

Intelligent 4 Door Access Module Programming

Introduction

The Intelligent 4 Door Access Module provides an interface for up to 4 Doors using 4 Card / Prox Readers or, if used in conjunction with the 4 Reader Expansion board, up to 4 Doors using Card in / Card out operation with 8 Card Readers. Multiple Intelligent 4 Door Access Modules may also be used within the same system, the number of modules being dependent upon the Memory size and configuration used.

Not only does the module boast Door capacity in excess of the standard Access Modules, it also provides continued Door operation in the event of LAN communication failure to an ACCESS 4000 Control Module. The Intelligent 4 Door Access Module will automatically switch to Offline Mode 5 seconds after a failed LAN communication to the controller is detected. A failed communication will be detected, for example, if there is no power to the Control Module or there is a break in the LAN **and** an event has occurred which would require the module to communicate with the Control Module. Events would include a User presenting a Card at a Card Reader which is attached to the Intelligent 4 Door Access Module or a regular poll initiated by the module.

The switch to Offline Mode is fundamentally transparent to the User. Enhanced LCD Terminals attached to the Local LAN of the Intelligent 4 Door Access Module do, however, display a notification message that the module is operating Offline.

Database. The Module maintains an updated record of many of the Access 4000 database structures including Users, User Types, Doors, TimeZones, Holidays, Access Groups, Site Codes, Area Count, Door Interlock Groups, Intelligent Reader, Area Lists and Door Lists. If at any stage the main database is altered, the changes are automatically downloaded to each Intelligent 4 Door Access Module. Database structures will only complete their comparison and update when all Terminals have been logged off. Once editing is finished, the Installer must therefore log off from the Terminal.

Whereas an initial download at the time of module installation or Memory defaulting may take several minutes, ongoing database alterations are downloaded in a matter of seconds. **Initial** download time for a 128K memory configuration is approximately 1-2 minutes and, for a 512K memory configuration, approximately 15 minutes. These times do not increase with an increased number of Intelligent 4 Door Access Modules on the LAN.

Should a database structure change whilst an Intelligent Access Module is Offline, a comparison will be performed within 60 seconds of the Reader recovering. If the comparison indicates a mismatch of a particular structure, that particular structure will automatically be updated. In the majority of cases, operation of those Doors attached to the Intelligent Access Module is uninterrupted during the update of database structures. If either Intelligent Access Module Programming or Door structures have been altered, Doors attached to Intelligent Access Modules will not operate until the database in each has been updated (a few seconds) and LED1 on the board has returned to the off state.

This comparison will also occur 60 seconds after a LAN Initialize or LAN Secure has been performed. Whereas other modules on the LAN require a LAN Initialize to ensure that all programming changes have been passed onto the relevant modules, this is **not** necessary for programming changes to Intelligent Access Modules only. A LAN Initialize or LAN Secure will cause a comparison and, if necessary, an update of the altered database structures in each Intelligent Access Module.

When an Intelligent Access Module is powered up, there is a 60 second delay before the database starts to update. This delay is necessary to ensure that all modules, including those within larger systems, have had time to properly address and initialize prior to the update of database structures. On-board LED's indicate the status of the Intelligent Access Module (Refer to the Intelligent 4 Door Access Module Installation Guide).

Commissioning. While not compulsory, it is recommended that all system programming is done prior to connecting the Intelligent 4 Door Access Modules to the LAN. When the programming is complete, connect all the Modules to the LAN, then perform a System Reset (MENU, 7, 8, 9), followed by a LAN Secure (MENU, 7, 8, 1). This will allow all Intelligent 4 Door Access Modules to update at the same time, therefore minimizing the commissioning time, especially in systems where the Control Module is fitted with the 512k (4MBit) Memory option.

