
Keri Systems

User Manual

TAP100
Application Software



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Contents

TAP100 SOFTWARE SETUP AND NAVIGATION	6
Introducing the TAP100 Software	6
Software Manual Conventions	6
Software Notes	6
Minimum System Requirements	6
Software Installation	7
Checking the PC System's Time and Date	7
Starting the Program	9
Using the Menu System	10
The Menu Bar	10
Selecting a Menu Item	10
The Status Message Line	11
The Pull-Down Menus	11
The Network Communication Sprite	11
The Info and Quit Menu Options	11
The Info Option	11
The Quit Option	12
Dialog Boxes	12
SYSTEM CONFIGURATION	13
System Security	13
Setting/Changing a Unique Password	13
Entering Your PIN	14
Changing Your PIN	15
Configuring the TAP100 Software	17
Setting TAP100 Program Options	17
Enable/Disable Auditory Signals	17
Set Default Time Zone Values	17
The Default Time Zone Value for Disabled Access Cards	17
The Initial Enrollment Time Zone for New Cards	18
Set Event Log Viewing Options	18
Identifying the Database Files Directory	19
Configuring/Verifying Communications	20
Serial Port Configuration	20
Serial Port Connection	20
Modem Setup	21
Phone Hangup	22
Advanced Communication Setup Parameters	22
Verifying Network Operation	23

Configuring the ProxNet	26
Set the Timing Functions	26
Set the System Time and Date	26
Set Daylight Savings Time	27
Set Time Zones	27
Set Holidays	30
Configure the Readers	33
Opening the Reader Database	33
Query Status of a Reader	37
Global Secure	37
Setting Reader I/O Assignments	38
Setting an 'OR' I/O Assignment	39
Setting an 'AND' I/O Assignment	43
Clearing All I/O Assignments	46
CREATING/MAINTAINING A USER DATABASE	48
Create a Cardfile Database	48
Enrolling Cards	48
Open Cardholder File	50
Search for Cardholder Data	55
Voiding Cards	56
Get Network Card Data	57
Transaction Data File Management	58
Open Transactions File	59
Archiving a Transaction Log	63
Backup File	64
Get Network Transaction Data	64
ADVANCED COMMANDS	66
Monitor Network Events	66
Install New Reader	67
Lock/Unlock Commands	67
Lock A Reader	67
Unlock A Reader	68
Enable Global Lock/Unlock	68
Disable Global Lock/Unlock	69
Card Security Management Commands	70
Anti-Passback Amnesty	70
Set the Card Security Fence	70
APPENDICES	73
Status of Doors Table	75
Responding Nodes Table	78
Time Zone Table Worksheet	81
Glossary	82
Customer Support Information	83
Warranty Information	84

Figures

FIGURE 1 - TAP100 MAIN MENU SCREEN	10
FIGURE 2 - INFO MENU OPTION INFORMATION	11
FIGURE 3 - SETUP MENU OPTION SCREEN	14
FIGURE 4 - UTILITY MENU OPTION SCREEN	15
FIGURE 5 - READERS MENU OPTION SCREEN	33
FIGURE 6 - CARDS MENU OPTION SCREEN	48
FIGURE 7 - TRANSACTIONS MENU OPTION SCREEN	58

Tables

TABLE 1 - PULL-DOWN MENU SUMMARY	11
TABLE 2 - AUTOMATIC LOCK/UNLOCK STATE	69

TAP100 Software Setup and Navigation

Introducing the TAP100 Software

The TAP100 Software provides access control programming for one or for multiple access control sites, each with multiple access locations. It features complete alarm management and programming flexibility for networks of up to 32 PXL-100 Control Units. Software programming is performed through an easy to manage pull-down menu structure. For any given command, all required information is displayed on the screen to provide easy set-up and management of your access control system.

Software Manual Conventions

Information displayed by the computer will be shown in **Bold Face**.

For example: **C:\PROXNET>**

Information you will be asked to type will be presented Like This.

For example: `cd \proxnet <ENTER>`

Wherever appropriate, sample screen displays will be placed in the document, providing information on the subject at hand.

Software Notes

Several of the commands in the menus in the TAP100 software refer to a Memory Module. The KMM-40 Memory Module is an obsolete product, but the TAP100 software still supports its basic operation. For those customers who already have and use KMM-40 Memory Modules, please contact your Keri Systems dealer or installer for details on how to use the KMM-40 Memory Module with the TAP100 software.

Minimum System Requirements

The TAP100 software requires a PC type of computer for operation. The following list defines the minimum requirements for the PC system.

- PC-386 or greater microprocessor
- EGA color monitor or better
- 20 Mbyte hard drive
- 1 Mbyte RAM with at least 520K of free conventional memory
- 3.5" floppy disk drive
- serial port communications card

Optional requirements.

- mouse or track-ball pointing device
- parallel printer port

Software Installation

The TAP100 software must be loaded and executed from the PC system's hard drive. The following set of instructions explain how to load the TAP100 software onto a PC system.

1. Start-up the computer.
2. At the **C:\>** DOS prompt, create a new directory by typing:

```
C:\> md proxnet <ENTER>
```

3. Insert the TAP100 floppy disk into the 3.5" disk drive. Depending upon your system configuration, this may be either the **A:** drive or the **B:** drive. The following instruction assumes the 3.5" disk drive is the **A:** drive; if it is the **B:** drive on your system, please substitute **B:** for **A:**.
4. Copy the TAP100.EXE program from the TAP100 floppy disk to the newly created 'proxnet' directory by typing:

```
C:\> cd \proxnet <ENTER>
```

```
C:\PROXNET> copy a: TAP100.EXE <ENTER>
```

5. Confirm that the TAP100 software was copied to the hard drive and is in the correct directory by typing:

```
C:\PROXNET> dir *.exe <ENTER>
```

The computer should display:

```
TAP100  exe      {file size} {creation date} {creation time}
                {floppy disk related information}
```

This confirms the TAP100 software was copied to the hard drive and is in the correct directory. If the computer does not confirm the transfer of the TAP100 software, please repeat this operation, beginning with Step 1.

Checking the PC System's Time and Date

Most of the functions within the TAP100 software are dependent upon having an accurate time and date entered into the host PC system and, in turn, on the control units. Before starting the TAP100 program, verify that the host PC system's time and date are correct.

To verify/change the host PC system's time:

At the **C:\>** DOS prompt, type:

```
C:\> time <ENTER>
```

The system will respond with:

Current time is XX : XX : XX . XX p/a

This lists the time on the host PC system in Hours : Minutes : Seconds . Hundredths of a Second and then P.M. or A.M. If you are satisfied the system time is correct, type:

<ENTER>

If you need to change the system time, enter the hours, minutes, and P.M. or A.M. indicator to which you want to set the host PC system clock.

For example: To set the host PC system clock to 9:15 A.M., type:

Enter new time: 9:15 a <ENTER>

The host PC system's clock will be set to the new time.

NOTE: All time commands are formatted to a 24-hour clock. For example: 6:15 P.M. becomes 18:15 hours.

To verify/change the host PC system's date:

At the **C:\>** DOS prompt, type:

C:\> date <ENTER>

The system will respond with:

Current date is Day-of-Week MM-DD-YYYY

This lists the date on the host PC system as the Day-of-the-Week followed by the Month, Day, and Year. If you are satisfied the system date is correct, type:

<ENTER>

If you need to change the system date, enter the Month, Day, and Year to which you want to set the host PC system date.

For example: To set the host PC system date to April 15, 1995, type:

Enter new date 04-15-95 <ENTER>

The host PC system's calendar will be set to the new date.

Starting the Program

Due to the manner in which PC systems allow executing programs to locate and access support files, the TAP100 program must be executed from the PROXNET directory. This allows the TAP100 program to locate and access all its support files. If the program is executed from another directory, it will not be able to locate and access its support files and will not execute correctly.

If the system is already in the PROXNET directory (identified by a DOS prompt of **C:\PROXNET>**), the program may be executed immediately by typing:

```
C:\PROXNET> tap100 <ENTER>
```

If the system is not in the PROXNET directory, regardless of which directory the system prompt is at on the hard drive; to change to the PROXNET directory and begin executing the program, type:

```
C:\> cd \proxnet <ENTER>
```

```
C:\PROXNET> tap100 <ENTER>
```

Upon execution, the program will clear the screen, identify itself, and request a password. The following information will appear on the screen.

<p>Keri Systems Transactions Analysis/ProxNet Program VERSION x.xx Build Date: [date] Time: [time]</p> <p>Enter your password:</p>

When entering the program for the first time, the factory default password is 'X X X X' (all upper-case characters). Enter the program by typing:

```
Enter your password: XXXX
```

NOTE: You do not need to press <ENTER> when entering your password. Password verification begins upon pressing the fourth character.

If the program has accepted your password, it will immediately display the Main Menu screen. If the password is not accepted, the program will exit and the DOS prompt will reappear.

If the program has **not** accepted your password; repeat the steps from above, making sure that the factory-default password "X X X X" is entered in UPPER-CASE. If the password is still not accepted the password may have been changed. Instructions for resetting the password can be obtained from your Keri distributor or system installer.

Using the Menu System

Once the password has been accepted, the TAP100 program begins, displaying the main menu.

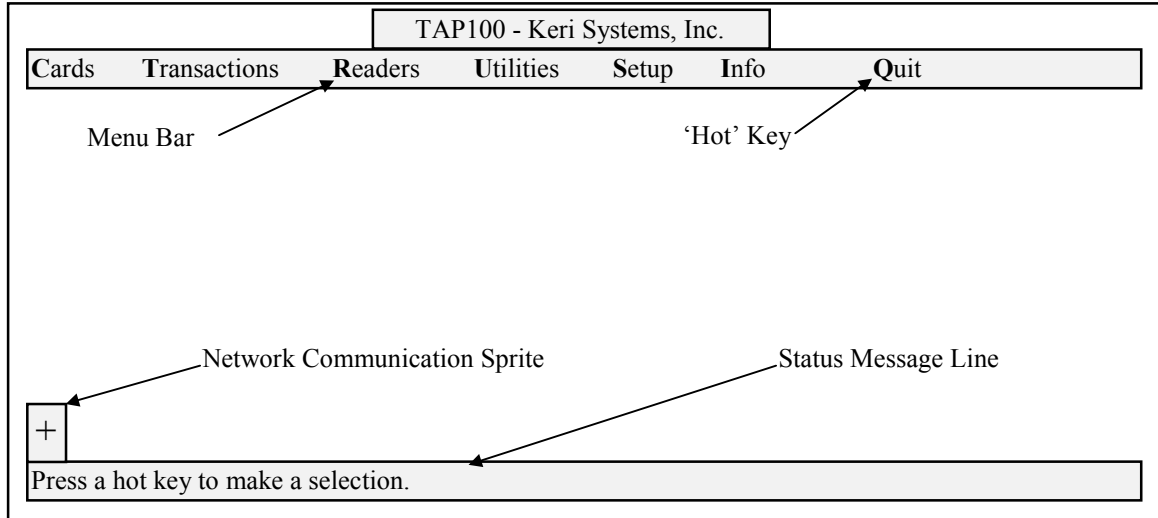


Figure 1 - TAP100 Main Menu Screen

The Menu Bar

At the top of the main menu is the menu bar (see Figure 1). The menu bar consists of the quit option, the TAP100 software information option, and five pull-down menus. Each pull-down menu controls some facet of the access control system's setup, operation, and maintenance.

Selecting a Menu Item

Three methods are available for navigating and selecting menu bar items.

- **Mouse/Trackball** — If your PC is setup with a 'pointing device,' the pointing device can be used to move the TAP100 cursor around the screen to select a menu item. Once the rectangular cursor is positioned over the desired item, click the left-button of the Mouse or Trackball to select that item.
- **Arrow Keys** — For systems without a pointing device, the four arrow keys [**←** **↑** **↓** **→**] can be used to move the TAP100 command highlight across the menu bar to select a menu item. Once highlighted, the item can then be selected by pressing **<ENTER>**.
- **'Hot' Keys** — For each menu item, one letter will be highlighted in a contrasting color (see Figure 1). These are called "hot" keys and are used as short-cuts to the desired menu item. By pressing the letter on the PC's keyboard corresponding to the highlighted 'hot' key, that menu item is selected.

At any time when using a pointing device, the Arrow Keys, or the 'Hot' Keys, you can escape from any command or sub-menu item by pressing the **<ESC>** (escape) key on the PC's keyboard.

The Status Message Line

At the bottom of the menu screen is a status message line (see Figure 1). The status message line displays information about the command in progress. When working with complex commands, don't neglect the status message line. It can assist you in tracking where you are in the command or prompt you for the type of information to be entered.

The Pull-Down Menus

Selecting a pull-down menu from the menu bar will cause a list of items to appear. Typically, these items will allow the operator to execute a command function. However, some items will, in turn, cause a sub-menu to appear, supporting the more complex commands. Commands and sub-menus will be explained in detail in a later section.

Table 1 - Pull-Down Menu Summary

Cards	create a card file, enroll and void cards, assign access levels
Transactions	create a transaction file, manage transaction/event data
Readers	manage a single reader or a global set of readers, monitor a reader
Utilities	manage time zone, PIN, and timing functions
Setup	basic system configuration and communications port configuration

The Network Communication Sprite

Whenever an operation requires communication with networked control units a small, rotating sprite appears in the lower left-hand corner of the main menu screen (see Figure 1). This sprite continues rotating until communication has completed and control has been returned to the main menu. When communication is being established, the sprite is white on a blue background. When data is being transferred, the sprite is white on a green background.

The Info and Quit Menu Options

The two remaining items on the menu bar each perform one task.

The Info Option

The Info menu option displays the TAP100 software revision, the software copyright, and the amount of computer memory available for the system software to use.

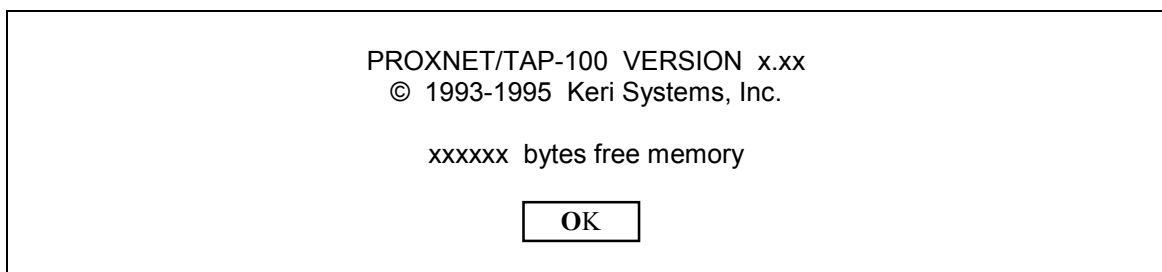
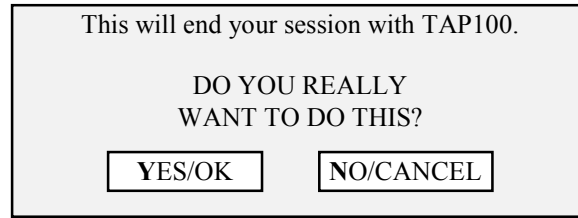


Figure 2 - Info Menu Option Information

The Quit Option

The Quit menu option exits the TAP100 program and returns to DOS. To quit the TAP100 program, use your pointing device and select **Quit**. The following prompt box will appear.



To exit the program, use your pointing device and select **YES/OK**. To remain in the TAP100 program, use your pointing device and select **NO/CANCEL** to return to the main menu.

Dialog Boxes

Once a command has been selected from a menu or sub-menu, a dialog box will appear, providing information and allowing the user to view and modify the parameters necessary to perform a command. These dialog boxes follow certain conventions.

Red dialog boxes contain important warnings or confirmations that require acknowledgment by the user before proceeding with the command. Please read this information before acknowledging these boxes.

Dialog boxes with a series of data records or fields will have item highlighted in green. Use one of the methods described above to select the item that you want to open for modification.

NOTE: If a list contains more records or fields than can be displayed on one screen, you must use the arrow keys to scroll the list up and down to find the record or field you want.

System Configuration

This section provides a logical progression of commands required for configuring your system for an access control application. Please review this section in its entirety before configuring your system. This section will cover system security, setting program operating options, configuring system communications, and configuring the ProxNet system.

System Security

This section provides instructions for setting/changing the TAP100 software password, for entering a Personal Identification Number (PIN), and for changing a PIN. You must enter the correct password to be allowed access to the TAP100 program. You must enter the correct PIN to make system configuration changes.

Setting/Changing a Unique Password

Before working with the TAP100 software, we recommend that you change from the factory default password and set a unique password as soon as possible to ensure the security of your PXL-100 access control system. These instructions also apply if you wish to change from one unique password to a new unique password.

If you are already in the TAP100 program, use your pointing device to exit the program by selecting **Quit** and then confirming the operation by selecting **Yes**.

This will leave you at the **C:\PROXNET>** DOS prompt. At the DOS prompt, type:

```
C:\PROXNET> tap100 -p <ENTER>
```

NOTE: This is a lower-case 'p.'

The system will display the following information on the screen.

```
Keri Systems Transactions Analysis/ProxNet Program  
VERSION x.xx  Build Date: [date]  Time: [time]  
  
Enter your password:
```

Enter the current password. If it is the system default, this will be 'X X X X.' If the password is entered incorrectly, the screen will display:

```
Sorry your Password is Unacceptable.
```

The TAP100 software will then return to DOS.

If your password is accepted, the screen will display:

```
Please enter the NEW password:
```

Enter your new password.

