Smoke Control Panel Installation Instructions for a UL864-UUKL Listed Firefighter’s Smoke Control Station, (FSCS) manufactured by Automation Displays, Inc.

**GENERAL**
The Smoke Control Panel is intended to be installed in conjunction with an Engineered Smoke Control System. This system will be a UL864-UUKL Listed Fire Alarm System or UL864-UUKL Listed Building Automation System. The smoke control panel is to be installed in conjunction with heating-ventilating-air conditioning (HVAC) equipment to form a system for controlling the flow of smoke in a building during a fire condition in accordance with ANSI/NFPA 92A, “Standard for Smoke-Control Systems Utilizing Barriers and Pressure Differences,” or ANSI/NFPA 92B, “Standard for Smoke Management Systems in Malls, Atria, and Large Spaces.”

The FSCS (Fire Fighters Smoke Control Station) is intended to provide the necessary manual control switches and status indications for the facility equipment responsible for performing smoke control applications. This function and the interconnection to other smoke-control equipment, as well as HVAC equipment, are described in an installation documents provided by the Fire Alarm System or Building Automation System manufacturer. Each Smoke Control Panel is custom manufactured by Automation Displays, Inc. to meet the project requirements.

There are two types of smoke control systems. Non-dedicated - a system that provides the building HVAC function under normal conditions and provides a smoke-control objective during a fire alarm condition. Dedicated - a system which is normally inactive and is used exclusively for the purpose of smoke control.

Smoke Control Panels are mounted to an enclosure per UL864. Panel devices are wired to terminals or UUKL Listed electronics. Model series of the panel defines the UUKL Listed system interface.

Smoke Control Panel Door Assembly typically includes the following UL864 items and operations. Graphic Panel Door depicts controlled smoke control equipment and areas served. LEDs indicate status of the equipment, alarms or zones. Local building code determines On-Off-Fault, Open-Close-Fault, Purge-Pressurize-Off, and LED color. Control Switches provide override control for zones, fans, dampers, doors or other smoke control equipment. Local building code determines On-Auto-Off, Open-Auto-Close or Purge-Auto-Pressurize-Off function. Panel Power LED confirms power to the panel is present. Lamp Test pushbutton illuminates all status indicators and activates any audible alarms. Panel Enable Key Switch or Firefighter’s Key Switch limits access to panel switch operation. Panel enable key switch must be activated so other switches on the panel will operate. Audible Alarm is activated when any fault LED or other alarm occurs. Alarm Silence Key Switch will cancel the audible alarm. The Authority Having Jurisdiction (AHJ) has discretion over the Smoke Control System and FSCS requirements.

**DOCUMENTATION**
Each panel is shipped with a unique set of documentation that includes a panel drawing with wire point assignments, wiring block diagram and enclosure drawing. Operational instructions, panel functions and the interconnection to other smoke-control equipment, as well as HVAC equipment, are described in installation documents provided by the Fire Alarm System or Building Automation System manufacturer.

**PANEL INSTALLATION**
Panel mounting - panel enclosure shall be securely mounted. Wiring - all wiring to the FSCS panel shall be in conduit. Flush mount enclosures may have knockouts for wire access. Surface mount enclosures have no knockouts and will require access holes installed on site. Maximum wiring distance for unsupervised wires is 20 feet. See FSCS Installation Document for wiring information.

**MARKINGS**
Markings describing the smoke control panel are located on the inside or back side of the smoke control panel. Smoke Control Panel markings include: Manufacturer Name, Model Number, Serial Number, Manufacture Date, UL Model Series defining the Smoke Control Systems interface, Power Rating, Location: Indoor Dry Only, and Intended Use: UL864-UUKL Listed 9th Edition Firefighter’s Smoke Control Station in accordance with NFPA 70, 72, 92A, 92B. The FSCS and Smoke Control System should be approved by the local Authority Having Jurisdiction (AHJ).

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2. All Equipment mounted inside the FSCS is to be UL864-UUKL Listed and securely mounted.

3. Wiring of UUKL Listed equipment shall be in accordance with the manufacturer’s installation documentation.

4. All Equipment shall be clearly marked for the intended use.

5. Segregation of power limited and non-power limited circuits shall be per the National Electrical Code, NEC (ANSI/NFPA 70).

6. The following documents shall be included with each FSCS panel when shipped from the factory.
   A Manufacturer’s Panel drawing
   B Wiring diagram
   C Enclosure drawing

Notes for typical enclosure

Separate conduit shall be provided for each of the following typical entries:

Power Limited circuits:
1. Serial data line or digital I/O for connection to FSCS engineered system
2. Dry contact isolated inputs from the fire alarm system (optional)

Non-Power limited circuits:
1. Panel power: non-power limited circuit

Note: Enclosures may have knockouts or may require wire entry holes drilled on site.