

INTELLIKEY[®]

GENIUS AT YOUR FINGERTIPS

RAK Manual



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1.0 INTRODUCTION

The Restricted Authorization Key (RAK) has been developed to modify the INTELLIKEY electronic locks after the locks have been initially programmed with the Controller Programming Unit. The features which can be modified or read by RAK include the following:

- Set/Read Date and Time

- Enable and Program Daylight Savings Time Correction

- Unlock

- Read Status or Error Code Information relating to Last Key Insertion

A full explanation of each of these features will be found in the following pages.

The RAK is comprised of three assemblies; a hand-held PSION computer unit, a special INTELLIKEY programming key and INTELLIKEY-provided software in a Program Pack to allow access to the programming features of the lock. The PSION will be either a model P250 or a model XP unit. Although this guide is meant to explain how the programming process is accomplished, the user may obtain additional information or assistance by calling the dealer from whom you purchased the system or from INTELLIKEY Corporation.

2.0 HOW TO USE THIS GUIDE

This guide has been written to provide a general understanding of the features offered in the RAK. Some of the features mentioned may not be necessary for all applications, but are included for the sake of completeness. In any case, you will have to read sections 3, 4, 5 and 6 in order to assemble the RAK and get a good understanding of how to operate the RAK.

After reading sections 3 and 4, the you will want to actually assemble the RAK programming unit. Please be careful when putting the unit together. No parts need be forced into place if the components are assembled properly. If extra force seems to be required, there is a good chance something is not being inserted properly.

In the following sections all references to specific keys on the PSION hand held computer keypad are printed in a **Arial Bold**, Capital font to indicate a specific key you have to press. For example, if you are directed to press the key marked **EXE**, the reference to the key is indicated as: **EXE**

Similarly, references to commands displayed on the PSION display are shown in Capital letters in a standard Arial font. For example, reference to the **CONNECT** command on the Initial Options Menu is indicated as: **CONNECT**

Section 5 will introduce you to the RAK user interface and show you how to set up password protection. Sections 6 through 8 will explain use of the maintenance section. These sections will include step by step instructions for the features of the RAK.

Thank you for choosing the INTELLIKEY Access Control System. We are confident you will find the system reliable and easy to manage.

3.0 RAK COMPONENTS

The INTELLIKEY RAK unit is comprised of several pieces which must be assembled to successfully “talk to” a lock. These pieces include the Programming key, the PSION hand held computer, and the INTELLIKEY Program Pack. Each of these items are briefly described in the following paragraphs. Before assembling the unit, please be sure to read both this section and section 4.

3.1 The PSION Hand-Held Computer

The Psion hand-held computer (Fig 3.1-1) is used to display information to the authorized operator (such as a security officer) regarding the status of the lock and to allow you the RAK user to send commands to the lock.



Fig. 3.1-1 Hand-Held Computer Unit (Psion)

This unit is a completely self-contained computer. It contains a 2 line by 16 character display, a full keypad with four-way arrow keys for moving the cursor around the display window, an expansion slot at the top of the unit, and two expansion slots on the side of the unit.

The hand held computer is powered by an standard 9 Volt alkaline transistor radio battery which is located in a compartment in the bottom of the unit. Please be sure that the battery is in the unit, and that you can easily identify all the slots which will be used when the RAK unit is completely assembled.

The hand held computer contains a connector slot at the top of the unit which is covered by a sliding cover (Fig 3.1-2). Moving this cover to one side will expose a small connector. This connector will match the connector provided on one end of the Programming Key assembly. Notice that the 16 pins on the Programming Key connector will slide into the connector at the top of the PSION unit and snap into place to form a single compact unit.

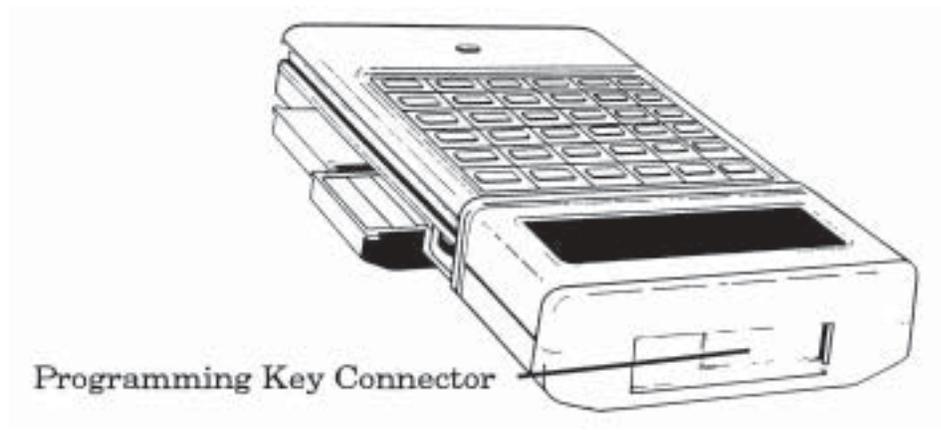
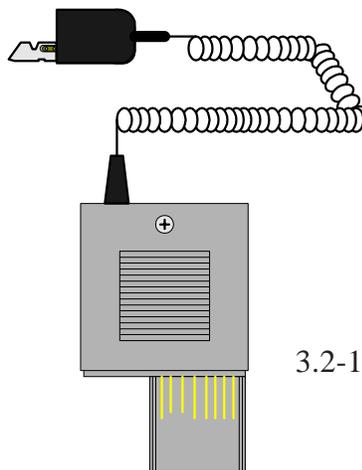


Fig. 3.1-2 Programming Key Connector and Program Pack Slots

3.2 The Programming Key

The first piece of hardware which you will have to familiarize yourself with is the Programming Key. This unit consists of a key blade with a coiled cable connected to a small plastic housing. The plastic housing contains a connector and the electronic elements of the unit which allow communications between the Psion and the lock. The encrypted communication assures the security of the lock and makes it virtually impossible for an unauthorized user to determine the proper combination required for proper access to a lock.

During operation the Programming Key's key blade is inserted into the lock to be programmed and the connector is plugged into the hand held computer. The programming Key contains optical devices which allow the RAK unit to communicate with the lock being programmed.



3.2-1 Programming Key

3.3 The INTELLIKEY RAK Program Pack

The Program Pack contains the software for implementing certain features of the INTELLIKEY electronic lock system. The pack is, in essence, the “brain” of the RAK unit. The hand held computer will not operate correctly in an INTELLIKEY controller until the Programming Key, Program Pack and battery are properly inserted.

The INTELLIKEY Program Pack (Fig. 3.3-1) contains the software routines used to interface to the lock and provides a simple menu driven interface for controlling the RAK.

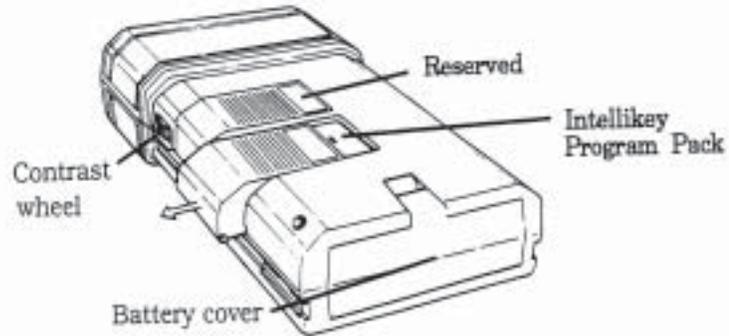


Fig. 3.3-1 RAK Program Pack

From time to time RAK Program Packs may be updated or upgraded in order to enhance the performance or features of the electronic lock system. In such instances, all registered INTELLIKEY users will be notified of the availability of the new Program Packs.

