

Installation Manual: PC-2P, PC-2PN Conventional Smoke Detector

NOTICE TO THE INSTALLER

This manual provides an overview and the installation instructions for the PC-2P and PC-2PN detectors. These products are designed for 2-wire conventional fire alarm system, and they shall only be installed with listed control panels. For system compatibility, please refer to the control panel instruction manual.

1. Description

The PC-2P and PC-2PN are conventional photoelectric smoke detectors. The PC-2P has a magnet test feature while the PC-2PN doesn't. The built-in drift compensation allows PC-2P and PC-2PN to reduce the impact of dust on sensitivity and therefore reducing false alarms effectively. Each detector includes one (1) LED to indicate the device statuses including normal standby, alarm and trouble. The PC-2P and PC-2PN have a maximum spacing limitation of 30ft. Refer to NFPA 72 for more details regarding spacing, placement and special applications.

The PC-2P and PC-2PN detectors can be sold separately or together with the 6" mounting base PC-6DB. The PC-2P6B is the model including the PC-2P detector and the PC-6DB base, while the PC-2PN6B is the model including the PC-2PN detector and the PC-6DB base. Refer to the company website for the latest revision of this manual.

2. Technical Specifications

	PC-2P / PC-2PN
Operating Voltage	12 or 24 VDC
Avg. Standby Current	60 μ A
Max. Standby Current	132 μ A
Alarm Current (Must limited by panel)	6 mA - 130 mA
Sensitivity Range	(2.30% \pm 1.20%) /ft
Installation Temp Range	32°F - 120°F
Operating Humidity Range	0% - 95% (Non-condensing)
Dimension	Φ 3.93 in
Weight	3.20 oz
Height	1.42 in

3. LED Modes

	Conditions	Action
Flash 1 time per 5 seconds	Normal: 1.6 \pm 0.5 OBS	None
Flash 1 time per 3 seconds	Normal: 2.3 \pm 0.5 OBS	None
Flash 1 time per 7 seconds	Normal: 3.0 \pm 0.5 OBS	None
LED Latches on	Alarm	Check Panel Status
Flash twice per 7 seconds	Trouble – Dirty	Cleaning or Service is Required
Flash 3 times per 7 seconds	Trouble – Sensitivity out of range	Service is Required
LED OFF	Trouble - Open or Short	Service is Required

4. Installation

- Before connecting a device to the control panel, take the following precautions to prevent potential damage to the device.
 - Use with base PC-4DB or PC-6DB.
 - Confirm the field wiring on device is correctly installed on the base. Refer to the base manual.
 - Enable the locking feature if needed. Refer to section 5 for details of the locking feature.
- Plug detector into the base and turn clockwise to secure in place.

⚠ CAUTION : THE DETECTOR SHALL BE CONNECTED ONLY TO THE CONTROL UNIT INITIATING DEVICE CIRCUIT AS SPECIFIED IN THE DETECTOR OR CONTROL UNIT LITERATURE OR THE SYSTEM MAY NOT OPERATE.

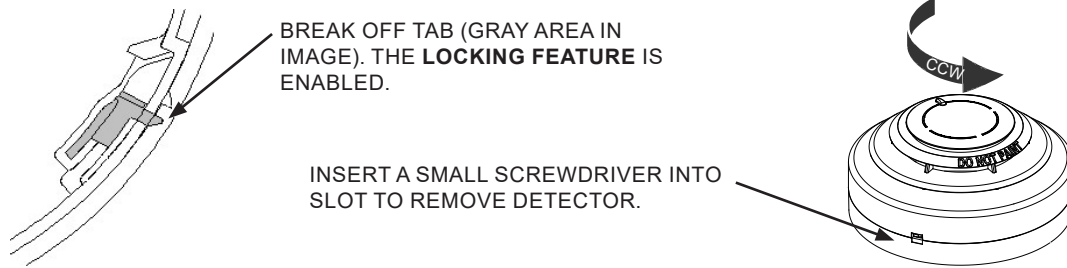
KEEP DUST COVER ON DETECTOR DURING CONSTRUCTION. REMOVE DUST COVER TO ALLOW THE DETECTOR TO DETECT SMOKE.