NOTE: Passwords are 'case-sensitive.' This means a password may consist of both upper- and lower-case letters. Be sure to enter the new password exactly as you want it to be, paying close attention to the upper- and lower-cases.

Once entered, the program will ask you to confirm the new password by displaying:

Please enter it again just to be sure:

Again, carefully enter your new password. If the second entry matches the first, the screen will display the following message and will then enter the program.

New Password installed.

If the two password entries do not match, the following error message will be displayed, and the program will exit to DOS.

**The two passwords did not match.
Your password has not been changed.**

Just repeat this procedure, taking extra care to enter the new password correctly and identically, when prompted.

Entering Your PIN

Before the TAP100 software will allow any system configuration changes, your Personal Identification Number (PIN) must be entered. The software uses this number to identify an operator with the authority to change the system configuration. Without the correct PIN number, commands that affect system/network configuration or operation will not be transferred to the system/network.

Using your pointing device, select **Setup** from the main menu. The following list directory of commands will appear.

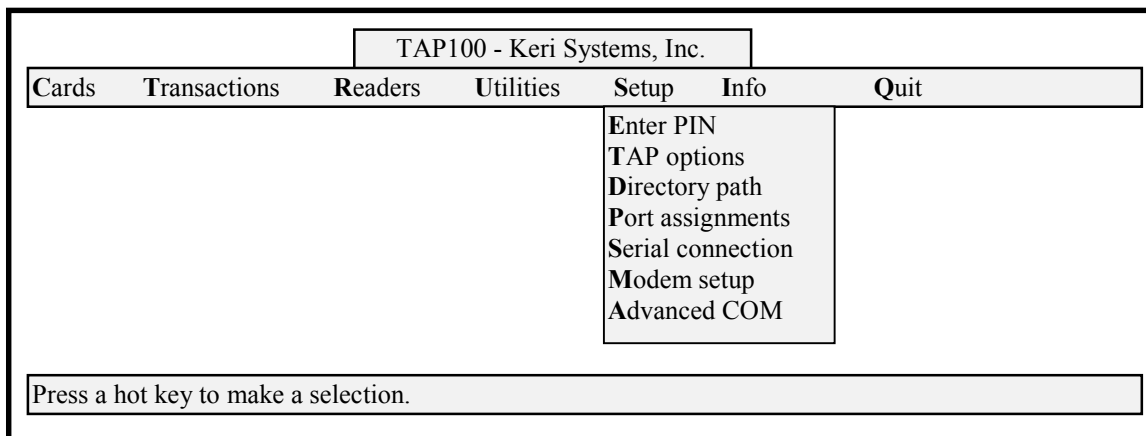


Figure 3 - Setup Menu Option Screen

Using your pointing device, select **Enter PIN**. The following prompt box will appear, asking for your 4 digit PIN.

PIN Entry

Enter your PIN: + + + +

The status message line will display:

Your PIN must be verified to enable communications with ProxLock.

The very first time the PIN is entered, it will be the factory default PIN: 0 0 0 0.

Enter your four digit PIN by typing:

0 0 0 0 <ENTER>

When your PIN is accepted, a prompt box will appear, confirming the PIN entry.

Your PIN entry was accepted.

OK

NOTE: You must be careful when entering your PIN. Any PIN will be accepted by the system but only the correct PIN will allow you to actually set or make system configuration changes.

Changing Your PIN

We recommend that you change from the factory default PIN and set a unique PIN as soon as possible to ensure the security of your PXL-100 access control system.

Changing your PIN is done from the Utilities menu.

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Cards	Transactions	Readers	Utilities	Setup	Info	Quit
-------	--------------	---------	-----------	-------	------	------

- Time Zones
- Holidays
- I/O Assignments
- Time and Date
- Change System PIN
- APB Amnesty
- Erase Memory Module
- Query Network
- Phone Hangup
- Davlight Savings

Press a hot key to make a selection.

Figure 4 - Utility Menu Option Screen

Use your pointing device and select **Utilities**, and then select **Change System PIN**. The following prompt box will appear, asking for the new 4 digit PIN.

Set System PIN

Enter new PIN: + + + +

The status message line will display:

Change the system PIN to a new value.

Enter your new four digit PIN by typing the desired digits.

For example: To enter a new PIN of 1 2 3 4 type:

1 2 3 4 <ENTER>

The following prompt box will appear.

You are about to change the system PIN.

**DO YOU REALLY
WANT TO DO THIS?**

Use your pointing device and select **YES/OK** if you have entered the desired PIN. The TAP100 software will initiate communication with the control unit/readers on the network to inform them of the new PIN. Once communication is complete, the system will confirm the new PIN with the following prompt box.

Successfully changed system PIN.

You must now enter your PIN in the
SETUP menu to communicate with the
ProxLock master.

NOTE: If you have changed your PIN, you must re-enter your PIN as described in the Entering Your PIN section on page 14, before the TAP100 software will allow any system configuration changes.

If you have selected **NO/CANCEL** to exit the selection and cancel the new PIN, the system will confirm the cancellation with the following prompt box.

System PIN not changed.

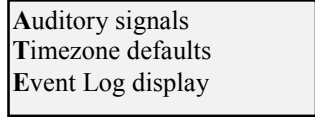
Configuring the TAP100 Software

This section provides instruction for setting TAP100 program options, identifying the directory used for storing the program and the data files required by the system, configuring system communications, configuring the ProxNet control units, and configuring the card readers.

Setting TAP100 Program Options

There are three TAP100 program options: enabling/disabling auditory signals (BEEPs), setting default time zone values, and setting the event log viewing options.

Using your pointing device, select **Setup** from the main menu, and then select **TAP** options. A prompt box will appear, displaying the three options.

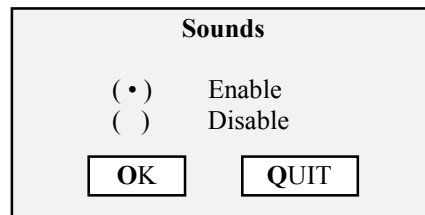


```


Auditory signals
Timezone defaults
Event Log display
  
```

Enable/Disable Auditory Signals

Auditory signals are simply BEEPs from the computer's speaker that prompt you to enter information or alert you when a command has been accepted. Using your pointing device, select **Auditory signals**. A prompt box will appear, displaying the enable/disable option.



The status message line will show:



```

Choose system sound state.
  
```

Use your pointing device and select **Enable** or **Disable** to meet your needs and select **OK**. Or, select **QUIT** to exit the selection without making a change.

Set Default Time Zone Values

Setting the default time zone values allows you to set the default time zone value for disabled access cards and to set the initial enrollment time zone for new cards.

The Default Time Zone Value for Disabled Access Cards

When an active card is disabled, it is automatically assigned to the time zone set by the default time zone value for disabled access cards command. By setting this default time zone, you give yourself the ability to disable an access card (and know it cannot have access to a controlled area) without removing it from the database. This time zone should be configured as a 'Never' time zone. A 'Never' time zone is defined to not allow access at any time (the process for setting time zones is described in a later section). You can then re-enable the card at a later date, simply

by assigning it to a working time zone. This is an easy and convenient way to disable a card for someone who is on vacation or has taken a leave-of-absence. The card cannot be used while it is assigned to this time zone. But, the card remains in the database, and can be quickly enabled when the person returns.

NOTE: By factory default, time zone 7 has been configured as a 'Never' time zone.

The Initial Enrollment Time Zone for New Cards

The initial enrollment time zone for new cards automatically assigns the defined time zone to newly enrolled cards. These cards stay at this time zone value until manually reassigned by the software operator. This is an easy and convenient way to assign one time zone to a batch of cards being enrolled; where one time zone value is set for typical users.

To set the default time zone values, use your pointing device, and select **Timezone defaults**. A prompt box will appear, displaying the current time zone values.

Default Time Zones	
Disabled Cards:	7
Initial Enrollment:	7

The status message line will display:

Specify timezones to be automatically assigned.

Using your pointing device, select the default time zone value that you want to set, and type in the number.

For example: To set the Initial Enrollment time zone to 5, point to the Initial Enrollment field and type:

5 <ENTER>

Set Event Log Viewing Options

The set event log viewing options command formats the cardholder and reader data in the event log for viewing by a system operator. Using this command, you can format event data to display the cardholder name with or without the card's slot number and the reader's name with or without the reader's ID number.

To set the event log viewing options, use your pointing device, and select **Event Log display**. A prompt box will appear, displaying the current event log viewing options.

Event Log Viewing Options			
<input type="checkbox"/>	Show Slot Numbers and Cardholder Names		
<input type="checkbox"/>	Show Cardholder Names Only		
<input type="checkbox"/>	Show Reader Numbers and Names		
<input type="checkbox"/>	Show Names of Readers Only		
<table border="0"> <tr> <td style="border: 1px solid black; padding: 2px 10px;">OK</td> <td style="border: 1px solid black; padding: 2px 10px;">QUIT</td> </tr> </table>		OK	QUIT
OK	QUIT		

The status message line will display:

Choose event display settings.

Use your pointing device and select the event log viewing options that meet your needs and select **OK**. Or, select **QUIT** to exit the selection without making a change.

Identifying the Database Files Directory

When the TAP100 software was loaded onto the PC system, it was recommended that the software be installed into a directory named **proxnet**. Some system operators may decide to install the software in a different directory. In order for the TAP100 software to be able to locate all of its database and system configuration files, you must identify the directory where the software was installed (in DOS terms, this is called identifying the path).

To identify the database files directory, use your pointing device, and select **Directory path**. A prompt box will appear, requesting the path where the TAP100 software is loaded on the PC host system. It also displays the names of the system database and configuration files.

<p style="text-align: center;">Database Files</p> <p style="text-align: center;">Path:</p> <p style="text-align: center;">Cardholder file name: chf.dbf</p> <p style="text-align: center;">Log file name: log.dbf</p> <p style="text-align: center;">System Configuration: sysinfo.cfg</p>

The status message line will display:

Enter the directory path where the database files are located.

Type in the name of the directory where the TAP100 software is installed, and press <ENTER>.

For example: To enter the factory recommended directory of **c:\proxnet**, place the cursor in the Path field and type:

c:\proxnet <ENTER>

Configuring/Verifying Communications

The next four commands in the setup menu deal specifically with configuring the usage of the system's communications network for the TAP100 software. These commands allow you to assign which of the computer's COM ports to use, define the use of the COM port (for serial communication, modem communication, or for uploading or downloading memory module information), define the modem setup information (if a modem is used), and set the communication port's interrupt vectors and port addressing.

Serial Port Configuration

The serial port configuration command asks you to define the serial COM port to use for each of the three possible communication options.

To configure the serial port, use your pointing device, and select **Port assignments**. A prompt box will appear, displaying the three possible communication devices and displaying the factory default values. For all three communication devices, the factory default is COM port 1.

Port Configuration	
Prox port:	1
Modem port:	1
Memory module port:	1
ENTER = accept ESC = quit	

The status menu line will display:

Select serial port assignments.

To change a port assignment, use your pointing device and move the blinking cursor to the port value to be changed, type the new number, and press <ENTER>.

For example: To change the proxnet communication port to 2, place the cursor in the field to the right of the Prox port call-out and type:

2 <ENTER>

Serial Port Connection

The serial port connection command allows you to define the use of the serial port: for serial communication in a PXL-100 network, modem communication (for remote communication with a PXL-100 network), or for uploading or downloading memory module information.

To define the use of the serial port, use your pointing device, and select **Serial connection**. A prompt box will appear, displaying the three possible communication devices. The factory default is to enable the local prox network on COM1.

Serial Port Connection	
<input checked="" type="radio"/>	Local Prox Network on COM1
<input type="radio"/>	Phone connection/modem on COM1
<input type="radio"/>	Memory Module on COM1
<input type="button" value="OK"/>	<input type="button" value="QUIT"/>

The status message line will display:

Select a new connection.

NOTE: The Memory Module is an obsolete hardware option. It is supported for those customers who already have Memory Modules in use. For details on Memory Module operation, please contact your Keri dealer or system installer.

Use your pointing device and select the serial port connection mode that meet your needs and select **OK**. Or, select **QUIT** to exit the selection without making a change.

Modem Setup

The modem setup command asks you to define the modem initialization string and the telephone dialing method: pulse or tone.

NOTE: Prior to executing the modem setup command, the master PXL-100 control unit must be set to the modem mode with the modem connected. Refer to the [HPP-100 Hand Held Programmer](#) manual for instructions on setting the PXL-100 to modem mode.

NOTE: The modem used for communication must be capable of operating at 9600 baud or greater, and its error correction and data compression features must be disabled.

To setup the modem, use your pointing device, and select **Modem setup**. A prompt box will appear, displaying the two modem setup commands.

Initialization String
Dialing Method

To set the initialization string, use your pointing device and select **Initialization String**. A prompt box will appear, displaying the factory default modem initialization strings.

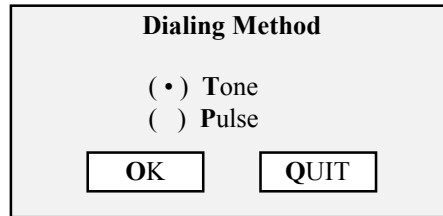
Modem Initialization String
Your init string: S0=0
TAP init string: &F&C1&D2E0V1Q0

Use your pointing device, move the blinking cursor to the beginning of the 'Your init string' field, and type in your modem's initialization string.

For example: To enter a *possible* modem initialization string for a US Robotics 14.4 Sportster modem, place the cursor in the correct field and type:

ATE0&A2B0&N0S10=15&B1

To set the phone dialing method, use your pointing device and select **Dialing Method**. A prompt box will appear, displaying the two options.



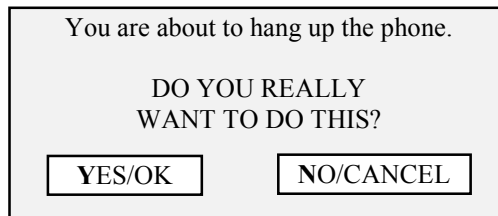
The status message line will display:



Use your pointing device and select the dialing method that meets your telephone system and select **OK**. Or, select **QUIT** to exit the selection without making a change.

Phone Hangup

To ensure proper disconnect of the telephone line following modem operations, use the phone hangup command. Use your pointing device and select **Utilities**, and then **Phone Hangup**. The following prompt box will appear.



If you are not ready to hang-up the phone, use your pointing device and select **NO/CANCEL** to exit the selection without disconnecting the modem. Otherwise, use your pointing device and select **YES/OK**. The modem will be disconnected from the telephone line.

Advanced Communication Setup Parameters

The advanced com command asks you to define the interrupt request values and port addresses for the four communication ports (COM1 through COM4). This command should be used carefully. You must know the correct values to enter in these fields; an incorrect entry can entirely disable your PC's communication ability.

To define the interrupt request values and port addresses for the four communication ports, use your pointing device, and select **Advanced COM**. A prompt box will appear with a table displaying the factory default com port interrupt request values and port addresses.

Advanced COM Setup		
<u>PORT</u>	<u>IRQ</u>	<u>ADDR</u>
COM1	4	03F8
COM2	3	02F8
COM3	4	03E8
COM4	3	02E8

ENTER = accept ESC = quit
F1 = restore default values

The status message line will display:

Customize IRQ assignments and interrupt service vectors.

To exit this command without making a change, press <ESC>. To restore the IRQ and ADDR values to the factory default, press <F1>. To change an IRQ/ADDR value, use your pointing device, move the blinking cursor to the IRQ or ADDR fields, and type in the IRQ and ADDR values for your PC system.

For example: To change COM4 to IRQ 7, ADDR 0FF8, place the cursor in the COM4, IRQ field and type:

7

Then place the cursor in the COM4, ADDR field and type:

0FF8 <ENTER>

Verifying Network Operation

If the TAP100 software has been configured for COM port/serial communication, this command is used to verify the access control system network is communication properly. To verify network communication, use your pointing device and select **Utility** and then **Query Network**. The status message line will state:

Initiating communication with local network on COM1 . . . please wait.

Once communication has been established, the status message line will go blank and the following prompt box will appear.

Network Information	
System ID	= 0
Net Faults	= 0
P/O Self Test Fail	= 0
P/O Count	= 0
Net Security	= Secured
Status of Doors	= 00000000
Responding Nodes	= 00000001
Favorite Nodes	= 00000001
Links in Bindery	= 0

OK

The System ID is the address of the master control unit on the network.

Net Faults is a counter keeping track of the number of times there is a network failure or a control unit goes off-line. If power is removed from a control unit, it will go off-line and the counter will be incremented. A high number in this field may indicate a loose wire somewhere in the communication network.

P/O Self Test Fail is a counter keeping track of the number of times there has been a power-on RAM check failure. This number should be 0. A high number in this field indicates the control unit's RAM is being corrupted. This may be due to electrical events such as sparks or static charges, or it may be due to magnetic interference.

P/O Count is a counter keeping track of the number of times the system's power has been cycled on. A high number in this field indicates the control unit's power is being cycled off and on. Verify the control unit's power connections are secure and that its power source is operating properly.

Net Security identifies if all doors on the network are secured or unsecured per the global secure command (see the Global Secure command on page 38).

Status of Doors identifies how many and which doors are secured. An eight digit hexadecimal value is displayed in the status of doors field. To determine which doors are secured, a conversion process must be applied to each digit in that hexadecimal value.

Each hexadecimal digit in the status of doors field represents four doors. Working from *right-to-left*, the first digit represents doors 1 through 4, the second digit represents doors 5 through 8, and so on to the eighth digit representing doors 29 through 32.

