



FIRE DEPARTMENT

9 METROTECH CENTER

BROOKLYN, N.Y. 11201-3857

CERTIFICATE OF APPROVAL # 6080 THIS CERTIFICATE IS REVOCABLE, NOT TRANSFERABLE AND EXPIRES ON March 10, 2014

By order of Fire Commissioner Salvatore Cassano, and pursuant to Section FC 112 of the New York City New Fire Code, the following equipment or system is accepted for use provided the conditions as outlined below are in full compliance.

Manufacturer: Advanced Fire Alarm Systems, Inc.

Trade Name: Advanced Fire Alarm Systems, Inc.

Product: Fire Alarm Equipment
AX Series Intelligent Fire Alarm Control Panels

Basic Model Number(s): AX-CTL-1, AX-CTL-1L, AX-CTL-2, AX-CTL-4, AX-CTL-1V,
AX-CTL-2V, AX-CTL-4V, AX-CC1-16, AX-CC2-16, AX-CC4-16,
CCM-01, CCM-02
(see Table 1 for more details)

Pertinent Code Section(s): Section FC 901 of the New York City Fire Code

Test(s) Standards(s): UL 864 9th Edition

Laboratory: Intertek Testing Services NA Inc. (ETL)

Test Report(s): Report No. 3118002NYM-001B; Issued 10-22-07; Revised 01/07/11
Report No. 3186781NYM-001; Issued 22-09-09; Revised 06/08/10
Report No. 100027836-001c; Issued: 11/5/2010

Description: The AX Series is a family of intelligent life safety fire alarm control systems. The product ranges from a simple one-loop fire alarm control system to customized audio evacuation systems with voice paging, firefighter telephone communications and status and control LEDs/switches. These systems can exist as stand-alone or within a true peer-to-peer, token passing network system capable of supporting 200 nodes. The following components (Table 1) are available for the AX Series system and have been Listed by Intertek Testing Services NA Inc. (ETL):

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Table 1

Part/Model #	Description
AX Series Fire Alarm Controls	
AX-CTL-1	AX Series Intelligent Single Loop Fire Alarm Control Panel with small AX Series enclosure, power supply/charger, 1 SLC, 2 NACs, 3 auxiliary relays (enclosure supports batteries 7Ah - 18Ah)
AX-CTL-1L	AX Series Intelligent Single Loop Fire Alarm Control Panel with standard AX Series enclosure, power supply/charger, 1 SLC, 2 NACs, 3 auxiliary relays (enclosure supports batteries 7Ah - 18Ah)
AX-CTL-2	Ax Series Intelligent Fire Alarm Control Panel with cabinet, power supply/charger, 2 SLCs, 2 NACs, 3 auxiliary relays (cabinet supports batteries 7Ah - 18Ah)
AX-CTL-4	Ax Series Intelligent Fire Alarm Control Panel with cabinet, power supply/charger, 4 SLCs, 4 NACs, 3 auxiliary relays, 5A expansion power supply (cabinet supports batteries 7Ah - 18Ah)
AX-CTL-1V	AX "V" Series Intelligent Single Loop Fire Alarm Control Panel with Integrated Audio/Microphone in standard AX Series enclosure, power supply/charger, 1 SLC, 2 NACs, 3 auxiliary relays, 2 40 watt speaker circuits, 5A amplifier power supply charger, and microphone (enclosure does not support batteries use AX-BAT battery box)
AX-CTL-2V	AX "V" Series Intelligent Single Loop Fire Alarm Control Panel with Integrated Audio/Microphone in standard AX Series enclosure, power supply/charger, 2 SLC, 2 NACs, 3 auxiliary relays, 2 40 watt speaker circuits, 5A amplifier power supply charger, and microphone (enclosure does not support batteries use AX-BAT battery box)
AX-CTL-4V	AX "V" Series Intelligent Single Loop Fire Alarm Control Panel with Integrated Audio/Microphone in standard AX Series enclosure, power supply/charger, 4 SLC, 4 NACs, 3 auxiliary relays, 2 40 watt speaker circuits, 5A amplifier power supply charger, and microphone (enclosure does not support batteries use AX-BAT battery box)
AX-CC1-16	AX Series Command Center Single Loop Fire Alarm Control Panel with Integrated Audio/Microphone in 3x3 matrix AX Series enclosure, power supply/charger, 1 SLC, 2 NACs, 3 auxiliary relays, 16 switch/48 LED switch module, 2 40 watt speaker circuits, 5A amplifier power supply charger, and microphone (enclosure does not support batteries use AX-BAT battery box)
AX-CC2-16	AX Series Command Center Single Loop Fire Alarm Control Panel with Integrated Audio/Microphone in 3x3 matrix AX Series enclosure, power supply/charger, 2 SLC, 2 NACs, 3 auxiliary relays, 16 switch/48 LED switch module, 2 40 watt speaker circuits, 5A amplifier power supply charger, and microphone (enclosure does not support batteries use AX-BAT battery box)

