B224BIA Plug-in Isolator Detector Base

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www.systemsensor.ca

SPECIFICATIONS

Base Diameter:	6.85 in (17.4 cm)
Base Height:	1.61 in (4.1 cm)
Operating Temperature Range:	32° to 150°F (0° to 66°C)
Operating Humidity Range:	10% to 93% Relative Humidity (Non-condensing)
Electrical Ratings	
Operating Voltage:	15 to 32 VDC
Standby Current:	450µA Maximum
Isolation Current:	15mA Maximum

BEFORE INSTALLING

Please read the System Smoke Detector Applications Guide, which provides detailed information on detector spacing, placement, zoning, wiring, and special applications. Copies of this application guide are available from System Sensor. CAN/ULC-S524 guidelines should be observed.

NOTICE: This manual should be left with the owner/user of this equipment.

IMPORTANT: The detectors used with these bases must be tested and maintained following CAN/ULC-S536 requirements. The detectors used with these bases should be cleaned at least once a year.

GENERAL INFORMATION

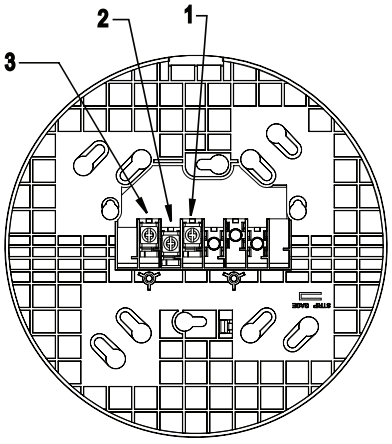
The isolator base is intended for use in an intelligent system. Isolator bases prevent an entire communications loop from being disabled when a short circuit occurs. They accomplish this by isolating that part of the loop containing the short from the remainder of the circuit. These bases also automatically restore the entire loop when the cause of the short circuit is corrected. In general, up to 25 addressable devices may be isolated between isolator bases.

B224BIA TERMINALS

NO. FUNCTION

1. Positive (+) Comm. Line In
2. Negative (–) Comm. Line In and Out
3. Positive (+) Comm. Line Out

FIGURE 1: TERMINAL DESIGNATION:



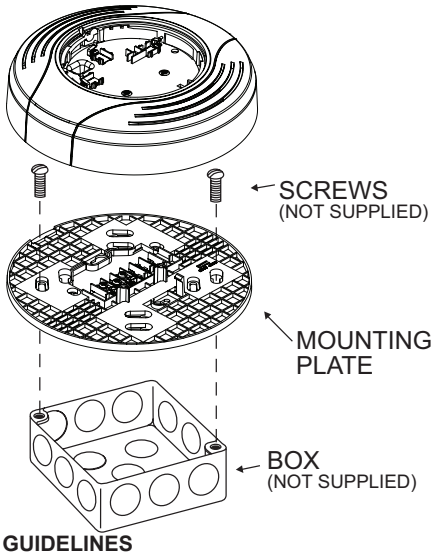
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MOUNTING

Mount the mounting plate directly to an electrical box. The plate will mount directly to 4-inch square (with and without plaster ring), 4-inch octagon, 3 ½-inch octagon, single gang and double gang junction boxes.

1. Connect field wiring to terminals, as shown in Figure 3 and 4.
2. Attach the mounting plate to the junction box as shown in Figure 2.
3. To mount the base, hook the tab on the base to the groove on the mounting plate.
4. Then, swing the base into position to engage the pins on the product with the terminals on the mounting plate.
5. Secure the base by tightening the mounting screws.
6. Install a compatible smoke detector as described in the installation manual for the detector.

