

B401BH and B401BHA

Conventional Bases with Sounder



Conventional Initiating Devices

General

The System Sensor **B401BH(A) Base with Sounder** is used with conventional 400 Series two-wire plug-in smoke detectors. Refer to the associated control panel manual for more information on detector heads.

NOTE: Only compatible UL/ULC-approved smoke detectors may be used with the B401BH(A).

Features

- Sound output greater than 90 dBA measured in anechoic room at 10 feet (3.048 m), 24 volts. 85 dBA minimum measured in a UL reverberant room.
- An alarm delay of approximately 10 seconds is built into the B401BH(A). This delay is present whether the control signal comes from the sensor or from reversing the external power supply polarity.

Applications

The B401BH(A) base is intended for use with conventional plug-in systems. See systems literature for maximum allowable number of units per loop.

Construction and Operation

The B401BH(A) requires an external 24 VDC supply with reverse polarity capability. The connections of the external supply (terminals 1 and 2) and the communication/initiating loop (terminals 3, 4, and 5) are isolated in the B401BH(A) to prevent electrical interaction between them.

NOTE: When not used as a supplementary evacuation system, the external 24 VDC supply shall be treated as a component of the main power supply system and shall fall under the requirements of the main power supply system per NFPA 72.

When the detector head's visible LEDs are latched ON for approximately 10 seconds, the base horn sounds. A loop of horns can be made to sound with the polarity reversal of the external supply.

Installation

NFPA 72 and NEMA guidelines should be observed. **For installation in Canada**, refer to CAN/ULC S524, Standard for the Installation of Fire Alarm Systems and CEC Part 1, Sec. 32.

Units must be mounted directly to a 4.0" (101.6 mm) square electrical box, minimum 1.5" (38.1 mm) deep, using the supplied mounting kit. A maximum space of 0.125" (3.175 mm) from outside edge of electrical box to the inside edge of the drywall or ceiling tile is allowable.

A flangeless plug-in base is used to attach detectors to the B401BH(A) base with sounder.

Before installing detectors, please read *Guide for Proper Use of System Smoke Detectors*, document number 156-407-00, which provides detailed information on detector spacing, placement, zoning, wiring, and special applications.



**B401BH sounder assembly,
shown with a 2541 photo detector**

B601BH(A) TERMINALS:

1. External Supply Positive (+)
2. External Supply Negative (-)
3. Negative (-) V In
4. Positive (+) V In and V Out
5. Negative (-) V Out

NOTE: Terminals 3, 4, and 5 are used for the communication/initiating circuit.

Specifications

Base diameter: 6.0" (152.4 mm).

Base height (less base & sensor): 0.75" (19.05 mm).

Weight: 0.3 lbs. (140 grams).

Operating temperature range: 14°F to 140°F (-10°C to +60°C).

Operating humidity range: 10% to 95% relative humidity.

Sounder in UL reverberant room: 85 dBA minimum.

Sounder in anechoic room: > 90 dBA @ 10 feet (3 m), 24 volts.

Electrical Ratings

Wiring: Two-wire.

EXTERNAL SUPPLY:

Voltage: 17 to 32 VDC.

Standby current: 1.0 mA maximum.

Alarm current: 15 mA maximum.

Maximum ripple voltage: 10% of supply voltage.

Startup capacitance: 200 µF.

COMMUNICATION/INITIATING LOOP SUPPLY:

Current draw from remote output of detector to turn horn ON:

- Conventional system requires 600 μ A maximum.
- Intelligent system requires 700 μ A maximum.

For all other system electrical ratings, consult the appropriate base manual.

NOTE: 1) No auxiliary devices may be used in conjunction with the B401BH(A). 2) High-current relays are needed to switch the polarities of the external power supply. The B401BH(A) draws up to 1.0 mA in standby and 15 mA in alarm (sounding condition) from the external supply. The current capacity during standby can be up to 99 mA (1.0 mA per base) without any horns sounding (plus an additional 75 mA to 150 mA from local sensor control) or up to 1.5 A with a polarity reversal and 99 mA with horns sounding.

Agency Listings and Approvals

These listings and approvals apply to the B401BH(A). In some cases, certain modules or applications may not be listed by certain approval agencies, or listing may be in process. Consult factory for latest listing status.

- UL Listed: file S911.
- ULC Listed: file CS308.
- CSFM approved: file 7300-1209:128.
- Maryland State Fire Marshal approved: Permit # 1985.
- MEA approved: file 205-94-E.

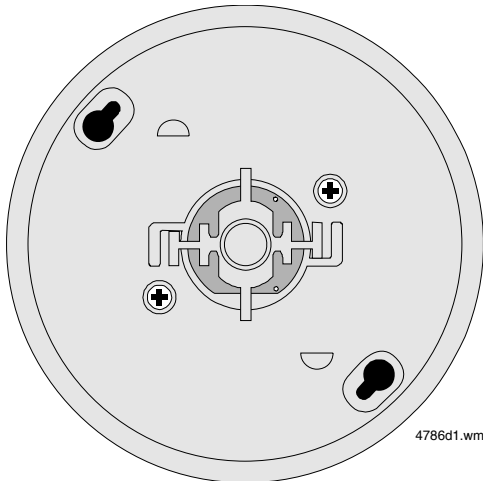
Product Line Information

B401BH: Sounder base assembly, includes pre-assembled sounder and B401 base.

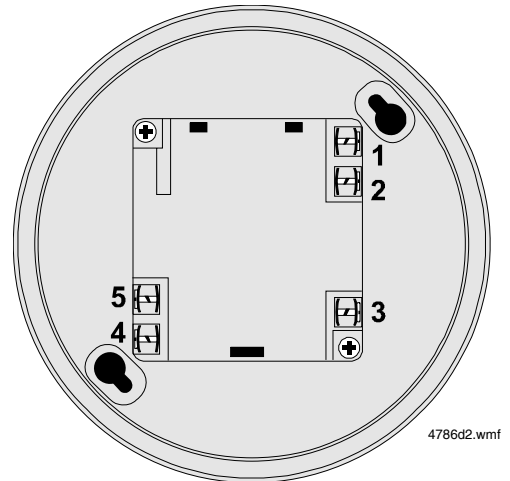
B401BHA: Same as above with ULC listing.

B401: Plug-in flangeless base for 400 Series detectors.

B401A: Same as above with ULC listing.



**Face of B401BH(A) detector base
with sounder**



Back of detector base with sounder

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For more information, contact Fire•Lite Alarms. Phone: (800) 627-3473, FAX: (877) 699-4105.
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