4.0 ASSEMBLING THE RAK UNIT

In order to use the RAK programming unit, you must:

A. Make sure a 9 Volt alkaline battery is in the battery compartment located at the bottom of the PSION unit (Fig. 4.0-1). Please be sure that the battery properly orientated when installing.

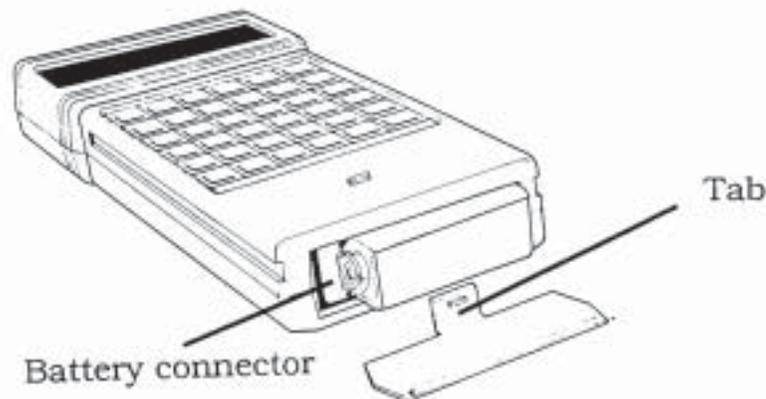


Fig. 4.0-1 Battery Compartment

B. Make sure the PSION unit is turned OFF by pressing the **O** key.

C. Slide the cover of the connector at the top of the PSION to the right such that the connector within the unit can be seen (Fig. 4.0-2)

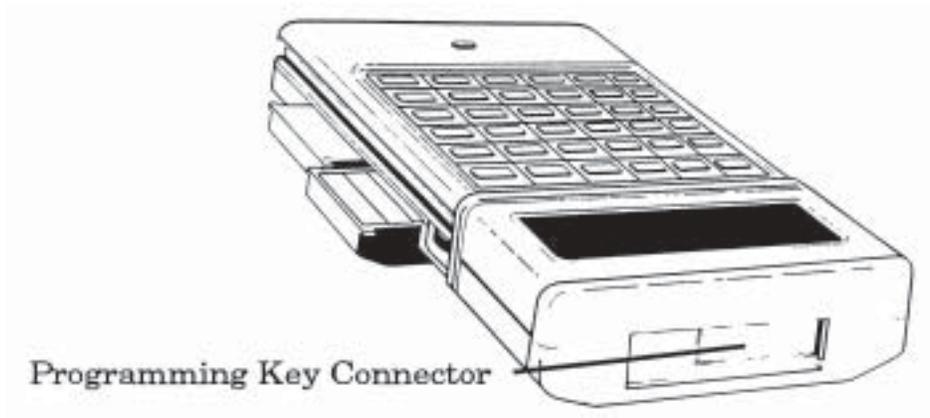


Fig. 4.0-2 Programming Key Connector

D. Being sure to correctly orient the Programming Key connector so that it matches the keying on the mating connector in the PSION unit slide the programming key into connector. Do not apply excessive force; a small “click” will be heard when the connector has been inserted properly. The connector may be removed by depressing the release tab on the Programming Key and sliding the connector out of the receptacle.

E. In order to insure compatibility with future upgrades the INTELLIKEY Program Pack should be inserted into the lower (farthest from the display) of the two side slots available on the PSION hand held computer (Fig. 4.0-3). Once again avoid applying excessive force when installing or removing the pack.

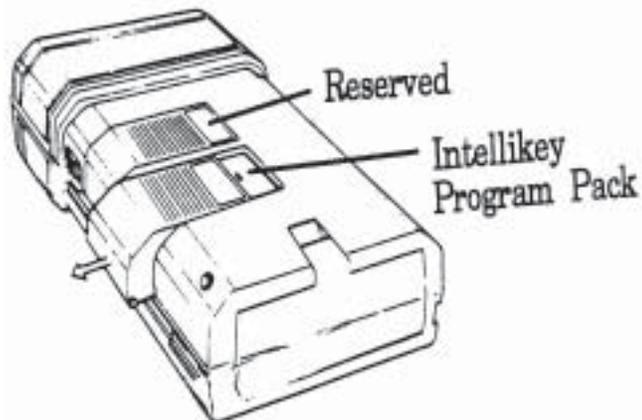


Fig. 4.0-3 Removing/Inserting the RAK Program Pack

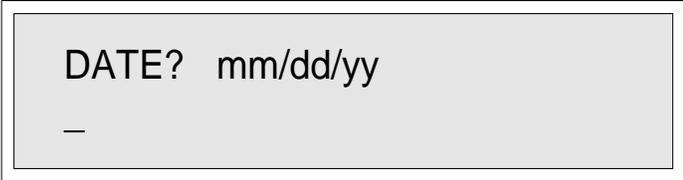
F. The RAK may now be turned on by pressing the **ON** key twice which is located in the upper left portion of the keypad. It is now ready to be used to either check features in the electronic lock, or to retrieve data from the lock.

G. Each time a new battery is inserted in the RAK, two messages indicating the copyright notices of the PSION Ltd. and INTELLIKEY Corporation will be displayed. The RAK will then display the following screen:



ENTER DATE AND
TIME FOR RAK

After two seconds the display changes to.



DATE? mm/dd/yy
—

Enter the month (1-12), a slash (/), the day of the month (1-31), a slash (/) again, the last two digits of the year, and finally the **EXE** key. Note that the software will automatically provide the upper case shift function for numbers and the slash. Do not press the **SHIFT** key or you will get the lower case character. You may use the **DEL** key to delete any typing errors to the left of the cursor position.

Example: To program August 11, 1997 into the unit, the user would enter the following keystrokes in the order shown below, followed by pressing the **EXE** key.

08/11/97

Note: If you enter the date information in any sequence other than month / day / year please contact INTELLIKEY Corporation.

Entry of this information and pressing the **EXE** key will cause the following display to appear.



Enter the hours, minutes, and seconds in the format indicated and press **EXE**. This will cause the *Initial Options Menu* to appear (if this is the first use of the RAK and a password has not been established). If you have already established a password, the screen asking for entry of the password will appear.

5.0 GETTING STARTED

5.1 Programming site code in RAK

The customer's site code must be programmed into the RAK unit before using. To program the RAK you must be at the computer running the INTELLIKEY Quantum software and the Key Programming Unit connected to computer. Start the Quantum software, go to Utility then Site setup and then Functions. Please make sure that there is a check mark beside Site has Restricted Authorization Keys. Next return to main menu screen and then go to Utility, Devices and Program KPU, CPU, RAK. Follow the on screen instructions saying no to programming KPU and CPU but yes to programming RAK. Follow the instructions for either a new device or reinitialized device.

