Axis AX Configured Command Centres

Axis AX configured command centres have been designed to support a wide variety of applications. They are fully compatible with both Axis AX intelligent fire alarm control panels and Axis AX intelligent fire alarm control panels with integrated audio.

The command centres come in three variations: AX-CC1-16 (single loop), AX-CC2-16 (two loops) and AX-CC4-16 (four loops). Each command centre comes in a 22.6”H x 20.3”W x 5.5”D cabinet and includes: one AX-DSP keyboard display, one main base card (configured for 1,2 or 4 SLC loops), one AX-ACB AC input board, an AV-AMP-80 audio amplifier (two 40 Watt speaker outputs), one AX-PSU-6 amplifier power supply and one AX-ASW-16 switch LED module.

The command centre cabinet has been designed to support a broad range of additional optional modules to suit specific application requirements. The optional modules provide the following capabilities: DACT, city tie, networking, modem, I/O drivers, switch and relay modules and many others.

To simplify installation, programming, troubleshooting, training and support, all Axis AX fire panels and command centres can be programmed using the same Windows-based programming tools. In addition, all Axis AX main PCBs, option modules, peripherals and intelligent devices are fully compatible across the full range of Axis AX fire panel & command centre products.

For control and operation of a large, networked, wide area or high rise system, each command centre will support up to 252 individually assignable switches through the use of up to sixteen AX-ASW-16 switch LED modules. These modules mount to the inner doors of the command centres. The switch action can be either toggle, on/off or push button. Each switch is associated with 3 LEDs that are red, yellow and green. These LEDs are fully programmable and can be set to turn on as either a steady light and/or to blink. A large area is made available per switch and LED for user-defined text to clearly identify the intended function. This versatility means that operation and control is simplified, and status is readily available and quickly identified.

Examples of switch operations include fan and HVAC control, paging area select, message select, telephone control, purging and zone/area/point bypass. The total number of switches supported across a maximum configured network is 51,200. A key feature is that individual switch and LED response time is not affected by the size of the network and each switch and LED can be assigned to network functions as well as individual panel functions.



Each command centre is supplied with a single AV-AMP-80 amplifier module, with associated AX-PSU-6 power supply charger and AV-MIC microphone module and can expand the audio wattage with the addition of an Advanced AV-VB audio booster. Each AV-AMP-80 and AV-VB has two 40 Watt speaker circuits (which can be programmed as 1:1 backup). Live or recorded audio messages can be sent to any location in a facility through either manual or automatic controls.

Control functions can include: All Call, All Evac, All Alert, Message Select and Area Select. For immediate control of paging to all areas, press the All Call button. To generate and play an evacuation message or an alert message throughout a facility push the All Evac or All Alert button. To play a particular message (up to 16 messages) in specific areas, use the individual message selection buttons followed by the individual area selection buttons.

A typical high-rise application may be configured with an AV-VB audio booster per floor. The boosters are controlled by the control-by-event logic at the command centre to generate specific messages for specific conditions. It is easy to program, for example, a typical fire floor, floor above and floor below evacuation message that is simultaneous with adjacent alert floor messages, while simultaneously providing the capability to override automatic messages at any time with manual paging to all or selective areas.

To simplify and reduce initial system set-up, Axis AX command centres are equipped with an installer-friendly “auto-learn/loop detection” feature that permits the rapid recognition of all signalling line circuits’ devices. This rapid recognition immediately simplifies the assignment of critical life safety functions. Assignments include intelligent detector type and operation criteria, addressable input device recognition as an alarm input, and addressable output control on a general alarm basis.

Features

- 1, 2 and 4 SLC loop options
- Integral 80 Watt amplifier
- Built-in paging microphone
- Configured with One AX-ASW-16 switch LED module
- Networkable – up to 200 intelligent panels
- Integrated 80 Watt digital audio features include:
  - 2 Class A or B, 40 Watt, 25 Vrms Outputs
  - Programmable 16 channel message generator
  - Automatic one-to-one backup capability
- Local internally mounted microphone and switches provide:
  - All call, alert and selective messaging and paging by zone or area
- Up to 504 analogue-addressable points
- Multiple command centres w/control options
- Synchronised audio and visual control (panel or network wide)
- AV-VB boosters expand audio Wattage (16 per panel/AX-PENN)

Axis AX command centres are designed with powerful built-in installation and customisation tools to adapt to virtually any application requirement.

With Dynamix programming, typical time-consuming complexities associated with I/O relationship programming such as two-stage, multi-pattern NAC control, intelligent detector drift compensation, precision response/sensitivity mode settings, flexible timing functions and more are significantly reduced.

