RKAT Audit Trail Module
RK-LINK™ Software
For the Radio Key® 600 Series

INSTALLATION & OPERATING GUIDE
Rev. B
P/N 3321515

SecuraKey
A Division of SOUNDCRAFT Inc.

RKAT & RK-LINK™
INSTALLATION AND OPERATING GUIDE

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INTRODUCTION

The RKAT Audit Trail Module allows the Radio Key® 600 to communicate with a serial printer or with a PC, using the RK-LINK™ Software for Windows® 95/98/NT. The RKAT Module must be permanently installed in each RK600 to maintain a time-stamped Audit Trail (History Transactions).

COMPATIBILITY WARNING

Verify that the RK600 has firmware Version 4.01 or greater. See label on the processor (Fig 1). **If the Version number is less than 4.01, the unit must be returned to the factory for upgrade.** Contact your dealer or distributor for information.

There are two versions of RK-LINK™ software used with the RKAT Audit trail Module:

RK-LINK™ Version 1.3x - Compatible with RK600 Version 4.01 or 5.01 Firmware, without the PIN entry feature.

RK-LINK™ Version 2.x - Compatible with RK600 Version 4.5 or 5.5 Firmware, with the PIN entry feature.

If you do not know which version of RK600 that you have, remove the unit from the mounting plate and look at the label on the processor (square chip) in the center of the circuit board.

If you use RK-LINK™ software with an incompatible reader, the software will display a "wrong version" message. There will be no damage to the reader or to the stored data.

We are shipping only the Version 2.X software with Audit Trail Modules. If a software diskette is damaged or you need the old version, you can download RK-LINK™ from Secura Key's web site at http:\\www.securakey.com, or call the factory to obtain a copy.

Installation Procedure

1. Remove RK600 unit from the wall

    a. Remove mounting screw at the bottom of the unit
    .   Swing bottom of housing outward
    c. Lift up CAREFULLY to avoid breaking wires

2. Disconnect power by unplugging the power supply.

3. Run cable from RK600 location to PC, Printer or 6-Conductor RJ-11 Wall Jack. Use 4-conductor, shielded cable, 18-24AWG, and connect the shield to ground at one end only.

4. Plug the RKAT into Connector J3 at the RK600 (see Figure 1 for orientation).

5. **Connecting the Data Cable**

    Connecting to a PC
    Cut the pre-wired RKAT data cable assembly in half and splice in additional cable as required; match conductors carefully at each end (red-red, black-black, brown-brown, orange-orange, shield-shield). When splicing, solder and insulate with tape or heat-shrink tubing, or use gel-filled crimp connectors.

    Cable is pre-wired with a DB9 Female connector for connection to PC. If the PC COM port is a DB25 connector, install a standard 9-Pin Male-to-25-Pin Female adapter at the end of the cable.

    Connecting to a Serial Printer

    Follow PC cable instructions above, then add a DB9 female-to-DB25 male gender changer to the supplied DB9 Female connector at the end of the cable. Set printer to 2400 baud, no parity, 8 data bits, 1 stop bit. Be sure to turn on continuous printing (see pg. 4)

   **Connecting to a 6-Conductor RJ-11 Wall Jack**

    Cut off DB-9 connector, strip and tin cable ends and wire to screw terminals on back of RJ-11 jack as shown in Table 1. This wiring allows the Secura Key CBLSA cable kit to be used to connect a PC or Printer.

6. Reconnect power by plugging in the power supply.

    <u>NOTE</u>
    The RKAT must be installed before power is applied to the RK600 Unit, or the RK600 will not recognize the RKAT, and the device will not communicate.

7. Before connecting the PC or Printer, it is recommended to clear the transaction buffer at the RK600. At the reader keypad, enter the following sequence:
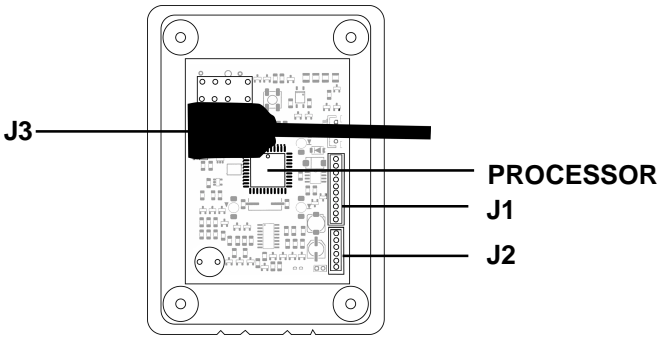
<div align="center">