DETECTORS ARE NOT TO BE USED WITH DETECTOR GUARDS UNLESS THE COMBINATION HAS BEEN EVALUATED AND FOUND SUITABLE FOR THAT PURPOSE.

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5. Locking Feature

The PC-2P and PC-2PN include a tamperproof feature that locks the detector and does not allow removal without the use of a tool.



6. Testing

Testing must meet the requirements of the Authority Having Jurisdiction (AHJ). It is recommended to follow guidelines as described in NFPA 72. It is important to test the product after installation and periodically to ensure it functions properly.

⚠ CAUTION: NOTIFY APPROPRIATE AUTHORITY BEFORE TESTING THE DETECTOR. REFER TO THE PANEL INSTALLATION MANUAL FOR ANY SPECIFIC GUIDELINES WHEN TESTING INITIATING DEVICES.

• Smoke Aerosol Test

Use a canned aerosol to spray directly to the side of the detector. SmokeCheck® 25S from HSI Fire and Smoke Centurion from SDI are acceptable. Units failing the aerosol test should be immediately cleaned.

• Magnet Test (Applicable to PC-2P only)

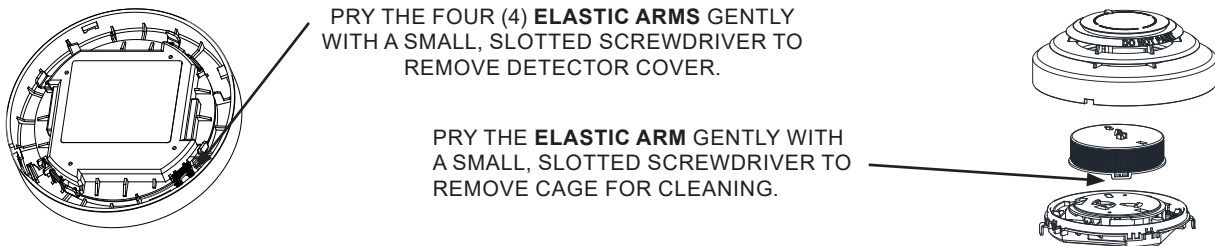
The magnet test provides a quick test to verify the connections and the detector electronically. This test should not replace the aerosol test, which is required as part of regular testing and maintenance per NFPA 72.

1. Hold the test magnet in the magnet test area as shown here.
2. The LED latches on to indicate the detector is in alarm.
3. Remove magnet.
4. Alarm on the fire alarm panel should be reset.
5. If the unit fails the magnet test, test the unit with an aerosol testing spray to confirm any failures.



7. Cleaning

NOTE: Before cleaning, notify the proper authorities that the system is undergoing maintenance. Disable the loop or system undergoing maintenance to prevent unwanted alarms. It is recommended that the detector be removed from its mounting base for easier cleaning and that the detector be cleaned at least once a year or when the detector reports a dirty trouble. Use a vacuum cleaner to remove dust from the sensing chamber.



8. Maintenance

Consult your local code and AHJ requirements for required maintenance schedules.

These instructions do not cover all the details or variations in the equipment described, nor provide for every possible contingency to be met in connection with installation, operation, and maintenance. Specifications subject to change without prior notification.

9. Warranty

POTTER warrants that the equipment herein shall conform to said descriptions as to all affirmation of fact and shall be free from defects of manufacture, labeling, and packaging for a period of five (5) years from the invoice date to the original purchaser, provided that representative samples are returned to POTTER for inspection. The product warranty period is stated on the exterior of the product package. Upon a determination by POTTER that a product is not as warranted, POTTER shall, at its exclusive option, replace or repair said defective product or parts thereof at its own expense, except that Purchaser shall pay all shipping, insurance, and similar charges incurred in connection with the replacement of the defective product or parts thereof. This Warranty is void in the case of abuse, misuse, abnormal usage, faulty installation, repair by unauthorized persons, or if for any other reason POTTER determines that said product is not operating properly as a result of causes other than defective manufacture, labeling, or packaging.