Operation

Whilst Online, the Intelligent Access Module supports all the access control features you would expect of such an intelligent module and many more:-

- Control of up to 4 independent Doors
- Connection to 4 Reader head inputs as standard, expandible to 8 Reader heads (Card in / out)
- 4 On board relays with normally open and closed contacts for lock auxiliaries
- Onboard 3A Power Supply
- Deep discharge battery cutoff
- Individual Door Reed, Tongue Sense, REN, REX and Arming inputs for each Door
- Individual Valid, Invalid, DOTL warning outputs for each Door
- 8 General purpose Dual EOL Zone Inputs
- 8 General purpose open collector auxiliary outputs
- Separate Cabinet Tamper Input
- Lock Tamper circuit for detection of lock disconnection
- Fully isolated LAN input up to 5KV
- Separate Local LAN for Terminals used during Communication failure (See below)

The only Offline limitations are those functions that require information from modules that will not be available in the Offline state. Accordingly, Intelligent Access Module Programming allows some Offline assumptions to be made. These include the state of the Inside and Outside Area of a Door and the Open and Closed status of Doors for Interlocking purposes.

Whilst Offline, Operation of Anti-passback and Door Interlocking features will continue across groups of up to 4 Doors, provided that **all** associated Doors are assigned to the one Intelligent Access Module. In this Offline state with all associated Doors attached to the one Intelligent 4 Door Access Module, Anti-passback and Door Interlocking processing is completely isolated from the rest of the LAN and does not require any additional entity status from the Control Module or any other module on the LAN which is unavailable to the Intelligent Access Module whilst it is in the Offline mode.

Limited Door Interlocking logic will apply for Interlock Groups comprising Doors assigned to other modules in addition to Doors assigned to the Intelligent Access Module. When a User presents his / her card or keyfob at a Card Reader of an Intelligent Door using Interlocking, the following **Interlock** logic steps are performed:

1. The system checks the Interlock Group Door List.
2. The status of those member Doors that are attached and assigned to that particular Intelligent Access Module is checked.
3. The status of all other members Doors that are attached and assigned to other modules on the LAN cannot be checked by virtue of the Intelligent Access Module's Offline mode. Therefore, the "Assumed Interlock State", which has been programmed for the particular Door through which access has been requested, is applied to all other member Doors.
4. Interlock logic processing continues using actual and assumed Door status as described above.
5. Interlock Qualifying Zones and Qualifying Auxiliaries are ignored in the Offline mode.
6. Access through the Door is either granted or denied, all other permissions being satisfied.

It is therefore advantageous if system design incorporates ample contingency planning. All Doors to be used as part of an Interlock Group should, where practicable, be attached to the same Intelligent 4 Door Access Module.

The following features are not available to the Intelligent 4 Door Access Module whilst Offline:

- All Security functions
- Calculated Auxiliaries
- Function Zones
- Area Status Functions
- Reader Arming Modes
- Isolation and de-isolation of inputs
- User Counting in Areas
- Cancel on next Card / PIN entry through a Door
- DOTL and Door Forced System Inputs (DOTL Warn output will still function)
- PIN only access through Doors via Terminals not connected to the Intelligent Reader Local LAN
- TimeZone control of Auxiliaries
- Qualify Auxiliary function of TimeZones
- User Type Valid Auxiliaries
- Home Auxiliary operation
- Diary Functions

Firmware Compatibility

The Intelligent Access Module requires V3.5 or later firmware to be fitted to the Control Module. Furthermore, a suitable Memory Configuration which accommodates the use of the required number of Intelligent 4 Door Access Modules must be selected on the Control Module.

If computer software is to be used during installation or for administration of the system, this too must be of the correct version. Wdirect V3.5 and Accept V3.5 all support the Intelligent 4 Door Access Module.

LAN Isolation

The Module connects to the system LAN via a 5KV isolated section of the board. This "ISO LAN" connection provides significant on-board protection against surges to reduce the possibility that the module is damaged in addition to the Control Module and other modules in the event of a power surge.