PASSWORD, [←] + [✱] + [✱] + [—] + [←]
      (ENTER)   (VOID) (ENTER)

</div>
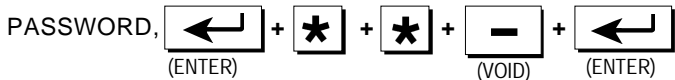
Figure 1. RKAT Connector Location

| Table 1 - RJ-11 Wiring Connections				
RKAT WIRE COLOR	**FUNCTIONS**	**DB9 PINS**	**DB25 PINS**	**RJ-11 JACK WIRE COLOR**
Red	RXD	3	2	Black
Orange	CTS	4	20	Red
Brown	TXD	2	3	Yellow
Black	GND	5	7	White

KEYPAD COMMANDS FOR TIME AND DATE

The RKAT includes a real time clock/calendar for transaction history printouts. You can set the time and date from the RK600 keypad.

Enter your password and press [⏎] (ENTER) before each of the following commands:

Enter the Time in 24-hour military format using leading zeros.
For Example, to enter 6:08 PM, press the following:

[⧗] (SET TIMER) + [1] + [8] + [✱] + [0] + [8] + [⏎] (ENTER)
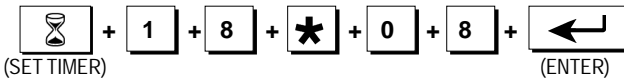
Enter the Date in U.S. format using leading zeros.
For Example, to enter January 8,1997, press the following:

[⧗] (SET TIMER) + [0] + [1] + [✱] + [0] + [8] + [✱] + [9] + [7] + [⏎] (ENTER)

To exit, press [•◌•] (MODE) + [1] + [⏎] (ENTER)
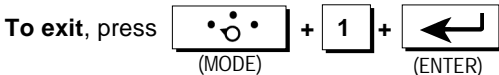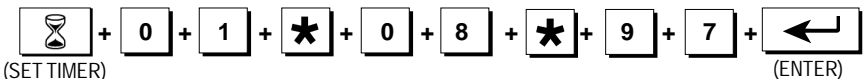
KEYPAD COMMANDS FOR PRINTER OPERATION

By connecting a Serial Printer to the RKAT, you can obtain a continuous printout of all transactions. You can also use keypad commands to print the last 150 stored transactions, or to print a list of all valid User Numbers and corresponding Tag Numbers.

The reader will continue to operate during extended report printing. Real-time transactions occurring during report printing will print after the report has finished printing.

Enter your password and press [←] before each of the following commands:
(ENTER)

For continuous transaction printing, press [✱] **+** [✱] **+** [1] **+** [←]
(ENTER)

To turn off continuous printing, **press** [✱] **+** [✱] **+** [0] **+** [←]
(ENTER)

To print all stored transactions, **press** [✱] **+** [✱] **+** [2] **+** [←]
(ENTER)

To print a tag programming list, **press** [✱] **+** [✱] **+** [3] **+** [←]
(ENTER)

To delete all stored transactions, **press** [✱] **+** [✱] **+** [—] **+** [←]
(VOID)   (ENTER)

What is RK-LINK™?

RK-LINK™ is a software program written specifically for the Radio Key 600 access control unit. It allows you to program and control the reader from a PC, create a User / PIN/Tag number database and download it to the reader, and upload the last 150 transactions from the reader to print or display "audit trail" reports.

How does RK-LINK™ work with the RK600?

RK-LINK™ communicates with the PC by sending RS-232 serial data from the RKAT Module to the PC's Serial COM Port. RK-LINK™ has two databases: a User database which can be modified and sent to the reader (updating the RK600's local User database), and an Audit Trail or Transaction Database which consists of historical data acquired from the reader's local transaction buffer. RK-LINK™ also stores basic configuration data which can be modified and sent to the reader. Open Door and Reader Mode commands can be sent directly from the PC to the reader.

