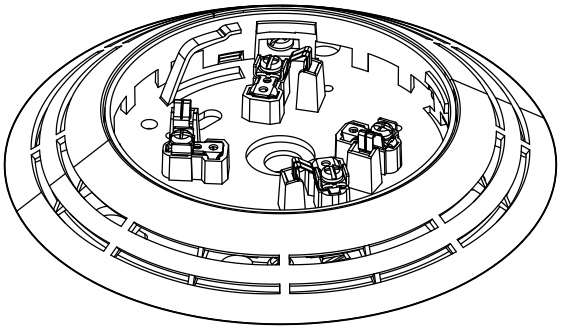
KI-ABDT Fire/CO Sounder Base Installation Sheet



Description

The KI-ABDT sounder base adds alarm signaling capability to compatible single-function smoke detectors and combination smoke/CO detectors. See “Specifications” on page 2 for compatible detectors.

The KI-ABDT sounder base is field-configurable for a low dB or high dB output. It uses a T3/T4 module to generate and to synchronize the required fire alarm and CO alarm signals. See Figure 3.

Note: The KI-ABDT sounds whichever signal pattern is placed on its input by the T3/T4 module. The KI-ABDT sounds a steady signal when it is activated and the T3/T4 module is not activated.

For application and programming details, refer to the control unit documentation.

Installation

Install and wire this device in accordance with applicable national and local codes, ordinances, and regulations.

Cautions

- To prevent accidentally alarming the system, disconnect the signaling line circuit (SLC) from the control unit before connecting this device.
- Electrical supervision requires that you break the wire run at each terminal. Do not loop the field wires around the terminals.
- Equipment damage hazard. Printed circuit boards are not field repairable. When configuring the sounder base, make sure you are cutting the correct location before you make the cut.
- Equipment damage hazard. Overtightening the screw terminals can damage the terminal and make wire connections less secure. Tighten screws firmly, but do not overtighten.

Notes

- Do not install KI-ABDT fire/CO sounder bases and KI-ABST sounder bases on the same signal power (AUX) circuit.
- To determine where to locate the sounder base, refer to the detector installation instructions.
- For NFPA 72 applications, use either the low or high dB output. For NFPA 720 applications, only use the high dB output.

To install the sounder base:

1. Configure the sounder base. See Figure 1.

   To select a low dB output, cut the printed circuit board at J1. For a high dB output, leave J1 intact.

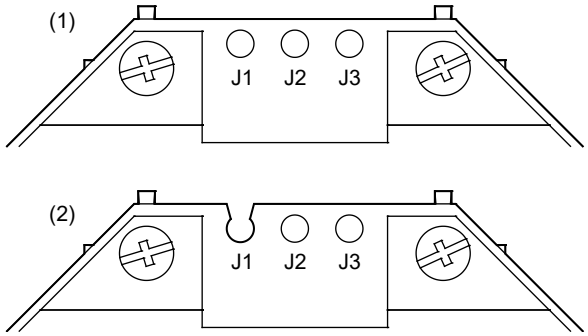
2. Connect the field wiring to the terminals. Observe the signal polarity of the T3/T4 riser (plus to minus and minus to plus). See Figure 3. Do not overtighten the screws.

3. Attach the base plate to the electrical box. See Figure 4. Do not overtighten the screws.

   If you are using the AB4G-SB surface mount box, make sure to install a reinforcing plate at each knockout used. Reinforcing plates are included with the AB4G-SB. See Figure 2.

4. Align the trim ring so that the four tabs on the ring mate with the four slots in the base plate, and then press the trim ring onto the base plate until the tabs lock.

Figure 1: Output configuration



(1) High dB
(2) Low dB

Note: J2 and J3 are not used.

