R A D I O N I C S

READYKEY® K6000-R Remote PC
Operation and Installation Instructions

Features

- Connects to K6000 or K6000-MS system to provide remote editing and event monitoring.
- Ideal for visitor key administration or a separate editing station.
- Connects to the Master PC by a Null Modem serial cable.

Description

There can be up to four K6000-R Remote PCs attached to the K6000 or K6000-MS Master PC. Each Remote PC is attached to an additional (dedicated) serial port on the Master PC and has the full editing capability of the Master PC (full database integrity is assured). The Remote PC is useful for such applications as, administering visitor keys in a reception area or monitoring alarms in a security office. A desktop PC Reader is provided with the K6000-R to allow entry into the editor and key administration.

Operation

The K6000 / K6000-MS provides an extensive system of levels for each editor key. Some editor keys are allowed to make changes to various files; some keys may have no file access at all, or may be only able to view the contents of a file. When an editor key is unable to make any changes to a file the contents of that file appear as light blue on a blue background, as opposed to white on a blue background.

With the K6000-R, when two or more editors want to edit the same file at the same time they are given permission on a "first come - first served" basis. When an editor with the ability to change a file is accessing that file, any other editor will have VIEW ONLY status. In this case, VIEW ONLY will appear at the top of the screen and the file contents as light blue on blue. If while the second editor is viewing the file, the first editor leaves that file on the other machine, the editor status will immediately change to its normal level. Now the file contents appear as white on blue.

The K6000 / K6000-MS is always in charge of allowing a K6000-R Remote PC editor to make changes to the database. Therefore, if communication between the Master and Remote breaks down, no editing is possible at the Remote PC, as it will not get clearance from the Master. However, under these conditions editing can still be performed at the Master.

The Transaction Screen

Transactions that originate at the Master PC, such as Editor On, Editor Off, and Alarm Acknowledged, are displayed with a site reference of CENT. The same transactions that originate at a Remote PC have a site reference of REMn, where n is 1-4, when displayed at the Master PC or another Remote PC and a site reference of CENT when displayed at the originating Remote PC. Transactions originating at the Master PC have a reference of MAST when displayed at a Remote PC. The following is a summary of the possible site references.

CENT transaction originating at the PC on which it is being displayed.

MAST transaction displayed at a Remote PC originating at the Master PC

REMn (where n is 1-4) transaction displayed at the Master PC originating at Remote PC n.

Menu Options

Almost all menu selections available at the Master PC are available at the Remote PC. The menu selections that are not available at the Remote include:

- Download Door Controller
- Initialize Network Controller
- Initialize Door Controller

These selections are displayed without a number, in grey, as opposed to red, on the menus. If you attempt to select one of these options the computer will beep.

Areas Controlled by the Remote PC

There are certain areas over which the Remote PC has complete control and are maintained independently of the Master and vice versa. Most of these relate to reporting functions and are as follows:

- Transaction analysis records and dates
- Audit trail records and dates
- Current user report parameters
- Real-time trace parameters
- Data protection facilities
- Muster points
- Presence in area parameters
- Port configuration (see below)
- Transaction routes and times including door alarm routes (see below)

Transaction Routes

Transaction routes are described in the K6000 / K6000-MS documentation. Essentially, transaction routes describe where, how, and when each of the various types of transactions are reported by the K6000 / K6000-MS system. At the Master PC, transactions may or may not be routed to any combination of the Remote PCs attached. By default, all transactions are routed to all attached Remote PCs.

When a Remote PC is required to perform all functions of the Master, all transactions should be sent to the Remote PC. However, if you are using a Remote PC to monitor alarm conditions only, then only those particular transactions need be routed. Remember that only transactions sent to the Remote PC can be analyzed at the Remote PC. There might be other effects of routing transactions, for example, the Current User report at the Remote PC will not be correct if Access Authorized transactions are not sent to the Remote PC. The Master PC always has all the transactions stored.

The Remote PCs themselves have a transaction routing system that allows the transactions received to be routed to screen, printer, or auxillary serial output port.

System Requirements

In order to connect the Remote PC to an existing system, they both must be running the same version of the K6000 / K6000-MS software.

Each Remote PC is connected to the Master PC by an RS232 serial communications link. Therefore, an additional serial port must be added to the Master PC for each Remote PC. Each Remote PC itself must have two serial ports, one for communications back to the Master PC and one for the PC Reader. The Master PC communicates with the Remote PC at a minimum speed of 9600 baud, with a recommended speed of 19200 baud.