This section of the board requires power from the LAN in addition to the Power supplied to the rest of the Intelligent Access Module board. (See Installation Notes)

Local LAN

The Intelligent 4 Door Access Module also supports a Local LAN, independent of the system LAN, to which up to eight Enhanced Elite LCD Terminals may be fitted. **No other types of module should be connected to the Local LAN as they will not operate Offline.**

Whilst in the Offline mode, each Terminal only enables PIN and Card access control across those Doors which are attached directly to the Intelligent 4 Door Access Module. Upon reinstatement of communications with the Control Module, these very same LCD Terminals inherit full functionality across the entire system.

- NOTE:**
1. Terminals to be used on the local LAN must be fitted with T3/4K Enhanced V1.00 or later firmware.
 2. Terminals must be mapped via the "Module for Pins" Screen in Intelligent 4 Door Access Module Programming to be used in Offline mode.

Review

Whilst Online, events occurring at the Intelligent 4 Door Access Module are saved to Review on the Control Module. Whilst in the Offline mode, events occurring on each Intelligent 4 Door Access Module are recorded to Review locally on each Module.

The size of the Offline Review in each Intelligent 4 Door Access Module is equal to the size of the Control Module Review.

Presently, this is:

6,500 Events for a 512 K Memory Configuration
2,000 Events for a 128K Memory Configuration.

Once communications with the Control Module have been regained, the Review events in each Intelligent Access Module will be uploaded to the Control Module at a maximum rate of approximately one (1) event per second. This means that 6,500 events from one Intelligent Access Module will take approximately 108 minutes to upload and 6,500 events from 16 Intelligent Access Modules will take approximately 29 hours.

As events may have occurred simultaneously at the Control Module as well as each Intelligent 4 Door Access Module whilst the modules were Offline, it is quite feasible that two or more events may have been recorded to review at the same time. In addition, active events will be occurring and entries saved to Review whilst Intelligent Access Module Review is being uploaded to the panel. It is important, therefore, to note that the Control Module Review **DOES NOT SORT REVIEW EVENTS**. Review events are logged as they occur on the Control Module or as they are received by the Control Module.

To assist with Review Management, events saved to Review at the Intelligent Access Module whilst it is Offline are endorsed with a “^” character after the date to signify that they are “Historical” Review events.

eg. 24 Apr 00 ^ 10:21 Card User 0001 Granted Access at Warehouse Door 1

The rate at which Historical Review Events are uploaded to the panel may be altered in line with the number of Intelligent Access Modules present on the system. As the number of Intelligent Access Modules increases on the LAN, the rate of upload should be reduced. This, in turn, will reduce the amount of concurrent traffic on the LAN and optimise LAN performance.

The rate at which Historical Review Events are uploaded to the Control Module is programmable via the “Review Pacing” screen in Intelligent 4 Door Access Module Programming and is entered in the Hex format. Please refer to the table adjacent to the Review Pacing screen in “Intelligent 4 Door Access Module Programming” for “Recommended Review

