

Infinity

ACX 700 Access Control Unit

The *Infinity* ACX 700 is a programmable, stand-alone access controller that is a basic building block of the *Infinity* Security Management System. Each ACX 700 controls access to 2 doors (up to 4 doors using optional EMX 190 expansion modules), and makes access decisions based on its own distributed data base. Each door may be controlled by a card reader, keypad, or a combination of both for high security. Up to 62 ACX 700s may be networked to one *Infinity* CX series network controller, and up to 1024 ACX 700s may be networked together on one site. In addition, the ACX 700 may be networked with other *Infinity* controllers including the IDX 800 Intrusion Detection Controller, LCX 890 Lighting Controller, and the DCX 250 Touch Screen Display for a fully integrated system.

The ACX 700 is available with a locked enclosure (shown), or in an open class version suitable for panel mounting. Input power is switch-selectable between 24, 115, or 230 VAC, or can be provided from a 12 VDC UPS power source.

COMMUNICATIONS

Communication to the *Infinity* ACX 700 is handled via the Infinet bus, a twisted pair, half duplex RS-485 interface. Communication is accomplished with a token passing protocol which provides full transparent data transfer between all *Infinity* controllers on the network. ACX 700 nodes have priority status on the bus to ensure the fastest possible alarm throughput.

INPUTS

The ACX 700 contains inputs for two Wiegand or ABA protocol card readers, two 3 x 4 matrix keypads, two supervised door status inputs, two supervised request-to-exit inputs, and four supervised general purpose alarm inputs. A built-in tamper switch provides alarm notification when either the cabinet door is opened or when the unit is removed from the wall. The ACX 700 can be expanded to four readers with the addition of two EMX 190 expansion modules. The EMX 190 also adds one supervised door switch input and one supervised request-to-exit input.



FEATURES

- Stand-Alone Two-Door Access/ Security Controller
- UL 294, UL 1076 Agency Listings
- Peer-to-Peer Communications Provide Transparent Data Transfer
- Distributed Database Stores Card Records at the Local Access Controller for Reliability
- 12 VDC Connection For Full UPS Operation
- Two Built-In Tamper Switches with Alarm Notification
- Switch-Selectable Wiegand or ABA Reader Protocols
- Wiegand, Proximity, and Magnetic Stripe Reader Support
- Keypad and Supervised Alarm Inputs Offer Optimum Flexibility in Door Control
- EMX 190 Expansion Module Capability Provides Up to 2 Additional Card Readers and Doors

OUTPUTS

The ACX 700 has two 5 amp, Form C relay outputs for door control. A third Form C relay is available for fail-safe alarming or custom programming. Each EMX 190 provides one additional door output. Outputs on the ACX 700 include software feedback of the switch position.

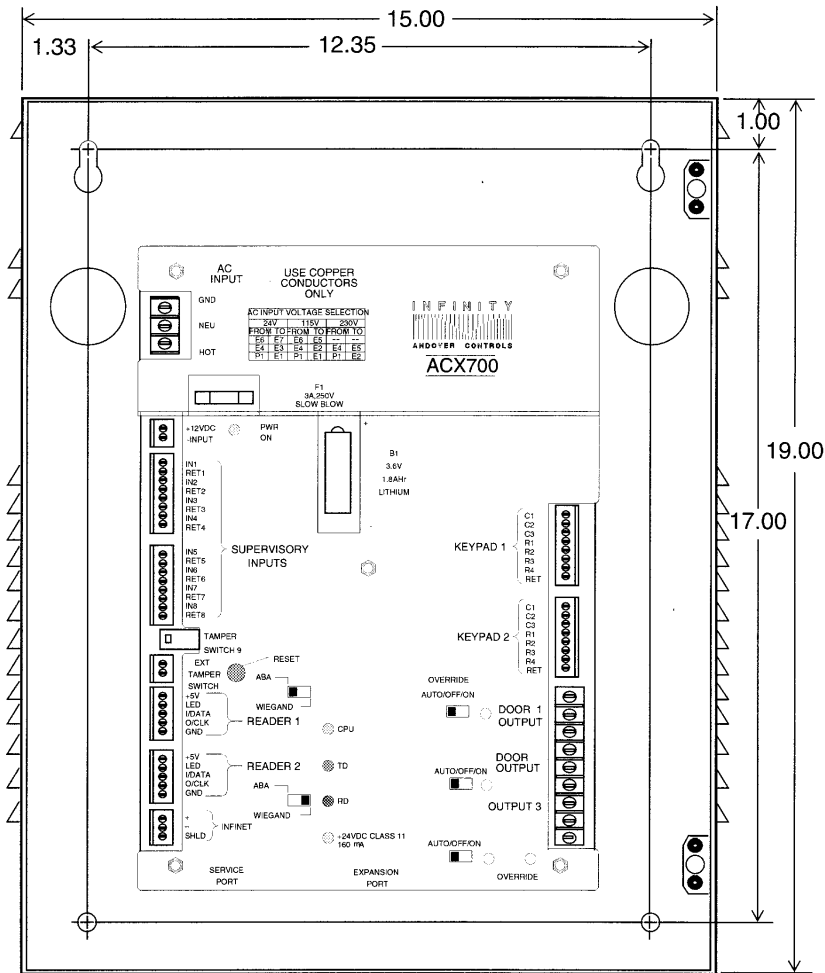
PROGRAMMING

A fully prompted access control database editor makes data entry easy for card records, readers, areas, schedules, and access clearance codes. Resident intelligence at the ACX 700 level allows for database storage for up to 1,700 card holders. Additional database storage capacity is provided at the CX network controller level, and at the SX 8000 workstations. Up to 57,000 card holders may be created for each local access control site. Site codes, card formats, and other degrade mode parameters are stored in non-volatile EEPROM in each ACX 700.

