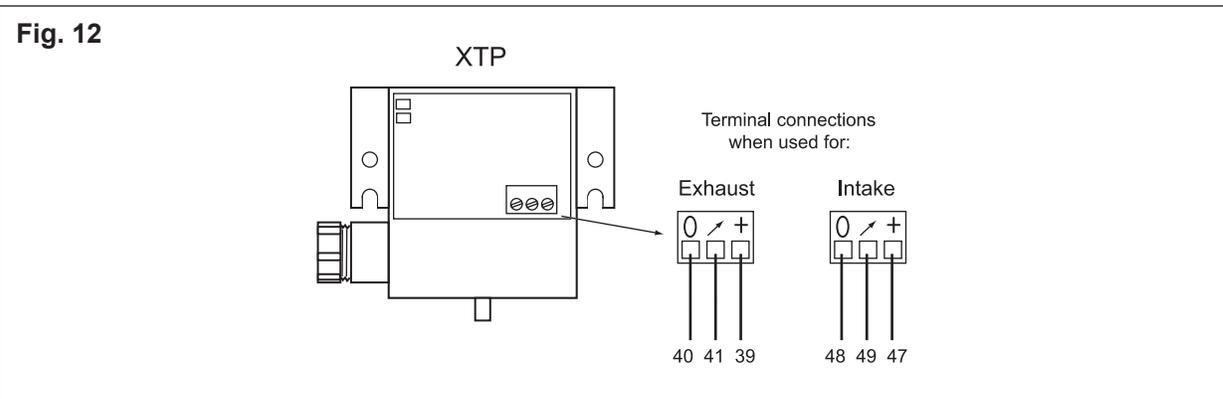
4.4 Wiring of the control for Priority Operation

The control features Priority Operation, which is used in case of a power failure, chimney blockage or other failure of the venting system or combustion air supply system. The feature will automatically evaluate if one or more appliance(s) can operate safely without maximum draft. This function is constantly monitored by the PDS function and only if the min. draft point is satisfied, will operation be allowed.

On a call for heat, the control will first probe the appliance connected to the AUX1 Input AUX1 Relay terminals, secondly the appliance connected to the AUX2 Input/AUX2 Relay terminals and so on.

Therefore the wiring should take the operating priority into consideration.

List appliance priority here:

Priority	Appliance Type or Number	Connects to terminals
1		AUX1 - Input/Relay
2		AUX2 - Input/Relay
3		AUX3 - Input/Relay
4		AUX4 - Input/Relay
5		AUX5 - Input/Relay
6		AUX6 - Input/Relay

5. Startup and Configuration

5.1 Sequence of Operation

The EBC30LE initializes when 120VAC power is supplied. It checks for the presence of integrated components such as add-on boards and pressure sensors.

- The Software version is displayed on the LED screen
- Control checks for intake and exhaust application by sensing current drawn by an Intake or Exhaust XTP properly connected. It then displays Found or Not Found for Exhaust and Intake modes
- Control checks for any add-on modules and displays Relay Found or Nothing Found.
- EBC30LE system application is displayed as Intake Only, Exhaust Only, or Intake and Exhaust

Intermittent Operation

In Intermittent Operation, both AUX Input and AUX RELAY connections are made between each appliance and the EBC30. This allows the Control to start and stop the fan when an appliance is attempting to fire, and to prevent the appliances from operating if proper draft is not met.

- The EBC30LE initiates pressure control when a voltage signal from any of the six appliances is sensed at the AUX INPUT terminals. No electrical path connects the AUX INPUT terminals so no current passes between them. The LED between the AUX INPUT terminals lights when a call for heat voltage is sensed.
- The XTP pressure transducers sense the draft between the exhaust stack and the room or between the outside air and the room and send a 0-10VDC signal back to the XTP1 (exhaust) or XTP2 (intake) terminals.
- The current pressure reading is displayed on the EBC30LE. It displays INT or EXH then the pressure reading or both if the application is Intake and Exhaust.
- The DRAFT INPUT terminals must be closed by an external Proven Draft Switch or by a manually installed jumper before any appliances are allowed to operate.
- The AUX RELAY contacts will close only for the appliances that are calling for heat when Draft Set Point pressure is met and DRAFT INPUT is closed. When the AUX RELAY closes, the LED between the terminals will light and the appliance will be permitted to operate normally.
- The EBC30LE will individually close the AUX RELAY contacts for other appliances as they call for heat via their AUX INPUT connections while proper draft is maintained.
- The AUX RELAY contacts will open for individual appliances if their AUX INPUT voltage is lost or open all AUX RELAYS is the draft is not met or if no appliance calls for heat.