AX-CC4-16	AX Series Command Center Single Loop Fire Alarm Control Panel with Integrated Audio/Microphone in 3x3 matrix AX Series enclosure, power supply/charger, 4 SLC, 4 NACs, 3 auxiliary relays, 5A expansion power supply, 16 switch/48 LED switch module, 2 40 watt speaker circuits, 5A amplifier power supply charger, and microphone (enclosure does not support batteries use AX-BAT battery box)
CCM-01	AX Series 3x3 Modular Command Center can support one AX Series Fire Alarm Control Panel, one 5A expansion power supply, one 2 x 40 watt speaker circuits, one 5A amplifier power supply charger, one microphone, one firefighter telephone, one 8 point relay, four point relay, modem and one digital dialer (enclosure can support batteries based on optional modules installed if no room use AX-BAT battery box) Available inner doors: CCM-01-ID1 (one double, seven single apertures) CCM-01-ID2 (two double, five single apertures) CCM-01-ID3 (nine single apertures)
CCM-02	AX Series 3x5 Modular Command Center can support one AX Series Fire Alarm Control Panel, one 5A expansion power supply, two 2 x 40 watt speaker circuits, two 5A amplifier power supply charger, one microphone, one firefighter telephone, one 8 point relay, four point relay, modem and one digital dialer (enclosure can support batteries based on optional modules installed if no room use AX-BAT battery box) Available inner doors: CCM-02-ID1 (one double, thirteen single apertures) CCM-02-ID2 (two double, eleven single apertures) CCM-02-ID3 (fifteen single apertures)
AX Series Fire Alarm Control Modules and Accessories	
AX-PSU	5 Amp Expansion Power Supply
AX-LPD	2 SLCs, 2 NACs Expansion Module for Ax-2, Ax-2/D System
AX-NAC	2 NACs Expansion Module for Ax-2, Ax-2/D System
AX-NET7	Network Interface Card (Style 7)
AX-NET4	Network Interface Card (Style 4)
AX-LZA-100	100 Red Zone/Point LED Annunciator (front cabinet mount)
AX-LZA-200	200 Red Zone/Point LED Annunciator (front cabinet mount)
AX-RL8	8-Way Relay Output Card (Programmable)
AX-ANN-D	Remote Graphical LCD Annunciator w/o Control (Style 4)
AX-ANN-D/ST7	Remote Graphical LCD Annunciator w/o Control (Style 7)
AX-ANN-C	Remote Graphical LCD Annunciator w/Control (Style 4)
AX-ANN-C/ST7	Remote Graphical LCD Annunciator w/Control (Style 7)
AXS-002	Optional Key switch
AXM-008	AX-ANN Optional Bezel
AX-CTY	City Tie Module

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AX-MDM	Modem Card
AX-RL4	4-Point Relay Card
AX-LAN	LAN Interface Card [IP Gateway] (Style 4)
AX-LAN/ST7	LAN Interface Card [IP Gateway] (Style 7)
AX-RL10	10-Way Relay Output Card
AX-I/O-48	Switch Input/LED Drive Output Module
AX-ASW-16	Switch/LED Module
AX-TEL	Telephone and Telephone Riser Module
AX-DCI	Isolation Module
AV-JACK	Firefighter Telephone Jack
AV-TEL-SUP	Firefighter Warden Station Interface Module
AX-MOXA	Fiber Optic Converter Module
AX-012	Thermal Strip Printer
D9068E	5-point Digital Alarm Communicator Transmitter
D9068P	RS-232 Serial Digital Alarm Communicator Transmitter
AX-SEB	Serial Expansion Board for D9068P DACT
AX-048	Standalone Thermal Strip Printer
AX-PSU-6	Power Supply Charger
AV-AMP-80	Audio Amplifier
AX Series Compatible Addressable Devices	
AX-APS-F1	AX Series Intelligent Manual Pull Station, Single Action
AX-APS-F2	AX Series Intelligent Manual Pull Station, Dual Action
AX-APS-F1-NYC	AX Series Intelligent Manual Pull Station, Single Action, NYC White Stripe
AX-APS-F2-NYC	AX Series Intelligent Manual Pull Station, Dual Action, NYC White Stripe
AX-APS-B1	Blue, AX Series Intelligent Manual Pull Station, Single Action
AX-APS-Y1	Yellow, AX Series Intelligent Manual Pull Station, Single Action
AX-APS-G1	Green, AX Series Intelligent Manual Pull Station, Single Action
AX-APS2-F1	AX Series Intelligent Manual Pull Station, Toggle Switch, Single Action
AX-APS2-F2	AX Series Intelligent Manual Pull Station, Toggle Switch, Dual Action
AX-APS2-F1-NYC	AX Series Intelligent Manual Pull Station, Toggle Switch, Single Action, NYC White Stripe
AX-APS2-F2-NYC	AX Series Intelligent Manual Pull Station, Toggle Switch, Dual Action, NYC White Stripe
AX-APS2-B1	Blue, AX Series Intelligent Manual Pull Station, Toggle Switch, Single Action
AX-APS2-Y1	Yellow, AX Series Intelligent Manual Pull Station, Toggle Switch, Single Action
AX-APS2-G1	Green, AX Series Intelligent Manual Pull Station, Toggle Switch, Single Action

