HAI Access Control

HAI Access Control allows you to access doors by opening an electric or magnetic lock, arm and disarm the security system, and achieve many home automation functions such as controlling lighting, energy management, surveillance, and audio. The Access Control Reader is a 125 KHz high security, digitally encrypted, 26-bit proximity card reader. It has durable and scratch resistant polycarbonate housing and full epoxy potting which ensures successful operation even in harsh environments.

Users can utilize either a standard credit card sized Access Control Card or the convenient Access Control Key Tag to access the system. Each card is attached to a user code in the controller which can be managed with several privileges. Users can be granted privileges based on time of day and day of week as well as any other desired events.

The HAI Access Control Card Reader can be used for:

- Validating HAI Access Control Cards or Key Tags
- Logging of Users assigned to Access Control Cards or Key Tags
- Activating an Electric or Magnetic Lock
- Arming or Disarming of the Security System in the respective Area
- Activating Automation Programs

Validating HAI Access Control Cards and Key Tags

It its normal state (i.e. the lock output is in the locked state), a single LED indicator at the bottom of the Access Control Card Reader is illuminated red. When an Access Control Card or Key Tag is presented at an Access Control Card Reader

<u>If a valid card or key tag is presented:</u>

When a valid card or key tag is presented at the reader, the Access Control Card Reader will beep once and all 9 LED indicators will illuminate the color of the current security arming state for that area.

- LED indicators illuminate red: The security system in the respective area is currently armed
- LED indicators illuminate green: The security system in the respective area is currently disarmed

Note: The LED indicators will remain illuminated until the "Door Unlock" time expires. The "Door Unlock" time is the amount of time configured for the door to remain unlocked when a valid card or key tag is presented at an Access Control Reader.

<u>If an invalid card or key tag is presented:</u>

If an invalid card is presented, the Access Control Card Reader will not beep or change the color or pattern of the LED indicators.

Logging of the User assigned to the Access Control Card or Key Tag

When a card or key tag is presented at the reader and if the card that was presented is configured to log activity, the HAI controller will log that the user presented their card at the respective Access Control Card Reader. The HAI controller will log:

- The Access Control Card Reader where the card was presented
- The User that presented the card
- If the card was accepted or declined
- The time and date in which the card was presented

Activating an Electric or Magnetic Lock

The HAI Access Control Card Reader has an output for an electric or magnetic door lock. When a valid card or key tag is presented at the reader, all 9 LED indicators will illuminate indicating that the door is currently unlocked (the color of the LED indicators signifies the current security arming state for that area). The LED indicators will stay illuminated while the lock is unlocked. The lock will remain unlocked until the "Door Unlock" time expires. The "Door Unlock" time is configured in the setup of the reader.

Note: When a valid card or key tag is presented at the reader, all 9 LED indicators will illuminate and remain illuminated until the "Door Unlock" time expires, even if there is not a physical lock connected to the reader.

Arming or Disarming of the Security System in the respective Area

Each HAI Access Control Card Reader is assigned to an Area. When a valid card or key tag (a card or key tag that is valid for the current time of day and day of week, that is assigned for the respective reader, and that has arming and disarming privileges for the respective reader) is presented at the reader 3 times within 5 seconds of the previous presentation of the card, the security system will:

(a) Arm to the Away mode (in the respective area) if the security system is currently disarmed, OR
(b) Disarm the security system (in the respective area) if the security system is currently armed in any security mode

When a valid card is first presented, the Access Control Card Reader will produce a single short beep and all 9 LED indicators will illuminate the color of the current security arming state for that area. If the card is presented 2 more times within 5 seconds of the previous presentation of the card, the Access Control Reader will produce a single long beep and the mode of the security system will toggle between Off (disarmed) and Away. Whenever the security mode changes, the color of the 9 LED indicators will also change to indicate the new arming state of the area: Red to indicate Away or Green to indicate Disarmed.

Activating Automation Programs

Automation programs can be activated when a card is presented at an Access Control Card Reader. Programs can be activated when a card is presented at a reader by any user or by a specific user and can be executed if the card was accepted or declined. For example, swiping a card can disarm the alarm, release the door lock, light a pathway into the house, change the temperature, and turn on several zones of a whole home audio system, and select their volume and source.

Access Control Setup

When Access Control is part of your system, there are two areas that must be configured:

User Setup:

User Setup is where you configure each user that is assigned an Access Control Card or Key Tag. Each card is attached to a user code in the HAI controller. Users can be granted privileges based on time of day and day of week as well as any other desired events. Each Access Control Card and Key Tag must be enrolled into the system. These settings are configured under ***Setup | Codes***.

