

# **GATEKEEPER**

**PAGETEK**

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The Monitoring & Control Experts

# Operations Manual

**GATEKEEPER VERSION 0.9**

# **Installation & Operations Manual**

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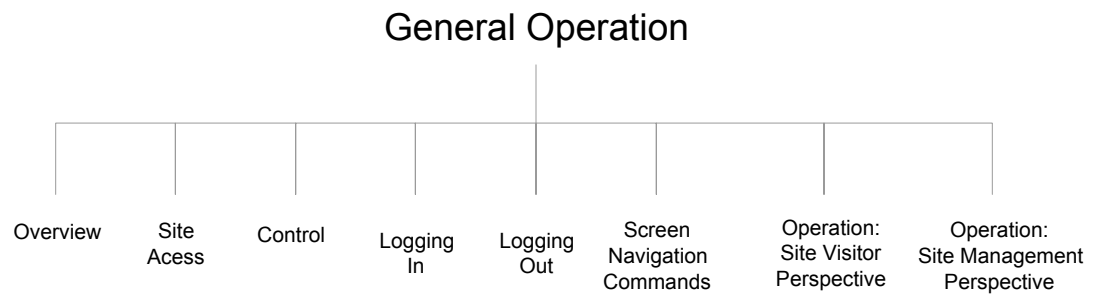
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# General Operation

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# General Operation

## Overview

The GateKeeper is a site access control system allowing site management to monitor and control access to remote structures. The GateKeeper maintains a user list, access rights, and entry history that are saved locally in the GateKeeper non-volatile memory for remote or local recall and will send intrusion alert calls and daily entry activity (status) calls if so programmed. The GateKeeper is available with a variety of power supply, back up battery, enclosure, and lock set configurations to meet specific user requirements. The GateKeeper also supports auxiliary inputs for intrusion, fire, smoke, or infrastructure monitoring.

## Site Access

Access to a protected space requires the visitor to either present an RF proximity card or enter a password on the keypad. For the greatest security it is suggested that visitors be required to both present a card and enter a unique password. A password-only access right is available primarily to allow temporary visitors access without assignment of a physical proximity card. Each proximity card is programmed with a unique identification number that the GateKeeper uses to determine access privileges and to log activity. A single proximity card may carry authorization rights for multiple locations and individual zones within each location. Since each GateKeeper maintains a list of valid visitors, access rights for any password or card may be modified or revoked without physical access to the card.

## Control

The site management may configure, interrogate, and control the GateKeeper operating system by modem, general purpose laptop, or ANSI terminal via the local VDT serial port. Operating system access privileges are broken into two categories; supervisors who have complete control over the GateKeeper operating system, and operators who have limited privileges suitable for daily operations. Only supervisors may configure or modify those parameters associated with long-term operation or behavior. A member of site management may log into the GateKeeper using either an operator's password or a supervisor's password though for daily operation logging in as an operator reduces the chances of unintended modification of the GateKeeper configuration. The password used at login determines the access rights, commands, and information available for that person. Additionally, some screens are read-only for the operator while editable for supervisors and certain fields are censored for operators and viewable for supervisors.

## Logging in

When beginning the login process, the system will display “ENTER YOUR PASSWORD PLEASE:” and await the password entry on the next line. A four- to eight-digit operator or supervisor password should be entered at the cursor followed by <return>. A valid password will prompt the system to determine the access rights of the person logging in and the appropriate menu will appear.

If no matches are found, “WRONG” is displayed and the attempt is logged as “Invalid terminal password”. The incorrect password is recorded in the log, but censored to operators. If the “WRONG” prompt is displayed, type any key to redisplay the “ENTER YOUR PASSWORD PLEASE:” prompt. All invalid attempts are logged in the Supervisor History file.

Upon successful login, the user login Password and Username is added to the Supervisor History. The Global Status screen is automatically displayed if any alerts are in progress at login. If taken to the Global Status screen, the user may access the Main Menu by entering <escape>. The Main Menu is displayed if no alerts are in progress.

## Logging out

Logout is achieved using the TC command on the Main Menu, which terminates any connection to the GateKeeper. Upon call termination the screen is cleared, the user is logged out, and an entry indicating user logout is written to the Supervisor History log. This process occurs only if there are no alerts in progress. If alerts are in progress when the TC command is issued, a snapshot of the Global Status is displayed, and the prompt “ALERTS IN PROGRESS! EXIT ANYWAY? (Y/N)” appears at the bottom of the screen. Entering “Y” clears the screen, saves the configuration, and logs out the user as described above. Entering “N” evokes the Global Status screen where users are given the opportunity to acknowledge alerts. If the user made any changes to the configuration during the session, the configuration will automatically be saved to flash memory and the following messages will be displayed: “Saving modified configuration to flash memory”.. and “Configuration saved. Logging out”... The fact that the configuration was written to memory will be logged in the history.

If the operator fails to terminate a local VDT connection, the port will remain active until the idle timeout limit is reached (in 1-99 minutes as determined by supervisor programming). During this time the system could be locally accessed without a password. Failure to terminate the modem connection before disconnecting will result in this window of vulnerability before the GateKeeper modem automatically goes back on hook in approximately 3 minutes. Any intrusion occurring during that time would still generate an alert call sequence, but the call would be delayed until the GateKeeper terminates the previously dropped connection.

If the operator leaves the connection open without any interaction the GateKeeper will drop the connection when the idle time limit (1-99 minutes) is reached. In this case, the user is automatically logged out, and the message “Idle time limit exceeded. Goodbye”. is displayed. If a user was logged in when the idle timeout occurred, and the user made changes to the configuration, the configuration will automatically be saved to flash memory and the user logout will be added to the log. Unlike normal logouts, the Global Status will not be displayed if alerts are in progress when an idle timeout occurs.

## Screen navigation commands

All screens share some common navigational commands as follows:

RETURN	Entering <return> will evoke the next page on those screens that flow over multiple pages (such as the Visitor List and History files).
B	Entering B <return> will return the user to the previous page on those screens that flow over multiple pages. (This command is not available on the first page of multi-page screens.) In addition, Entering <escape> will return the user to the initial (parent) page.
ESCAPE	Entering <escape> will return the cursor to the command line if the cursor is in an editable field or if the screen is already awaiting a command, will return to the parent screen.
#/LETTER	Entering the desired screen number/letter (menu item) will evoke most screens or command sequences.
Z	Entering Z <return> repaints the currently accessed screen. The repaint function may be required due to a communications hiccup. More often Z <return> starts real time display of the auxiliary inputs since the first input status displayed is a snapshot of the machine state at the time the command was given.

## Operation: Site Visitor perspective

To gain admittance to any protected space the visitor must present a defined set of credentials, present a pass card, or enter a password on the keypad. The electric latch of the protected door will be unlocked, a green LED on the keypad turned on momentarily, and the entry logged. While it is recommended that both card and keypad entry be required for gaining admittance to the protected space, keypad only or proximity card only access can be so programmed.

If an intruder attempts to gain unauthorized access to the protected site by presenting something other than valid credentials, each invalid attempt is logged as a minor event. The initial attempt will start a five-minute timer, and if three attempts are made within the five minute period, the reader will be disabled for a period of time, a major event will be logged, and an INT major alarm page will be initiated. An onsite alarm annunciator will also sound if installed and programmed.

A planned visitor to the site will have been given, at a minimum, a temporary password. The visitor will enter this four to eight digit password at the keypad to gain entry. Upon acceptance of the password, the LED on the keypad will change to green and the door will be unlatched. If an incorrect password is entered the LED will blink red. The user should reenter the correct password. If an incorrect password is entered repeatedly, the keypad will be disabled as programmed by the supervisor. Upon exiting the site the visitor should enter a # to rearm the system. The system will automatically rearm after x minutes or may be manually rearmed remotely by the site management.

## Operation: Site Management perspective

All interrogation and control of the GateKeeper is accomplished via a series of screens formatted for 24 X 80 character ANSI terminals. The majority of users will work from the Main Menu, the contents of which will depend upon the password used when logging into the GateKeeper. Commands to reach those screens appropriate to the user's access rights will be displayed on the Main Menu. Additionally, some screens will have conditional commands or information appropriate to the login access rights.

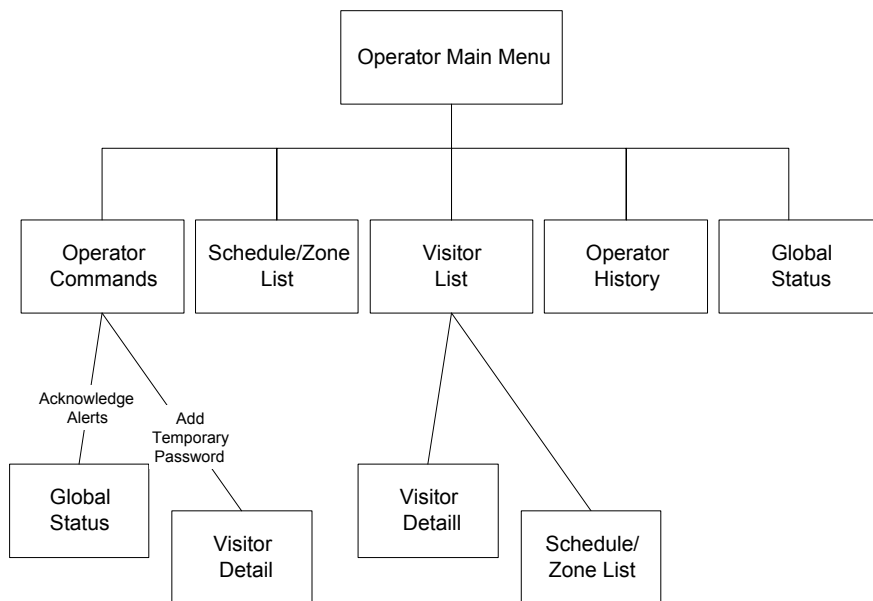
Some restricted screens required for supervisory actions, such as the Site input and Auxiliary input setup screens, will be totally invisible to operators. Supervisory commands, including those referencing restricted-access screens, will likewise not be visible to operators. Supervisor's will have access to all screens and commands.

All GateKeeper programming is accomplished either via the local serial port or remotely via a modem connection. It is recommended that the initial programming and checkout be performed locally while installing the system. Though general behavior may be the same at multiple sites, individual customization of delay, input designation, and other parameters will best be handled at the site during the initial installation. A default supervisor password of 1111 will allow the initial programming. Management should confirm this password is not retained after the initial programming is completed.

# Operation From A Visitor's Perspective

# 2

## Operator Screen Flow



## Operation from an Operator's perspective

Though commands that could compromise security are not available to the operator, the operator has all those privileges required for daily operation. While there need not be any operators if the site management wishes to give full control capabilities to all personnel, there must be at least one supervisor. However, to reduce the possibility of unintentional modification of critical parameters during normal operation, it is suggested that routine operations be handled using operator privileges even if the operator also has supervisor rights.

### **Operator Main Menu**

The operator version of the Main Menu is displayed upon entry of an operator's password during the login process. The operator's menu tree includes all commands and screens required for normal daily operation. It does not permit system configuration or access to certain sensitive material such as passwords and pass card identification though access to and control of these facilities is automatically given to anyone logging in with a supervisor's password.

---

Site Name: GateKeeper  
Site ID: 1234

Date: 12/18/99  
Time: 07:59:02

GateKeeper Version 0.9  
Operator Main Menu

1. Operator Commands
  2. Schedule/Zone List
  3. Visitor List
  4. Operator History
  5. Global Status
- TC Terminate Call

Enter desired screen number or Z to repaint

---

## Operator Commands

The Operator Commands screen is available only to those logging in with an operator's password. Entry of the first menu number followed by <return> evokes more commands at the bottom of the screen and entry of the second menu number followed by <return> evokes another screen. .

---

Site Name: GateKeeper  
Site ID: 1234

Date: 12/31/99  
Time: 17:31:41

### Operator Commands

1. Acknowledge alert
2. Add temporary password

ESCAPE key = previous, Z = repaint

---

**Acknowledge alert:** This command allows the operator to acknowledge any alert in the Global Status including those generated by an auxiliary input going into ALARM state or by keypad tampering.

**Add temporary password:** This command allows the operator to generate a temporary password for a short-term visitor. Once this menu item is chosen, a new prompt appears at the bottom of the screen: "Enter a duration of no more than 24 hours". This value will be the visitor's password life span which defaults to the maximum time (up to 24 hours) as specified by the supervisor, but may be set to any value at or below the maximum life span in one-hour increments.

Successful duration entry evokes the Visitor Detail screen where some fields are read-only set by default and others are programmable. When this screen is evoked the cursor is automatically taken to the Name field where it awaits entry. Note that if the operator evokes the Visitor Detail screen from the Main Menu the entire screen is read-only.

When a temporary visitor is added, the entry overwrites any expired temporary visitors. If there are no expired temporary visitors then the next available empty visitor slot is used starting at #1. As a last resort, the oldest expired permanent visitor is overwritten. If entry meeting this criteria is found, the message "There is no space available for a temporary password" will appear. In this case, a supervisor must manually delete a visitor to make room.