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55000-790ADV	AX Dual Switch Monitor Module
55000-805ADV	AX Switch Monitor Module
55000-806ADV	AX Priority Switch Monitor Module
55000-820ADV	AX I/O Relay and Switch Monitor Module
55000-825ADV	AX NAC Controller Module
55000-830ADV	AX Mini Priority Switch Monitor Module
55000-831ADV	AX Mini Switch Monitor Module
55000-863ADV	AX Relay Output Module
55000-859ADV	120 V AC I/O Module
55000-765ADV	Mini Monitor Module
AX Series Audio Booster Panel	
AV-VB	Audio Booster
AX-PSU-6	Power Supply Charger
AV-AMP-80	Audio Amplifier

Note: Detectors are excluded from review, as they do not require our approval (detectors have to be listed and compatible with AX Series Intelligent Fire Alarm Control Panels)

Conditions of Approval:

1. All uses, configurations, arrangements and functions, application and installations shall comply with the provisions of New York City Construction Codes, specifically Building Code Chapter 9 & Appendix Q Section BC Q106, and New York City Electrical Code. Further, the installation shall be in accordance applicable provisions of New York City Fire Code and 1RCNY §4000-06, manufacturer's recommendations and UL Standard 864.
2. When used with a central office control communicator or a transmitter (DACT), the installation and operation of the equipment and devices shall comply with 3RCNY R901-01. It shall have the capability of transmitting separate and distinct signals to indicate manual pull station alarm, automatic detection alarm, sprinkler waterflow alarm, supervisory signal indications, and trouble indications. Using other technology that complies with 8.5.4 NFPA 72, 2002 edition shall be limited for secondary means of communication.
3. Annunciator is acceptable under the condition that this unit shall be used to acknowledge the alarm and all its control function, including alarm silence and panel reset shall be disabled.
4. The connection of security/burglar devices and equipment to the fire alarm control unit is prohibited. A sign must be provided to indicate the same.

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5. Models with voice system shall have the capability of individual, group, or entire building notification of alarm tone and voice intelligibility.
6. Installation of prerecorded evacuation messages would require a prior approval from the Department.
7. When installed, the fiber optic cable shall be limited for communication of the network of Fire Alarm Control Panels located in other buildings (building-to-building communication). They shall not be used for fire alarm communication within protected building (inter-building communication).
8. The above referenced Fire Alarm Control Panels shall be used only with listed fire alarm equipment and devices, with which the compatibility has been determined by Intertek Testing Services NA Inc. (ETL) listing report
9. Only enclosures painted red in color shall be used.
10. Intertek Testing Services NA Inc. (ETL) listing requirements and limitations shall be complied with.
11. Certificate of Approval number shall be plainly and permanently stamped or otherwise fixed upon each product by the applicant.
12. The Fire Department's conditions of approval shall be enumerated in the installation manuals and brochures that will be provided to all New York City buyers and users.
13. Fire Department Certificate of Approval does not constitute an endorsement or recommendation of your product by the Fire Department, but is a certification that your product is acceptable as of the date of issuance.
14. The Fire Department reserves the right to withdraw this approval at any time in the event there is a reasonable doubt that the product does not operate or perform as required by code, the conditions of this resolution or as represented in your application.
15. As the manufacturer of this product, you should be aware that any end user who fails to comply with the condition as outlined in the approval would be subject to enforcement action, which may include fines and imprisonment.
16. This Certificate of Approval does not grant the right to use any trademark associated with the New York City Fire Department (the letters FDNY, the FDNY Shield design, the FDNY Maltese Cross design, and the seal of the City of New York). The unauthorized use of trademarks in connection with the sale of commercial goods or services violates federal and state laws.

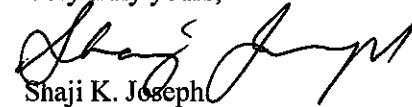
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17. Products marked to indicate the Certificate of Approval number might refer to the "NYC Fire Department" or "NYC Fire Dept" (e.g., "NYC Fire Dept Certificate of Approval #XXXX).

Any change in company name or ownership, product name, design or model number of any product included on this certificate must be immediately reported to this Department in writing.

When responding to this Department regarding this subject matter, kindly refer to F.P. Index # 1101040A and to Igor Chouchereba attention, 9 MetroTech Center #1S-43-K, phone (718) 999-1997.

Very truly yours,



Shaji K. Joseph
Chief Examiner
Technology Management

c: Tamara Saakian, P.E., Director of Engineering.

SJ: IC/1101040A