Each door can be configured to operate based on card only, card plus personal ID number (PIN), or keypad only. The door's operating mode can even be changed based on time-of-day or other events for optimum flexibility. Each keypad can also permit entry of a duress alarm code that can initiate an alarm sequence at any of the controllers or at the SX 8000 workstation.

Time-based anti-passback and entry/egress anti-passback are available to prevent tailgating. Entry/egress anti-passback is system-wide and can be performed by readers located on different controllers across the network.

Using Andover's powerful *Plain English* programming, the ACX 700 can also be used for custom access control sequences such as two-man rule, optical turnstile control, and man trap configurations.



ACX 700 Dimensional Drawing

SPECIFICATIONS

ELECTRICAL

Power:	24 / 115 / 230 VAC, 50/60 Hz, field selectable
Power Consumption:	20 VA
Overload Protection:	Fused with 3 amp 3 AG fuse. MOV protected.
Real-Time Clock:	Battery backed clock, synchronized through Infinet by CX or CMX Network Controller.

MECHANICAL

Operating Environment:	32 to 120°F (0° - 49°C), 10 to 95% RH (non-condensing)
Size:	15"H x 11"W x 3 1/2" D (381.0H x 279.4W x 88.9D)mm (no enclosure) 19"H x 15"W x 4 3/4" D (382.6H x 281.0W x 120.6D)mm (with enclosure)
Weight:	7.0 lbs. (3.1 kg) (no enclosure) 21 lbs. (9.5 kg) (with enclosure)
Enclosure Type:	Standard enclosure - UL open class sheet metal, IP 10 Optional NEMA 1-style enclosure, flammability rating of UL 94-5 V, IP 20

BATTERY

Battery Backup:	Replaceable, non-rechargeable lithium battery provides 7 years accumulated power failure backup of RAM memory and real-time clock.
	Input terminals provided for 12 VDC battery and charger (customer-furnished) for full UPS operation.

COMMUNICATIONS

Communications Interface :	Through Infinet field bus to <i>Infinity</i> CX or CMX Network Controllers or Lap-Top Service Tool.
Communications Speed:	1200 to 19.2k baud
Bus Length:	4,000 ft. (1,220m) standard for Infinet, InfiLink amplification module allows extension to longer distances and is required after every group of 32 units on the network.
Bus Media:	Infinet: twisted, shielded pair, approved low capacitance cable
Comm. Error Checking:	International Standard CRC 16

SPECIFICATIONS (Cont'd)

INPUTS/OUTPUTS

Inputs

Card Readers:	2 (expandable to 4 with addition of 2 EMX 190 card reader expansion modules).
Card Reader Type:	Wiegand or ABA, switch-selectable per reader. Supports Wiegand, Proximity, and Magnetic Stripe readers.
Maximum No. of Bits/Card:	64 (Wiegand), 256 (ABA)
Card Reader Power:	5 VDC, 35 mA per reader
Distance Card Rdr. to ACX 700:	500 ft. maximum using 18 gauge wire
Keypad Inputs:	2
Keypad Type:	3 X 4 matrix keypad
Door Status Inputs:	2
Request-to-Exit Inputs:	2
General Alarm Inputs:	4
Input Type for All the Above:	Single or double resistor supervision
Input Protection:	24 VAC/DC continuous shorting
Tamper Switch:	2 (Cabinet door and cabinet rear). Terminals also provided for external switch.

Outputs

Door Outputs:	2 Form C relays
Auxiliary Output:	1 Form C relay
Output Rating:	30 VAC/DC, 5 amp
Output Protection:	1500 V transients.
Overrides:	Each output is equipped with a three-position switch for manual control of the relay. Switch position is viewable and logged through software.
Expansion Bus:	Up to 2 EMX 190 Card Reader Expansion Modules may be added to each ACX 700, providing up to 2 additional card readers and doors. Other <i>Infinity</i> expansion modules may also be added. See the <i>Infinity Expansion Module Configuration Guide</i> for more information.
EMX 190 Inputs:	1 Card reader (Wiegand or ABA), 1 door status, 1 Request-to-exit input
EMX 190 Output:	1 Form C door strike relay, with override switch.

SPECIFICATIONS (Cont'd)

CONNECTIONS

Power:	Three-position barrier strip
Inputs:	Removable two-piece terminal strip
Outputs:	Screw terminals
Communications Bus:	Removable two-piece terminal strip

GENERAL

Memory:	512K EPROM, 1K bits EEPROM, 256K RAM
Max. Personnel Rcrds/700:	1,700
Max. Personnel Rcrds/Site:	57,000

AGENCY LISTINGS UL/CUL 916, 1076, UL 294 for Access Control, FCC, CE

OPTIONS

-
- NEMA 1-Style Enclosure for Wall Mounting
-

Andover Controls Corporation
World Headquarters
300 Brickstone Square
Andover, Massachusetts
01810 USA
Tel: 508 470 0555
Fax: 508 470 0946

Andover Controls (Europe) Ltd.
Smisby Road
Ashby-de-la-Zouch
Leicestershire LE6 5UG
Tel: 01530 417733
Fax: 01530 414225

Copyright 1996, Andover
Controls Corporation.
Data subject to change
without notice. Consult *Andover Product
Installation Guides* for exact installation
instructions and specifications.
#DS-ACX700-3.96