Reader Setup:

Reader Setup is where you configure each Access Control Reader. Each Access Control Reader must be enrolled into the system. There are also several parameters that must be configured for each Access Control Reader prior to enrolling the reader. These settings are configured under ***Setup | Installer | Expansion.***

User Setup

Each Access Control Card and Key Tag used is assigned to a code in the HAI controller. The Access Control Card or Key Tag is governed by the validation times/days set for the code (i.e. the Access Control Card or Key Tag is only valid when the code is valid).

Note: An Access Control Card or Key Tag may be assigned to a code even if the code is disabled (i.e. the user code is set to 0000). Even if the code is disabled, the Access Control Card or Key Tag may be used if it is currently valid.

Access Control Cards and Key Tags can easily be enrolled and configured using an HAI console or PC Access software. Access Control Cards and Key Tags are enrolled and configured under ***Setup | Codes***.

Each Access Control Card and Key Tag can be:

- Enrolled
- Deleted
- Enabled and disabled
- Assigned to specific Access Control Readers
- Configured to log activity
- Configured for arming and disarming privileges

Enrolling Access Control Cards or Key Tags

To enroll Access Control Cards or Key Tags, from the Setup menu, press the 1 (CODES) key. Use the down arrow key to scroll to the "Card Number" menu item. Access Control Cards or Key Tags can be enrolled into the system using one of the following methods:

Method A) Typing in the ID Number of the Access Control Card or Key Tag:

a. Enter the last 8 digits of the Access Control Card or Key Tag and then press the ' # ' key.

```
CARD 1 NUMBER:
000 00000         #=CFG ↕

CARD 1 NUMBER:
095 13564         #=DEL ↕
```

Method B) Enter configuration mode and then swipe the card 3 times at any Access Control Reader configured in the system:

b. Press the ' # ' (#=CFG) key to put the system into configuration mode. The display will show:

```
CONFIGURE CARD 1
SWIPE CARD 3 TIMES
```

c. Go to any Access Control Reader configured in the system, and swipe the Access Control Card or Key Tag 3 times in front of the reader:

```
CARD 1 NUMBER:
095 13564         #=DEL ↕
```

Note: you have 3 minutes to complete the operation once the system is put into configuration mode. If an HAI Access Control Card or Key Tag has not been swiped 3 times within the first 3 minutes, the controller will automatically exit configuration mode.

Deleting Access Control Cards or Key Tags

To delete an Access Control Card or Key Tag that is enrolled in the system, scroll down to the particular "Card Number" menu item, and then press the ' # ' (#=DEL) key.

```
CARD 1 NUMBER:
095 13564         #=DEL ↕
```

You will first be prompted to confirm deletion:

```
DELETE CARD 1?
0=NO  1=YES
```

Deleting an Access Control Card or Key Tag will take it out of the system and it will not be valid any longer. You may choose to delete a card if it has been lost, stolen, or not retuned.

Enabling and Disabling Access Control Cards or Key Tags

When an Access Control Card or Key Tag is enrolled into the system, by default it is enabled. This means that the Access Control Card or Key Tag may be used if it is valid for the current time of day and day of week.

The Access Control Card or Key Tag may be temporarily disabled so that it can not be used at any Access Control Reader. An Access Control Card or Key Tag may be temporarily disabled if it was misplaced.

```
CARD 1 ENABLED:          1
0=NO  1=YES              ↕
```

Select 0 (NO) to disable the selected Access Card or Key Tag. Select 1 (YES) to enable the selected Access Card or Key Tag.

Assign Access Control Cards and Key Tags to Specific Access Control Readers

Each Access Control Card or Key Tag can be assigned to 1 or more Access Control Readers. When an Access Control Card or Key Tag is assigned to specific readers, the user only has access at the assigned readers.

Users do not have access to any reader in which their Access Control Card or Key Tag is not assigned. If a user presents their Access Control Card or Key Tag at a reader in which their Access Control Card or Key Tag is not assigned, the reader does not give any indication that a card was presented and a card "declined" event is generated in the system event log.

```
CARD 1 READERS:
1234567890123456 0=CLR ↕
```

By default, each configured Access Control Card or Key Tag is valid at all 16 readers. Each valid Access Control Reader is represented by a single digit number. Starting at the left, 1-9 are Access Control Readers 1-9 respectively, 0 is Access Control Reader 10, and 1-6 (that appear after 0) are Access Control Readers 11-16 respectively.