Figure 2: Installing reinforcing plates on the AB4G-SB box

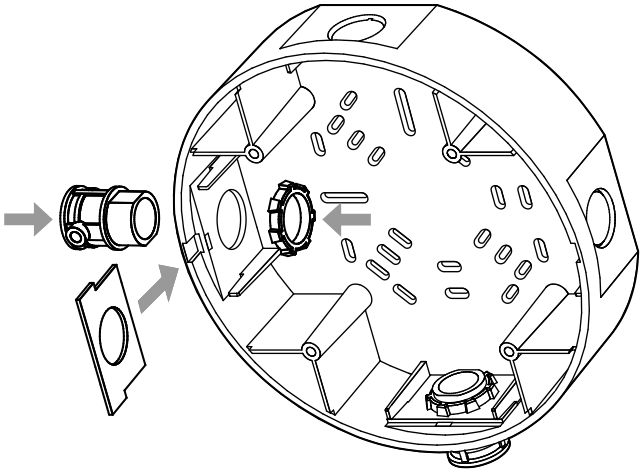
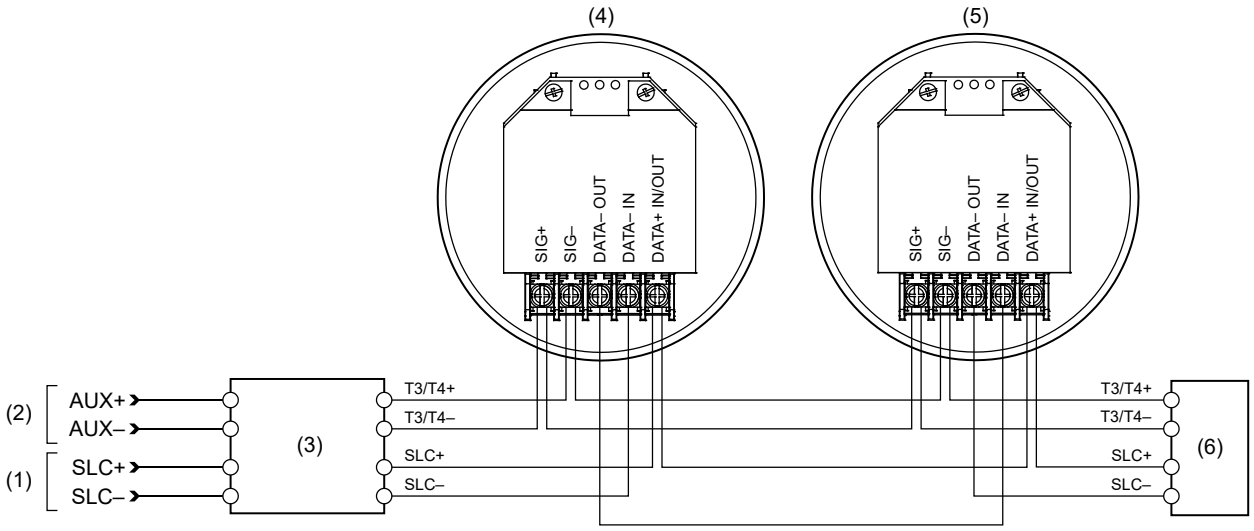
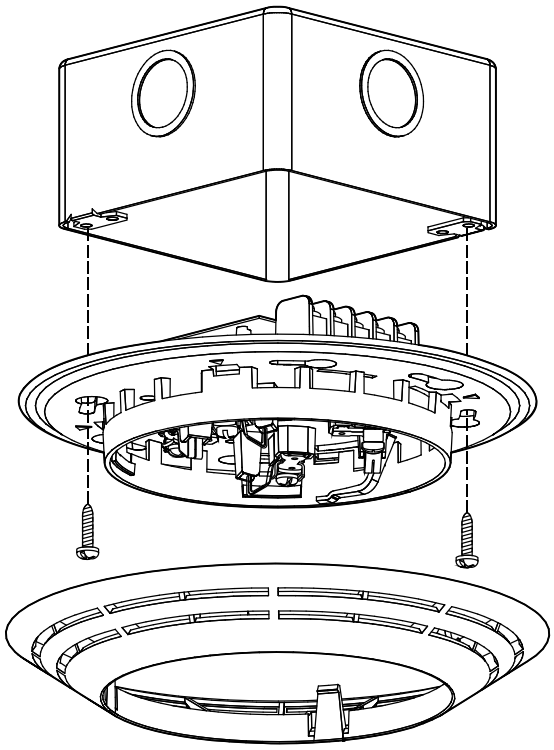