Each hexadecimal digit must be converted to binary to determine specifically which doors are secured. Again, working from right-to-left, convert the hexadecimal digit to its binary value. The first digit in the binary value refers to the first door in the group (i.e. a group of doors 5 through 8, the first digit would refer to door 5), the second digit refers to the second door (6), the third digit to the third door (7), and the fourth digit to the fourth door (8). Wherever there is a zero in the binary value, that indicates the corresponding door is secured.

To simplify this process, a table, breaking down this conversion process is provided in Appendix 1. By working the status of doors value through the table in Appendix 1, you can easily determine which doors are secured.

Responding Nodes identifies how many and which controllers are responding to the network in a manner similar to the status of doors value. An eight digit hexadecimal value is displayed in the responding nodes field. To determine how many and which controllers are responding, a conversion process must be applied to each digit in that hexadecimal value.

Each hexadecimal digit in the responding nodes field represents four controllers. Working from *right-to-left*, the first digit represents controllers 1 through 4, the second digit represents controllers 5 through 8, and so on to the eighth digit representing controllers 29 through 32.

Each hexadecimal digit must be converted to binary to determine specifically which controllers are on-line and active. Again, working from right-to-left, convert the hexadecimal digit to its binary value. The first digit in the binary value refers to the first controller in the group (i.e. a group of controllers 5 through 8, the first digit would refer to controller 5), the second digit refers to the second controller (6), the third digit to the third controller (7), and the fourth digit to the fourth controller (8). Wherever there is a one in the binary value, that indicates the corresponding controller is responding to the network.

To simplify this process, a table, breaking down this conversion process is provided in Appendix 2. By working the responding nodes value through the table in Appendix 2, you can easily determine which controllers are responding to the network

Favorite Nodes, by factory definition, is always set to 00000001.

Links in Bindery identifies the number of reader I/O links that have been defined for the system. For information on I/O links, see the Setting Reader I/O Assignments section on page 38.

When you are finished viewing this information, use your pointing device and select **OK**.

Configuring the ProxNet

In this section, we will describe the configuration of the ProxNet: setting all system timing functions, configuring the reader database, and defining the reader's I/O assignments.

Set the Timing Functions

The following commands deal with setting system time, date, time zone, and holiday zone functions.

Set the System Time and Date

Synchronizing the time and date between access control units on the network and the host computer allows for accurate time/date tracking of events. To set the time and date for the control units on the network to match that of the host computer, use your pointing device and select **Utility** and then **Time and Date**. The status message line will state:

Initiating communication with local network on COM1 . . . please wait.

Once communication has been established, the following prompt box will appear.

SET SYSTEM TIME AND DATE

When you hit ENTER, the time and date of the ProxLock system will be set to the computer's time and date.

Press ESC to quit without changing.

Press <ESC> to exit the operation without changing the time and date. Or, press <ENTER> and the TAP100 software will set the access control unit's time and date to match that of the host computer. The software will confirm the operation completed successfully by displaying the new time.

For example: If the computer's time is 17:35:45 (5:35 P.M. and 45 seconds) and its date is July 4, 1995, the following information will be displayed.

SET SYSTEM TIME AND DATE

Setting system time and date.

Sending time: 17:34:45

Sending date: 07/04/95, Tue

PRESS ANY KEY TO CONTINUE

NOTE: All time commands are formatted to a 24-hour clock. For example: 6:15 P.M. becomes 18:15 hours.

Set Daylight Savings Time

To enable or disable the one-hour daylight savings time change, use your pointing device and select **Utility** and then **Daylight Savings**. The following prompt box will appear.

Daylight Savings Mode

() Enabled
 (•) Disabled

The status message line will display:

Choose daylight savings time state.

Use your pointing device and select **Enabled** or **Disabled** to match the current daylight savings mode and select **OK**. Or, select **QUIT** to exit the selection without making a change.

NOTE: Daylight Saving Time for all U.S states, the District of Columbia, and U.S. possessions begins at 2 A.M. on the first Sunday in April and ends at 2 A.M. on the last Sunday in October.

Set Time Zones

A time zone is a defined block of time that is assigned to a card to allow access. A time zone consists of either an all encompassing categorization of Never or Always, or it consists of a definition of the hours and days of the week that access is allowed. Careful setting of the time zones is critical to the proper operation of your access control system. It is through the use of time zones that automatic entry and automatic securing of your controlled areas are set.

To begin the set time zone process, use your pointing device and select **Utility** and then **Time Zones**. The following prompt box will appear with the factory default time zone values.

TIME ZONES								
TZNUM	ACCESS PERIOD	DAYS OF THE WEEK						
0	Always							
1	07:00 – 18:00	So	Mo	Tu	We	Th	Fr	Sa
2	15:00 – 00:30	So	Mo	Tu	We	Th	Fr	Sa
3	23:30 – 07:30	So	Mo	Tu	We	Th	Fr	Sa
4	07:00 – 16:00	So	Mo	Tu	We	Th	Fr	Sa
5	23:00 – 03:00	So	Mo	Tu	We	Th	Fr	Sa
6	External							
7	Never (fixed time zone)							
8	Never							
<input type="button" value="MODIFY"/>		<input type="button" value="PRINT"/>		<input type="button" value="SEND"/>		<input type="button" value="QUIT"/>		

In the above prompt box, TZNUM refers to the identification number for a time zone, ACCESS PERIOD refers to the period of time that time zone will allow access to the controlled area, and DAYS OF THE WEEK refers to the days of the week to which the access period is applied.

For example: TZNUM 1 has an access period of 07:00 to 18:00 (7 A.M. to 6 P.M.) on Monday through Friday.

An access card assigned to TZNUM 1 will be allowed access between these hours Monday through Friday. If used at any other time, an access card assigned to TZNUM 1 will cause an alarm event.

NOTE: Time zones 0, 6, and 7 have reserved functions. An access card assigned to time zone 0 will always be allowed access to the controlled area. An access card assigned to time zone 7 will never be allowed access to the controlled area. Time zone 6 has been reserved for external purposes.

Before setting the time zones for your access control system, please spend some time and map out all time zone usage possibilities for your application. Not only do you need to consider the variety of standard access hours for employees and customers, but you also need to take into account such requirements as:

- janitorial personnel, who may require late night/early morning hours
- service/repair personnel, who may require access at any time
- supervisory/management personnel, who may require extended access hours
- swing shift, graveyard shift, and flex-time personnel, all with unique access requirements.

A time zone worksheet has been provided in Appendix 2 to assist you in this planning.

Once you have determined your time zone requirements, you can begin setting them into the system. Remember, time zones 0, 6, and 7 cannot be changed. You can change the factory default assignments in time zones 1 through 5, or leave these and start fresh with time zone 8. In either case, the process for changing or creating a time zone is the same.

The easiest way to describe the time zone assignment process is through an example. In this example, we will set time zone 8 for cards used by a janitorial service. This service performs its work between 8 P.M. and 11 P.M., Monday through Friday.

Use your pointing device and select the time zone in which you want to set values – in this case, time zone 8. The time zone will be identified by a bright highlight bar. Use your pointing device and select **Modify**. The following prompt box will appear.

Modify Time Zone 8

<p style="text-align: center;"><u>Special Time Zone</u></p> <p>() Never</p> <p>() Always</p> <p>() Extended</p>	<p style="text-align: center;"><u>Definable Time Zone</u></p> <p>[] Sun Begin 00:00</p> <p>[] Mon End 00:00</p> <p>[] Tue</p> <p>[] Wed</p> <p>[] Thu</p> <p>[] Fri</p> <p>[] Sat</p>
<div style="border: 1px solid black; display: inline-block; padding: 2px 10px;">OK</div>	<div style="border: 1px solid black; display: inline-block; padding: 2px 10px;">QUIT</div>

<p>To switch between windows</p> <p>To move the cursor</p> <p>To select days of the week</p>	<p>use LEFT, RIGHT Arrow keys</p> <p>use UP, DOWN Arrows or Hotkeys</p> <p>use SPACE BAR</p>
--	--

When this box appears, it will display either the Special Time Zone window or the Definable Time Zone window. Use the Left and Right arrow keys to toggle between windows. For this example, toggle to the Definable Time Zone window.

Use your pointing device and select Monday, Tuesday, Wednesday, Thursday, and Friday. As you select these days, an "X" will appear between the brackets for that day. Now use your pointing device and select the Begin time; type:

20:00

Now use your pointing device and select the End time; type:

23:00

The prompt box should now appear like this.

Modify Time Zone 8

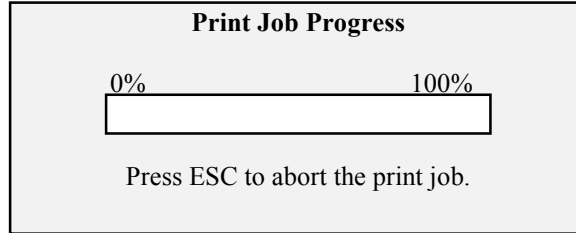
<p><u>Special Time Zone</u></p> <p><input type="radio"/> Never</p> <p><input type="radio"/> Always</p> <p><input type="radio"/> Extended</p>	<p><u>Definable Time Zone</u></p> <p>[] Sun Begin 20:00</p> <p>[X] Mon End 23:00</p> <p>[X] Tue</p> <p>[X] Wed</p> <p>[X] Thu</p> <p>[X] Fri</p> <p>[] Sat</p>
--	--

To switch between windows
use LEFT, RIGHT Arrow keys
To move the cursor
use UP, DOWN Arrows or Hotkeys
To select days of the week
use SPACE BAR

Finally, if you wish to exit without making these changes, use your pointing device and select QUIT. If you are satisfied with your changes, use your pointing device and select OK. This will return you to the original time zone table where your changes should now appear.

TIME ZONES								
<u>TZNUM</u>	<u>ACCESS PERIOD</u>	<u>DAYS OF THE WEEK</u>						
0	Always							
1	07:00 – 18:00	So	Mo	Tu	We	Th	Fr	Sa
2	15:00 – 00:30	So	Mo	Tu	We	Th	Fr	Sa
3	23:30 – 07:30	So	Mo	Tu	We	Th	Fr	Sa
4	07:00 – 16:00	So	Mo	Tu	We	Th	Fr	Sa
5	23:00 – 03:00	So	Mo	Tu	We	Th	Fr	Sa
6	External							
7	Never (fixed time zone)							
8	20:00 – 23:00	So	Mo	Tu	We	Th	Fr	Sa

Repeat this process for each time zone required to meet your application's needs. Once all time zone entries have been set, you can **PRINT** a hard copy of the time zone table. This will allow you to review the entire time zone entry table one last time before sending this information to the control units. To print a hard copy of the time zone table, use your pointing device and select **PRINT**. The following prompt box will appear.



As the time zone table is being printed, the status bar in this prompt box will monitor how far along the print process is. When the print job has finished, you can review all time zone entries and verify they are correct. The printout will appear like this.

TAP-100 VERSION X.XX		Time Zones								page #
DATE	TIME									
=====										
<u>TZNUM</u>	<u>ACCESS PERIOD</u>	<u>DAYS OF THE WEEK</u>								
0	Always									
1	07:00	18:00	—	Mo	Tu	We	Th	Fr	—	
2	15:00	00:30	—	Mo	Tu	We	Th	Fr	—	
3	23:30	07:30	Su	Mo	Tu	We	Th	—	—	
4	07:00	16:00	Su	Mo	Tu	We	Th	Fr	Sa	
5	23:00	03:00	—	Mo	—	We	—	Fr	—	
6	External									
7	Never									
8	20:00	23:00	—	Mo	Tu	We	Th	Fr	—	
...										
31	Never									

Once you have reviewed the time zone table and are satisfied with all its entries, you must send this information to all control units on the network. Use your pointing device and select **SEND**. The Status Message Line will display:

Initiating communication with local network on COM1 . . . please wait.

Once communication is established, the Status Message Line will display:

Sending time zone information to ProxLock . . . please wait . . .

When this process is complete, the Status Message Line will display:

Done.

Set Holidays

Holidays are defined by the TAP100 software as special days when the standard time zone rules do not apply. On holidays, no access is allowed except for cards configured with time zone 0. Before entering holidays, take some time and list all the dates to be considered as holidays by the

system. To set holidays, use your pointing device and select **Utility** and then **Holiday**. The following prompt box will appear.

HOLIDAY SCHEDULE	
<u>NUM</u>	<u>DATE</u>
1	
2	
3	
4	
5	
6	
7	
8	

MODIFY

PRINT

SEND

QUIT

All holiday dates must be entered in a month/day format with two characters for the month and two characters for the day (i.e. January 1 is entered as 01/01). All unassigned holiday dates will be listed with a date of 00/00. Use your pointing device, select the first holiday entry date, and then select **Modify**. The following prompt box will appear.

Month: 00
Date: 00

OK

QUIT

Enter two characters for the month, followed by two characters for the day. If you need to correct an entry, use the arrow keys to select the character and type over it with the correct character. If you wish to exit without entering this holiday, use your pointing device and select **QUIT**. If you are satisfied with your entry, use your pointing device and select **OK**. This will return you to the original holiday table where your change should now appear.

Repeat this process for each holiday required to meet your application's needs.

Once all holiday entries have been set, you can **PRINT** a hard copy of the holiday table. This will allow you to review the entire holiday entry table one last time before sending this information to the control units. To print a hard copy of the holiday schedule table, use your pointing device and select **PRINT**. The following prompt box will appear.

Print Job Progress

0%100%

Press ESC to abort the print job.

As the holiday schedule table is being printed, the status bar in this prompt box will monitor how far along the print process is. When the print job has finished, you can review all holiday schedule entries and verify they are correct. The printout will appear like this (a possible holiday schedule for 1995).

TAP-100 VERSION X.XX		Holiday Schedule		page #
DATE	TIME			

<u>NUM</u>	<u>DATE</u>			
1	01/01			
2	04/16			
3	05/29			
4	07/04			
5	09/04			
6	11/23			
7	11/24			
8	12/24			
9	12/25			
10				
...				
20				

Once you have reviewed the holiday table and are satisfied with all its entries, you must send this information to all control units on the network. Use your pointing device and select **SEND**. The status message line will display:

Initiating communication with local network on COM1 . . . please wait.

When this process is complete, the status message line will display:

Done.

NOTE: Some holiday dates change from year-to-year (i.e. Easter, Thanksgiving). We recommend you review and update the holiday schedule prior to the beginning of a new year to ensure proper holiday coverage.

Configure the Readers

In this section we will the instructions for entering all the information required to create a reader database for day-to-day operation. We will also look at commands for adding a new reader to an existing database and at commands for globally securing the readers.

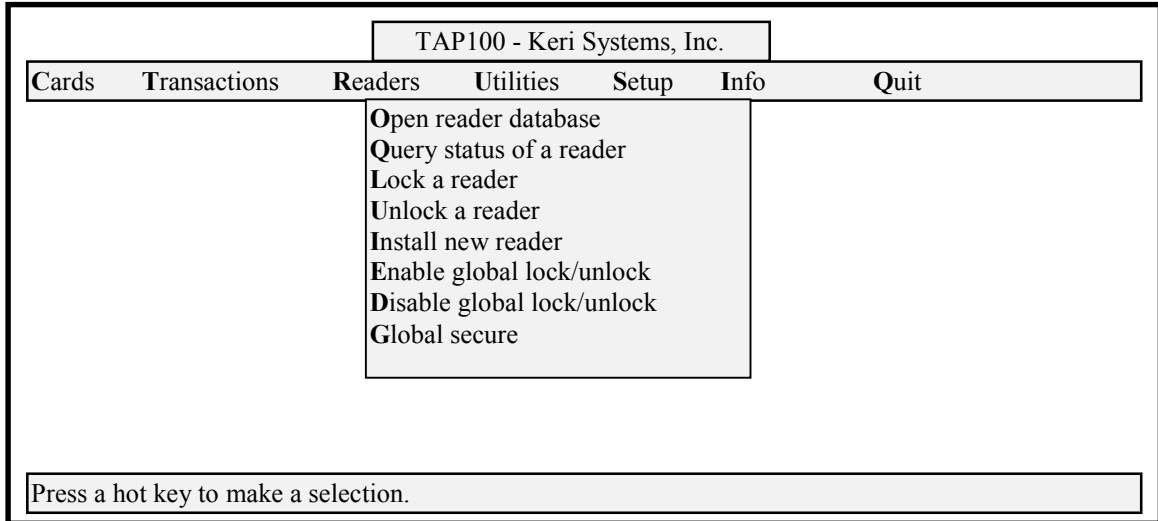


Figure 5 - Readers Menu Option Screen

Opening the Reader Database

The open reader database command, allows you to define all the day-to-day operating parameters for each reader. Use your pointing device and select **Readers** and then **Open readers database**. The following prompt box will appear.

READERS									
RDR	NAME (Ant A)	OPEN TIME	UNLOCK TIME	ALU ZONES		APB	SUP I/O	ALARM CTRL	POL
1	no name 1-A	20s	5s	7	7	N	N	Y	N/C
2	no name 1-A	20s	5s	7	7	N	N	Y	N/C
3	no name 1-A	20s	5s	7	7	N	N	Y	N/C
4	no name 1-A	20s	5s	7	7	N	N	Y	N/C
5	no name 1-A	20s	5s	7	7	N	N	Y	N/C
...									
MODIFY			PRINT			SEND		QUIT	

The easiest way to describe the reader assignment process is through an example. In this example, we will define reader 4 as an employees only entry/exit door with two reader antennas. One of these reader antennas will be used to allow/monitor entrances, the other to allow/monitor egresses.