5.2 Turning the Unit ON and OFF

The unit is turned on by pressing the **ON** key twice. Turning the unit off is accomplished by pressing the **O** key on the keypad. *There is no specific "OFF" key or switch on the unit, repeated pressing of the **ON** key will not turn the computer off.*

5.3 Viewing RAK Functions Within the Display

On certain menus and display screens, the amount of information to be displayed exceeds the size of the LCD display on the RAK unit. The cursor control arrow keys at the top of the keypad may be used to view the balance of the information.

The Initial Options Menu screen includes all commands that fit the screen. Because there is no overlap of commands to a second screen the user will not be able to see the scrolling effect until larger menus are encountered.

5.4 Executing RAK Commands

Invoking a command can be accomplished in either of two ways. The first method is by using the arrow keys to move the cursor onto the command the you want to execute. Then press the **EXE** key to begin the command.

As an alternative, you can press the key corresponding to the first letter of the command you want to execute. No two commands on any one menu start with the same letter, so there should be no confusion on this point.

5.5 Password Protection

Because the RAK has the ability to unlock doors, it should be kept in a safe, secure location. To help prevent unauthorized use of the RAK should it be in an accessible location, access to the RAK commands can be protected by requiring the entry of a password. You, the authorized user, can establish a password with up to eight characters.

Once password protection has been established, you will be unable to execute any commands until you enter the correct password. In order to establish password protection, you must turn the unit on. This will cause the *Initial Options Menu* to appear as follows.

6.0 INITIAL OPTIONS MENU

Initial Options Menu



The following describes the menu options:

CONNECT - Establish the electronic connection between the RAK and the lock. This must be invoked prior to programming the lock. Once connection is made, the *Main Options Menu* is displayed automatically.

RAKTIME - Used to program the RAK's internal clock to the correct time. Once set, the RAK will continuously update the time and date to an accuracy of a quartz watch. You do not need to connect to the lock to program the RAK's clock. It is important that the time set in the RAK is correct as you will be using the RAK's clock to set the lock's internal clock (section 6.4).

LINK - Used to connect the RAK to the computer, operating the Quantum software, via the KPU. This command is used to when it becomes necessary to reprogram the RAK (section 6.5).

SETUP - Invoking this command will allow you to establish a hidden password.

OFF - Used to turn the RAK off.

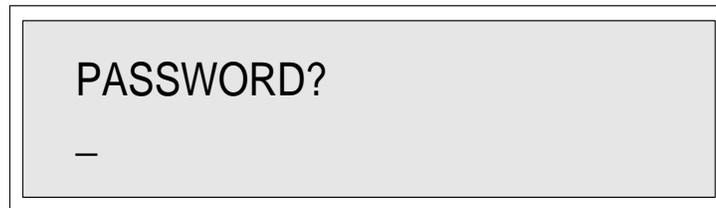
6.1 Using SETUP to Establish Password Protection

To enter a password, invoke the SETUP option from the *Initial Options Menu*. You will be prompted to enter up to eight letters and/or numbers. After entering the characters desired (and making sure they are recorded and stored in a safe place) press the **EXE** key. You will then be instructed to insert the RAK key blade into a functioning lock or KPU. The password is now stored in the memory of the PSION and the user is returned to the Setup Options Menu. Invoking the QUIT command by pressing the letter **Q** on the keypad will return the user to the *Initial Options Menu*.

Now that the password has been entered, the PSION will now only execute INTELLIKEY commands after the proper entry of the password each time the RAK is turned on. Thus, for subsequent operations, a *Password* screen precedes the *Initial Options Menu*.

When you next turn on the RAK, the following screen will prompt the entry of the previously established password:

Password Screen



Entry of the correct password and then pressing the **EXE** key will cause the display to go to the *Initial Options Menu* from which commands can be executed. Entry of an incorrect password will cause the unit to turn off. The password may be changed only after logging on with the correct password. Use the same procedure to establish the new password as the initial password.

CAUTION, if the password has been forgotten the Data Pack will have to be replaced with a new Data Pack.

To remove the password, invoke the SETUP option from the *Initial Options Menu*. When prompted to enter a password simply press the **EXE** key. You will then be instructed to insert the RAK key blade into a functioning lock or KPU.

6.2 Setting the Date and Time in the RAK

It is important to set the correct time of day and date in the RAK in order to properly utilize certain time-related features of the INTELLIKEY Access Control System. The features which require the time and date to be accurate include:

Time Zones: The ability of a key or lock to operate only between specified times of the days of the week; these times can be set individually for each day of the week.

History: The ability of a lock to be audited for time and date with both legal and illegal operations.

Activation or Expiration Dates: The ability of a key to operate only between two dates.

Auto Lock/Unlock: Automatic unlocking and relocking (without a key) at a predetermined time of day (Note that this feature applies only to locks with “fixed cylinder” option).

Before you can program a lock’s internal clock with the RAK, you must first program the correct time and date into the RAK’s internal clock. In addition to the automated sequence which appears when a fresh battery is inserted (Section 4.0), updating the RAK’s internal clock can also be done by using the RAKTIME command which is on the *Initial Options Menu*.

In order to program the RAK’s internal clock perform the following steps:

- A. Turn the RAK unit on by pressing the ON key twice. If password protection has been established, enter your password and press **EXE**. Be sure that the *Initial Options Menu* is displayed.

Initial Options Menu



- B. Invoking the RAKTIME command from the *Initial Options Menu* causes the RAK unit to display the following screen for two seconds:



After two seconds the display changes to:

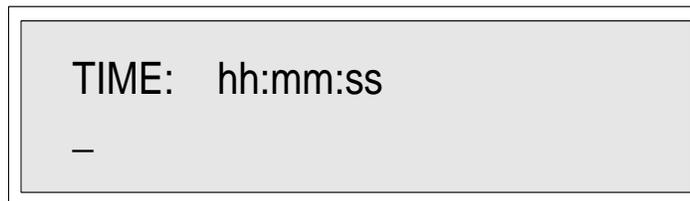


C. Enter the month (1-12), a slash (/), the day of the month (1-31), a slash (/) again, the last two digits of the year, and finally the **EXE** key. Note that the software will automatically provide the upper case shift function for numbers and the slash. Do not press the SHIFT key or you will get the lower case character. You may use the DEL key to delete any typing errors to the left of the cursor position.

Example: To program August 11, 1997 into the unit, you would enter the following keystrokes in the order shown below, followed by pressing the **EXE** key.

08/11/97

D. After you enter the date the following will appear.



You should enter the hour (00-23), a colon (:), the minutes past the hour (00-59), another colon (:), the seconds count past the minute (00-59), and press the **EXE** key. Note the use of 24 hour notation and that all digits must be entered including leading and trailing zeros.

Example: The following keystrokes followed by the **EXE** key will enter 2:30 PM into the RAK.

14:30:00

After the **EXE** key is pressed, the display will return to the *Initial Options Menu*.

Note: If you enter the date information in any sequence other than month / day / year please contact INTELLIKEY Corporation.

6.3 Connecting the RAK Unit to the INTELLIKEY Lock

In order to program any INTELLIKEY lock, the RAK unit must be connected to the lock. This is accomplished in the following sequence.

A. Turn the RAK unit on by pressing **ON** twice. Enter your password if appropriate. Make sure the display shows the *Initial Options Menu*.

B. Insert the key blade portion of the RAK into the lock to be programmed (Do not turn the key blade!).

C. Invoke the **CONNECT** command by pressing the **C** key on the keypad to begin the execution of the **CONNECT** function. If you wish, you may instead use the arrow keys and the **EXE** key. One beep indicates that access has been granted and the RAK is connected to the lock. Two beeps indicate that access is denied and the RAK will not be connected to the lock.