Figure 3: Typical synchronized sounder base circuit



(1) From the control unit signaling line circuit controller.
(2) From a 24 VDC auxiliary power supply that is UL/ULC Listed for fire protective signaling systems.
(3) Compatible T3/T4 module. Polarity shown in the normal state. For VM/VS systems, use a GSA-T3T4 module. For FX intelligent systems, use an FX-T3T4 module.
(4) First KI-ABDT sounder base on the T3/T4 riser.
(5) Last KI-ABDT sounder base on the T3/T4 riser
(6) T3/T4 riser supervision circuit. For VM/VS systems, use a GSA-RM1 or a GSA-MRM1 module. For FX intelligent systems, use an FX-NAC module.

Figure 4: Mounting diagram



Maintenance

Caution: Equipment damage hazard. To maintain the required agency listings, do not change factory-applied finishes.

This unit is not serviceable or repairable. Should the unit fail to operate, contact the supplier for a replacement.

Perform a visual and operational inspection in accordance with applicable codes and standards or as directed by the local authority having jurisdiction.

Specifications

Riser operating voltage [1]	16 to 33 VDC
Current	
Operating	See Table 1
Supervisory	DC = 1.46 mA
Default sound level	High dBA
Sound level output	
ULC	See Table 2
UL	See Table 3
Resonant frequency	3.2 kHz
Audible directional characteristics	See Table 4
Temporal pattern	As determined by the T3/T4 module
Compatible detectors	All KI Series and KIR Series detectors
Compatible electrical boxes	AB4G-SB surface box 4 in. square box, 2-1/2 in. (64 mm) deep 3-1/2 in. octagon box, 2-1/2 in. (64 mm) deep Standard European 100 mm² box
Wire size	12 to 18 AWG (0.75 to 2.50 mm²)
Screw torque	
Base mounting	18 lbf-in (2.0 N·m) max.
Terminal	12 lbf-in (1.4 N·m) max.
Base diameter	6.8 in. (173 mm)
Base height from box	0.8 in. (21 mm)
Maximum distance from ceiling (wall mount)	12 in. (305 mm)

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Operating environment	
Temperature	32 to 120°F (0 to 49°C)
Relative humidity	0 to 93% noncondensing
Storage temperature	−4 to 140°F (−20 to 60°C)

[1] A compatible T3/T4 module is required for the KI-ABDT to work as designed.

Table 1: Operating current (RMS)

Low dBA	High dBA
31 mA	52 mA

Table 2: Sound pressure level per CAN/ULC-S525 [1]

Signal	High dBA	Low dBA
Temporal	95	91
Steady	93	89

[1] Voltage is regulated 24 DC.

Table 3: Sound level output (dBA)

Low dBA [1]	High dBA [1] [2]
86.8	90.8

[1] For NFPA 72 applications, use the low or high dBA settings

[2] For NFPA 720 applications, only use the high dBA settings

Table 4: Audible directional characteristics [1]

Angle (degrees)	Change in output sound pressure level
90 (ref)	0 dBA
70 and 110	−3 dBA
55 and 115	−6 dBA

[1] ULC anechoic room

Regulatory information

UL and ULC voltage ratings	Regulated 24 DC
Environment class	Indoor, dry
FCC compliance	This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.
Industry Canada compliance	This Class A digital apparatus complies with Canadian ICES-003.

Contact information

For contact information, see www.kidde-esfire.com.