Programming Sequence

MENU 7,2,8

Intelligent Rdr. to alter: I01	This screen allows an Intelligent 4 Door Access Module to be selected for programming. Pressing the “On” key to change modes displays whether this module is currently in the network. If the module is not in the network it will display the word “Absent” following the Intelligent 4 Door Access Module number.
I01 Present-000 but not secure	If the module is present, the module number is followed by the words “Present-nnn but not secure”, or “Present-nnn and secure”, depending on the LAN security status. The number (nnn) in the message indicates the number of times the module has failed to acknowledge a poll from the Control Module since the last LAN Init. or LAN Secure operation. (See “Configuring the 3000/4000 LAN” for details of LAN Security)
I01 Poll Time: 060 sec	This screen allows the Installer to select the maximum time a module can remain out of communication with the Control Module. Only modules in unprotected Areas should be selected with short times. Modules in protected Areas can have times set up to 255 seconds maximum. If too many modules are programmed for short times, this may slow down LAN communications.
I01 LAN Priority: 0	Pressing the ON key allows the LAN Priority to be programmed between 0 and 3 for this module. LAN priority can be used to give certain modules priority over other modules when sending information to the Control Module. Priority 0 is the highest and priority 3 is the lowest. e.g. If one module was programmed for priority 0 and another programmed for priority 1 and both modules were sending information at <i>exactly the same time</i>, then the module with priority 0 would send first. The most common programming in small systems is to leave all priorities at 0. In larger systems with many Terminals, Expanders & Intelligent Access Modules; Expanders may be set to priority “2”, Intelligent Access Modules to “1” and Terminals to “0”. This would give Terminals the faster response, whilst Intelligent Access Modules would still have a faster response than Expanders during heavy LAN traffic.
I01 Battery Test Time: 000 min	This screen allows the Installer to set the time period for the Dynamic Battery Test to be performed on this module. A time of 1-255 minutes is acceptable. <i>See “Battery Testing” in the Applications Programming section of this Manual for further details.</i>
I01 Review Pacing: 00	This screen allows the Installer to adjust the rate at which Historic Offline Review events are uploaded to the Control Module. Adjustment of this type allows optimisation of the LAN according to the number of Intelligent 4 Door Access Modules connected. Settings are entered in the Hex format. The following table details the recommended Review Pacing setting for the particular number of Intelligent 4 Door Access Modules connected:

No. of Intelligent Access Modules	Review Pacing Setting
1	80
2	81
3	82
4	83
5	84
6	85
7	86
8	87
9	88
10	89
11	8A
12	8B
13	8C
14	8D
15	8E
16	8F

I01 DT Opts -> nnnnnnnn

This screen allows the Installer to select options which affect the operation of the Intelligent Access Module. Place a “Y” under the option to enable it.

D Detail Review

This option enables detail review when the module is Offline. If set to no, The Module will limit the type of events saved to review whilst it is Offline.

T Tongue Sense

If enabled, this option will cause the Tongue Sense input for each **and every** door programmed on the Intelligent Access Module to be used with the reed input for DOTL, Door Forced and Interlock functions if Interlocking is set for Tongue Sense.

I01 Door #1 D000

This screen is used to specify which Door is assigned to the first Door position on this Intelligent 4 Door Access Module.

I01 Door #2 D000

This screen is used to specify which Door is assigned to the second Door position on this Intelligent 4 Door Access Module.

I01 Door #3 D000

This screen is used to specify which Door is assigned to the third Door position on this Intelligent 4 Door Access Module.

I01 Door #4 D000

This screen is used to specify which Door is assigned to the fourth Door position on this Intelligent 4 Door Access Module.

Card Reader Programming

This section of the manual describes the manner in which Card Readers are programmed. Repeat this section for each Card Reader that is attached to the Intelligent 4 Door Access Module.

**I01 Format Rdr1>
None**

This screen allows selection of the format to be used by Card Reader #1. Use the Right Arrow Key to scroll through the available options.

None	This setting disables the Reader Input.
Swipe	Selects a magnetic Card swipe Reader. All digits between the start sentinel and up to and including the 1st separator are read.
Insertion	Selects an insertion style magnetic Card Reader. All digits between the start sentinel and up to and including the 1st separator are read.
Nbit Wiegand	Selects any Wiegand type Reader with the Reader automatically detecting the number of bits. If the number of bits is known for the Reader then select one of the options below for better noise immunity.
26 bit Wiegand	Selects a Wiegand Reader which outputs 26 bits including the start bit and stop bit.
30 bit Wiegand	Selects a Wiegand Reader which outputs 30 bits including the start bit and stop bit.
32 bit Wiegand	Selects a Wiegand Reader which outputs 32 bits including the start bit and stop bit.
34 bit Wiegand	Selects a Wiegand Reader which outputs 34 bits including the start bit and stop bit.
36 bit Wiegand	Selects a Wiegand Reader which outputs 36 bits including the start bit and stop bit.
37 bit Wiegand	Selects a Wiegand Reader which outputs 37 bits including the start bit and stop bit.
40 bit Wiegand	Selects a Wiegand Reader which outputs 40 bits including the start bit and stop bit.
Swipe Last	Selects the swipe Last format for a magnetic swipe Card Reader. Swipe Last is similar to the Swipe format, except that instead of returning the first 30 characters of a swiped Card, it returns the last 30 characters of the Card. <i>See notes below.</i>
27 bit Wiegand	Selects a Wiegand Reader which outputs 27 bits including the start bit and stop bit.
Nbit Fast	Identical to Nbit Wiegand, except that it processes cards approximately 200ms faster. This format should be used in preference to Nbit Wiegand except in rare circumstances where very slow Wiegand data is being read.
Prox Pin	This format is identical to Nbit Fast except that keys pressed from an HID5355 or Indala ARK-501 keypad can be buffered and sent as Wiegand data.

