

# Access Easy Controller



- ▶ Supports access readers compliant with industrial Wiegand format
- ▶ 4 access readers expandable to 16 access readers
- ▶ Card Capacity up to 20,480 card holders
- ▶ Classify cardholders based on 254 access groups
- ▶ 255 time schedules, 32 holidays and 32 special holidays
- ▶ Anti-passback (APB) capabilities
- ▶ Intrusion monitoring up to 32 input and control points
- ▶ Memory storage record up to 20,479 transaction history
- ▶ Supports Attendance Capture
- ▶ E-mail or SMS Alert for critical events

Access Easy Controller, (AEC) is a new generation access controller that uniquely combines the features of a web server and security system functionality's into one complete unit. The CPU of the AEC uses a 32-bit microprocessor running at a blazing 300 MHz speed.

Any Computer of different operating system and hardware platform that runs a standard web browser program e.g. Internet Explorer, Netscape, or Firefox, can now be used to access, monitor, manage, and control any AEC which in turn controls the door, access readers, alarms, an other devices.

## Functions

### Web control Interface

AEC has a built-in web server that allows monitoring and programming of control parameters to be done on the fly through any standard Web browser program supporting Java, e.g. Internet Explorer, Netscape, Firefox and Opera. Different computers running different operating systems can access and operate the AEC easily as long as they have a standard Web browser program with JVM (Java Virtual Machine) installed.

### Network Ready

AEC is a 'network-ready' system that connects easily to any TCP/ IP network via an Ethernet port. Any client computer in the network can then access the AEC to manage the database, monitor activity or control devices. For a single standalone configuration, AEC is connected to the computer via a standard Ethernet LAN crossover cable.

### Multiple Entry Access Mode

There are 3 different entry access modes that you can set to cater to your security requirement.

- Card only
- PIN only
- Card & PIN

User-Definable Personal Identification Number (PIN) Each cardholder is given the flexibility to choose his or her own 4 to 7 digit personal identification number.

### Multi-Functional Card Assignment

Ability to assign a single card to perform multiple functions. A card can be programmed to work as

- Normal access card
- Attendance Capture card
- Alarm arming/disarming card.

### Log-on Access Rights

All User ID's and passwords are protected with security encryption allowing access into the AEC to monitor, control, and manage the system parameters, transaction records, and activities.

### Time Schedules

Up to 255 sets of programmable schedule types can be defined to provide access-control behavior like unlocking of doors, access control activation, PIN function activation or automatic arming of an alarm point. Within each schedule type, four programmable time-slots (interval) are available for each day of the week, holidays, and special holidays.

### Dual Memories for storage and backup

All transaction records, cardholder's data as well as system control parameters are stored in the primary RAM and the secondary compact flash memory in real-time or based on a timer setup. All data will remain intact on the compact flash even if the system experience a power failure.

### Intrusion Alarm Monitoring

Provides 2 or 4-state alarm monitoring on all inputs. An access reader can be programmed as an arming/disarming reader.

### Alarm Input and Relay Outputs Control

A maximum of 32 inputs and 32 relay outputs can be software configured for door strike controls, sirens, alarm shunting, vehicle boom gate controls and a host of other applications.

(32 inputs / outputs are available via the AEC extension.)

### Global Input-Output Linking

Any output relay can be linked to any input to provide facility control and automation easily through the dynamic global inputoutput linking feature.

### Advance I/O Programming

Unique programming options for input and output linking based on logical programming. Presets application like Guard Tour, Feed Through, OR logic, AND logic, XOR logic, NAND logic, Interlock, Up-Down Counter, and Exit Door are available. Types of input and output linking are not just restricted to I/O devices. Inputs can be any one of the `inputs`, `outputs`, `inter-connection (logic) links`, `schedule`, `criteria`, `always on` or `always off`. Outputs can be any one of the `inter-connection (logic) links`, `outputs`, or `access readers`. With this sophisticate advanced I/O programming, the system is ready to handle automation in almost all possible situation.

### Anti-passback Capabilities (APB)

Anti-passback is a high level security feature designed for access control to prevent a cardholder from passing his/her card to another person to gain access to the same door at the same time period. Three types of APB are available providing different level of security, Time based APB, Soft APB, and Full APB. Time based APB will prevents the same cardholder to access the same door based on a time based period, maximum of 60 minutes. Full APB will follow strict rules. It will grant entry and exit based on entry sequence on the APB defined entry reader followed by exit sequence on the APB defined exit reader. Any violation on these rules will not grant access. Soft APB is similar to full except that it will still allow exit via the exit reader even if entry was not made. However, the transaction description of Soft APB will be different from the normal transaction. 254 levels of APB zones are available to group up the related sets of entry or exit readers with APB enabled.