**Global Status** (As accessed via Acknowledge alerts command)

The Global Status screen is read-only and gives the operator a snapshot of the system at the time the command was given. Entering the command Z <return> refreshes the screen.

---

Site Name: GateKeeper Date: 12/31/99  
Site ID: 1234 Time: 17:35:53

Global Status

Alert calls: <Primary alert call in progress> Power source: = AC

#	Zone Description	Occupied	Local Alarm State	Alert In Progress
A	Front door	N	inactive	N
B	1234567890123456	N	inactive	N
C	Acme Paging	N	inactive	N

#	Input Description	Cur Stat	Cur Lvl	Act Lvl	Qlfd By	Alert In Progress	Zone
1	Input 1	ACTIVE	OPEN	OPEN	0	N	A,C
2	Input 2	ACTIVE	OPEN	OPEN	0	N	A,B,C
3	Input 3	ACTIVE	OPEN	OPEN	0	N	B,C
4	Input 4	ACTIVE	OPEN	OPEN	0	N	C
5		ACTIVE	OPEN	OPEN	0	N	C
6		ACTIVE	OPEN	OPEN	0	N	A,C
7		ACTIVE	OPEN	OPEN	0	N	B,C
8	AC Power Fail	ACTIVE	ON	ON	0	Y	A,C

ESCAPE key = previous, Z = repaint, A = acknowledge alerts in progress

- 
- Alert calls: This field indicates whether an input alert call is in progress. If no input alert calls are active the screen will indicate: "No primary alert call in progress".
- Power source: This field indicates whether the GateKeeper is running on AC mains or has reverted to DC backup. The prompt "Power source = AC" is displayed if the input level at input #8 is high. Otherwise "Power source = battery" is displayed. The firmware is "hard-coded" to expect that input #8 indicates the power source status.
- Zone Description: This field indicates the supervisor programmed description of each zone.
- Occupied: This field indicates each zone as occupied "Y" or unoccupied "N". An occupied zone is defined as one whose keypad has received a valid presentation of credentials and which has not been reactivated.
- Local Alarm State: This field indicates whether the local alarm annunciator is ACTIVE or INACTIVE.
- Alert in Progress: This field indicates whether an alert is in progress "Y" or not in progress "N". A zone may have an alert still in progress without the local alarm annunciator sounding.

The bottom half of the Global Status screen displays information pertaining to the eight auxiliary inputs. An input is considered “disabled” under any one of three circumstances.

- 1) if the input is not enabled via the Auxiliary Input configuration screen.
- 2) if the input's qualifier is not in the Active state.
- 3) if one of the input's associated zones is occupied (i.e., the local alarm has been disabled either via remote buzz-in or valid keypad/card entry).

Input Description:	This field indicates the input description as entered in the Auxiliary Input Configuration screen by a supervisor.
Current Status:	<p>This field indicates the current status of each installed input. Indications are as follows:</p> <p><b>NORMAL</b> indicates that the input is disabled, or that the input is not in the active level.</p> <p><b>DELAY</b> indicates that the input is not disabled, and has been in the active level for a time period less than that input's specified time delay.</p> <p><b>ACTIVE</b> indicates that the input is not disabled, and has been in the active level for a time period greater than that input's specified time delay.</p>
Current Level:	This field indicates the current level of the input as OPEN or CLOSED for inputs one through seven and as ON or OFF for input eight which is reserved for the Power input. This reading is not affected by whether or not the input is disabled, nor by the time delay setting.
Active Level:	This field indicates the active level (the configured level that results in the input being considered active) of the input as OPEN or CLOSED for inputs one through seven and as ON or OFF for input eight which is reserved for the Power input.
Qualified By:	This field indicates the number of the input (0-8) by which the current input is qualified (the input that must be active before qualified input may be). Note that a 0 indicates no qualification.
Alert In Progress:	<p>This field indicates whether the input has an alert in progress where “Y” indicates an alert is in progress that has not yet been acknowledged and “N” indicates no alert is in progress. If there are no alerts in progress the command options displayed are:</p> <p style="padding-left: 40px;">“ESCAPE key = previous, Z = repaint”. However if there is at least one alert in progress the command options displayed are:”ESCAPE key = previous, Z = repaint, A = acknowledge alerts in progress” If the later is the case, acknowledge the alerts by the command A &lt;return&gt;.</p>
Zone:	This field indicates whether the zone(s), A, B, and/or C are associated with this input. If any of the specified zones is occupied, (i.e., the local alarm has been disabled either via remote buzz-in, or valid keypad/card entry) the input is temporarily disabled until rearmed.

**Visitor Detail** (As accessed via Add temporary password command)

---

Site Name: GateKeeper Date: 12/31/99  
Site ID: 1234 Time: 17:34:15

Visitor Detail

Name: John Doe Organization: PageTek  
Telephone: 919-555-5555 Card #: CENSORED  
Password: CENSORED Expiration Date: 12/31/00 23:59:59  
Type: PERMANENT

Access Rights

<space>= cycle through schedules, 1-5= schedule number, 0= no access

Zone A	Zone B	Zone C
00-24 MTWHFSU	07-18 MTWHF	00-00

Memo: Responsible for communications infrastructure

ESCAPE key = previous

- 
- Name: This parameter allows for programming of the visitor's name up to 20 characters. This field cannot be blank.
- Organization: This parameter allows for programming of the visitor's organization up to 20 characters. Entering all blanks clears the field.
- Telephone: This parameter allows for programming of the visitor's telephone number up to 20 characters. (Since this field is for reference only, multiple numbers may be entered in whatever format works for the site management.)
- Card #: This field defaults to "N/A" because a temporary visitor will not have a card.
- Password: This field defaults to a new password.
- Expiration Date: This field defaults to a date and time in accordance with the duration selected when adding a temporary password on the previous screen. For example if the operator selects a duration of 24 hours then the date will automatically be set to the next day's date and time will automatically be set to exactly 24 hours later.
- Type: This field defaults to TEMPORARY. Temporary visitors typically have passwords that expire within 24 hours and have a key code but no card.

Access Rights: This parameter allows for programming of the visitor's rights to access zones A,B, and C. There are up to five different access schedules that can be cycled through by entering the space bar or by entering the schedule number zero through five where 0 = No Access. These access schedules are programmed by the supervisor using the Schedule/Zone List screen.

Memo: This parameter allows for programming of any special instructions or comments for the visitor. Only a single line of text is allowable in this parameter.

One or more changes on this screen are logged as: Visitor #**X** modified by "**operator name/number**".

**Schedule/Zone List** (As accessed from the Visitor List)

The Schedule/Zone List screen is read-only and displays the allowable visitation schedules for site visitors. There are up to five schedules available, each schedule having one period programmable per day over zero to seven days of the week. A visitor may be assigned one schedule for each zone to which he or she has access rights. A supervisor would program this visitor information in the Visitor Detail.

---

Site Name: GateKeeper  
Site ID: 1234

Date: 01/06/00  
Time: 10:13:49

Schedule/Zone List

Schedule	Start Time	End Time	Days
1.	00	24	MTWHFSU
2.	07	18	MTWHF
3.	00	00	
4.	00	00	
5.	00	00	

Zones

Zone	Zone Name	Enabled
A	Equipment Room	Y
B	Generator Room	Y
C	Perimeter	N

ESCAPE key = previous, Z = repaint

- 
- Start Time:** This field indicates the time at which site access begins. Hours from 00 to 24 are accepted where 00 and 24 represent midnight.
- End Time:** This field indicates the time at which site access ends. Hours from 00 to 24 are accepted where 00 and 24 represent midnight.
- Days:** This field indicates the selected schedule's days of allowed access to the site where M = Monday, T = Tuesday, W = Wednesday, H = Thursday, F = Friday, S= Saturday, and U = Sunday.
- Zone Name:** This field indicates the zone name as programmed by a supervisor.
- Enabled:** This field indicates zone status as either enabled or disabled. The field displays "Y" if the zone is enabled and "N" if the zone is disabled.

## Visitor List

The Visitor List command opens a read-only screen displaying the first 16 programmed visitor's names, access rights, type, and contact phone number. Operators may page down through additional visitor list entries by entering <return>. Each page will display up to 16 visitors with a total of 100 visitors being the maximum number recorded. For complete details on any visitor, evoke the Visitor Detail screen by entering that visitor's number followed by <return>. Since the visitor's rights are abbreviated in this screen, entering the command S <return> evokes the Schedule/Zone screen for a more detailed review. Operators may delete temporary visitors by entering the command D <return>. This screen is otherwise read-only for operators.

---

Site Name: GateKeeper  
Site ID: 1234

Date: 12/31/99  
Time: 17:34:15

### Visitor List

#	Name	Access Rights	Type	Phone Number
1.	John Doe	A1-B2-C3	PERMANENT	919-555-5555
2.	temp	A1-B1-C1	TEMPORARY	
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				

Enter number for visitor detail, ESCAPE key = previous, Z = repaint  
RETURN = next page, S = sched/zone list, D = delete temp visitor

---

Name: This field indicates the visitor's name as programmed by a supervisor.

Access Rights: This field indicates the visitor's access rights in an abbreviated format. To view the access rights in more detail enter S <return> which will prompt the Schedule/Zone List screen. An entry of 0 (zero) indicates there are no access rights for that screen.

Type: This field indicates either a PERMANENT or TEMPORARY visitor. Temporary visitors typically have passwords that expire within 24 hours, and only have a key code, but no card. Permanent users traditionally have both a key code and a key card and their passwords typically expire after one year.

Phone Number: This field indicates the visitor's contact phone number.

At the command line, the following commands (either in lower or uppercase) may be issued:

- Empty Visitor number: Entering the number of an empty field will prompt "no such visitors".
- S = schedule/zone list: This command allows the operator to evoke the Schedule/Zone List screen to be viewed or modified. The operator is returned to the Visitor List screen upon exiting from the Schedule/Zone List screen.
- D = delete visitor: This command allows the operators to evoke prompts to delete a visitor. Upon entering the command D <return> the systems prompts "Enter number of visitor to delete:". Supervisors may delete any visitor, but operators may only delete temporary visitors. Deleting a visitor is logged as "Visitor #x deleted". A permanent visitor will not be deleted if accidentally selected.



**Schedule/Zone List** (As accessed from the Visitor list)

The Operator's Schedule/Zone List screen is read-only and displays the allowable visitation schedules for site visitors. There are up to five schedules available, each schedule having one period programmable per day over zero to seven days of the week. A visitor may be assigned one schedule for each zone to which he or she has access rights. A supervisor would program this visitor information in the Visitor Detail.

---

Site Name: GateKeeper  
Site ID: 1234

Date: 01/06/00  
Time: 10:13:49

Schedule/Zone List

Schedule	Start Time	End Time	Days
1.	00	24	MTWHFSU
2.	07	18	MTWHF
3.	00	00	
4.	00	00	
5.	00	00	

Zones

Zone	Zone Name	Enabled
A	Equipment Room	Y
B	Generator Room	Y
C	Perimeter	N

ESCAPE key = previous, Z = repaint

- 
- Start Time:** This field indicates the time at which site access begins. Hours from 00 to 24 are accepted where 00 and 24 represents midnight.
- End Time:** This field indicates the time at which site access ends. Hours from 00 to 24 are accepted where 00 and 24 represents midnight.
- Days:** This field indicates the selected schedule's days for access to the site where M = Monday, T = Tuesday, W = Wednesday, H = Thursday, F = Friday, S= Saturday, and U = Sunday.
- Zone Name:** This field indicates the zone name as programmed by the supervisor.
- Enabled:** This field indicates zone status as either enabled or disabled. The field displays "Y" if zone is enabled and "N" if zone is disabled.

## Operator History

The history log is a record of most GateKeeper events and the date and time at which they occurred. The Operator History is identical to the Supervisor History with the exception that valid and invalid passwords and pass cards are censored. In any case, the history screens are read-only for both operators and supervisors. The history file will record up to 512 entries, displaying the most recent event first and overwriting the oldest events as necessary. Generally the log capacity should be enough for several months depending upon site activity. Advance to the next page by entering <return> and go back a page by entering B <return>. Note that operator names are sometimes truncated so that no entry occupies more than one line.

---

Site Name: GateKeeper  
Site ID: 1234

Date: 12/31/99  
Time: 17:35:12

### Operator History

```
Date   Time
02/17/00 15:60:00 User "John Smith" logged out
02/17/00 15:59:44 Config written to memory by "John Smith".
02/17/00 15:59:23 Visitor #13 deleted by "John Smith".
02/17/00 15:59:14 Visitor #13 modified by "John Smith".
02/17/00 15:59:03 Visitor #13 added by "John Smith".
02/17/00 15:58:56 User "John Smith" logged in
02/17/00 15:58:55 Idle time out on local port
02/17/00 15:58:26 Modem: "NO DIALTONE" (6)
02/17/00 15:58:04 Config written to memory by "John Smith".
02/17/00 15:58:03 Visitor #12 deleted by "John Smith".
02/17/00 15:56:44 Visitor #12 modified by "John Smith".
02/17/00 15:56:23 Visitor #12 added by "John Smith".
02/17/00 15:55:52 User "John Smith" logged in
02/17/00 15:55:49 Invalid terminal password "CENSORED" entered.
02/17/00 15:55:49 Invalid terminal password "CENSORED" entered.
02/17/00 15:55:49 Invalid terminal password "CENSORED" entered.
```

ESCAPE key = previous, Z = repaint, RETURN = next page

---

### History Log description

The Gatekeeper maintains several event logs to be viewed by both operators and supervisors. For both supervisors and operators log entries are displayed with the date and time at which the event occurred. Operators see all events, however all entered card numbers, keycodes, and invalid terminal passwords are censored. Supervisors see all events with no censoring. On the following two pages is a list of all possible events, their cause, and any additional information. Read log entries as follows:

#### Example:

---

Card **CENSORED** "**visitor name**" presented at door **X** (**zone name**)

Stand-alone **bolded** information is fluid and alternates between two states.