If the distance between a Master PC and a Remote exceeds the normal RS232 specification of 30 to 50 feet then a suitable line driver or signal boosting equipment must be used. It is essential that a direct link is maintained between the Master and Remote PCs. It is not possible to use a Remote PC over a dial-up modem due to the minimum speed requirements (high speed dial-up modems automatically change to unacceptable slower speeds when the phone lines are "noisy"). Additionally, the link between the Master and Remote must be maintained if any editing is going to be performed at the Remote PC. There is a high volume of data transferred between the Master and Remote including all updates to the database and all transactions from the K6000 / K6000-MS system.

Installation

Installation Considerations

As described above, the K6000-R Remote PC requires two serial ports, which are usually configured as COM1 and COM2. You will need to know which port is which before proceeding.

The PC Reader will connect to COM2 and the communications link to the Master will be through COM1.

Installation Procedure

1. Remove the cover from the K6000-R Interface unit by locating and unscrewing the four small screws underneath.
2. Insert the 4-wire connector for the PC Reader in the socket marked READER.
3. Select the correct cable, either 9-pin or 25-pin PC connector, and insert the 5-wire connector of the PC cable in the socket marked PC SERIAL PORT.
4. Connect a Radionics D1625 transformer (not supplied) to the power input connector. For safety reasons, the K6000-R Interface unit should be installed in the same room as the D1625 transformer.
5. Ensure all the grommets are properly located and replace the cover.

Note: Although this unit is also used by the K6000-AM, the line driver facility provided for that system, and for which a connector is labelled, is not usedin the Remote PC system.

Setting the K6000 / K6000-MS Master PC

1. Go to the Port Configuration screen (within System Configuration) and locate the settings for the second CNC and auxiliary output, as well as the four possible K6000-R Remote PCs.
2. Move to the settings for the Remote PC being installed and enter the baud rate and port address. This information instructs the Master PC to attempt to communicate with the Remote.
3. Return to the Transaction screen. REMn should be displayed in red on the PC LINKS line of the status display, where n is a number 1 to 4. Multiple Remote PCs will be displayed if they are configured.
4. Go to the System Configuration section and select Initialize Remote PC. You will be prompted for a number (1-4).
5. Enter the number of the Remote PC you wish to initialize and press **ENTER**; confirm by pressing **Y**. This process ensures that any existing updates and transactions do not get to the Remote PC.

Wiring

The Remote PC communicates to the Master PC through the COM1 serial port. The Master can use any serial port other than COM1. (COM1 at the Master PC is used exclusively for the Network Controller.) The address of the serial port must be determined by reference to the PC or serial port manual and switch settings. The following addresses are normally used or set by default:

PC/AT			IBM PS/2		
Port	**Address**	**IRQ**	**Port**	**Address**	**IRQ**
COM1	03F8	IRQ4	COM1	03F8	IRQ4
COM2	02F8	IRQ3	COM2	02F8	IRQ3
COM3	03E8	IRQ4	COM3	3220	IRQ3
COM4	02E8	IRQ3	COM4	3228	IRQ3
			COM5	4220	IRQ3
			COM6	4228	IRQ3
			COM7	5220	IRQ3
			COM8	5228	IRQ3

The communications link between the Master and Remote PC requires just three wires as follows:

Master	Remote
GND	GND
TX	RX
RX	TX

The previous signals are present at the following pins depending on connector type, DB 25-pin or DB 9-pin:

	25-pin	9-pin
GND	7	5
TX	2	3
RX	3	2

As described above, the link must be directly connected (without dial-up modems) at a speed of 9600 or 19200 baud and must use line drivers if further than 50 feet.

Setting the Remote PC

This procedure assumes that the Master PC is set up and running the K6000 / K6000-MS system. The installation process is very similar to that of installing the Master PC. All the checks and prompts are the same as for the Master.

1. Configure and power up the Remote PC as detailed in the computer manufacturer's installation documentation. The operating system should now be displaying the DOS C prompt.
2. If the Remote PC already has a K6000 or K6000-MS master system installed on the Remote PC's hard disk, delete the K6000/K6000-MS files before installing the K6000-R system as follows, otherwise proceed to step 3:
    a. Type **cd c:\p6000**
    b. Type **P6UTIL unveil**
    c. Type **Del c:\p6000*.***
    d. Type **Y** to verify.
    e. Type **cd ..**
    f. Type **rd p6000**
    g. Proceed to step 3.
3. Insert the K6000-R installation disk in drive A:.