If the EBC30LE draft reading is out of acceptable range (40% deviation) for 15 seconds, the control will go into Alarm status and open all of the AUX RELAY contacts that shut down the appliances. When draft is met again, it will function as stated above.

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5.2 Pre-Operation Inspection

After mounting and wiring has been completed, check the control for the following items before applying power:

- Check for wiring errors.
- Verify that there are no wiring chips, screws, etc. remaining inside the controller.
- Check that all screws and terminal connections are tight.
- Verify that no exposed wire ends are touching other terminals.

5.3 Key Panel Identification and Operation

When AC power is applied to the control, the keypad panel display will show the following:

Fig. 13

EBC30

EXH OFF
INT OFF

← PROG → RESET

○ DOWN   ○ UP   ● ALARM
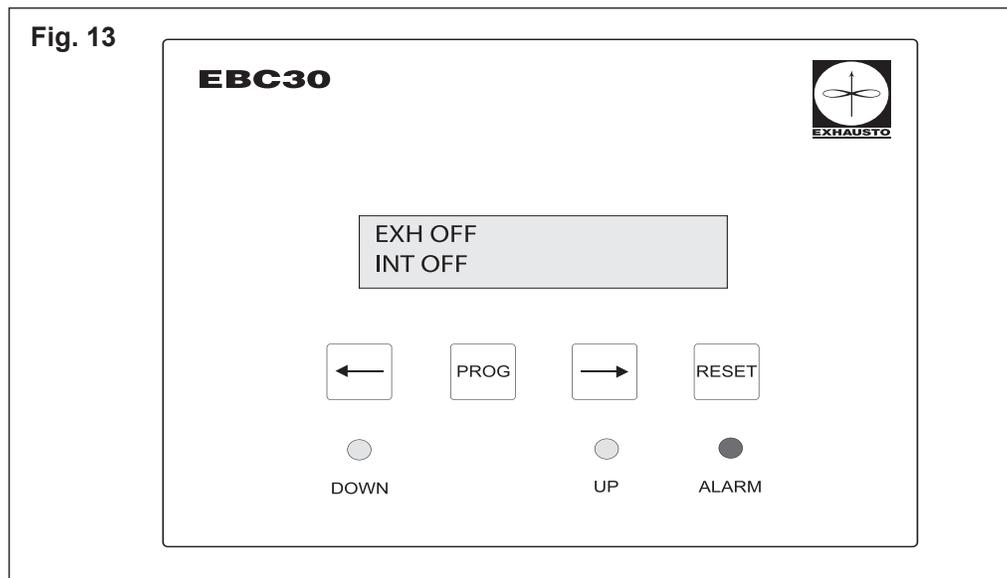
The keypad part names and functions are:

PROG — PROGRAM KEY. Used to access the menu - press for 3 seconds to get to the Quick-menu.

RESET — RESET KEY. Key used for resetting control and fault codes. Also used to accept programming changes and exit the programming mode.

← — DOWN KEY. Used to decrease the value of a parameter.

→ — UP KEY. Used to increase the value of a parameter.

DOWN — DECELERATION INDICATOR. When yellow light is lit, it indicates decreasing fan speed.

UP — ACCELERATION INDICATOR. When yellow light is lit, it indicates increasing fan speed.

ALARM — ALARM INDICATOR. When red light is lit, it indicates an error that must be corrected.