Use your pointing device and select the reader in which you want to set values – in this case, reader 4. The reader will be identified by a bright highlight bar. Use your pointing device and

select **Modify**. The following prompt box will appear with a flashing cursor at the first entry of the table.

Modifying Reader 4	
Reader Name A	
Reader Name B	
Open time (seconds)	20
Unlock time (seconds)	5
Local APB enabled (Y/N)	N
Auto-Unlock time zone 1	07
Auto-Unlock time zone 2	07
Supervised I/O (Y/N)	N
Alarm Control (Y/N)	N
Input Normal Polarity (O/C)	C
Press ENTER to accept, ESC to abort	

The Reader Name A entry allows you to define a short description for that reader; in this application it is the employee entrance. Type:

EMP ENTRANCE

Use your pointing device and select the Reader Name B entry. The Reader Name B entry is used when you have two reader antennas attached to the same control unit to control both entrance and egress. This is true for this example. For Reader Name B, type:

EMP EXIT

This allows you to keep track of when an employee's access card entered or exited through this door.

NOTE: There is a 16 character maximum for the Reader Name description. Please use short names or descriptive abbreviations when entering reader names.

The Open time is the number of seconds a door may be held open for entrance or egress before an alarm event is generated. The software default is 20 seconds, but we will allow an employee 40 seconds to use the door before an alarm event is generated. Use your pointing device and select the Open time. Type:

40

The Unlock time is the number of seconds the control unit holds the lock relay open – essentially the amount of time that an access control door will be held unlocked beginning from when an access control card is presented to the reader. The software default is 5 seconds, but we will have the control unit hold the lock relay open for 15 seconds. Use your pointing device and select the Unlock time. Type:

15

The next entry defines if local APB (versus network APB) is enabled. APB stands for anti-passback. This feature is used to ensure one-card/one-way access into and then out of a controlled area. For local APB, an authorized card presented to an access reader will allow access, but will not work again for access until presented to the egress reader, or until either the control unit is reset with the anti-passback amnesty command (see the anti-pass back amnesty

command on page 70) or 24 hours have passed. This prevents a person from entering a controlled area with an access card and then “passing” that card back to another person to use for entry. In network APB, there is one access reader and multiple egress readers; all other rules apply. The factory default is to disable local APB, but for this example we will enable local APB. Use your pointing device and select local APB. Type:

Y

The auto-unlock time zone command controls the automatic unlocking of a reader’s door by time zone. For instance, if time zone 10 is defined to allow employees access between 6 A.M. and 7 P.M., Monday through Friday; by setting the auto-unlock time zone to 10, the reader will automatically unlock its door for these hours on these days. Use your pointing device and select auto-unlock time zone 1. Type:

10

A second auto-unlock time zone is provided for maximum flexibility. For instance, different operating hours may be set for weekends. If time zone 20 is defined to allow employees access between 9 A.M. and 5 P.M., Saturday and Sunday; by setting the auto-unlock time zone to 20, the reader will automatically unlock its door for these hours on these days. Use your pointing device and select auto-unlock time zone 2. Type:

20

NOTE: To support situations where a user presents a valid card but decides not to enter or is delayed in entering, the system does not impose anti-passback checking until the user actually opens the door to enter. If the user does not open the door, the same card can be presented again to the reader without being considered an anti-passback violation.

Use the supervised I/O entry to tell the TAP100 software if the control unit associated with that reader uses supervised I/O (a 3-state or 4-state input). For this feature to be used, an OB-3 Input/Output and Alarm Panel Control option board or an OB-9 Dual Door Control option board must have been installed on the reader’s control unit. The factory default is for this to be disabled, but we will enable it. Use your pointing device and select supervised I/O. Type:

Y

Use the alarm control entry to tell the TAP100 software if that reader’s control unit has been configured to use the alarm control panel feature. For this feature to be used, an OB-3 Input/Output and Alarm Panel Control option board must have been installed on the reader’s control unit and a security fence card slot must be set (refer to the Security Fence command on page 70). The factory default is for this to be disabled, but we will enable it. Use your pointing device and select alarm control. Type:

Y

And finally, the input normal polarity entry is used to inform the TAP100 software if the polarity of the input relay is set to normally open or normally closed. The factory default is for a normally closed relay (which will open for an alarm event) so leave this as C.

With all these changes, the modifying reader prompt box should appear as follows.

Modifying Reader 4

Reader Name A EMP ENTRANCE
 Reader Name B EMP EXIT
 Open time (seconds) 40
 Unlock time (seconds) 20
 Local APB enabled (Y/N) Y
 Auto-Unlock time zone 1 07
 Auto-Unlock time zone 2 07
 Supervised I/O (Y/N) Y
 Alarm Control (Y/N) Y
 Input Normal Polarity (O/C) C

Press ENTER to accept, ESC to abort

Once all reader database entries have been made, you can **PRINT** a hard copy of the readers database. This will allow you to review the entire reader database one last time before sending this information to the control units.

To print a hard copy of the reader database, use your pointing device and select **PRINT**. The following prompt box will appear.

Print Job Progress

0% 100%

Press ESC to abort the print job.

As the reader database is being printed, the status bar in this prompt box will monitor how far along the print process is. When the print job has finished, you can review all reader database entries and verify they are correct. The printout will appear like this.

TAP-100 VERSION X.XX		Door/Reader Information							page #
DATE	TIME								
=====									
<u>RDR</u>	<u>NAME (Ant A)</u>	<u>TIME</u>	<u>TIME</u>	<u>ZONES</u>	<u>APB</u>	<u>I/O</u>	<u>CTRL</u>	<u>POL</u>	
1	no name 1-A	20s	5s	7 7	N	N	Y	N/C	
2	no name 1-A	20s	5s	7 7	N	N	Y	N/C	
3	no name 1-A	20s	5s	7 7	N	N	Y	N/C	
4	EMP ENTRA	40s	20s	7 7	Y	Y	Y	N/C	
5	no name 1-A	20s	5s	7 7	N	N	Y	N/C	
...									

Once you have reviewed the reader database and are satisfied with all its entries, you must send this information to all control units on the network. Use your pointing device and select **SEND**. The status message line will display:

Initiating communication with local network on COM1 . . . please wait.

When this process is complete, the status message line will display:

Done.

Query Status of a Reader

The query status of a reader command gives a table of all current operating parameters defined for that reader. To query the status of a reader, you must know the address of the reader to query. Use your pointing device and select **Readers** and then **Query status of a reader**. The following prompt box will appear.

Reader number to query: (1-32) ____

For example: To query the status of reader 4 as entered in the reader database above, type:

4 <ENTER>

Communication will begin with the selected reader and the Status Message Line will display:

Initiating communication with local network on COM1 . . . please wait.

Once communication is complete, the following prompt box will appear.

Information on Reader 4	
Firmware Version:	2.23
System ID:	0
Power On Count:	0
Watchdog Count:	0
POST Fail Count:	0
Dual Door:	Y
Local Anti-Passback:	Y
Open Time:	40seconds
Unlock Time:	20seconds
Door Status:	Secured
Card Holders:	3
Events in Log:	17
Temporaries:	0
Reader's Date:	Tue 07/04/95
Reader's Clock:	13:30:54
Press any key when finished.	

Review this table for the status information of the requested reader.

Global Secure

The global secure command locks all doors on the network at a specified time of day, except for those doors that are programmed to be unlocked per the auto-unlock function of the reader database. This ensures that any door not specifically programmed to be open is automatically re-locked once a day. The factory default value for global secure is 20:00 hours (8 P.M.).

For example: To set the global secure time to 20:30 hours (8:30 P.M.), use your pointing device and select **Readers** and then **Global Secure**. The status message line will display:

Initiating communication with local network on COM1 . . . please wait.

The following prompt box will appear.

GLOBAL SECURE	
Hour:	20
Min:	00
Press ESC to abort.	

Type:

20 30 <ENTER>

A new prompt box will appear, asking you to verify your entry.

You will set GS time to 20:30	
DO YOU REALLY WANT TO DO THIS?	
YES/OK	NO/CANCEL

If you are satisfied with your entry, use your pointing device and select **YES/OK**. Or, select **NO/CANCEL** to exit the selection without making a change.

NOTE: The Global Secure command has replaced the Close Of Business command found in earlier revisions of the TAP100 software.

Once the global secure time has been sent, the status message line will display:

Successfully set GS time.

And then the software will return to the main menu.

Setting Reader I/O Assignments

If an application requires that one or more outputs be automatically triggered by one or more inputs, these input/output relationships must be defined by setting the reader I/O assignments. You must have an OB-3 Input/Output & Alarm Panel Control option board or an OB-9 Dual Door Control option board attached to the master control unit associated with a reader for the setting reader I/O assignments command to be valid.

There are two types of I/O assignments that can be set up between multiple inputs and an associated output: an 'OR' connection and an 'AND' connection. If you want an output to be triggered when any one of a set of inputs is triggered, you want to use an 'OR' connection. If you want an output to be triggered when all of a set of inputs are triggered, you want to use an 'AND' connection. In either case, you will use the I/O assignments command to define the physical location of the inputs and outputs you wish to use, and then describe the linking connections between these inputs and outputs.

Setting an 'OR' I/O Assignment

To set-up the required input to output links for an 'OR' connection, use your pointing device and select **Utilities** and then **I/O Assignments**. The following prompt box will appear.

I/O ASSIGNMENTS									
LINK	INPUT READER	1	2	3	4	PC	OUTPUT READER	1	2
0	----	Available	----						
1	----	Available	----						
2	----	Available	----						
3	----	Available	----						
	...								
		<input type="button" value="MODIFY"/>	<input type="button" value="PRINT"/>	<input type="button" value="SEND"/>	<input type="button" value="CLEAR"/>	<input type="button" value="QUIT"/>			

In an 'OR' connection, you will use one I/O assignment link for each input to be 'OR-ed' together (even if these inputs reside on the same option board). All of these links will be assigned to the same output on the same controller.

NOTE: You can keep 'OR-ing' inputs together until all of the available assignment slots are used. This can be done by using one input from 32 separate controllers or by using all 4 inputs from 8 controllers or by any combination of inputs and controllers to meet the 32 I/O assignment maximum.

Use the up and down arrows to select the links you wish to define. In this example, we will work with I/O assignment links 0 and 1. We will use one input on each of the controllers for reader 1 and reader 2, and we will use output 1 on the controller for reader 2.

Use the up and down arrows and place the highlight bar on Link 0. Use your pointing device and select **MODIFY**. The following prompt box will appear.

I/O ASSIGNMENTS FOR LINK 0																																																	
Input Reader:	<input type="text" value="1 Reader 1"/>	Sup I/O: No	Polarity: Norm. Closed																																														
Input Lines:	<table border="1"> <tr> <td>1</td> <td><input type="checkbox"/> Active</td> <td><input type="checkbox"/> Normal</td> <td><input type="checkbox"/> Tamper</td> <td><input type="checkbox"/> None</td> <td colspan="5"></td> </tr> <tr> <td>2</td> <td><input type="checkbox"/> Active</td> <td><input type="checkbox"/> Normal</td> <td><input type="checkbox"/> Tamper</td> <td><input type="checkbox"/> None</td> <td colspan="5"></td> </tr> <tr> <td>3</td> <td><input type="checkbox"/> Active</td> <td><input type="checkbox"/> Normal</td> <td><input type="checkbox"/> Tamper</td> <td><input type="checkbox"/> None</td> <td colspan="5"></td> </tr> <tr> <td>4</td> <td><input type="checkbox"/> Active</td> <td><input type="checkbox"/> Normal</td> <td><input type="checkbox"/> Tamper</td> <td><input type="checkbox"/> None</td> <td colspan="5"></td> </tr> </table>									1	<input type="checkbox"/> Active	<input type="checkbox"/> Normal	<input type="checkbox"/> Tamper	<input type="checkbox"/> None						2	<input type="checkbox"/> Active	<input type="checkbox"/> Normal	<input type="checkbox"/> Tamper	<input type="checkbox"/> None						3	<input type="checkbox"/> Active	<input type="checkbox"/> Normal	<input type="checkbox"/> Tamper	<input type="checkbox"/> None						4	<input type="checkbox"/> Active	<input type="checkbox"/> Normal	<input type="checkbox"/> Tamper	<input type="checkbox"/> None					
1	<input type="checkbox"/> Active	<input type="checkbox"/> Normal	<input type="checkbox"/> Tamper	<input type="checkbox"/> None																																													
2	<input type="checkbox"/> Active	<input type="checkbox"/> Normal	<input type="checkbox"/> Tamper	<input type="checkbox"/> None																																													
3	<input type="checkbox"/> Active	<input type="checkbox"/> Normal	<input type="checkbox"/> Tamper	<input type="checkbox"/> None																																													
4	<input type="checkbox"/> Active	<input type="checkbox"/> Normal	<input type="checkbox"/> Tamper	<input type="checkbox"/> None																																													
Output Reader:	<input type="text" value="1 no-name 1-A"/>	<input type="checkbox"/> Send to PC																																															
Output Lines:	<table border="1"> <tr> <td>1</td> <td><input type="checkbox"/> Not Used</td> <td><input type="checkbox"/> Deactivate</td> <td><input type="checkbox"/> Activate</td> <td><input type="checkbox"/> Momentary</td> <td colspan="5"></td> </tr> <tr> <td>2</td> <td><input type="checkbox"/> Not Used</td> <td><input type="checkbox"/> Deactivate</td> <td><input type="checkbox"/> Activate</td> <td><input type="checkbox"/> Momentary</td> <td colspan="5"></td> </tr> </table>									1	<input type="checkbox"/> Not Used	<input type="checkbox"/> Deactivate	<input type="checkbox"/> Activate	<input type="checkbox"/> Momentary						2	<input type="checkbox"/> Not Used	<input type="checkbox"/> Deactivate	<input type="checkbox"/> Activate	<input type="checkbox"/> Momentary																									
1	<input type="checkbox"/> Not Used	<input type="checkbox"/> Deactivate	<input type="checkbox"/> Activate	<input type="checkbox"/> Momentary																																													
2	<input type="checkbox"/> Not Used	<input type="checkbox"/> Deactivate	<input type="checkbox"/> Activate	<input type="checkbox"/> Momentary																																													
		<input type="button" value="OK"/>	<input type="button" value="QUIT"/>	<input type="button" value="DISABLE"/>																																													

There are five fields you will need to work through to make the I/O assignment. If at any time during the assignment process you wish to exit without making any changes, use your pointing device and select **QUIT**. If at any time you wish to return all inputs and outputs to their factory default values (all inputs and outputs disabled), use your pointing device and select **DISABLE**.

The first field to define is the Input Reader field. This field defines which reader the input signal is coming from. Use your pointing device and select the Input Reader field. The following prompt box will appear.

Select A Reader

Choose an Input Reader
OK/ENTER accepts, QUIT/ESC cancels.

All

1	Reader 1
2	Reader 2
3	Reader 3
•••	

OK

QUIT

To exit without selecting a reader, use your pointing device and select **QUIT**. For this example, use your pointing device and select Reader 1, then select **OK**.

The second field to define is the Input Lines field. This field defines which of the 4 available inputs at the reader is being assigned to this link. The factory default for all inputs is to set the input to None. The input line can be defined in one of two ways: Active or Normal. A normal input is an unsupervised 2-state input. An active input is a supervised 3- or 4-state input.

NOTE: The Tamper value is used by the control unit itself. It is designed to be connected to a tamper switch on the enclosure protecting the control unit. This allows you to define an input to indicating if an individual is attempting to tamper with the control unit.

In this example, use your pointing device and select Normal on Input Line 1. All other inputs should be set to None.

The third field to define is the Output Reader field. This field defines which reader the output signal is going to. Use your pointing device and select the Output Reader field.

Select A Reader

Choose an Output Reader
OK/ENTER accepts, QUIT/ESC cancels.

All

1	Reader 1
2	Reader 2
3	Reader 3
•••	

OK

QUIT

To exit without selecting a reader, use your pointing device and select **QUIT**. For this example, use your pointing device and select Reader 2, then select **OK**.

The fourth field defines if an event on the input should be recorded in the transactions log. Before deciding, note that whenever an output is triggered (by an input signal) the output is always reported in the transactions log. If you wish to have the redundancy of reporting the input that triggered the output, as well as reporting the output, use your pointing device and select Send to

PC. For this example, we want to report input events, so use your pointing device and select Send to PC.

The fifth field to define is the Output Lines field. This field defines which of the 2 available outputs at the reader is being assigned to this link. The factory default for both outputs is set to Not Used. The handling of the output line can be defined in one of three ways: Deactivate, Activate, or Momentary. Deactivating the output sets the output relay to its inactive state. Activating the output sets the output relay to its active state. Setting the output to Momentary will cause the output to momentarily toggle its state. For this example, we want to toggle the output, so use your pointing device and select Momentary.

After all of these changes have been made, the I/O Assignments for Link 0 prompt box should appear as follows.