FIGURE 2. MOUNTING BASE TO ELECTRICAL BOX:



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INSTALLATION GUIDELINES

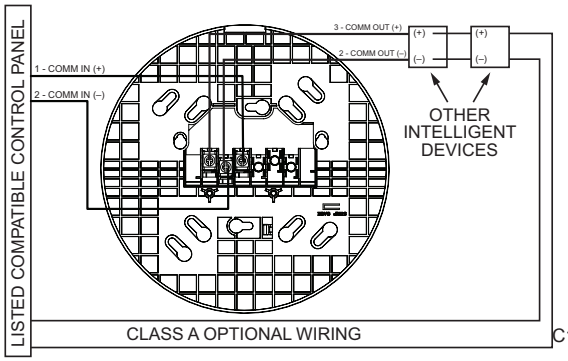
All wiring must be installed in compliance with all applicable local codes and any special requirements of the local authority having jurisdiction, using the proper wire sizes. The conductors used to connect smoke detectors to control panels and accessory devices should be color-coded to reduce the likelihood 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 18 AWG (0.823 square mm). However, wire sizes up to 12 AWG (3.31 square mm) can be used with the base.

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.

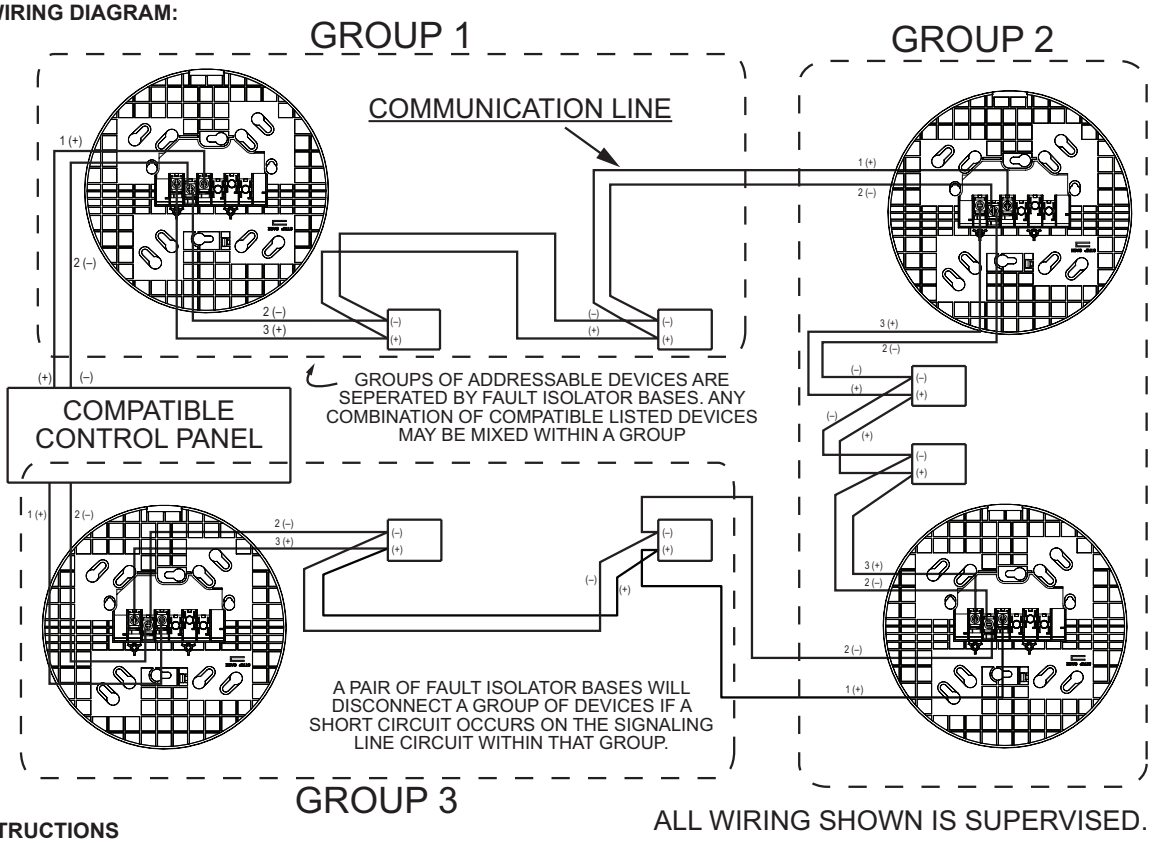
Check the zone wiring of all bases in the system before installing detectors. This includes checking the wiring for continuity, correct polarity, ground fault testing, and performing a dielectric test.

