

**NO
EXCUSES!**

Know the Facts . . .



BSC

Building Smoke Control Annunciator

The most effective and successful Emergency Operation Plan (EOP) incorporates smoke control capability, ensuring optimization of life safety procedures. The BSC Graphic Smoke Control Annunciator is the key component in the EOP. This "Command Center" provides authorized building personnel and firefighters a consistent, recognizable format ensuring instant control and override authority of mechanical smoke control systems.

Smoke control capability over the complete smoke control system equipment within the building ensures optimization of life safety procedures by means of reliable manual air control and status of the remote equipment. The building's arrangement and smoke control zones are graphically depicted on the BSC and indicate the status of each zone with back-lit illumination, high-intensity LED point indication and appropriate legends.

The system is approved for the intended purpose and complies with the following:

- **The National Electric Code (NEC)**
- **The Local Authority Having Jurisdiction (AHJ)**
- **National Fire Protection Association (NFPA) series 72A thru H, and NFPA 92A**
- **UUKL listed with proper configuration**
- **UL listed under standard #864 as a fire alarm control accessory**

The BSC is a UL864 9th edition, UUKL listed system. It meets NFPA 92A and 92B code requirements. The BSC and a UL listed sub-assembly FACP driver can be part of a compatible UUKL smoke control system or it can be configured as a hard-wired system.

UUKL listed with proper configuration



ISO 9001 REGISTERED



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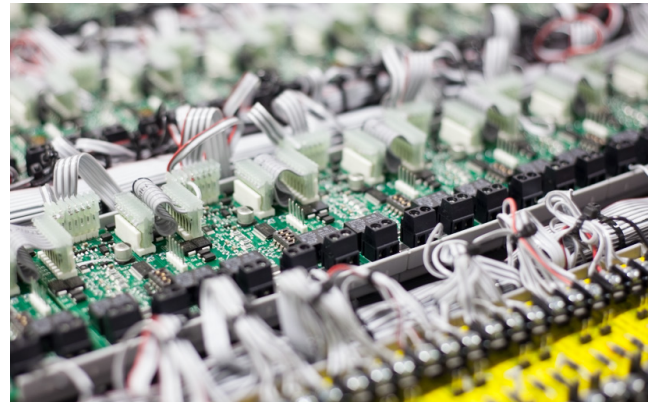
The fact is: **smoke inhalation is the leading cause of death in fires**, robbing a person of valuable oxygen and ultimately causing suffocation. Additionally, visibility is dramatically reduced, impairing the view of safe exits from the building and hindering firefighters entering and venturing throughout the premises. This combination is deadly, and without the control to reroute or confine fatal smoke, high fatality rate is imminent. Space Age Electronics, Inc. is at the forefront of this technology, providing the life and property saving solution to this substantial problem with the BSC Smoke Control Annunciator.

The **BSC Graphic Smoke Control Annunciator** panel is designed for the exclusive use by the appropriate building personnel and fire department for the manual control of all air handling and smoke control related functions during drills, testing and a fire emergency condition. The intent of providing a smoke control system is to enhance life safety procedures through maximizing safe refuge by inhibiting the flow of smoke into the means of egress, exit passageways and related areas of the building. The BSC provides the necessary control sequences to implement smoke control as described in NFPA 92A. This is more effective than system shutdown or simpler attempts to dilute smoke infiltration.

The BSC Command Center can be integrated with other building automation systems such as:

Integrated EOP command panels:

- Override system fan damper smoke control
- Mass Notification
- Alarm point annunciator panel
- Exit & egress static display
- Identify location of Area of Rescue call station
- Elevator recall annunciation
- Fire phone communication access



High-rise buildings are a common site in cities around the world. With the difficulty of evacuating these tall buildings, it is imperative that smoke control systems be incorporated along with other life saving devices to optimize their life safety systems.

Proper system design, including smoke control capability, are a must to optimize critical life safety systems and Emergency Operation Plans.