I/O ASSIGNMENTS FOR LINK 0

Input Reader: Sup I/O: No Polarity: Norm. Closed

Input Lines:

1	<input type="checkbox"/> Active	<input checked="" type="checkbox"/> Normal	<input type="checkbox"/> Tamper	<input type="checkbox"/> None
2	<input type="checkbox"/> Active	<input type="checkbox"/> Normal	<input type="checkbox"/> Tamper	<input type="checkbox"/> None
3	<input type="checkbox"/> Active	<input type="checkbox"/> Normal	<input type="checkbox"/> Tamper	<input type="checkbox"/> None
4	<input type="checkbox"/> Active	<input type="checkbox"/> Normal	<input type="checkbox"/> Tamper	<input type="checkbox"/> None

Output Reader: Send to PC

Output Lines:

1	<input type="checkbox"/> Not Used	<input type="checkbox"/> Deactivate	<input type="checkbox"/> Activate	<input type="checkbox"/> Momentary
2	<input type="checkbox"/> Not Used	<input type="checkbox"/> Deactivate	<input type="checkbox"/> Activate	<input type="checkbox"/> Momentary

If all of the assignment information is correct, use your pointing device and select **OK**. The TAP100 software will return to the I/O Assignments prompt box and display the following information.

I/O ASSIGNMENTS

LINK	INPUT READER	INPUTS				PC	OUTPUT READER	OUTPUTS	
		1	2	3	4			1	2
0	Reader 1 (01)	N				PC	Reader 2 (02)	M	
1		----	Available	----					
2		----	Available	----					
3		----	Available	----					
		...							

The assignments for Link 1 must now be made to complete the 'OR' assignment. To summarize the previous 5 steps and make the Link 1 assignment, you must use your pointing device and select **MODIFY**, set your Input Reader to Reader 2, set your first Input Line to Normal, set your Output Reader to Reader 2, activate Send to PC, and set your first Output Line to Momentary. The I/O Assignments for Link 1 prompt box will appear as follows.

I/O ASSIGNMENTS FOR LINK 1

Input Reader: Sup I/O: No Polarity: Norm. Closed

Input Lines:

1	<input type="checkbox"/> Active	<input checked="" type="checkbox"/> Normal	<input type="checkbox"/> Tamper	<input type="checkbox"/> None
2	<input type="checkbox"/> Active	<input type="checkbox"/> Normal	<input type="checkbox"/> Tamper	<input type="checkbox"/> None
3	<input type="checkbox"/> Active	<input type="checkbox"/> Normal	<input type="checkbox"/> Tamper	<input type="checkbox"/> None
4	<input type="checkbox"/> Active	<input type="checkbox"/> Normal	<input type="checkbox"/> Tamper	<input type="checkbox"/> None

Output Reader: Send to PC

Output Lines:

1	<input type="checkbox"/> Not Used	<input type="checkbox"/> Deactivate	<input type="checkbox"/> Activate	<input type="checkbox"/> Momentary
2	<input type="checkbox"/> Not Used	<input type="checkbox"/> Deactivate	<input type="checkbox"/> Activate	<input type="checkbox"/> Momentary

If all of the assignment information is correct, use your pointing device and select **OK**. The TAP100 software will return to the I/O Assignments prompt box and display the following information.

I/O ASSIGNMENTS

LINK	INPUT	INPUTS				PC	OUTPUT	OUTPUTS	
	READER	1	2	3	4		READER	1	2
0	Reader 1 (01)	N				PC	Reader 2 (02)	M	
1	Reader 2 (01)	N				PC	Reader 2 (02)	M	
2	-----Available -----								
3	-----Available -----								
...									

Once the I/O assignments have been made, you can **PRINT** a hard copy of the information just entered. This will allow you to review the I/O assignment information one last time before sending this information to the control units. To print a hard copy of the I/O assignments, use your pointing device and select **PRINT**. The following prompt box will appear.

Print Job Progress

0% 100%

Press ESC to abort the print job.

As the I/O assignment information is being printed, the status bar in this prompt box will monitor how far along the print process is. When the print job has finished, you can review the I/O assignment information and verify it is correct. The printout will appear something like this.

TAP-100 VERSION X.XX		I/O Assignments				page #			
DATE	TIME								
=====									
LINK	INPUT	INPUTS				OUTPUT	OUTPUTS		
	READER	1	2	3	4	PC	READER	1	2
0	Reader 1 (01)	N	-	-	-	PC	Reader 2 (02)	M	-
1	Reader 2 (02)	N	-	-	-	PC	Reader 2 (02)	M	-
...									
31	----Available ----								

After reviewing this information, if you are not satisfied with a link entry, you must use the up and down arrow keys and select the link that needs changing. Once you have selected the link that needs changing, you have two options: you can edit the existing link, making the necessary corrections, or you can use your pointing device and select **DISABLE**, returning all inputs and outputs to the factory default disabled settings.

Once you are satisfied that all I/O assignments are correct, you must send this information to all control units on the network for it to take effect. Use your pointing device and select **SEND**. The Status Message Line will display:

Initiating communication with local network on COM1 . . . please wait.

Once communication is established, the information is transferred to the network. Each reader will beep twice, acknowledging they have received their data.

In this case, the result of these changes is that an input signal on the first input of either Reader 1 OR Reader 2 will create an output signal on the first output of reader 2.

Setting an 'AND' I/O Assignment

To set-up the required input to output links for an 'AND' connection, use your pointing device and select **Utilities** and then **I/O Assignments**. Adding to the previous example for an 'OR' assignment, the following prompt box will appear.

I/O ASSIGNMENTS										
LINK	INPUT	INPUTS				OUTPUT	OUTPUTS			
	READER	1	2	3	4	PC	READER	1	2	
0	Reader 1 (01)	N				PC	Reader 2 (02)	M		
1	Reader 2 (01)	N				PC	Reader 2 (02)	M		
2	----Available ----									
3	----Available ----									
...										
		<input type="button" value="MODIFY"/>		<input type="button" value="PRINT"/>		<input type="button" value="SEND"/>		<input type="button" value="CLEAR"/>		<input type="button" value="QUIT"/>

In an 'AND' connection, you will use one I/O assignment link for all inputs to be 'AND-ed' together (these inputs must reside on the same option board). All of these links will be assigned to the same output on the same controller.

NOTE: To keep the hardware and software interface as simple as possible, and continue to support both 'OR' and 'AND' logical functions, 'AND-ing' is limited to the inputs residing on one controller.

Use the up and down arrows to select the links you wish to define. In this example, we will work with I/O assignment link 3. We will use inputs 3 and 4 and we will use output 2 on reader 3.

Use the up and down arrows and place the highlight bar on link 3. Use your pointing device and select **MODIFY**. The following prompt box will appear.

I/O ASSIGNMENTS FOR LINK 3

Input Reader: Sup I/O: No Polarity: Norm. Closed

Input Lines:

1	<input type="checkbox"/> Active	<input type="checkbox"/> Normal	<input type="checkbox"/> Tamper	<input type="checkbox"/> None
2	<input type="checkbox"/> Active	<input type="checkbox"/> Normal	<input type="checkbox"/> Tamper	<input type="checkbox"/> None
3	<input type="checkbox"/> Active	<input type="checkbox"/> Normal	<input type="checkbox"/> Tamper	<input type="checkbox"/> None
4	<input type="checkbox"/> Active	<input type="checkbox"/> Normal	<input type="checkbox"/> Tamper	<input type="checkbox"/> None

Output Reader: Send to PC

Output Lines:

1	<input type="checkbox"/> Not Used	<input type="checkbox"/> Deactivate	<input type="checkbox"/> Activate	<input type="checkbox"/> Momentary
2	<input type="checkbox"/> Not Used	<input type="checkbox"/> Deactivate	<input type="checkbox"/> Activate	<input type="checkbox"/> Momentary

There are five fields you will need to work through to make the I/O assignment. If at any time during the assignment process you wish to exit without making any changes, use your pointing device and select **QUIT**. If at any time you wish to return all inputs and outputs to their factory default values (all inputs and outputs disabled), use your pointing device and select **DISABLE**.

The first field to define is the Input Reader field. This field defines which reader the input signal is coming from. Use your pointing device and select the Input Reader field. The following prompt box will appear.

Select A Reader

Choose an Input Reader
OK/ENTER accepts, QUIT/ESC cancels.

All

1	Reader 1
2	Reader 2
3	Reader 3
...	

To exit without selecting a reader, use your pointing device and select **QUIT**. For this example, use your pointing device and select Reader 3, then select **OK**.

The second field to define is the Input Lines field. This field defines which of the 4 available inputs at the reader is being assigned to this link. The factory default for all inputs is to set the input to None. The input line can be defined in one of two ways: Active or Normal. A normal input is an unsupervised 2-state input. An active input is a supervised 3- or 4-state input.

NOTE: The Tamper value is used by the control unit itself. It is designed to be connected to a tamper switch on the enclosure protecting the control unit. This allows you to define an input to indicating if an individual is attempting to tamper with the control unit.

In this example, use your pointing device and select Normal on Input Lines 3 and 4. All other inputs should be set to None.

The third field to define is the Output Reader field. This field defines which reader the output signal is going to. Use your pointing device and select the Output Reader field.

Select A Reader

Choose an Output Reader
OK/ENTER accepts, QUIT/ESC cancels.

All

1	Reader 1
2	Reader 2
3	Reader 3
•••	

OK

QUIT

To exit without selecting a reader, use your pointing device and select **QUIT**. For this example, use your pointing device and select Reader 3, then select **OK**.

The fourth field defines if an event on the input should be recorded in the transactions log. Before deciding, note that whenever an output is triggered (by an input signal) the output is always reported in the transactions log. If you wish to have the redundancy of reporting the input that triggered the output, as well as reporting the output, use your pointing device and select Send to PC. For this example, we want to report input events, so use your pointing device and select Send to PC.

The fifth field to define is the Output Lines field. This field defines which of the 2 available outputs at the reader is being assigned to this link. The factory default for both outputs is set to Not Used. The handling of the output line can be defined in one of three ways: Deactivate, Activate, or Momentary. Deactivating the output sets the output relay to its inactive state. Activating the output sets the output relay to its active state. Setting the output to Momentary will cause the output to momentarily toggle its state. For this example, we want to toggle the output, so use your pointing device and select Momentary for output 2.

After all of these changes have been made, the I/O Assignments for Link 3 prompt box should appear as follows.

I/O ASSIGNMENTS FOR LINK 3

Input Reader: Sup I/O: No Polarity: Norm. Closed

Input Lines:

1	<input type="checkbox"/> Active	<input type="checkbox"/> Normal	<input type="checkbox"/> Tamper	<input type="checkbox"/> None
2	<input type="checkbox"/> Active	<input type="checkbox"/> Normal	<input type="checkbox"/> Tamper	<input type="checkbox"/> None
3	<input type="checkbox"/> Active	<input type="checkbox"/> Normal	<input type="checkbox"/> Tamper	<input type="checkbox"/> None
4	<input type="checkbox"/> Active	<input type="checkbox"/> Normal	<input type="checkbox"/> Tamper	<input type="checkbox"/> None

Output Reader: Send to PC

Output Lines:

1	<input type="checkbox"/> Not Used	<input type="checkbox"/> Deactivate	<input type="checkbox"/> Activate	<input type="checkbox"/> Momentary
2	<input type="checkbox"/> Not Used	<input type="checkbox"/> Deactivate	<input type="checkbox"/> Activate	<input type="checkbox"/> Momentary

If all of the assignment information is correct, use your pointing device and select **OK**. The TAP100 software will return to the I/O Assignments prompt box and display the following information.

I/O ASSIGNMENTS

LINK	INPUT	INPUTS				PC	OUTPUT	OUTPUTS	
	READER	1	2	3	4		READER	1	2
0	Reader 1 (01)	N				PC	Reader 2 (02)		M
1	Reader 2 (02)	N				PC	Reader 2 (02)		M
2	----Available ----								
3	Reader 3 (03)	N				PC	Reader 2 (03)		M
...									

Once these I/O assignments have been made, you can PRINT them to review the entered information. Follow the instructions provided on page 39 for the 'OR' I/O assignment section. Once you have approved this information, you must SEND it to all control units on the network for them to take affect. Follow the instructions provided on page 39 for the 'OR' I/O assignment section.

Clearing All I/O Assignments

If a major change needs to be made to the I/O assignment for the network, it may be easier to clear the entire I/O assignment table and create a new one instead of editing the existing table. To clear the entire I/O assignment table, use your pointing device and select **Utilities** and then **I/O Assignments**. The following prompt box will appear.

This will clear all links in the I/O assignment list.

DO YOU REALLY
WANT TO DO THIS?

If you wish to clear all links and create a new I/O assignment table, use your pointing device and select **YES/OK**. Otherwise select **NO/CANCEL**. Please use this command with care as it can have a major impact on the security of your access control system.

Creating/Maintaining a User Database

Once the TAP100 software, communications and the ProxNet have been configured, a user database needs to be created and maintained. This section describes the process used to create and maintain a user database: creating a cardfile and maintaining transaction data files.

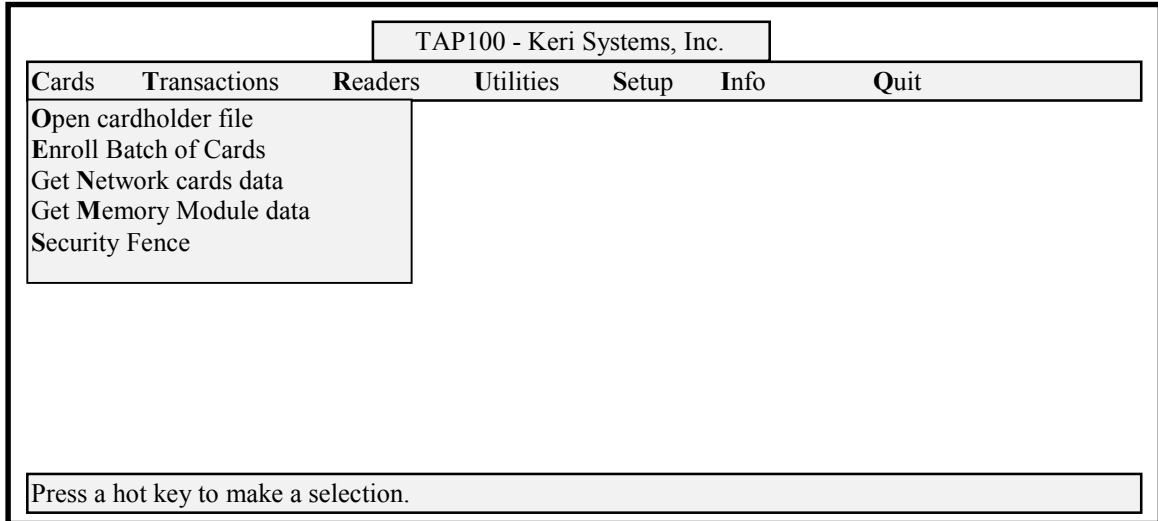


Figure 6 - Cards Menu Option Screen

Create a Cardfile Database

This section describes the commands used to enroll cards and create a cardfile, to search for specific cardholder data, and to void cards from the system.

In the TAP100 software, cards are managed by enrolling them in a "slot." A slot is a holding place for information that applies to a specific card. Once cards are enrolled, information is entered describing the person holding the card and the rights assigned to that person. This information includes the slot's identification number, the card's unique number code, personnel information regarding the person holding that card, and time zone information to be applied to that card.

Enrolling Cards

When enrolling cards, you can enroll a single card or a batch of cards. If you enroll a batch of cards, they must be enrolled in consecutive slot numbers (i.e. 6 cards in slots 5 through 10). To enroll cards in the system, use your pointing device and select **Cards**, and then **Enroll Batch of Cards**. The following prompt box will appear.

BATCH ENROLL MODE

Start Slot No: ___

End Slot No: ___

Use your pointing device and enter the starting slot and the ending slot. If you are not satisfied with your entry, select **QUIT** to exit the selection without making a change. If your entry is correct, use your pointing device and select **OK**.

For example: If you are entering one card into slot 5, the following prompt box will appear asking you to confirm this entry.

You are about to enroll 1 cards at slots 5 to 5.

DO YOU REALLY
WANT TO DO THIS?

Or, if you are entering 6 cards into slots 5 through 10 the following prompt box will appear.

You are about to enroll 6 cards at slots 5 to 10.

DO YOU REALLY
WANT TO DO THIS?

If you are not ready to enter cards, use your pointing device and select **NO/CANCEL**. If you are ready, select **YES/OK**. The following prompt box will appear.

BATCH ENROLL MODE

Opening channel to PROX.

The status message line will display:

Initiating communication with local network on COM1 . . . please wait.

Once communication is established, the following prompt box will appear.

BATCH ENROLL MODE

Now enrolling card at slot 5.
Present card to reader. . .

One at a time, as prompted by the system, present the cards to be enrolled to the reader. As each card is read and recognized by the reader, the reader will beep twice and briefly display the following prompt box to indicate acceptance.

BATCH ENROLL MODE

Now enrolling card at slot 5.
Present card to reader. . .

Read card #0123456789 at slot 2.

Once all of the cards have been successfully read and all of the slots have been filled, the system will display the following prompt box, indicating successful enrollment.

BATCH ENROLL MODE

Successfully enrolled slots 5 through 10.

NOTE: For ease of card/slot management, you should consider marking each card with the slot number you have assigned to it. This can make it easier for you to identify and work with the cards within the system.

Open Cardholder File

The open cardholder file command opens the cards database, allowing you to enter or edit specific information for each card user. Use your pointing device and select **Cards**, and then **Open cardholder file**. The following prompt box will appear.