6.4 Checking Battery and Time Status

After connecting to the lock, the RAK will automatically check the batteries in the lock to determine the if they have expired. If the level detected is below the threshold at which they should be changed the RAK will “beep” once and display the following message:



LOCK BATTERY LOW

Based on this message, you should replace the batteries in the lock immediately.

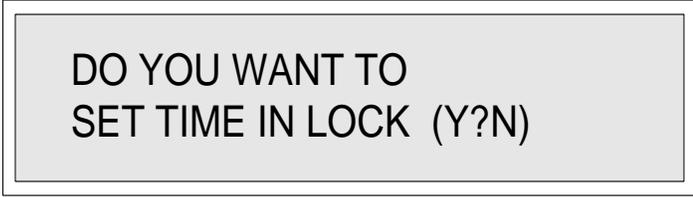
Next, by pressing the **SPACE** key the RAK will automatically make a comparison of the time of day as stored in the lock with that stored in the RAK. If there is a difference between the times, the RAK will display the following message:



LOCK TIME IS
DIFFERENT THAN RAK TIME

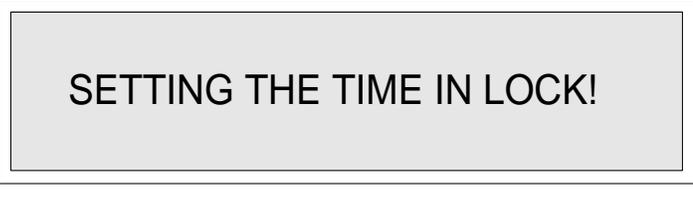
Note that since the entire message will not fit on the screen, the bottom line automatically scrolls to display the entire message.

Upon pressing the **SPACE** key, the RAK will display the message:



DO YOU WANT TO
SET TIME IN LOCK (Y?N)

Upon pressing the **Y** key, the RAK will display the message:



SETTING THE TIME IN LOCK!

and then will display the date and time that was newly entered into the lock.

(If neither the Battery Status Message or the Time Status Message appear, or if you answer **N** above, the RAK will bring the user directly to the *Main Options Menu*. The Status Messages only appear if there is a warning threshold detected or a significant time discrepancy between the lock and the RAK.)

6.5 Using Link Command

The Link command is for programming the site code into the RAK. To use this feature you must be running the Quantum software and have the KPU connected to the computer. To program the site code in the RAK, log in to the Quantum software going to Utility, then Devices, then program KPU, CPU, RAK. When program KPU appears click NO and do the same for CPU. When program RAK appears click YES. Then follow the steps on the screen, this is very important as the RAK may not program properly if a step is missed.

7.0 MAIN OPTIONS MENU

7.1 Using the Main Options Menu

After completing the status checks, the RAK display will show the *Main Options Menu*.

Main Options Menu



There are two commands associated with the Main Options Menu. The cursor control keys at the top of the keypad are used to move from command to command.

The following describes the menu options:

DISCONNECT - This command will disconnect the RAK from the lock and return the display screen to the *Initial Options Menu*. Note that you should always use this command to disconnect from the lock to insure that all programming information which was updated while the RAK was connected to the lock is downloaded to the lock and the information transfer verified.

MAINTENANCE - Invoking this command will display the Maintenance Options Menu which is used to read and set the current time and date in the lock, unlocking of door, Setting of Daylight Savings Time, and Error Code Status.

Once this menu is displayed you can execute the functions displayed and return to this menu after executing them.

7.2 Disconnecting the RAK Programming Unit From the Lock

After you have updated the desired information in the lock, you must disconnect the RAK unit from the lock. This is accomplished by pressing the **D** key for DISCONNECT (or by moving the cursor on the DISCONNECT field and pressing the **EXE** key).

The lock will “beep” signaling that the programming has occurred successfully. In addition, a message on the RAK screen prompting you to remove the key blade from the lock will be displayed. Only after receipt of these signals should the key blade be removed from the lock.

It is important to realize that you should not remove the key blade from the lock or attempt to turn it while connected to the lock, or the lock may become programmed in a way not intended. One exception to this rule is when using the UNLOCK command and turning the key in a rotating cylinder lock. In this case, returning the key to the normal vertical position will cause a reconnection message to be displayed within a few seconds.

8.0 MAINTENANCE OPTIONS MENU

8.1 Reading and Setting the Time of Day Within the Lock

Reading or setting the time and day in the lock is accomplished via the MAINTENANCE command on the *Main Options Menu*. To get to this menu, you must first invoke the CONNECT command from the *Initial Options Menu*.

Invoking the MAINTENANCE command from the *Main Options Menu* will display the following screen:

First Screen

Maintenance Options Menu

```
SET_TIME  UNLOCK  
READ_TIME  QUIT >
```

Second Screen

Maintenance Options Menu

```
READ_TIME  QUIT >  
DST_ERROR_CODE
```

The following describes the menu options:

READ_TIME - This command is used to read the value of the internal clock within the lock. This value should be correct in order to ensure correct operation of the timed access functions.

SET_TIME - This command is used to set the clock within the lock to the value of the clock within the RAK unit. Note that the RAK clock and the lock clock are accurate to within seconds per month. Changing batteries in the RAK will require that the RAK's clock be reprogrammed (see *Initial Options Menu* descriptions); changing batteries in the lock may also require resetting of the lock's clock depending on how long the batteries are disconnected.

UNLOCK - The **UNLOCK** command will fire the solenoid in rotating cylinder locks. This will enable the user to turn the key and open the door. Once the key is returned to the starting position, the RAK will prompt you to press the **SPACE** key to reconnect to the lock. In fixed cylinder locks, the door is unlocked without turning the key.

DST - This command is used to program the date at which Daylight Savings Time correction begins and ends. The RAK accepts programming of Daylight Savings Time correction entries for three years at a time.

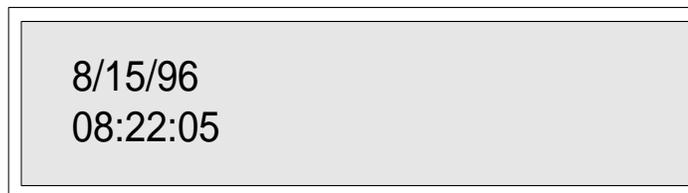
ERROR_CODE - Executing this command displays a status message relating to the most recent key insertion. This function is most useful as a trouble shooting tool to determine why a key was denied access.

QUIT - This command returns the RAK display to the *Initial Options Menu*.

8.2 Reading the Lock's Internal Clock

In order to read the time and date in the lock you invoke the **READ_TIME** command from the *Maintenance Options Menu*. The screen will then display the date and time similar to the following screen:

(Example shown for Aug. 15, 1996 Thursday 8:22:05 AM)



Press the **SPACE** key to return to the *Maintenance Options Menu*.

8.3 Setting the Lock's Internal Clock

In order to set the time and date in the lock you will invoke the SET_TIME command from the *Maintenance Options Menu*. The screen will briefly indicate that the date and time is being set and then display the date and time for two seconds.

The date and time shown reflect what has been programmed into the lock's internal clock. The display will return to the *Maintenance Options Menu* after two seconds.