Any bolded information within "**quotes**" or (**brackets**) is programmed by the user.

All information not bolded is static.

An **X** designates a one- or two-digit number or zone letters A, B, or C.

Log Entry	Event
<b>Door Entry</b>	
Card <b>CENSORED</b> ( <b>visitor name</b> ) presented at door <b>X</b> ( <b>zone name</b> ) (operators)	<i>Valid card</i> presented by a visitor at a zone's door card reader.
Card " <b>card #</b> " ( <b>visitor name</b> ) presented at door <b>X</b> ( <b>zone name</b> ) (supervisors)	
Invalid card code " <b>card #</b> " bits for door <b>X</b> ( <b>zone name</b> )	<i>Invalid card presented by a visitor at a zone's card reader.</i>
Code <b>CENSORED</b> ( <b>visitor name</b> ) entered at door <b>X</b> ( <b>zone name</b> ) (operators)	<i>Valid code</i> entered by a visitor at a zone's at door keypad.
Code " <b>password</b> " ( <b>visitor name</b> ) entered at door <b>X</b> ( <b>zone name</b> ) (supervisors)	
Keypad tampering at door <b>X</b> ( <b>zone name</b> )	<i>Invalid code</i> entered by a visitor at a zone's at keypad or number of invalid attempts exceeded.
Door <b>X</b> ( <b>zone name</b> ) opened for " <b>visitor name</b> "	<i>Door opened</i> by a visitor.
Exit from door <b>X</b> ( <b>zone name</b> )	<i>Exit</i> from door after entry of "0#"
Buzz-in: <b>X</b> ( <b>zone name</b> ) by " <b>supervisor name</b> "	<i>Remote buzz-in</i> command executed by a terminal user from an off-site terminal.
<b>Terminal</b>	
User " <b>operator name/number</b> " logged in	<i>Successful password entry</i> for user login at local/remote terminal.
Invalid terminal password <b>CENSORED</b> entered (operators)	<i>Invalid password entry</i> for user login at local/remote terminal.
Invalid terminal password " <b>password</b> " entered (supervisors)	
User " <b>operator name</b> " logged out	<i>User logout</i> or idle timeout at local/remote terminal.
Alerts acknowledged by " <b>operator name/number</b> "	<i>Alert calls acknowledged</i> by a terminal user via the Global Status.
Status call parameters modified by " <b>user name</b> "	<i>Status calls modified</i> by a terminal user via the Global Status.
Idle time out on local port	<i>Idle timeout</i> limit exceeded at login prompt or while logged in.
Idle time out on modem	
Modem carrier lost	<i>Modem carrier lost</i> while user is logged in via modem.
Config written to memory by " <b>operator name/number</b> "	<i>Configuration written</i> to flash memory by Write Memory command or at logout.
Alarm enabled at Zone <b>X</b> ( <b>door name</b> ) by " <b>supervisor name</b> "	
Alarm: # ( <b>input name</b> ) OPEN	
Return to normal: # ( <b>input name</b> ) CLOSED	<i>Alarm enabled</i> from local/remote terminal user.
Local alarm enabled by " <b>user name</b> "	
Local alarm disabled by " <b>user name</b> "	
Debug mode entered by " <b>user name</b> "	<i>Successful supervisor debug password</i> entered for debug mode.

<b>Modem Calls</b>	
Calling number <b>X</b>	<i>Alert/Status call attempted to a targeted number by GateKeeper.</i>
Calling #X: Modem result - "CONNECT 14400" (15)" Calling #X: TAP result - "message: ACK" Calling #X: TAP failure - "didn't get 'ID #'" Answering call: Modem result - "CONNECT 9600" (12)"	<i>Modem result code returned by modem for all modem calls initiated or answered by GateKeeper.</i>
<b>Site Configuration</b>	
Visitor #X added by "operator name/number"	<i>Visitor added by a terminal user.</i>
Visitor #X deleted by "operator name/number"	<i>Visitor deleted by a terminal user.</i>
Visitor #X modified by "operator name/number"	<i>Visitor modified by a terminal user.</i>
User #X added by "supervisor name"	<i>Terminal user added by a terminal user.</i>
User #X deleted by "supervisor name"	<i>Terminal user deleted by a terminal user.</i>
User #X modified by "supervisor name"	<i>Terminal user modified by a terminal user.</i>
Alert call parameters modified by "supervisor name"	<i>Alert call parameters modified by a terminal user.</i>
Site configuration modified by "supervisor name"	<i>Configuration cleared by a terminal user.</i>
Site configuration modified by "user name"	<i>Site configuration modified by a terminal user.</i>
Zone X (zone name) enabled by "user name" Zone X (zone name) disabled by "user name"	<i>Zone enabled/disabled by a terminal user.</i>
<b>Auxiliary Inputs</b>	
Alarm: X (input name) OPEN Alarm: X (input name) CLOSED	<i>Auxiliary input (MAJ, MIN, or RTN) went into ALARM state at specified level.</i>
Return to normal: X (input name) OPEN Return to normal: X (input name) CLOSED	<i>Auxiliary input (MAJ, MIN, or RTN) went from ALARM state to NORMAL state at specified level.</i>
<b>Miscellaneous</b>	
Power-on	<i>Power cycled and system reset by a terminal user.</i>
Log cleared	<i>Log cleared via Clear Log command or due to new code being loaded.</i>
Unknown event	<i>Unknown event occurred.</i>

## Global Status

The Global Status screen is read-only and gives the operator a snapshot of the system at the time the command was given. Entering the command Z <return> refreshes the screen.

---

Site Name: GateKeeper Date: 12/31/99  
Site ID: 1234 Time: 17:35:53

### Global Status

Alert calls: <Primary alert call in progress> Power source: = AC

#	Zone Description	Occupied	Local Alarm State	Alert In Progress
A	Front door	N	inactive	N
B	1234567890123456	N	inactive	N
C	Acme Paging	N	inactive	N

#	Input Description	Cur Stat	Cur Lvl	Act Lvl	Qlfd By	Alert In Progress	Zone
1	Input 1	ACTIVE	OPEN	OPEN	0	N	A,C
2	Input 2	ACTIVE	OPEN	OPEN	0	N	A,B,C
3	Input 3	ACTIVE	OPEN	OPEN	0	N	B,C
4	Input 4	ACTIVE	OPEN	OPEN	0	N	C
5		ACTIVE	OPEN	OPEN	0	N	C
6		ACTIVE	OPEN	OPEN	0	N	A,C
7		ACTIVE	OPEN	OPEN	0	N	B,C
8	AC Power Fail	ACTIVE	ON	ON	0	Y	A,C

ESCAPE key = previous, Z = repaint, A = acknowledge alerts in progress

---

**Alert calls:** This field indicates whether an input alert call is in progress. If no input alert calls are active the screen will indicate: "No primary alert call in progress".

**Power source:** This field indicates whether the GateKeeper is running on AC mains or has reverted to DC backup. The prompt "Power source = AC" is displayed if the input level at input #8 is high. Otherwise "Power source = battery" is displayed. The software is "hard-coded" to expect that input #8 indicates the power source status.

**Zone Description:** This field indicates the programmed description of each zone.

**Occupied:** This field indicates each zone as occupied "Y" or unoccupied "N". An occupied zone is defined as one whose keypad has received a valid presentation of credentials and which has not been reactivated.

**Local Alarm State:** This field indicates the state of the local alarm as ACTIVE or INACTIVE.

**Alert in Progress:** This field indicates whether an alert is in progress "Y" or not in progress "N". A zone may have an alert still in progress without the local alarm annunciator sounding.

The bottom half of the Global Status screen displays information pertaining to the eight auxiliary inputs. An input is considered “disabled” under any one of three circumstances.

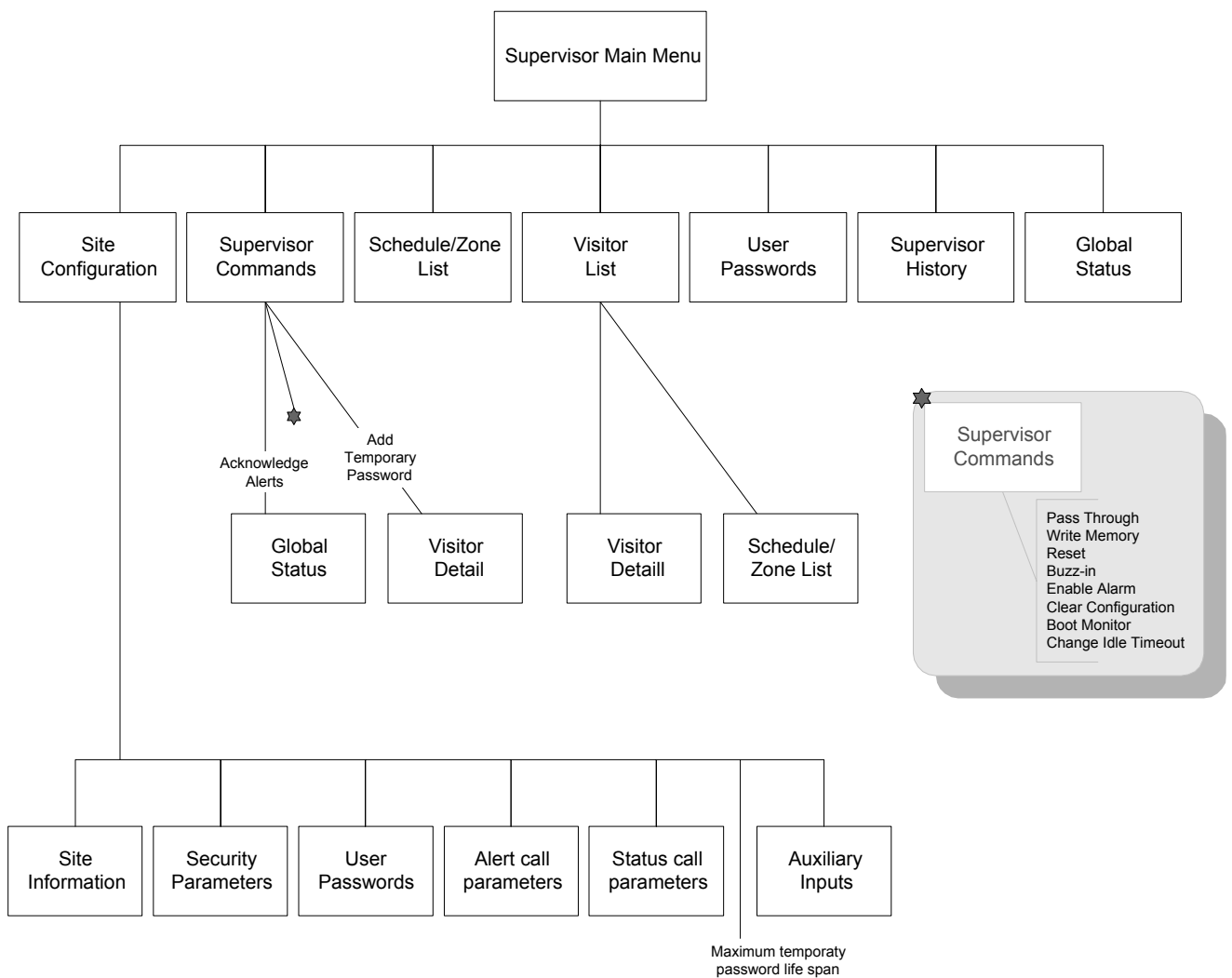
- 1) if the input is not enabled via the Auxiliary Input configuration screen.
- 2) if the input's qualifier is not in the Active state.
- 3) if one of the input's associated zones is occupied (i.e., the local alarm has been disabled either via remote buzz-in or valid keypad/card entry).