CARDS DATABASE: c:\proxnet\chf.dbf						
TOTAL: xx cards enrolled		LIMIT:none		SORT: default		
MOD	SLOT	FIRST	LAST NAME	DEPT	HIRED	
<input type="button" value="MODIFY"/>	<input type="button" value="BLOCK"/>	<input type="button" value="SEARCH"/>	<input type="button" value="VOID"/>	<input type="button" value="PRINT"/>	<input type="button" value="SEND"/>	<input type="button" value="QUIT"/>

Many options are available from this screen. The **Modify** command allows you to enter the user specific data for that card's slot. It can be used for initial cardfile database development, or for changing values in an existing card slot. Use your pointing device and select **Modify**. The following prompt box will appear.

Modify Slot 1	
Name:	<input type="button" value="PERSONAL"/>
Dept:	<input type="button" value="ACCESS"/>
Hire Date:	<input type="button" value="OK"/>
	<input type="button" value="QUIT"/>
ID:12345678	Card is Disabled []

This box will display the card's ID number and the hire date of the person being assigned to their card/slot combination (set at the current date). Initially, the name and department fields will be

blank and the disabled card field will be blank. To enter a card user's name and department, use your pointing device and select **Personal**. The prompt box will request the following information.

Modify Slot 1

Name:	PERSONAL
Dept:	ACCESS
Hire Date:	OK
	QUIT

ID:12345678 Card is Disabled []

Use your pointing device and select the name field. Enter the card user's first name, middle initial, and last name. Use your pointing device and select the department field. Enter the card user's department (limited to four characters). If the hire date is not correct, use your pointing device and enter the correct date in the hire date field.

Next you will enter the access rights information for the new card user. This access information is the assignment of the time zones to be applied to the user's card. Use your pointing device and select **Access**. The prompt box will display the following information.

Access Rights for Slot 1

Cardholder Name: Joe Q Public				MODIFY
				BLOCK
READER NAME	TIME ZONE	TZ#	HOL	PRINT
no name 1-A	Always	(00)	HOL	OK
no name 2-A	Always	(00)	HOL	
no name 3-A	Always	(00)	HOL	
EMP ENTRANCE	Always	(00)	HOL	QUIT
		HOLIDAYS - ALL	HOLIDAYS - NONE	

You can enter time zone and holiday access information for that cardholder on a reader-by-reader basis or in block mode, assigning the same time zone and holiday values to all readers.

To assign one time zone to the user's card to be used by all readers, use your pointing device and select **Block**. A listing of all time zones will be displayed. Use the arrow keys and arrow up or down until the desired time zone is highlighted. If access on holidays is also to be granted, use your pointing device and select **Holiday Access**.

Access Authorization Selection

Choose a time zone to be applied to all readers.

[] **Holiday Access**

0	Always							
1	07:00 - 18:00	So	Mo	Tu	We	Th	Fr	Sa
2	15:00 - 00:30	So	Mo	Tu	We	Th	Fr	Sa
3	23:30 - 07:30	So	Mo	Tu	We	Th	Fr	Sa
4	07:00 - 16:00	So	Mo	Tu	We	Th	Fr	Sa

If you are not satisfied with your entry, use your pointing device and select **QUIT** to exit the selection without making a change. If your entry is correct, use your pointing device and select **OK**. The following prompt box will appear asking you to confirm this entry.

All levels in this slot will be set to TZ 4 (hol)

DO YOU REALLY
WANT TO DO THIS?

If you are satisfied with your entry, use your pointing device and select **YES/OK**. Otherwise, use your pointing device and select **NO/CANCEL**.

To assign time zone and holiday access information for a cardholder on a reader-by-reader basis, use your pointing device and select **Access**. A listing of all readers will be displayed.

Access Rights for Slot 1

Cardholder Name:

READER NAME	TIME ZONE	TZ#	HOL
no name 1-A	Always	(00)	HOL
no name 2-A	Always	(00)	HOL
no name 3-A	Always	(00)	HOL
EMP ENTRANCE	Always	(00)	HOL

Use the arrow keys and arrow up or down until the reader to be assigned time zone values is highlighted. Use your pointing device and select **Modify**. A listing of all time zones will be displayed.

Access Authorization Selection

Choose a time zone to be applied to all readers.

[] **Holiday Access**

0	Always							
1	07:00 - 18:00	So	Mo	Tu	We	Th	Fr	Sa
2	15:00 - 00:30	So	Mo	Tu	We	Th	Fr	Sa
3	23:30 - 07:30	So	Mo	Tu	We	Th	Fr	Sa
4	07:00 - 16:00	So	Mo	Tu	We	Th	Fr	Sa

Use the arrow keys and arrow up or down until the time zone to be assigned to the user's slot for that reader is highlighted. If access on holidays is also to be granted at that reader, use your pointing device and select **Holiday Access**.

If you are satisfied with your entry, use your pointing device and select **OK**. Otherwise, use your pointing device and select **QUIT**.

Once all slot/cardholder information has been entered, you can **PRINT** a hard copy of the information just entered. This will allow you to review the slot/cardholder information one last time before sending this information to the control units. To print a hard copy of the card database, use your pointing device and select **PRINT**. The following prompt box will appear.

Print Job Progress

0% 100%

Press ESC to abort the print job.

As the slot/cardholder information is being printed, the status bar in this prompt box will monitor how far along the print process is. When the print job has finished, you can review the slot/cardholder information and verify it is correct. The printout will appear something like this.

TAP-100 VERSION X.XX		Access Information for Slot X				page #		
DATE	TIME							
<u>READER NAME</u>	<u>TIME ZONE</u>					<u>TZ#</u>	<u>HOL</u>	
no name 1-A	Never					(07)		
no name 2-A	Never					(07)		
no name 3-A	Never					(07)		
EMP ENTRANCE	07:00 - 16:00	Su	Mo	Tu	We	Th	Fr	Sa
no name 4-A	Always					(04)	HOL	
...								
no name 32-A	Never					(00)		

After reviewing this information, if you are not satisfied with your entry, use your pointing device and select **QUIT** to exit without entering the information into the database. Otherwise, use your pointing device and select **OK**. This will return you to the modify slot menu where you have one more chance to review your information before making the entry into the cardholder database. If you are satisfied with your entry, use your pointing device and select **OK**. This will return you to the main cards database menu. Otherwise, use your pointing device and select **QUIT**.

Repeat this process for every card/slot/reader combination you wish to enter into the cardholder database.

NOTE: As you make entries and changes in the card database, a 'mod' flag will appear to the left of the new entry in the Cards database. This flag indicates the data has not yet been sent to the network.

Once you have entered the information for every slot/user in the cardholder database, you must send this information to all control units on the network for it to take effect. Use your pointing device and select **SEND**. The following prompt box will be displayed.

Send Cards Data

Send data to:
 Memory Module
 Network

Data to be sent:
 All slots
 Only modified slots

OK
QUIT

To send data to the network, use your pointing device and select **Network**. You can choose to send either data from **All slots** or data from **Only modified slots**.

*NOTE: If the card file is large, or there are a large number of changes, selecting **Only modified slots** will save transfer time as card information is sent to the network.*

If you are not ready to send data to the network, use your pointing device and select **QUIT**. Otherwise, use your pointing device and select **OK**. A new prompt box will appear, asking you to verify your entry.

This will alter the cards information in the network.

DO YOU REALLY
WANT TO DO THIS?

YES/OK
NO/CANCEL

If you are satisfied with your entry, use your pointing device and select **YES/OK**. Or, select **NO/CANCEL** to exit the selection without making a change.

The Status Message Line will display:

Initiating communication with local network on COM1 . . . please wait.

Once communication is established, the information is transferred to the network.

Sending Cards to Network

0% 100%

As the slot/cardholder information is being sent to the network, the status bar in this prompt box will monitor how far along the process is. When this process is complete, the Status Message Line will display:

Successfully sent cards to network.

Once the cardholder file data is sent to the network, the cards data base construction process is complete. Use your pointing device and select **QUIT** to return to the TAP100 main menu.

Search for Cardholder Data

The search for cardholder data command allows you to set search and sort criteria for cardholder data. This allows you to define how you want to view the cardholder data, either by the card's slot number or by the name of the person assigned to a card/slot. To set a search/sort criteria, use your pointing device and select **Cards**, and then **Open cardholder file**. The following prompt box will appear.

CARDS DATABASE: c:\proxnet\chf.dbf

TOTAL: xx cards enrolled LIMIT:none SORT: default

MOD	SLOT	FIRST	LAST NAME	DEPT	HIRED
-----	------	-------	-----------	------	-------

MODIFY
BLOCK
SEARCH
VOID
PRINT
SEND
QUIT

Use your pointing device and select **SEARCH**. The following prompt box will appear.

Search/Sort

Limit viewing

All cards
 Slot
 Name

Sort Order

By slot
 By name

OK
QUIT

The search criteria has three options allowing you to set the cardholder display screen to display all cards assigned to slots in the cardholder database, all slots in the cardholder database, or all names assigned to a card/slot in the database.

The sort criteria has two options allowing you to set the cardholder display screen to display all slots in ascending numerical order or to display all slots by name in alphabetical order.
NOTE: Slots without an assigned user name have a lower alphabetical precedence than those with an assigned user name. When sorting alphabetically, slots without an assigned user name will be displayed before slots with an assigned user name.

Once you have determined the search/sort criteria needed to display the cardholder data you need, use your pointing device and select the appropriate search/sort criteria. If you wish to exit without making any search/sort criteria changes, select **QUIT**. If you are satisfied with your entries, use your pointing device and select **OK**. The Status Message Line will display:

Constructing query data . . . please wait.

Once communication is established with the network, it will display:

Sorting query data . . . please wait.

Once the cardholder data has been searched and sorted to meet your requirements, it will be displayed on the cardholder database screen.

Voiding Cards

Voiding cards removes them from the system's list of slots with access rights. You can void one card or a consecutive set of cards at one time. To void cards you do not have to have the card in hand, but you must know the slot number issued to that card. If you do not know the card's slot number, but you do know information regarding the person holding that card, you can use the Search for Cardholder Data command described on page 55 to find the required slot numbers to void.

To void cards, use your pointing device and select **Cards**, and then **Open** cardholder file. The following prompt box will appear.

CARDS DATABASE: c:\proxnet\chf.dbf					
TOTAL: xx cards enrolled		LIMIT:none		SORT: default	
MOD	SLOT	FIRST	LAST NAME	DEPT	HIRED
MODIFY	BLOCK	SEARCH	VOID	PRINT	SEND QUIT

Use your pointing device and select **Void**. The following prompt box will appear.

Void Cards

Start Slot #

End Slot#

OK
QUIT

Use your pointing device and enter the starting slot and the ending slot. To void one card, the starting slot and ending slot numbers are that one card's slot number. If you are not satisfied with

your entry, use your pointing device and select **QUIT** to exit the selection without making a change. If your entry is correct, use your pointing device and select **OK**. The following prompt box will appear.

You are about to void slots 1 to 3.

DO YOU REALLY
WANT TO DO THIS?

Since voiding cards removes them from the access control system, not allowing cardholders access, the TAP100 software asks you to verify that the slot numbers you have entered are indeed the ones to void. Review your entries and if they are not correct, you can exit the voiding cards process by using your pointing device and selecting **NO/CANCEL**. Otherwise, use your pointing device and select **YES/OK**. The following prompt box will appear.

This cannot be undone!!!

DO YOU REALLY
WANT TO DO THIS?

Since the voiding of cards cannot be undone requiring you to reenter all user information if a card was voided incorrectly, the TAP100 software will prompt you one last time to verify that you do indeed want to void these cards. This is your final opportunity to end the process without making a change if you are not sure you want to void these cards. You can exit the voiding cards process by using your pointing device and selecting **NO/CANCEL**. Otherwise, use your pointing device and select **YES/OK**. The Status Message Line will display:

Initiating communication with local network on COM1 . . . please wait.

Once communication is established with the network, it will display:

Voiding slots ##.

And when all requested slots have been voided from the network, it will display:

Done.

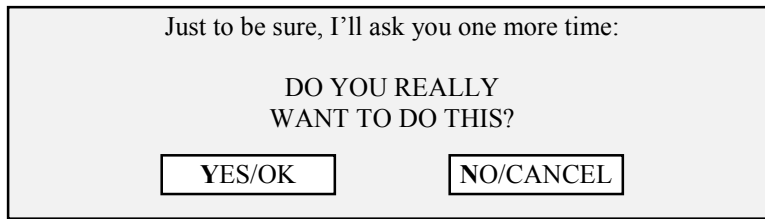
Get Network Card Data

If the card log file has been lost or damaged, current card data can be restored from the readers on the ProxLock network. This is done with the get network card data command. Use your pointing device and select **Cards** and then **Get Network cards data**. The following prompt box will appear.

Get cards will ERASE the current cards database.

DO YOU REALLY
WANT TO DO THIS?

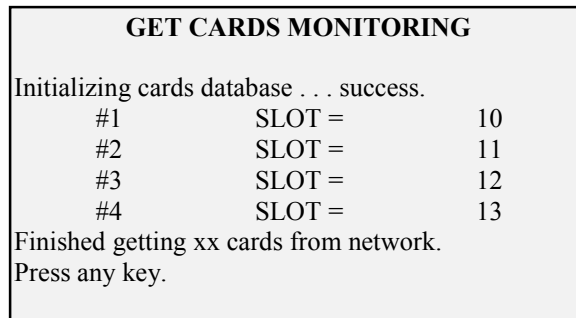
If you do not want to erase the existing cards database, use your pointing device and select **NO/CANCEL**. Otherwise, use your pointing device and select **YES/OK**. Since this operation erases the existing cards database, a second prompt box will appear.



If you do not want to erase the existing cards database, use your pointing device and select **NO/CANCEL**. Otherwise, use your pointing device and select **YES/OK**. The status message line will display:

Initiating communication with local network on COM1 . . . please wait.

Once communication has been established, the existing card database will be cleared and a new database will be created as card data is collected from the readers on the ProxLock network. Card data will be displayed in the following prompt box.



Collected card data is tabulated showing the cards collected by their slot number. Once all cards have been retrieved, press any key to return to the TAP100 main menu.

Transaction Data File Management

The transaction file is a continuous log of every event that has occurred on the network. This data is available for review, or for saving to a DOS file for use by a database program.

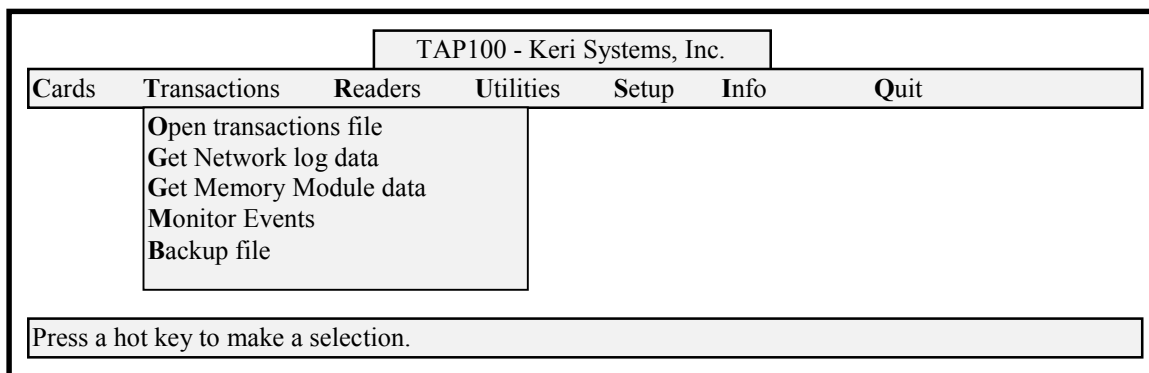


Figure 7 - Transactions Menu Option Screen

Open Transactions File

The open transactions file command allows you to review a history of events that have occurred on the network. It also allows you to get detailed information on any single event. To open the transactions file, use your pointing device and select **Transactions** and then **Open transactions file**. If no transactions have occurred (as in a brand new installation), the following prompt box will appear.

The transaction database is empty.

Otherwise, the following prompt box will appear (this prompt box displays sample transaction data).

TRANSACTIONS LOG: c:\proxnet\log.dbf

TOTAL: XX events LIMIT: None SORT: Time & Date YEAR: 1996

DATE	TIME	SLOT	CARDHOLDER	READER	DESCRIPTION
3/03	08:00	04	John Q Public	4-A EMP ENTR	INP1-T/OPEN
3/03	17:00	04	John Q Public	4-B EMP EXIT	OUT1-ACTIVE
•••					

From here, there are several options available for viewing transaction log data. If you need to search for specific information, you can set sort and transaction file viewing criteria. Use your pointing device and select **SEARCH**. The following prompt box will appear.

Search/Sort

Sort Order

By Date and Time

By Slot

By Name

Limit Viewing

Slot

Name

Reader

Date

Time

Type

Depending upon how you wish to view the transaction data, use your pointing device and select a sort order. You can sort transaction data based on the date and time of events, the card/slot that initiated events or the names of the cardholders that initiated events.

If this sort order provides too much data for viewing, you can limit the transaction data further. Use your pointing device and select one of the limit viewing options.

If you select **S**lot, the following prompt box appears.

Slot Range	
Start:	0
End:	7000
Press ENTER key if data is OK. Press ESC key to quit.	

The default is all available slots. Use your pointing device and select the range of slots you wish to limit viewing to. Press <ENTER> if the slot range entered is correct. Otherwise , press <ESC> to not set a slot range.

If you select **N**ame, the following prompt box appears.

Name Range	
Start:	A
End:	Z
Press ENTER key if data is OK. Press ESC key to quit.	

The default is the entire alphabet. Use your pointing device and select the range of letters you wish to limit viewing to. Press <ENTER> if the name range entered is correct. Otherwise , press <ESC> to not set a name range.