**I01 Mode Rdr1 ->
Credit Card**

This screen allows selection of the mode to be used by Card Reader #1. Use the Right Arrow Key to scroll through the available options.

Credit Card	This setting is used for magnetic swipe or insertion credit Cards. Users that use this Reader must be programmed as a "Credit Card" User (See User Programming)
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Direct Entry This setting is used for Wiegand format type Cards where the Site Code or Card numbering system is unknown. Users that use this Reader must be programmed as "Direct Entry" Users. (See User Programming)

Site Code This setting is used for:
 -Inner Range 3000/Access 4000 Magnetic Swipe Card format.
 -Wiegand formats where the Site Code and Card numbering system is known.
 Note: Site Code processing is currently supported in 26 Bit, 27 Bit (Indala) and 34 Bit Wiegand formats.

Users that use this Reader must be programmed as "Site Code" Users. (See User Programming)

The actual Site Codes are programmed and enabled in the Access Menu, and the way the Site Code is stored on the Card is selected as the Site Code method in General System Options programming.

Any Card This setting is used to allow any credit card to grant access and save the account number to review.

For this option to function, "Swipe" format must be selected.

NOTE:

Cards cannot be directly "Read" into the system using an Intelligent Reader. A standard Reader Module must be used for this purpose and the Reader number programmed in General System Options. [MENU 7, 5, 1]

**I01 Arming Rdr1>
None**

This option sets the Arming Mode for the associated inside, outside or extra Area, dependent on the User permissions set and the Door programming. Use the Right Arrow Key to scroll through the available options.
See Arming Mode options below as well as User, User Type and Door Programming for further details.

None No Reader Arming.

Extra Area if Z8 User's Extra Area will arm if Zone 8 is Unsealed.

Exit Area if Count=0 Door Area you are leaving will arm if Area Count equals zero.

Exit Area if Z8 Door Area you are leaving will arm if Zone 8 is Unsealed.

Entry Area if Z8 Area on the other side of the Door will arm if Zone 8 is Unsealed.

Exit Area if 3 swipes Door Area you are leaving will arm if Card presented 3 times in succession.

Entry Area if 3 swipes Area on the other side of the Door will arm if Card presented 3 times in succession.

**I01 Extra Area
Off, Rdr1: n**

This screen, if set to "Y", causes the User's Extra Area to be turned Off instead of the door Area they are about to enter.
 (The "E" xtra Area Off option must be set to "Yes" in User Programming for a User to use this feature and the User must have access through this Door).
See "Reader Area Control" in the Applications Programming section for more details.

**I01 Loc. Rdr1 ->
Outside, Door #1**

This screen allows the location of the first Reader head to be chosen by using the Right Arrow Key. The reader location will be either inside or outside one of the four Doors connected to the Intelligent Access Module. **Door #1, #2 etc refers to those Doors as programmed in Intelligent 4 Door Access Module programming only and may not correspond to Door numbers in general Door Programming.**

Outside, Door #1	Located on the Outside of Door 1.
Outside, Door #2	Located on the Outside of Door 2.
Outside, Door #3	Located on the Outside of Door 3.
Outside, Door #4	Located on the Outside of Door 4.
Inside, Door #1	Located on the Inside of Door 1.
Inside, Door #2	Located on the Inside of Door 2.
Inside, Door #3	Located on the Inside of Door 3.
Inside, Door #4	Located on the Inside of Door 4.

