INSTALLATION INSTRUCTIONS FOR FILTREX DETECTOR BASE MODEL B524FTXE

GENERAL DESCRIPTION

Before installing detectors, please thoroughly read the system wiring and installation manuals and review the appropriate national and local standards and codes of practice for the planning and installation of fire alarm systems.
The System Sensor B524FTXE base is designed for use with the Filtrex intelligent harsh area detector.

SPECIFICATIONS

Base Diameter	102 mm
Base Height	35.5 mm
Operating Temperature Range	-10°C to +60°C
Operating Humidity Range	0% to 95% Relative Humidity (Non-condensing)
Operating Voltage	15 to 30V

TAMPER RESIST FEATURE

Note: Because a Filtrex detector features a removable filter and cannot be removed without direct access to the detector, the tamper resist feature has been already set. To remove the detector from the base, insert a small-bladed screwdriver into the slot in the side of the base and push the plastic lever away from the detector head (see Figure 2). This allows the detector to be rotated counterclockwise for removal. The tamper-resist feature can be defeated by breaking and removing the plastic lever from the base, however, this prevents the feature from being used again.

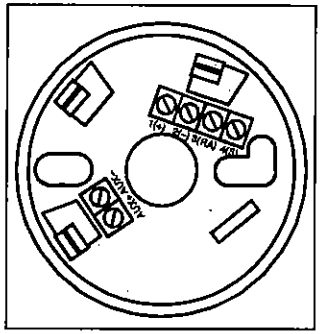


Figure 1. Terminal Layout

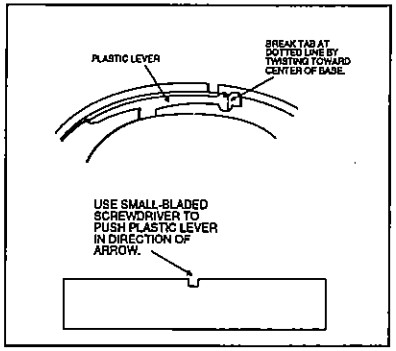


Figure 2. Tamper-Resist Feature

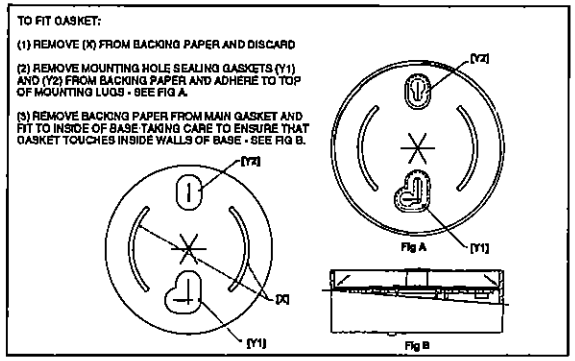


Figure 3. Gasket for use when base mounted on suspended or hollow ceiling

MOUNTING

The B524FTXE Filtrex Detector Base is equipped with mounting holes for fixing to installation boxes with either 2" or 60mm hole spacing. Attach the base to a suitable junction box, using the screws supplied with the box.
For surface mounting, cut and remove the thin walled sections visible from the back of the base on the outer diameter.

INSTALLATION GUIDELINES

All wiring must be installed in compliance with all applicable local codes and any special requirements of the local authority having jurisdiction, using the proper wire sizes. The conductors used to connect smoke detectors to control panels and accessory devices should be colour-coded to reduce the likelihood of wiring errors. Improper connections can prevent a system from responding properly in the event of a fire.
For signal wiring (the wiring between interconnected detectors), it is recommended that the wire be no smaller than 0.5 mm². However, wire sizes up to 2.5 mm² can be used with the base. The use of twisted pair wiring or shielded cable for the power (+ and -) loop is recommended to minimize the effects of electrical interference.
If shielded cable is used, the shield connection to and from the detector must be continuous by using wire nuts, crimping, or soldering, as appropriate, for a reliable connection.

Alarm system control panels have specifications for allowable loop resistance. Consult the control panel specifications for the total loop resistance allowed before wiring the detector loops.

1. Make wiring connections by stripping about 10 mm of insulation from the end of the wire. Then, insert the wire into the terminal and tighten the screw to secure the wire in place.
2. Check the zone wiring of all bases in the system before installing detectors in them. This includes checking the wiring for continuity, correct polarity and ground fault testing.
3. Record the zone, address, and type of detector being installed at the base location on the label affixed to the bottom of the base. This information is useful for setting the detector head address and for verification of the sensor type required for that location.
4. Once all detector bases have been wired and mounted, and the loop wiring has been checked, the detector heads may be installed in the bases.

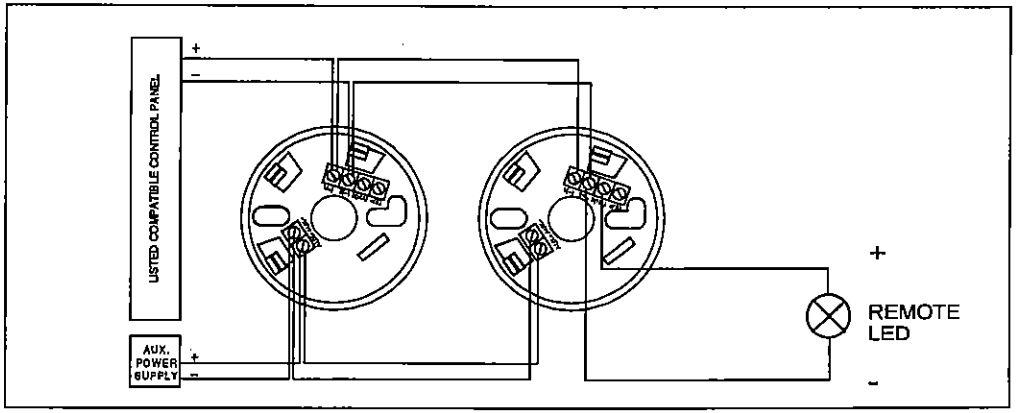


Figure 4. Typical Wiring Diagram

WARNING
LIMITATIONS OF SMOKE DETECTORS

This smoke detector is designed to activate and initiate emergency action but will do so only when used in conjunction with other equipment. **Smoke detectors will not work without power.**

Smoke detectors will not sense fires which start where smoke does not reach the detectors. Smoke from fires in chimneys, in walls, on roofs, or on the other side of closed doors may not reach the smoke detector and trigger the unit.

A detector may not detect a fire developing on another level of a building. For this reason, detectors should be located on every level of a building.

Smoke detectors also have sensing limitations. Ionisation detectors offer broad range fire-sensing capability but they are better at detecting fast, flaming fires than slow, smouldering fires. Photoelectronic detectors sense smouldering fires better than flaming fires. Because fires develop in different ways and are often unpredictable in their growth, neither type of detector is always best and a given detector may not always provide warning of a fire. In general, detectors cannot be expected to provide warnings for fires resulting from inadequate fire protection practices, violent explosions, escaping gas, improper storage of flammable liquids like cleaning solvents, other safety hazards, or arson. Smoke detectors used in high air velocity conditions may fail to alarm due to dilution of smoke densities created by such frequent and rapid air exchanges. Additionally, high air velocity environments may create increased dust contamination, demanding more frequent maintenance.

Smoke detectors cannot last forever. Smoke detectors contain electronic parts. Even though detectors are made to last over 10 years, any of these parts could fail at any time. Therefore, test your smoke detector system at least semiannually. Clean and take care of your smoke detectors regularly. Taking care of the fire detection system you have installed will measurably reduce your liability risks.

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