If you select **R**eader, the following prompt box appears.

Reader Range	
Start:	1
End:	32
Press ENTER key if data is OK. Press ESC key to quit.	

The default is all available readers. Use your pointing device and select the range of readers you wish to limit viewing to. Press <ENTER> if the reader range entered is correct. Otherwise , press <ESC> to not set a reader range.

If you select **D**ate, the following prompt box appears.

Date Range	
Start:	01/01/1900
End:	12/31/9999
Press ENTER key if data is OK. Press ESC key to quit.	

The default is a large date range. Use your pointing device and select the date range you wish to limit viewing to. Press <ENTER> if the date range entered is correct. Otherwise , press <ESC> to not set a date range.

If you select Time, the following prompt box appears.

Time Range

Start:

End:

Press ENTER key if data is OK.
Press ESC key to quit.

The default is the full 24-hour clock. Use your pointing device and select the time range you wish to limit viewing to. Press <ENTER> if the time range entered is correct. Otherwise , press <ESC> to not set a time range.

If you select Type, the following prompt box appears.

Select Type

() 1 - Cards only

() 2 - Alarms only

() 3 - Intercom only

Press ENTER key if data is OK.
Press ESC key to quit.

The default is to display cards. Use your pointing device and select cards only to view all card related transactions, alarms only to view all alarm related transactions, and intercom only to view all communication related transactions. Press <ENTER> once you have selected a transaction type. Otherwise , press <ESC> to not set a transaction type.

If you do not wish to select specific sort criteria, use your pointing device and select QUIT. Otherwise, use your pointing device and select OK. The original transactions log prompt box will appear with all transaction data sorted according to the criteria you have set.

TRANSACTIONS LOG: c:\proxnet\log.dbf					
TOTAL: XX events		LIMIT: None		SORT: Time & Date	
YEAR: 1996					
DATE	TIME	SLOT	CARDHOLDER	READER	DESCRIPTION
3/03	08:00	04	John Q Public	4-A EMP ENTR	INP1-T/OPEN
3/03	17:00	04	John Q Public	4-B EMP EXIT	OUT1-ACTIVE
•••					
<input type="button" value="SEARCH"/>		<input type="button" value="PRINT"/>		<input type="button" value="EXAMINE"/>	
<input type="button" value="OPTIONS"/>			<input type="button" value="QUIT"/>		

If you wish to have hard copy of this data, you can print it out. Use your pointing device and select PRINT. The following prompt box will appear.

Print Job Progress

0% 100%

Press ESC to abort the print job.

As transaction information is being printed, the status bar in this prompt box will monitor how far along the print process is. When the print job has finished, you can review the transaction data. The printout will appear something like this.

TAP-100 VERSION X.XX		Transaction Log				page #
DATE	TIME					
=====						
<u>DATE</u>	<u>TIME</u>	<u>SLOT</u>	<u>CARDHOLDER</u>	<u>READER</u>	<u>DESCRIPTION</u>	
3/03	08:00	04	John Q Public	4-A EMP ENTR	INP1-T/OPEN	
3/03	17:00	04	John Q Public	4-B EMP EXIT	OUT1-ACTIVE	
...						

If you wish, you can examine one specific transaction without the clutter of all other transactions. Use the up and down arrows and select the specific transaction you wish to examine. Then use your pointing device and select **EXAMINE**. The following prompt box will appear.

Examining Transaction

DATE: 12/20
 TIME: 9:33
 SLOT: 04
 CARDHOLDER: John Q Public
 READER: EMP ENTRANCE
 DESCRIPTION: MANAGER

OK

Once you have finished examining this transaction, use your pointing device and select **OK**.

To limit the information that is displayed on the screen, you can set transaction viewing options. Use your pointing device and select **OPTIONS**. The following prompt box will appear.

Event Log Viewing Options

() Show Slot Numbers and Cardholder Names
 () Show Cardholder Names Only

() Show Reader Numbers and Names
 () Show Names of Readers Only

OK

QUIT

If you do not wish to set event log viewing options, use your pointing device and select **QUIT**. Otherwise, use your pointing device and select the event log viewing option that will best display transaction data for your monitoring purposes. Then use your pointing device and select **OK**.

The original transactions log prompt box will appear with all transaction data screened according to the criteria you have set. With the screening criteria set above, transaction data would be displayed as follows.

TRANSACTIONS LOG: c:\proxnet\log.dbf				
TOTAL: XX events	LIMIT: None	SORT: Time & Date		YEAR: 1996
DATE	TIME	CARDHOLDER	READER	DESCRIPTION
3/03	08:00	John Q Public	4-A EMP ENTR	INP1-T/OPEN
3/03	17:00	John Q Public	4-B EMP EXIT	OUT1-ACTIVE
•••				
<input type="button" value="SEARCH"/>		<input type="button" value="PRINT"/>		<input type="button" value="EXAMINE"/>
			<input type="button" value="OPTIONS"/>	<input type="button" value="QUIT"/>

Once you have finished viewing the transactions log data, use your pointing device and select **QUIT** to return to the TAP100 main menu.

Archiving a Transaction Log

For efficient data storage purposes, we recommend you periodically archive the transaction log. This can allow you to maintain a set of unique transaction files for time periods that you can refer to at a later date. For example, you could archive the transaction log once a month, naming the archive file in a manner that identifies the time-period being archived (i.e. jan96.dbf and jan96.cdx for the transaction log for the month of January, 1996).

To archive a transaction log, you will have to exit the TAP100 software and execute a series of DOS commands.

From the TAP100 main menu, use your pointing device and select **QUIT** and then select **YES/OK** to exit the program. Following the example above, at the DOS prompt type:

```
C:\PROXNET> ren log.dbf jan96.dbf <ENTER>
```

After a short delay, the DOS prompt will return. Type:

```
C:\PROXNET> ren log.cdx jan96.cdx <ENTER>
```

These DOS commands save the contents of the entire transaction log into two DOS files.

To restart the TAP100 software, at the DOS prompt type:

```
C:\PROXNET> tap100 <ENTER>
```

When the TAP100 software starts, the default transaction files will be empty, ready for a new set of transaction data.

Backup File

The backup file command allows you to review the data in an archived transaction log file. Use your pointing device and select **T**ransactions and then **B**ackup file. The following prompt box will appear.

Enter backup filename: <input type="text"/>

Enter the name of an existing transaction data file and press <ENTER> (i.e. jan96.dbf as in the example above). The TAP100 software will display the transaction log file data and allow you to view and manipulate the data as in the Open Transactions File command beginning on page 59.

Get Network Transaction Data

If the transaction log file has been lost or damaged, current transaction data can be restored from the readers on the ProxLock network. This is done with the get network transaction data command. Use your pointing device and select **T**ransactions and then **G**et Network log data. The following prompt box will appear.

Do you want to clear the readers' transactions logs after getting transactions from them?
<input type="button" value="YES"/> <input type="button" value="NO"/> <input type="button" value="QUIT"/>

If you want to exit this command without retrieving the readers' transaction logs, use your pointing device and select **Q**UIT.

If you want to clear the readers' memories as you retrieve the readers' transaction logs, use your pointing device and select **Y**ES. The status message line will display:

Initiating communication with local network on COM1 . . . please wait.
--

Once communication has been established with the local network, the status message line will count off the readers communicated with and the number of transactions collected.

Have xx of xx events from reader yy; grand total of zz.

The status message line will keep a running total until all readers and transactions have been retrieved.

Done with all readers. Total zz transactions fetched.

When this process is complete, the following prompt box will appear.

GETTING TRANSACTIONS FROM NETWORK

DATE	TIME	CARDHOLDER	READER	DESCRIPTION
3/03	08:00	John Q Public	4-A EMP ENTR	INP1-T/OPEN
3/03	17:00	John Q Public	4-B EMP EXIT	OUT1-ACTIVE

•••

Clearing xx transactions from reader yy.

Press any key to continue.

Press any key to return to the TAP100 main menu. All reader/network transactions have been retrieved and can be viewed and manipulated using the Open Transactions File command on page 59 or archived using the Backup File command on page 64. All transaction data has been cleared from the readers.

If you want to retrieve the readers' transaction logs but do not want to clear these logs (allowing the readers to continue to add transaction information to them), use your pointing device and select **NO**. The status message line will display:

Initiating communication with local network on COM1 . . . please wait.

Once communication has been established with the local network, the status message line will count off the readers communicated with and the number of transactions collected.

Have xx of xx events from reader yy; grand total of zz.

The status message line will keep a running total until all readers and transactions have been retrieved.

Done with all readers. Total zz transactions fetched.

When this process is complete, the following prompt box will appear.

GETTING TRANSACTIONS FROM NETWORK

DATE	TIME	CARDHOLDER	READER	DESCRIPTION
3/03	08:00	John Q Public	4-A EMP ENTR	INP1-T/OPEN
3/03	17:00	John Q Public	4-B EMP EXIT	OUT1-ACTIVE

•••

Press any key to continue.

Press any key to return to the TAP100 main menu. All reader/network transactions have been retrieved and can be viewed and manipulated using the Open Transactions File command on page 59 or archived using the Backup File command on page 64. All transaction data remains on the readers and will continue to be added to as events occur on the network.

Advanced Commands

Advanced commands are used to perform specific immediate tasks on the network. These tasks include real-time monitoring of network events, installing a new reader to an existing network, immediate reader locking and unlocking, global locking and unlocking of all readers, and card security functions.

Monitor Network Events

The monitor network events command allows you to monitor the network communication line and review in real-time events that are occurring at the readers and alarm relays. To monitor network events, use your pointing device and select **Transactions**, and then **Monitor Events**. The Status Message Line will display:

```
Initiating communication with local network on COM1 . . . please wait.
```

Once communication is established with the network, the Status Message Line will display:

```
Monitoring events.
```

And the following prompt box will appear.

MONITORING EVENTS ON NETWORK				
DATE	TIME	CARDHOLDER	READER	DESCRIPTION
<input type="button" value="QUIT"/>				

As events such as access, egress, or alarm conditions occur on the network, a status line announcing the event will appear on the screen. When you no longer need to monitor network events, use your pointing device and select **OK**. The prompt box will note on the screen:

MONITORING EVENTS ON NETWORK				
DATE	TIME	CARDHOLDER	READER	DESCRIPTION
***** REQUEST TO END MONITOR MODE *****				
<input type="button" value="QUIT"/>				

And the Status Message Line will display:

```
MONITOR MODE WILL END IN 20 SECONDS.
```

The software clock will count down from 20 seconds and then return to the TAP100 main menu. The system will continue to post events until the clock ends its count.

Install New Reader

The install new reader command sends all the required TAP100 software operating/configuration information to a reader that has been added to the access control network. It may also be used to re-initialize a reader that has had its EPROM firmware updated or is no longer responding to the access control network.

NOTE: When used to re-initialize a reader that has had its EPROM firmware updated or is no longer responding to the access control network, the install new reader command must be used with caution because it clears out all events stored locally for that reader.

To install a new reader, use your pointing device and select **Readers** and then **Install new reader**. The following prompt box will appear.

Reader number to install: (1-32)	<input type="text"/>
----------------------------------	----------------------

Communication will begin with the selected reader and the Status Message Line will display:

Initiating communication with local network on COM1 . . . please wait.
--

Once communication has been established, the Status Message Line will then change to reflect each new block of information being sent to the new reader. When complete, the display automatically returns to the main menu screen.

NOTE: After installing a new reader, we recommend executing the Verify Network command on page 23 and the Query Status of a Reader command on page 37 to verify the reader installation has been recognized by the ProxNet system.

Once the new reader has been added, the reader should be configured in the ProxNet system (see the Configure the Readers section beginning on page 33). The card database should also be modified to apply the new reader's access control information to user's cards (see the Open Cardholder File command beginning on page 50).

Lock/Unlock Commands

There are two types of lock/unlock commands. The first type performs an immediate lock or unlock of a door connected to one reader. The second type enables or disables the automatic locking or unlocking all readers on the network at one time.

Lock A Reader

The lock a reader command immediately locks a selected reader, preventing access or egress. To immediately lock a reader, use your pointing device and select **Readers** and then **Lock a reader**. The following prompt box will appear.

Reader number to lock: (1-32)	<input type="text"/>
-------------------------------	----------------------

The Status Message Line will display:

Initiating communication with local network on COM1 . . . please wait.
--

Once communication is complete, the reader is locked.

Unlock A Reader

The unlock a reader command immediately unlocks a selected reader, allowing access or egress. To immediately unlock a reader, use your pointing device and select **Readers** and then **Unlock a reader**. The following prompt box will appear.

Reader number to unlock: (1-32)	<input type="text"/>
---------------------------------	----------------------

The Status Message Line will display:

Initiating communication with local network on COM1 . . . please wait.
--

Once communication is complete, the reader is unlocked.

Enable Global Lock/Unlock

The enable global lock/unlock (GLU) function allows an external device to automatically lock or unlock all readers on the network at one time. The factory default value is to disable this feature, so you must enable the global lock/unlock feature if you want to use it.

When enabled, the master control unit will monitor the input state of the External Time Zone input relay, also known as AUX IP0 (TB1, pins 1 and 2). The default sense of the GLU input is TTL Logic 0, corresponding to a global *lock* readers command. TTL Logic 1 at the GLU input corresponding to a global *unlock* readers command. All other system functions continue to operate as usual, including the automatic lock/unlock (ALU) time functions.

While enabled and the GLU input is in the locked state, all doors on the network will remain locked until one of three possible conditions are detected.

1. A change in the GLU input state from 0 to 1 is received.
2. An unlock a reader command is received.
3. An ALU time is met.

When one of these conditions is achieved, the appropriate doors will be unlocked.

While enabled and the GLU input is in the unlocked state, all doors on the network will remain unlocked until a change in the GLU input from 1 to 0 is received. When this condition is achieved, all doors will be locked without exception. The GLU lock command takes precedence over all other functions including the ALU function.

Enabling the GLU feature will immediately lock all doors if the GLU input is at the appropriate state.

Regardless of if the GLU command is enabled or disabled, every state change at the GLU input is logged and forwarded to the host.

To enable the global lock/unlock function, use your pointing device and select **Readers** and then **Enable global lock/unlock**. The Status Message Line will display:

Initiating communication with local network on COM1 . . . please wait.
--

Once communication is complete, the global lock/unlock function has been enabled.

Disable Global Lock/Unlock

The disable global lock/unlock (GLU) function disables the ability for an external device to automatically lock or unlock all readers on the network at one time.

Disabling the GLU feature from the enabled state while a global unlock is in force will immediately lock all doors and then restore the doors to the appropriate automatic lock/unlock (ALU) state (see Table 2 to determine the appropriate ALU state).

Regardless of if the GLU command is enabled or disabled, every state change at the GLU input is logged and forwarded to the host.

To disable the global lock/unlock function, use your pointing device and select **Readers** and then **Disable global lock/unlock**. The Status Message Line will display:

Initiating communication with local network on COM1 . . . please wait.
--

Once communication is complete, the global lock/unlock function has been disabled.

Table 2 - Automatic Lock/Unlock State

ALU STATE	LOCK STATE	EVENT	PXL-100 ACTION	STATE CHANGES
		Lock Command	no action	
	LOCKED	Unlock Command	unlock door	SUSPEND, UNLOCKED
		Global Secure Time	no action	
ON				
		Lock Command	lock door	SUSPEND, LOCKED
	UNLOCKED	Unlock Command	no action	
		Global Secure Time	no action	
		Lock Command	no action	
	LOCKED	Unlock Command	unlock door	
		Global Secure Time	no action	
OFF				
		Lock Command	lock door	
	UNLOCKED	Unlock Command	no action	
		Global Secure Time	lock door	
		Lock Command	no action	
	LOCKED	Unlock Command	unlock door	ON, UNLOCKED
		Global Secure Time		ON
SUSPEND				
		Lock Command	lock door	ON, LOCKED
	UNLOCKED	Unlock Command	no action	
		Global Secure Time		ON

Card Security Management Commands

There are two system security management commands. The first, anti-passback amnesty, clears the anti-passback counter allowing “reaccess” for cards. The second, the card security fence, allows cards to remotely arm an alarm panel.

Anti-Passback Amnesty

The anti-passback command is used to ensure one-card/one-way access into and then out of a controlled area. An authorized card presented to the access reader will allow access, but will not work again for access until one of three things happens: the card has been used to exit through an egress reader, 24 hours have passed, or the access control system has been reset by the Anti-passback amnesty command. This command resets the passback status flag for all cards in the system, allowing a card previously considered inside the access area to be reused for access.

To grant anti-passback amnesty, use your pointing device and select **Utility**, and then **APB Amnesty**. The Status Message Line will display:

Initiating communication with local network on COM1 . . . please wait.

Once communication is complete, anti-passback amnesty has been granted.

Set the Card Security Fence

The card security fence command allows cards to be used to remotely arm or disarm an alarm panel. To set the security fence, a slot number is designated to be a boundary between “privileged” and “non-privileged” cards. Cards at or below this slot number become privileged cards, cards that are above this slot number become non-privileged cards. When a privileged card is presented to a reader, the reader’s alarm panel becomes armed. Non-privileged cards can still be granted access, but will cause an alarm event if the alarm panel has been armed. The factory default slot number is 0, disabling this command. For hardware implementation information, please refer to the [OB-3 Input/Output and Alarm Panel Control](#) option board manual.

To set the security fence, determine the slot number at which you wish to make the privileged/non-privileged division.

For example: To set the security fence to slot 100, use your pointing device and select **Cards** and then **Security Fence**. The following prompt box will appear.