User Database - RK-LINK's™ User database, allows you to program or delete Key Tags or PINs at the PC, and then send the data to the reader. The PC User database also contains additional data fields for the user name, and other employee or tenant information.

The User database stored at the RK600 contains only User Numbers and Tag / PIN Numbers. The reader's User database is used to grant or deny access to Key Tag / PIN users.

When adding RK-LINK™ to an existing RK600, key tags will already have been programmed into the reader database by using the programming keypad at the reader. You can use RK-LINK's™ Import Tags option to copy the existing reader database into the PC database. Then, you can add User Names and employee or tenant information to the PC database. Once you begin using RK-LINK™, it is recommended that you do all of your programming at the PC and send it to the reader. This will ensure that the databases at the PC and reader always agree.

Audit Trail (Transaction History) - RK600 stores a time-stamped record of the latest 150 transactions. Each transaction includes the User Number, Tag / PIN Number, Time and Date, and what happened. Each time the RK-LINK™ program is started, it automatically acquires transactions from the RK600. RK-LINK™ will continue to acquire data in real time as long as the program is running and reader remains connected. If you exit RK-LINK™ and restart it later, only the transactions that occurred since the last connection to the reader will be uploaded to the PC. Note that Void Card Transactions show the last four digits of the tag number as "∗∗1234."

If you close RK-LINK™, disconnect the reader, or turn off the PC, the reader will continue to store transactions as people use the reader. If more than 150 transactions occur before the reader is reconnected to RK-LINK™, then the oldest transactions will be lost, and only the latest 150 transactions will be uploaded.

Using RK-LINK™

RK-LINK's™ main screen area displays either the Transactions Window or the User Database Window. The top menu allows you to switch between windows, and to access all commands and functions. When working in either window, you can click also the right mouse button for a pop-up menu providing quick access to commands.

Toolbars with picture buttons are provided for ease of use. The Main Toolbar is always displayed. The Transactions Window and the User Database Window each have their own toolbars. To view the name or function of a toolbar button, use your mouse to hold the cursor over the button and the name will display.

Main Toolbar Buttons and Their Functions
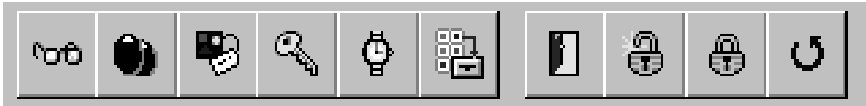
View Transactions - Click on this button to display View Transactions. This window displays all transactions uploaded from the RK600. When RK-LINK™ is started, this window displays automatically. If you leave this screen displayed, you can view transactions as they occur.   You can use the Navigation Buttons, scroll bar or arrow keys to move through the transaction database.

View/Modify Tags - Click on this button to display the User database in a list format. You can use the Navigation Buttons, scroll bar or arrow keys to move through the list.

View/Modify Reader Configuration - Click on this button to view the RK600 Configuration menu. Use the tabs to select Configuration (set reader parameters) or Transaction Control (view/clear reader transaction buffer). Click on the Exit button to clear this window.

Set Reader Password - Click on this button to view or change the reader password. The reader password is transmitted automatically by RK-LINK™ whenever it communicates with the RK600. The RK600 must verify the password for communications to begin. This is the same password that is used at the reader keypad to manually program the RK600. If this password is changed at the reader, it must also be changed at the PC. The Reader Password must be 5-digit, numeric. This password does not perform the same function as the RK-LINK™ Log On password (although you could assign the same password). Click on the Cancel button to clear this window.
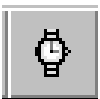
View/Set Reader Time and Date - Click on this button to view or change the reader time and date. Enter time in 24-hour Military format; enter the date in US format, mm/dd/yy.
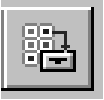
Self Test - This is used by factory service technicians to check the RF level.
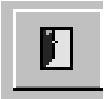
Open the Door Now - Click on this button to send an Open Door command to the reader. This activates the latch and shunt relay for the programmed time period.

Unlock the Door Now - Click on this button to send an indefinite Unlock command to the reader (same as Mode #3 via the reader keypad). Reader will remain unlocked and LED will blink green indefinitely.

Lock the Door Now - Click on this button to send an indefinite Inactive command to the reader (same as Mode #2 via the reader keypad). Reader will remain unlocked and LED will blink red.