Input Description:	This field indicates the input description as entered in the Auxiliary Input Configuration screen by a supervisor.
Current Status:	<p>This field indicates the current status of each installed input. Indications are as follows:</p> <p><b>NORMAL</b> indicates that the input is disabled, or that the input is not in the active level.</p> <p><b>DELAY</b> indicates that the input is not disabled, and has been in the active level for a time period less than that input's specified time delay.</p> <p><b>ACTIVE</b> indicates that the input is not disabled, and has been in the active level for a time period greater than that input's specified time delay.</p>
Current Level:	This field indicates the current level of the input as OPEN or CLOSED for inputs one through seven and as ON or OFF for input eight which is reserved for the Power input. This reading is not affected by whether or not the input is disabled, nor by the time delay setting.
Active Level:	This field indicates the active level (the configured level that results in the input being considered active) of the input as OPEN or CLOSED for inputs one through seven and as ON or OFF for input eight which is reserved for the Power input.
Qualified By:	This field indicates the number of the input (0-8) by which the current input is qualified (the input that must be active before qualified input may be). Note that a 0 indicates no qualification.
Alert In Progress:	<p>This field indicates whether the input has an alert in progress where “Y” indicates an alert is in progress that has not yet been acknowledged and “N” indicates no alert is in progress. If there are no alerts in progress the command options displayed are:</p> <p style="padding-left: 40px;"><code>“ESCAPE key = previous, Z = repaint”</code>. However if there is at least one alert in progress the command options displayed are: <code>“ESCAPE key = previous, Z = repaint, A = acknowledge alerts in progress”</code> If the later is the case, acknowledge the alerts by the command <code>A &lt;return&gt;</code>.</p>
Zone:	This field indicates whether the zone(s), A, B, and/or C are associated with this input. If any of the specified zones is occupied, (i.e., the local alarm has been disabled either via remote buzz-in, or valid keypad/card entry) the input is temporarily disabled until rearmed.

# Operation From a Supervisor's Perspective

# 3

## Supervisor Screen Flow



## Operation from a Supervisor's perspective

The user interface available to those logging in with a supervisor's password includes all of the functionality mentioned in the operator's section and much more. Some screens that are read-only for the operators will be editable by the supervisors. In addition, some commands not seen by operators will be visible to supervisors. Note that there need not be any operators if the site management wishes to give full control capabilities to all personnel, although there must be at least one supervisor. However, to reduce the possibility of unintentional modification of critical parameters during normal operation, it is suggested that routine operations be handled using operator privileges, even if the user also has supervisor rights.

### ***Supervisor Main Menu***

The supervisor's version of the Main Menu is displayed when a supervisor's password is used during the login process. A supervisor is authorized to access all information and to configure all aspects of GateKeeper operation. Care should be taken when using a supervisor's password, since operation can be adversely affected by incorrect set up. For this reason, supervisors may wish to log into the GateKeeper using an operator's password, thereby avoiding unintentional modification of the GateKeeper operation. Menu commands found on the supervisor Main Menu, but not on the Operator Main Menu are Site Configuration and User Passwords. The Supervisor Commands and Supervisor History screens accessed by supervisors also contain additional information or command capability.

---

Site Name: GateKeeper  
Site ID: 1234

Date: 12/28/99  
Time: 11:56:28

GateKeeper Version 0.9  
Supervisor Main Menu

1. Site Configuration
  2. Supervisor Commands
  3. Schedule/Zone List
  4. Visitor List
  5. User Passwords
  6. Supervisor History
  7. Global Status
- TC Terminate Call

Enter desired screen number or Z to repaint

---

## Site Configuration

The Site Configuration screen is available only to those logging in with a supervisor's password. Entry of any menu number followed by <return> evokes another screen. It is on these screens that most of the GateKeeper personality is set. Note that selecting menu item six does not evoke another screen, but rather a set of command lines.

---

Site Name: GateKeeper  
Site ID: 1234

Date: 01/01/00  
Time: 16:28:41

### Site Configuration

1. Site Information
2. Security Parameters
3. User Passwords
4. Alert Call Parameters
5. Status Call Parameters
6. Maximum Temporary Password Life Span
7. Auxiliary Inputs

ESCAPE key = previous, Z = repaint

---

Site Information:	This command allows the supervisor to evoke another screen and program: site ID, name, date, and time.
Security Parameters:	This command allows the supervisor to evoke another screen and program four different parameters: the time for unlocking door, the number of invalid entry attempts before local alarm, the time to sound onsite alarm annunciator, and the time after which invalid entries are flushed.
User Passwords:	This command allows the supervisor to evoke another screen and delete or modify the name and password of existing operators and supervisors.
Alert Call Parameters:	This command allows the supervisor to evoke another screen and modify alert call parameters: type, number, attempts, intervals between calls, and sequence repetitions.
Status Call Parameters	This command allows the supervisor to evoke another screen and modify the status call parameters: type, number, and time of day for call.
Password Life span:	This command allows the supervisor to program the maximum life span for a temporary password no longer than 24 hours. This command does not evoke another screen, but instead it generates two command lines at the bottom of the screen for programming.
Auxiliary Inputs:	This command allows the supervisor to evoke another screen and modify auxiliary input parameters.

## Site Information screen

This screen allows the site ID and site name, current date, and time to be set by a supervisor. These values will rarely need to be changed after initial programming.

---

Site Name: GateKeeper	Date: 01/06/00
Site ID: 1234	Time: 11:02:15

### Site Information

1. Site ID: 1234
2. Site name: GateKeeper
3. Date: 01/06/00
4. Time: 11:02:12

1-4 = modify parameter  
ESCAPE key = previous, Z = repaint

---

Site ID:	This parameter allows for programming of the site ID number and must be entered as 4 digits (0-9) or as all blanks. Anything else is rejected.
Site Name:	This parameter allows for programming of the site name and must be entered as all blanks or alphanumeric strings of up to 16 characters.
Date:	This parameter allows for programming of the Real Time Clock date and must be entered as MM/DD/YY.
Time:	This parameter allows for programming of the Real Time Clock time and must be entered as: HH:MM:SS. The entry of seconds is optional.

One or more changes on this screen are logged as: Site configuration modified by “**supervisor name**”.

## Security Parameters screen

The Security Parameters screen configures the conditions under which an alert call will be generated. All fields accept a number from 1 to 255. Any character other than a digit is considered an invalid entry.

---

Site Name: GateKeeper  
Site ID: 1234

Date: 01/06/00  
Time: 11:04:36

### Security Parameters

1. Time in seconds (1-255) for unlocking door: 5
2. Number of invalid entry attempts (1-255) before alarm: 3
3. Time in minutes (up to 255; 0 disables alarm) to sound local alarm: 1
4. Time in minutes (1-255) after which invalid entries are flushed: 5

1-4 = modify parameter  
ESCAPE key = previous, Z = repaint

---

Unlock door:	This parameter allows for programming of the maximum time in seconds that the door strike will be unlocked for visitor entry. Any value from 1 to 255 is valid.
Invalid attempts:	This parameter allows for programming of the maximum number of invalid keypad entry attempts before generating a local alarm. Any value from 1 to 255 is valid. The factory default value is set to three attempts.
Sound alarm:	This parameter allows for programming of the maximum time in minutes that the onsite alarm annunciator will sound before being automatically reset. Any value from 0 to 255 is valid where an entry of 0 (zero) will disable the alarm.
Entry flush:	This parameter allows for programming of the time in minutes after which invalid keypad entries are flushed. Any value from 1 to 255 is valid.

One or more changes on this screen are logged as: Site configuration modified by “**supervisor name**”.

## User Passwords screen

The User Passwords screen allows for supervisory programming of 6 operator and 6 supervisor passwords. A default supervisor password of 1111 is accepted by the system for the initial programming, but should be changed on this screen as the final step of the installation process. If passwords are lost the only way to gain entry to the GateKeeper operating system is a complete re-initialization of the memory. In this case all configurations previously programmed will be lost. Deleting a user is accomplished via the command D <return> at the command line prompt. If the last supervisor is deleted, a default supervisor with password 1111 will automatically be added and a prompt will be displayed to inform the user that the password was added.

---

Site Name: GateKeeper Date: 01/31/00  
Site ID: 1234 Time: 08:49:25

### User Passwords

#### Operator Passwords - Limited Access

	Name	Password
1.	Default operator	0000
2.		
3.		
4.		
5.		
6.		

#### Supervisor Passwords - Full Access

	Name	Password
7.	Default supervisor	1111
8.		
9.		
10.		
11.		
12.		

ESCAPE key = previous, D= delete user, Z = repaint, 1-12 = modify field

---

**Name:** This field allows for the programming of operator or supervisor names of up to a 20 characters description. If the cursor is in an empty user's name field, hitting <tab> or <return> moves the cursor to the next name field. Entry into the password field is not allowed if the name field is empty. This prevents an unnamed user from accessing the system.

**Password:** This field allows for the assignment of operator or supervisor passwords of four- to eight-digits length. Each person given access rights must be assigned a password. This password will be used by the system to determine who is logging in and at what level of access that person may operate.

One or more changes on this screen are logged as: Site configuration modified by "**supervisor name**".

## Alert Call Parameters screen

The Alert Call Parameters screen allows supervisors to program the modem and/or pager numbers to be called by the GateKeeper. The supervisor may edit any field by entering any one of the short cuts at the command line where “1-8” are the list numbers, “C” is the call sequence, “A” is the attempts per number, “I” is the interval between calls, and “S” is the sequence repetitions. Entering a value in any field, followed by <return> will confirm the entry and move the cursor to the next field. Entering <escape> at any time will return the cursor to the command prompt.

The GateKeeper alerts site management of any site alarms by sending alphanumeric messages to either modem equipped PCS or to alphanumeric pagers via a TAPP compliant paging terminal. Status calls to these devices are also supported. Dumps to serial printers are also supported with proper setup of the target modem. non-specific alerts may also be sent to numeric and tone-only pagers, but no information regarding the nature of the alarm is transmitted. Status calls to these devices is impossible.

---

Site Name: GateKeeper Date: 01/01/00  
Site ID: 1234 Time: 16:29:50

### Alert Call Parameters

#### Telephone Number List

#	Type	Modem Number	Pager Number
1.	PAGER	80005554867W9195556078,,,2,,,,	5551324
2.	MODEM	5553647	
3.	MODEM		
4.	MODEM		
5.	MODEM		
6.	MODEM		
7.	MODEM		
8.	MODEM		

#### Parameters

Call sequence:2

Attempts per number (1-255):1 Interval between calls (1-255min.):5  
Sequence repetitions (0-255; 0 disables alert call): 1

1-8,C,A,I,S = modify parameter  
ESCAPE key = previous, Z = repaint

---

Type: This parameter allows for programming of an indication of whether the alert call will be sent to a modem or pager. Hitting the spacebar or entering M or P (either lower or uppercase) may be used to toggle between MODEM and PAGER types.

Note that the supervisor is not allowed to enter anything in the pager field if the type is set to MODEM. After entering a number in the modem field, the cursor moves to the next telephone number. If the type is PAGER, the supervisor is allowed to enter a number both in the Modem Number and Pager Number fields. If the type of a number was PAGER, but the supervisor changes the type to MODEM, the pager field will be cleared both on-screen and in memory. The Modem Number may be up to 40 characters long and may use any of the special characters listed in Appendix B.

- Modem Number:** This parameter allows for programming of the telephone number to be called by the GateKeeper. The Modem Number field can contain up to 40 characters. Each character entered must be a digit (0-9), one of the special characters as defined in the table located in Appendix B. Any other character entered in the field makes the entry invalid and the supervisor must re-enter the entire number. Entering all blanks clears the field. If the type is set to PAGER, this number is the alpha port number of the paging terminal.
- Pager Number:** This parameter allows for programming of the pager number to be called by the GateKeeper. The Pager Number field can contain up to 16 characters. No error checking is performed since TAPP allows any character. Entering all blanks clears the field.
- Call Sequence:** This parameter allows for programming of the list of numbers to call during an alert. The list may contain up to 8 telephone number entries and may include repeated numbers. Digits 1 through eight are allowed. Delimiting the numbers is not required, but any number of blanks or a single comma may be used between digits. Entering a "0" only, or all blanks clears the call sequence. At present, this field supports a single calling sequence, but additional calling sequences may be made available for special uses.
- Attempts per number:** This parameter allows for programming of the number of times the telephone or pager number is dialed before moving to the next number in the list. Any number from 1 to 255 is accepted.
- Interval between calls:** This parameter allows for programming of the period between calls during which the GateKeeper will be available for inbound calls. Any number from 1 to 255 is accepted.
- Sequence repetitions:** This parameter allows for programming of the number of complete sequences repeated before the sequence is terminated. Any number from 0 to 255 is accepted; choosing 0 or leaving the space blank disables the alert call.

One or more changes on this screen are logged as: Site configuration modified by "**supervisor name**".

### **Special Instructions for Numeric and Tone-only Pagers**

#### Operation supporting numeric pagers

To send a non-specific alert to a numeric pager, set the type to MODEM and use the extended control characters documented in Appendix B. In the Modem Number field, enter the pager number followed by such characters needed to program a delay, followed by a number to be used exclusively to indicate an alarm at their site. The site ID. Remember that the pages may reformat this as a conventional phone number, i.e. 555-5555. There is no way to pass information regarding the nature of the alert.

#### Operation supporting tone-only pagers

Enter the pager number in the Modem Number field and program the type as MODEM.

## Status Call Parameters screen

The Status Call Parameters screen is used to enter the phone number to be called by the status call and the time at which the call will be placed. The telephone number list entered in the Alert Call Parameters screen is displayed for reference on the first half of this screen in read-only format. Status calls to numeric and tone-only pagers are not possible.