Security Fence

Enter slot number:

Type:

0 1 0 0 <ENTER>

The Status Message Line will display:

Initiating communication with local network on COM1 . . . please wait.

Once communication is established, the Status Message Line will display:

Security Fence set to 100. Nodelist = 00000001.

The security fence has now been set.

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Appendices

1. Status of Doors Table
2. Responding Nodes Table
3. Time Zone Table Worksheet
4. Glossary of Terms
5. Customer Support Information
6. Warranty Information

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Status of Doors Table

The status of doors table is provided to help you determine which doors are secured. Execute the Verifying Network Operation command found on page 23 and compare the status of doors value returned to the entries in this table.

Hexadecimal Digit	Hexadecimal Value	Binary Value	Active Readers
xxxx xxxX	if X is a . . .	its value is . . .	indicating the secured doors are . . .
	0	0000	4, 3, 2, and 1
	1	0001	4, 3, and 2
	2	0010	4, 3, and 1
	3	0011	4 and 3
	4	0100	4, 2, and 1
	5	0101	4 and 2
	6	0110	4 and 1
	7	0111	4
	8	1000	3, 2, and 1
	9	1001	3 and 2
	A	1010	3 and 1
	B	1011	3
	C	1100	2 and 1
	D	1101	2
	E	1110	1
	F	1111	doors 4, 3, 2, and 1 are not secured
xxxx xxXx	if X is a . . .	its value is . . .	indicating the secured doors are . . .
	0	0000	8, 7, 6, and 5
	1	0001	8, 7, and 6
	2	0010	8, 7, and 5
	3	0011	8 and 7
	4	0100	8, 6, and 5
	5	0101	8 and 6
	6	0110	8 and 5
	7	0111	8
	8	1000	7, 6, and 5
	9	1001	7 and 6
	A	1010	7 and 5
	B	1011	7
	C	1100	6 and 5
	D	1101	6
	E	1110	5
	F	1111	doors 8, 7, 6, and 5 are not secured

Status of Doors Table (continued)

Hexadecimal Digit	Hexadecimal Value	Binary Value	Active Readers
xxxx xXxx	if X is a . . .	its value is . . .	indicating the secured doors are . . .
	0	0000	12, 11, 10, and 9
	1	0001	12, 11, 10
	2	0010	12, 11, and 9
	3	0011	12 and 11
	4	0100	12, 10, and 9
	5	0101	12 and 10
	6	0110	12 and 9
	7	0111	12
	8	1000	11, 10, and 9
	9	1001	11 and 10
	A	1010	11 and 9
	B	1011	11
	C	1100	10 and 9
	D	1101	10
	E	1110	9
	F	1111	12, 11, 10, and 9 are not secured
xxxx Xxxx	if X is a . . .	its value is . . .	indicating the secured doors are . . .
	0	0000	16, 15, 14, and 13
	1	0001	16, 15, and 14
	2	0010	16, 15, and 13
	3	0011	16 and 15
	4	0100	16, 14, and 13
	5	0101	16 and 14
	6	0110	16 and 13
	7	0111	16
	8	1000	15, 14, and 13
	9	1001	15 and 14
	A	1010	15 and 13
	B	1011	15
	C	1100	14 and 13
	D	1101	14
	E	1110	13
	F	1111	doors 16, 15, 14, and 13 are not secured
xxxX xxxx	if X is a . . .	its value is . . .	indicating the secured doors are . . .
	0	0000	20, 19, 18, and 17
	1	0001	20, 19, and 18
	2	0010	20, 19, and 17
	3	0011	20 and 19
	4	0100	20, 18, and 17
	5	0101	20 and 18
	6	0110	20 and 17
	7	0111	20
	8	1000	19, 18, and 17
	9	1001	19 and 18
	A	1010	19 and 17
	B	1011	19
	C	1100	18 and 17
	D	1101	18
	E	1110	17
	F	1111	doors 20, 19, 18, and 17 are not secured

Status of Doors Table (continued)

Hexadecimal Digit	Hexadecimal Value	Binary Value	Active Readers
xxXx xxxx	if X is a . . .	its value is . . .	indicating the secured doors are . . .
	0	0000	24, 23, 22, and 21
	1	0001	24, 23, and 22
	2	0010	24, 23, and 21
	3	0011	24 and 23
	4	0100	23, 22, and 21
	5	0101	24 and 22
	6	0110	24 and 21
	7	0111	24
	8	1000	23, 22, and 21
	9	1001	23 and 22
	A	1010	23 and 21
	B	1011	23
	C	1100	22 and 21
	D	1101	22
	E	1110	21
	F	1111	doors 24, 23, 22, and 21 are not secured
xXxx xxxx	if X is a . . .	its value is . . .	indicating the secured doors are . . .
	0	0000	28, 27, 26, and 25
	1	0001	28, 27, and 26
	2	0010	28, 27, and 25
	3	0011	28 and 27
	4	0100	28, 26, and 25
	5	0101	28 and 26
	6	0110	28 and 25
	7	0111	28
	8	1000	27, 26, and 25
	9	1001	27 and 26
	A	1010	27 and 25
	B	1011	27
	C	1100	26 and 25
	D	1101	26
	E	1110	25
	F	1111	doors 28, 27, 26, and 25 are not secured
Xxxx xxxx	if X is a . . .	its value is . . .	indicating the secured doors are . . .
	0	0000	32, 31, 30, 29
	1	0001	32, 31, and 30
	2	0010	32, 31, and 29
	3	0011	32 and 31
	4	0100	32, 30, and 29
	5	0101	32 and 30
	6	0110	32 and 29
	7	0111	32
	8	1000	31, 30, and 29
	9	1001	31 and 30
	A	1010	31 and 29
	B	1011	31
	C	1100	30 and 29
	D	1101	30
	E	1110	29
	F	1111	doors 32, 31, 30, and 29 are not secured

Responding Nodes Table

The responding nodes table is provided to help you determine which nodes are active and responding to the network. Execute the Verifying Network Operation command found on page 23 and compare the responding nodes value returned to the entries in this table.

Hexadecimal Digit	Hexadecimal Value	Binary Value	Active Readers
xxxx xxxX	if X is a . . .	its value is . . .	indicating the active readers are . . .
	0	0000	4, 3, 2, and 1 are inactive
	1	0001	1
	2	0010	2
	3	0011	2 and 1
	4	0100	3
	5	0101	3 and 1
	6	0110	3 and 2
	7	0111	3, 2, and 1
	8	1000	4
	9	1001	4 and 1
	A	1010	4 and 2
	B	1011	4, 2, and 1
	C	1100	4 and 3
	D	1101	4, 3, and 1
	E	1110	4, 3, and 2
	F	1111	4, 3, 2, and 1
xxxx xxXx	if X is a . . .	its value is . . .	indicating the active readers are . . .
	0	0000	8, 7, 6, and 5 are inactive
	1	0001	5
	2	0010	6
	3	0011	6 and 5
	4	0100	7
	5	0101	7 and 5
	6	0110	7 and 6
	7	0111	7, 6, and 5
	8	1000	8
	9	1001	8 and 5
	A	1010	8 and 6
	B	1011	8, 6, and 5
	C	1100	8 and 7
	D	1101	8, 7, and 5
	E	1110	8, 7, and 6
	F	1111	8, 7, 6, and 5

Responding Nodes Table (continued)

Hexadecimal Digit	Hexadecimal Value	Binary Value	Active Readers
xxxx xXxx	if X is a . . .	its value is . . .	indicating the active readers are . . .
	0	0000	12, 11, 10, and 9 are inactive
	1	0001	9
	2	0010	10
	3	0011	10 and 9
	4	0100	11
	5	0101	11 and 9
	6	0110	11 and 10
	7	0111	11, 10, and 9
	8	1000	12
	9	1001	12 and 9
	A	1010	12 and 10
	B	1011	12, 10, and 9
	C	1100	12 and 11
	D	1101	12, 11, and 9
	E	1110	12, 11, and 10
	F	1111	12, 11, 10, and 9
xxxx Xxxx	if X is a . . .	its value is . . .	indicating the active readers are . . .
	0	0000	16, 15, 14, and 13 are inactive
	1	0001	13
	2	0010	14
	3	0011	14 and 13
	4	0100	15
	5	0101	15 and 13
	6	0110	15 and 14
	7	0111	15, 14, and 13
	8	1000	16
	9	1001	16 and 13
	A	1010	16 and 14
	B	1011	16, 14, and 13
	C	1100	16 and 15
	D	1101	16, 15, and 13
	E	1110	16, 15, and 14
	F	1111	16, 15, 14, and 13
xxxX xxxx	if X is a . . .	its value is . . .	indicating the active readers are . . .
	0	0000	20, 19, 18, and 17 are inactive
	1	0001	17
	2	0010	18
	3	0011	18 and 17
	4	0100	19
	5	0101	19 and 17
	6	0110	19 and 18
	7	0111	19, 18, and 17
	8	1000	20
	9	1001	20 and 17
	A	1010	20 and 18
	B	1011	20, 18, and 17
	C	1100	20 and 19
	D	1101	20, 19, and 17
	E	1110	20, 19, and 18
	F	1111	20, 19, 18, and 17

Responding Nodes Table (continued)

Hexadecimal Digit	Hexadecimal Value	Binary Value	Active Readers
xxXx xxxx	if X is a . . .	its value is . . .	indicating the active readers are . . .
	0	0000	24, 23, 22, and 21 are inactive
	1	0001	21
	2	0010	22
	3	0011	22 and 21
	4	0100	23
	5	0101	23 and 21
	6	0110	23 and 22
	7	0111	23, 22, and 21
	8	1000	24
	9	1001	24 and 21
	A	1010	24 and 22
	B	1011	24, 22, and 21
	C	1100	24 and 23
	D	1101	24, 23, and 21
	E	1110	24, 23, and 22
	F	1111	24, 23, 22, and 21
xXxx xxxx	if X is a . . .	its value is . . .	indicating the active readers are . . .
	0	0000	28, 27, 26, and 25 are inactive
	1	0001	25
	2	0010	26
	3	0011	26 and 25
	4	0100	27
	5	0101	27 and 25
	6	0110	27 and 26
	7	0111	27, 26, and 25
	8	1000	28
	9	1001	28 and 25
	A	1010	28 and 26
	B	1011	28, 26, and 25
	C	1100	28 and 27
	D	1101	28, 27, and 25
	E	1110	28, 27, and 26
	F	1111	28, 27, 26, and 25
Xxxx xxxx	if X is a . . .	its value is . . .	indicating the active readers are . . .
	0	0000	32, 31, 30, and 29 are inactive
	1	0001	29
	2	0010	30
	3	0011	30 and 29
	4	0100	31
	5	0101	31 and 29
	6	0110	31 and 30
	7	0111	31, 30, and 29
	8	1000	32
	9	1001	32 and 29
	A	1010	32 and 30
	B	1011	32, 30, and 29
	C	1100	32 and 31
	D	1101	32, 31, and 29
	E	1110	32, 31, and 30
	F	1111	32, 31, 30, and 29

Time Zone Table Worksheet

Copy this table and use it to help you determine the time zone requirements for your application. While filling out this table, please note the following rules.

Time zones are numbered from 0 to 31.

Time zones 0, 6, and 7 are set with Factory Fixed values.

All time entries are done by 24-hour clock (i.e. 7 P.M. is 19:00 hours).

TZNUM	ACCESS PERIOD	DAYS OF THE WEEK							PURPOSE
		SU	MO	TU	WE	TH	FR	SA	
0	ALWAYS								Factory Fixed
1									
2									
3									
4									
5									
6	EXTERNAL								Factory Fixed
7	NEVER								Factory Fixed
8									
9									
10									
11									
12									
13									
14									
15									
16									
17									
18									
19									
20									
21									
22									
23									
24									
25									
26									
27									
28									
29									
30									
31									

Glossary

anti-passback — Ensures one-card/one-way access into and then out of a controlled area. An authorized card presented to the access reader will allow access, but will not work again for access until presented to the egress reader.

card — A small electro-mechanical device that has a unique electro-magnetic signature. Cards are programmed to grant access and egress to an access control system.

event — A programming change, an alarm condition, an access, or an egress that occurred at a control unit. Synonymous with **transaction**.

Favorite Reader List (FRL) — A list of readers on the access control system that are programmed to be treated equally. Commands sent to any reader on the list affect all readers on the list.

global commands — Programming commands that apply to the master control unit and to all slave units on the system.

master reader — The reader attached to the master control unit. Typically, this reader controls the primary access point for the system. See **reader**.

memory module — A device used to transfer data between control units when there is no direct connection between the units. A memory module has 32 Kbytes of non-volatile memory for storing card and event data.

non-global commands — Programming commands that apply only to the control units on the Favorite Reader List or are directed to a specific control unit.

non-privileged card — A card that is above a designated slot boundary number, thereby not granted the ability to remotely arm an alarm panel. See **security fence**.

Personal Identification Number (PIN) — A code number that is used to limit access to the programming commands for control units on a system. A user must enter the correct PIN before the system will enter the programming mode.

privileged card — A card that is at or below a designated slot boundary number, thereby granted the ability to remotely arm an alarm panel. See **security fence**.

programming reader — A secondary reader connected in parallel with the master reader. It is located beside the master control unit to assist in enrolling cards or in programming the network if a PC is not used. See **reader**.

reader — An electro-magnetic device that “reads” a unique signature from a card.

security fence — Allows a privileged card to be used to remotely arm or disarm an alarm panel. Privileged cards are allowed access at the armed alarm panel, non-privileged cards may be programmed to have access at the alarm panel, but will cause an alarm event.

slot — A list of information that applies to a specific card. This list includes the slot’s identification number, the card’s unique number code, and the time zone that applies to that card. (In a PC programmed system, more information is applied to a slot, allowing for the identification and categorization of the individual the card is assigned to.)

time zone — A defined block of time that is assigned to a card to allow access. A time zone consists of a zone identification number, a beginning time, an ending time, and a calculated value that defines the days of the week that should be applied to this time zone.

transaction — A programming change, an alarm condition, an access, or an egress that occurred at a control unit. Synonymous with **event**.

Customer Support Information

Whenever using Keri Systems, Inc. hardware or software, if a data entry mistake or error condition is detected, a dialog box will appear listing the possible causes for the error and potential solutions (except when using the HPP-100 Hand-Held Programmer). If these suggestions do not solve the problem, contact either your dealer or your distributor. To facilitate support, please have the model number of your equipment, the software version number, and be prepared to use your computer while on the phone.

Factory Authorized Dealer or Distributor



Keri Systems, Inc. has an 800 phone number provided for installing dealers and distributors. Keri Systems, Inc. does not guarantee support for third-party installed systems. Prior to calling Keri Systems' customer support, you must have on hand a complete set of computer configuration information for the host computer you are using. This may include, but is not limited to such items as the serial port configuration, set-up, and connection information; the modem configuration information and set-up string, and host computer configuration.

Keri Systems, Inc. will not provide customer support for third-party software or devices not included on its list of Recommended Peripherals. A copy of this list is provided with every PXL-100 control unit.

Warranty Information

1. Keri Systems, Inc. products are warranted to the original Buyer to be free from defects in material and workmanship for eighteen (18) months from the date of shipment from Keri Systems, Inc. This Limited Warranty does not apply if the product has been damaged by accident, abuse, misuse, misapplication, modification, or negligence. NO WARRANTIES, EXPRESS OR IMPLIED, EXTEND BEYOND THE TERMS OF THIS CONTRACT. THE GOODS SOLD ARE WITHOUT ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, IN NO EVENT SHALL KERI SYSTEMS, INC. BE RESPONSIBLE OR LIABLE FOR ANY SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES INCURRED BY BUYER OR ANY THIRD PARTY ARISING OUT OF THE USE OR INABILITY TO USE THE PRODUCT, OR RESULTING FROM ANY BREACH OF WARRANTY, OR UNDER ANY OTHER LEGAL THEORY, EVEN IF KERI SYSTEMS, INC. HAS BEEN ADVISED OR MAY OTHERWISE HAVE REASON TO KNOW THE POSSIBILITIES OF SUCH DAMAGES. Keri Systems, Inc.'s maximum liability under any circumstance shall be limited to the actual price of the product. Some States do not allow the exclusion or limitation of implied warranties, or liability for incidental or consequential damages. This warranty gives you specific legal rights; you may have other rights which vary from state to state. No Keri Systems, Inc. agent, employee, or representative is authorized to make any modification, extension, or addition to this warranty.
2. No affirmation or representation concerning the goods sold under this contract shall be valid unless stated in Keri Systems, Inc. current sales literature or expressed in writing in this contract. Additionally, Keri Systems, Inc. reserves the right to improve, modify, or enhance the specifications or composition of the product, without further notice, if it is necessary or advisable in the judgment of Keri Systems, Inc.

Goods returned for repair, warranty or non-warranty, should be returned freight prepaid and must be assigned a Return Material Authorization (RMA) number. The customer is to provide a description of the specific problem, the items to be returned, including serial numbers, card ID numbers, and correct facility codes, if applicable. If exact duplicates of returned cards or tags are requested, the customer must provide Keri Systems, Inc. with the ID numbers needed. For returned units not covered by the warranty, a quote for the repairs will be issued. The rate for repairs is a flat \$125.00 per unit, plus materials. Keri Systems, Inc. reserves the right to determine materials beyond economical repair. Items beyond economical repair shall be returned to the Buyer. Units left over thirty (30) days without a repair authorization and a purchase order will be returned with evaluation charges and shipping costs applied.