8.4 Enabling or Disabling Automatic Daylight Savings Time Adjustment

Invoking the DST command from the *Maintenance Options Menu* will display the following screen:

DST Options Menu

```
'DST_off '  ENABLE
TIME_SLOT  QUIT
```

To turn on the DATE function, invoke the ENABLE command. The following screen will be displayed:

DST Options Menu

```
'DST_on '   DISABLE
TIME_SLOT  QUIT
```

To turn off the DST function, invoke the **DISABLE** command. In either screen, the 'DST_off' and 'DST_on' are status messages to indicate whether the feature is turned off or on.

The following describes the Menu Options:

'DST_on' - Not a menu option. Tells the RAK user that Automatic Daylight Savings Time Adjustment is currently enabled.

'DST_off' - Not a menu option. Tells the RAK user that Automatic Daylight Savings Time Adjustment is currently disabled.

ENABLE - The **ENABLE** command will enable Automatic Daylight Savings Time Adjustment. The dates which are programmed via **TIME_SLOT** command control the dates which the lock is adjusted to correct for the beginning and end of Daylight Savings Time.

DISABLE - The **DISABLE** command will disable Automatic Daylight Savings Time Adjustment. Disabling Automatic Daylight Savings Time Adjustment does not delete the date entered in the time slot; it means the lock will not automatically adjust its internal clock to conform to Daylight Savings Time.

TIME_SLOT - The **TIME_SLOT** command is used to enter the individual dates on which Automatic Daylight Savings Time Adjustment is to start and stop. **DST** must be enabled for the **TIME_SLOT** to be active although it will accept and store the desired times from either the ‘**DST_on**’ or ‘**DST_off**’ menus.

QUIT - The **QUIT** command returns the RAK display to the *Maintenance Options Menu*.

If Automatic Daylight Savings Time Adjustment is enabled and you wish to disable it, pressing the **D** key will invoke the **DISABLE** command, pressing the **E** key will invoke the **ENABLE** command. Exiting this menu and returning to the *Maintenance Options Menu* is accomplished by invoking the **QUIT** command.

8.5 Unlocking a Door with the RAK Unit

Note that the unlock description varies depending on the type of lock being accessed. If you have a “fixed cylinder” lock. To open this type of lock after executing the unlock function you may have to turn the lever or knob to release the latchbolt and or push the door open if magnetic or electric strike type lock. On doors with a “rotating cylinder”, turning the key retracts the latchbolt so all you may need to do is push or pull the door open.

In order to unlock a door with the RAK, insert the RAK key blade into the cylinder, then execute the **CONNECT** function as described in Section 6.3. The display will then show the *Main Options Menu*.

Door Unlock commands are on the *Maintenance Options Menu*.

The **UNLOCK** command will fire the solenoid in rotating cylinder locks. This will enable you to turn the key and open the door. Once the key is returned to the starting position, the RAK will prompt you to press the **SPACE** key to reconnect to the lock. In fixed cylinder locks, the door is unlocked without turning the key. In fact, fixed cylinder locks have cylinders which cannot turn, so do not attempt to do so.

Pressing any key will return you to the *Maintenance Options Menu*.

8.6 Using TIME_SLOT for Automatic Daylight Savings Time Adjustment

Setting the date at which Automatic Daylight Savings Time Adjustment starts and stops is accomplished by use of the TIME_SLOT command. Invoking this command causes the following screen to be displayed:

```
TYPE S TO SET
EXE TO END
```

This screen appears for approximately two seconds before automatically changing to a screen similar to the one displayed below:

```
START 1 mm/dd/yy
STOP 1 mm/dd/yy
```

To set a new **START** date, press **S** and the cursor will be positioned automatically to accept the new date. Enter the desired date in format shown above and press **EXE**. The cursor is then positioned automatically to accept the new **STOP** date. Again, enter the desired date in the format shown above and press **EXE**. Note: Number 1 is the current year with 2 for next year and 3 the year after.

The screen for entry of the **START** and **STOP** dates for the second year of Daylight Savings Time is then displayed. Repeat the steps described above. After entry of the dates for the third year is complete, press **EXE** to return to the original DST screen. From the DST screen, invoke the **QUIT** command to return to the *Maintenance Options Menu*.

For your convenience, the following table lists the starting and ending dates for daylight savings time through the year 2005.

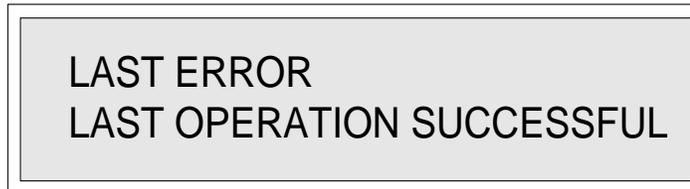
DAYLIGHT SAVINGS TIME TABLE

Year	Start	Stop
1997	April 6	October 26
1998	April 5	October 25
1999	April 4	October 31
2000	April 2	October 29
2001	April 1	October 28
2002	April 7	October 27
2003	April 6	October 26
2004	April 4	October 31
2005	April 3	October 30

8.7 Reading the ERROR_CODE

A useful feature of the RAK is its ability to display the status of the last key insertion. This is particularly useful as a diagnostic tool in the event that a key is denied access and you do not know the reason why. In order to determine the reason for denial, you must invoke the ERROR_CODE command from the *Maintenance Options Menu*.

Invoking the ERROR_CODE command will cause a screen similar to the one below to be displayed:



A list of the error/status messages and a brief explanation of each follows:

MESSAGE	EXPLANATION
SITE CODE	Site codes in lock and key do not match
MASTERING	Master keying in lock and key do not match
KEY TIME ACCESS window	The time is not within the key's timed access window
LOCK TIME ACCESS window	The time is not within the lock's timed access window
KEY DISABLED	The key has been disabled (AREST® feature)
KEY ACTIVATION	The key's activation date has not occurred
KEY EXPIRATION	The key's expiration date has passed
KEY NOT PROGRAMMED	The key has not been programmed
SHUTOUT	The lock has shutout other keys: display shutout or emergency key is required
EXCLUDED DATE	Lock operation on this date has been excluded
APB	Anti-passback violation
LOCK DISABLED	The lock has been disabled
DUAL_KEY	The correct dual key sequence did not occur
COMMUNICATIONS	The lock and key did not communicate
CHECKSUM	A data transmission error occurred
SITECODE KEY	A SiteCode Key was inserted in the lock
LAST OPERATION SUCCESSFUL	Key was valid and gained access

Pressing any key will return the user to the *Maintenance Options Menu*.