### Remote Modem Networking

Ability for the user to dial into the AEC via telephone modem to establish remote networking and administration. Once connected, the access and control of the AEC can be done using a web browser.

### Internet E-mail (SMTP) & Short Message Service (SMS) Support

AEC can send out e-mail based on triggered events, transactions under normal or alarm conditions. Each mail message consists of a full description of the event or alarm, location, ID and date/ time stamp. E-mail can be sent to multiple recipients or relay as short message service, SMS, to mobile phone users via certified modems. The prowess of this function provides unlimited means of selectable information transfer to recipients.

### Easy Firmware Upgrade

Utilizes the latest state of art flash memory technology to store the firmware for the AEC, you can provide upgrades via replacing the physical compact flash itself or firmware upload.

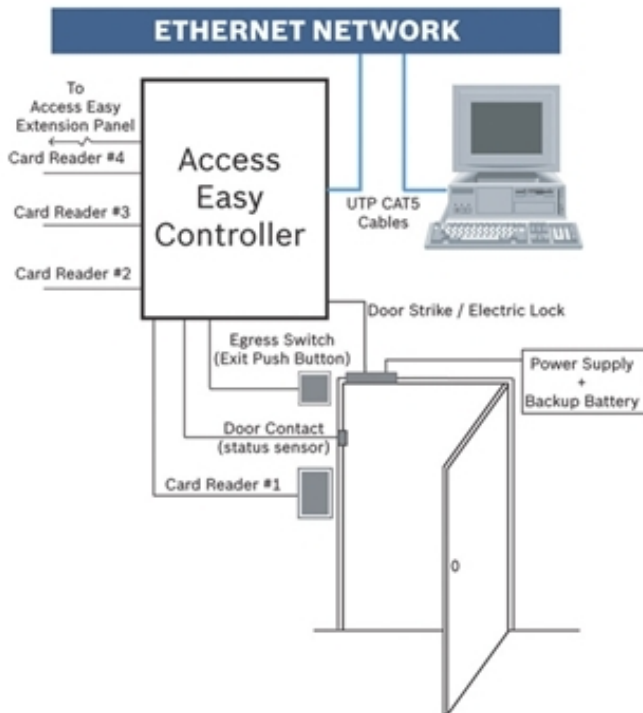
## Certifications and Approvals

The AEC is designed to comply with the following certifications, approvals, and safety standards:

- CE
- UL 294
- FCC Part 15

## Installation/Configuration Notes

### Ethernet Installation



### Administration and User

- 25 maximum user accounts.
- 128-bit SSL browser Login encryption
- Up to 8 character alphanumeric, case sensitive user ID and password

### System Parameters

- 4 access readers expandable to 16 access readers
- 254 access groups
- 255 time schedules
- 32 holidays & 32 special holidays
- Anti-passback (APB) capabilities (Full, Soft, Time Based)
- 20,479 buffered transaction history
- Audit log
- Real-time activities and status update
- Built-in Reporting functions (transactions &

### System logs)

### Card Access Parameters

- 20,480 card capacity
- 16 programmable Wiegand card formats
- Multi-card function type: normal, attendance capture, arm/disarm
- Multi-operation method by
  - card only
  - card + user PIN code, 1-7 digits
  - reader's PIN code, 1- 7 digits
- Batch entry - card add/delete feature
- Card details - Card number, Facility code, Card format, User name, Department, 2 user definable fields, 2 definable access groups

- Programmable card validation period - supports one-time access
- Supports Dual Card Entry (2 man rule)
- Supports card database Import and Export in CVS Format

### Access Readers and Door Parameters

- Definable entry or exit reader, arm/disarm reader, or elevator reader
- Enable or disable keypad on the reader
  - Keypad time-out, 0-255 sec
  - Operation using reader's PIN only, 1-7 digits
- Lockout reader based on illegal attempts, 0-255
- Lockout duration, 0-255 sec
- Programmable illegal events types, Access Denied, Access Denied - APB, Access Denied - Timed APB, Access Denied - Wrong PIN, Invalid Schedule, Invalid Card, Invalid Start Date, Invalid End Date, Invalid First Card, Invalid Second Card, and Duplicate First Card.
- Auto lock/unlock (schedule controlled)
- Lock/unlock of doors via access reader
- Lock/unlock/momentarily unlock of doors via AEC
- Door open timer, 0-255 sec
- Door strike timer, 0-255 sec
- Alarm delay duration for door forced open, 0-255 sec
- Pre-alarm warning before door held open, 0-10 sec
- Definable alarm for door force open, door held open, and invalid
  - card