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5.4 Initiation of Control

When power is supplied to the control it will go through a start-up procedure to detect and check all components and appliances installed. During this procedure the display will show the following:

```
┌─────────────────────────────┐
│ SOFTWARE VERSION x.xx       │
│                             │
│                             │
└─────────────────────────────┘
              │
┌─────────────────────────────┐
│ EXHAUST SENSOR              │
│                             │
│                             │
└─────────────────────────────┘
              │
┌─────────────────────────────┐
│ INTAKE SENSOR               │
│                             │
│                             │
└─────────────────────────────┘
              │
┌─────────────────────────────┐
│ ADD ON - EXT TRIAC FOUND    │
│                             │
│                             │
└─────────────────────────────┘
              │
┌─────────────────────────────┐
│ APPLICATION                 │
│ EXH ONLY (or INT ONLY)      │
│                             │
└─────────────────────────────┘
              │
┌─────────────────────────────┐
│ EXH ON or OFF               │
│ INT OFF or ON               │
│                             │
└─────────────────────────────┘
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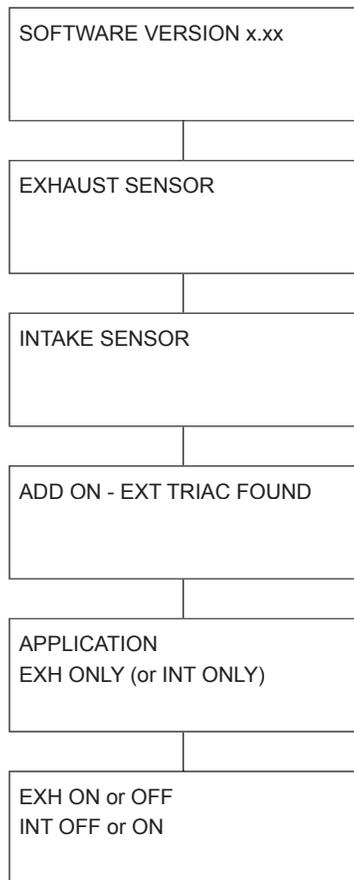
The control is ready. The major functions can now be programmed using the Quick-menu.

5.5 Basic Control Set-up

Once power is turned ON the control can be programmed. Most parameters are programmed at the factory and do not need to be changed. There are 9 parameters that can be programmed/set prior to operation, and they can be accessed through the Quick-Menu.

Q1 SET EXHAUST

For setting the draft or exhaust pressure. The lowest possible value is -0.01 inWC. Most applications require a setting in the range of -0.01 inWC to -0.10 inWC. Atmospheric appliances (Category I) are always in the low range, while all other appliances can be anywhere. **Always check with the appliance manufacturer for the proper draft requirement.**

The %-value indicates the relative setting of the total range of the sensor.

There is no need to set this value, if the control is used to control the supply of combustion air.

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Q2 EXHAUST OPERATING MODE

The control should always operate in "intermittent" mode. The mode can be