9.0 SUMMARY

As you have seen, the RAK is a versatile tool for checking the status of the various features of the lock. Because it does not offer the same degree of security as the Controller Programming Unit, the RAK is not capable of changing master keying codes of the lock

Components



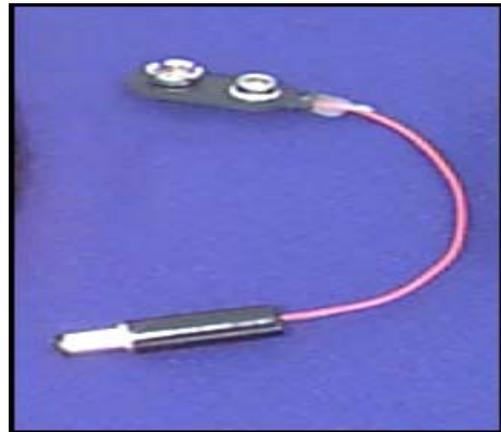
Psion Unit
Part # 100455



Programming Key
Part # 100456

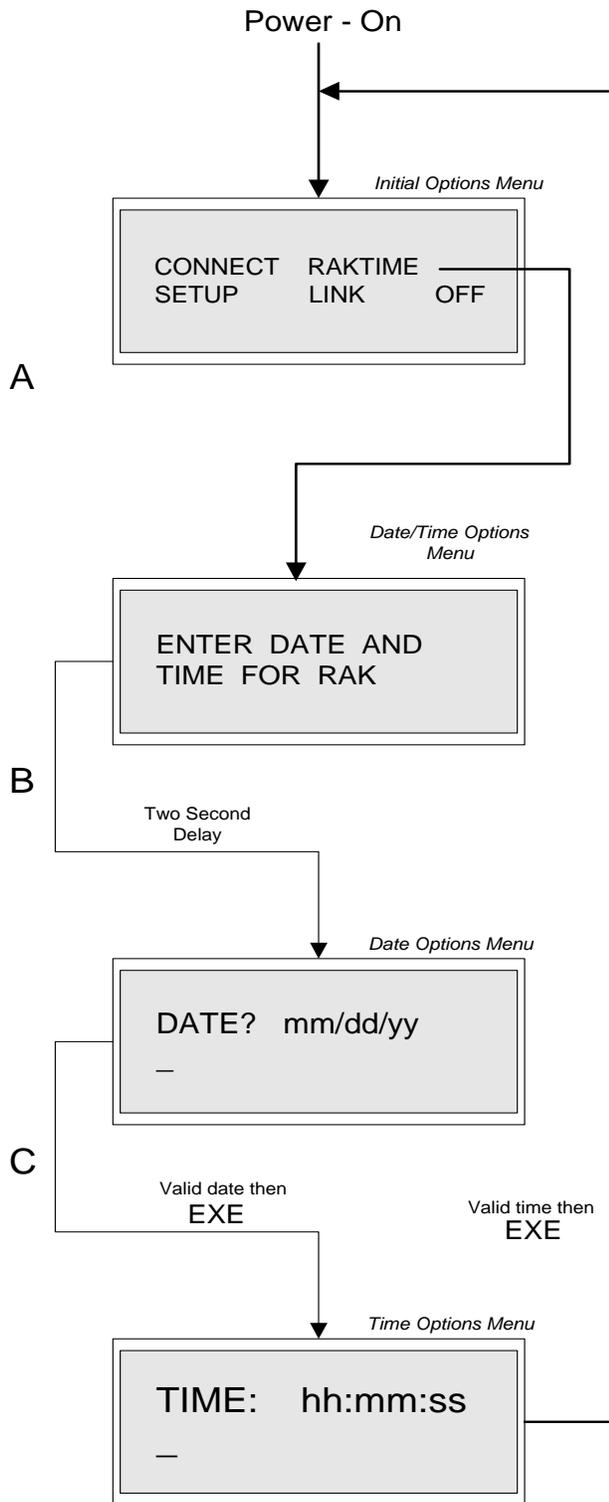


Data Pack
Part # 100321



Emergency Power Unit
Part # 100289

Flow Charts



Setting RAK Time Example

The diagram at left is a RAK Menu-Command Flow Diagram which illustrates the display screens and commands which are executed in order to set date and time in RAK.

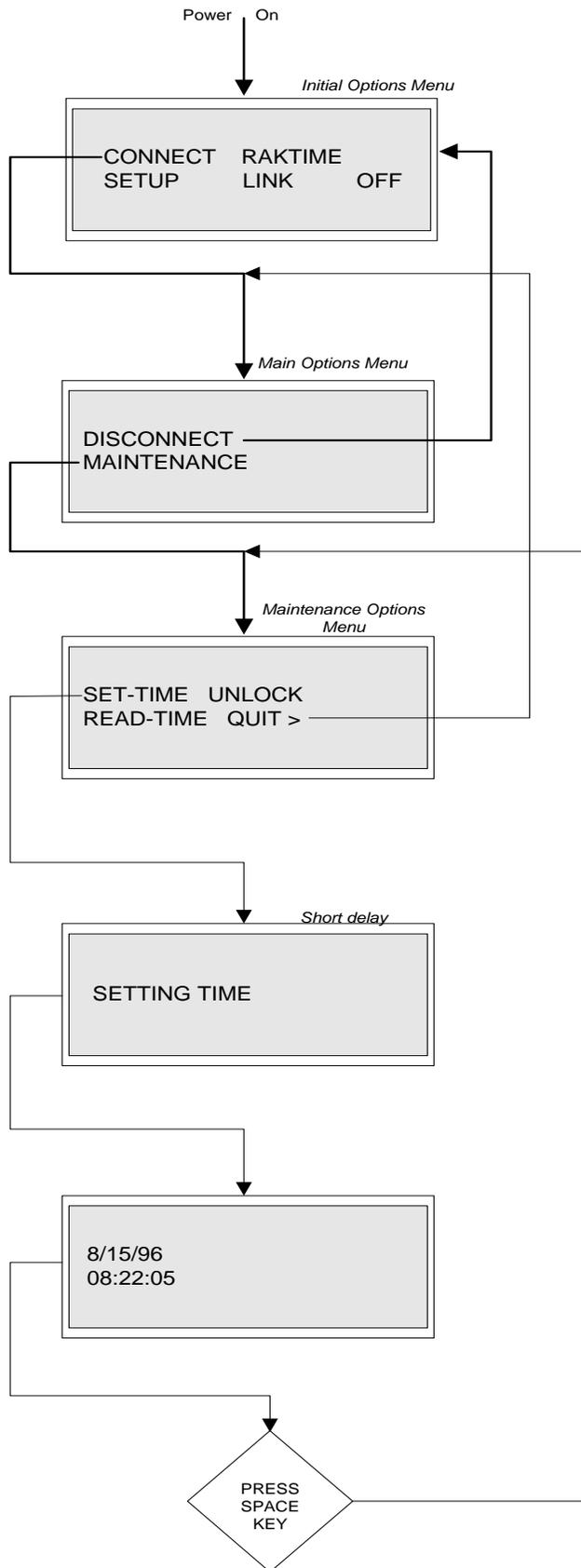
Upon turning the RAK on and after entering your password, if appropriate, The *Initial Options Menu* will be displayed as illustrated at the left by the line which goes from “Power On” to the *Initial Options Menu*.

In order to set the date and time you must press the R. Or using the arrow keys highlight the R in RAKTIME and then press EXE. This action will take you to the *Date/Time Options Menu*. After approximately two second the *Date Options Menu* screen will appear.