---

Site Name: GateKeeper  
Site ID: 1234

Date: 12/31/99  
Time: 17:57:58

### Status Call Parameters

#### Telephone Number List

#	Type	Modem Number	Pager Number
1.	PAGER	80005554867W9195556078	2,,,,,5551324
2.	MODEM	5553647	
3.	MODEM		
4.	MODEM		
5.	MODEM		
6.	MODEM		
7.	MODEM		
8.	MODEM		

#### Parameters

Number for status call (1-8, 0 = no status call): 1

Time of day for status call: 05:00:00

N,T = modify parameter

ESCAPE key = previous, Z = repaint

---

Number for status call: This parameter allows for programming of the status call number and accepts any digit from 0 to 8. Entry of a 0 (zero) indicates that no status call will be made.

Time for status call: This parameter allows for programming of the status call time in 24-hour format (HH:MM:SS). Entry of seconds is optional.

One or more changes on this screen are logged as: Status call parameters modified by "**user name**".

### **Maximum Temporary Password Life span**

This command allows the supervisor to set the maximum period during which a temporary password will be valid. This figure will also be the default value for any temporary password requested by either operator or supervisor when using the Add Temporary Visitor command.

Selecting this menu item on the Site Configuration screen does not evoke another screen, but rather it displays the following at the bottom of the screen:

```
Present maximum temporary password life span = 12 hours  
Enter a maximum temporary password life span no longer than 24 hours _
```

The supervisor may program a new temporary user on the Visitor List Detail screen and may set the life span to any date in the future. A temporary user with an extended life span will be protected from overwriting as long as there are empty visitor slots and/or expired temporary passwords, but will be overwritten before any Permanent visitor.

One or more changes on this screen are logged as: Site configuration modified by “**supervisor name**”.

## Auxiliary Inputs screen

The Auxiliary Inputs screen displays only the auxiliary inputs with valid configuration plugs installed. In each field, entering a 0 (zero) or all blanks clears the field.

---

Site Name: GateKeeper  
Site ID: 1234

Date: 01/06/00  
Time: 11:39:49

### Auxiliary Inputs

#	Description	Act Lvl	Qlfd By	Time Dly	Alm Type	Enab	Loc Rel	Zone
1	Input 1	OPEN	0	0	QUAL	Y	N	
2	Input 2	OPEN	0	0	QUAL	Y	N	
3	Input 3	OPEN	0	0	QUAL	Y	N	
4	Input 4	OPEN	0	0	QUAL	Y	N	
5		OPEN	0	0	QUAL	Y	N	
6		OPEN	0	0	QUAL	Y	N	
7		OPEN	0	0	QUAL	Y	N	
8	AC Power Fail	ON	0	5	RTN	Y	N	

1-8 = modify input parameters  
ESCAPE key = previous, Z = repaint

---

Description:	This parameter allows for programming of an input description. This label will identify the input in alert calls. Up to 16 characters are accepted. Entering all blanks clears the field.
Active Level:	This parameter allows for programming of the input as OPEN or CLOSED which determines the level that results in the input being considered active. Hitting the spacebar or typing "o" or "c" (lower or uppercase) toggles the active level. The AC power indicator input (#8) can have an active level of either ON or OFF. Hitting the spacebar or typing "n" or "f" (lower or uppercase) toggles the active level.
Qualified By:	This parameter allows for programming of the input (by number) that must become active before the current input can be active. Any digit from 0 to 8 is accepted. A 0 (zero) indicates that this input has no qualifier.
Time Delay:	This parameter allows for programming of the time (in number of seconds) for which the input must be continuously in an alarm state before generating an alert call. This value may be set to allow time for passage through a space protected by the input's sensor or to provide debouncing for falsing prevention.

Alarm Type: This parameter allows for programming of the local alarm type which indicates whether alerts and log entries are generated upon transition of this input's state from NORMAL to ACTIVE or from ACTIVE to NORMAL. The following table provides a summary of log and alert call action for each input state transition.

#	Type	NORMAL to ACTIVE	ACTIVE to NORMAL
1.	QUAL (qualifier)	no log / no alert call	no log / no alert call
2.	MIN (minor)	log / no alert call	log / no alert call
3.	MAJ (major)	log / alert call	log / no alert call
4.	RTN (return to normal)	log / alert call	log / alert call

Note: Hitting the spacebar cycles through the 4 choices. Also, typing a digit 1-4 changes the value according to the list above.

Enabled: This parameter allows for programming of the input as enabled “Y” or disabled “N”. Disabled inputs always remain in the NORMAL state, and no alarms, alert calls, or logs will be generated. Hitting the spacebar or entering “y” or “n” (lower or uppercase) cycles between enable and disabled.

Local Relay: This parameter allows for programming that indicates whether to activate the “local alarm” relay when this input is in Active state. Hitting the spacebar or entering “y” or “n” (lower or uppercase) cycles between Yes “Y” or No “N”. Remember that the local alarm may be disabled using the Supervisor Commands screen.

Zone: This parameter allows for programming of the zone(s) A, B, and/or C, associated with the input. If any of the specified zones are occupied (i.e., the local alarm has been disabled either via remote buzz-in, or valid keypad/card entry) the input is disabled. Any input associated with a particular zone will be disabled by the presentation of valid credentials. This prevents falsing of intrusion sensors when an authorized visitor enters the protected space. Either lower or uppercase zone letters may be used in this field and need not be delimited, but may be delimited with either spaces or commas.

One or more changes on this screen are logged as: Site configuration modified by “**supervisor name**”.

## Supervisor Commands

The Supervisor Commands screen is the repository for a variety of commands that are occasionally, but not routinely required for daily operation. The more frequently used Acknowledge alert and Add temporary password commands are available elsewhere for both operator and supervisor. The remainder of the commands are for special purpose or diagnostic use. Selection of the first two menu items evokes another screen. Entry of any other menu numbers followed by <return> generates more commands at the bottom of the screen.

---

Site Name: GateKeeper  
Site ID: 1234

Date: 12/18/99  
Time: 10:36:30

### Supervisor Commands

1. Acknowledge alert
2. Add temporary password
3. Pass through
4. Write memory
5. Reset
6. Buzz-in
7. Enable alarm
8. Clear configuration
9. Boot monitor
10. Change idle timeout for this session prompt

ESCAPE key = previous, Z = repaint

---

**Acknowledge alert:** Choosing this command evokes the Global Status screen allowing the supervisor to acknowledge any alert including those generated by an auxiliary input going into ALARM state or by keypad tampering.

**Add temporary password:** This command allows the supervisor to generate a temporary password for a short-term visitor. Once this menu item is chosen, a new prompt appears at the bottom of the screen: "Enter a duration of no more than 24 hours:". This value will be the visitor's password life span which defaults to the maximum time (up to 24 hours) as specified in the System Parameters, but may be set to any value at or below the maximum life span in one-hour increments.

Successful entry evokes the Visitor Detail screen where all fields are programmable. When this screen is evoked the cursor is automatically taken to the Name field where it awaits entry. Note that if the supervisor evokes the Visitor Detail screen from the Main Menu all fields can be edited there as well.

When the temporary visitor is added the entry overwrites any expired temporary visitors. If there are no expired temporary visitors then the next available empty visitor slot is used starting at #1. As a last resort, the oldest expired permanent visitor is overwritten. If none of the criteria are found, the message "There is no space available for a temporary password" will appear. In this case, a supervisor must manually delete a visitor before entry.

- Pass through: This command allows the supervisor to connect the active modem to the optional serial port for connection via an external intelligent serial device (PageTek monitor or embedded diagnostics of other equipment). -Not implemented-
- Write Memory: This command allows the supervisor to save all configurations programming to the non-volatile flash memory. Any changes not written to flash will be lost the next time the power is cycled. Once this command is chosen the screen displays the message "Writing in progress..." followed by "Memory written". The system automatically saves changes in most cases.
- Reset: This command allows the supervisor to perform the equivalent of a power-on reset. Any parameters not written to flash memory will be lost and all working registers will be reset. This is the first step to take in the event of faulty operation, especially if data corruption is thought to have occurred. Once this command is entered the screen prompts "Testing flash (press ESC now to enter boot monitor)". For a reset without entering the boot monitor simply wait until the system resets in ten seconds.
- Buzz-In: This command allows the supervisor to directly activate the strike plate associated with Zones A, B, or C. When selected, the prompt "Enter letter (A--C) of door to open:" will appear. Enter the appropriate zone designator followed by <return>. An inaccurate entry will prompt "Door must be between A and C".
- Enable Alarm: This command allows the supervisor to return the GateKeeper to the vigilant state. This command may be used remotely to re-activate a zone left disabled by a forgetful visitor. When selected, the prompt "Enter letter (A--C) of door alarm to enable:" will appear. Enter the appropriate zone designator followed by <return>. An inaccurate entry will prompt "Door must be between A and C".
- Clear Configuration: This command allows the supervisor to clear all configuration data previously entered. When selected, the GateKeeper will prompt "All configuration data will be cleared! Continue? (y/n)". Entering "n" will prompt "nothing done" and entering "y" will clear the configuration. The history will not be deleted. There is intentionally no way to delete the history

**Boot monitor:** While rarely needed, this command allows the supervisor to access the boot> prompt. After entering the Boot monitor command the prompt appears. Follow this prompt by entering <return> and the commands menu appears (as seen below). Choose the desired command followed by <return>. To enter the boot monitor cycle power to the GateKeeper and wait for the “Press ESC within 10 seconds to enter boot monitor” prompt. After pressing <escape> you will see the following screen.

```
PageTek boot monitor $Revision: 1.7 $  
boot>
```

Commands:

```
d      Start xmodem download of new flash image  
r      Reset  
C      Run main program without checking sum (dangerous)
```

```
boot> [choose command followed by <return>]
```

**Change idle timeout:** This command allows the supervisor to program how long the GateKeeper will remain connected while there is no activity. Entering this command will prompt “Enter idle timeout for this session in minutes (1-99):”. Upon valid entry the system will prompt “New idle timeout valid until logout”. The change is only good for the current session and the GateKeeper will default to three minutes once manually logged out of the session.

One or more changes on this screen are logged according to the History Log table (pp. 51-52).

**Global Status** (As accessed via Acknowledge alerts command)

The Global Status screen is read-only and gives the supervisor a snapshot of the system at the time the command was given. Entering the command Z <return> refreshes the screen.

---

Site Name: GateKeeper Date: 12/31/99  
Site ID: 1234 Time: 17:35:53

Global Status

Alert calls: <Primary alert call in progress> Power source: = AC

#	Zone Description	Occupied	Local Alarm State	Alert In Progress
A	Front door	N	inactive	N
B	1234567890123456	N	inactive	N
C	Acme Paging	N	inactive	N

#	Input Description	Cur Stat	Cur Lvl	Act Lvl	Qlfd By	Alert In Progress	Zone
1	Input 1	ACTIVE	OPEN	OPEN	0	N	
2	Input 2	ACTIVE	OPEN	OPEN	0	N	
3	Input 3	ACTIVE	OPEN	OPEN	0	N	
4	Input 4	ACTIVE	OPEN	OPEN	0	N	
5		ACTIVE	OPEN	OPEN	0	N	
6		ACTIVE	OPEN	OPEN	0	N	
7		ACTIVE	OPEN	OPEN	0	N	
8	AC Power Fail	ACTIVE	ON	ON	0	Y	

ESCAPE key = previous, Z = repaint, A = acknowledge alerts in progress

---

Alert calls: This field indicates whether an input alert call is in progress. If no input alert calls are active the screen will indicate: "No primary alert call in progress".

Power source: This field indicates whether the GateKeeper is running on AC mains or has reverted to DC backup. The prompt "Power source = AC" is displayed if the input level at input #8 is high. Otherwise "Power source = battery" is displayed. The software is "hard-coded" to expect that input #8 indicates the power source status.

Zone Description: This field indicates the programmed description of each zone.

Occupied: This field indicates each zone as occupied "Y" or unoccupied "N". An occupied zone is defined as one whose keypad has received a valid presentation of credentials and which has not been reactivated.

Local Alarm State: This field indicates the state of the local alarm as ACTIVE or INACTIVE.

Alert in Progress: This field indicates whether an alert is in progress "Y" or not in progress "N". A zone may have an alert still in progress without the local alarm annunciator sounding.

The bottom half of the Global Status screen displays information pertaining to the eight auxiliary inputs. An input is considered “disabled” under any one of three circumstances.

- 1) if the input is not enabled via the Auxiliary Input configuration screen.
- 2) if the input's qualifier is not in the Active state.
- 3) if one of the input's associated zones is occupied (i.e., the local alarm has been disabled either via remote buzz-in or valid keypad/card entry).

**Input Description:** This field indicates the input description as entered in the Auxiliary Input Configuration screen by a supervisor.

**Current Status:** This field indicates the current status of each installed input. Indications are as follows:

**NORMAL** indicates that the input is disabled, or that the input is not in the active level.

**DELAY** indicates that the input is not disabled, and has been in the active level for a time period less than that input's specified time delay.

**ACTIVE** indicates that the input is not disabled, and has been in the active level for a time period greater than that input's specified time delay.

**Current Level:** This field indicates the current level of the input as OPEN or CLOSED for inputs one through seven and as ON or OFF for input eight which is reserved for the Power input. This reading is not affected by whether or not the input is disabled, nor by the time delay setting.