Return Door to Normal - Click on this button to cancel an Unlock or Inactive command, and to return the reader to normal mode (same as Mode #1 via the reader keypad).

Transaction Window Toolbar Buttons

Print Transaction Reports - Click on this button to print or display a transaction report. You can also select a range of pages and print multiple copies. For a report on specific transaction types, a specific range of dates or a specific user, click on the Filter button first.

Navigation Buttons:

First Transaction - moves cursor to first record in the transaction database
Previous Transaction - moves cursor back by one record
Next Transaction - moves cursor ahead by one record
Last Transaction - moves cursor to the last record in the database

Erase - Click on this button to delete all transactions from the PC transaction database.

Filter - Click on this button to specify which transactions will be displayed. You must use this button in order to print a report on specific data. The Transaction Filter Control window allows you to select the types of transactions, one individual user, a date range and a time range for transactions to be displayed. Click on the Defaults button to undo filtering and re-display all transactions.

Change Colors - Click on this button to change the color coding of Void (Red) and Valid (Green) transactions in the View Transactions display. Click on the Defaults button to restore the RK-LINK™ default colors.

Zoom In/Out - Click on this button to display an individual transaction record (the one at the current cursor location). Click this button again to return to the List View display.

User Database Toolbar Buttons

| 🖨 | ◄ | ◄ | ► | ►► | ✚ | ━ | ▲ | ✓ | ✗ | ≡ | 🔍 | ➡ Send | 🗁 Find |

Print Tag Reports - Click on this button to print or display a User report. You can also select a range of pages and print multiple copies.

Navigation Buttons

First User moves cursor to first record in the User database
Previous User moves cursor back by one record
Next User moves cursor ahead by one record
Last User moves cursor to the last record in the database

Insert User - Click on this button to add a new user to the User database. The software will automatically select the next available user number. Type in the Tag / PIN Number and the user's name and other pertinent data.

Delete User - First, place the cursor on the record of a user that you wish to delete, then click on this button to delete that user from the User database. Click on the Send button to send this deletion to the reader. If you change your mind, you can right-click the mouse anywhere in the database and select Undo Delete. Be sure to click on Send again if the deletion has already been sent.
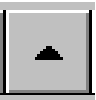
Edit User - First, place the cursor on the record that you wish to change, then click on the Edit User button. The User Detail record is displayed. Make the desired changes, then click the Save button to confirm or the Cancel button to abort the changes. If you have changed the User Number, Tag / PIN Number, or have Voided the user, you must also click on Send to transmit the changes to the reader.

Save Changes - Click on this button to save User Database changes to the PC database.

Cancel Changes - If you have not yet Saved changes, click on this button to undo User database changes that you have just made.

Void User -This allows you to deny access to a selected user without removing his/her data from the database. First, place the cursor on the user record to be voided, then click on this button. The User Number is set to 0. Click on Send to transmit the changes to the reader. If you later wish to re-validate a voided user, the next button (next to the User # field) will insert the next available user number for you.

Zoom In - Click on this button to display an individual User record (the one at the current cursor location). If you want to make changes to that record, click on the Edit button.

Send - Click on this button to send any User database changes to the Reader. Note that the reader will go into "Locked" mode (Blinking Red LED) during the send operation, followed by a solid Amber LED, then returning to normal. This operation will only take a few minutes.

Find - This feature allows you to search for a User record. First, you must sort the User database by the data field you will be using for the search, by clicking on the appropriate column heading (Last Name, Tag Number or User Number). Then click on the Find button and type in the name or number you wish to find. The cursor will jump to the first matching record.

Additional Options

These options are found only on the top menu (not on the tool bars).