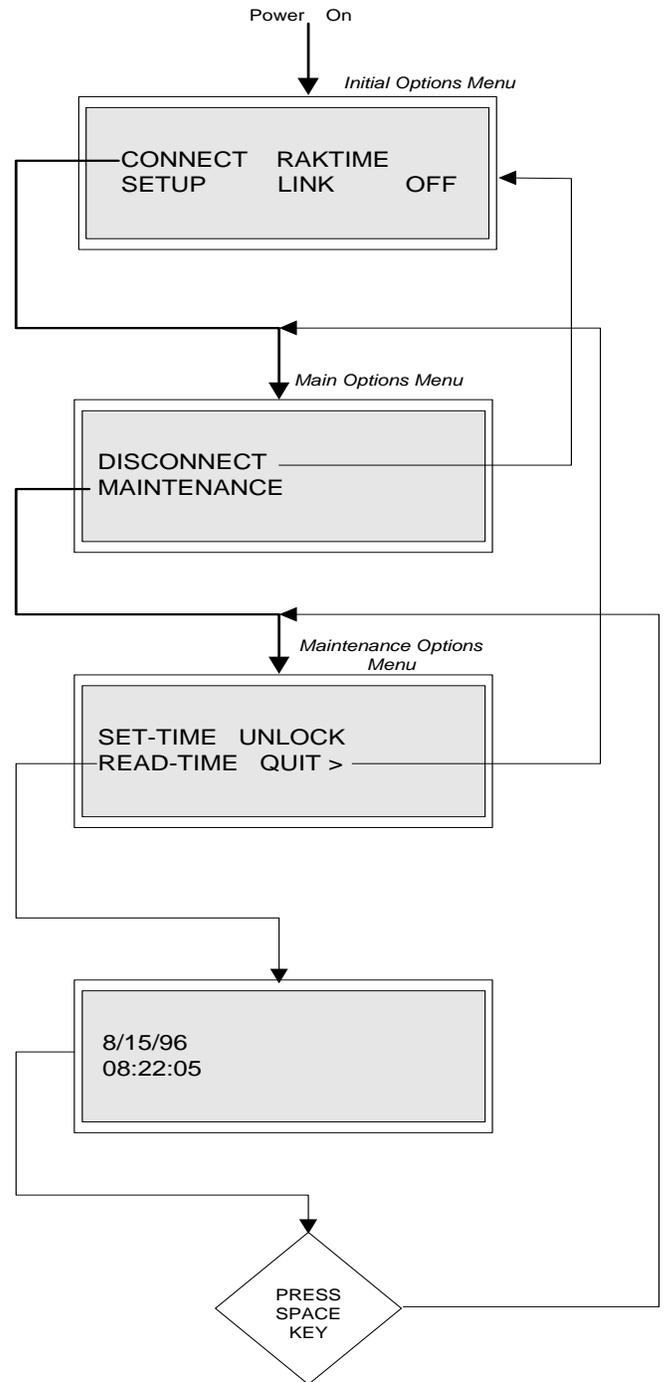
At the *Date Options Menu* enter the date in format shown on screen then press EXE. This action will take you to the *Time Options Menu*.

At the *Time Options Menu* enter the time in format shown on screen then press EXE. This action will take you back to the *Initial Options Menu*.