To add or remove an Access Control Reader from the list of valid readers, enter the reader number followed by the ' # ' key. Note: for Access Control Readers 10-16, enter the two-digit reader number followed by the ' # ' key.

If the selected Access Control Card or Key Tag is to be valid at only a few Access Control Readers, you may first clear all Access Control Readers from the list. To clear all Access Control Readers from the list, enter 0 followed by the ' # ' key. You may then add the Access Control Readers that are to be valid.

```
CARD 1 READERS:
1-345---------- 0=CLR ↕
```

When all of the valid Access Control Readers have been entered, press the ' # ' key to store the new settings in memory.

Log Access Control Card and Key Tag Activity

Each Access Control Card or Key Tag that is enrolled in the system can be configured to log activity whenever the card is presented at a reader, even if the user was denied access. When enabled, the system will log the Access Control Card Reader where the card was presented, the user that presented the card, if the card was accepted or declined, and the time and date in which the card was presented. Each time a card is presented, as long as there is a 5 second delay between each swipe, an event is generated in the system event log.

```
CARD 1 LOGGING:         1
0=NO  1=YES             ↕
```

Select 0 (NO) to disable logging for the selected user. Select 1 (YES) to enable logging for the selected user.

Configuring Access Control Cards or Key Tags for Arming and Disarming

Each Access Control Card or Key Tag may be configured to allow the user to arm or disarm the security system at Access Control Readers that are configured for arming and disarming.

```
CARD 1 ARM/DISARM:      1
0=NO  1=YES             ↕
```

When a valid card is first presented, the Access Control Card Reader will beep once and all 9 LED indicators will illuminate the color of the current security arming state for that area.

- LED indicators illuminate red: The security system in the respective area is currently armed
- LED indicators illuminate green: The security system in the respective area is currently disarmed

When the security system is disarmed, swiping the Access Control Card or Key Tag 3 times within 5 seconds of the pervious swipe will cause the security system to are to the Away mode. When the security system is armed in any security mode, swiping the Access Control Card or Key Tag 3 times within 5 seconds of the pervious swipe, will cause the security system to disarm.

Select 0 (NO) to disable arming and disarming privileges for the selected user. Select 1 (YES) to enable arming and disarming privileges for the selected user.

Reader Setup

Each Access Control Reader can easily be enrolled and configured using an HAI console or PC Access software. Access Control Readers are configured and enrolled under ***Setup | Installer | Expansion***.

Enrolling Access Control Readers

When enrolling an Access Control Reader, the following configuration items are part of the enrollment process:

- Area assignment
- Link assignment (link to another Access Control Reader)
- Unlock Time
- Exit Time
- Lock Type
- Beeper (enable or disable)
- Arming and disarming

Note: These items should be configured prior to enrolling the Access Control Reader.

To enroll Access Control Readers, from the Installer Setup menu, press the 7 (EXP) key. Use the down arrow key to scroll to the "Reader Address" menu item.

```
READER 1 ADDRESS:
0.0.0.0          #=CFG ↕
```

Press the ' # ' (#=CFG) key to put the system into configuration mode. The display will show:

```
CONFIGURE READER 1
SWIPE CARD 3 TIMES
```

Go to the Access Control Reader to be enrolled and swipe any HAI Access Control Card or Key Tag 3 times in front of the reader:

```
READER 1 ADDRESS:
8.5.0.137        #=DEL ↕
```

Note: you have 3 minutes to complete the operation once the system is put into configuration mode. If an HAI Access Control Card or Key Tag has not been swiped 3 times within the first 3 minutes, the controller will automatically exit configuration mode.

Deleting Access Control Readers

To delete an Access Control Reader that is enrolled in the system, scroll down to the particular "Reader Address" menu item, and then press the ' # ' (#=DEL) key.

```
READER 1 ADDRESS:
8.5.0.137        #=DEL ↕
```

You will first be prompted to confirm deletion:

```
DELETE READER 1?
0=NO  1=YES
```

Deleting an Access Control Reader will take it out of the system and it will not be valid any longer.

Area Assignment

Each Access Control Reader can be assigned to a specific Area on the controller. When used for security arming and disarming, the security mode of the Area where the Access Control Reader is assigned will be changed.

```
READER 1 AREA:          1
1-8                     ↕
```

Enter the Area for the selected Access Control Reader followed by the ' # ' key.

Link Assignment

A Link Assignment is used when two Access Control Readers are used to control access to the same door (i.e. one reader on the inside and the other on the outside of the restricted door). This is useful when an Access Control Card or Key Tag is required to enter or exit through a restricted door.