changed via the display. The display only shows the chosen mode.
The mode can be overridden by the dipswitch inside the cover on the print board.
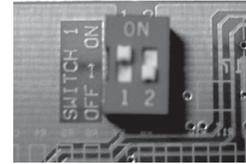
Q3 SET EXHAUST PRE-PURGE

When operating in "intermittent" mode it is important to set the pre-purge. Pre-purge is the period from
when there is a call for heat until the control allows the appliance to start assuming the draft is adequate.
The setting can be anywhere from 0 to 1800 seconds.

There is no need to set this value, if the control is used only to monitor the supply of combustion air.

Q4 SET EXHAUST POST-PURGE

There is no need to set this value.

Q5 SET INTAKE

For setting the room pressure. The lowest possible value is -0.01 inWC. Most applications require a setting
of 0.01 inWC.

The %-value indicates the relative setting of the total range of the sensor.

There is no need to set this value, if the control is used only to monitor the draft or exhaust pressure.

Q6 INTAKE OPERATING MODE

The control should operate in "intermittent" mode. The display only shows the chosen mode. See also
Q2 about the dipswitch, which can be very beneficial for the supply of combustion air or make-up air,
especially where there are chillers, fans etc. that consume air. In "intermittent" mode the supply fan only
operates if at least one appliance is operating. In this mode, pre- and post-purge functions are very
important and must be set.

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Q7 SET INTAKE PRE-PURGE

When operating in "intermittent" mode it is important to set the pre-purge. Pre-purge is the period from when there is a call for heat until the control allows the appliance to start assuming the combustion air supply is operating at the proper capacity. The setting can be anywhere from 0 to 1800 seconds.

Q8 SET INTAKE POST-PURGE

When operating in "intermittent" mode it is important to set the post-purge. Post-purge is the period from when the appliance shuts down until the control allows combustion air supply to shut down assuming there are no more products of combustion in the chimney system. The setting can be anywhere from 0 to 1800 seconds.

There is no need to set this value, if the control is used to control the draft or exhaust pressure.

Q9 ROTATION CHECK

There is no need to set this value

5.6 Detailed Control Programming

The EBC30 control has a detailed sub-menu for individual parameter settings. Please contact EXHAUSTO if you need a more detailed programming guide.