### Alarm and I/O Status Parameters

- Max. 32 input monitoring points
- Max. 32 relay outputs
- Automatic incoming power failure monitoring
- Real-time alarm transaction monitoring
- Instant & delay alarm monitoring for any input
- Programmable alarm point description
  - All input monitoring supports 2 state non-supervised, 2 state supervised, and 4 state supervised
  - Programmable arm/disarm of alarm zones
    - Programmable arm/disarm status LEDs
    - Programmable output control
    - Programmable input-output linking
    - Door held open/forced open alarm reporting
      - Duress alarm (from PIN readers)
      - Tamper alarm (enclosure opening)
      - Common Alarm Output
    - Advanced programmable I/O features (guard tour, feed through, OR logic, AND logic, XOR logic, NAND logic, Interlock, up/down counter, and exit door)

### E-mail/SMS Parameters

- E-mail based on SMTP
- E-mail upon triggered conditions (based on selectable events, devices and/or cardholders)
- Attendance capture transactions and lateness reporting
- Hardware failures auto reporting
- 8 programmable groups e-mail recipients with attached messages
- 8 programmable messages [www.boschsecurity.com](http://www.boschsecurity.com)

### Database Maintenance

- Auto daily backup scheduled to compact flash memory
- Manual backup of systems database and/or Activity, audit log, and Attendance Capture Record to local client PC.

### Parts Included

Quant.	Component
1	AEC MOD CPU - CPU Board
1 or 2	AEC 4W EXT Board - 4 Wiegand Interface board
1	AEC MOD COM - Secure/Communication Board
1	SmartCard and License - (SIMM module)
1	AEC SER EXT - Serial Converter Board
1	AC to DC Power Supply (CE) or AC/AC Transformer
1	DC/DC Converter Board (CE) or AC to DC Power
1	AEC Enclosure

### Technical Specifications

#### Dimensions

Enclosure (H x W x D)	530 x 460 x 100 mm (17.9 x 20.7 x 3.9 inch)
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#### Environmental conditions

Relative Humidity	10% to 90% at 32 °C (+90 °F)
Temperature (Operating)	0 °C to +50 °C (32 °F to 120 °F)
Temperature (Storage)	0 °C to +55 °C (32 °F to 130 °F)

#### Inputs

Access reader	Four Wiegand access readers
Monitoring point	Eight (2 or 4 state monitoring)

#### Outputs

Control points	Eight control relay
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#### Ports

Communications ports	Two RJ45 Ethernet
Modem ports	Two RS-232
Bus port	Two 40-pin bus expansions
Extension port	One RS-485

#### Extension Enclosure

AEC SER EXT Board	One RS-485
AEC 4W EXT Board	Expand to a maximum of 4 board (16 Reader per AEC)
AEC 8I8O EXT Board	Expand to a maximum of 4 board (32 In/Out per AEC)

### Controller

CPU	32.bit microprocessor - 300 MHz
Memory	128 MB RAM
Storage	CompactFlash 128 MB and above
Concurrent Users	7 concurrently + 1 super-user
User licenses	Max. 25 user account, using to to 8 character, alphanumeric, case sensitive user lds and passwords
Events	20.479 transaction history, stamped with date and time
Database Integrity	Encryption used for user ID and PIN
Number of Cardholders	20.480
Number of Access Groups	255
Number of Time Schedules	255
Interval per Time Schedules	Four interval per day
Power Requirements	
Primary Voltage Input (AC)	110 VAC +10/-15% (50/60 Hz) 230 VAC +10/-15% (50/60 Hz)
Secondary Voltage Input	+5 VDC and 12 VDC for CPU board +15 VDC ±1% for all other boards
Backup Battery (Optional Backup Battery: Not included in standard package)	12 V DC, 7 Ah rechargeable battery

## Ordering Information

AEC Controller 4 Wiegand CE Access Easy Controller with CPU board, 4 Wiegand interfaces and door controls (8 IN/OUT), Secure Communication board, Converter board, Power supply - Charger board, DC/DC Converter CE (APR, EMEA)	AEC-4W-UPS1
AEC Controller 4 Wiegand UL Access Easy Controller with CPU board, 4 Wiegand reader interfaces and door controls (8 IN/OUT), Secure Communication board, Converter board, AC to DC Pwer Converter Board (FCC/UL), AC/AC Transformer (FCC/UL) (AMERICAS)	AEC-4W-UPS2
AEC Controller 8 Wiegand CE Access Easy Controller with CPU board, 2 x 4 Wiegand interfaces and door controls (8 IN/OUT), Secure Comm board, Converter board, Power supply - Charger board, DC/DC Converter CE (APR, EMEA)	AEC-8W-UPS1
AEC Package Controller 4 Wiegand UL US English Access Easy Controller with CPU board, 2x 4 Wiegand reader interfaces and door controls (8 IN/OUT), Secure Communication board, Converter board, AC to DC Power Converter Board, AC/AC Transformer and Access Easy Language kit with compact flash memory module, smart card and license, CD-ROM with utility programs and manuals, Installation Guide, US English (FCC/UL) (AMERICAS)	AEC-4W-P2USE
AEC Package Controller 4 Wiegand UL Spanish Access Easy Controller with CPU board, 4 Wiegand reader interfaces and door controls (8 IN/OUT), Secure Communication board, Converter board, AC to DC Power Converter Board, AC/AC Transformer and Access Easy Language kit with compact flash memory module, smart card and license, CD-ROM with utility programs and manuals, Installation Guide, Spanish (FCC/UL) (AMERICAS)	AEC-4W-P2SPA