Import Tags - This function allows you to copy the reader User database into the PC User database. This is useful when adding RK-LINK™ to an existing RK600 installation that has already been programmed via the reader keypad. Click on Users on the top menu, then select Import Tags. RK-LINK™ will acquire the User database from the reader and will display it together with the PC User database in a split screen window, allowing you to view and compare the two databases. When RK-LINK™ is newly installed, the PC database is empty. To proceed with the import, click on Import.
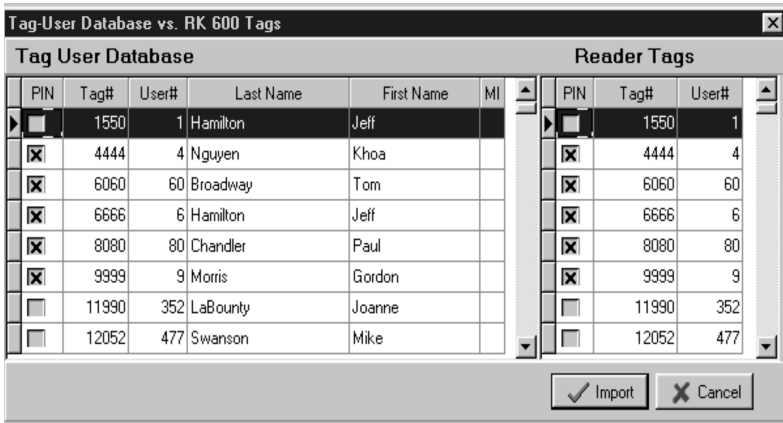
You may need to import tags or PINs from the reader database to the PC database after some User records have been programmed at the PC. If this is the case, it is recommended that you print a current User Report before proceeding with the import. Any tags from the reader database that match with tags stored in the PC database will remain unchanged.

If the Tag Numbers at the PC and reader are the same, but the User Numbers are different, new PC database records will be created for the Tag Numbers imported from the reader, and the existing User records at the PC will have their User Numbers and Tag ID Numbers set to zero in the database. Note that this does not apply to PINs; one PIN may be assigned to multiple user numbers.

Following the import, to reconcile your database, simply Click on View Tags, then sort by User Number (click on the User column heading). All the User Numbers with User Number 0 will appear first. Print the User report. Then re-sort the User database by Last Name (click on the Last Name column heading). The records with no name information will appear first. Again, print a User report. Edit the database as required, and then click on Update Reader, so that the PC and Reader databases will agree. Note that RK-LINK™ will not allow multiple records with the same Tag Number or User Number, except for 0.

Update Reader - Click on Users on the top menu, then select Update Reader. This will send the PC User database to the reader, and it will clear the current reader User database. Use this option to copy the PC database to any reader. During the update, the reader will go into "Locked" mode (Blinking Red LED) followed by a solid Amber LED, then return to normal mode.

Utilities - This function allows you to set or change the COM Port where the RKAT is connected to the PC. Click on Utilities on the top menu, then click on COM Port and select 1 or 2 as appropriate.

Tag-User Database vs. RK 600 Tags

Tag User Database   **Reader Tags**

PIN	Tag#	User#	Last Name	First Name	MI		PIN	Tag#	User#
☐	1550	1	Hamilton	Jeff			☐	1550	1
☒	4444	4	Nguyen	Khoa			☒	4444	4
☒	6060	60	Broadway	Tom			☒	6060	60
☒	6666	6	Hamilton	Jeff			☒	6666	6
☒	8080	80	Chandler	Paul			☒	8080	80
☒	9999	9	Morris	Gordon			☒	9999	9
☐	11990	352	LaBounty	Joanne			☐	11990	352
☐	12052	477	Swanson	Mike			☐	12052	477

✓ Import   ✗ Cancel

How Do I?

Validate (Add) keytags / PINS? Click on View/Modify Tags, Click on Insert User. Fill in the User Name and Tag Number. If entering a PIN, click on the PIN check box. RK-LINK will automatically select the next available User Number, but you can select a different User Number. Click on Save to save the new record at the PC, then Click on Send to transmit the data to the reader.

Void (delete) a Key Tag / PIN? Click on View/Modify Tags, click on the User you want to delete, then click on Delete User. Click OK at the confirmation prompt. Click on Send to transmit the data to the reader.

View Audit Trail (Transaction History)? Click on View Transactions to display Audit Trail data. You can use the Navigation Buttons, scroll bar or Page Up and Page Down keys to move through the transaction history database.
Print Audit Trail (Transaction History)? Click on View Transactions to display Audit Trail data. Then click on the Print button to display the Report Destination window and click on Print.

Set the Time and Date at the Reader? Click on the View/Set Reader Time and Date button to open the Time and Date window. Click on Edit, set Time and Date, then click on Send. Click on the Close button to exit.