**Active Level:** This field indicates the active level (the configured level that results in the input being considered active) of the input as OPEN or CLOSED for inputs one through seven and as ON or OFF for input eight which is reserved for the Power input.

**Qualified By:** This field indicates the number of the input (0-8) by which the current input is qualified (the input that must be active before qualified input may be). Note that a 0 indicates no qualification.

**Alert In Progress:** This field indicates whether the input has an alert in progress where “Y” indicates an alert is in progress that has not yet been acknowledged and “N” indicates no alert is in progress. If there are no alerts in progress the command options displayed are:

`“ESCAPE key = previous, Z = repaint”`. However if there is at least one alert in progress the command options displayed are: `“ESCAPE key = previous, Z = repaint, A = acknowledge alerts in progress”` If the later is the case, acknowledge the alerts by the command `A <return>`.

**Zone:** This field indicates whether the zone(s), A, B, and/or C are associated with this input. If any of the specified zones is occupied, (i.e., the local alarm has been disabled either via remote buzz-in, or valid keypad/card entry) the input is temporarily disabled until rearmed.

One or more changes on this screen are logged as: Site configuration modified by “**supervisor name**”.

**Visitor Detail** (As accessed via Add temporary password command)

The Visitor Detail screen, accessed by selecting a visitor entry from the Visitor List, will display the details for that selected entry. If the supervisor has permission to modify this visitor's information the cursor is taken immediately to the name field. The supervisor may <tab> or <return> to advance to the next field.

---

Site Name: GateKeeper Date: 01/01/00  
Site ID: 1234 Time: 16:33:47

Visitor Detail

Name: Michael Ball Organization: PageTek  
Telephone: 919-518-1828 Card #: 6520  
Password: 50300131 Expiration Date: 01/01/01 23:59:59  
Type: PERMANENT

cycle through schedules, 1-5=schedule number, 0=no access

Zone A	Zone B	Zone C
00-24 MTWHFSU	00-24 MTWHFSU	00-00

Memo: Responsible for 3 paging transmitters

ESCAPE key = previous

---

Name:	This parameter allows for programming of the visitor's name up to 20 characters. This field cannot be blank.
Organization:	This parameter allows for programming of the visitor's organization name up to 20 characters. Entering all blanks clears the field.
Telephone:	This parameter allows for programming of the visitor's telephone number up to 20 characters. Entering all blanks clears the field. (Since this field is for reference only, multiple numbers may be entered in whatever format works for the site management.)
Card #:	This parameter allows for programming of the visitor's card number from 0 to 65535 where a zero indicates this visitor does not need a card to gain entry. Entering all blanks clears the field.
Password:	This parameter allows for programming of the visitor's password of up to eight digits. Entering all blanks clears the field and spaces in between digits are not accepted.

- Expiration Date: This parameter allows for programming of the date and time after which the user will no longer have entry rights. Enter the date and time in MM/DD/YY and HH:MM:SS formats respectively. The supervisor should enter the numbers directly followed by <return>. The date and time will be automatically displayed with their respective delimiters when entered.
- Type: This parameter allows for programming of the visitor's type as PERMANENT or TEMPORARY and can be toggled using the space bar. Temporary visitors typically have passwords that expire within 24 hours, and only have a key code, but no card. Permanent users traditionally have both a key code and a key card and their passwords typically expire after one year. If a card number is issued to a visitor his type should be changed to permanent.
- Access Rights: This parameter allows for programming of the visitor's rights to access zones A,B, and C. There are up to five different access schedules that can be cycled through by entering the space bar or by entering the schedule number zero through five where 0 = No Access. These access schedules are programmed by the supervisor using the Schedule/Zone List screen.
- Memo: This parameter allows for programming of any special instructions or comments for the visitor. Only a single line of text is allowable in this field.

One or more modifications while in this screen are logged as: Site configuration modified by "**supervisor name**".

## Schedule/Zone List

The Schedule/Zone List command opens a screen displaying the allowable access schedules for the protected spaces. There are up to five schedules available, each schedule having one period programmable per day over zero to seven days of the week. A visitor may be assigned one schedule for each zone to which he or she has access rights. A supervisor would program this visitor information in the Visitor Detail. At the command line enter 1-5 to modify any schedule, or enter A-C to modify the zones.

---

Site Name: GateKeeper Date: 12/18/99  
Site ID: 1234 Time: 10:38:19

### Schedule/Zone List

Schedule	Start Time	End Time	Days
1.	00	24	MTWHFSU
2.	00	00	
3.	00	00	
4.	00	00	
5.	00	00	

### Zones

Zone	Zone Name	Enabled
A	Front door	Y
B	Back door	Y
C	Perimeter	N

1-5 = modify schedule, A-C = modify zone name  
ESCAPE key = previous, Z = repaint

---

**Start Time:** This parameter allows for programming of the time at which site access begins. Hours from 00 to 24 are accepted where 00 and 24 represents midnight.

**End Time:** This parameter allows for programming of the time at which site access ends. Hours from 00 to 24 are accepted where 00 and 24 represents midnight. Note that setting the start time and end time to the same hour, or setting the start time to a value less than the end time results in no access.

**Days:** This parameter allows for programming of the days on which access is allowed. Days are designated as: M=Monday, T=Tuesday, W=Wednesday, H=Thursday, F=Friday, S=Saturday, and U=Sunday. Days may be entered in any order. Blanks and commas are accepted, but are not required.

**Zone Name:** This parameter allows for programming of the zone name and allows for a label up to 16 characters in length. Entering all blanks clears the field.

**Enabled:** This parameter allows for programming of the zone as either enabled or disabled. The field displays "Y" if zone is enabled and "N" if zone is disabled.

One or more changes on this screen are logged as: Site configuration modified by “**supervisor name**”.

## Visitor List

The Visitor List command opens a screen displaying the first 16 programmed visitor's names, access rights, type, and contact phone number. Supervisors may page down through additional visitor list entries by entering <return>. Each page will display up to 16 visitors for a total of 100 visitors. To view or edit complete details on any visitor, enter that visitor's number followed by <return>; this command evokes the Visitor Detail screen. Since the visitor's rights are abbreviated, entering the command S <return> evokes the Schedule/Zone screen for a more detailed review and for editing. Supervisors may delete temporary visitors by entering the command D <return>. The Visitor List is read-only, but entering the number of an empty field will prompt the GateKeeper to add a visitor via the Visitor Detail screen.

---

Site Name: GateKeeper  
Site ID: 1234

Date: 12/18/99  
Time: 07:59:16

### Visitor List

#	Name	Access Rights	Type	Phone Number
1.	temp	A1-B1-C1	TEMPORARY	
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				

Enter number for visitor detail, ESCAPE key = previous, Z = repaint  
RETURN = next page, S = sched/zone list, D = delete visitor

---

Name: This field indicates the visitor's name as programmed by a supervisor.

Access rights: This field indicates the visitor's access rights in an abbreviated format. To view the access rights in more detail enter S <return> which will prompt the Schedule/Zone List screen. Zero indicates no access for that zone.

Type: This field indicates either a PERMANENT or TEMPORARY visitor. Temporary visitors typically have passwords that expire within 24 hours, and only have a key code, but no card. Permanent users traditionally have both a key code and a key card and their passwords typically expire after one year.

Phone number: This field indicates the programmed visitor's telephone number.

At the command line, the following commands (either in lower or uppercase) may be issued:

- Empty Visitor number: If a supervisor enters the number of an empty visitor field, GateKeeper interprets this as adding a visitor, and the supervisor is taken to the Visitor Detail screen for programming. This event is logged as "Visitor #**X** added". Operators are not allowed to add visitors by this method, and instead get the prompt "no such visitors". Operators may only add temporary visitors via the "Add temporary password" command.
- S = schedule/zone list: This command allows the supervisor to evoke the Schedule/Zone List screen to be viewed or modified. The supervisor is returned to the Visitor List screen upon exiting from the Schedule/Zone List screen.
- D = delete visitor: This command allows the supervisor to evoke prompts to delete a visitor. Upon entering the command D <return> the systems prompts "Enter number of visitor to delete:". Supervisors may delete any visitor, but operators may only delete temporary visitors. Deleting a visitor is logged as "Visitor #**X** deleted" A permanent visitor will not be deleted if accidentally selected.

**One or more modifications while on this screen are logged as: Visitor #X modified by "supervisor name/number".**

**Visitor Detail** (As accessed from the Visitor list)

The Visitor Detail screen, accessed by selecting a visitor entry from the Visitor List, will display the details for that selected entry. If the supervisor has permission to modify this visitor's information the cursor is taken immediately to the name field. The supervisor may <tab> or <return> to advance to the next field.

---

Site Name: GateKeeper Date: 01/01/00  
Site ID: 1234 Time: 16:33:47

Visitor Detail

Name: Michael Ball Organization: PageTek  
Telephone: 919-518-1828 Card #:6520  
Password: 50300131 Expiration Date: 01/01/01 23:59:59  
Type: PERMANEN

cycle through schedules, 1-5=schedule number, 0=no access

Zone A	Zone B	Zone C
00-24 MTWHFSU	00-24 MTWHFSU	00-00

Memo: Responsible for 3 paging transmitters

ESCAPE key = previous

---

Name:	This parameter allows for programming of the visitor's name up to 20 characters. This field cannot be blank.
Organization:	This parameter allows for programming of the visitor's organization name of up to 20 characters. Entering all blanks clears the field.
Telephone:	This parameter allows for programming of the visitor's telephone number of up to 20 characters. Entering all blanks clears the field. (Since this field is for reference only, multiple numbers may be entered in whatever format works for the site management.)
Card #:	This parameter allows for programming of the visitor's card number from 0 to 65535 where a zero indicates that the visitor does not need a card to gain entry. Entering all blanks clears the field.
Password:	This parameter allows for programming of the visitor's password of up to eight digits. Entering all blanks clears the field and spaces in between digits are not accepted.
Expiration Date:	This parameter allows for programming of the date and time after which the user will no longer have entry rights. Enter the date and time in MM/DD/YY and HH:MM:SS formats respectively. The supervisor should enter the numbers directly followed by <return>. The date and time will be automatically displayed with their respective delimiters if they are entered by the supervisor.

- Type: This parameter allows for programming of the visitor's type as PERMANENT or TEMPORARY and can be toggled using the space bar. Temporary visitors typically have passwords that expire within 24 hours, and only have a key code, but no card. Permanent users traditionally have both a key code and a key card and their passwords typically expire after one year.
- Access Rights: This parameter allows for programming of the visitor's rights to access zones A,B, and C. There are up to five different access schedules that can be cycled through by entering the space bar or by entering the schedule number zero through five where 0 = No Access. These access schedules are programmed by the supervisor using the Schedule/Zone List screen.
- Memo: This parameter allows for programming of any special instructions or comments for the visitor. Only a single line of text is allowable in this field.

One or more modifications while on this screen are logged as: Visitor #X modified by "**supervisor name/number**".

**Schedule/Zone List** (As accessed from the Visitor list)

The Schedule/Zone List command opens a screen displaying the allowable access schedules for the protected spaces. There are up to five schedules available, each schedule having one period programmable per day over zero to seven days of the week. A visitor may be assigned one schedule for each zone to which he or she has access rights. A supervisor would program this visitor information in the Visitor Detail. At the command line enter 1-5 to modify any schedule fields, or enter A-C to modify the zone name

---

Site Name: GateKeeper Date: 12/18/99  
Site ID: 1234 Time: 10:38:19

Schedule/Zone List

Schedule	Start Time	End Time	Days
1.	00	24	MTWHFSU
2.	00	00	
3.	00	00	
4.	00	00	
5.	00	00	

Zones

Zone	Zone Name	Enabled
A	Front door	Y
B	Back door	Y
C	Perimeter	N

1-5 = modify schedule, A-C = modify zone name  
ESCAPE key = previous, Z = repaint

- 
- Start Time:** This parameter allows for programming of the time at which site access begins. Hours from 00 to 24 are accepted where 00 and 24 represents midnight.
- End Time:** This parameter allows for programming of the time at which site access ends. Hours from 00 to 24 are accepted where 00 and 24 represents midnight. Note that setting the start time and end time to the same hour, or setting the start time to a value less than the end time results in no access.
- Days:** This parameter allows for programming of the days on which access is allowed. Days are designated as:M=Monday, T=Tuesday, W=Wednesday, H=Thursday, F=Friday, S=Saturday, and U=Sunday. Days may be entered in any order. Blanks and commas are accepted, but are not required.
- Zone Name:** This parameter allows for programming of the zone name and allows for a label up to 16 characters in length. Entering all blanks clears the field.
- Enabled:** This parameter allows for programming of the zone as either enabled or disabled. The field displays "Y" if zone is enabled and "N" if zone is disabled.

## User Passwords

The User Passwords screen allows for supervisory programming of 6 operator and 6 supervisor passwords. A default supervisor password of 1111 is accepted by the system for the initial programming, but should be changed on this screen as the final step of the installation process. If passwords are lost the only way to gain entry to the GateKeeper operating system is a complete re-initialization of the memory. In this case all configurations previously programmed will be lost. Deleting a user is accomplished via the command D <return> at the command line prompt. If the last supervisor is deleted, a default supervisor with password 1111 will automatically be added and a prompt will be displayed to inform the supervisor that the password was added.