4. Type **A:INSTALL** and press the **ENTER** key. The installation process will proceed as for a Master PC. (See the K6000/K6000-MS Installation Manual.)
5. On an initial installation, as opposed to an upgrade, the install program will finish by initializing all the system files and then prompting you to present a master key to the PC Reader. Press **ENTER** to continue.
6. Select the PC Configuration menu and choose Configure Ports. The display will show a reduced version of that which is displayed in the K6000 / K6000-MS Master PC version of this screen.
7. Set the required baud rate, 09600 or 19200, for the Master PC link. Also set the port address of the second serial port to which the PC Reader is attached (see above for typical options, usually 02F8 for COM2).
8. Return to the System Configuration menu and select option 2, Change Master Key. If the PC Reader has been correctly installed then a key presented to the reader should cause the LED to turn from red to green and, in this case, the prompt will change to ask for a password.

Note: When the database is transferred from the Master PC, the master key in use at the Master PC will become the master key at the Remote PC.

9. Exit the Configuration to complete the installation process. The system should now start up and display the familiar Transaction screen. The Remote PC will display a red MAST in the top section of the screen on the PC LINKS line. This display refers to communications with the Master PC. If communication is established, this display will turn green.

Transferring the Database

In an existing installation, you must transfer the database to the Remote PC. This process requires a high density disk as used for the routine backups.

1. At the Master PC select Save Database from the Disk Functions menu and place a disk in drive A:.
2. When the backup is complete remove the disk and go to the Remote PC. It is important at this point that no changes are made to the Master PC database before the database is loaded at the Remote PC. If changes are made, you should make a new copy of the database before proceeding.
3. Using the master key created during installation, enter the editor and select Restore Database from the Disk Functions menu.
4. Place the disk in drive A:. The system will display the date and time the backup was made.
5. Verify that the date and time of the backup are correct and press **Y** to continue.

The installation of the Remote PC is now complete.

Note: When the database is transferred from the Master PC, the master key in use at the Master PC will become the master key at the Remote PC.

Specifications

Overall Dimensions:

Interface Unit:	Height: 4"	Width: 5"	Depth: 3" nominal
Office Administration Reader:	Height: 4"	Width: 6"	Deptj: 2" nominal

Environment:

Temperature: 5°F to 104°F (-15°C to 40°C)

Relative Humidity: 0 to 90% non-condensing

Power Requirements:

16.5 VAC±15% @ 25VA (Radionics D1625 Transformer, ordered separately)

Computer Interface:

RS232 (9-pin and 25-pin cable, included)

Computer Requirements:

IBM PC/AT or IBM PS/2 (30/286), 20 Mb hard disk, high-density floppy disk drive, color monitor, serial port, at least MS DOS 3.0 version, parallel printer port.

FCC Registration Number:

IDHM32Y6K2000

Listing

UL 294—Access Control System Units

System Configuration

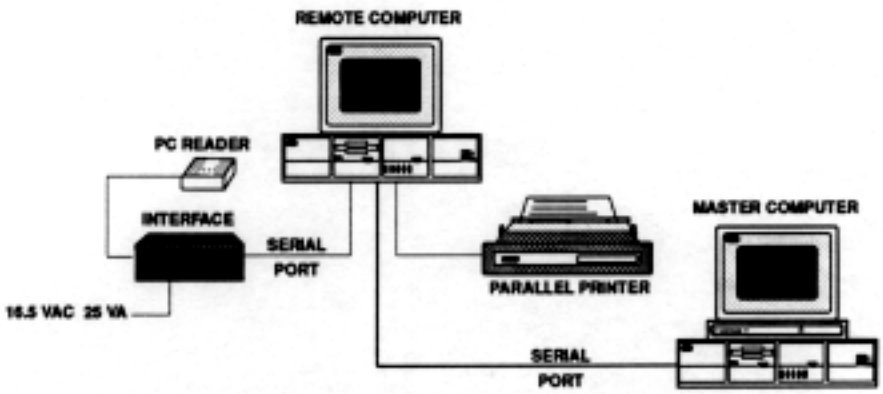

Figure 1: Typical K6000-R System Configuration

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Radionics™
Radionics, Inc., 1800 Abbott Street
Salinas, CA, 93901, U.S.A.
Customer Service: (800) 538-5807