To view current alarm description inside service menu press PROG and it goes to parameter 51 "current alarm" (if alarm condition is present).
Must go to "5 alarm" to exit.

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5.6 Programming Sequence
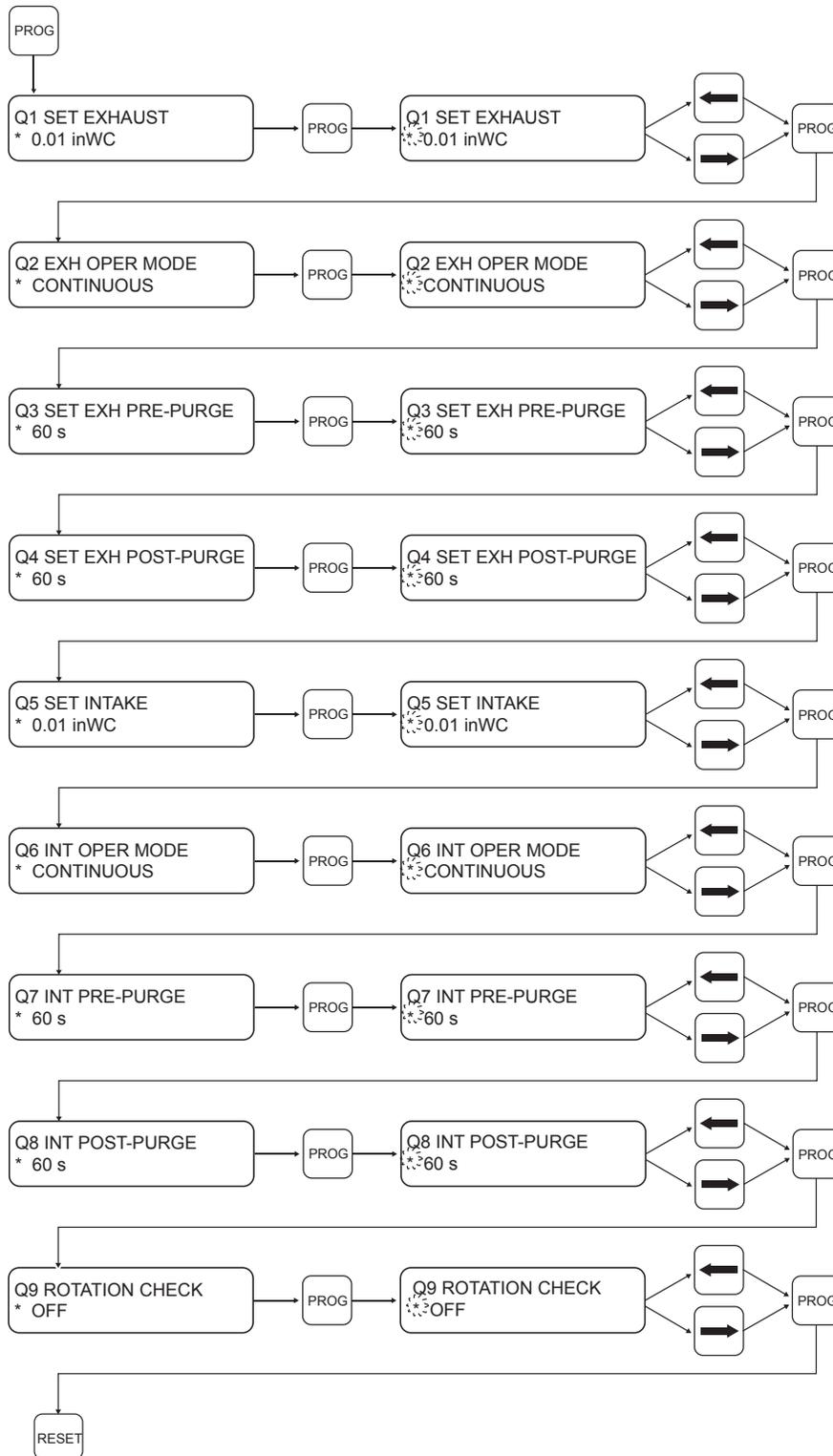
NOTES

Press key for 3 seconds
to access menu

PROG → Q1 SET EXHAUST / * 0.01 inWC → PROG → Q1 SET EXHAUST / * 0.01 inWC → ←/→ → PROG

The pressure can be set
between 0.012 and 0.596
(Default is 0.012)

Q2 EXH OPER MODE / * CONTINUOUS → PROG → Q2 EXH OPER MODE / * CONTINUOUS → ←/→ → PROG

Available selections are:
"continuous" and "intermittent".

Q3 SET EXH PRE-PURGE / * 60 s → PROG → Q3 SET EXH PRE-PURGE / * 60 s → ←/→ → PROG

Values can be set from 0 to
360 seconds.

Q4 SET EXH POST-PURGE / * 60 s → PROG → Q4 SET EXH POST-PURGE / * 60 s → ←/→ → PROG

Values can be set from 0 to
360 seconds.

Q5 SET INTAKE / * 0.01 inWC → PROG → Q5 SET INTAKE / * 0.01 inWC → ←/→ → PROG

The pressure can be set
between 0.012 and 0.596
(Default is 0.012)

Q6 INT OPER MODE / * CONTINUOUS → PROG → Q6 INT OPER MODE / * CONTINUOUS → ←/→ → PROG

Available selections are:
"continuous" and "intermittent".

Q7 INT PRE-PURGE / * 60 s → PROG → Q7 INT PRE-PURGE / * 60 s → ←/→ → PROG

Values can be set from 0 to
360 seconds.

Q8 INT POST-PURGE / * 60 s → PROG → Q8 INT POST-PURGE / * 60 s → ←/→ → PROG

Values can be set from 0 to
360 seconds.

Q9 ROTATION CHECK / * OFF → PROG → Q9 ROTATION CHECK / * OFF → ←/→ → PROG

Values can be ON or OFF.

RESET

Saves all settings and
displays default display.

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6. Maintenance and Troubleshooting

Most terminal connections are monitored for proper operation. LED lights indicate operating status. If a light is lit, it indicates everything is functioning properly while a light out indicates a problem on the circuit it monitors.

In addition, fault codes are shown on the display The fault codes are:

Display	Explanation
A1 Draft Exhaust	**Insufficient draft pressure. Can be caused by:** 1. Inadequate chimney capacity 2. Blocked chimney 3. Introduction of excessive dilution air 4. XTP sensor not responding correctly
A2 Draft Intake	**Insufficient intake air supply. Can be caused by:** 1. Supply fan does not have enough capacity 2. Mechanical or electrical fan failure 3. Blocked air inlet our louver 4. Excessive exhaust from exhaust fans located in mechanical room
A3 Power Fault	**Indicates there has been a power fault**