Set the Door Open Relay (Latch) Time? Click on View/Modify Reader Configuration to display the RK600 Configuration window. Click on Edit, set the Relay Time, then click on Send. Click on the Close button to exit.

Enter A New Reader ID (Name) for the RK600?   Click on View/Modify Reader Configuration to display the RK600 Configuration window. Click on Edit, type in a new Reader ID, then click on Send. Click on the Close button to exit.

View Transactions Stored at the Reader? Click on View/Modify Reader Configuration to display the RK600 configuration window. Click on the Transactions tab, then click on the View All button. Click on the Close button to exit.

Upload Transactions from the Reader to the PC? This is done automatically every time you start the RK-LINK™ program. Subsequently, when you restart the program, RK-LINK™ uploads only the latest transactions, preventing duplicate records in the transaction history database.

Open the Controlled Door / Gate from the PC? Click on the Open the Door Now button to activate the latch relay for the programmed relay time.

Unlock the Controlled Door / Gate Indefinitely from the PC? Click on the Unlock the Door Now button to place the unit in Unlocked Mode, continuously activating the latch relay.

Lock the Controlled Door and Disable the Reader from the PC? Click on the Lock the Door Now button to place the unit in Locked Mode, disabling the reader and deactivating the latch relay.

Return the Reader to Normal Status after Setting to Unlock / Lock Mode? Click on the Return Door to Normal button.

Void a User without Removing Personal Information from the Database? Click on View / Modify Tags, then click on the desired User record. Click on the Void User button (this will set the User Number to 0) click on Save, then click on Send to transmit the changes to the reader. The user's name and personal information will remain in the PC database, but the Tag and User Numbers will be deleted from the reader. When the voided tag is used, the User's name will display in the transaction history.

Delete Transaction History Database from the PC? Click on View Transactions to display the transaction history. Click on the Erase button, then click OK at the confirmation prompt.

Print a History Report for One Tag /PIN User? Click on View Transactions, then click on Filter to display the Transaction Filter Control Window, click on Single User, then click on Select. You can scroll through the list of user names or you can type in a name for which to search. Click on the desired name, then click OK to close the search window. Make any other appropriate selections on the Transaction Filter Control Window, then click on OK. The selected records are now displayed. Click on Print Button to display the Report Destination Window. You can preview the report by sending it to the screen, or just click on Print to send the report to the printer.

Print a History Report for a Specific Time Period? Click on View Transactions, then click on Filter to display the Transaction Filter Control Window, then click on View From Dates - Events On and enter the starting date, then click on View Through Dates - Events On and enter the ending date for the report. To include only transactions occurring during a specific range of hours, click on Daily Time - Time Range and specify the beginning and ending hours.

Make any other appropriate selections on the Transaction Filter Control Window, then click on OK. The selected records are now displayed. Click on Print Button to display the Report Destination Window. You can preview the report by sending it to the screen, or just click on Print to send the report to the printer.

Remove Filtering from the Transaction Viewer? Click on Filter to display the Transaction Filter Control Window, click Defaults, then Click OK.

Program Multiple RK600s? Install an RKAT Audit Trail Module permanently in each reader. If all RK600's will be programmed alike, just connect to each reader and do programming and transaction upload in the normal manner. You can program a unique reader name in each reader, so that you can recognize where a transaction occurred when viewing history. You will also want to make all reader passwords alike for convenience.

If each RK600 will be programmed differently (especially if different sets of keytags are used), install **multiple copies** of RK-LINK™ on your PC. You must install each copy in a different directory, and it is recommended that you edit the shortcut name on your Windows® desktop, so that you can distinguish between copies. When installing the software, you are prompted to "Choose Destination Location". Click on the Browse button and select/create a new directory for each copy of RK-LINK™. You must be certain to access each reader with the corresponding copy of RK-LINK™, or you may download a database to the wrong reader.

Database backups are highly recommended if you will be using multiple copies of RK-LINK™.

Quick Start Steps for RK-LINK™

Requirements - Windows® 95/98 or Windows NT® 4.0 or later, 16MB RAM, 20-30MB Hard Disk, 486 or better processor, Serial COM Port capable of 19.2K Baud. RKAT Module must be installed at the RK600 and connected to a PC COM port (COM 1 or COM 2). RK600 must have firmware version 4.5 or 5.5 or greater. A "Reader Version Incompatible" message is displayed if your RK600 has earlier firmware; you can download Version 1.X from the Secura Key website, at www.securakey.com.