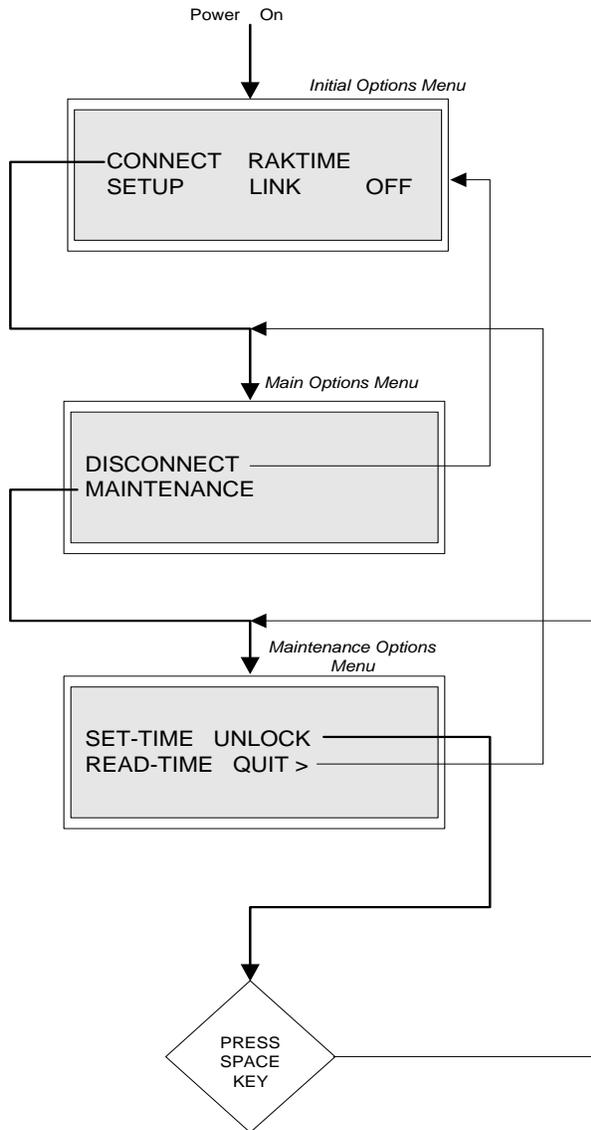
Setting Time in Lock



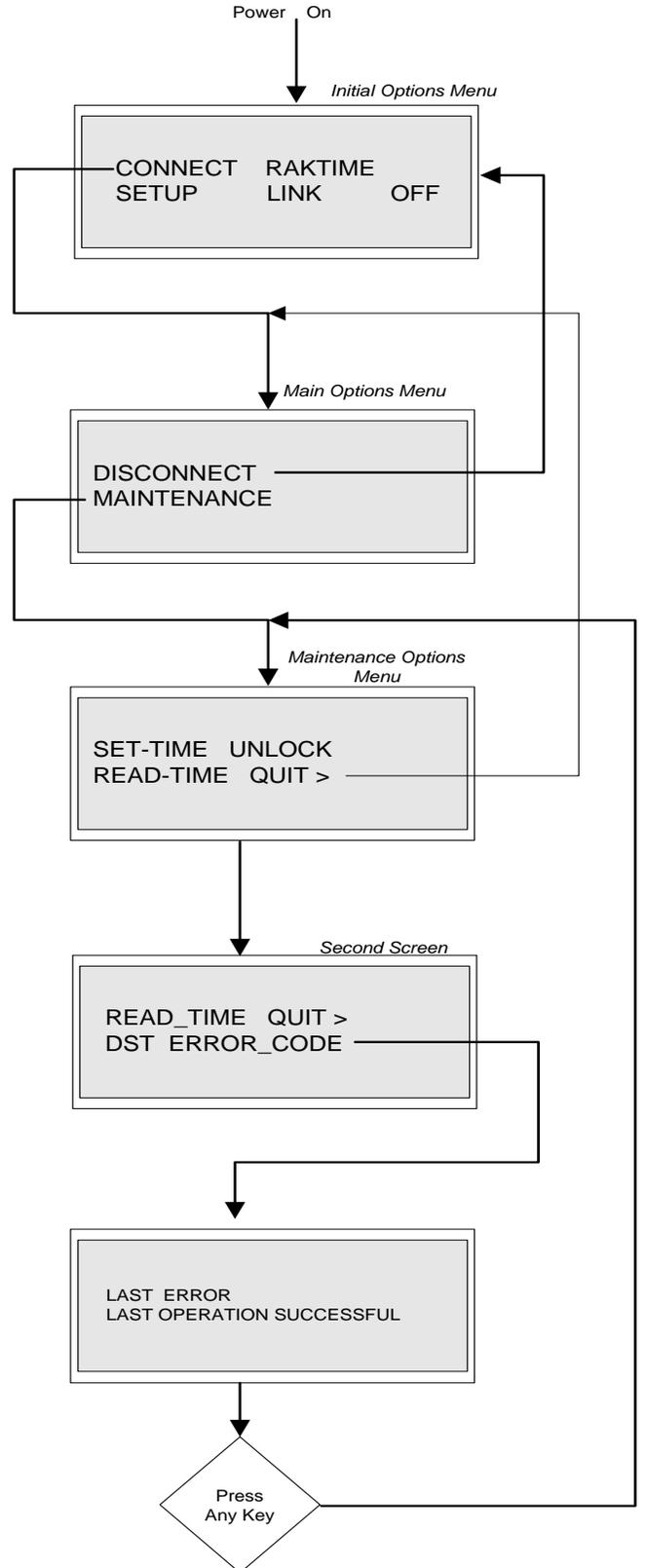
Reading Time in Lock



Unlock door



Error Code



Setting Daylight Savings Time

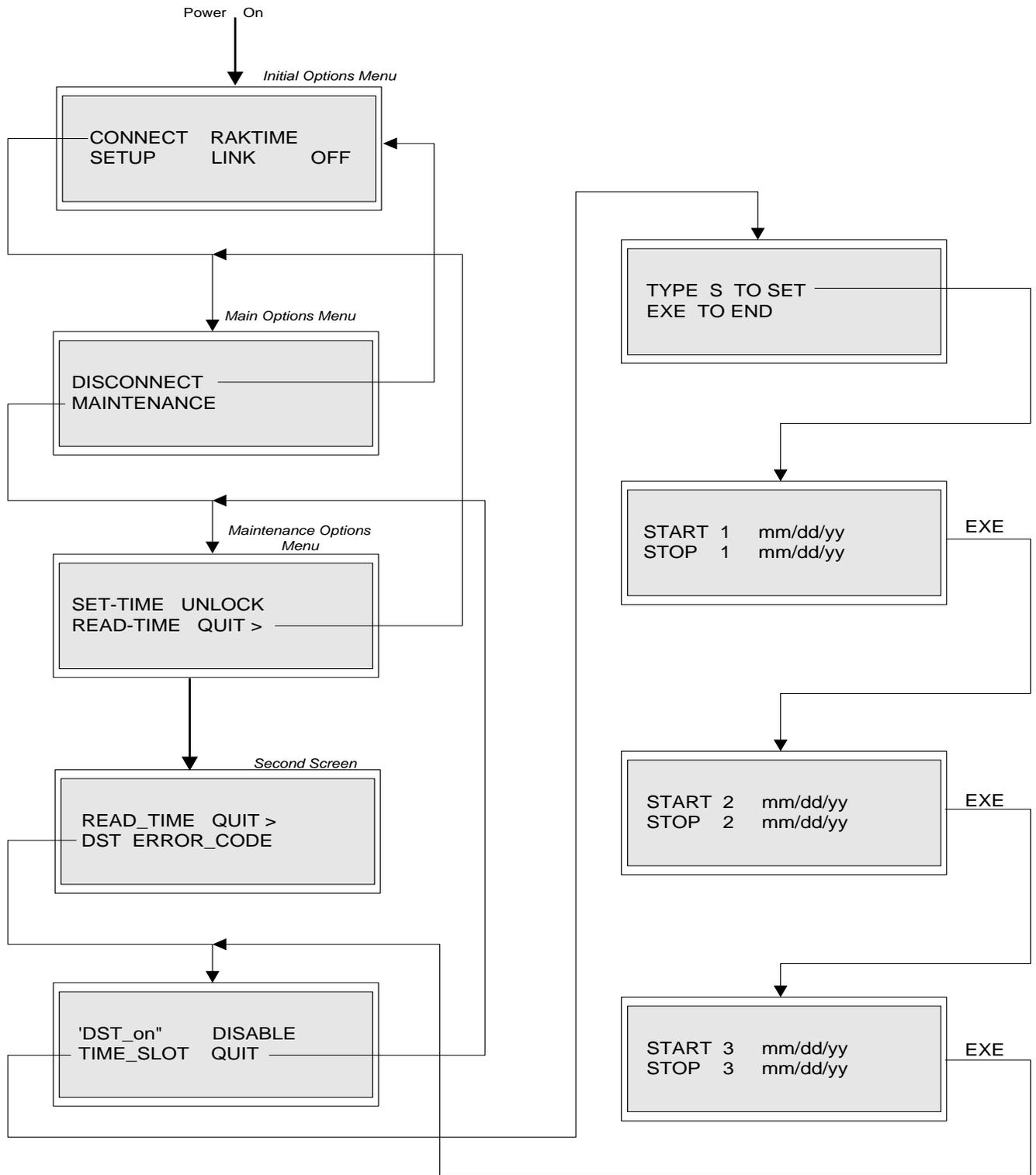


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Glossary of Terms

Control Module	This device is a PCB board fastened to the Mounting Plate, which contains the intelligence to determine whether the information being presented by the Electronic Key matches the corresponding information the lock as related to identity, system setup, time, etc.
CPU	Lock Programming Unit interfaces with the Quantum Software via an IBM compatible computer. The interface is through the serial port of the computer. The CPU is used to transfer data to and from the Control Module.
Lock Programming Unit	Please refer to LPU
DCU4000	The Door Control Unit consists of a mounting box, Control Module and Relay Module or IOM Module depending on application.
Door Control Unit	Please refer to DCU4000
Electronic Cylinder	This device, either fixed, or rotating, transmits the information presented by the Electronic Key to the Control Module. This is achieved by establishing an optical communication link between the key and cylinder, enabling the transfer of data relating to accessibility including codes, times and other characteristics. The Rotating Cylinder will also mechanically interface to operate the actual lock whatever type.
Electronic Key	This device carries both the access codes relevant to permitting entry to the protected facility as well as the means by which the operation of locking/unlocking is accomplished.
K2 Key	Please refer to Electronic Key. Note: K2 Key has been discontinued.
K16 Key	Please refer to Electronic Key
KPU	The Key Processing Unit interfaces with the Quantum Software via the IBM compatible computer. The interface is through the serial port of the computer. The KPU is used to transfer data to and from the Electronic Key.
LPU	Please refer to CPU

RAK	Restricted Authorization Key. Consists of a portable handheld computer, programming software contained in a “Programming Pack” which plugs into the unit and a specially designed Programming Key and cable assembly which plugs into the handheld computer. This unit is used by either the installer or end user to reset the lock clock or program lock features.
DST	Daylight Savings Time. The lock has provision for automatic correction for daylight savings time twice a year. The date and time correction can be programmed into the lock for up to three years in advance.
Expiration Date	The key may be programmed with an expiration date after which the key is disabled and will not open any lock. Once expired the key must be reprogrammed via the Pathfinder unit to be enabled.
Timed Access	Both the lock and key may be programmed for the time of day and day of week for allowable access times. In the case that both the lock and key are programmed, the permitted access time is the common time period that both the lock and key are enabled.
Exclusion Dates	Both the lock and key may be programmed with exclusion dates such as holidays, vacation periods and/or plant shutdowns. Exclusion dates override the normal authorization provided by the Timed Access programming. Up to 16 periods per year may be programmed.

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