---

Site Name: GateKeeper  
Site ID: 1234

Date: 01/31/00  
Time: 08:49:25

### User Passwords

#### Operator Passwords - Limited Access

	Name	Password
1.	Default operator	0000
2.		
3.		
4.		
5.		
6.		

#### Supervisor Passwords - Full Access

	Name	Password
7.	Default supervisor	1111
8.		
9.		
10.		
11.		
12.		

ESCAPE key = previous, D= delete user, Z = repaint, 1-12 = modify field

---

**Name:** This parameter allows for programming of the operator or supervisor names up to 20 characters. If the cursor is in an empty user's name field, hitting <tab> or <return> moves the cursor to the next name field. Entry into the password field is not allowed if the name field is empty. This prevents an unnamed user from accessing the system.

**Password:** This parameter allows for programming of the operator or supervisor passwords as four- to eight-digit password entries. Each person given access rights must be assigned a password. This password will be used by the system to determine who is logging in and at what level of access that person can operate.

One or more modifications while on this screen are logged as: User #X modified by "supervisor name".

## Supervisor's History

The history log is a record of most GateKeeper events including their date and time. The Supervisor History is identical to the Operator History with the exception that valid and invalid passwords and pass cards are not censored for supervisors. The history file will record up to 512 entries displaying the most recent event first and overwriting the oldest events as necessary. Generally the log capacity should be enough for several months depending upon site activity. Advance to additional pages by entering <return> and go back a page by entering B <return>. Note that operator names are sometimes truncated so that the entry does not flow to another line.

---

Site Name: GateKeeper  
Site ID: 1234

Date: 12/18/99  
Time: 10:38:31

### Supervisor History

Date	Time	
12/18/99	10:36:31	Visitor #2 added by "Shift 1 Supervisor 1".
12/18/99	10:35:53	User "Shift 1 Supervisor 1" logged in
12/18/99	08:06:24	User "Shift 1 Supervisor 1" logged in
12/18/99	07:59:08	User "Shift 1 Supervisor 1" logged in
12/18/99	07:57:50	Visitor #1 modified by "Shift 2 Operator 1".
12/18/99	07:57:47	Visitor #1 added by "Shift 2 Operator 1".
12/18/99	07:57:18	Alerts acknowledged by "Shift 2 Operator 1".
12/18/99	07:57:13	User "Shift 2 Operator 1" logged in
12/18/99	07:56:23	User "Shift 1 Supervisor 1" logged in
12/18/99	07:56:19	Invalid terminal password "12abcd34" entered.
12/18/99	07:56:14	Invalid terminal password "0000" entered.
12/18/99	07:56:13	Alarm: 8 (AC Power Fail) HIGH
12/18/99	07:56:03	Power-on
12/18/99	07:52:39	Visitor #1 modified by "Default supervisor".
12/18/99	07:52:20	Visitor #1 modified by "Default supervisor".
12/18/99	07:52:02	Visitor #1 added by "Default supervisor".

ESCAPE key = previous, Z = repaint, RETURN = next page

---

Entering <return> will advance to the next page of this multiple page screen. Notice that all but the first page will have the B command to take the supervisor back to the previous page. Entering <escape> will take the supervisor back to the previous menu screen.

---

Site Name: GateKeeper  
Site ID: 1234

Date: 12/18/99  
Time: 10:38:32

### Supervisor History

Date	Time	
12/18/99	07:48:10	Site configuration modified by "Default supervisor".
12/18/99	07:47:26	Alerts acknowledged by "Default supervisor".
12/18/99	07:46:39	Buzz-in: A () by "Default supervisor"
12/18/99	07:46:31	Config written to memory by "Default supervisor".
12/18/99	07:44:58	Alarm: 8 (AC Power Fail) HIGH
12/18/99	07:44:34	Site configuration modified by "Default supervisor".
12/18/99	07:43:58	Site configuration modified by "Default supervisor".
12/18/99	07:43:26	Site configuration modified by "Default supervisor".
12/18/99	07:41:34	Alert call parameters mod. by "Default supervisor"..
12/18/99	07:40:17	User #11 added by "Default supervisor".
12/18/99	07:40:03	User #10 added by "Default supervisor".
12/18/99	07:39:47	User #9 added by "Default supervisor".
12/18/99	07:39:27	User #8 added by "Default supervisor".
12/18/99	07:39:01	User #7 modified by "Default supervisor".
12/18/99	07:38:32	User #6 modified by "Default supervisor".
12/18/99	07:38:18	User #5 modified by "Default supervisor".

ESCAPE key= previous, Z= repaint, RETURN= next page, B= previous page

---

### History Log description

The Gatekeeper maintains several event logs to be viewed by both operators and supervisors. For both supervisors and operators log entries are displayed with the date and time at which the event occurred. Operators see all events, however the entered card #, keycode, and invalid terminal password is censored. Alternatively, supervisors see all events with no censoring. On the following two pages is a list of all possible events, their cause, and any additional information. Read log entries as follows:

#### Example:

---

Card **CENSORED** "**visitor name**" presented at door **X** (**zone name**)

Stand-alone **bolded** information is fluid and alternates between two states.

Any bolded information within "**quotes**" or (**brackets**) is programmed by the user.

All information not bolded is static.

An **X** designates a one- or two-digit number or zone letters A, B, or C.



Log Entry	Event
<b>Door Entry</b>	
Card <b>CENSORED</b> ( <b>visitor name</b> ) presented at door <b>X</b> ( <b>zone name</b> ) (operators)	<i>Valid card</i> presented by a visitor at a zone's door card reader.
Card " <b>card #</b> " ( <b>visitor name</b> ) presented at door <b>X</b> ( <b>zone name</b> ) (supervisors)	
Invalid card code " <b>card #</b> " bits for door <b>X</b> ( <b>zone name</b> )	<i>Invalid card presented by a visitor at a zone's door card reader.</i>
Code <b>CENSORED</b> ( <b>visitor name</b> ) entered at door <b>X</b> ( <b>zone name</b> ) (operators)	<i>Valid code</i> entered by a visitor at a zone's at door keypad.
Code " <b>password</b> " ( <b>visitor name</b> ) entered at door <b>X</b> ( <b>zone name</b> ) (supervisors)	
Keypad tampering at door <b>X</b> ( <b>zone name</b> )	<i>Invalid code</i> entered by a visitor at a zone's at keypad or number of invalid attempts exceeded.
Door <b>X</b> ( <b>zone name</b> ) opened for " <b>visitor name</b> "	<i>Door opened</i> by a visitor.
Exit from door <b>X</b> ( <b>zone name</b> )	<i>Exit</i> from door after entry of "0#"
Buzz-in: <b>X</b> ( <b>zone name</b> ) by " <b>supervisor name</b> "	<i>Remote buzz-in</i> command executed by a terminal user from an off-site terminal.
<b>Terminal</b>	
User " <b>operator name/number</b> " logged in	<i>Successful password entry</i> for user login at local/remote terminal.
Invalid terminal password <b>CENSORED</b> entered (operators) Invalid terminal password " <b>password</b> " entered (supervisors)	<i>Invalid password entry</i> for user login at local/remote terminal.
User " <b>operator name</b> " logged out	<i>User logout</i> or idle timeout at local/remote terminal.
Alerts acknowledged by " <b>operator name/number</b> "	<i>Alert calls acknowledged</i> by a terminal user via the Global Status.
Status call parameters modified by " <b>user name</b> "	<i>Status calls modified</i> by a terminal user via the Global Status.
Idle time out on local port Idle time out on modem	<i>Idle timeout</i> limit exceeded at login prompt or while logged in.
Modem carrier lost	<i>Modem carrier lost</i> while user is logged in via modem.
Config written to memory by " <b>operator name/number</b> "	<i>Configuration written</i> to flash memory by Write Memory command or at logout.
Alarm enabled at Zone <b>X</b> ( <b>door name</b> ) by " <b>supervisor name</b> " Alarm: <b>#</b> ( <b>input name</b> ) <b>OPEN</b> Return to normal: <b>#</b> ( <b>input name</b> ) <b>CLOSED</b> Local alarm enabled by " <b>user name</b> " Local alarm disabled by " <b>user name</b> "	<i>Alarm enabled</i> from local/remote terminal user.
Debug mode entered by " <b>user name</b> "	<i>Successful supervisor debug password</i> entered for debug mode.

<b>Modem Calls</b>	
Calling number <b>X</b>	<i>Alert/Status call attempted to a targeted number by GateKeeper.</i>
Calling #X: Modem result - "CONNECT 14400" (15)" Calling #X: TAP result - "message: ACK" Calling #X: TAP failure - "didn't get 'ID #'" Answering call: Modem result - "CONNECT 9600" (12)"	<i>Modem result code returned by modem for all modem calls initiated or answered by GateKeeper.</i>
<b>Site Configuration</b>	
Visitor #X added by "operator name/number"	<i>Visitor added by a terminal user.</i>
Visitor #X deleted by "operator name/number"	<i>Visitor deleted by a terminal user.</i>
Visitor #X modified by "operator name/number"	<i>Visitor modified by a terminal user.</i>
User #X added by "supervisor name"	<i>Terminal user added by a terminal user.</i>
User #X deleted by "supervisor name"	<i>Terminal user deleted by a terminal user.</i>
User #X modified by "supervisor name"	<i>Terminal user modified by a terminal user.</i>
Alert call parameters modified by "supervisor name"	<i>Alert call parameters modified by a terminal user.</i>
Site configuration modified by "supervisor name"	<i>Configuration cleared by a terminal user.</i>
Site configuration modified by "user name"	<i>Site configuration modified by a terminal user.</i>
Zone X (zone name) enabled by "user name" Zone X (zone name) disabled by "user name"	<i>Zone enabled/disabled by a terminal user.</i>
<b>Auxiliary Inputs</b>	
Alarm: X (input name) OPEN Alarm: X (input name) CLOSED	<i>Auxiliary input (MAJ, MIN, or RTN) went into ALARM state at specified level.</i>
Return to normal: X (input name) OPEN Return to normal: X (input name) CLOSED	<i>Auxiliary input (MAJ, MIN, or RTN) went from ALARM state to NORMAL state at specified level.</i>
<b>Miscellaneous</b>	
Power-on	<i>Power cycled and system reset by a terminal user.</i>
Log cleared	<i>Log cleared via Clear Log command or due to new code being loaded.</i>
Unknown event	<i>Unknown event occurred.</i>

## Global Status

The Global Status screen is read-only and gives the supervisor a snapshot of the system at the time the command was given. Entering the command `Z <return>` refreshes the screen.

---

Site Name: GateKeeper Date: 12/31/99  
Site ID: 1234 Time: 17:35:53

### Global Status

Alert calls: <Primary alert call in progress> Power source: = AC

#	Zone Description	Occupied	Local Alarm State	Alert In Progress
A	Front door	N	inactive	N
B	1234567890123456	N	inactive	N
C	Acme Paging	N	inactive	N

#	Input Description	Cur Stat	Cur Lvl	Act Lvl	Qlfd By	Alert In Progress	Zone
1	Input 1	ACTIVE	OPEN	OPEN	0	N	
2	Input 2	ACTIVE	OPEN	OPEN	0	N	
3	Input 3	ACTIVE	OPEN	OPEN	0	N	
4	Input 4	ACTIVE	OPEN	OPEN	0	N	
5		ACTIVE	OPEN	OPEN	0	N	
6		ACTIVE	OPEN	OPEN	0	N	
7		ACTIVE	OPEN	OPEN	0	N	
8	AC Power Fail	ACTIVE	ON	ON	0	Y	

ESCAPE key = previous, Z = repaint, A = acknowledge alerts in progress

---

Alert calls: This field indicates whether an input alert call is in progress. If no input alert calls are active the screen will indicate: "No primary alert call in progress".

Power source: This field indicates whether the GateKeeper is running on AC mains or has reverted to DC backup. The prompt "Power source = AC" is displayed if the input level at input #8 is high. Otherwise "Power source = battery" is displayed. The software is "hard-coded" to expect that input #8 indicates the power source status.

Zone Description: This field indicates the programmed description of each zone.

Occupied: This field indicates each zone as occupied "Y" or unoccupied "N". An occupied zone is defined as one whose keypad has received a valid presentation of credentials and which has not been reactivated.

Local Alarm State: This field indicates the state of the local alarm as ACTIVE or INACTIVE.

Alert in Progress: This field indicates whether an alert is in progress "Y" or not in progress "N". A zone may have an alert still in progress without the local alarm annunciator sounding.