**I01 Rdr1 Module
for Pins: T000**

This screen specifies which LCD Terminal is to be used for keying in PIN codes when access requires Card & PIN. A different LCD Terminal may be specified for each of the 8 possible Card Readers.

It is recommended that all "Alarm Message Types" are set to "NO" for LCD Terminals used in Access Control operations unless it is necessary for alarms to be displayed on them.

**I01 Keys Rdr1 ->
LCD Term**

This screen allows selection of the type of keypad or Terminal from which the PIN number is to be obtained when "Card and PIN" operation has been specified.

LCD Term	Get PIN from a 3000/4000 LCD Terminal
LED Term	Get PIN from a 3000/4000 LED only keypad
ARK-501	Get PIN from an Indala Ark-501 PIN Plus Proximity Reader.
HID5355	Get PIN from a Hughes HID5355 PIN Plus Proximity Reader.

The Card Reader Programming section of this Manual is repeated for each of the eight (8) possible Card Readers that can be attached to the Intelligent Access Module. When all Card Readers have been programmed, continue from this point.

NOTE:

If an "HID5355" Proximity and PIN Reader is used, ensure the HID Reader part number is 5355xxK00. The last 3 characters must be K00 for correct keypad option and PIN code buffering. (xx=Revision and colour options which will not affect operation)

Offline Door Configuration

This section of programming allows the Installer to pre-define a number of "Assumptions" that the system will make whilst Offline. These assumptions relate to the Inside and Outside Area status of the Areas that are assigned to a particular Door as well as the status of other Doors in the same Interlock group.

This section of programming is Door specific and is repeated for each of the four (4) possible Doors attached to the Intelligent 4 Door Access Module.

**I01:D1 Inside ->
Area State: Off**

This screen determines the Offline state of the Inside Area that is assigned to the Door in Door programming. The Offline Area state is only applicable if Areas have been assigned to the Door.

Off	If set to OFF, any User with this Door in their Door List will be allowed access.
On	If set to ON, only Users with this Door in their Door List and the Inside Area in their Area Off List will be allowed access through the Door.
Deny	If set to Deny, no User will be allowed through the Door, regardless of their permissions.

**I01:D1 Outside->
Area State: Off**

This screen determines the Offline state of the Outside Area that is assigned to the Door in Door programming. The Offline Area state is only applicable if an Area has been assigned to the Door.

Off	If set to OFF, any User with this Door in their Door List will be allowed access.
On	If set to ON, only Users with this Door in their Door List and the Inside Area in their Area Off List will be allowed access through the Door.
Deny	If set to Deny, no User will be allowed through the Door, regardless of their permissions.

**I01:D1 Ilock ->
State: Closed**

This screen determines the assumed Offline Interlock state for the particular Door. The Offline state is only applicable if an Interlock group has been programmed for this Door.

Closed	If set to Closed, any Door used in the Interlock equation that is attached to a module other than the module to which this Door is attached will be assumed as being always closed.
Open	If set to Open, any Door used in the Interlock equation that is attached to a module other than the module to which this Door is attached will be assumed as being always open. This effectively denies access through this Door.

The Offline Door Configuration section of this Manual is repeated for each of the four (4) possible Doors that can be attached to the Intelligent Access Module. When all Doors have been programmed, Intelligent 4 Door Access Module Programming is complete.