## Ordering Information

AEC Package Controller 8 Wiegand UL US English Access Easy Controller with CPU board, 4 Wiegand reader interfaces and door controls (8 IN/OUT), Secure Communication board, Converter board, AC to DC Power Converter Board, AC/AC Transformer and Access Easy Extension 4 Wiegand reader interfaces and door controls (8 IN/OUT), fitting Parts and Access Easy Language kit with compact flash memory module, smart card and license, CD-ROM with utility programs and manuals, Installation Guide, US English (FCC/UL) (AMERICAS)	AEC-8W-P2USE
AEC Package Controller 8 Wiegand UL Spanish Access Easy Controller with CPU board, 4 Wiegand reader interfaces and door controls (8 IN/OUT), Secure Communication board, Converter board, AC to DC Power Converter Board, AC/AC Transformer and Access Easy Extension 4 Wiegand reader interfaces and door controls (8 IN/OUT), fitting Parts and Access Easy Language kit with compact flash memory module, smart card and license, CD-ROM with utility programs and manuals, Installation Guide, Spanish (FCC/UL) (AMERICAS)	AEC-8W-P2SPA
Accessories	
AEC Extension Enclosure CE Access Easy Extension enclosure with AC to DC Power Supply (CE), DC/DC Converter (CE), (APR, EMEA)	AEC-EXT-USP1
AEC Extension Enclosure UL Access Easy Extension enclosure with AC to DC Power Converter Board, AC/AC Transformer (UL) (AMERICAS)	AEC-EXT-USP2
AEC Extension Board 4 Wiegand Access Easy Extension 4 Wiegand reader interfaces and door controls (8 IN/OUT), fitting Parts (AMERICAS, APR, EMEA)	AEC-4W-EXT
AEC Extension 8 IN and 8 Out Access Easy Extension 8 input and 8 output, fitting parts (AMERICAS, APR, EMEA)	AEC-8I8O-EXT
AEC Extension RS-485 to extension board Access Easy Extension conversion serial RS-485 to Reader or I/O board. (1 for each extension enclosure) (AMERICAS, APR, EMEA)	AEC-SER-EXT

## Ordering Information

### Software Options

AEC Language Kit UK English Access Easy Language kit with compact flash memory module, smart card and license, CD-ROM with utility programs and manuals, Installation Guide, UK English (APR, EMEA)	AEC-SW1-UKE
AEC Language Kit US English Access Easy Language kit with compact flash memory module, smart card and license, CD-ROM with utility programs and manuals, Installation Guide, US English (AMERICAS)	AEC-SW1-USE
AEC Language Kit Spanish Access Easy Language kit with compact flash memory module, smart card and license, CD-ROM with utility programs and manuals, Installation Guide, Spanish (AMERICAS, EMEA)	AEC-SW1-SPA
AEC Language Kit Japanese Access Easy Language kit with compact flash memory module, smart card and license, CD-ROM with utility programs and manuals, Installation Guide, Japanese (APR)	AEC-SW1-JAP
AEC Language Kit Traditional Chinese Access Easy Language kit with compact flash memory module, smart card and license, CD-ROM with utility programs and manuals, Installation Guide, Traditional Chinese (APR)	AEC-SW1-TCH
AEC Language Kit Simplified Chinese Access Easy Language kit with compact flash memory module, smart card and license, CD-ROM with utility programs and manuals, Installation Guide, Simplified Chinese (APR)	AEC-SW1-SCH
AEC Language Kit Thai Access Easy Language kit with compact flash memory module, smart card and license, CD-ROM with utility programs and manuals, Installation Guide, Thai (APR)	AEC-SW1-THA

Engineered Security Systems, Inc.  
1 Indian Lane East  
Towaco, NJ 07082

Telephone: 973-257-0555  
Outside NJ: 800-742-1263  
Fax: 973-257-0550

Email: [ess@engineeredsecurity.com](mailto:ess@engineeredsecurity.com)