BSC, GL8, XL8 Smoke Control approvals / listings

<i>Agency</i>	<i>Reference Number</i>
UL	UOXX.S2580
Smoke Control	UUKL.S24808

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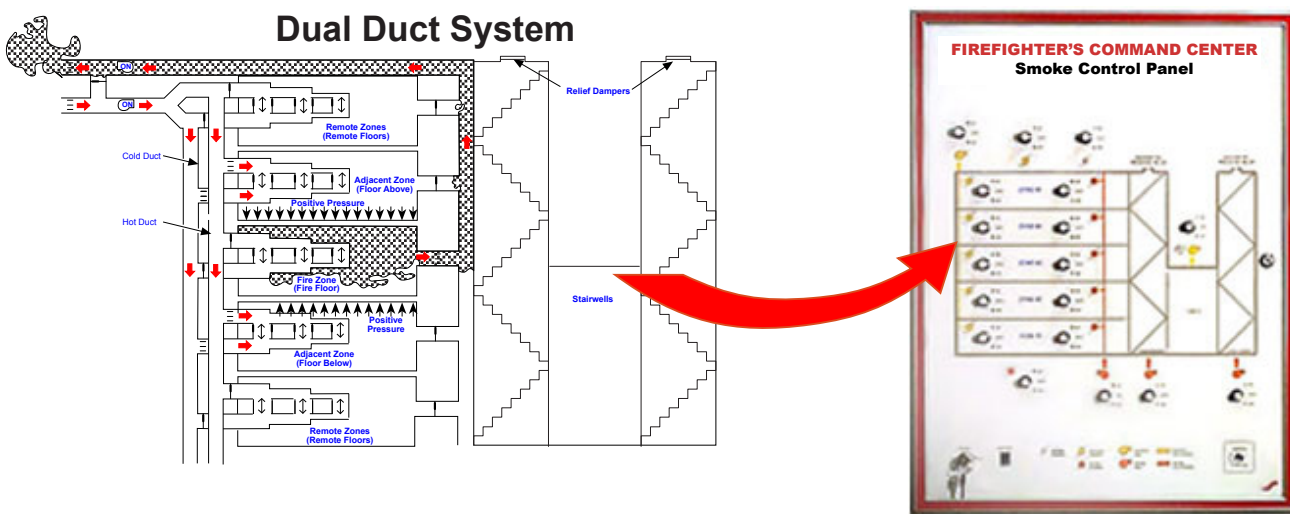
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No Excuses Just Solutions!

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The **BSC Annunciator** applies to a variety of building systems. Here are some examples of smoke control applications, as described in NFPA 92A - *“Recommended Practice for Smoke Control Systems”* and NFPA 92B - *“Guide for Smoke Management Systems in Malls, Atria, and Large Areas”*. Other examples include high rise buildings, dorms, campus facilities, warehouses and large business facilities.

Once the system is identified, approved and graphically translated, the controls and graphics are conveyed onto the BSC Annunciator. Below is a sample of the Dual Duct System applied to the BSC Annunciator. Input and output circuits are coordinated with the fire alarm and building automation contractors. The system is programmed to provide the remote optimal operating sequence (see sample sequence below) to control smoke with outlying building equipment. The BSC Smoke Control Panel is a separate and distinct system from the life safety and building automation systems, to ensure function in the event of either dedicated or non-dedicated systems’ failure.



The smoke control system application is conveyed on the BSC Annunciator utilizing illumination, appropriate switch configuration and color to create a visual aid to quickly identify a building’s Smoke Control System components.

The typical **Smoke Control Sequence Commands** for this particular system are as follows:

1. Fully open the central exhaust damper and outside air damper.
2. Close the central return air damper.
3. Reset the duct static pressure controls to the maximum allowable levels.
4. Close the fire zone hot duct and cold duct zone dampers.
5. Fully open the fire zone exhaust air damper.
6. Close the adjacent zones’ (zones to be pressurized) exhaust air dampers and fully open their hot and cold duct dampers.
7. Configure the adjacent zone mixing boxes for maximum air discharge into the zone.
8. Close the zone dampers of all zones that are served by the dual duct system but are not involved in smoke control for the fire zone.
9. Turn on the central system supply and return fans (if not already on).