IMPORTANT NOTES:

1. When the Intelligent 4 Door Access Module is initially addressed by powering up or a LAN Initialisation, a delay of approximately 60 seconds will occur before the any programming changes are downloaded from the Control Module to the Intelligent Access Module. This delay allows all modules on large systems to properly initialise before data is transferred.
2. When programming changes are made via a Terminal, the Installer must logoff before the system will download and confirm any relevant Intelligent Access Module programming changes.
3. Most programming changes allow continued control of access through relevant Doors. However, if changes are made to Intelligent Access Module Programming and Door Programming, access through the relevant Doors will be denied until such times as the programming changes have been downloaded and confirmed.
4. Direct Entry of Cards is not available on an Intelligent 4 Door Access Module (ie. cannot enrol cards from this type of Module). Direct entry cards do, however, operate normally via an Intelligent 4 Door Access Module.
5. Card test menu does not operate from the Intelligent 4 Door Access Module.

Intelligent 4 Door Access Module Process Errors.

The following process error messages are logged to Review to indicate Intelligent 4 Door Access Module problems.

Process Error number	Description	Notes
\$1122	No Area Structure.	
\$1123	Illegal Auxiliary for Lock.	No Lock Auxiliary programmed.
\$1124	Illegal Lock Auxiliary.	Module does not exist.
\$2401	Internal error in code.	Contact the manufacturer.
\$2402	Broadcast data but no CRC structure.	Interpreter forces a download but no IRDR structure is present in the memory config.
\$2403	Broadcast CRC but no CRC structure.	Interpreter forces a download but no IRDR structure is present in the memory config.
\$2407	No Modules present.	There must be at least 1 module present to download to.
\$2423	No IRDR to broadcast to.	Module is missing.

Zone Inputs

Zone Input	Description
Inn:Z01	General Purpose Zone 1
Inn:Z02	General Purpose Zone 2
Inn:Z03	General Purpose Zone 3
Inn:Z04	General Purpose Zone 4
Inn:Z05	General Purpose Zone 5
Inn:Z06	General Purpose Zone 6
Inn:Z07	General Purpose Zone 7
Inn:Z08	General Purpose Zone 8
Inn:Z09	Door #1 Reed Input
Inn:Z10	Door #2 Reed Input
Inn:Z11	Door #3 Reed Input
Inn:Z12	Door #4 Reed Input
Inn:Z13	Door #1 Tongue Sense Input
Inn:Z14	Door #2 Tongue Sense Input
Inn:Z15	Door #3 Tongue Sense Input
Inn:Z16	Door #4 Tongue Sense Input

Auxiliary Outputs

Auxiliary Outputs	Description
Inn:X01	Door #1 Lock Relay
Inn:X02	Door #2 Lock Relay
Inn:X03	Door #3 Lock Relay
Inn:X04	Door #4 Lock Relay
Inn:X05	Spare
Inn:X06	Spare
Inn:X07	Spare
Inn:X08	Spare
Inn:X09	Auxiliary 9
Inn:X10	Auxiliary 10
Inn:X11	Auxiliary 11
Inn:X12	Auxiliary 12
Inn:X13	Auxiliary 13
Inn:X14	Auxiliary 14
Inn:X15	Auxiliary 15
Inn:X16	Auxiliary 16

System Inputs

System Inputs	Description
Inn:S01	Door #1 Lock Tamper
Inn:S02	Door #2 Lock Tamper
Inn:S03	Door #3 Lock Tamper
Inn:S04	Door #4 Lock Tamper
Inn:S05	Door #1 Forced
Inn:S06	Door #2 Forced
Inn:S07	Door #3 Forced
Inn:S08	Door #4 Forced
Inn:S09	Door #1 DOTL
Inn:S10	Door #2 DOTL
Inn:S11	Door #3 DOTL
Inn:S12	Door #4 DOTL
Inn:S13	Door #1 Invalid Card (in or out)
Inn:S14	Door #2 Invalid Card (in or out)
Inn:S15	Door #3 Invalid Card (in or out)
Inn:S16	Door #4 Invalid Card (in or out)
Inn:S17	Cabinet Tamper
Inn:S18	General Lock Fault
Inn:S19	Battery Test Fail
Inn:S20	AC Fail
Inn:S21	Low Battery
Inn:S22	LAN Fuse
Inn:S23	Detector Fuse
Inn:S24	LAN Comms Status

