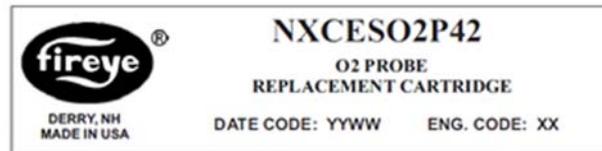


## NXCESO2P42, -1 REPLACEMENT CARTRIDGE for Use With NXCESO2 Oxygen Probe

NOTE: Fireeye has made various improvements to the NXCESO2 oxygen probe. Among the improvements is the connector on the end of the replacement cartridge and the mating shell located on the printed circuit board. The engineering code located on the cartridge unit label, shown below, can be used to determine which replacement cartridge is required. NXCESO2P42-1 can be used only with code 00 cartridges. NXCESO2P42 replacement cartridges can be used to replace all other units with engineering code 01 and higher



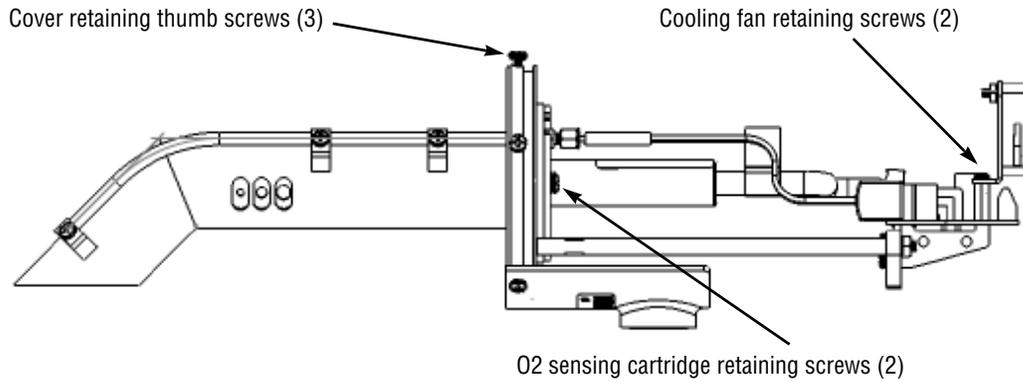
It is intended for the oxygen concentration sensing element to be replaced without the need to remove the oxygen probe from the stack. Caution must be exercised as surfaces on and around the flue stack can be extremely hot and as such, the user should wear the necessary and sufficient protective clothing.

If it is possible to shut burner / boiler system down, do so and remove power.

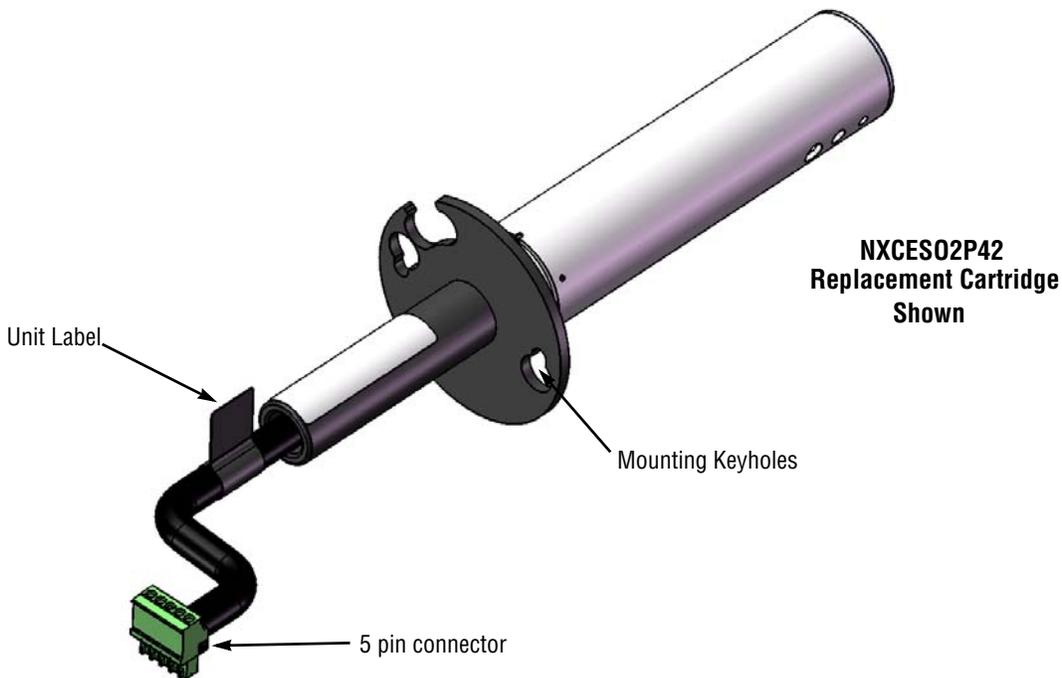
If it is necessary to keep the burner / boiler system online then in the PPC4000, trim should be disabled and power removed from the O2 probe. To disable O2 trim, refer to the PPC-4001 manual. Under the O2 SETUP menu, for O2 CONTROL select DISABLE. Remove power from the O2 probe by disconnecting the 24 vdc at terminal P2 of the PPC4000 or by disconnecting power at the O2 probe terminal strip.

#### NXCESO2P42 CARTRIDGE REPLACEMENT PROCEDURE:

1. Remove power from the O2 probe and allow O2 sensor heat to cool.
2. Remove outside cover from O2 probe and set aside.
  - a. Loosen but do not remove the thumb screws and slide cover to rear and off. [At this time, if necessary, power to the probe can be disconnected at the terminal strip, pin 1]. The O2 probe should resemble the following:



3. Locate the connector end of the O2 cartridge and remove from shell located on O2 printed circuit board.
4. Unplug fan connector located on O2 printed circuit board.
5. Loosen and remove fan retaining screws (2) to remove fan and set aside.
6. Loosen but do not remove O2 cartridge retaining screws (2).
7. Rotate O2 cartridge counter-clockwise and withdraw from O2 probe flue pipe..
8. Insert replacement cartridge into flue pipe passed retaining screws and rotate clockwise to seat properly.





9. Tighten screws to secure cartridge in place.
10. Attach 5 pin connector on replacement cartridge to O2 printed circuit board.
11. Re-install cooling fan to mounting standoffs and secure with 2 screws.
12. Plug in fan connector to O2 printed circuit board.
13. Install O2 probe cover and secure with thumb screws.
14. Apply power to system or O2 probe.

Upon application of power, the NXCESO2 probe will detect a new cartridge and automatically perform a calibration. Since the concentration of flue gases in the stack is unknown at this time, it is recommended an additional calibration be performed at the end of high fire or open damper purge during the next burner cycle. A forced calibration can be initiated from the PPC4000 O2 SETUP. The instruction CALIBRATE NOW > is used to force the NXCESO2 probe to re-calibrate.

As O2 probes may vary from unit to unit, it is important that the ADJUST RATIO procedure be performed to be sure the O2 target values saved to the current profile represent the replacement O2 cartridge.



FIREYE®  
3 Manchester Road  
Derry, New Hampshire 03038 USA  
[www.fireeye.com](http://www.fireeye.com)

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