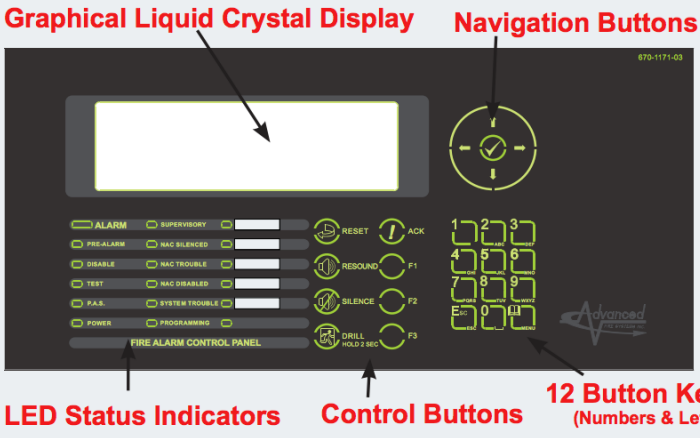
Axis AX configured command centres are fully field programmable via the onboard graphical LCD display and alphanumeric keypad (AX-DSP). Front-panel programming may encompass defining the input to output relationships, configuring output circuit characteristics, entering zone, device and other text descriptions, and configuring multiple user-access passwords.

To maximise the capability and flexibility of the command centres and expand upon the customisation of an installation, the Advanced-Windows based PC-NeT field configuration tool is available. This PC-NeT field configuration tool is a powerful, user-friendly programming tool that allows users to perform virtually any I/O relationship with multiple criteria. Simple drop-down menus with point-and-click operation make project commissioning and troubleshooting fast and efficient.

Designed with the technician in mind, each module of the command centre is easy to install and service. The integral power supply offers status LEDs, temperature compensated charging, and the ability to operate directly from the batteries when AC supply is not yet available at the installation site. A unique built-in intelligent multi-meter allows technicians to interrogate any input and/or output and diagnose potential time-consuming trouble issues with virtually no complications or aggravation. Servicing a customer after installation can be as simple as using the Advanced remote diagnostic virtual panel simulator.

Listings and approvals

- Certified to UL 864 10th Edition - File No. S35979
- CSFM Approved: Pending
- NYCFD COA: Pending



Advanced User Interface w/Graphical LCD:

Designed to be user-friendly and easy to operate, the Advanced User Interface w/Graphical LCD (backlit 240 x 64) is the information and control center for the Axis^{AX} Series Intelligent Fire Alarm Control Panel(s).

The unit incorporates a graphical LCD display, LED status indicators, control buttons (including 3 programmable buttons), navigation buttons, and a 12 button keypad for complete system status, interrogation, and control.

Button (Keys)	
	Reset
	Ack (panel buzzer acknowledge)
	Resound (resound signals)
	Silence (silence signals)
	Fire Drill
	Function Keys (3 - programmable control buttons)
	Navigation Keys (up, down, left, right, and tick [enter])
	12 Button Keypad (numbers, letters, esc, and menu)

LED Indicators	
Alarm	Red
Pre-Alarm	Red
Disable	Yellow
Test	Yellow
P.A.S.	Yellow
Power	Green
Supervisory	Yellow
NAC Silenced	Yellow
NAC Trouble	Yellow
NAC Disabled	Yellow
System Trouble	Yellow
Programming	Yellow
Programmable LED 1	Red
Programmable LEDs 2-5	Yellow

Specification

Operating Voltage	120V (1.4A (1 or 2 loop)/2.8A (4 loop)) 240V (0.7A (1 or 2 loop)/1.4A (4 loop)) 50/60Hz
System-Brown-Out	98 VAC nominal
Battery Circuit Charging Voltage Temp. Compensated Charging Current Battery Derating Factor Battery Capacity Battery Fuse	 27.4 VDC nominal* 2.3 Amp 0.83A 7 Ah (minimum), 75 Ah (maximum) 10A @ 250 VAC, Time Delayed, Ceramic, High Breaking (Inline Wire Link)
Fire Supervisory, and Trouble Relays Type Rating Trouble Relay	(Power Limited - When utilizing system power) Form "C" 1A @ 30 VDC/VAC Normally Active (fail-safe operation)
Auxiliary Power Outputs Resettable Voltage Current Reset Time Non-Resettable Voltage Current	(Power Limited) 24 VDC 0.5A 10-15 Seconds 24 VDC 0.5A
Humidity	85% RH
Temperatures	Operating: 32°F - 120°F (0°C - 49°C) Recommended Room: 60°F - 86°F (15°C - 27°C)
3x3 Enclosure Dimensions Back Box Housing	 22.6"H X 20.25"W X 5.5"D 24.1"H X 21.7"W X 6.0"D
3x5 Large Enclosure Dimensions Back Box Housing	35.9"H X 20.25"W X 5.5"D 37.3"H X 21.7"W X 6.0"D
SLC Loop	(Power Limited)