FIGURE 3:



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FIGURE 4. WIRING DIAGRAM:



WIRING INSTRUCTIONS

Make wiring connections by stripping about ⅜ of an inch (10 mm) of insulation from the wire end. Then, insert the wire into the appropriate terminal and tighten the screw. Wire the communication line in (+) to terminal 1. Insert both communication line in (–) and communication line out (–) to terminal 2. Wire communication line out (+) to terminal 3 (see Figures 3 and 4).

A label is affixed to the base for recording the zone, address, and type of detector being installed at the base location. This information is useful for setting the detector head address and for verification of the sensor type required for that location.

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.

TAMPER-RESIST FEATURE

NOTE: Do not use the tamper-resist feature if the removal tool is to be used.

This detector base includes a tamper-resist feature that prevents its removal from the base without the use of a tool.

To activate this feature, break the tab from the detector base as shown in Figure 5A. Then, install the detector.

To remove the detector from the base once the tamper-resist feature has been activated, insert a small-bladed screwdriver into the slot from the top and press down on the lever (see Figure 5B). 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 5A. ACTIVATING THE TAMPER-RESIST FEATURE:

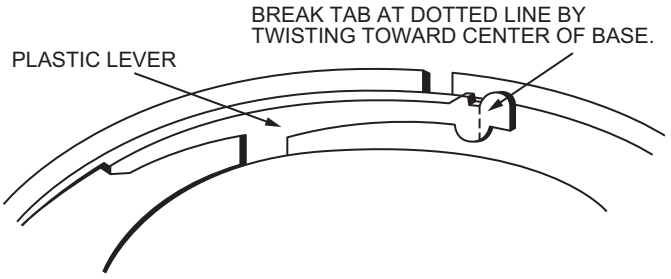
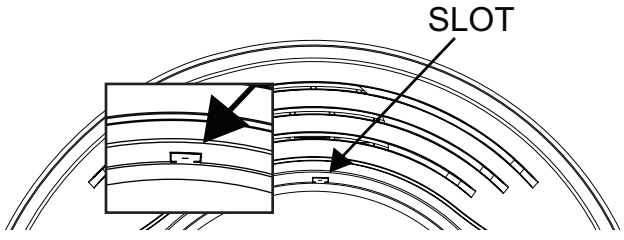


FIGURE 5B. REMOVING THE DETECTOR HEAD FROM THE BASE:



Please refer to insert for the Limitations of Fire Alarm Systems

THREE-YEAR LIMITED WARRANTY

System Sensor warrants its enclosed smoke detector base to be free from defects in materials and workmanship under normal use and service for a period of three years from date of manufacture. System Sensor makes no other express warranty for this smoke detector base. No agent, representative, dealer, or employee of the Company has the authority to increase or alter the obligations or limitations of this Warranty. The Company's obligation of this Warranty shall be limited to the replacement of any part of the smoke detector base which is found to be defective in materials or workmanship under normal use and service during the three year period commencing with the date of manufacture. After phoning System Sensor's toll free number 800-SENSOR2 (736-7672) for a Return Authorization number, send defective units postage prepaid to: System Sensor, Returns Department, RA #_____, 6581 Kitimat Road, Unit 6, Mississauga, Ontario L5N-3T5. Please include a note describing the malfunction and suspected cause of failure. The Company shall not be obligated to replace units which are found to be defective because of damage, unreasonable use, modifications, or alterations occurring after the date of manufacture. In no case shall the Company be liable for any consequential or incidental damages for breach of this or any other Warranty, expressed or implied whatsoever, even if the loss or damage is caused by the Company's negligence or fault. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. This Warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

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