Installation - Install Disk 1 in the floppy drive. Click on Start, Run and type a:\setup.exe. Follow the installation prompts and insert Disk 2 when prompted. Start the program from Windows Explorer, or create a shortcut on your Windows desktop. If you see a "Device already open" error message, click OK, then when the program starts, change COM ports by clicking on Utilities, then COM Port and select a new COM port.

Log In Password - A Log In password is not required. However, if you want to specify a Log In password, click on File on the top menu, then click on RK-LINK™ Password to display the Change Password window. The first time you change a password, leave the current password field blank, and enter and reconfirm the new password in the appropriate fields. Click OK to exit. Note: Password entry is case-sensitive.

Toolbar Buttons - All instructions are based on using the toolbar buttons. You can use the mouse to hold the cursor over a button to learn its name or function.

Set Reader Time and Date - Click on View/Set Reader Time and Date button to view the Reader Time and Date window. Click on Edit, enter time in 24-hour Military format; date in US format, mm/dd/yy, then click on Send. Click on Close to exit.

Set Relay Time - Factory default setting is 1 second. To change, click on View/ Modify Reader Configuration button to display the RK600 Configuration window. Click on Edit, enter the Relay Time (1-30 Seconds, or 0 = 0.25 second pulse) then click on Send. Click on Close to exit.

Adding Key Tags / PIN Codes to a New System - Click on View/Modify Tags button, click on Insert User, enter data into fields (User Number and Tag Number are required) click on Save (to save data at the PC). Click on the PIN check box if adding a PIN code instead of a tag. PIN codes are limited to four digits. Repeat these steps for each tag. When all tags are entered, click on Send (to send User data to the reader database).

Adding RK-LINK™ to an Existing System - Use this procedure if Key Tags / PINs are already programmed into the RK600, using the reader's programming keypad. Click on View/Modify Tags. On the top menu, click on Users, then select Import Tags. Display shows both PC and reader databases side-by-side for comparison (PC database is empty when RK-LINK**™** is newly installed). View tag data — if correct, click on Import to copy the Reader User database into the PC

User database. For each user: double-click on the User record to display the User Detail screen, click on Edit, add User Names and other information, then click on Save (to save the PC Database).

View Audit Trail Data - Click on View Transactions. To print a complete report, click on Print Transaction Reports button, select report destination, and click on Print. To print report for specific date ranges, first click on Filter, specify report parameters, click OK, then click on Print Transactions, select report destination, then click on Print

Troubleshooting

Problems with Communications? Click on Set Reader Password and verify that the reader password at the PC matches with the reader password used at the RK600 programming keypad. (Default for both is 12345). Verify that the reader is operational and that the RKAT is properly installed. Check wiring. Click on Utilities then click on Com Port to verify that the correct COM port is selected. Verify that the COM port is operational, and that it is capable of communicating at 19.2KBaud.

Comm Port Verification
Click on: 1) Windows Control Panel
              2) Modems, Diagnostics
              3) Verify which Comm Port is available

Wiring - With the Audit Trail Module connected, and RK-LINK™ running, verify
              the following voltages and pin connections:

RKAT

Wire Color	Function	DB9 Pins	DB25 Pins	Voltages
Red	RXD	3	2	-5vdc to -12vdc
Orange	CTS	4	20	+5vdc to +12vdc
Brown	TXD	2	3	-5vdc to -12vdc

The black wire is the reference for all voltage measurements.

Signals required: 1) RXD signal from PC
                   2) CTS signals from PC
                   3) TXD signal from AT Module.

If both RXD and CTS signals are missing you are not connected to a Comm
Port. The Comm Port may be bad, or the Comm Port connections may be faulty.

Encountering "Idapi" Error Messages or Endless Transactions Uploads? This is usually caused by connecting an RKAT which was previously connected to another reader. From the RK600 keypad, clear all transactions by pressing $_* *$, $-$, **ENTER**. Then, restart the RK-LINK™ software.

Using a Laptop? Disable any battery conservation or "energy monitor" programs before using RK-LINK™.