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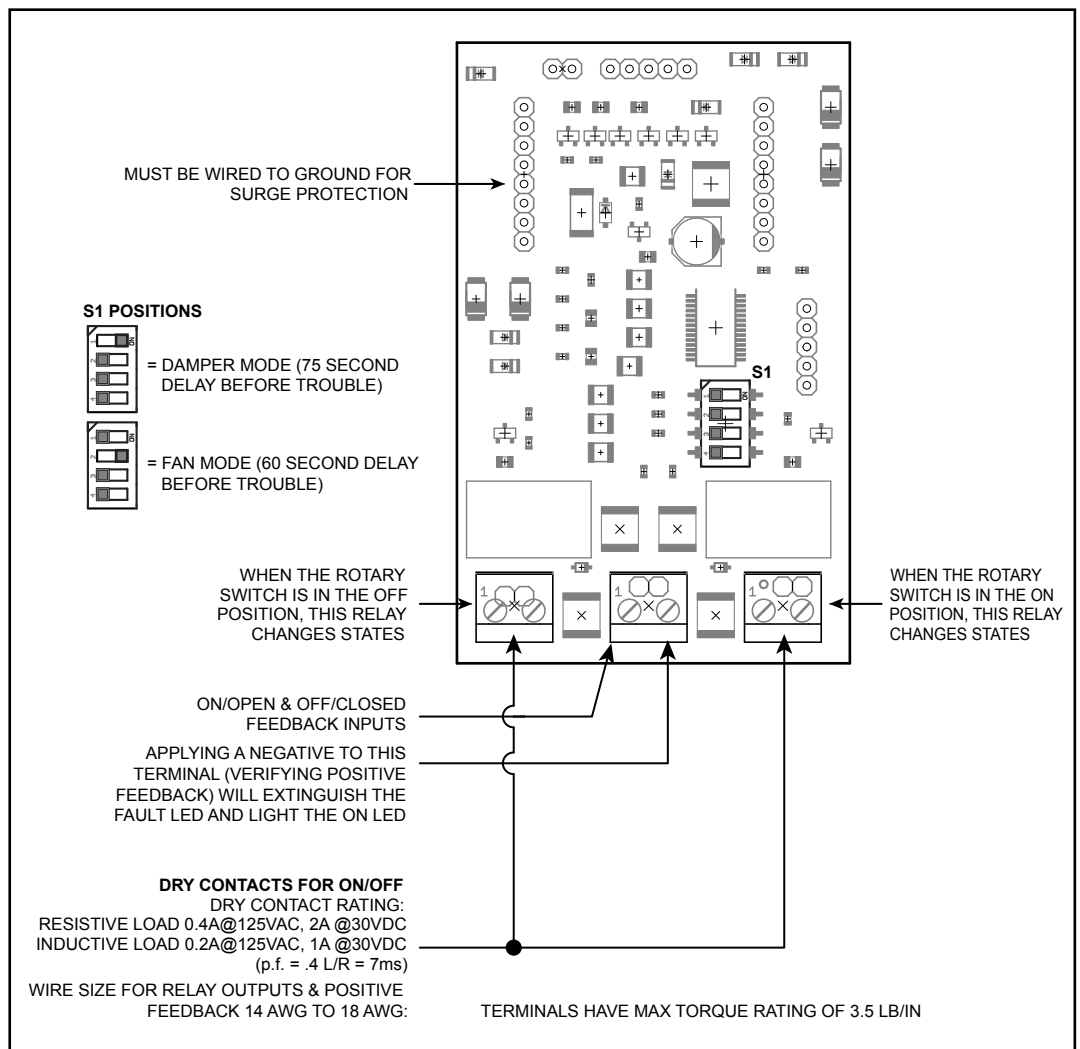
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Electrical Specifications

The BSC Smoke Control panel electronics will be solid state modular design with UL recognized components. The modular design allows for the control circuitry to be isolated in control groups and ease of plug in circuitry replacement during service. Components from cover and back box control electronics will be wired with a cabling and connector system. Cabling will provide unhindered access to field wiring termination points during installation or service.

Wiring description option BSC & BSH Smoke Fan Damper Control

A Key switch must be engaged to allow the panel switch (rotary or toggle) position contact information to be transferred to the output contacts. A trouble horn and a form C (N.O. N.C. com) output relay is energized if a switch is moved from the AUTO "normal" position without the activation of the ENGAGE switch. A contact closure is provided for each switch position. All LEDs are controlled by internal logic and one field input (positive feedback) per device.



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