Since the door lock is physically connected to a single Access Control Reader, the Link Assignment links the selected Access Control Reader with a second Access Control Reader so that when a valid Access Control Card or Key Tag is presented at either Access Control Reader, the door is unlocked. Furthermore, the controller will log which Access Control Reader was used to access the door (i.e. whether the user was entering or exiting the door).

```
READER 1 LINKED TO:     0
0-16                    ↕
```

Enter the reader number of the Access Control Reader that will be linked to the selected reader, followed by the ' # ' key.

Notes:

- Only two Access Control Readers can be linked together.
- When a valid Access Control Card of Key Tag is presented at either linked Access Control Reader, the 9 LED indicators on both linked Access Control Readers will illuminate the color of the current security arming state for that area and will remain illuminated while the door is unlocked.

Unlock Time

The Unlock Time is the amount of time that the door remains unlocked when a valid Access Control Card or Key Tag is presented at the Access Control Reader. The Unlock Time can be between 1-60 seconds and is individually configured for each reader.

Note: When the door is unlocked due to a valid Access Control Card or Key Tag is presented, all 9 LED indicators will illuminate the color of the current security arming state for that area and will remain illuminated while the door is unlocked.

```
READER 1 UNLK TIME:     5
1-60 SECONDS            ↕
```

Enter the Unlock Time (1-60 seconds) for the selected Access Control Reader, followed by the ' # ' key. The default time is 5 seconds.

Exit Time

The Exit Time is the amount of time that the door remains unlocked when the “Request to Exit” input is tripped. An optional device, such as a “Request to Exit” button which is mounted on the inside of the restricted door, is used to unlock the door without requiring a second Access Control Reader. The Exit Time can be between 1-60 seconds and is individually configured for each reader.

Note: When the door is unlocked due to pressing a “Request to Exit” button, none of the LED indicators will illuminate.

```
READER 1 EXIT TIME:     5
1-60 SECONDS            ↕
```

Enter the Exit Time (1-60 seconds) for the selected Access Control Reader, followed by the ' # ' key. The default time is 5 seconds.

Lock Type

The Lock Type specifies the type of door lock that is connected to the selected Access Control Reader. The Lock Type can be either be configured for a "Fail Secure" device (door is locked when power fails) or "Fail Safe" mode (door is unlocked when power fails).

```
READER 1 LOCK TYPE:     0
0=SECURE  1=SAFE        ↕
```

Select 0 (Secure) when connecting a “Fail Secure” lock or select 1 (Safe) when connecting a “Fail Safe” lock, followed by the ' # ' key. The default setting is “Fail Secure”.

Reader Beeper

The Reader Beeper setting is used to enable and disable the beeper in the selected Access Control Reader.

When the beeper is set to “Yes”, every time a valid Access Control Card or Key Tag is presented at the reader, the beeper will produce a single short beep. If the reader is used to arm or disarm the security system, the beeper will produce a single long beep.

When the beeper is set to “No”, the reader will not beep when a valid Access Control Card or Key Tag is presented at the reader or when the reader is used to arm or disarm the security system.

```
READER 1 BEEPER:        1
0=NO  1=YES             ↕
```

To disable the beeper, select 0 (No) followed by the ' # ' key. To enable the beeper, select 1 (Yes) followed by the ' # ' key. The default setting for the beeper is enabled (Yes).

Reader Arm/Disarm

The Reader Arm/Disarm setting is used to enable or disable the reader for arming and disarming the security system in the respective area when a valid Access Control Card or Key Tag is presented at the selected Access Control Reader 3 times within 5 seconds of the previous presentation of the card.

When Arm/Disarm is set to “Yes”, when a valid Access Control Card or Key Tag is presented at the reader 3 times within 5 seconds of the previous presentation of the card, the Access Control Reader will produce a single long beep and the security system will:

(a) Arm to the Away mode (in the respective area) if the security system is currently disarmed, OR
(b) Disarm the security system (in the respective area) if the security system is currently armed in any security mode

When Arm/Disarm is set to “No”, the selected Access Control Reader can not be used to arm or disarm the security system.

```
READER 1 ARM/DISARM:    1
0=NO  1=YES             ↕
```

To disable arming and disarming from the selected reader, select 0 (No) followed by the ' # ' key. To enable arming and disarming at the selected reader, select 1 (Yes) followed by the ' # ' key. The default setting for Reader Arm/Disarm is enabled (Yes).