Class (Style)	Class X, A or B
Voltage	24 VDC
Minimum Return Voltage	17 VDC
Current	0.5A
NAC Circuits	(Power Limited)
Class (Style)	Class A or B
Voltage	24 VDC (filtered and regulated)
Minimum Return Voltage	16 VDC
Current	2A (each)
Maximum Voltage Drop	3 VDC
Maximum Line Impedance	1.5Ω
RS232	Supervised, Optically Isolated
Baud Rate	9600
Parity	None
Data Bits	8
Stop Bits	1
Base Card Operating Current	Quiescent Alarm
AX-CTL-1PCB	110 mA 195 mA
AX-CTL-2PCB	110 mA 195 mA
AX-CTL-4PCB	175 mA 260 mA
AV-AMP-80	
Input Voltage (DC)	24 VDC (operating range 15-30 VDC)
Amplifier #1 Output	40 Watts @ 25 Vrms, Class A or B Wiring
Amplifier #2 Output	40 Watts @ 25 Vrms, Class A or B Wiring
Activation	RS-485 (PBus) or Contact Closure
AV-MIC	Supervised Microphone Input

*For use with listed/compatible product

Order Codes and Options

AX-CC1-16*	Axis AX Series Command Centre with Cabinet, 2 power supply's/chargers, 1 SLC, 2 NACs, two 40 watt speaker circuits, 1 AXASW-16 switch LED module and microphone (126 addressable points)
AX-CC2-16*	Axis AX Series Command Centre with Cabinet, 2 power supply's/chargers, 2 SLC, 2 NACs, two 40 watt speaker circuits, 1 AXASW-16 switch LED module and microphone (252 addressable points)
AX-CC4-16*	Axis AX Series Command Centre with Cabinet, 2 power Supply's/Chargers, 4 SLC, 4 NACs, two 40 watt speaker circuits, 1 AXASW-16 switch LED module and microphone (504 addressable points)
AX-CC1-16P*	Axis AX Series Command Centre with Cabinet, 2 power supply's/chargers, 1 SLC, 2 NACs, two 40 watt speaker circuits, 1 AXASW-16 switch LED module, microphone and firefighter telephone (126 addressable points)
AX-CC2-16P*	Axis AX Series Command Centre with Cabinet, 2 power supply's/chargers, 2 SLC, 2 NACs, two 40 watt speaker circuits, 1 AXASW-16 switch LED module, microphone and firefighter telephone (252 addressable points)
AX-CC4-16P*	Axis AX Series Command Centre with Cabinet, 2 power Supply's/Chargers, 4 SLC, 4 NACs, two 40 watt speaker circuits, 1 AXASW-16 switch LED module, microphone and firefighter telephone (504 addressable points)
AX-LCC1-16*	Axis AX Series Large Enclosure Command Centre with Cabinet, 2 power supply's/chargers, 1 SLC, 2 NACs, two 40 watt speaker circuits, 1 AXASW-16 switch LED module and microphone (126 addressable points)
AX-LCC2-16*	Axis AX Series Large Enclosure Command Centre with Cabinet, 2 power supply's/chargers, 2 SLC, 2 NACs, two 40 watt speaker circuits, 1 AXASW-16 switch LED module and microphone (252 addressable points)
AX-LCC4-16*	Axis AX Series Large Enclosure Command Centre with Cabinet, 2 power Supply's/Chargers, 4 SLC, 4 NACs, two 40 watt speaker circuits, 1 AXASW-16 switch LED module and microphone (504 addressable points)
AX-LCC1-16P*	Axis AX Series Large Enclosure Command Centre with Cabinet, 2 power supply's/chargers, 1 SLC, 2 NACs, two 40 watt speaker circuits, 1 AXASW-16 switch LED module, microphone and firefighter telephone (126 addressable points)
AX-LCC2-16P*	Axis AX Series Large Enclosure Command Centre with Cabinet, 2 power supply's/chargers, 2 SLC, 2 NACs, two 40 watt speaker circuits, 1 AXASW-16 switch LED module, microphone and firefighter telephone (252 addressable points)

AX-LCC4-16P*	Axis AX Series Large Enclosure Command Centre with Cabinet, 2 power Supply's/Chargers, 4 SLC, 4 NACs, two 40 watt speaker circuits, 1 AXASW-16 switch LED module, microphone and firefighter telephone (504 addressable points)
	AX-CTL base card option modules**:
AX-LPD	2 SLC, 2 NAC expander card
AX-NAC	2 NAC expander card
AX-PSU	5 Amp expansion power supply module
AX-NET4	Network interface card Class B
AX-NET7	Network interface card Class X(A)
AX-PRN	Thermal strip printer
AX-UCM3	Advanced Contact-ID and SSIA Digital dialler, requires AX-SEB2
AX-SEB2	Serial Expansion Board for use with AX-UCM3

* For grey enclosure, suffix "G" to the part number.

** Refer to Axis AX data sheets for peer to peer network and peripheral bus modules.

Advanced, The Bridges, Balliol Business Park, Newcastle upon Tyne, NE12 8EW, UK T: +44 (0)345 894 7000 E: enquiries@advancedco.com
W: www.advancedco.com

As our policy is one of constant product improvement the right is therefore reserved to modify product specifications without prior notice.