A4 XTP-Exhaust	**Indicates a disconnected signal from the XTP-Sensor on the exhaust side to the control Can be caused by:** 1. Loose connections 2. Faulty XTP-sensor 3. Faulty controller
A5 XTP-Intake	**Indicates a disconnected signal from the XTP-sensor on the intake side to the control. Can be caused by:** 1. Loose connections 2. Faulty XTP-Sensor 3. Faulty controller
A6 Error Start	**Indicates that the control has not been able to release the heating appliance(s) within 15 minutes.**
A7 Alarm Override	**Indicates alarm has been ignored**
A8 Draft Input	**Missing signal from PDS-function. Indicates a faulty function.**
Other fault possibilities are shown below:	
Red alarm on main board is lit	**Indicates a malfunction. Can be caused by:** 1. No communication between main board and display. Make sure the cable is connected. This error will shut down the appliances within 20 seconds.
Red alarm diode flashes	**Indicates the control operates the appliances in prioritized mode.**
Yellow light (UP) is lit continuously	**Indicates the monitor wants to see more draft. If it stays on constantly it could indicate a system fault. This can be caused by** 1. Wiring problems 2. A clogged tube or probe 3. A leaking chimney system 4. Inadequate chimney capacity
Yellow light (DOWN) is lit continuously	**Indicates a malfunction. Can be caused by:** 1. Excessive draft under all conditions

EXHAUSTO EBC 30LE Factory Settings

Menu	Sub-Menu		Function	Display	Range	Default
2			**EXHAUST**	EXHAUST		
	21		Draft Set Point	SET EXHAUST	3%-95% of sensor range	0.1
	22		Operation Mode	OPERATION		
	23		**Pre-Purge**	PREPURGE		0
		231	Time	TIME	0-1800	0
		232	Operation Mode	SPEED MODE		FIX 100 %
	24		**Post-Purge**	POST PURGE		
		241	Time	TIME	0-1800	0
		242	Operation Mode	SPEED MODE		Variable
	25		**Sensor**	SENSOR		
		251	Min. Pressure	RANGE MIN	-500-+500Pa	0
		252	Max . Pressure	RANGE MAX	0-1000Pa	150Pa
	26		**Parameters**	PROPERTIES		
		261	Alarm Limit Draft	ALARM LIMIT	50-80%	64%
		262	Alarm Delay	ALARM DELAY	0-120s	15
		263	Min. Voltage	SPEED MIN	0-MENU275	15%
		264	Max. Voltage	SPEED MAX	MENU274-100%	100%
		265	Xp	EXHAUST Xp	0-30	15
		266	Ti	EXHAUST Ti	0-30	8
3			**INTAKE**	INTAKE		
	31		Intake Set Point	SET INTAKE	3%-95% of sensor range	0.01
	32		Operation Mode	OPERATION		
	33		**Pre-Purge**	PREPURGE		
		331	Time	TIME	0-1800	0
		332	Operation Mode	SPEED MODE		FIX 100 %
	34		**Post-Purge**	POST PURGE		
		341	Time	TIME	0-1800	0
		342	Operation Mode	SPEED MODE	See text	Variable