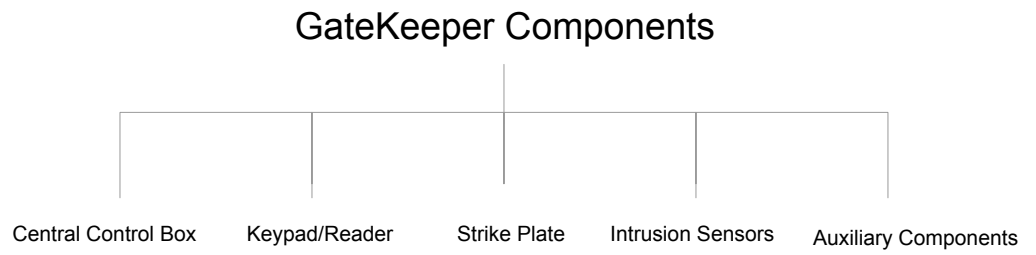
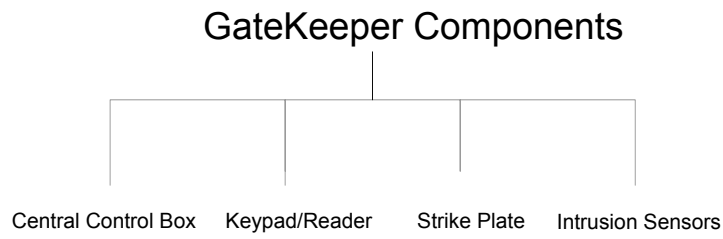
The bottom half of the Global Status screen displays information pertaining to the eight auxiliary inputs. An input is considered “disabled” under any one of three circumstances.

- 1) if the input is not enabled via the Auxiliary Input configuration screen.
- 2) if the input's qualifier is not in the Active state.
- 3) if one of the input's associated zones is occupied (i.e., the local alarm has been disabled either via remote buzz-in or valid keypad/card entry).

Input Description:	This field indicates the input description as entered in the Auxiliary Input Configuration screen by a supervisor.
Current Status:	<p>This field indicates the current status of each installed input. Indications are as follows:</p> <p><b>NORMAL</b> indicates that the input is disabled, or that the input is not in the active level.</p> <p><b>DELAY</b> indicates that the input is not disabled, and has been in the active level for a time period less than that input's specified time delay.</p> <p><b>ACTIVE</b> indicates that the input is not disabled, and has been in the active level for a time period greater than that input's specified time delay.</p>
Current Level:	This field indicates the current level of the input as OPEN or CLOSED for inputs one through seven and as ON or OFF for input eight which is reserved for the Power input. This reading is not affected by whether or not the input is disabled, nor by the time delay setting.
Active Level:	This field indicates the active level (the configured level that results in the input being considered active) of the input as OPEN or CLOSED for inputs one through seven and as ON or OFF for input eight which is reserved for the Power input.
Qualified By:	This field indicates the number of the input (0-8) by which the current input is qualified (the input that must be active before qualified input may be). Note that a 0 indicates no qualification.
Alert In Progress:	<p>This field indicates whether the input has an alert in progress where “Y” indicates an alert is in progress that has not yet been acknowledged and “N” indicates no alert is in progress. If there are no alerts in progress the command options displayed are:</p> <p style="padding-left: 40px;"><code>“ESCAPE key = previous, Z = repaint”</code>. However if there is at least one alert in progress the command options displayed are:<code>“ESCAPE key = previous, Z = repaint, A = acknowledge alerts in progress”</code> If the later is the case, acknowledge the alerts by the command <code>A &lt;return&gt;</code>.</p>
Zone:	This field indicates whether the zone(s), A, B, and/or C are associated with this input. If any of the specified zones is occupied, (i.e., the local alarm has been disabled either via remote buzz-in, or valid keypad/card entry) the input is temporarily disabled until rearmed.

# GateKeeper Components

4



## GateKeeper components

The minimum GateKeeper system is comprised of the central control electronics, a keypad, and a strike plate. Additional components, such as an onsite alarm annunciator, additional keypad/readers and strike plates, intrusion or infrastructure sensors, and other accessories are also available to meet individual site requirements.

### Central control box

The central control electronics box contains the intelligence, communications sub-system, power supply, and back up supply required to support the keypads, door locks, and sensors. The control system will support up to three local keypads and locksets, and seven auxiliary inputs for intrusion or infrastructure monitoring. The system may also support a RS485 or RS232 bus for expansion or interfacing to additional subsystems, including any infrastructure monitor manufactured by PageTek. While the electronics is common to all builds of the GateKeeper, main and backup power, enclosure type, and other aspects of the finished system are generally supplied to meet the user's requirements. A standard unit supports 120V AC mains, with a 36-hour DC backup battery.

The control box will generally be wall mounted in any space with convenient access to AC mains and a telephone embarkation point. Since cable will be run to keypads, door strikes, and any sensors, the ease of running such cables should be considered when planning the installation. For security reasons it is suggested that all cabling is run in conduit.

### Keypad/Reader

The ARK501 keypad/reader is the standard visitor access unit. This device combines both an RF proximity reader and an integrated keypad. The unit is fully weatherproof and is generally mounted in a standard electrical duplex box.

The ARK-501/10022 reader contains only the RF proximity reader function. Since the reader has no keypad, assignment of a temporary password, while possible, is not effective since temporary visitors have no method of entering the pass code.

Any attempt to circumvent the keypad by cutting wires or other physical attack will not gain access to the site. If the keypad should be damaged by such an attack to the extent that it is non-functional, entrance may still be gained by the "buzz-in" feature or by use of the backup mechanical key.

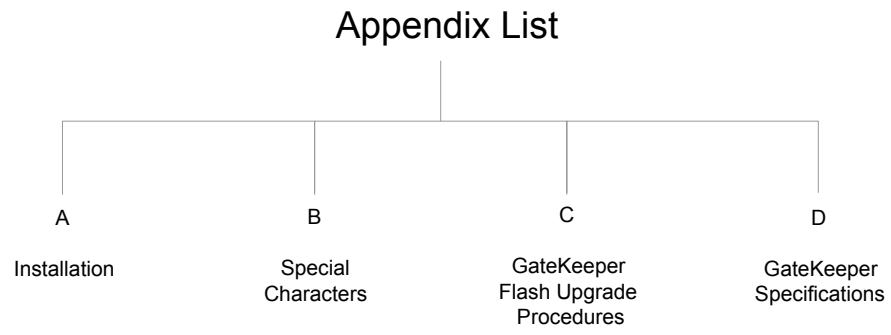
The keypad/reader will generally be located at the door that is being controlled. Since the period for which the door strike is held unlocked is programmable, it is possible for there to be some distance between reader and door. The visitor will reset the local alarm by entering the #0 command sequence upon exit. The system will report a failure to re-activate the local alarm after a programmable period and the local alarm may then be reset remotely.

## Strike plate

A variety of strike plates and electronic locks are available for most commercial doors. Sliding style gates are supported. Swinging chain-link fence gate locks are presently under development. Inquire for further information. Most strike plates are available in 12 VDC, 24 VDC, and 120 VAC. Standard strikes will generally have 12 VDC relays. The strike plate will replace the standard mechanical strike plate found on most doors. Plates suitable for metal- or wood-frame doors are available and specialty locks are available for other applications. Standard strike plates are actuated by 12 VDC supplied by the central control box. The electric strikes will remain locked even during loss of power. Access to the site after a sustained power loss, such that DC backup is depleted, requires the mechanical key to be used. The operation is such that the plate drops out of the way of the lock bolt and the mechanical lock is still locked. Strikes are available that signal a confirmation to the control box that the strike plate is locked. It is suggested that all doors use a strong mechanical closer to ensure that the door is returned to a closed state automatically.

## Intrusion sensors

Proximity detectors are the best all around sensors for the detection of intrusion to the site. Each sensor may be monitored by one of the seven auxiliary inputs. Such sensors usually employ dry contact closures and may be wired with multiple sensors per input if desired, though such sharing of an input should be confined to a single “zone” to avoid confusion in the event of an intrusion. Additional sensors such as magnetic reed switches, glass sensors, etc are also available. The auxiliary inputs may also be used to monitor any contact closure sensor such as fire alarms, smoke alarms, tower light controller alarm outputs, and the like.



It is best that a few moments are spent planning the GateKeeper installation prior to the actual installation. When installing intrusion sensors, it is frequently best to begin by estimating the number and placement of the sensors, especially the proximity sensors.

The central control box generally should be located near the phone embarkation point and power source. The system will be most resistant to idle tampering or accidental damage if all cabling is protected by conduit or other enclosed space. Input cabling should avoid running parallel to high power RF transmission lines. While all inputs are filtered, high RF levels may cause falsing.

The central electronics box may be mounted on any wall or bulkhead using appropriate hardware. Housings not certified as waterproof should be mounted in a reasonably dry location. Any central electronics

## Special Characters

## Appendix B

These characters are for special use and each has a particular meaning.

Character	Meaning	Use
*	The 'star' digit (tone dialing only)	Specified by system being called.
#	The 'gate' digit (tone dialing only)	Specified by system being called.
a-d	DTMF digits a,b,c,d	Specified by system being called.
p	Select pulse dialing	The modem will pulse dial the numbers that follow the "p" until a "t" is encountered then the modem reverts to tone dialing.
t	Select tone dialing	The modem will tone dial the numbers that follow the "t" until a "p" is encountered, then the modem reverts to pulse dialing.
!	Flash	The modem will go on-hook for a time defined by the value of S29.
w	Wait for dial tone	The modem will wait for a dial tone then dial the digits following "w".
@	Wait for silence	The modem will wait for at least 5 seconds of silence in the call progress frequency band then continue with the next dial string parameter.
&	Wait for credit card dialing tone	The modem will wait for a specified time then continue with the dialing string.
,	Dial pulse	The modem will pause for a specified time then dial the digits following ",".
^	Toggles calling tone	Identifies the calling tone as enabled or disabled.
()	None	Ignored character used to format dialing.
-	None	Ignored character used to format dialing.
<space>	None	Ignored character used to format dialing.
>	Generate grounding pulse	The modem will generate a grounding pulse on the EARTH relay output.

## Obtain Flash Upgrade

Obtain the flash image and place it in a location from where it can be easily downloaded via HyperTerm.

## Access the boot monitor locally or via modem

**From the local terminal only:** Login with a supervisor password and go to Supervisor Commands; choose Reset (item 6) followed by entering <return>.

**Via modem (or local terminal):** Login with a supervisor password and go to Supervisor Commands; choose Boot monitor (item 10) followed by entering <return>.

In either case, the prompt “Press ESC within 10 seconds to enter boot monitor” appears.

Enter <escape> and at the boot prompt enter <return>. The following display will appear:

---

```
PageTek boot monitor $Revision: 1.7 $
```

Commands:

```
d  Start xmodem download of new flash image
r  Reset
C  Run main program without checking sum (dangerous)
```

```
boot>_
```

---

**Start the download** (Proceed quickly, event will be timed out and returned to boot> after 30sec).

1. Enter **d** <return> to start download of new flash image. The terminal will prompt: “Downloading...Start sending new image now”.
2. Select **Transfer, Send file...** from the HyperTerm tool bar and the **Send File** dialog box will appear.
3. Select appropriate **Folder, Filename,** and **Protocol** (Xmodem or Xmodem 1K protocol) and hit **Send**.

Upon a successful download the local terminal displays “Succeeded, resetting”. In this event, enter <escape> within 10 seconds and initiate startup procedures as normal. If the download was not successful one of two things will happen: a failure message is printed and a new boot> prompt is issued or the local monitor displays “Failed: You cancelled. Try again”. In either case enter another d command and try the download again.

## Possible problems and required action

Problem	Action
Accidentally entering the boot monitor	Enter “r” to reset the processor
Download fails, no messages	Try Ctrl-X several times to stop the failed download, then restart
Bad line or defective flash file	Correct problem and restart download

***Physical***

Standard Cabinet (NEMA 1 polyester): 12 " Wide x 14" High x 6" Deep  
Weight: 4 lbs.  
Mounting: wall mounting  
Operating Temperature: -30° to 60° Celsius  
Electric door strike plates: different mechanical & electrical characteristics available.  
Cabinets: industrial, commercial or office suitable cabinets available.

***Electrical***

**Interface Connectors**

Keypads: 7 pin Molex  
Strike voltage input (1): 2 pin Molex  
Strike control relay outputs (3): 2 pin Molex  
Local alarm relay output (1): 2 pin Molex  
Local RS232C communications: DB-9  
Telephone: RJ-11  
Power Input: 3 Pin Molex  
Auxiliary serial: RJ-45, when so equipped

**Power (internal surge suppression standard)**

AC Power Input: 110 VAC standard, 12vdc, 24vdc, 48vdc, 220vac optional  
DC Power input: 12 VDC nominal (10.5 - 18 volts)  
Power Consumption: 3 Watts maximum  
DC Battery Backup: 12VDC, 12ahr Gel-cell, alternative batteries available  
DC Strike voltage: 12VDC, alternative voltages also available

***Auxiliary Inputs***

GateKeeper: 0  
GateKeeper+: 8  
Input characteristics: TTL, EIA, or contact closure.  
Un-driven state is high (pulled up through an internal resistor to +12 VDC)  
The input is diode protected internally against negative voltages. The active level is user programmable.

***Relays***

Door strike relays: 3  
Local alarm relay: 1

***Communications***

RS232C Ports: 14400 baud V.32 bis modem  
Terminal Support of ANSI or a subset, including VT-100  
Standard Loop Start Interface with Tone Signal.  
Telco Coupler: Meets Part 68 of FCC Requirements for Network Interface  
Ringer Equivalence Number 0.2