	35		**Sensor**	SENSOR		
		351	Min. Pressure	RANGE MIN	-500-+500Pa	0
		352	Max . Pressure	RANGE MAX	0-1000Pa	150Pa
	36		**Parameters**	PROPERTIES		
		361	Alarm Limit Draft	ALARM LIMIT	100-300%.	300%
		362	Alarm Delay	ALARM DELAY		
		363	Min. Voltage	SPEED MIN	0-MENU175	20%
		364	Max. Voltage	SPEED MAX	MENU174-100%	100%
		365	Xp	INTAKE Xp	0-30	15
		366	Ti	INTAKE Ti	0-30	15
4			**DISPLAY**	DISPLAY		
	41		Language	LANGUAGE	Eng/Fr./Sp.	English
	42		Units	UNIT	Pa/inWC	inWC
	43		Display Lights	LIGHT	ON/OFF	ON
5			**ALARM**			
	51		Alarm status	ERROR		
	52		Alarm log	ERROR LOG		
	53		RESET	RESET	MAN/AUT	AUT
6			**SERVICE**	SERVICE		
	61		Version No.	VERSION		
	62		**I/O**	I/O-VIEW		
		621	BURNER I/O*	AUX OUT XXX XXX		
		622	RELAY BOARD*	RELAY OUT XXXX		
		623	EXHAUST I/O*	EXH XTP x.xV OFF		
		624	INTAKE I/O*	INT XTP x.xV OFF		
		625	TRIAC BOARD	TRIAC BOARD		
		626	DRAFT INPUT	DRAFT INPUT		
		627	Override input	OVERRIDE IN		
		628	Alarm Relay	ALARM OUTPUT		
		629	Application	APPLICATION		
	63		Triac board	TRIAC BOARD	INTAKE/ EXHAUST	
	64		**Override**	OVERRIDE		
		641	Intake Mode	INTAKE	OFF/ NORMAL/ MAX	NORMAL
		642	Draft Mode	EXHAUST	OFF/ NORMAL/ MAX	MAX
		643	Alarm Mode	ALARM MODE	ON/OFF	OFF
	65		**Options**	OPTION		
		651	Prioritized Duty	PRIORITY	ON/OFF	ON
		652	Bearing Activation	BEARING CYCLE	ON/OFF	ON
		653	Allow Prime	ALLOW PRIME	ON/OFF	OFF

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Resetting to Factory Defaults

PROG

Q1 SET EXHAUST * 0.01 inWC	← →	Q10 SERVICE MENU	→ PROG
2 EXHAUST	← →	6 SERVICE	→ PROG
61 VERSION	← →	66 FACTORY * NO	→ PROG
66 FACTORY NO	← →	66 FACTORY YES	→ PROG
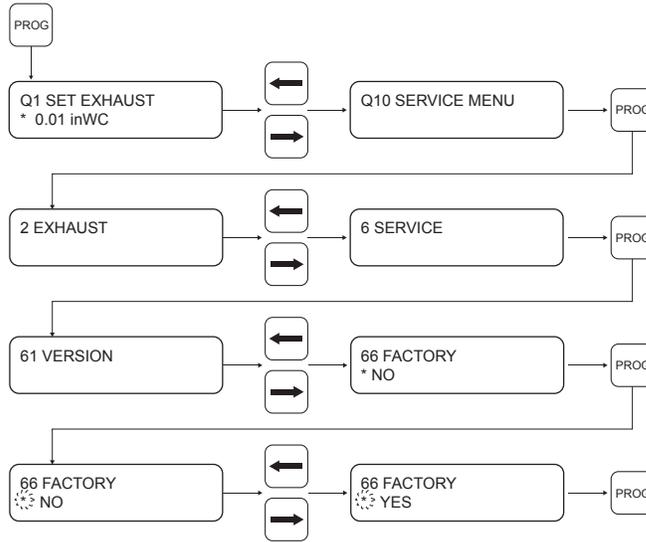
NOTES

Press PROG key for 3 seconds
to access menu

Scroll to [Q10 SERVICE MENU]
and press PROG

Scroll to 6 SERVICE and press PROG

Scroll to 66 FACTORY and press PROG

Change NO to YES and press PROG

Remove supply power to control. Wait 30 seconds and reapply power.
Control is now reset to factory default.

User Settings

Please record and keep the following information. It will ease servicing the control after installation.

Q1 EXHAUST setting	_____ "WC
Q2 EXHAUST Operating Mode	Continuous/Intermittent (*circle one*)
Q3 EXHAUST Pre-purge	_____ seconds
Q4 EXHAUST Post-purge	_____ seconds
Q5 INTAKE setting	_____ "WC
Q6 INTAKE Operating Mode	Continuous/Intermittent (*circle one*)
Q7 INTAKE Pre-purge	_____ seconds
Q8 INTAKE Post-purge	_____ seconds
Q9 ROTATION CHECK	Yes/No (*circle one*)

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